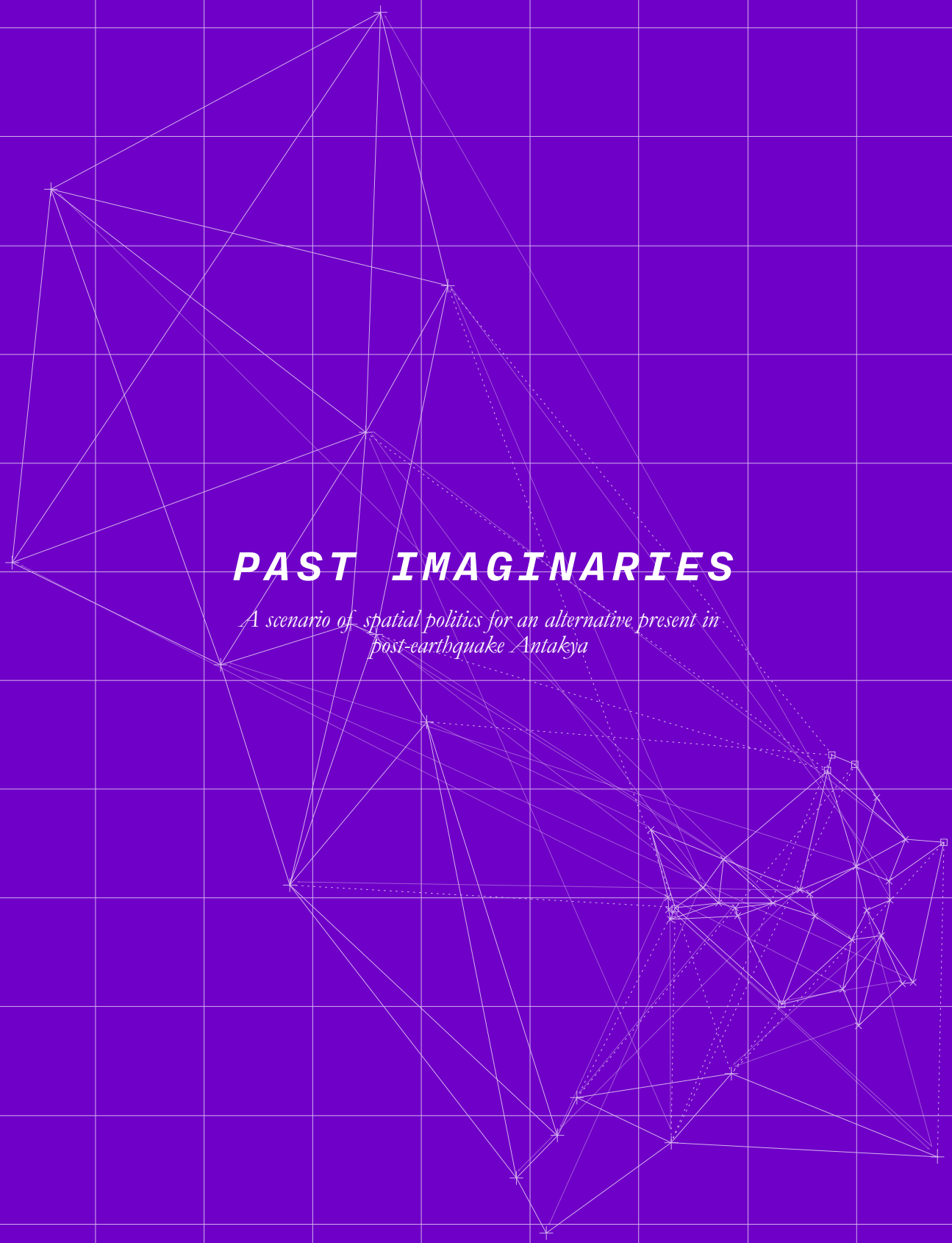
PAST IMAGINARIES

A scenario of spatial politics for an alternative present in post-earthquake Antakya



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Past imaginaries: A scenario of spatial politics for an alternative present in post-earthquake Antakya

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"When imagining future scenarios, architects tell – and sell – stories. Narration and visionary storytelling are important components of architectural culture. Architects' stories can conform and also critique; they can embrace continuity and also induce radical change."

Isabelle Doucet (Frichot et al., 2022, p.40).

Abstract

Post-earthquake recovery processes and their impact on society are related to physical structures and constructions as well as decision-makers, policies, regulations, organizations and the relationships between these elements. Antakya, being one of the cities most affected by the earthquake doublet of February 6, 2023, and the changes it went through after the earthquake form the basis of this research. The aim of the research is to examine the post-earthquake political processes from an architectural perspective through the investigation of the school buildings network in the city center of Antakya. By using architectural representation tools, the transformations in the institutional and physical infrastructure of educational networks are associated with decision-making mechanisms and decision-makers. Through this study, an alternative narrative is presented where architectural and political elements coexist. Furthermore, a specific school within the network is subjected to a detailed retrospective study and forms a case for the spatial political research at the building level. In this thesis, an alternative politics is imagined through process mapping as a methodology for the design of a school building in an alternative present. In this scenario, the impact of alternative decisions and alternative relationships between decision makers on the specific case school, and their potential to transform it are discussed. Based on the aim, the context and the methodology of this thesis, the architectural project is proposed as a ground on which the dynamics of architecture and politics, the problems and opportunities they produce can be discussed.

Preface

I would like to express my gratitude towards Prof. Daniele Campobenedetto, for his support, guidance and valuable input in the making of this thesis. He encouraged me to create a work that belongs to me and that I am proud of.

Sevgili aileme; anneme, babama ve abime her zaman yanımda oldukları için teşekkür ederim. Sizin karşılıksız sevginiz ve desteğiniz olmadan bu çalışma mümkün olmazdı.

Ayrıca, Hatay Erol Bilecik Mesleki ve Teknik Anadolu Lisesi çalışanlarına ve öğretmenlerine bana yardımcı oldukları için teşekkür ederim. Sizinle tanışmak ve desteğiniz yaptığım işi çok daha anlamlı ve değerli kıldı.

This work is dedicated to everyone whose lives were, and still are, affected by February 6, 2023 earthquakes.

Thank you.

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01

Introduction: Emerging politics in post-earthquake Antakya

01.1 A future for our past, a past of our future[1]

A large earthquake doublet hit the southeastern region of Türkiye on February 6, 2023 at 04.17 and 13.24 local time, with 7.8 and 7.7 magnitude respectively.[2] Fifth deadliest earthquake of the 21st century,[3] it caused thousands of fatalities and extreme damage on the built environment. Hatay was one of the cities that suffered the most damage in the disaster. The post-disaster situation and the following recovery and management policies in all affected cities resulted in the transformations in urban space, not only due to the disaster itself but also shaped by man-made decisions. Antakya, the largest province of Hatay, became a ruined town; and new settlements were formed on the periphery of the city to accommodate the earthquake victims. As the spatial identity of the territory is in the process of slow change, the inhabitants who are consisting of a large number of minorities and immigrants continue living in the 'limbo'; with feelings of dispossesion and displacement.

In this thesis, the dynamics between political and architectural elements on the school network in the post-earthquake context of Antakya is explored. I acknowledge the inevitable limitations and biased perceptions that come with the time- and context-bound nature of such investigation. It is unavoidable that any analysis, comment or conclusion would be coloured by the unique circumstances of the case at hand and the subjectivity of the author. However, it should be underlined that the point is not to inspect architectural or urban objects as post-disaster elements that have no correlation or interaction with whatever notions surrounding it; rather it is an investigation of a system of relations, and a process of politics that affect architectural and urban space, and vice versa.

1 The phrase is inspired by the motto of the European Architectural Heritage Year 1975, "A Future for our Past". Cited in the afore mentioned text by Alessandra Vittorini. see cit. 86

2 US Department of the Interior, *United States Geological Survey,* https://earthquake.usgs.gov/ (accessed May 12, 2025).

3 Romain Imbach "The earthquake in Turkey and Syria is the fifth deadliest of the 21st century". *Le Monde.* Published February 16, 2023. https://www.lemonde.fr/en. (accessed May 12, 2025).

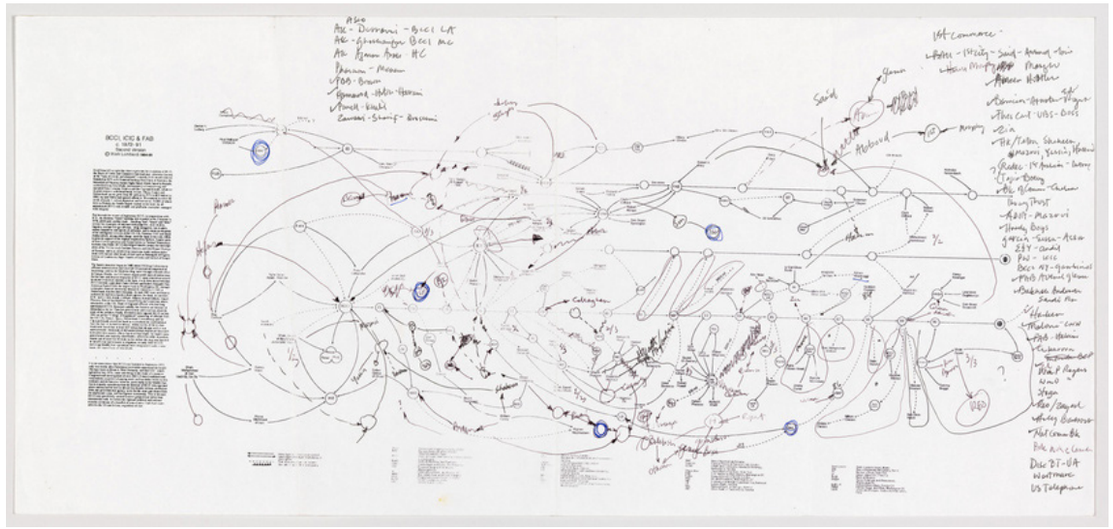
This reciprocative relationship between the concrete elements of architecture and not-so-concrete institutions of economic, social, political systems is present in any study subjected in the architectural field; although each occurence differentiates itself by its spatiotemporal conditions. Antakya as a case study prompted its own set of conflicts and negotiations.

What is an alternative narrative emerging from a spatial reading of the politics around the school network in post-earthquake Antakya?

The research question is situated in the post-disaster reality of Antakya, and emerges as an inquiry into politics of space. The starting point of an extensive inquiry into the post-earthquake territory of Antakya in this thesis is the recognition of architectural space as a space of manifestation for politics thus uncovering the parallels and intersections that might not be visible in the first glance. An analysis of politics of space is followed by the emergence of questions, the exploration of an imaginary and then again, the criticism of that imaginary; because an architectural imaginary is not free of a politics of space, it can only produce an alternative politics, which in the proposed imaginaries were multiplied, altered and transformed into other possibilities and problems.

In this thesis, it is aimed to use speculative design as a tool for critical thinking. Such methodology explores possibilities and reframes traditional narratives by constructing "what-if" scenarios; enabling architects to tell stories, push boundaries and explore imaginative interventions.[4] Speculative design, in this sense, is not only a way to produce alternatives to the existing systems; but also a way of criticising those alternative visions. In order to construct the speculative vision for the thesis, a number of studies on the concepts of uchronia, alternate history, and historical revisionism are explored and situated in architectural design discourse.

4 Hélène Frichot et al. *Infrastructural Love: Caring for Our Architectural Support Systems,* (Basel: Birkhauser, 2022)



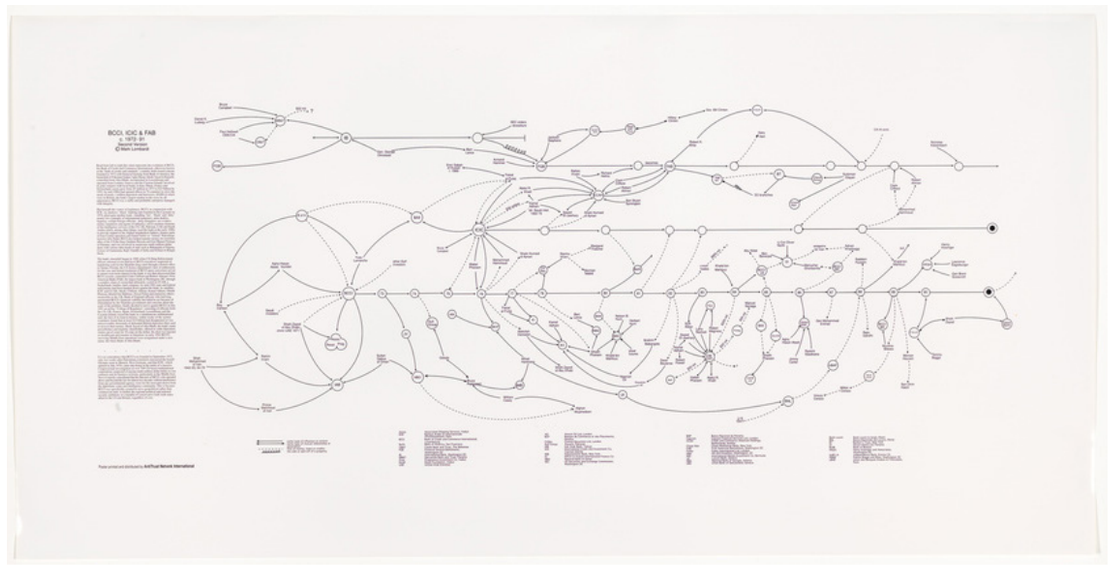


figure 1.2: Mark Lombardi (March 23, 1951 – March 22, 2000) was an American neo-conceptual artist who specialized in drawings that document alleged financial and political frauds by power brokers, and in general "the uses and abuses of power".

Roberta Smith, "Mark Lombardi, 48, an Artist Who Was Inspired by Scandals", New York Times, published on March 25, 2000.(accessed on 13.05.2025)

A quick research around the February 6 earthquakes would reveal the many conflicts and controversies around architectural space that clearly still hold their relevance until now. However, this research is not to repeat a hundredth time what has been said. It is also not to answer it. It is simply to ask more questions about the new reality that is still in the process of unfolding today. The study of the transformations in post-earthquake Antakya in relation to politics of space definitely generates more questions concerning architectural production processes.

The school network has changed drastically in post-earthquake Antakya, both physically and institutionally, and such changes reflect the policies, decisions and strategies applied to post-disaster architectural production in larger scale. The questioning of the space-making practice is done through spatial readings; a retrospective analysis taking into account both material and immaterial changes, dynamics and evolutions. And there emerges the first glimpses of an alternative story, a subdued/undermined narrative to be written. The thesis intends to 'rewrite' the narrative of the earthquake until now from a politico-spatial perspective instead of the ideological/biased narratives widely channeled through mainstream media. Nothing written in this thesis was undercover until now. Rather than a relevation prompted by a sort of 'exposure' of hidden agendas, this notion should be perceived as an alternative narrative constructed by the inclusion of many physical, infrastructural, social and political elements; displaying the larger network of relations that architecture is a part of. In the context of this thesis, rewriting of the narrative also accentuates the presence of individual and institutional powers as agents of architecture, space and spatial transformations; rather than being subjects of natural disasters. Instead, what the thesis reveals is the methodology in which these elements and their links can be perceived using architectural tools of investigation and representation. In this sense, the thesis can also be considered as an inquiry into the architectural tools of representation and their potential in understanding larger systems of the world.

The narrative created in this thesis is not a mere cluster of information but a built interpretation of facts and architectural commentary. The curation and production of a set of written and image data helps trace the transformation of educational space and school network in Antakya. The outcomes and consequences of spatial transformations are revealed through their correlation with other events and interaction with other disciplines, although, it remains a question open to further exploration which opportunities and challenges could be derived from our current reality that could help the production of imaginaries.

The imaginary is a speculative design practice, a 'what if?' scenario set in the past where certain architectural and political elements are altered in order to construct a future description different from the current reality. There is no promise that the imaginary would create a recipe for a better future or show that contemporary problems faced today would be solved through architecture. However, such trials contribute to architectural discourse and expand its capacity to entail, interact with, learn from and give back to other disciplines concerning social and ecological life. In this sense, architecture is more than a spatial configuration in which certain politics play out; it opens up a domain of discussion where social and political change can emerge from.

Politics of architecture, politics *and* architecture

In fact, it is the first step in the curation of such framework, in the consideration of various tangible and intangible elements and processes that intersect and dissect, to recognize that architecture is inherently political. Yaneva writes that the world of the politics and the material world of buildings/architecture assumes a dichotomy between the two disciplines.[5] This understanding is also perceived in the representation of buildings and built form as simple examples and embodiments of political norms, values and ideologies. Yet, the dynamics of the two realms are explored and questioned rarely. For once, the built environment is far from being static anchor points for state politics and ideologies; instead they are active and dynamic in the way that their impact occurs gradually through use and interactions within it and around it.[6] Thus, the becoming of the architectural space or object and the production of politics through it is a part of a more complex relationship that includes both spatial configurations and figurative dimensions[7] and less of a binary division.

The perception of such politics in this thesis, as Yaneva best explains in Five Ways to Make Architecture Political, is not embedded in the 'essence' of built space in metaphysical sense.[8] Instead, there is an unfolding of politics in relation to the 'artifact', which is the building or infrastructure, without the reduction of the said artifact to pure politics. In fact, if the questioning of architectural politics can be broadened to include the "how and where"s, which actions connect or disconnect the artifact to the said politics, and how the politics are produced in relation to it; then the political will be witnessed in the many alliances, contradictions and negotiations between various actors such as citizens, architects, engineers, politicians and so on.[9]

Yaneva states that architecture contains a potential for ordering human activities, making it an agent of policy.[10] Such an understanding derives from the development of ANT (Actor-network theory), by science and technology studies (STS) scholars Michel Callon, Madeleine Akrich and Bruno Latour, the sociologist John Law, and others, an approach to social theory where everything in the social and natural worlds exists in constantly shifting networks of relationships.[11] In this sense, architecture exists on a sociomaterial plane where its becomings has to do with both material objects (things) and semiotics (concepts).

In this thesis, politics of architecture is a priori, and then tested through a reading of an infrastructural network in the city center of Antakya, following its emergence as a site of contestation through the challenged, disputed, negotiated policies generated by the actors, actions and processes around architectural space. As in the case study

5 Albena Yaneva, *Five Ways to Make Architecture Political: An Introduction to the Politics of Design Practice.* (London: Bloomsbury Publishing PLC, 2017), 4.

6 Stewart Brand, *How Buildings Learn. What Happens After They're Built,* (New York: Viking, 1994). as cited in Yaneva, *Five Ways to Make Architecture Political,* 26.

7 Yaneva, *Five Ways to Make Architecture Political,* 26.

8 Ibid.

9 Albena Yaneva, *Five Ways to Make Architecture Political: An Introduction to the Politics of Design Practice.* (London: Bloomsbury Publishing PLC, 2017), 4.

10 Ibid., 8.

11 Ibid.

at hand, architectural projects and urban design processes inevitably involve state and governmental actors, therefore they also enable the Big Politics that they generate. However, it is worth to mention that this said 'enabling' is situated at a distance from the Foucaldian understanding of architectural politics, where power relations are inscribed in material arrangements, artefacts, technologies and buildings.[12] This is not to say that Antakya's post earthquake present is free from state politics and ideologies, nor that this thesis disregards such notion. Moreso, it becomes evident during the thesis investigation that the politics which are produced in the architectural space in Antakya is both shaped by the policies that the existing power relations initiate, and also by the interactions among the actors and built environment; however not by a politics that are inherently born from the nature of the architectural objects themselves. Thus, architecture is not considered political in the sense that the specific design of the buildings or the infrastructure itself has political connotations, but it is political as it enables certain politics to take place by connecting actors, agents, institutions and enabling the sociopolitical to affect material and vice versa, through architectural practice. For this investigation, the decision making process behind the emergence of certain architectural networks and objects, and how they enable novice politics, conflicts and negotiations are analyzed.

From this perspective, it is vital to understand that any politics that shapes architectural space and any architectural space that shapes politics in various ways generates possibilities and problems regardless of the political agenda. However, all political agenda must be challenged by the architectural production of narratives; allowing for the search of better possibilities. I advocate, through this thesis, for the application of this methodology especially in the studies of post-disaster landscapes which are becoming globally more frequent and extensive crises, affecting many lives, cities and infrastructural systems with their severity.

The politics of architecture that this thesis tackles with is mostly based on the decisionmaking processes and policies around February 6 earthquakes in the context of Antakya, in particular regarding the operations on the disaster-ridden territory, the state regulations and formation of new laws concerning the citizen rights and ownership on architectural space. Conceptualizing architecture as a political field requires the focus on other modalities of inhabitation, abandonment and displacement; and by the inquiry of sociomaterial repercussions of these transformations, uncovering the ties between the agents and politics involved in such conditions. Architecture in this sense is envisioned as a domain, a plane of arrangements in which the crisis conditions materialize.[13] Architecture here is not a force coming into play after the displacement happens in order to shelter, protect and care for the displaced. Instead, it is the space in which the politics of displacement and occupation are produced;[14] architecture is complicit in the production of displacement[15].

The reduction of living space into a box as a result of the large-scale displacement is another inquiry point included in the research. The container/tent/shelter as a solution to the problem of post-disaster social reality, homelessness, and marginalization of communities disregards the multi-scalar processes in which displacement is operationalized and systematized,[16] through the organization of temporary settlements, restriction of citizen authorship, and centralization of post-disaster planning and recovery processes. This approach also disregards the dimensions in which conflicts and negotiations emerge from the interactions among actors and the rearrangements of space.

In this thesis, the dichotomy perceived between the authority figures, architects, designers as the agents; and the displaced as the passive receiver of the humanitarian intervention is reevaluated. As in the case of Türkiye, catastrophies that leave thousands of people homeless and in need of basic needs renders citizens unable to participate in the decision making mechanisms, and even prevent them from resisting the repercussions of it. Instead, the research is situated in the site of architectural production and traces the presence, involvement and interaction of all agents in order to rewrite a more inclusive, accurate, multiscalar and spatiotemporal narrative; rejecting the categorization of

12 Michel Foucault, *Surveiller et Punir: Naissance de La Prison*. (Paris: Gallimard, 1975) as cited in Yaneva, *Five Ways to Make Architecture Political*, 8.

13 Somayeh Chitchian and Maja Momic, "Architectures of an "Otherwise": Inhabiting Displacement", *Ardeth*, 6, 2020: 249-255. doi: 10.17454/ARDETH06.18

14 Eyal Weizman, *Hollow Land*. (London: Verso, 2007) as cited in Rokem and Boano, "Introduction: Towards Contested Urban Geopolitics on a Global Scale", 1-13.

15 Chitchian and Momic, "Architectures of an "Otherwise": Inhabiting Displacement", 249-255.

16 Ibid.

inhabitant as a passive subject. The inhabitation of displacement actively creates agents and authors of architecture[17] which are not born from an inside/outside duality but are citizens of state, participating in big politics and politics of architecture in their modality of interaction. The transformation of social definitions in post-disaster situation is essential to recognize the dynamic political forces around architectural space.

Architectural imaginaries

Uchronia derives from the word utopia, based on the Greek term ou-topos, meaning 'no place' or 'no where'. First coined by Thomas More; the role of utopia is presented as not a blueprint for the perfect society, but as an exploration of imaginary ideas and dreaming.[18] Uchronia, in the same manner as utopia, is defined as 'no time' or 'non-time' from the Greek 'ou-chronos'. French philosopher Charles Bernard Renouvier was the first to use the word in his novel Uchronie: L'Utopie dans l'histoire in 1876, subtitled 'An apocryphal sketch of the development of European civilisation not as it was but as it might have been'. Renouvier's tree diagram (*figure 1.1*) visualises the uchronian plot in relation to the history. The typical model of uchronia is one where, at a given point in time, a historical event is altered and leads to alternative consequences, creating parallel but separate narratives. While differentiations occur in terms of uchronia's concept of temporality, this thesis differentiates it from utopian imaginary in the sense that it is often situated in the past reality, in which the course of history deviates to create an alternative now or future, different from the current reality. Following Schmid's framing of uchronia as a methodology rather than a single method,[19] this thesis applies it in the sociopolitical and architectural modality; architectural processes and spaces are reimagined for the production of potential alternative scenarios.

It is worth to mention that all terms and expressions in this thesis are utilized to convey ideas, thought processes and findings of analyses without being tragically obsessive about labels or definitions. Still, the semantics of architectural discourse entails some clarifications on the stance of this thesis.

The book Spatial Agency makes a critic against the usage of "alternative", "architectural", and "practice" and instead suggests "spatial agency" and "other ways of doing architecture" to define the projects that are included in it.[20] While certain notions and perspectives from the book and its authors are adapted into the theoretical framework of this thesis as an alternative way of thinking about space, the thesis creates its own stance by attempting not to define, and therefore limit, what alternative architectural practice is through dialectic means. The utilization of the concepts in the book Spatial Agency in this chapter is to better explain the critical attitude towards the limiting force of the definitions of architecture.

It is argued in the book that an alternative is, by definition, set against and react to a norm. While alternatives are reactions to norms, they cannot escape the same referential boundaries; they are defined by what the norm is not.[21] This opposition necessitates the abandonment of anything involved in the structure and description of the norm.[22] However, it is difficult to define what an alternative is in the case of architectural culture and practice, since it prompts the definition of architectural norms. Such norms are interpreted differently by everyone. As noted by Dictionary of Alternatives, "One person's alternative is another person's orthodoxy."[23] Thus, this thesis argues that the attempt to seperate an alternative from an undefined and subjective norm itself is a paradoxical struggle which needs to be abandoned. The implication of a centre/margin duality in the architectural field would never be possible; and should not be by the usage of the word alternative. To describe certain architectural acts as marginal, such as grassroots and feminist movements would mean that they could never be defined as the norm, because such binary discourse does not permit it. The stance of this thesis is that this understanding poses an obstacle in front of an inclusive and critical way of doing architecture. The suggestion

17 Ibid.

18 Helga Schmid. *Uchronia: Designing Time.* (Basel: Birkhäuser, 2020) 13.

19 Ibid.

20 Nishan Awan, Tatjana Schneider and Jeremy Till. *Spatial Agency: Other Ways Of Doing Architecture.* (London and New York: Routledge, 2011), 26-34.

21 Ibid.

22 Ibid.

23 Martin Parker, Valérie Fournier and Patrick Reedy. The Dictionary of Alternatives: Utopianism and Organization. (London and New York: Zed Books, 2007) as cited in Awan, Schneider and Till. *Spatial Agency*, 26.

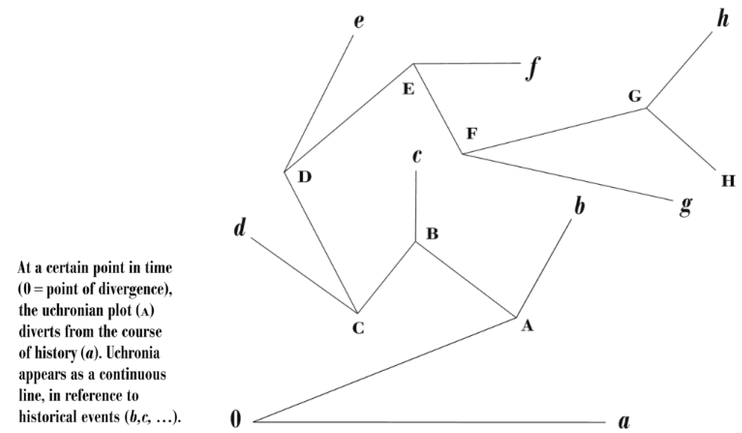
of alternatives is the offering of possibilities, choices, and options; not against a norm but often working with the existing system. A coexistence of all alternatives, instead of a norm/alternative dichotomy.

In this thesis I also oppose the mainstream understanding of "architecture" and "architect"; such as the production of buildings as the sole focus of architecture, and architects as someone who designs buildings; as defined in the book Spatial Agency in an attempt to, in return, discard it with the argument that it is limiting.[24] It is, in fact, limiting in the sense that the definition tries to establish a norm; and as such, anything else deviating from the said norm, becomes an alternative, a margin to the centre. If such limiting understanding of architects and architecture were true in praxis, then an architect who does not design buildings would not be an architect, and a space made not by an architect would not be the subject of architecture. Then, who is an architect? What is architecture?

It is worthy to go back to the first chapter of this introduction to repeat that it is an important part of architectural inquiry to ask more questions instead of finding answers. The reason would be that the attempt to find answers and solve problems pulls architects into the trap of defining norms and exceptions. However, an all-inclusive stance of architecture opens up more possibilities instead of trying to limit what architectural practice is. Seeing architecture as the "sole domain of the architect" and abandoning the use of 'architecture' in a search for a better word[25] is completely in disregard of its wider implications of being a spatial practice inclusive of all actions, processes, discourses, material and immaterial becomings. It also overlooks the politics of it; a politics that implies the involvement of many actors outside of architectural field to be involved in architectural practice, which is the main investigation of this thesis. It is only a self-fulfilling prophecy, as the limitation is created by the definition itself.

I advocate for an understanding of architecture as a notion encompassing all people and processes that end up contributing to the

24 Awan, Schneider and Till. *Spatial Agency*. 26-34.



At a certain point in time (0 = point of divergence), the uchronian plot (A) diverts from the course of history (*a*). Uchronia appears as a continuous line, in reference to historical events (*b,c, …*).

figure 1.1: Charles Renouvier's tree diagram explaining the appearance of uchronia in relation to historical events.

Helga Schmid. *Uchronia: Designing Time*. (Basel: Birkhäuser, 2020)

discussion and production of space, and for an embracing architectural practice that does not, by the definition of architectural norms, succumb to the marginalization of certain ways of doing architecture. It also advocates for alternatives that do not oppose and does not define norms but strive to contribute to the understanding of architectural phenomena in relation to larger social, economic and political systems by the coexistence of the conformist binaries of inclusion/exclusion, accessibility/inequality, bottom-up/top-down, human/nature and so on.

Therefore, the research process and the alternative explored in the end in this thesis is not an opposition to "the norm", or a moral stance against the politics of the institutions of power that influence architectural space. It is a way to raise questions about spatial practice and processes by means of architectural investigation. It is seen from this open-ended study that alternative architectural practice is never free from the existing system, nor it is able to generate a perfect solution to all problems. It, in fact, does not attempt to solve things.

I suggest a past imaginary of architectural process and practice

based on the gained knowledge from the experience of the earthquake. However, such imaginary design practice prompts a future imaginary with its own set of problems. The aim of this practice is to help generate more cases of research on possibilities, shortcomings, negotiations, conflicts and contestations within and around architectural space; and hopefully make way for shifting paradigms in contemporary architecture towards just, socially and ecologically sustainable environments.

01.2 Spatial politics in contested territories

What is the post-earthquake reality of Antakya? By the rejection of binary notions in this thesis; it is argued that the post-disaster city cannot be separated from the pre-existing city and the larger systems that it is a part of. In order to disentangle the conditions in which a narrative would be reconstructed and an imaginary would be produced, it is essential to define the circumstances that constitute the "post-disaster"ness of the city.

A disaster manifests as a disruption to the set of networks that form the city, rendering it unable to perform its functions.[26] These disabled functions are not only the regular everyday functions of the city, but also the ones crucial to do hazard control and reduce the immediate effects in the aftermath of the disaster. The disruption is partially because of the disaster's effect on the physical environment itself, when there are earthquakes, floods, fires, hurricanes, tsunamis; as the physical infrastructure fails to perform its own tasks and additionally prevents other critical actions such as aid and rescue efforts from operating. It is, as well, due to the social infrastructure and interrelational ties between governing agents, organizations, victims themselves, losing their ability to form a resilient network in the city therefore stalling the disaster mitigation efforts. Alesch and Siembieda writes: "The disaster damages parts of the system to an extent that they are unable to perform their respective functions effectively and the relationships among those parts are disrupted."[27] Therefore, these consequences unfold in the spatiotemporal reality of the post-disaster, causing sequential failure of the system.[28]

The city's functions are inevitably tied to the factors of space and time, making it subject to alterations and transformations constantly. This perspective reveals the peculiar tension formed between the pre-existing city and the post-disaster city,[29] which is investigated in this thesis through the disruption of infrastructural functions. As the territory is subjected to changes not only temporarily in the disaster moment but also afterwards, such tension forms through a set of divergent relations among the physical elements of space, people, constitutions and networks. In this sense, the 'post-disasterness' is still in the process of unfolding a new reality, which does not lie outside of the pre-existing city, nor it is a complete fantasy.

The manifestation of such 'tension' is through the emergence of what Foucault describes as heterotopias, or 'other spaces' –which is not an empty void in itself but contains an absence of the normative forms of the city although having been made up by the elements of it–.[30] While the city's elements are scattered in this intermediate state of dissolution and unbecoming, there is an 'other space' formed by the emplacement of such elements, contradictory of a space in itself as it is an 'outside' in the 'inside'. The ruined, post-earthquake Antakya is such a space where being included means being excluded, it is open but isolated in its reality, it is inhabited but also abandoned, in what Foucault describes as the 'heterotopias of deviation'.[30] By reading the transformations of urban elements included in a temporal and spatial discontinuity, it is possible to reconstruct the process that constitutes post-earthquake Antakya and also, is constituted by it.

In a post-disaster environment, the policies and decisions around the spatial elements, whether they are of permanent or temporary nature are a part of the unfolding reality. These novel set of relations that are extraordinarily manifested due to the disaster between actors, elements, institutions, materials belong neither to the pre-ex-

26 Daniel J. Alesch and William Siembieda, " The Role of the Built Environment in the Recovery of Cities and Communities from Extreme Events" *International Journal of Mass Emergencies and Disasters* 32,2. (2012): 197-211.

27 Ibid., 197.

28 Ibid.

29 Ibid.

30 Foucault, Michel. *Different spaces* in: James D. Faubion, (Ed.), *Essential Works of Foucault 1954-1984, Volume II: Aesthetic, Epistemology, Methodology.* (New York: New York Press, 1984)

isting city or the entirety of the "new" city because of their presumed temporality, yet they produce the conditions in which before and after states of the city identify, form, relate, interact, or differ.

These forms and set of relations are essentially capable of shaping post-earthquake Antakya as they constitute and quite forcefully sustain a system containing conflict in itself during the time of the crisis. As alterations continue in the post-disaster situation, these already established systems of relations sustain, change or adapt as well. An urban area can expand, neighbourhoods might vanish, population might decrease after catastrophies; changing cities permanently. It is important to point out that such changes are tied to many factors, not only the pre-disaster precautions, the actions taken during the emergency periods and the governmental strategies applied; but also the citizens, volunteers and non-governmental organizations that take part in the recovert efforts.

Therefore, there is also potential in exploring the permanency in the temporary nature of such systems. The question would be, in Antakya which ones are sustained, which ones are not, and for what reason? The pre-existing Antakya had established networks in place: economic, infrastructural, social, institutional, physical; traces of which can still be seen in the aftermath, and also present in maps and plans. Then, understanding how the systems relate to different actors, and putting in retrospect the transformation of such dynamics, could produce ways of configuring the relational network between them, and how these manifest in the physical space of Antakya.

A disaster, seen from an urban development perspective, has the potential to become a catalyst for rapid urban change.[31] Planning improvements that normally take many years and might often not be possible to implement to the existing city plan have the opportunity to be realized due to catastrophic disasters.[32] In developing countries where the existing institutional system struggles to provide for all the needs after catastrophic events, such efforts might be initiated and often led by international parties and organizations. These organizations might also take the lead in the redevelopment process and play a key role in the shaping of the city.

Such changes are made possible by the fact that the elements of the city and their relations are in a state of displacement, as mentioned before. There is room for reflection on the pre-existing ties and patterns and perhaps establish new ones that suit the needs of the community better. While the existing fabric of the cities rarely change by such redevelopments, heavily damaged districts can be redesigned and rebuilt completely.[33] Olshansky writes: "To some degree, recovery always involves change. The community will never be exactly what it was before; it will look different, residents will migrate, and the economy will change. All communities change and evolve over time, but a disaster accelerates this process."[34] As such, public and private institutions, and their ties can go under a similar rapid change because of the disaster.

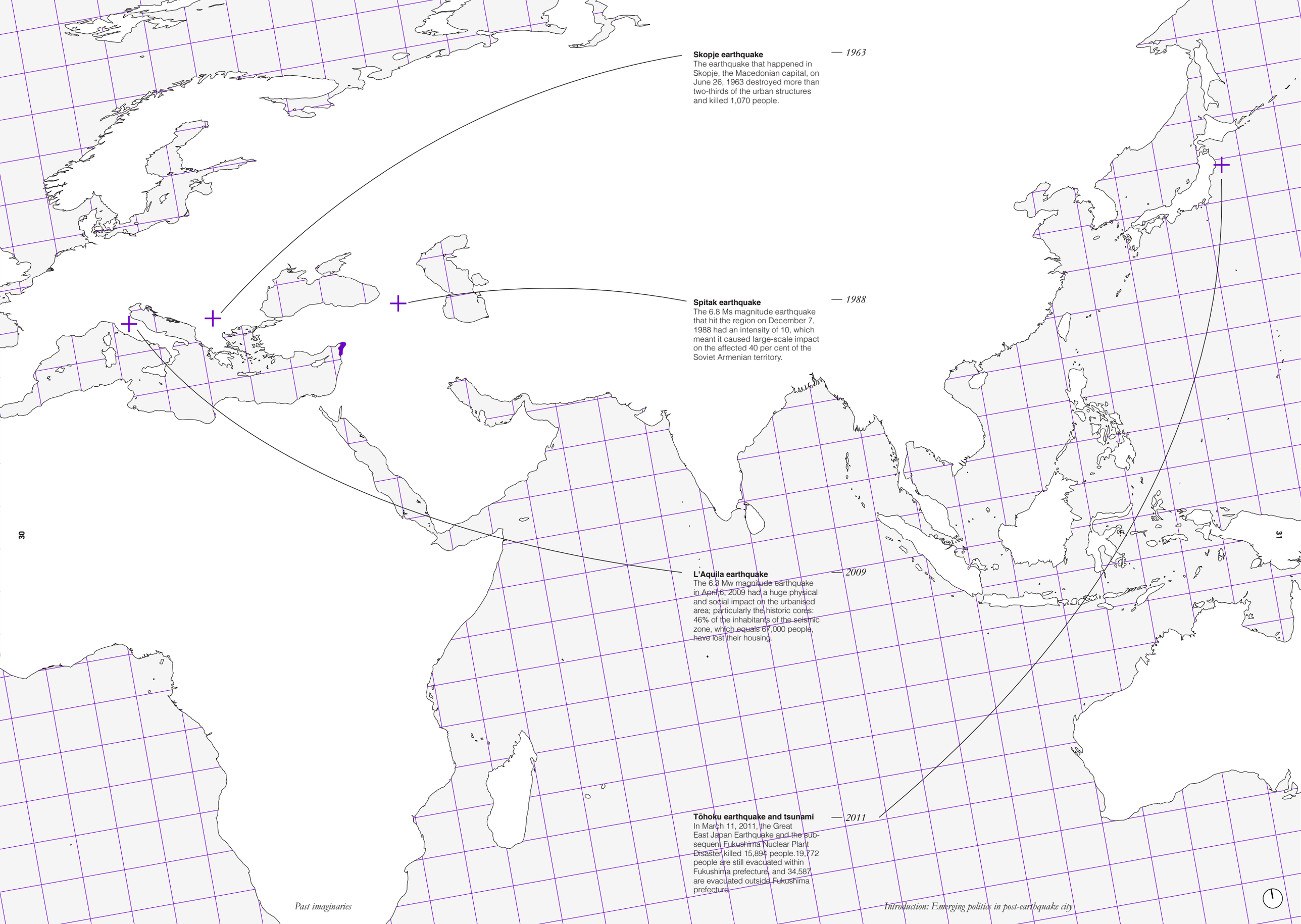
The following themes driven upon case studies examine the actors, actions, processes around previous disasters around the globe and their capability to alter urban environments in long-term, and be altered alongside it. Two topics are investigated: one concerned with the policies regarding the displacement and sheltering of earthquake victims and the other with large scale urban planning. The topics are examined based on the spatial repercussions of such political decisions; thus they are not distinctly separated from each other. They instead are intrinsically linked and happen simultaneously, as the evaluation reveals.

31 Robert B. Olshansky, "How do Communities Recover from Disaster? A Review of Current Knowledge and an Agenda for Future Research", Presented at *46th Annual Conference of the Association of Collegiate Schools of Planning Kansas City*, October 27, 2005.

32 Ibid.

33 Ibid.

34 Ibid.



Skopje earthquake
The earthquake that happened in Skopje, the Macedonian capital, on June 26, 1963 destroyed more than two-thirds of the urban structures and killed 1,070 people.

— *1963*

Spitak earthquake
The 6.8 Ms magnitude earthquake that hit the region on December 7, 1988 had an intensity of 10, which meant it caused large-scale impact on the affected 40 per cent of the Soviet Armenian territory.

— *1988*

L'Aquila earthquake
The 6.3 Mw magnitude earthquake in April 6, 2009 had a huge physical and social impact on the urbanised area; particularly the historic cores: 46% of the inhabitants of the seismic zone, which equals 67,000 people, have lost their housing.

— *2009*

Tōhoku earthquake and tsunami
In March 11, 2011, the Great East Japan Earthquake and the subsequent Fukushima Nuclear Plant Disaster killed 15,894 people.19,772 people are still evacuated within Fukushima prefecture, and 34,587 are evacuated outside Fukushima prefecture.

— *2011*

Inhabitation and displacement policies

The main driver for displacement in the aftermath of disasters is the damage on the built environment. Significant damage to buildings, utilities and infrastructure may make such displacement permanent, affecting the community structure. Factors such as the conditions of the origin and host communities, place attachment and social capital are psychological and social phenomena that influence the protracted displacement of households and entire communities.[35]

In most large scale disasters with severe damage, new settlements become necessary to establish. These settlements may be distributed to the periphery or close proximity of the city due to the unstable ground in the existing area or the ongoing rescue efforts and debris removal.[36] They might start as temporary solutions to the crisis of disaster, which become permanent over time due to inability or reluctancy of the residents for economical reasons or the reasons mentioned above. There are also permanent settlements established in major earthquake zones, in order to compensate for the victims' loss of their homes and belongings.

In the case of L'Aquila earthquake, the people affected were evacuated to scattered settlements of temporary housings, tents, even some hotels on the Adriatic coast, and later on apartment complex projects during the emergency state between 2009 and 2012.[37] These projects has resulted in the construction of 'new towns' in the countryside surrounding L'Aquila. The 19 new towns formed as an immediate response to help the homeless produced scattered places, contributing to the loss of identity for inhabitants; eventually rendering the urban system unable to function in the post-disaster situation. They created a non-holistic city that was unregulated and disconnected, with 30 km distance between them and up to 18 km distance from the city center.[38]

The three year emergency state had resulted in the increased decentralization and loss of the urban network.[39] As the abandoned historical centre has been declared a forbidden 'red zone', it became inaccessible to the people who lived there.[40] The heavy militarisation of the area pushed people away and prevented them from accessing their homes and belongings, instead the red zone was distributed among local and national entrepreneurs in construction sector.[41] The work in the historic centre has only sped up around 2013 after the numerous crisis and controversies involving political debates around mismanagement, corruption, and investigations towards contractors' illegal connections.[42] The anti-seismic complexes of the 19 'new towns' with the absence of any real gathering points, services and an efficient public transport network are unable to connect to the city centre or form any real urban community among themselves, despite the efforts from the families, students, workers and associations attempting to adapt to these spaces with placemaking activities, now having lived there for more than 10 years.[43]

The decentralization strategies adopted in the post-disaster recovery also had effects on the already increasing social fragmentation.[44] The planning processes concentrated on the physical building work, have prioritised private reconstruction over public work. Such advancement in private reconstruction could be aimed at encouraging inhabitants to repopulate the city center; in a way to combat the urban sprawl resulting from out-of-centre emergency dwellings. However, the absence of necessary public amenities slowed down the recovery efforts, as public space proved to be a necessity that forms the social network and interaction among citizens. Therefore, the construction of emergency housing has expanded the city physically, without attention to connective or social infrastructure. The physical dispersion has severed the pre-existing community ties within local networks, contributing to social fragmentation in the long term.

The already present fragmentation of the urban composition had been amplified with the effect of the dispersion caused by the disaster. The temporary relocation to designated areas by the urban plan produced new polarities; only partially offset by the persistence of on-the-spot administrative functions, such as hospitals and regional

35 Household Displacement and Return in Disasters: A Review, page 5

36 Elmas Uzuner and Nilüfer Akıncıtürk, "Deprem Sonrası Kentsel Yayılma Sürecine Dair Bir Değerlendirme: Kocaeli/ Gölcük Örneği" *Resilience Journal* 4, 1 (2020): 67.

37 Tomoyuki Mashiko et al. *Post-Disaster Reconstruction Planning and Urban Resilience: Focus on Two Catastrophic Cases from Japan and Italy*. Presented at Conference: 10th Study Day of INU - Crisis and rebirth of cities at Naples, February 2018.

38 Ibid.

39 Angela Giuffrida, "Ten years after the quake, Italy's ravaged heart is still struggling to recover" The Guardian, April 7, 2019, https://www.theguardian.com/world/2019/apr/07/george-clooney-laquila-italy-earthquake-restoration (accessed May 12, 2025).

40 Ibid.

41 Di Ludovico and Gunning, Invisible recovery: physical reconstruction versus social reconstruction. The case of Central Italy", 29-44.

42 Ibid.

43 Di Ludovico and Gunning, Invisible recovery: physical reconstruction versus social reconstruction. The case of Central Italy", 29-44.

44 Ibid.

figure 1.3: A significant section of the red zone is cordoned off from pedestrians.

CNN. https://edition.cnn.com/interactive/2016/08/world/italy-earthquake-aftermath-future/

offices.[45] Such dispersion had disrupted not only the urban system in which the society regulates its function in, but also the regional natural area and the larger ecosystem due to the occupation of agricultural areas, which were deemed important for biological and vegetal continuity. Such sprawl empowered by the architectural and urban policies of the decision-making actors and institutional figures in the case of the Abruzzo earthquake led to the increased decentralization of urban form. The complicated system of regulatory law for reconstruction and the absence of a direct relationship between the reconstruction economy and local economies slowed the physical, social and economic reconstruction of L'Aquila.[46]

In Yamamoto, Japan, one of the areas worst affected by the triple disaster of 2011, reconstruction at the municipal level was conducted under the guidelines set by the national government in order to protect the localities from future tsunamis.[47] These guidelines are based on tsunami simulations and estimations of future disaster risks and they include massive land use arrangements, mass relocation from the coastal areas inland (takadai iten) and sea wall building recommendations.[48] Densely populated, environmentally sustainable and energy-efficient 'Compact cities' were promoted nationally as an urban planning scheme ideal already before the disaster. These new settlements were seen as a tool to intensify land use and focus resources in order to address the problems of aging and depopulation.[49]

45 Mashiko et al. *Post-Disaster Reconstruction Planning and Urban Resilience: Focus on Two Catastrophic Cases from Japan and Italy.* February 2018.

46 Mashiko et al. *Post-Disaster Reconstruction Planning and Urban Resilience: Focus on Two Catastrophic Cases from Japan and Italy.* February 2018.

47 Pilvi Posio, "Reconstruction machizukuri and negotiating safety in post-3.11 community recovery in Yamamoto" *Contemporary Japan*, 31, 1 (2018): 1-21

48 Ibid.

At the same time, the town designated 'disaster danger zones' 1–3 corresponding to tsunami-inundated areas alongside the coast. This governmental decision made it hard for the citizens to stay in the coastal area, as, for example, it was forbidden to build any new residential buildings in the hardest-hit zone 1 on the coast. Such policies were utilized in order to promote the relocation of citizens to the compact cities. The relocations were individual without taking into consideration the collective pre-tsunami community applications; therefore people could not choose their neighbors. Additionally, as compact cities were built, the railway stations were also moved inland, resulting in slow abandonment of the coastal areas. The displacement from the coast to inland resulted in slower progress of reconstruction on the coast compared to those of the compact cities, making recovery more difficult for the people still inhabiting the coast.[50]

It can be said that the policy to move inland, and the dispersion of existing neighbourhoods and towns into mixed compact cities resulted in social fragmentation and disregulation in the urban network. The tsunami-inundated area created a new post-disaster community, that is shaped by shared geographical realities and marginalization due to the social fragmentation caused by the recovery policies. The governmental decisions and relocation policies after the disaster resulted in clearly territorially defined form of community organizations. The community formation was based on district divisions; and such districts were formed after the disaster, inhabited by citizens originally from different areas, neighbourhoods, socioeconomic levels and spheres. This mix of residents originating from different districts and starting the community organization from scratch was also thought to complicate community building.[51]

49 Ibid.

50 Ibid.

51 Ibid.

figure 1.2: Ishinomaki in the second snow after the earthquake falling from the night before, on March 16, 2011

Save the Children Canada. https://www.flickr.com/people/43583045@N06

Such cases exemplify the effect of post-disaster resettlement policies on both architectural and social means. The urban sprawl caused by the decentralization of settlements dissolves the existing infrastructural networks and community structure. The case of L'Aquila shows that although the city center can be revived architecturally, the displacement of residents prevents people's access to amenities, slowing down the recovery process. In the case of Japan, social fragmentation is amplified by the scattered network of settlements and dissolved community ties. The investigation of these cases helps identify the issues that arise with small-scale solution-making such as the provision of housing complexes for disaster victims, without the consideration of the urban conditions necessitated by community living.

Urban planning policies

The post-disaster condition is an emerging complexity in a tense environment; characterized by the involvement of multiple agendas and visions, magnified within political and institutional dimensions.[52] As mentioned before, when systems are inadequate to provide for all the needs after the disaster, international organizations might get involved and initiate efforts that lead to large redevelopment and urban planning processes.

The call for help issued by the Yugoslav government for Skopje earthquake was picked up by more than 80 countries in the world and many international organizations.[53] The United Nations (UN) emerged as a systemizing agent of post-earthquake aid and donations were crucial for Skopje.[54] The planning methodology included the collaboration between many actors. Naum Trajanovski writes: "The UN coordinated an international partnership for the new master plan for the city, including the International Board of Consultants with Chairman Ernest Weissmann, that was responsible for the provision of experts and consulting work; Yugoslav authorities that were responsible for the supervision, collaboration, provision of experts and approval of design proposals and the design team with Adolf Ciborowski as Project Manager, including also Doxiadis Associates, Polservice, Warsaw and the Skopje Institute of Town Planning and Architecture."[55]

In the case of Skopje, international help resulted in the inclusion of architects and urban planners from abroad as actors in shaping the architectural space of the city. In a short time period, Skopje became a collection of late modern influences in architecture - brutalism, Japanese metabolism, structuralism, etc. which became a reinterpretation of certain models in which the author's signature could be clearly read.[56] A Japanese architect, Kenzo Tange, won the competition for the reconstruction of the city centre by the selection of the international commission, led by Ernest Weismann.[57]

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52 Camillo Boano and William Hunter, "Architecture at Risk (?): The Ambivalent Nature of Post-disaster Practice." *Architectoni.ca* 2012, 1: 1-13

53 Naum Trajanovski, "Envisaging the City of Solidarity: Commemoration of the 1963 Skopje Earthquake and the Post-earthquake Urban Reconstruction (1963–81)" in *Solidarity - from overcoming crisis to sustainable development*, eds. Nenad Markovikj and Ivan Damjanovski (North Macedonia: UNDP Country Office, 2023), 17.

54 Ibid.

55 Ibid., 18.

56 Ibid.

57 Ibid.

58 Ibid., 14.

tect, Kenzo Tange, won the competition for the reconstruction of the city centre by the selection of the international commission, led by Ernest Weismann.[59] The authors write: "The plan offered bold, "futuristic" visions of a metropolis on the brink of utopia that clearly display elements of Japanese super-urban metabolism. This vision for the new city, gazing far into the future, greatly exceeded the current needs of the city as well as the technological and financial capabilities of the country."[60]

In contrast, Spitak was decided to be rebuilt 7 km further southwest as a completely new city.[61] It should be noted that however much sense it makes to relocate the city, given the extent of destruction and the importance of quick construction; it is very expensive and difficult to relocate an entire city.[62] A city, as discussed before, is not merely a cluster of buildings but it is a functioning system made of both physical infrastructure and also administrative, economic, social and cultural ties; hence the reason why such relocation seldom occurs in the history of disasters.[63]

A competition was held at the International Academy of Architects with the assistance of the Soviet Union of Architects, where internationally renowned architects, such as Pierre Vago and Pedro Ramirez Vazquez were invited to host. The winner project was in the form of a circle, where at the centre of it would be the inner city with its shopping facilities and administrative buildings; and three streets leading outwards from the centre to the housing estates. The project name 'Heliopolis: Sun City' symbolized a utopian desire to transform the small city of Spitak into a reference point of the world, with arms reaching out to receive aid from across the globe. The large-scale project allowed and even encouraged an analogy of high degree importance.[64]

The inclusion of international actors also had an impact on the sociomaterial aspects of the city. The Swiss Quarter, with red pitched roofs and front gardens were the most popular among the inhabitants because of their stability; and were correspondingly more expensive due to high demand. An Italian Quarter, composed of synthetic structures

59 Ibid., 12.
60 Ibid.
61 Ibid., 271.
62 Ibid.
63 Ibid.
64 Ibid., 276-277.

figure 1.3: A vintage photo of Kenzo Tange's Master Plan concept model for the city of Skopje.

Kenzo Tange.
tangeweb.com

was also built quickly in the aftermath of the earthquake.[65] Although intended as temporary structures until the proper houses were built; the quarter became the permanent settlement of socially disadvantaged families.[66] It is often pointed out in the literature and exemplified by such cases that the social situation in a given city usually does not change much despite the efforts made by planners through thorough planning. Social discrepancies created by class differences might even heighten in the wake of a disaster, as economy, business, and employment in the city is also largely impacted by it.

In the end, the proposal was not able to be completed, and today's Sun City became a suburb of the Old Spitak with a small post office, a pharmacy, a kiosk and individual settlements.[67] However, the old Spitak was rebuilt and continues to constitute the district capital. Looking into the various reasons why the plan was not able to be executed, the discourse emphasizes that most importantly, as early as 1989, the inhabitants of the old Spitak refused to locate and leave their old city.[68] They spent efforts to build new residential buildings where their old houses had previously stood, and often expanded their tem-

65 Ibid.
66 Ibid.
67 Ibid.
68 Ibid., 284.

porary homes into larger ones, using containers and placing a roof over them.[69] Even if the city was no longer, the remains of it evoked a sense of belonging in the survivors.

Curiously, since such a tendency was observed by the planning agents, two opposing views emerged in the politics around Spitak's reconstruction: one that sought to maintain the new city alongside the old city, and that only sought to build the symbolic new city.[70] Such conflict between agents caused delayed construction and limited the usage of available resources.[71] Reconstruction of new Spitak and establishment of the city centre of old Spitak according to the master plan dated 1990 – was completed around 2011-2012.[72] Today, the peculiarity of the territory lies in the fact that an architectural and urban reading of the built environment reveals to us the process of collaboration and conflict between actors, institutions, various agencies and the international influence in the post-disaster recovery.

Both Skopje and Spitak presents a striking example of a methodology applied to the processes around architectural space in a post-disaster territory. The involvement of international actors, which is political in itself, not only changed the silhouette and character of the city; but also influenced the social structure of it; and was influenced in return. The contrast in the sociopolitical character of the two cities at the time of the earthquake resulted in drastically different urban realities.

Social infrastructure policies

The scope of investigation in Antakya's post disaster architecture is narrowed down further to focus on the infrastructural network of schools. There are a number of reasons for this focus area.

Firstly, any inquiry into a post-earthquake territory concerning architectural space would reveal a set of networks and relations that the architectural object is a part of. Thus, the concern of the investigation cannot only be individual parts of a system but also the larger urban system that establishes the interconnections between the parts to maintain itself.[73] Secondly, the discourse of post-disaster architecture mostly revolves around the problem of shelter, the technological solutions around singular units and emergency frameworks. However, it lacks a focus on larger urban systems, the infrastructural spaces that constitute it and their effects on the recovery process in the long term.

From this perspective, infrastructural systems of the city is a political and social force although often being perceived as neutral.[74] They are a part of policies and strategies of state politics, they constitute politics in themselves by the inclusion of many actors and their interactions, they are affected by disasters and they become a tool for exertion of power, of inclusion, of shelter, care or exclusion. This prompts the need for the study of the politics involved with the provision of infrastructure.[75] The traces of events of disaster, and the transformation of these spaces under pressure helps reconstruct the post-disaster narrative in politico-spatial perspective. In this thesis, the networks of infrastructure are considered as a lens to see the bigger picture.

Thirdly, school space poses a peculiar case in terms of contemporary architectural production. Its politics are plural and dynamic: it is a widespread physical and institutional network, its designated usage imposes and organizes a certain politics of education and socializing, which transforms drastically in the post-earthquake reality into becoming an infrastructure of care, shelter, service and provision of basic needs for victims. The thesis makes an interesting point by the retrospective research it conducts, spanning between today, two years after the earthquake and tracing the policymaking around school spaces from before the earthquake; targeting to uncover the coexistence and entanglement of architecture and politics opposed to the perceived dichotomy between the two fields.

69 Ibid.
70 Ibid.
71 Ibid.
72 Ibid.

73 Alesch and Siembieda, "The Role of the Built Environment in the Recovery of Cities and Communities from Extreme Events" 197-211.
74 Ibid.
75 Alan Latham and Jack Layton, "Social infrastructure and the public life of cities: Studying urban sociality and public spaces" *Geography Compass*. Published June 20, 2019. https://doi.org/10.1111/gec3.12444 (accessed May 13, 2025).

01.3 Storytelling as a narrative approach

A large portion of the thesis is the analysis of the February 6 earthquakes by the presentation of data collected from the reports, documents, interviews, videos and photographic data surrounding the February 6 earthquakes in a comprehensive way. Despite the thesis being written in English, a large quantity of the data on the earthquake itself is from Turkish sources. Several different sources were used including official entities, professional chambers and universities for written data. Visual data was collected from Turkish news sources, social media, and personally through site visits. As the research aims to provide a storyline that connects pre-and post-earthquake realities, it spans over 80 years of history of policies, regulations, processes around earthquakes in Türkiye, and schools in Antakya. Miscellaneous sources such as historical books, reports, official publications and school archives were used for the acquisition of necessary information.

I conducted two field trips to Antakya on June 26, 2024 and May 16, 2025. Both trips, approximately 1 and 2 years respectively since the earthquake showed the amount of devastation and its ongoing impact on people's lives. The trips were critical in order to collect first hand data, talk to locals, photograph the surroundings and reestablishing the necessity of this study. The trips consisted of mostly the analysis and documentation of the school spaces with the help of teachers and school staff. For this reason, the "interviews" during the trips were mostly informal dialogues between me as the author and the teachers, students and other school staff, rather than planned and recorded events.

This thesis adapts a critical way of thinking about architectural practice and its interactions with other systems of the world. Such thinking prompts the usage of architectural representation tools in order to reveal these relationships, parallels, and contradictions unfolding in real time and space. For this reason, data visualisation became an important focal point of the thesis. The data is represented through a mix-and-match of various mappings, timelines, drawings, models, photographs, and written text. This methodology does not limit architectural discourse to drawings; and sociopolitical discourse to text, instead is utilized in this investigation as a way to challenge normative discursive boundaries.

Imaginary design, in the final chapter of this thesis, is utilized for the exploration of current realities and opening up of new possibilities. For this reason, a proper storytelling approach was necessary for the entirety of the thesis. The first four chapters build up the story in their own terms, with the help of data visualisations and structured discourse. In the final chapter, this projection reaches its peak in which an imaginary story takes over the narrative and amplifies the storytelling aspect of the thesis. It displays the speculation of a process in the unfolding of an alternative architectural and political reality that spans between the February 6, 2023 earthquakes and present. The utilization of this methodology prompts the questioning of the social, political, cultural and ethical dilemmas already present in architectural practice, and the possibilities or limitations of architecture in its interaction with such fields.

The evolving of architectural space in time through its engagement with different actors, agencies and policies promotes another way of thinking about architectural production. For this reason, not only another materiality but also another process is designed in this thesis. By rearranging the process, the way actors interact with each other and space, the policies and strategies that have the potential to create new possibilities, an alternative narrative is produced. The space generated by such narrative is, then again, subjected to criticism in regards of the network of systems it constructs and belongs to.

01.4 The plot

Chapter 01 titled *"Introduction: Emerging politics in post-earthquake Antakya"* presents the theoretical and contextual framework which the research question is built through. It reflects on the dynamics of politics and architecture, possibilities and limits of architectural imaginaries, and explores cases of other earthquakes in relation to politics of architecture. It presents data visualisation, storytelling, narrative-building and the exploration of architectural scenarios as methodologies adapted in this thesis, as well as the structure of it.

Chapter 02 titled *"The anatomy of an earthquake: Antakya between then and now"* gives an overview of the February 6 earthquakes and sets it against the context of policies and regulations regarding both urbanization and earthquakes in Türkiye. This contextualization is essential in order to trace the origins of actors, policies and decisionmaking factors that affected the educational network in the aftermath of the February 6 earthquakes. The section also details the aftermath of the earthquake in order to situate the reader in the context of post-earthquake Antakya, and understand the impact of decision-makers and decision-making on physical infrastructure of schools.

Chapter 03 titled *"A spatiotemporal reading: Tracing the school infrastructure"* narrows down the focus of the thesis on the infrastructural network of schools in Antakya. An area spanning 2 kilometers is chosen in the city center of Antakya for investigation, which included 30 schools prior to the earthquake. By the juxtapositioning and superpositioning of the collected text and visual data, the effect of earthquake and urbanisation policies are read through the transformations and alterations in both the infrastructural network and the school spaces themselves. In the end, the post-earthquake process around school spaces in Antakya can be mapped with the help of representational tools of architecture.

Chapter 04 titled *"The school under pressure: A case study"* focuses on one particular school chosen as the case study of the thesis; a vocational school established in 1944 and still one of the most prestigious schools in central Antakya despite losing its original building in the earthquake. The section follows the transformations of this specific school; documenting, mapping, modeling, photographing its physical alterations through time and space and sociopolitical factors involved in such transformations. The author's logbooks #1 and #2 showcase the visits to the school on June 26, 2024 and May 16, 2025 in this section; which help engage with the space and observe the politics that both shaped it and are shaped around it constantly from a closer perspective.

Chapter 05 titled *"Past imaginaries: A scenario for an alternative present"* tells the story of an imaginary situation where the process starting from the February 6, 2023 unfolds differently, and constitutes a new reality in the present. In this section, an alternative process mapping is created with the autonomous imagination of the author, and the architectural design of the case study school emerges from the imagined interactions between actors, institutions, policies and regulations. This section presents itself as a sort of graphic novel, narrated by the architect involved in the designing of the school space. Users' perspectives are also included in order to explore how they could interact with the space in different situations such as education or another emergency- a disaster. Simultaneously with the presentation of the design, comments, reflections and criticisms on it are also included in this narrative. This final section aims to contribute to the discussion of imaginaries as a methodology in architectural practice; while potentially including political and social dimensions in the design process. It also questions the ability or limitations of design practice to solve problems when they are intrinsically linked to more complex, larger world systems which architecture itself is a part of.

02

The anatomy of an earthquake: Antakya between then and now

"Some of the most radical changes to the globalizing world are being written, not in the language of law and diplomacy, but rather in the spatial information of infrastructure, architecture and urbanism."

Keller Easterling (p. 15)

02.1 Urbanization and earthquake policies in Türkiye

In order to situate the most recent earthquake of February 6 and the effects of it in the city of Antakya, the framework around which earthquake prevention, remedation, mitigation and adaptation policies, laws and regulations operate in relation to urbanization in Türkiye needs to be constructed.

Various earthquake regulations have been implemented in Türkiye to date, including 1940, 1944, 1949, 1953, 1961, 1968, 1975, 1998, 2007 and 2018. The regulations have been updated on average every 8 years since 1940, and 10 regulations have come into force in the last 80 years. Each regulation change aimed to eliminate the deficiencies seen in the previous regulation and further increased the technical measures regarding the destructive effects of earthquakes.[1]

The earthquake zoning was included in the regulations for the first time in 1949, which expanded to 4 levels in 1975. Until 1960s, regulations concerning reinforced concrete elements were not detailed enough although the usage of it was increasing.[2] 1975 regulation stood longest, functioning until 1998 for 23 years. While the country was undergoing a process of rapid urbanization, this regulation became one of the main factors shaping the construction in Türkiye at the time. Approximately 900 thousand multi-storey buildings were built during the period between 1975-1998.[3] Although the 1975 regulation does not pose many technical issues, the studies have shown that taller buildings constructed according to it, do not provide the same safety level with a building constructed according to the 2007 regulation in case of an earthquake.[4]

2008 regulations was the first regulation published after the devastating August 17, 1999 Kocaeli earthquake. The records showed that 17,480 people lost their lives and 73,342 buildings were damaged. The devastation of the earthquake resulted in the adoption of the mandatory construction inspection system in 2001 and the mandatory application of ready-mixed concrete in 2004.[5] Although the damage is caused by the

1 Bülent Güner, "Türkiye'deki Deprem Hasarlarına Dönemsel Bir Yaklaşım; 3 Dönem 3 Deprem," *Doğu Coğrafya Dergisi*. 25, 43 (2020): 139-152.

2 Ibid.

3 Ibid.

4 Burcu Aktekin, "1975 Türk Deprem Yönetmeliği'ne Göre Boyutlandırılmış Bir Yapının Güncel Deprem Yönetmeliği Ne Göre Deprem Güvenliğinin Belirlenmesi" Thesis M.Sc., Istanbul Technical University, 2009 as cited in Güner, "Türkiye'deki Deprem Hasarlarına Dönemsel Bir Yaklaşım; 3 Dönem 3 Deprem," 71.

5 Aslı Akdemir and Tuğba İnan Günaydın, "Türkiye Deprem Yönetmeliklerinin ve Deprem Haritalarının Tarihçesi", *Online Journal of Art and Design*. 13, 1 (2025). (accessed June 23, 2025).

disaster, the 1999 earthquake demonstrated that the faults and errors of people amplify the effects of such natural disasters; turning them into catastrophies. The main factor that lead to the irregular, low-quality and even illegal urban construction was the internal migrations towards the larger cities in Türkiye.[6]

In Türkiye, the internal migration and thus the concentration of the population in certain metropolitan areas caused irregular construction between 1950-2000. The migrating population needed shelter, and people found the solution in building informal structures. Over the years, squatters, shantytowns, illegal structures have increased in these larger cities; disrupting the urban texture and creating unhealthy living environments.[7] Amnesty laws started to be applied in Türkiye as early as 1948 in order to prevent problems associated with illegal settlements and zoning.[8] The initial solution of local governments to demolish such spaces was met with the resistance of the communities emerging from those neighbourhoods. As the masses grew in shantytowns, they gained political power as a community that was able to demand property and construction rights due to being potential voters for elections. Such reasons made way for the legalization of these structures through the laws of zoning amnesty, which generally coincided with election periods starting from the first zoning amnesty application in 1948. According to the zoning amnesty, the structures that did not comply with the current legislations would be preserved in terms of their status and location.[9]

Although the amnesties were issued as a solution to the migrated populations' problems, it caused city dwellers to turn to illegal construction with the argument that there would eventually be another amnesty to register their property.[10] The backlash of such regulation was that the number of illegal settlements kept increasing over time. The Ministry of Environment, Urbanization and Climate Change reported in 2018 that the constructions against zoning law corresponds to 13 million in numbers, constituting approximately 50% of the existing building stock.[11]

The most recent amendment that was published in 2018 stated that unlicensed buildings, buildings that are in violation of the license and its annexes within the scope of preparation for disaster risks built before December 31, 2017 would be issued a building registration certificate. Accordingly, buildings that applied for a registration certificate within the scope of the amendment were registered in the system regardless of the safety conditions of the building.[12] Although by law, administrations need to demolish the buildings that pose a disaster risk due to faulty construction and incompliance with technical rules, the amendment did not require such determination; instead, ensuring the structural safety of buildings was left to the building owners' own initiative and responsibility. Within the scope of such regulations, risky constructions that pose a risk to the wellbeing of society was legitimized.

Thus, while the earthquake regulations have been improving in Türkiye over the years, there has been other policies, strategies that made it possible for informal settlements and illegal construction to increase. The following map is constructed in order to link the history of earthquakes in Türkiye with laws and regulations by the decision-making bodies concerning built environment under disaster risk, between 1940-2018. The regulations have been updated depending on new experiences, improvements and technological advancements over the years. The lack of awareness, organization and control on disaster prevention, however, is a factor that affected the urbanization in Türkiye for decades, resulting in the risky, dense cities that are present today. After the earthquake, the policies and regulations carried out in Türkiye over the years have resurfaced based on their relation to the amplified effect of the disaster. The material data, when combined with a retrospective analysis of architectural politics in Türkiye and a reading of the transformations in material and institutional networks after February 6 helps construct the first chapter of an alternative narrative. This narrative juxtaposes and superimposes politico-spatial data to decode the human agency that is often concealed behind the natural disasters as the culprit of catastrophes.

6 Güner, "Türkiye'deki Deprem Hasarlarına Dönemsel Bir Yaklaşım; 3 Dönem 3 Deprem," 139-152.

7 Muhammet Kasparoğlu and Leyla Suri, "İmar Barışı", *Teknoloji ve Uygulamalı Bilimler Dergisi*, 2,1. (2019):47-60.

8 Ibid.

9 Ibid.

10 Ibid.

11 "Yapı Kayıt Belgesi Tebliği" Ministry of Environment and Urbanization of the Republic of Turkey, cited in Kasparoğlu and Suri, "İmar Barışı", *47-60.*

12 Güner, B., (2020), Türkiye'deki Deprem Hasarlarına Dönemsel Bir Yaklaşım; 3 Dönem 3 Deprem. Doğu Coğrafya Dergisi 25(43),139-152

TIMELINE: Türkiye Earthquake Regulations from Past to Present

ABBREVIATIONS

AFAD: Disaster and Emergency Management Directorate

RELATIONS

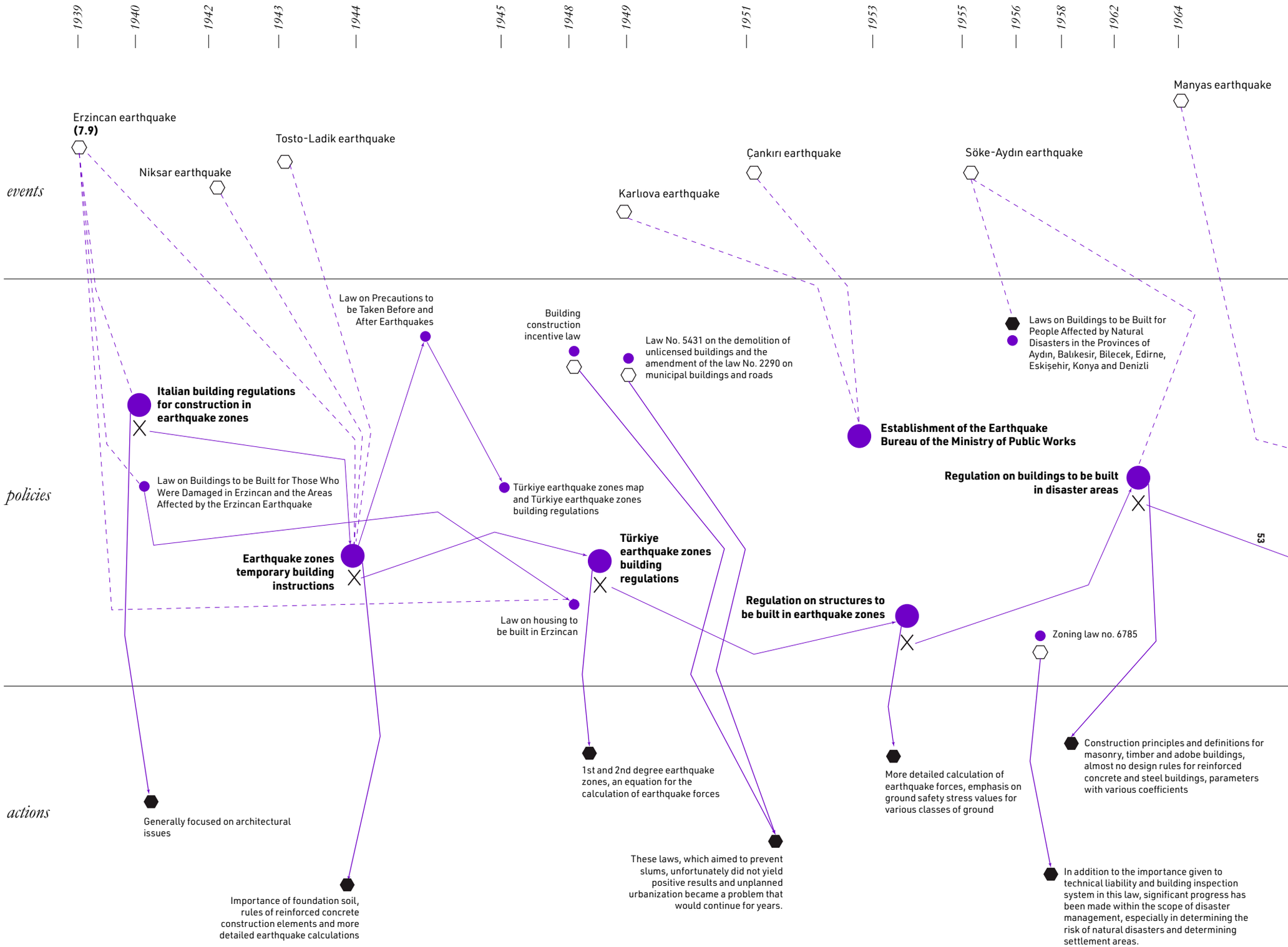
- Direct relation
- Sequential relation
- Indirect relation

EVENTS

- Causal event in the cause-effect chain
- Effect/resulting event cause-effect chain
- Interruption/end of a process

ACTIONS

- Actions of primary importance including governmental actors
- Actions of secondary importance including governmental actors



Source:
Melike Kalkan, "Türkiye'deki Kentleşme Odaklı Afet Politikalarının 1923-2023 Yılları Arasındaki Analizi," Kent Akademisi Dergisi, 16(2023): 544-558.

Aslı Akdemir and Tuğba İnan Günaydın, "Türkiye Deprem Yönetmeliklerinin ve Deprem Haritalarının Tarihçesi", Online Journal of Art and Design. 13, 1 (2025). (accessed June 23, 2025).

1965 — 1966 — 1967 — 1968 — 1970 — 1971 — 1972 — 1975 — 1976 — 1977 — 1983 — 1984 — 1985 — 1992 — 1995 — 1998 — 1999 — 2000 — 2003 — 2005 — 2007 — 2009 — 2011 — 2014 — 2017 — 2018

events

Varto earthquake

Adapazarı earthquake

Bingöl earthquake **(6.8)**

Gediz earthquake **(7.2)**

Çaldıran earthquake

Erzincan earthquake **(6.8)**

Dinar earthquake **(6.1)**

Marmara earthquake **(7.4)**

Düzce earthquake

Bingöl earthquake

Van earthquake

Gökçeada earthquake

Bodrum Kaş earthquake

policies

Establishment of the Earthquake Research Institute

Establishment of the General Directorate of Disaster Affairs

Regulation on buildings to be built in disaster areas

Regulation on buildings to be built in disaster areas

Law on the Execution of Services Regarding the Earthquake Disaster Occurring in Erzincan

Establishment of the General Directorate of Emergency Management in Türkiye with Decree Law No. 583

Regulation on buildings to be built in earthquake zones

Law No. 5377 on Amendments to the Turkish Penal Code

Türkiye building earthquake regulations

Law No. 2805 on the Procedures to be Applied to Buildings Constructed in Contravention of the Zoning and Slum Legislation and the Amendment of an Article of the Zoning Law No. 6785

Regulation on buildings to be built in disaster areas

2000 Decree Law No. 595 on building inspection

Establishment of AFAD

Law No. 7143 on Restructuring of Taxes and Other Receivables and Amendments to Certain Laws

actions

Division of the country into 4 earthquake zones, earthquake force calculations made in detail according to many parameters, previous deficiencies that caused severe damage in earthquakes corrected

With the first use of the concept of "zoning amnesty" in 1984, shantytowns were given legal recognition.

Following the 1999 Marmara earthquake, added a section on determining and strengthening the earthquake safety of existing buildings to the 1998 regulation in force

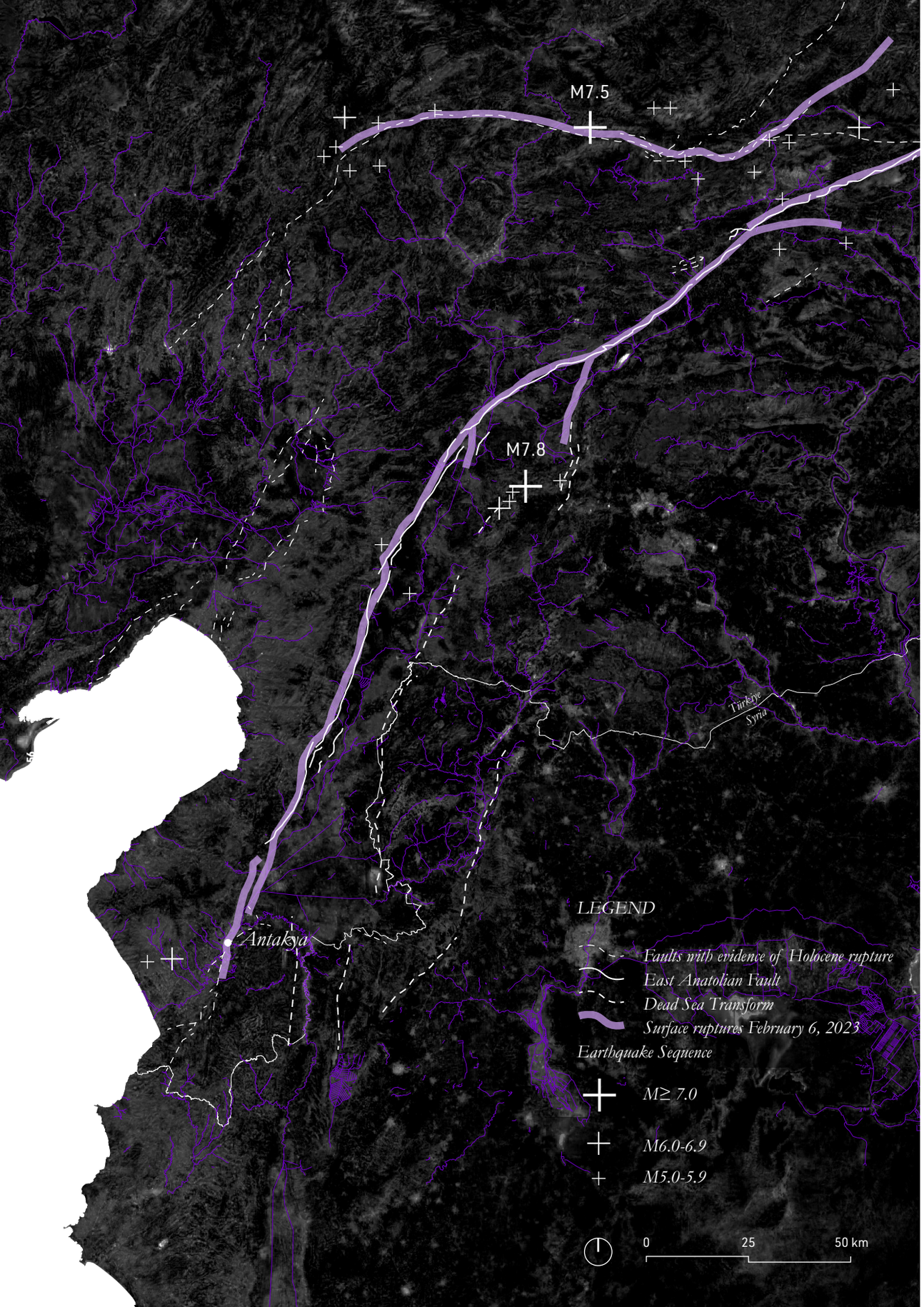
Necessary equations and tables related to earthquake calculation in structural design where developing information and technology is used, significantly more complete for earthquake resistant structural design with the amendments made in 1998, improved ground survey system, increased dimensions of columns and beams

Considering the earthquake zone and ground characteristics where the structure is located, the minimum conditions required for earthquake-resistant design and construction of structures, Update of "Turkey Earthquake Zones Map", which entered into force in 1996, as the "Turkey Earthquake Hazard Map" in 2018. In this map, "hazard" classification was made instead of "risk".

General characteristics of reinforced concrete structural elements and the rules regarding size and reinforcement

The penalties to be applied to individuals who build illegal buildings without a building permit and to municipal authorities that provide infrastructure services to illegal buildings have been abolished.

This law paved the way for buildings constructed without a permit or that do not comply with the permit and its annexes to have building registration documents that replace title deeds.



02.2 Antakya: earthquakes, urbanization and present day

Antakya is a peculiar case study for various reasons. Having existed since 300 B.C., for more than 2000 years, it has a rich history and urban culture that developed over millenia; traces of which are still seen in the settlement plan of the historical core of Antakya.[13] Despite having faced numerous devastating earthquakes, the city stands exactly where it was first established; rebuilt over and over again. Despite accelerated development of building technologies, experience and consciousness about disaster prevention and management in the world; and despite numerous papers, research and warnings towards Antakya's high risk level over the years; the earthquake finally hit the city and left it in ruins. It is the city that was affected the most in the earthquake, despite being in a larger distance to the epicenter compared to some of the other cities. More than two years have passed since the day of the disaster, and Antakya is still in the process of rising from its ashes. The following narrative reveals that the destruction of built environment in Antakya is not a standalone result of a strong earthquake, but a superposition of policies, decisions, strategies, tactics including various agents of architecture, stretched over decades.

Records show that many large earthquakes hit the city of Antioch. One of the earliest in record is one in 115 AD during the reign of Emperor Claudius. There were many causalties and damage on built environment.[14] In 365 AD, 458 AD, and 525 AD, the city experienced devastating earthquakes, which destroyed city walls, monuments, houses, and killed thousands of people.[15] At this point, it was thought that the ancient name of the city brought on bad luck, which was wiped off of documents and replaced with Theupolis, until the Arab conquest when a last hit of an earthquake in 588 AD loosened the city defenses.[16] After Antakya became a part of the Turkish Republic in 1939, Assoc. Prof. Gündüz Özdeş who worked for Antakya Municipality, prepared an urban development plan which was approved on 1st of January, 1957. The plan, in 1:5000 scale,

13 Mert Nezih Rifaioğlu, "An Enquiry into the Definition of Property Rights in Urban Conservation: Antakya (Antioch) from 1929 Title Deeds and Cadastral Plans" PhD. diss., Middle East Technical university, 2012.

14 Edmund Spenser Bouchier, *A short history of Antioch, 300 B.C.-A.D. 1268*, (London: Oxford, 1921) as cited in Rifaioğlu "An Enquiry into the Definition of Property Rights in Urban Conservation", 134.

15 Rifaioğlu, "An Enquiry into the Definition of Property Rights in Urban Conservation", 135-137.

16 Ibid. 137.

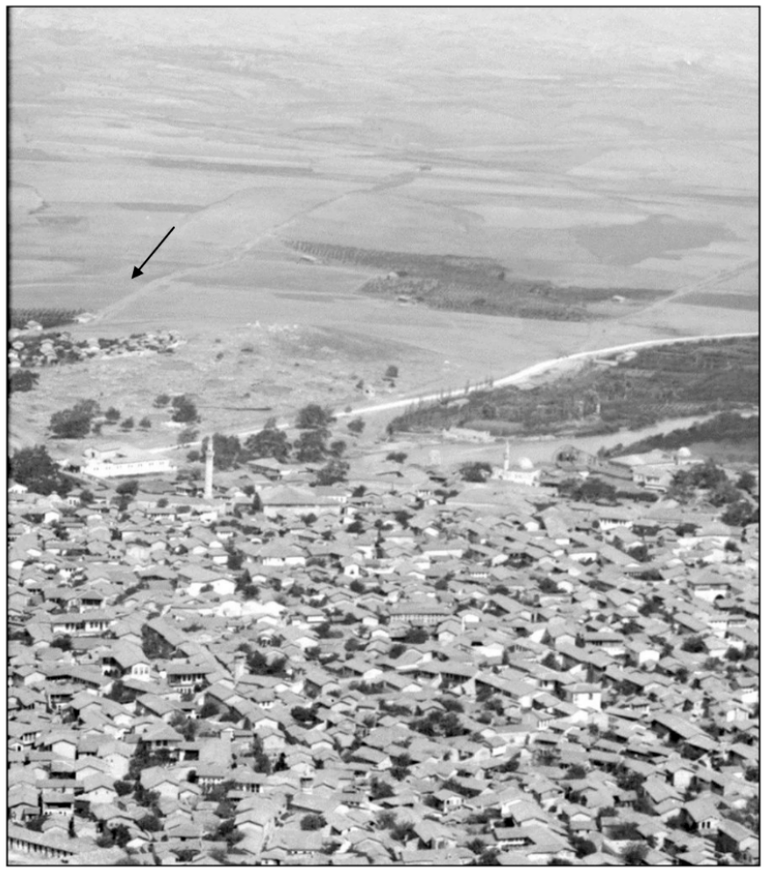


figure 2.1: The new district, highlighted by the arrow.

Mert Nezih Rifaioğlu, "An Enquiry into the Definition of Property Rights in Urban Conservation: Antakya (Antioch) from 1929 Title Deeds and Cadastral Plans" PhD. diss., Middle East Technical university, 2012.

showed the current settlement area, expanding in a southwest direction from the historical core and spreading to the west of Asi River with the later developed region. In the plan, new settlement areas were suggested in the northern part of the historical zone, and in the south, where the Ottoman military barracks still existed. The plan included a new road system that connects the new development area on the west of Asi River to the east, the historical core of the city. [17]

Modern-day Antakya, located partially on the site of the ancient city of Antiochia, is a municipality and the capital district of Hatay Province, located in the southernmost province of Turkey. The current city is divided into two areas by the River Orontes. While the eastern part contains the historic urban core known as "Old Antakya", and recently developed areas especially in the second quarter of the 20th century; the western part's development dates back to the mid-19th century.[18]

Turkey-Syria earthquakes, fifth deadliest earthquake in the 21st century[19], that happened on 6 February 2023 at 04:17 and 13:24 at local time devastated the city of Antakya. The widespread damage and fatalities left behind a ghost city of rubbles. While it was warned that there was a possibility of a damaging earthquake for decades, the previous earthquakes of 1513, 1822, 1872 and 1893 reached estimated magnitudes of 7.0-7.5; which the two events surpassed largely.[20]

The multilayered land structure that Antakya is located in is considered as one of the main factors contributing to the severity of the earthquake.[21] Lake Amik which was located in the north-east of the city provided alluvial soil and fish to Antakya, affording great geographical, economic and strategic importance to the city.[22] The lake had been drained in 1980 by the State Water Administration of Türkiye, being opened as farmland. The draining of Lake Amik caused more fertile land that grew the productive economy of the region.[23] Because of the alluvial soil, the intensity of the earthquake was increased due to more soil liquefaction.[24]

The most urgent need of the disaster victims emerged as the shelter problem. While the number of demolished residential buildings increased because of the authorized demolitions of the heavily damaged buildings, the need for shelter in Hatay still continued to be a problem during the first year of the disaster.[25] In the first year in the aftermath of the earthquake, there were 199 container cities in Hatay, containing 64,317 containers where 169,851 people live.[26]

The necessity to have a multi-dimensional strategic and spatial approach led to research and planning offices being established in Hatay and Istanbul within the scope of the cooperation protocol signed between

17 Ibid. 174.

18 Ibid.

19 Imbach, "The earthquake in Turkey and Syria is the fifth deadliest of the 21st century."

20 Luca Dal Zilio and Jean-Paul Ampuero, "Earthquake doublet in Turkey and Syria," *COMMENT*, 4, 71 (2023), https://doi.org/10.1038/s43247-023-00747-z

21 Filiz Karakuş, et. al. "Evaluation of the condition of Antakya (Antioch) Urban Site after the Kahramanmaraş Earthquake." *Journal of Architectural Sciences and Applications*, 9,1 (2024): 444-467.

22 Rifaioğlu "An Enquiry into the Definition of Property Rights in Urban Conservation", 135-137.

23 Ibid.

24 Hüseyin Korkmaz, "Antakya'da Zemin Özellikleri ve Deprem Etkisi Arasındaki İlişki," *Coğrafi Bilimler Dergisi*, 4, 2 (2006): 49-66.

25 "Antakya-Defne Saha Gözlem Raporu," *HPM*, September 2023. https://hatayplanlamamerkezi.com/tr-TR/pages/yayinlarimiz (accessed May 12, 2025.)

26 "Birinci Yıl İzleme Raporu," *HPM*, February 2024. https://hatayplanlamamerkezi.com/tr-TR/pages/yayinlarimiz (accessed May 12, 2025)

Hatay Metropolitan Municipality (HBB) and Istanbul Metropolitan Municipality (IBB). Hatay Planning Council started to work on post-disaster recovery and development of tools that will allow the people of Hatay to have a say in this process.[27] This collaboration was discontinued in attribution to the local elections that took place May 2023, in which the local government has changed in Antakya.[28] Later, Turkish Design Council (TTV) has been assigned the task for the restructuring of the city center based on the protocol signed between the Ministry of Environment, Urbanization and Climate Change and Ministry of Culture and Tourism, in which TTV established TTV Hatay Design and Planning Cooperation Group that includes 34 national and international architectural offices in the process. [29]

The first few months after the earthquake were especially challenging for Antakya, where many social services were disfunctional due to building damage, loss of lives and migration to other cities. The number of students residing in Hatay, which was 434,446 before the earthquake, dropped to 396,953 in the aftermath of the disaster.[30] Data retrieved in the first months of the disaster showcase the level of damage on the infrastructure of the city; the school network being one of those most affected.

On March 21, the then Minister of National Education stated that the schools that received a structural report of durability started educational activities in the earthquake zone. On April 14, only three container schools were announced to be built in Antakya, Kırıkhan and Samandağ. Afterwards, many organizations such as banks, associations, NGOs and volunteer groups started taking initiatives and developing projects regarding educational incestments on the earthquake zone.[31]

8 months after the earthquake, the results of the completed damage assessment was shared at the On-Site Transformation Information Meeting held by Hatay Governorship. The assessment revealed that out of 1045 school buildings in Hatay, 14 schools were either demolished or in urgent need of demolishion, 196 were heavily damaged, 160 were moderately damaged, 399 were slighly damaged and 636 were undamaged. Additionally, the number of classrooms in Hatay, which was 15,724 before the

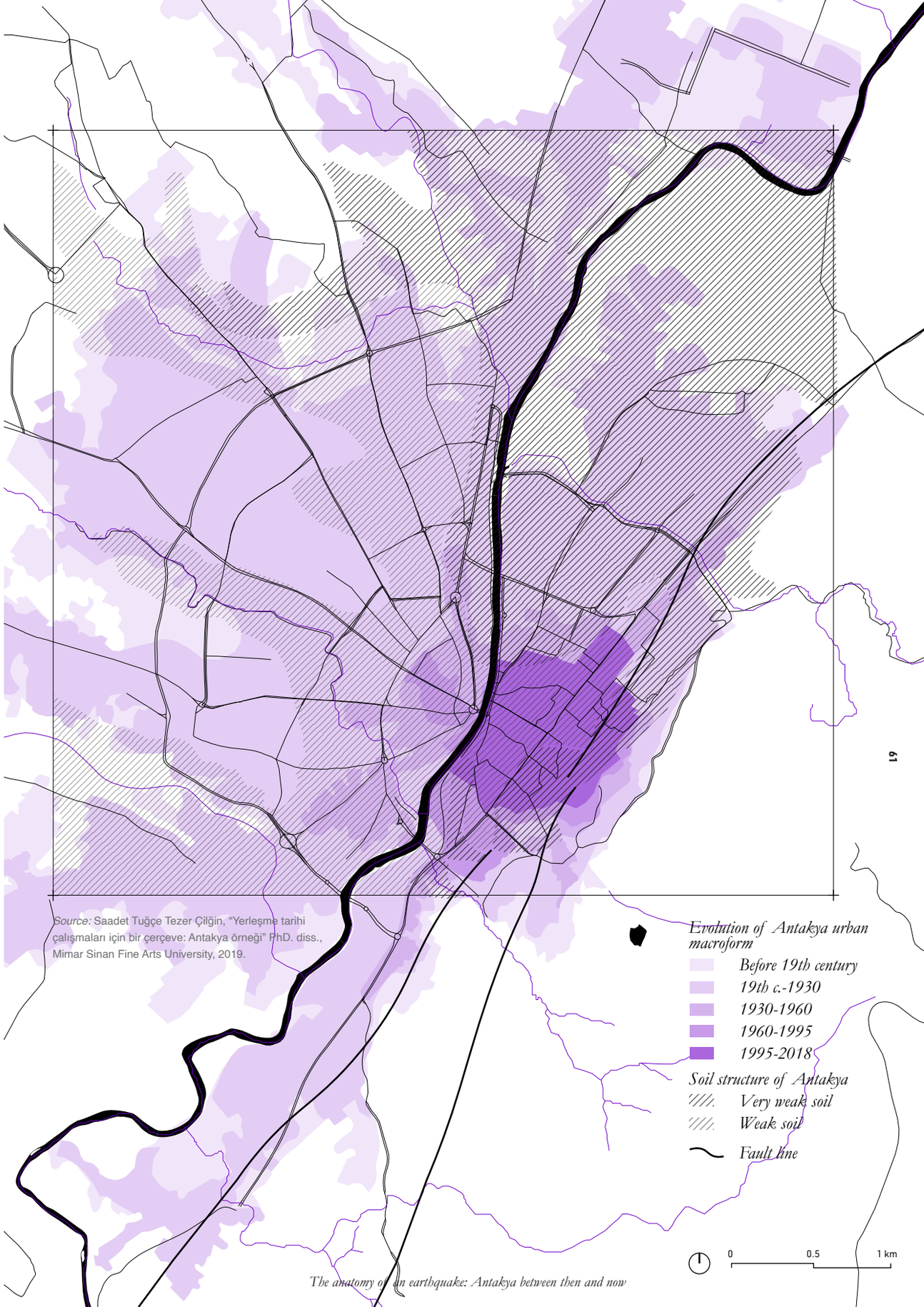
27 "Hakkımızda," *HPM*, https://hatayplanlama-merkezi.com/tr-TR/pages/hakkimizda (accessed May 12, 2025)

28 "Sandık sonuçları ve tutanaklar" *YSK*. https://acikveri.ysk.gov.tr/ (accessed May 12, 2025)

29 "Hakkımızda," *TTV Hatay*, https://ttvhatay.com/hakkinda (accessed May 12, 2025)

30 HPM, "Birinci Yıl İzleme Raporu."

31 Ibid.



Source: Saadet Tuğçe Tezer Çilğin, "Yerleşme tarihi çalışmaları için bir çerçeve: Antakya örneği" PhD. diss., Mimar Sinan Fine Arts University, 2019.

earthquake, decreased to 8,045. This meant that 45.4% of the classrooms became unusable.[32]

The effects of disasters on micro-scale, on the daily life of the society are not easily communicated through macro-scale data and numbers. While the earthquake negatively affected many aspects of the city and society in Hatay, the educational network is both one of the infrastructural systems most affected by the earthquake, and also one in which the process after the earthquake can be read through political, social and spatial changes. Zilio and Ampuero mention the importance of providing social assistance and protection for the vulnerable, strengthening of public services in the earthquake zone, rebuilding of health and education services, and expansion of psychosocial support.[33] Therefore, it is firstly crucial to understand the existing grounds in which whether such services can operate or not in post-disaster Antakya.

The next section studies the school network in Antakya more in depth, and aims to investigate the dynamics between pre-existing and post-disaster politics, processes, actors and material repercussions of post-disaster alterations in the educational infrastructure.

32 Ibid.

33 Zilio and Ampuero, "Earthquake doublet in Turkey and Syria."

figure 2.2: The Municipality building on the right, and the *Agricultural Bank on the left.*

Rifaioğlu, "An Enquiry into the Definition of Property Rights in Urban Conservation."

figure 2.3: The city development towards İskenderun.

Rifaioğlu, "An Enquiry into the Definition of Property Rights in Urban Conservation."

03

A spatiotemporal reading: Tracing the school infrastructure

figure 3.1: Fevzi Çakmak Elementary School (Ecole des Soeurs)

HatayTube on X (accessed May 20, 2025.)

"The school today is no longer a building where we accidentally spend a period of our lives; it is a nucleus around which the life of the whole collectivity orbits."

Giancarlo De Carlo[1]

In order to understand the transformations that school space undergoes in disasters, the social dimension of school as a semi-public facility belonging to its urban context should be explored. In fact, this dimension is what determines its usage, even when it fails to serve as an educational facility.

'Social infrastructure', which schools and other educational facilities are a part of, is defined as spaces that provide a physical space, structure and system to facilitate an activity necessary for social, economic, cultural, and political life to happen while promoting sociality at the same time. Social infrastructures exist within the context of existing structures of provision;[2] as such, each school building is a part of an established educational network. It is a place in which activities of teaching/learning can operate; through a system that involves classrooms, laboratories, and ateliers together with other spaces that support the function of the facility.

The discourse on social infrastructure involves seeing the social aspect of the different kinds of facilities necessary for cities to function.[3] Publicness of these spaces, as a school space exemplifies, is also not singular. It is a place for public interest; it provides educational service to a group of students. It is public in the sense that students are involved in a public sphere in which they interact with other people. It is also a part of public provisioning; it is a place designated for public use. The multidimensional public quality of the space does not make it the opposite of private; in fact, the publicness of the school depends on who the users are.[4]

1 Adam Wood, "Giancarlo De Carlo's Concept of Architecture – a Powerful and Inclusive Tool for Thinking about Educational Space," *Histories of Postwar Architecture*, 2019, 5: 64-75.

2 Latham and Layton, "Social infrastructure and the public life of cities," 3.

3 Ibid.

4 Elizabeth Anderson, *Private government: How employers rule our lives (and why we don't talk about it).* (Princeton: Princeton University Press, 2017) as cited in Latham and Layton, "Social infrastructure and the public life of cities."

03.1 School network in Antakya before disaster

This chapter presents the timeline in which the school network is constituted in Antakya/Hatay, institutionally and physically.

Modern education in Hatay started during the Mandate period between 1919-1939 when Hatay was under the rule of France. An undersecretary as the representative of the high commissioner was appointed to the Hatay region. To take care of educational affairs within the Undersecretariat, the Directorate of National Education was also constituted. Many schools have been established during the Mandate for Turkish and foreign students ranging from pre-school level to high school level.[5]

Since Hatay joined Türkiye in 1939, the population has increased exponentially, due to the migration to cities and higher fertility rates; resulting in urban development in the larger provinces in Hatay, such as Antakya and İskenderun. The quality and quantity of public services have increased since then, including educational facilities. Many reforms that have aimed at refining the quality of education and increasing the school enrollment rate by making education more accessible in lower-income and rural regions of Türkiye have been put in action by the Ministry of Education in compliance with the Development Plans shared by the Presidency.[6]

The rules and regulations that control how school buildings should be built in Türkiye have also changed and been developed over time. Since the establishment of Turkish Republic, Directorate of Construction and Real Estate affiliated with the Ministry of Education prepares and implements the projects for the school buildings, sometimes by the request of the Governorship in the related province. Including in Hatay since 1939, type plans for elementary, middle and high school buildings have been prepared and applied to the modern schools built around the city by the Ministry.[7] The aim was to create a set standard for this widespread network of public service that is used by almost all residents of the city. The type projects previously used by the Ministry have failed to foresee the rapid population growth and migration to some regions, and could not adapt to the new practices that were made in the system, such as 8-year uninterrupted education.[8] This resulted, together with technological advancements in the construction industy, in the continued revision of these plans.

"%100 Support to Education" project launched by the Ministry in 2003 has underlined the necessity to design school buildings that comply with the present and future needs of education. They also state that the OECD-PEB (Educational Buildings Programme) that the Ministry have been participating has determined the "Seismic Safety of Educational Buildings" as an important issue and therefore, it was aimed to pass the seismic safety test of all approximately 200 million m² school buildings in Turkey as soon as possible.[9] 19 years later, the devastation of school buildings in the February 6 earthquakes suggest that the targeted number may not have been reached.

The latest type projects for schools have been published in 2024. The Ministry underlines that while the type plans are not compulsory to be applied exactly, they are developed to create a set 'quality standard'. The legislation, however, states that all school buildings must comply with the standards of educational structures set by the Ministry; including earthquake, fire, and energy performance, zoning, car park and accessibility regulations.[10] While the risk awareness and improved standards have resulted in better seismic performance of recently built school buildings; it should be kept in mind that most of the building stock in Türkiye, including school buildings, are built before 2000; making them vulnerable to seismic risk.

In Türkiye, Ministry of National Education is responsible for the schools to be built, the real estates where the schools will be built, the project and costs.[11] While schools have always been constructed under the control of the Ministry of Education, the property ownership and rights of the school buildings remaining until today from the French Mandate and early Republic also includes other units of the National Government because of their historical value.

5 Mustafa Şahin, ""Cumhuriyet Döneminde Hatay'da Eğitim," *Belgi Dergisi*, 2, 24 (2022): 43-59. 10.33431/belgi.1057507

6 Ibid.

7 Ibid.

8 İsmail Aydoğan, "Okul Binalarının Özellikleri ve Öğrenciler Üzerine Etkileri," *Milli Eğitim Dergisi*, 42, 193 (2012): 29-43.

9 Ibid, 40.

10 "Eğitim Yapıları Asgari Tasarım Standartları Kılavuzu," MEB, https://iegm.meb.gov.tr/www/egitimyapilari-asgari-tasarim-standartlari-kilavuzu-2015/icerik/298 (accessed June 24, 2025)

11 "Milli Eğitim Bakanlığının Teşkilat ve Görevleri Hakkında Kanun Hükmünde Kararname," *Official Gazette*, September 14, 2011, https://resmigazete.gov.tr/eskiler/2011/09/20110914-1.html (accessed July 1, 2025.)

Located in the historic city center of Antakya, Ecole des Soeurs (Fevzi Çakmak Elementary School), which served as a high school during the first years of the Mandate is one example of such cases. As the structure of this school was registered with the decision of the Immovable Cultural and Natural Assets High Council dated 15.11.1985, it was included in the Urban and 3rd Degree Archaeological Site. Therefore, the property of the school belonged to the Treasury of Finance, while it was allocated to the Ministry of National Education as an educational facility.[11]

The first high school in Antakya, Antakya High School (1913) and Antakya Vocational School (1944) was also located within the designated Urban and 3rd Degree Archaeological Site; therefore they also became registered buildings.[12]

Today in Hatay, the school enrollment rate is 93,58 for elementary, 89,17 for middle school, 84,09 for high school education.[14] As urbanization advances, new schools are established around the city centers; promoting the real estate boom that has accelerated in Türkiye in the recent decades. Currently, there are 2.109 schools registered in the Ministry of Education in Hatay province, 394 of which is in Antakya.[15] A large quantity of these schools in Antakya are located in the 2 km distance around the city center, built in varying years starting from 1910s to the present day.

The parts of a whole

While the quantity of schools are on steady increase, the quality of school space have also been made the point of discussion. School space is not only a concrete structure of classrooms that children sit in for eight hours a day, but also a social space that needs to promote quality education, interaction amongst peers, and safety.

The physical ecosystem created by the school environment inside its boundaries have a mutual relationship with its urban surroundings. The schools, ultimately, are public spaces not only where students receive

12 Mert Nezih Rifaioğlu, "Antakya'da Fransız Mandası Dönemi Eğitim Yapısının Oluşum ve Dönüşüm Sürecinin Mimari Analizi," *TÜBA-KED*, 2020,21: 72-89. doi: 10.22520/tubaked.2020.21.004

13 Mert Nezih Rifaioğlu, "The Historic Urban Core of Antakya under the Influence of the French Mandate, and Turkish Republican Urban Conservation and Development Activities," *MEGARON*, 9,4 (2014): 271-288, doi: 10.5505/MEGARON.2014.36036

14 "Milli Eğitim İstatistikleri, Örgün Eğitim 2023-2024," MEB, https://sgb.meb.gov.tr/www/resmi-istatistikler/icerik/64 (accessed June 24, 2025.)

15 Ibid.

figure 3.2: Yıldız-Selahattin Mıstıkoğlu Vocational High School

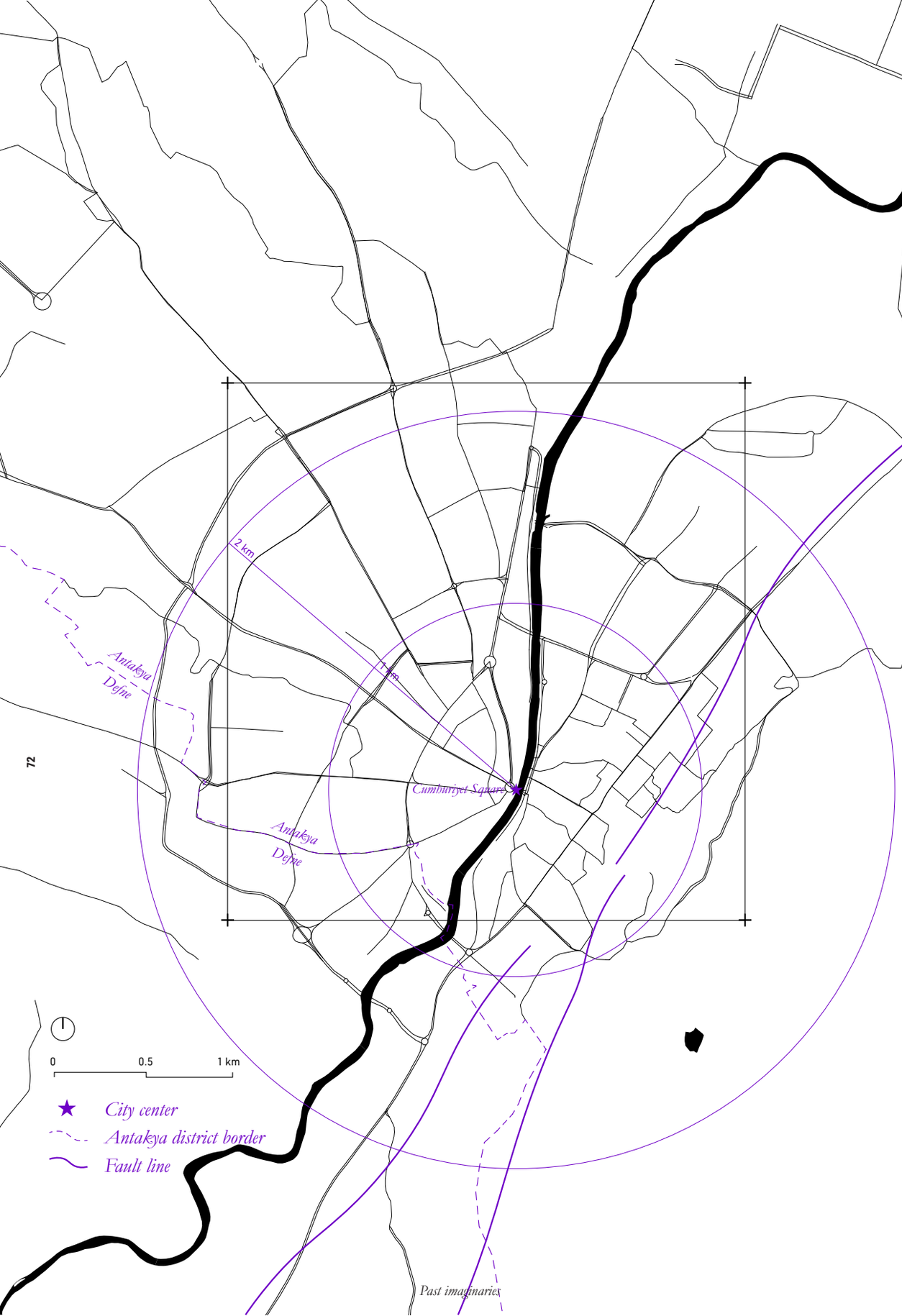
https://ysmistikogluktml.meb.k12.tr/

figure 3.3: Fevzi Çakmak Elementary School (Ecole des Soeurs)

https://antakyafevzicakmakio.meb.k12.tr/

education but also spend one third of their days for at least 8 compulsory years. In many cities of Türkiye, it can be observed that school spaces are one of the few open public spaces in a neighborhood where students and parents can interact with each other and other neighbors. In this sense, school spaces are often treated as community hubs that can strengthen the neighborhood relations.

Thus, understanding the pre-existing conditions surroundings the school network and their place as a social infrastructure in a neighbourhood plays a key role in forming a framework that sees school grounds as more than mere educational institutions, and acknowledging the reasons behind the transformations of school spaces, their functions and occupants after the earthquake.



Investigation area

The selected area is the city center of Antakya, taking Cumhuriyet Square as the focal point in which a 2 km circle is drawn from. Such limitation is important in order to understand the processes that happen in the area that suffered the most extensive damage in the February 6 earthquakes. The old town that occupies the left side of the Asi River (River Orontes) is developed on top of the Ancient Roman ruins of Antioch, where the city has been founded in 300 B.C.[16]

Since then, Antioch has been an important settlement of the levant,[17] being used as an administrative and commercial center of the province by many civilizations, including in the Ottoman period, despite coming down to ruins multiple times in the past due to the severity of earthquakes.[18]

Years under the French Mandate has resulted in urban development on both eastern and western banks of the Asi River. In this period, educational facilities have also been established by France. The first high school of Antakya, Antakya High School has opened in 1913 on the west side of the river, while Ecole des Soeurs (Fevzi Çakmak Elementary School) was located in the old town. [19]

16 Rifaioğlu, "An Enquiry into the Definition of Property Rights in Urban Conservation", 135-137.

17 **"Levant, (from the French lever, "to rise," as in sunrise, meaning the east), historically, the region along the eastern Mediterranean shores, roughly corresponding to modern-day Israel, Jordan, Lebanon, Syria, and certain adjacent areas.** The Editors of Encyclopaedia Britannica. "Levant." *Encyclopedia Britannica*, June 13, 2025. https://www.britannica.com/place/Levant (accessed July 1, 2025.)

18 Rifaioğlu, "An Enquiry into the Definition of Property Rights in Urban Conservation", 135-137.

19 Rifaioğlu, "Antakya'da Fransız Mandası Dönemi Eğitim Yapısının Oluşum ve Dönüşüm Sürecinin Mimari Analizi," 72-89.

After Hatay joined Türkiye as a city, Cumhuriyet Square and the public buildings around it started to develop on the west bank. This resulted in an acceleration of the rapid urbanization that smaller Turkish cities has experienced after the First World War. Gradual expansion of the urban area resulted in many schools to be established on both sides of the river over the years.[20] In this sense Cumhuriyet Square, in addition to being a material connector between the west and the east bank, also symbolizes the rapid development, population increase and migration to city centers. This resulted in an urban expansion that Turkish Republic, and in extension Antakya, experienced in its early years.

School space plays an important role as social infrastructure in dense city centers, such as Antakya, that have been victims of the rapid urbanization as a result of the real estate boom in the recent decades in Türkiye. The uncontrolled sprawl and the formation of slum neighbors resulted in decreased urban quality and worse living standards with less open and public space provided for the residents. In this sense, schools formed an extensive network around the city center that potentially provide social services and open, public spaces to an extent.

The 2 km circle around the designated city center of Antakya district where Cumhuriyet Square is taken as the focal point, has suffered extensive damage. Due to being in a 2 km distance to the fault line, and as a result of the soil liquefaction during the earthquake because of the proximity to the riverbed; poorly made buildings either immediately collapsed or were heavily damaged.[21]

School buildings also suffered damage. The severity of the damage depended on many factors such as the construction year, the materials and techniques used, the earthquake regulations applied to the building and to what extent, the proximity to the faultline and the riverbed. While the lack of data makes it hard to make assumptions on the reasons why, it is observed that the damage was to such an extent that it was not possible to use most of the school buildings in the 2 years that passed since the earthquake.

20 Mert Nezih Rifaioğlu, "The Historic Urban Core of Antakya under the Influence of the French Mandate, and Turkish Republican Urban Conservation and Development Activities," *MEGARON*, 9,4 (2014): 271-288, doi: 10.5505/MEGARON.2014.36036

21 Korkmaz, "Antakya'da Zemin Özellikleri ve Deprem Etkisi Arasındaki İlişki."

figures 3.4, 3.5: Close-up of the school buildings in the selected dense neighbourhoods

Google Earth (accessed on April 8, 2025.)

The area included 30 schools officially registered in the Ministry of Education providing pre-school, elementary school, middle school, high school and vocational school education before the earthquake.

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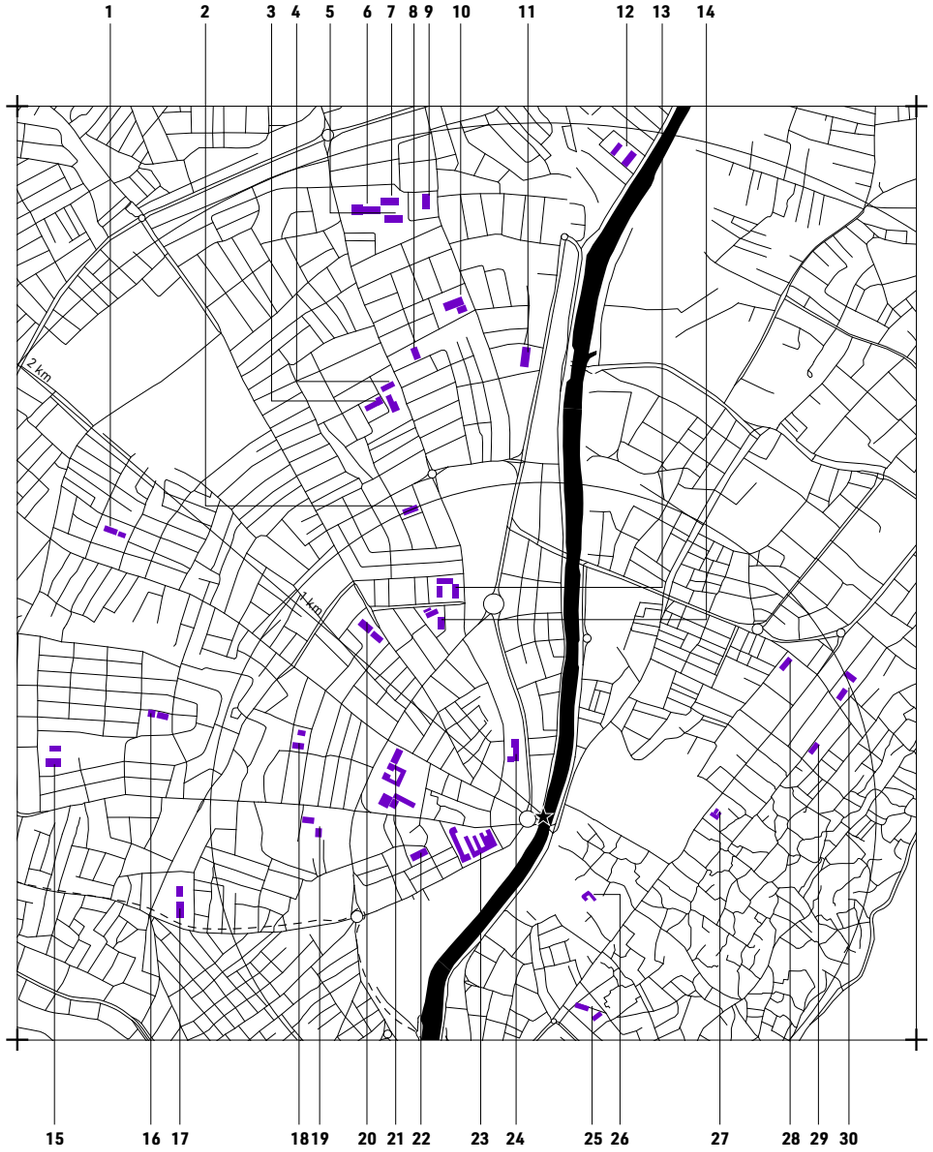
★ *City center*

Antakya district border



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★ *City center*

Antakya district border

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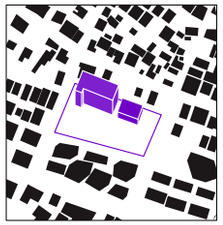

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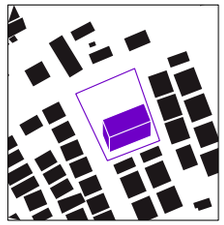

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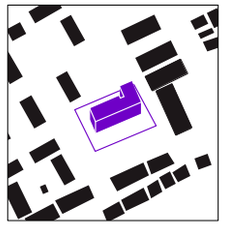

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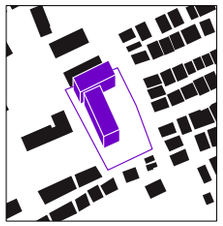

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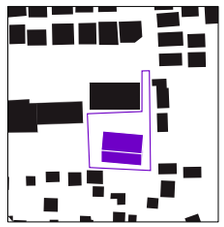

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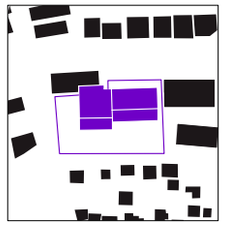

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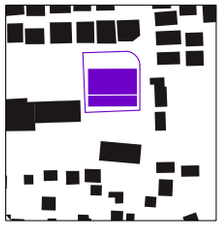

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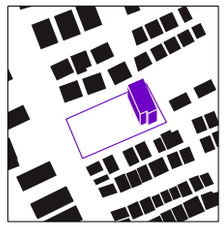

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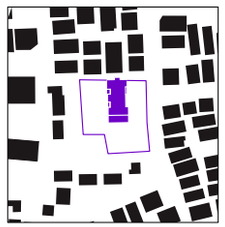

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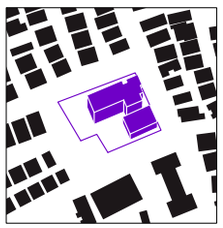

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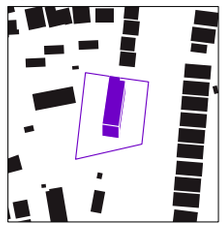

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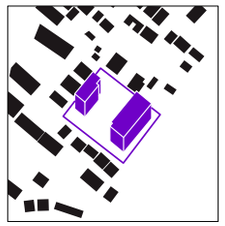

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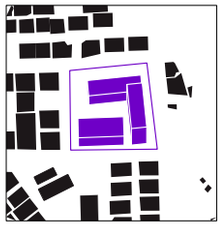

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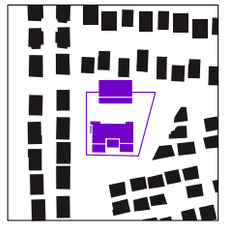

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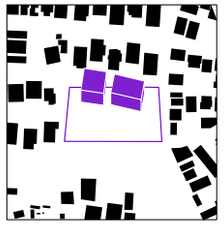

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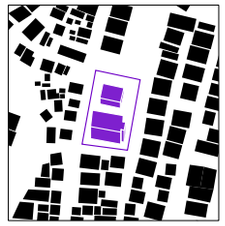

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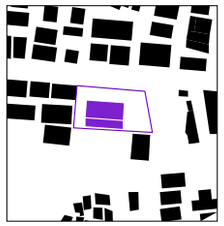

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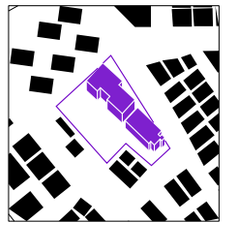

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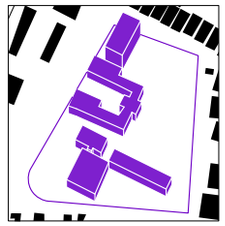

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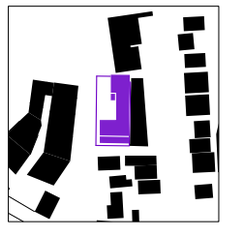

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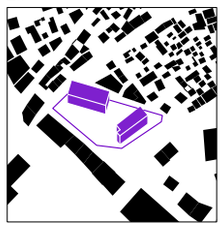

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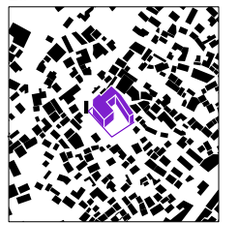

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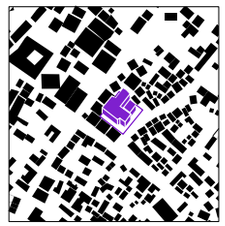

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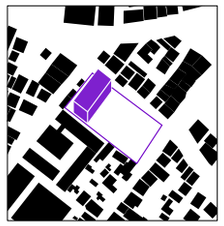

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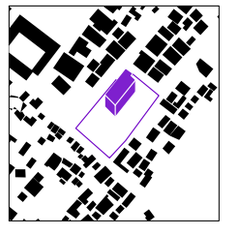

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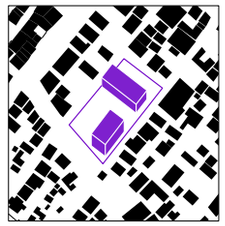


The network of actors

School grounds are productions of the established networks between governmental institutions, persons, agencies and policies, and they potentially generate new networks among actors and users. All public schools in Türkiye are associated with the Ministry of Education (MEB), which oversees all works related to education in the country. Ministry regulates where and when schools will be established, the curricula, the academic staff and the school administration. The Ministry is also in charge of the projects, plans and construction of schools, by Construction and Real Estate Directorate (İEGM) affiliated with it. In this sense, the central governing body is involved in the local physical and institutional network around the schools through the Provincial Directorate of Education, established for each city and province.[22]

On top of the regulations and urban transformation projects by the national government, the municipal law recognizes some rights to the local government. Accordingly, municipalities are allowed with parliamentary decision to carry out works for residential, commercial, technological, public service, recreation areas and all kinds of social facilities, restoration of worn out urban areas, protection of the historical and cultural tissue, and urban transformation and development projects in order to mitigate earthquake risk.[23] In this sense, municipalities are responsible to make use of the rights given to them when necessary.

In Türkiye, school construction projects might be initiated by philanthropists. Such ventures are encouraged by the Ministry of Education. In most cases, legal and government affiliated entities provide capital for the public buildings. It can be covered from Ministry's or Municipality's own budget or from their revolving fund revenues. For the philanthropist to be able to claim rights to the school, they need to provide either the plot for the school or cover 51% of the construction cost.[24] The philanthropists, by covering a large cost for the construction of the school provides for a large part of the funding necessary for the school construction. They also become affiliated with the school and might visit school in order to see the conditions, meet the students and

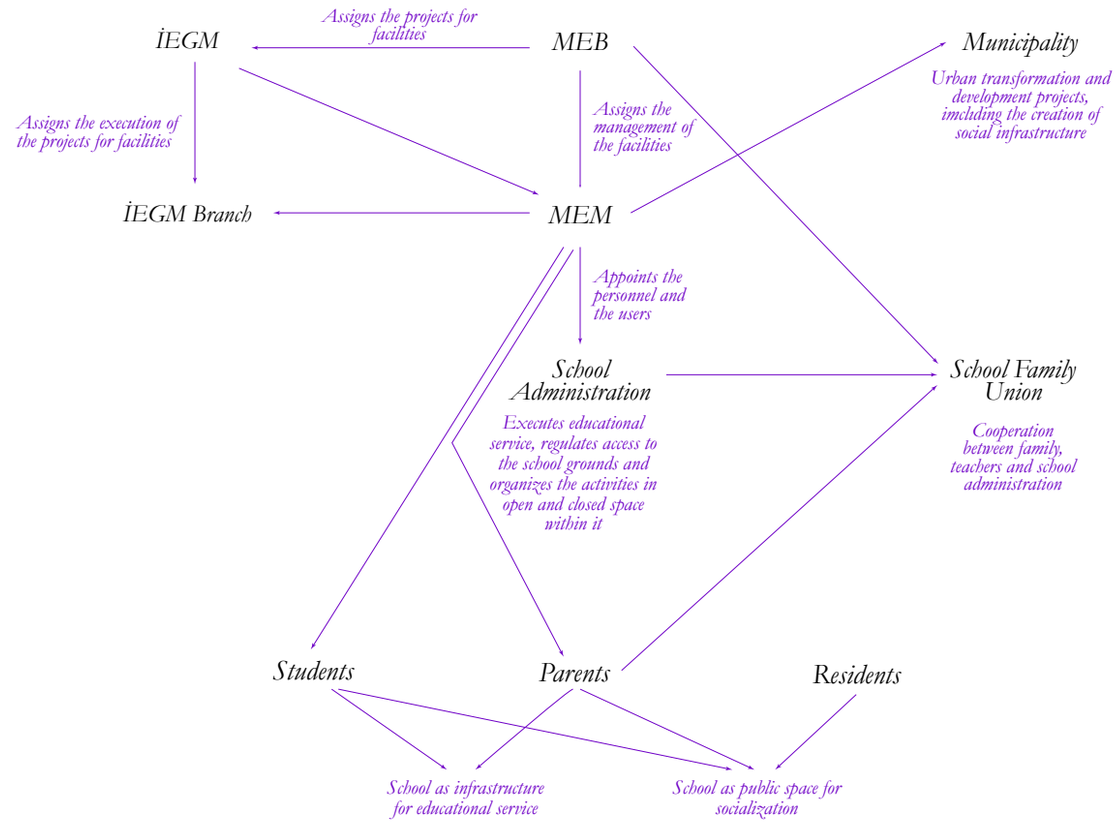
22 Official Gazette, "Milli Eğitim Bakanlığının Teşkilat ve Görevleri Hakkında Kanun Hükmünde Kararname."

23 "Mimarlar Odası 6 Şubat Depremleri Raporu - 2," TMMOB, https://www.tmmob.org.tr/ (accessed June 24, 2025.)

24 "Hayırseverler Yatırımları ile İlgili İş ve İşlemler," MEB, https://iegm.meb.gov.tr/ (accessed June 24, 2025.)

MAPPING THE RELATIONS: Actors around the school space

Diagram of relations between actors, users, and processes around the school space in Türkiye



Abbreviations

MEB: Ministry of National Education
MEM: Provincial Directorate of Education
İEGM: Construction and Real Estate Directorate

join events prepared by the school. There are cases in which they also give scholarships to students in need when seen suitable.

The school administration, appointed by Provincial Directorate of Education (MEM), is responsible from all curricular and extracurricular activities concerning the specific school. In order to create cooperation between families, school administration and teachers, School Family Unions are formed in each school by the incentive of Ministry of Education. These unions involve a number of parents, teachers and school administration as members and provide collaboration and communication between the actors in matters concerning the wellbeing of students and quality of teaching. Active participation of the families in school matters and interaction between actors and users reinforces the idea of school space as a social infrastructure.[25]

Additionally, as schools belong in the urban context they are in, they can not be thought seperately from beyond their school grounds. Facilities that are necessary to provide in Turkish schools result in large school spaces, not only limited to classrooms but also conference halls, libraries, sports halls, a large outside space used for playground, sports activities, events that often draw attention and involve the residents of the local community. National holidays, graduations and other events including sports commonly takes place in school playgrounds. Such spectacles are often subject to outside interest, and schools take advantage of the interest to school by actively inviting parents and the local community to these events, in hopes that it would increase the enrollment to the school in the upcoming school year. Nevertheless, as studied by Wilson (2013), the playgrounds of schools can be places where parents meet and socialise in ways that they might not do so in other social settings.[26]

Schools are public institutions affiliated with governments, thus they also have the responsibility to respond to different situations. An example of such situation is elections, which are conducted in schools on weekends. Since they do not provide for urgent and more vital services such as hospitals or governmental institutions, schools make

25 "Okul-Aile Birliği Yönetmeliği," Milli Eğitim Bakanlığı, https://mevzuat.meb.gov.tr/dosyalar/1532.pdf (accessed July 1, 2025.)

26 Helen F. Wilson, "Collective life: Parents, playground encounters and the multicultural city." *Social and Cultural Geography*, 2013, 14: 625–648. https://doi.org/10.1080/14649365.2013.800220 as cited in Latham and Layton, "Social infrastructure and the public life of cities."

10

figure 3.6: Residents watching the football game in the school from outside, November 2022

Google Street View (accessed on April 10, 2025.)

them the logical choice for elections as public facilities, because of their accessibility to the participation of as many voters as possible.

It is worthwhile to mention that the school network as an accessible and widespread social infrastructure brings shortcomings and difficulties of the central operation of such network. The Ministry organizes the curriculi, sets standards for the physical space of the school; and on the operational level, each school is affiliated with the local Provincial Directorate of Education.[27]

It should not be forgotten that schools are as context-bound as all other elements of the built environment. Taking Antakya as an example, the schools in different neighbourhoods differ in their physical quality, usage, size, and other functions. For example, as new schools are constructed on the outer spheres of the city, the schools in the city center have lower physical quality. These schools are mostly from 80s and 90s, if not older; have deteriorated over time and often do not respond to student needs with their poor conditions.

This is better examplified by assessing the level of damage that the schools suffered in February 6 earthquakes. As the data suggests, most of the buildings that collapsed are built before 2000s, and the same case is witnessed in school buildings in the city center of Antakya. [28] The poor conditions of older schools have resulted in them being unable to serve as public facilities that need to function in an emergency situation.

27 Official Gazette, "Milli Eğitim Bakanlığının Teşkilat ve Görevleri Hakkında Kanun Hükmünde Kararname."

28 TMMOB, "Mimarlar Odası 6 Şubat Depremleri Raporu - 2."

03.2 School network in Antakya after disaster

The Turkish Constitution grants the President the executive power to declare the state of emergency, which is put into effect through the approval of the Turkish Grand National Assembly. With the state of emergency, the government has the authority to make quick decisions without having to wait for bureaucratic or legislative processes. Suspending education in all levels of public and private educational institutions during a set time period becomes possible with the declaration of the state of emergency. On February 9, the state of emergency for 3 months was declared for the 10 cities affected by the earthquake.[29]

Due to the urgency of aid needed in the aftermath of the disaster, all educational activities in Türkiye were paused until February 20. The Ministry of Education has declared that although such decision was taken, all schools in all provinces, especially in the 10 affected cities would be kept open to serve the citizens for accommodation and providing meals to the victims.[30] Utilizing all public facilities in good condition for basic needs was the necessary action as the severity of February 6 earthquakes have brought down all functions of the city in a day. The crisis desk formed by governorship Disaster and Emergency Management Directorate (AFAD) was unable to respond to the sudden huge demand for shelter and basic amenities for thousands of people, amongst the collapsed infrastructure of buildings, roads, hospitals, emergency and first aid units.[31]

For thousands of people, shelter was the most urgent need. From among the scarce amount of buildings that managed to stand, school grounds were the most suitable of all to serve as such. In the first a few crucial days in the aftermath of the earthquake, shelter became a huge problem. The establishment of an organized tent city or container towns by officials did not start until the third day of the earthquake.[32] In this time of paralyzing crisis, people seeked shelter in any open space they could find, including the playgrounds of the collapsed schools.

29 "Kahramanmaraş depreminin ardından OHAL ilan edilmesi ne anlama geliyor?" *BBC Türkçe,* February 7, 2023. https://www.bbc.com/turkce/articles/c72zwdw2328o (accessed June 25, 2025.)

30 "Depremin Ardından Yarın 71 İlde Eğitim Öğretim Başlıyor," *MEB,* February 19, 2023. https://aok.meb.gov.tr/depremin-ardindan-yarin-71-ilde-egitim-ogretim-basliyor/haber/29112/tr (accessed June 25, 2025.)

31 TMMOB, "Mimarlar Odası 6 Şubat Depremleri Raporu - 2."

32 Ibid.

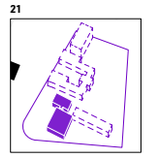


figure 3.7: Antakya High School after the earthquake, built 1913.

TRT Haber, https://www.trthaber.com/foto-galeri/110-yillik-antakya-lisesi-depreme-dayanamadi/54704/sayfa-9.html March 11, 2023. (accessed on February 21, 2025.)

There was a large number of people sleeping in cars or makeshift tents inside the school grounds, in parks, and on the street.[33]

The lack of formal and informal data about schools as shelter suggests that in the investigation area, it was not be possible to stay inside the school buildings until the stability of the building was determined. In any case, the continued aftershocks deterred people from staying anywhere closed except from tents and containers. As officials started to create the temporary settlements outside of the town starting from the third day, the number of people staying in open spaces or public facilities gradually decreased.[34]

It is mentioned in reports and articles[35,36] that from the first months of the disaster that witnessing the devastation of public buildings that people critically need and are supposed to use after the earthquake caused panic and hopelessness among the survivors who needed shelter and basic needs provided, as well as stalling the recovery efforts tremendously as necessities such as hospitals, emergency units, transportation and communication infrastructure collapsed.

There was also extensive collapse of physical infrastructure; such as highways that got damaged and the narrow network of roads in the city center being blocked by the rubble of thousands of collapsed apartment buildings; resulting in rescue efforts arriving later than needed and even making it impossible to reach aid to some places for days.[37]

Nevertheless, the extensive network that schools form managed to sustain some sort of an infrastructure to support the earthquake victims in the time of dire need, and still are an important key factor in the recovery efforts that are under process in Antakya. As per the State of Emergency declaration by Presidency and the decision of Ministry of Education, education did not continue in the earthquake zone for two months, between February and April 2023.[38] When it started, brought with itself problems. Many institutions were unable to be opened, thus schools got transferred to containers in temporary settlements. The poor conditions of the educational environments which were reduced down to a closed box of a container, compared to the complexity of

33 Personal communication with earthquake victims.

34 Ibid.

35 TMMOB, "Mimarlar Odası 6 Şubat Depremleri Raporu - 2."

36 "2. Ay Deprem Raporu: Geçici Yerleşim Alanları," *TTB*, April 5, 2023. https://www.ttb.org.tr/ (accessed June 25, 2025.)

37 Ibid.

38 "Depremden En Çok Etkilenen 4 İlde Eğitim Öğretime Kademeli Olarak Başlanacak," *MEB*, March 21, 2023. https://www.meb.gov.tr/depremden-en-cok-etkilenen-4-ilde-egitim-ogretime-kademeli-olarak-baslanacak/haber/29406/tr (accessed June 25, 2025.)

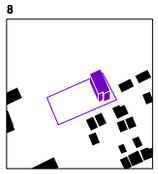


figure 3.8: Aerial photos of schools and their surroundings, February 2023

NYTimes, https://www.nytimes.com/interactive/2023/03/13/world/middleeast/antakya-damage-assessment.html, March 13, 2023. (accessed on April 10, 2025.)

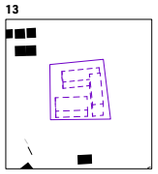


figure 3.9: Aerial photos of schools and their surroundings, February 2023

NYTimes, https://www.nytimes.com/interactive/2023/03/13/world/middleeast/antakya-damage-assessment.html, March 13, 2023. (accessed on April 10, 2025.)

what a school was before affected the quality of education. The effects of displacement also reduced educational quality as thousands of students and teachers had to migrate to other cities and towns.[39]

School under pressure

The governmental policy was to start education in the earthquake zone as soon as possible; aiming to normalize the extraordinary conditions for the earthquake victims, especially children, by providing the social services that would help them adapt to the process by being subjected to a daily routine and spending time at a place for learning and socializing.[40] However, quality and speed do not always go hand in hand. The necessity of continuing education was dire, as many people were forced to leave Antakya and everything behind for their children to be able to continue education. This meant population decrease, less workforce and a dissolved community that would slow down the recovery efforts.[41] Nevertheless, restarting education in Antakya in any means possible meant educational space needed to be transformed, and this came with its own problems. The politics involved with the provision of schools as social infrastructure is essential to understand in order to disentangle the processes that transform educational space under pressure. Tracing the way a facility's use and purpose shifts in a post-disaster environment provides us with the information which provisions need to evolve to better respond to peoples' wants and needs.[42]

The destruction caused by the earthquake forced the said shift in the function and purpose of school buildings. The main reason for this change in Antakya was the degree of devastation affecting dense residential areas located in the city center, forcing both individuals and public entities to search for somewhere else to take shelter and occupy.

According to the Centralized Address Registration System by the Ministry of the Interior, there were 406.849 buildings in Hatay province before the earthquake, 10.382 of which were public. 2.109 of these public buildings served as school buildings for pre-school, elementary school, middle school and high school education. It is reported as of April 2023 by Bimtaş that there are 35 ruined, 12 to be urgently demolished, 209 heavily damaged and 133 moderately damaged school buildings in Hatay. This sums up to 389 educational buildings, which is 19% of the 2.109 educational buildings in Hatay.[43]

Looking at the data for Antakya, due to being a densely concentrated urban area right on a fault line and riverbed, a larger impact of the earthquake on all built environment can be seen. Out of 394 educational buildings, there are 11 ruined, 5 to be urgently demolished, 79 heavily damaged and 38 moderately damaged buildings. This sums up to 133, which is %34 of the total number of educational buildings in Antakya.[44] One third of all educational buildings in the city was all of a sudden out-of-service; unable to provide for public in any way. Residential, healthcare, and administrative buildings also suffered extensive damage in the earthquake. The remaining buildings that were deemed safe were occupied for urgent needs including shelter, healthcare and first aid units, and as governmental and administrative facilities.

The level of damage in school buildings differ from case to case, depending on the building year, construction materials, proximity to the fault lines and riverbeds. While it is difficult to make an estimate for all 133 affected buildings in Antakya, it is worth mentioning that the schools located in the city center were mostly built before 2000s[45], which means that they were not in compliance with the more comprehensive standards published within the 'Regulation on Buildings to be Constructed in Earthquake Zones' published in 2007 and in 2018 by then Ministry of Construction and Settlement.[46] The first regulations published in 1940, 1944, 1949, 1953, and 1962 included the design and application criteria of masonry and wooden structures and did not have standards set for concrete, even though there was widespread usage of concrete structures including the school buildings since 1940s.[47]

Reinforced concrete was included in the earthquake regulations from the 1968 regulation. This means that the reinforced concrete

39 Umay Aktaş Salman et. al., "6 Şubat 2023 Tarihli Kahramanmaraş Merkezli Depremlerin Eğitime Etkileri - Bilgi Notu 1," *Eğitim Reformu Girişimi*, March 14, 2023. https://www.egitimreformugirisimi.org/ (accessed June 25, 2025.)

40 MEB, "Depremden En Çok Etkilenen 4 İlde Eğitim Öğretime Kademeli Olarak Başlanacak."

41 Aktaş Salman et. al., "6 Şubat 2023 Tarihli Kahramanmaraş Merkezli Depremlerin Eğitime Etkileri - Bilgi Notu 1."

42 Latham and Layton, "Social infrastructure and the public life of cities: Studying urban sociality and public spaces."

43 "Kahramanmaraş Depremi Tespit ve Değerlendirme Raporu," *IPA*, April 2023. https://ipa.istanbul (accessed April 24, 2025.)

44 Ibid.

45 Data collected from individual school websites

46 Currently Ministry of Environment, Urbanism and Climate Change (ÇŞİDB).

47 Sinan Cansız, "Türkiye'de Kullanılan Deprem Yönetmeliklerinin Özellikleri ve Eşdeğer Yatay Deprem Yükü Hesabının Değişimi," *UMAGD*, 14(1), (2022): 58-71. doi: 10.29137/umagd.948025

structures including public buildings were built without paying attention to earthquake regulations and design criteria before 1968.[48]

In the Regulations published in 2007, for the first time the conditions for the evaluation and strengthening of existing structures have been defined; and currently, the strengthening of existing structures are done based on the 2018 regulation.[49]

Türkiye Building Earthquake Regulation of 2018 makes another crucial point regarding the public facilities that schools are a part of. Principles for the Design of Buildings Under Earthquake Effects categorizes the *Building Use Class* in relation to the *Building Importance Coefficient*. In this regard, schools are categorized as BKS 1 (Building Use Class 1), which has an Importance Coefficient of 1.5, the highest coefficient on the list.[50]

They are placed right underneath the buildings that need to be used immediately after an earthquake such as hospitals, fire department buildings, etc., however they have the same importance coefficient as them. The regulation points out that schools are 1.5 times more important as buildings than residential unit, and must be designed accordingly. This classification also explains the reason why there is transformative pressure on school space when all necessary infrastructure that provides basic services collapses.

48 Ibid., 62.

49 Ibid., 65.

50 "Öne Çıkan Sorunlar ve İhtiyaçlar," HPM, November 2023, 16. https://hatay-planlamamerkezi.com/tr-TR/pages/yayinlarimiz (accessed May 12, 2025.)

Building Use Class	Type of building use	Building Importance Coefficient
BKS 1	Buildings that need to be used after an earthquake, buildings where people stay for long periods of time and in large numbers, buildings where valuables are stored, and buildings containing hazardous materials a) Buildings that need to be used immediately after an earthquake (Hospitals, dispensaries, health centers, fire department buildings and facilities, PTT and other communication facilities, transportation stations and terminals, energy production and distribution facilities, provincial, district governorship and municipality administration buildings, first aid and disaster planning stations) b) Schools, other educational buildings and facilities, dormitories and dormitories, military barracks, prisons, etc. c) Museums d) Areas where substances with toxic, explosive, flammable, etc. properties are located or stored	1.5
BKS 2	Buildings where people stay for short periods of time (shopping malls, sports facilities, cinemas, theaters, concert halls, places of worship, etc.)	1.2
BKS 3	Other buildings that do not fall within the definitions given for BKS=1 and BKS=2 (Housing, workplaces, hotels, building type industrial structures, etc.)	1.1

figure 3.10: 2018 Türkiye Building Earthquake Regulation and its Annex Principles for the Design of Buildings Under Earthquake Effects.

HPM, "Öne Çıkan Sorunlar ve İhtiyaçlar."

There are many gaps in the accessible data in terms of the construction and management of public facilities. I was not able to get a hold of the previous type plans from neither the Ministry nor the Municipality despite mentioning my academic research, mainly due to obstacles related to overly bureaucratic procedures. The data shared about the condition of the schools, the state of educational facilities both in the city center and in the temporary settlements, and the new constructions are also scarce on public domain. Being unable to reach such data results in not being able to properly analyze the policymaking process, actors and actions that affect educational facilities in post-disaster situation. Still, some inference can be made thanks to the data attained by public efforts to report and document cases concerning public welfare.

The construction and management of the school buildings in Türkiye are under the governance of General Directorate of Construction and Real Estate (İEGM) affiliated with Ministry of Education (MEB). The Department of Construction Works under İEGM is responsible from 'conducting earthquake investigations of educational facilities and determining the educational facilities to be strengthened and the amounts of funds to be allocated, expressing opinions on the decisions to demolish educational buildings that are not technically or economically feasible to strengthen.'[51] Normally, Building Control Law regulates the controlling and testing of buildings constructed according to the Zoning Law in Türkiye. In the article published by BBC (2023), it is underlined that the public institutions in Türkiye are inspected by Ministry of Environment, Urbanization and Climate Change (ÇŞİDB) Public Buildings Inspection Services Regulation and they are excluded from the scope of the Building Inspection Law. This makes it impossible to access the inspection reports of the public institutions, including hospitals and buildings belonging to AFAD that suffered heavy damage and even collapsed during the earthquake.[52]

While it is unclear which processes took place in the school buildings in Antakya before the earthquake, the amount of structural damage shows that 34% of the schools did not have the physical capacity to withstand such force.[53] The lack of transparent data about the policies

51 "Görevler," İnşaat ve Emlak Genel Müdürlüğü. https://iegm.meb.gov.tr/www/gorevler/icerik/12 (accessed on June 26, 2025.)

52 Fundanur Öztürk, "6 Şubat'taki depremlerde yıkılan kamu binaları: Sorumlular hakkında hukuki süreç nasıl işleyecek?" *BBC Türkçe*, October 9, 2023. https://www.bbc.com/turkce/articles/cl7x1npplz1o (accessed on April 24, 2025.)

53 IPA, "Kahramanmaraş Depremi Tespit ve Değerlendirme Raporu."

30 schools experienced varied degrees of physical and structural damage ranging from completely destroyed to light damage in the earthquake. The oldest buildings suffered the most damage due to proximity to riverbed and faultlines, in addition to poor construction techniques and materials.

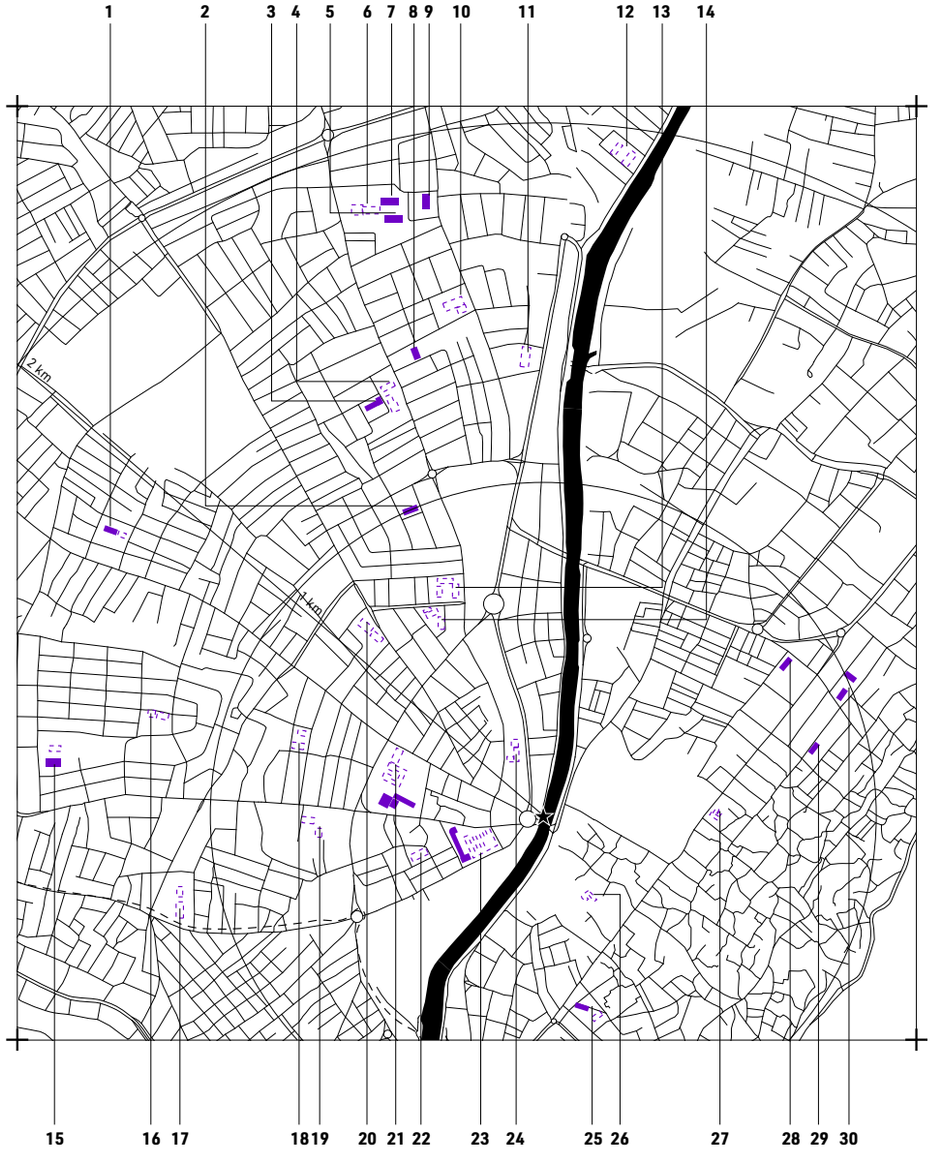
★ *City center*

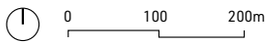
Antakya district border

Usable/ lightly damaged schools

Destroyed/ heavily damaged schools

Past imaginaries





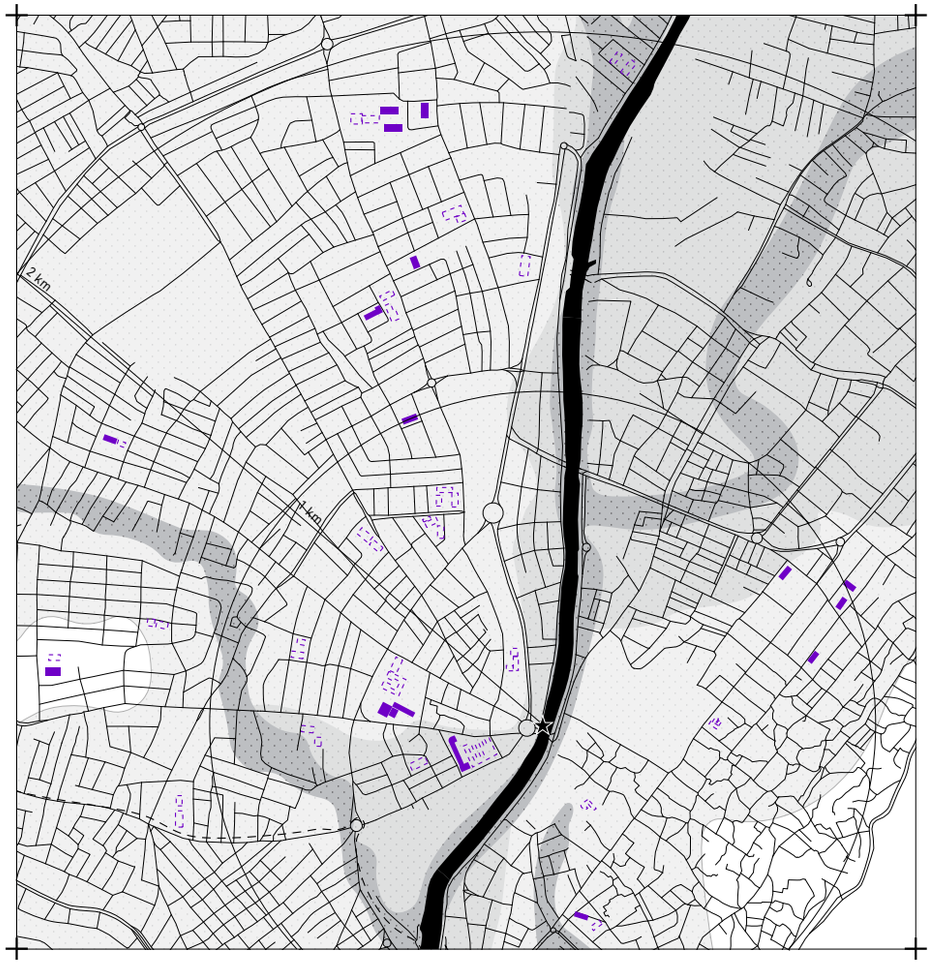
★ *City center*

Antakya district border

Usable/ lightly damaged schools

Destroyed/ heavily damaged schools

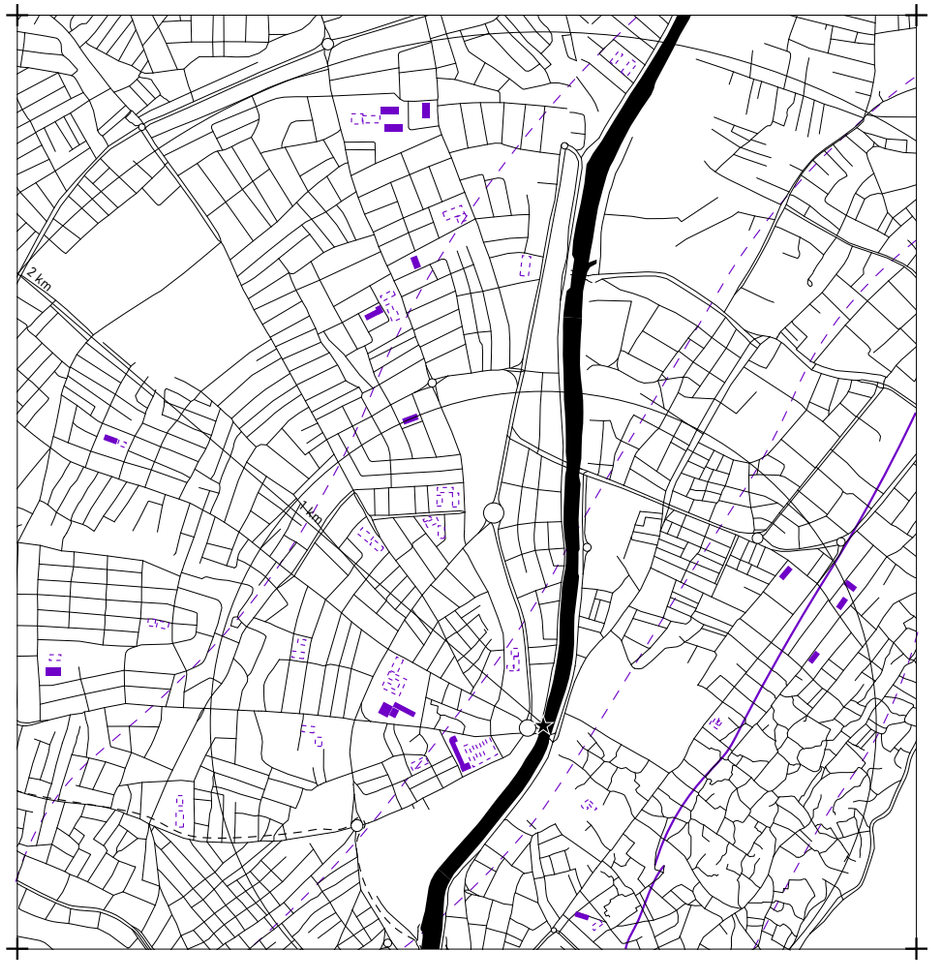
A spatiotemporal reading: Tracing the school infrastructure



0 100 200m

Very high risk
High risk
Medium risk

★ *City center*
Antakya district border
Usable/ lightly damaged schools
Destroyed/ heavily damaged schools



0 100 200m

Fault line
Distance to fault line (250, 500, 1000 m)

★ *City center*
Antakya district border
Usable/ lightly damaged schools
Destroyed/ heavily damaged schools

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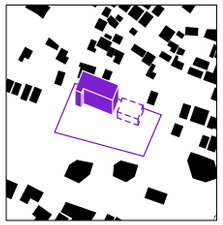

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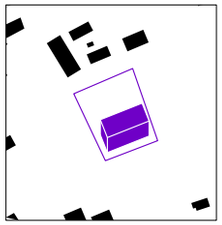

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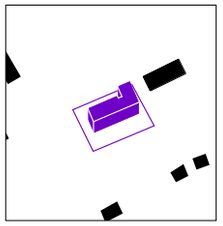

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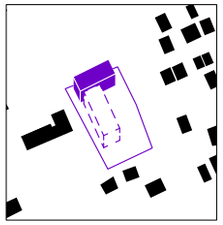

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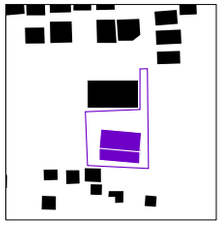

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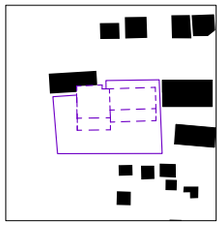

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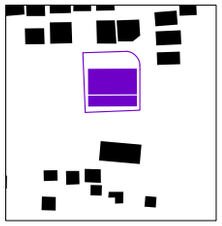

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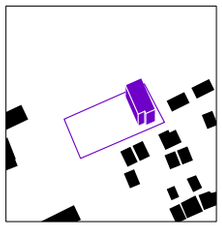

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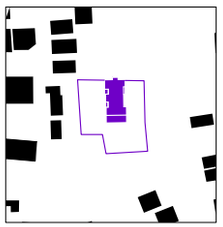

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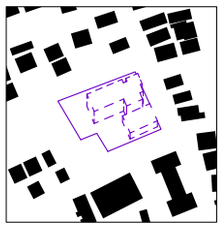

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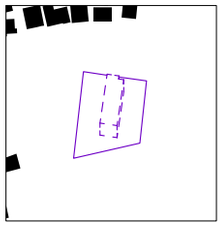

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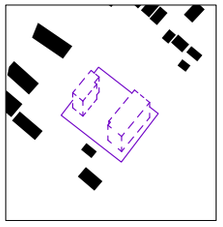

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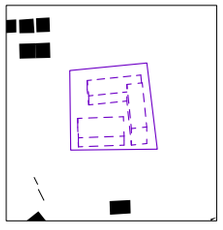

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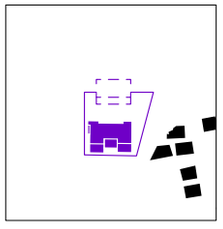

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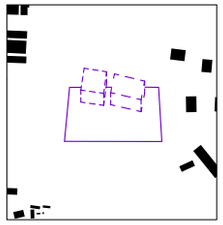

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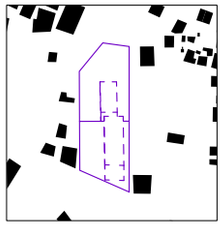

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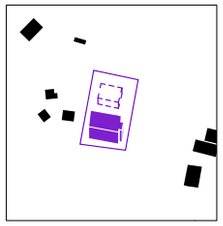

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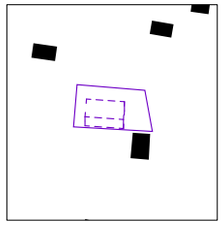

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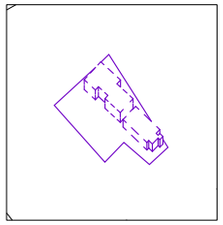

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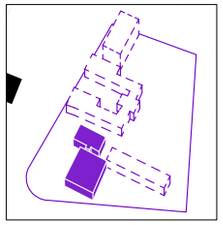

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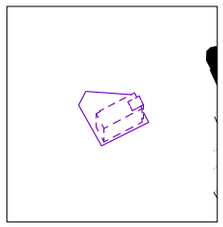

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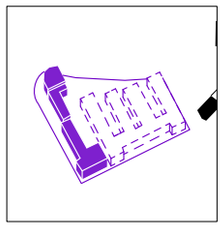

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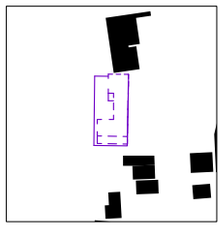

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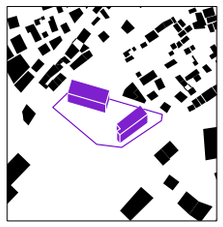

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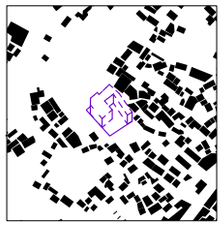

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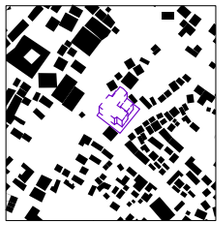

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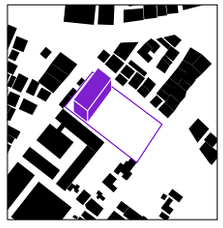

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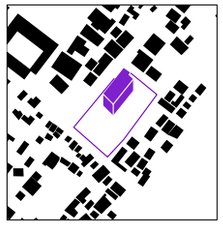

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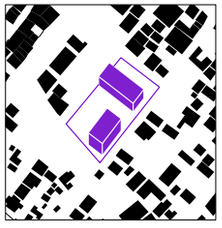


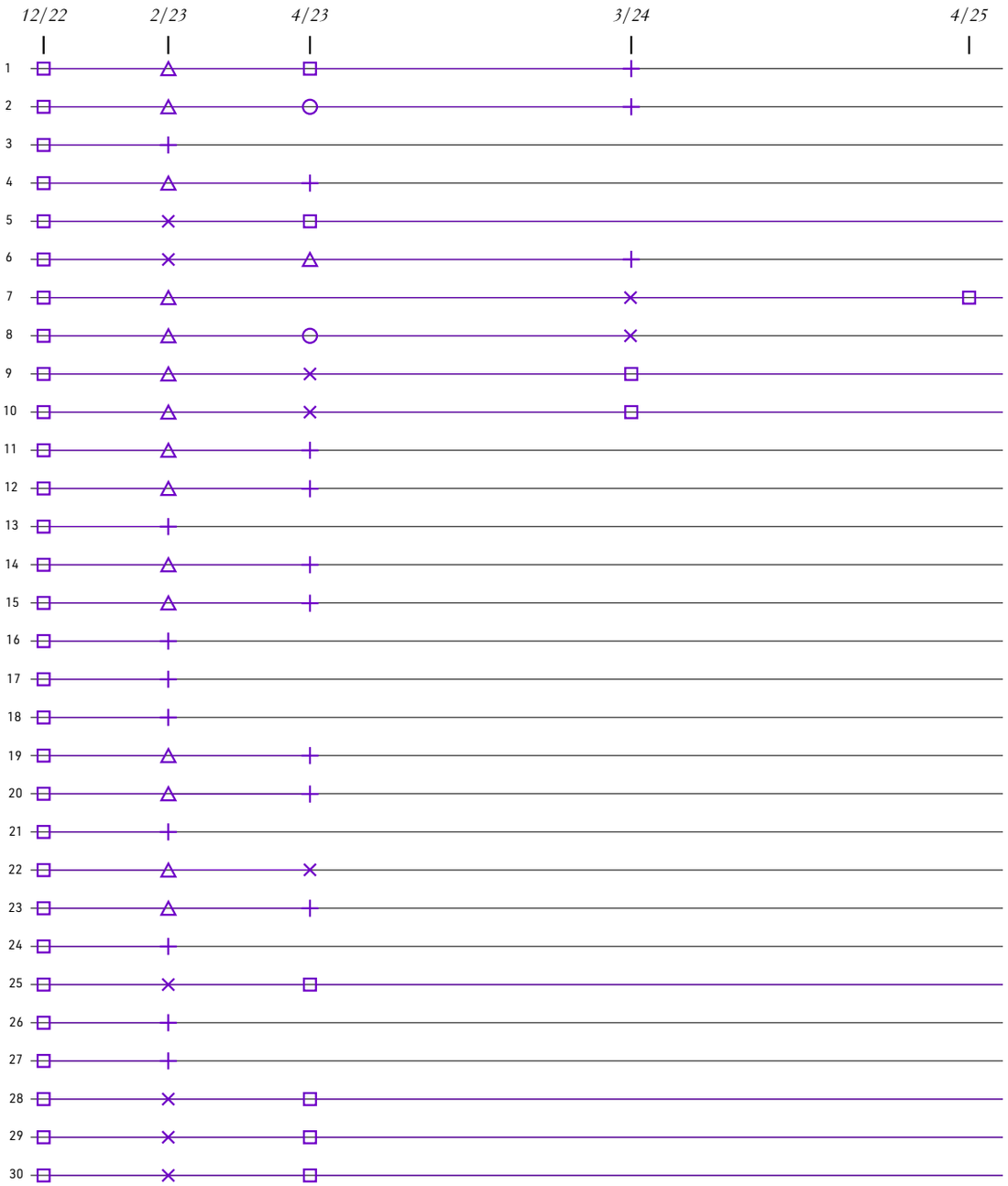


Diagram showing the spatial usage of the analyzed schools after the earthquake

regarding inspections, structural strengthenings and other processes make it difficult to make assessments in relation to the actions and actors related to the physical failure of school buildings in the earthquake zone.

The investigation area includes 30 school buildings that the transformations could be documented and analysed with the help of satellite imagery, aerial photos, field trips and accounts on media. Out of the total number of schools investigated, 15 schools were able to be used as some sort of shelter thanks to their playgrounds or for public service purposes in the case that they suffered little damage. 8 schools collapsed immediately during the earthquake, 12 schools have been demolished and only 8 are currently used for education. Two school buildings are still out-of-service as of April 2025.[54]

The network, altered

Behind-the-scenes of the transformations and alterations of school space is only possible through the understanding of the dynamics between actors, users and what was going on in the larger urban environment. The degree of devastation and the scarcity of access to basic needs and amenities put pressure on public entities and their physical manifestations, which are public spaces and institutions.

In regular times, the related divisions under the Ministry of Education took care of the construction and management of all public educational facilities. During the period after the earthquake, there emerged other actors that affected the elements of the built environment altogether in order to manage the crisis.

On the day of February 6, a crisis desk was formed within the body of Ministry of Education in order to coordinate the works. This crisis desk handled the disruption and continuation of the educational activities depending on the damage level of the school buildings in the 10 cities that were directly affected from the earthquake.[55] According to the decisions by the Ministry, some of the educational facilities that were

54 Data acquired through satellite imagery, official publishings and school websites.

55 Aktaş Salman et. al., "6 Şubat 2023 Tarihli Kahramanmaraş Merkezli Depremlerin Eğitime Etkileri - Bilgi Notu 1."

deemed not damaged by the inspections of Ministry of Environment, Urbanism and Climate Change in the region were opened for use as accommodation, including the schools with boarding houses, teacher's houses, practice hotels, schools and gyms.[56]

In the first phase where schools were on a 'break' due to the disaster, the damaged school buildings were, so to speak, abandoned. Naturally, it was of bigger urgency to rescue victims still trapped under the rubble and finding proper shelter to hundred thousands of people. It is known from the accounts of victims, it was possible to take shelter inside the safe school buildings by the initiation of the local governorship in the earthquake region.[57]

Education restarted in 7 districts of Hatay on March 21, and in the remaining districts including Antakya on April 24 by the collective decision of the city governors, district governors, MEB deputies, AFAD presidents, and provincial and district national education directors.[58] The only two lists published, about the school conditions and allocations shared by the Provincial Directorate of Education in Antakya showed that some of the safe school buildings in Antakya were already being used by the provincial and district police departments (İEM) at the time of education restarting. Due to the damage on the other public buildings, the Provincial Directorate of Education occupied some of the school buildings in the city center in order to be able to continue operating. Thus, school buildings that did not collapse or been heavily damaged has had to serve as shelter and other public services in the post-disaster period. [59]

Another policy made to solve the shortage of schools was to allocate two schools together into the safe school buildings. These two schools were using one building with shifts, between 7am - 12pm and 12pm-5pm. This resulted in the reduction in teaching hours, which would create more problems such as educational gap between the disadvantageous students of such schools compared to the rest of the country in state exams especially.[60] With the increased number of schools in

56 "Tüm Türkiye'de Eğitim Öğretime 13 Şubat'a Kadar Ara Verildi," *MEB*, February 6, 2023. https://www.meb.gov.tr/tum-turkiyede-egitim-ogretime-13-subata-kadar-ara-verildi/haber/28950/tr (accessed on April 24, 2025.)

57 Personal communication with earthquake victims.

58 Umay Aktaş Salman, "Depremin Birinci Yılında Hatay'da Eğitimin Durumu," *Eğitim Reformu Girişimi*. February 6, 2024. https://egitimreformugirisimi.org/uzun-hikaye-depremin-birinci-yilinda-hatayda-egitimin-durumu/ (accessed on April 24, 2025.)

59 Two documents that have been published on *Antakya Milli Eğitim Müdürlüğü* website, which are currently unavailable in the address https://antakya.meb.gov.tr/, showed a list of schools in Antakya province with data about their physical conditions, who were to use it, and which school were students transferred to.

60 Merve Büyüktaş, "Deprem sonrası Hatay'da eğitimin sorunları çözülmedi", *9.Köy*, May 2, 2024, https://9koy.org/deprem-sonrasi-hatay-da-egitimin-sorunlari-cozulmedi.html (accessed on May 15, 2025.)

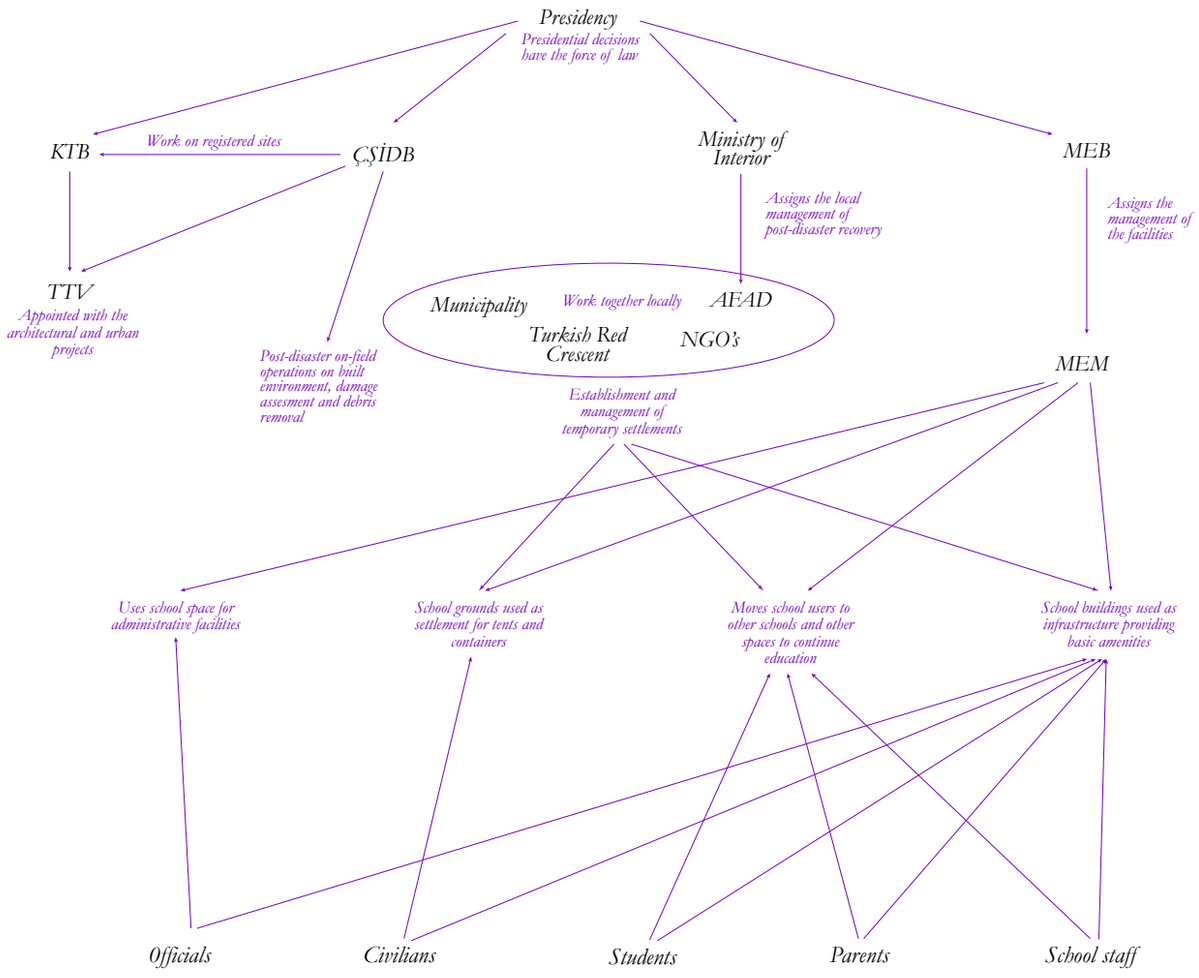


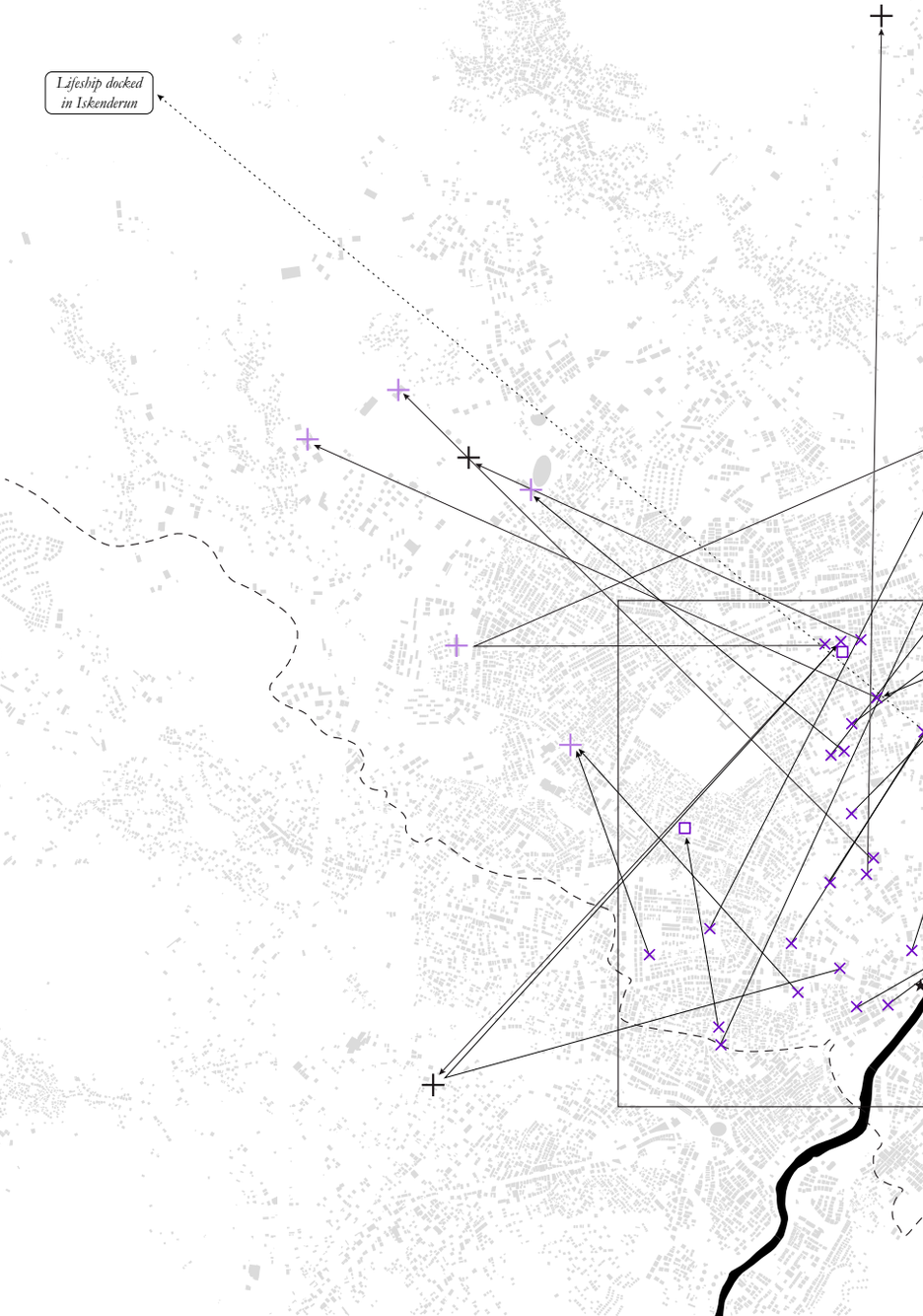
fig.
Diagram of relations between actors, users, and processes around the school space after the earthquake

Abbreviations

MEB: Ministry of National Education
MEM: Provincial Directorate of Education
İEGM: Construction and Real Estate Directorate
ÇŞİDB: Ministry of Environment, Urbanism and Climate Change
AFAD: Disaster and Emergency Management Directorate
KTB: Ministry of Culture and Tourism
TTV: Turkish Design Council
NGO: Non-Governmental Organization

The map of displacement shows the dispersion of educational facilities and decentralization of social infrastructure network, to give a glimpse of the difficulty that parents, teachers and students faced while trying to access education.

Since February 2023, a series of displacements for educational institutions and school spaces took place in Antakya towards the outer edge of the urban site. Most of the displacements were towards temporary settlements. It has been ongoing for 2 years that some schools continue education in container towns and even ships on water, kilometers away from home.



The displacement of people to temporary settlements do not correlate with the displacement of the schools that students and teachers are registered to. As a result, there has been a dissolution of the local communities and a large distance formed between the school space and the users of it. While students and parents were happy about schools finally opening, the difficulty for the already struggling earthquake victims to access education has caused a drop in the school attendance in the earthquake region.

LEGEND

- ★ *City center*
- *Antakya district border*

Investigation area

- × *Displaced schools*
- □ *Used as school*

New locations

- \+ *School*
- \+ *Temporary settlement*
- → *Displacement by the decision of Ministry of Education*

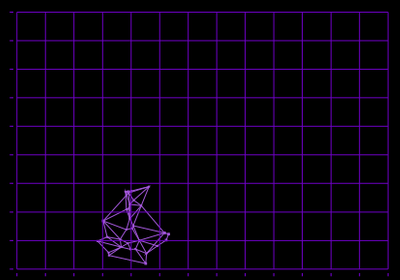
0 1000 2000m

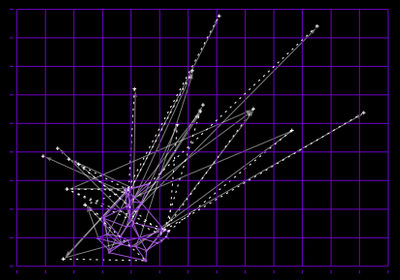
MAPPING THE INFRASTRUCTURAL NETWORK: Alterations through time and space

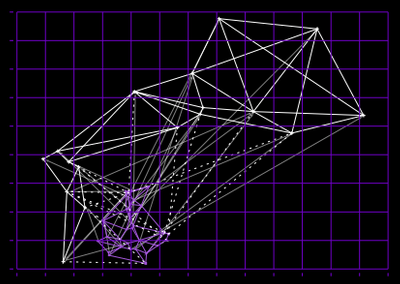
- *Old schools*
- *Displaced schools*
- *Old network*
- *Displacements*
- *Altered network*
- *New connections*

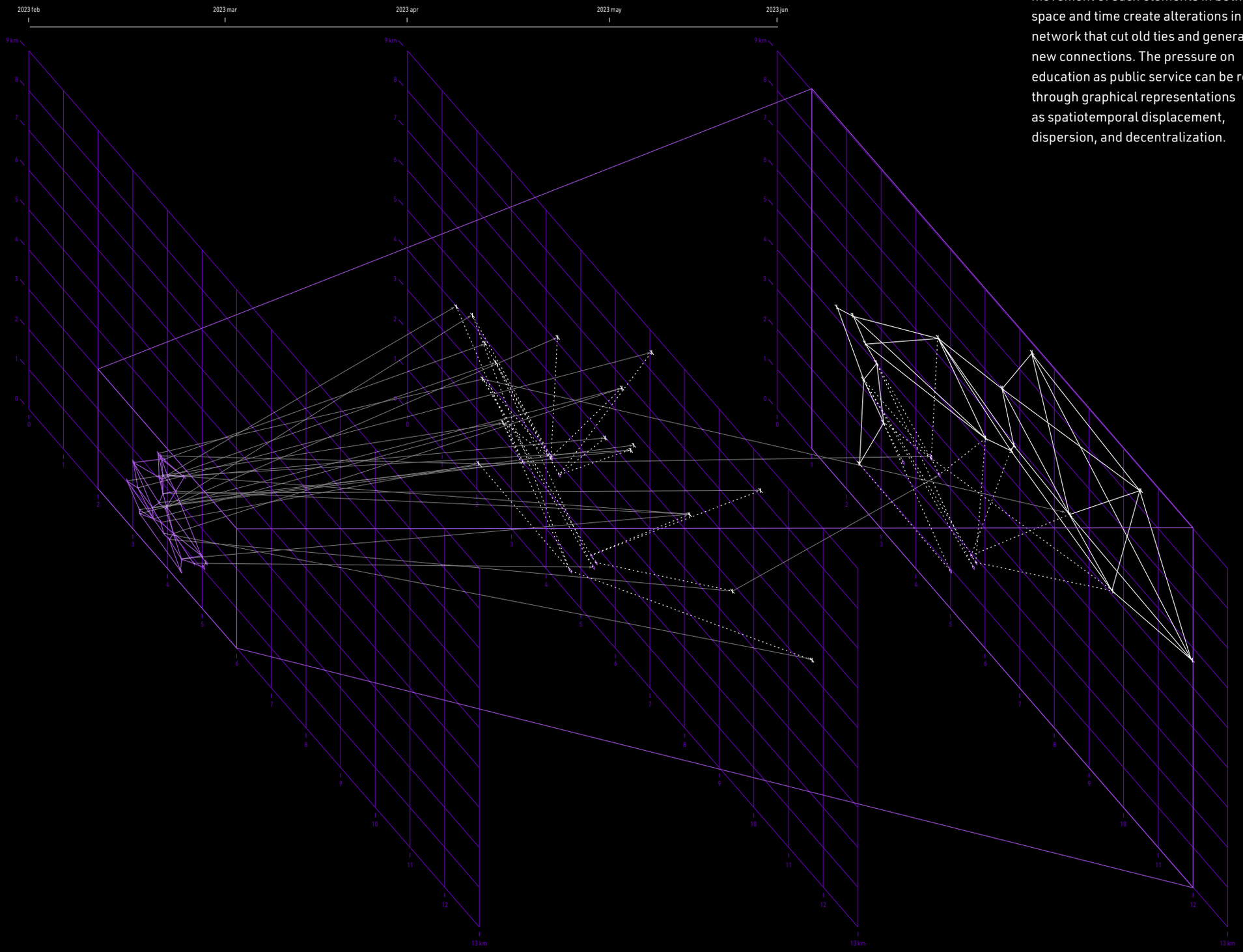
Schools form an infrastructural network consisting of tangible/ physical and intangible elements. The movement of such elements in both space and time create alterations in the network that cut old ties and generate new connections. The pressure on education as public service can be read through graphical representations as spatiotemporal displacement, dispersion, and decentralization.

Expansion of network









Past imaginaries

A spatiotemporal reading: Tracing the school infrastructure

temporary settlements, this practice did not last long.

It was brought to the attention of the Turkish Grand National Assembly (TBMM) by the opposition MPs, that submitted a parliamentary question to the government on the issue of the allocation of safe school buildings to public institutions and the transfer of students who should study in these schools to containers.[61] As of 2025, the public institutions returned to their original buildings after strengthening and restoration works, however, the schools have not been moved back to the school buildings and instead still continue education in container towns.

By the decision of Ministry of Education, the tent cities, dormitories, and container towns have been included in the scope of transported education,[62] which is an established system in Türkiye since 1990. Students living in areas of low population which are not suitable and inaccessible for education are transported daily to schools designated as transport centers. This way, it was aimed to reduce the number of students that do not attend school for inaccessibility reasons.[63]

In tents and containers

Students registered in schools in the earthquake zone were able to transfer to equivalent types of schools anywhere in Türkiye "regardless of their residential address" and "without any conditions" by the decision of Ministry of Education. As of March 14, 2023, 242.904 students were transferred to schools in provinces outside the earthquake zone.[64] Taking into account the migration of the overall population for educational purposes that include the parents and families of the students, the problems with accessing quality education is seen as one of the most important reasons for the migration from Antakya to other cities after the earthquake.[65]

Despite the number of migrations, a large population of earthquake victims continued to stay in Antakya and rebuild their lives from

61 Ibid.

62 Salman, "Depremin Birinci Yılında Hatay'da Eğitimin Durumu."

63 İbrahim Altun, et al., "Ortaokul Öğrencilerin Taşımalı Eğitime İlişkin Görüşlerinin İncelenmesi (Kahramanmaraş İli Örneği)" *Atlas Sosyal Bilimler Dergisi*, 1, 12 (2022): 166-181.

64 Salman, "Depremin Birinci Yılında Hatay'da Eğitimin Durumu."

65 HPM, "Öne Çıkan Sorunlar ve İhtiyaçlar."

"Unfortunately, the wounds after the earthquake disaster have not healed. Our wounds continue to bleed. Right now, they have tried to fit the students of Turgut Reis Kindergarten into a few containers that were not designed as schools. We want the authorities to pass through the muddy roads that come to the school. Containers cannot be schools for students. How can small children receive education under these conditions? The containers leak rainwater. Is there anyone in authority who wonders how the 4-5 age group will receive education in a place where the toilets are far from the classrooms and designed for adults?"[66]

scratch, in tents and containers. In the first few months following the earthquake, as the damaged schools were being demolished, prefabricated schools were opened in the region by the cooperation of ÇŞİDB, Ministry of Education, and by the on-field efforts of the local government, AFAD, Turkish Red Crescent, and several NGO's.[67]

The first prefabricated structures that were used for educational purposes after the earthquake were tents. These did not differ in quality or spatial organization compared to other tents where people used as shelter or service. They were larger in size, or there was an assembly of several tents in order to accommodate the number of students. The accounts of teachers, students and union leaders reveal that the physical conditions of tents are not suitable for living, let alone proper education.[68] Air inside gets too hot in the summer and too cold in the winter, and it is possible to hear the lessons in the other tents, making it harder for students to hear their own teacher.[69]

The issues of the tent cities determined by TMMOB are "the failure to meet the standards determined by AFAD in tent areas, lack of infrastructure, need for drinking water, the long, hot, sweltering and dry summer season of Antakya and its surroundings, the cold and rainy winter season, and the tents being unsustainable to weather conditions, in-

66 Büyüktaş, "Deprem sonrası Hatay'da eğitimin sorunları çözülmedi." (translated by the author.)

67 HPM, "Birinci Yıl İzleme Raporu."

68 "Antakya Nato Çadır Kenti'nde LGS ve YKS'ye Hazırlanan Öğrenciler İçin Eğitim Kampüsü Hazır," MEB, April 13, 2023, https://www.meb.gov.tr/antakya-nato-cadir-kentinde-lgs-ve-yksye-hazirlanan-ogrenciler-icin-egitim-kampusu-hazirlandi/haber/29613/tr (accessed on April 24, 2025.)

69 Büyüktaş, "Deprem sonrası Hatay'da eğitimin sorunları çözülmedi."

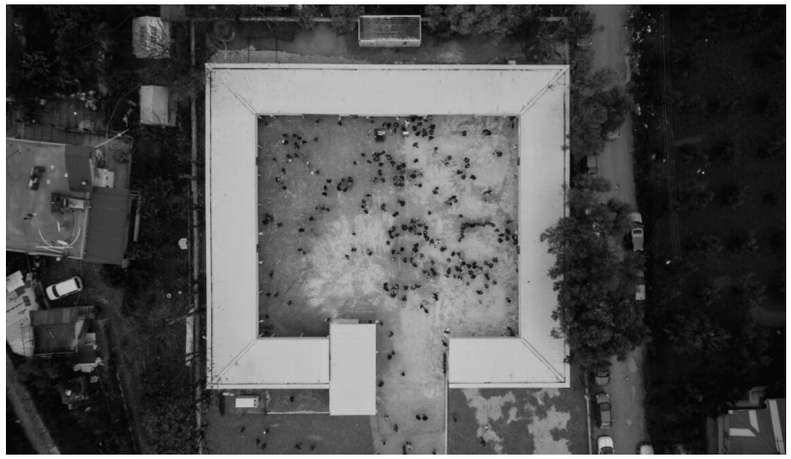


figure 3.11, 3.12: Prefabricated container school

AKUT Association, https://akutvakfi.org.tr/ (accessed on May 14, 2025.)

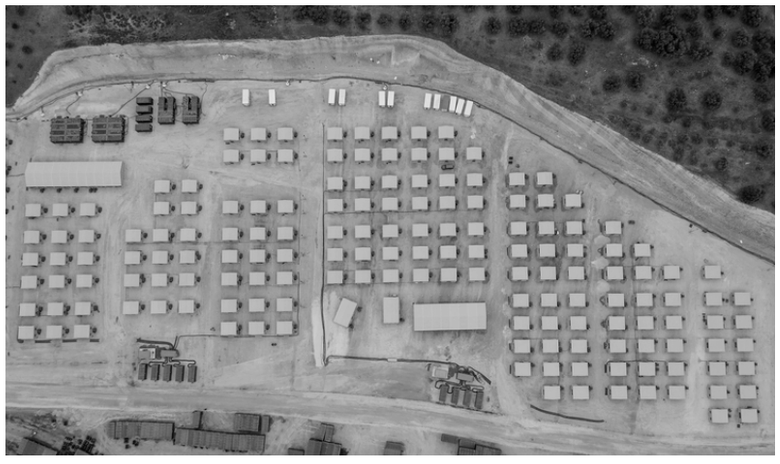


figure 3.13, 3.14: Antakya NATO Tent City.

Anatolian Agency, https://www.aa.com.tr/ (accessed on May 14, 2025.)

adequate social facilities, inadequate mobile hygiene points, the fact that tent cities are located within demolition areas, and security problems."[70] Considering the negative conditions that surround the life in tent cities, it is possible to understand the difficulty of sustaining an optimum quality of educational space.

Tents were initially preferred due to being lightweight, foldable, portable, quick and easy to set up. Disaster victims were moved to the tent areas that were set up by authorized institutions and organizations; with the collaboration between the governorship, AFAD, and NGO's. Tent areas were intensively used in the early stages of the disaster. As they were not suitable for long-term use, they were gradually replaced with container settlements. Currently, there are no tent cities left in Antakya and instead there is a widespread network of container cities.[71]

The widely seen problems in the container settlements were listed by Hatay Planning Center in their report as "the failure to meet the standards determined by AFAD in container areas, lack of infrastructure, need for drinking water, the long, hot, sweltering, dry summers of Antakya and its surroundings, and the cold and rainy winters, considering the fact that container cities are not resistant to weather conditions, the fact that container cities are located in areas far from the city center, the inadequacy of social facilities, the fact that container cities are located in close proximity to debris dumping areas, and the lack of services for special needs groups."[72]

These conditions make it hard to survive especially for vulnerable groups such as women, children, elderly and disabled. It should be mentioned that such problems are not present in each container settlement in the field. The physical conditions of the settlements varied widely depending on the institutions and associations involved, the location and the ground conditions of the settlement and the type of container used. Since help was needed from NGO's and international associations, there was not solely one standard that could be applied to the organization and spatial quality of the container towns. As a result, there are disparities even among the living standards of the disaster victims in temporary settlements.

70 TMMOB, "Mimarlar Odası 6 Şubat Depremleri Raporu - 2." (translated by the author.)

71 HPM. "Öne Çıkan Sorunlar ve İhtiyaçlar,"

72 Ibid. (translated by the author.)

It can be said that the gradual increase in the number of container schools in the temporary settlements reduced the effects of being far away from the center by creating social infrastructure to support the education and social life of children.[73] To this day, education mostly continues in containers in Antakya. As the urgent and dire conditions of the initial aftermath of disaster has long passed, the involved actors, associations and institutions have been searching for ways to mitigate the problems that come with changing school space and adapting to the 'temporariness' that have became permanent for the last 2 years.

Prefabricated school boom

The number of schools in the earthquake zone is increasing day by day. As a large population still lives in container areas, it was essential for the responsible actors to prioritize students' easy access to education. While the first 'classroom's have been converted from regular containers in the sites, gradually, larger containers more suited to teaching have been set up in many camps. These containers have been organized in a way that would create a small teaching 'campus' around a courtyard that serves as the playground in which students come together, play games and socialize. As the closed space of the school is formed by containers assembled together; there is no closed circulation space in these type of container schools.

In this sense, these type of schools created in the temporary settlements resemble a small village that brings together students from all levels of education as they share the open space. Although the number of children living in container settlements is not low, now they have to be content with a few container classrooms instead of a school building with around 20 classrooms, and a playground to share with much more people.

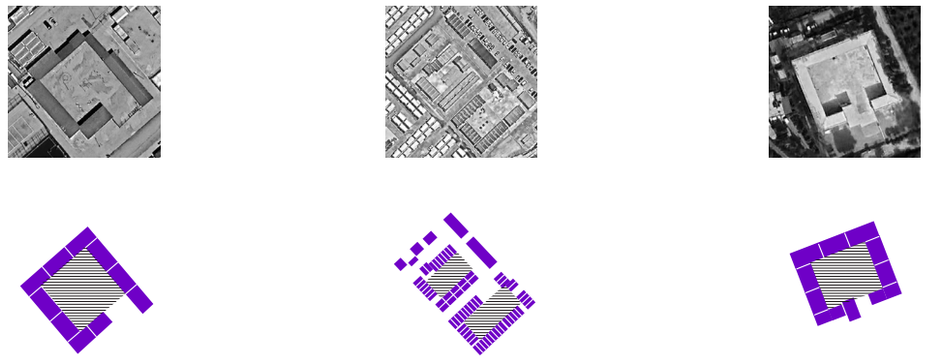
73 Aktaş Salman et. al., "6 Şubat 2023 Tarihli Kahramanmaraş Merkezli Depremlerin Eğitime Etkileri - Bilgi Notu 1."

In order to solve such issues, larger prefabricated schools have been produced instead of individual containers. These schools are implemented to both temporary settlements and also in city and village centers on the original grounds of the schools. As these structures are designed to be schools, they contain spaces more suitable for teaching with additional amenities, bathrooms, diverse teaching environments that are not only traditional classrooms.

It is worthwhile to mention that the adequecy and performance of these container or prefabricated school differs case by case. For instance, the projects conducted until now have been similar in size and shape; even though needs and requirements differ drastically depending on the type of school, educational level and the number of students. Due to time and financial constraints, it is observed that they lack the necessary open and social spaces that need to be provided in schools.

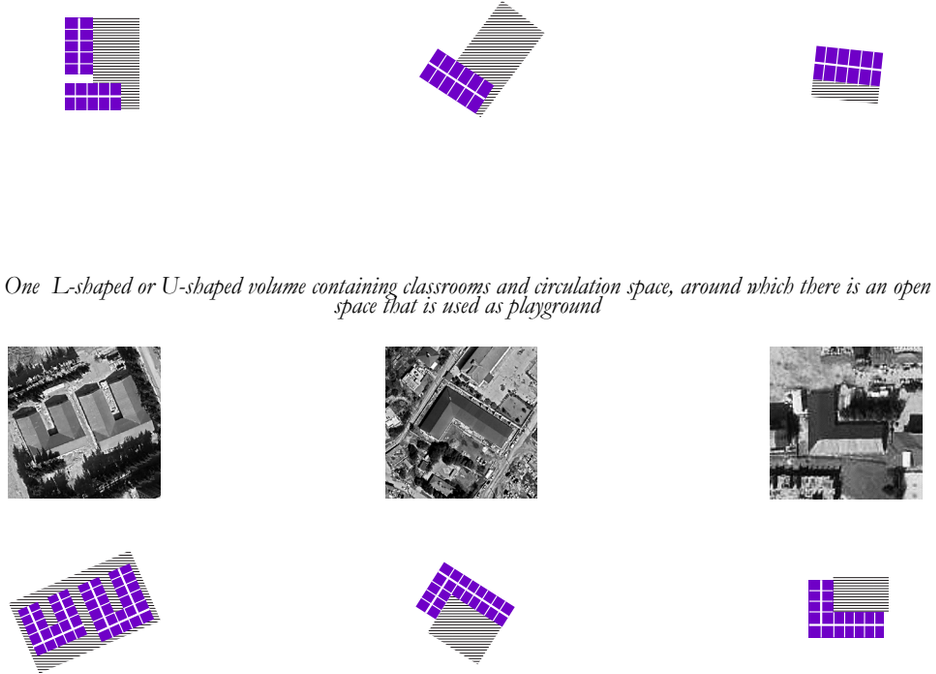
Findings of this chapter is summarized in the following process map. Based on observations about tent, container and prefabricated schools and the processes that establish these spaces as the learning environments of post-earthquake Antakya, the case study is subjected to a spatial reading at building level, while assessing its dynamics with the school network and other elements of the city.

Assemblage of a number of containers as classrooms, organized around a courtyard which is used as the playground



One volume containing classrooms and circulation space, often with an open space in front used as the playground

One L-shaped or U-shaped volume containing classrooms and circulation space, around which there is an open space that is used as playground



MAPPING THE PROCESS: Policies, events and actors transforming the school space

ABBREVIATIONS

MEB: Ministry of National Education
MEM: Provincial Directorate of Education
İEGM: Construction and Real Estate
ÇŞİDB: Ministry of Environment, Urbanism and Climate Change Directorate
AFAD: Disaster and Emergency Management Directorate
KTB: Ministry of Culture and Tourism
TTV: Turkish Design Council
NGO: Non-Governmental Organization

RELATIONS

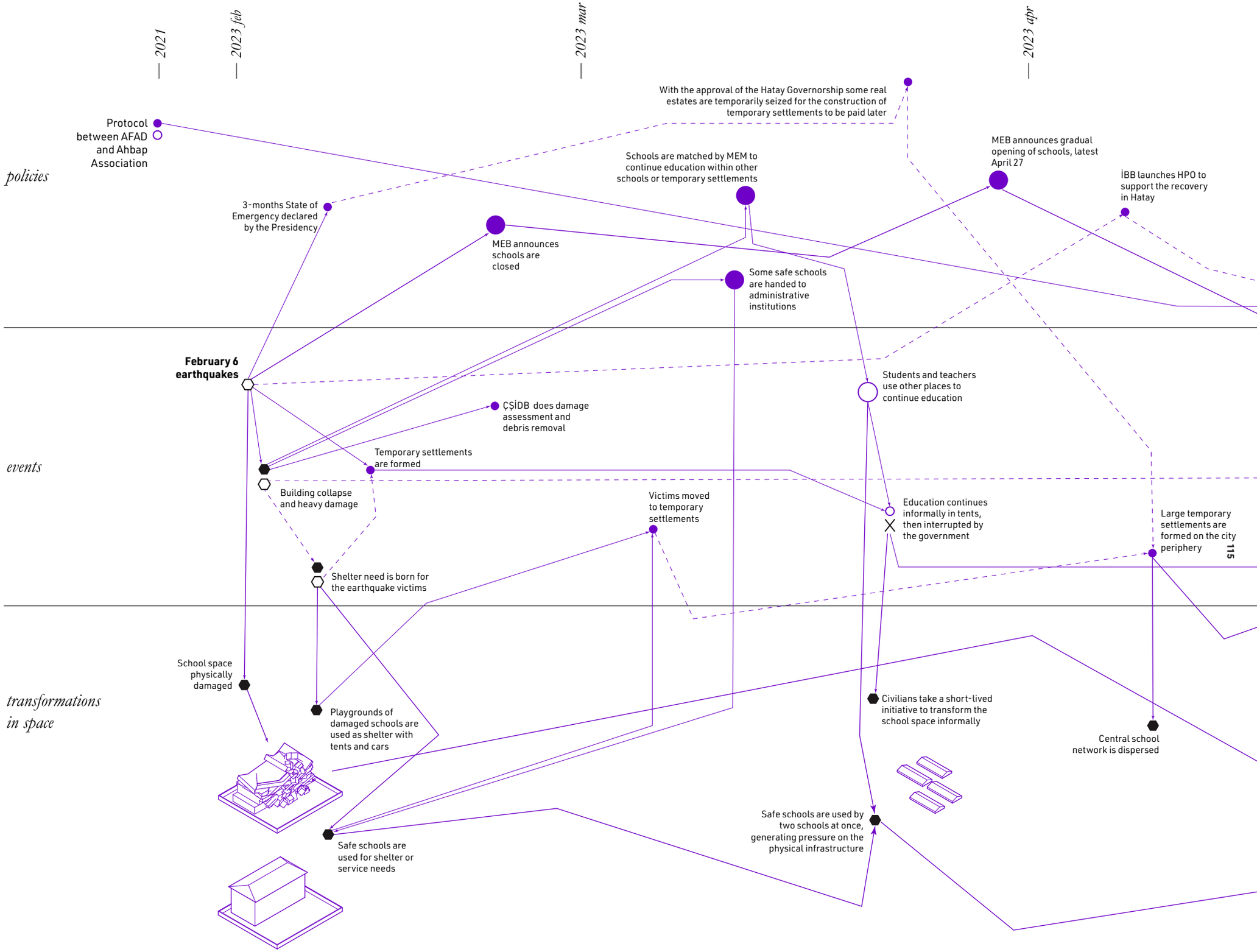
- Relations of primary importance
- Relations of secondary importance
- Relations of indirect effect

EVENTS

- Causal event in the cause-effect chain
- Effect/resulting event cause-effect chain
- Interruption/end of a process

ACTIONS

- Actions of primary importance including governmental actors
- Actions of primary importance including non-governmental actors
- Actions of secondary importance including governmental actors
- Actions of secondary importance including non-governmental actors



— 2023 may
— 2023 jun
— 2023 jul
— 2023 aug
— 2023 sep
— 2024
— 2025

policies

Presidential decision regarding the risky area declaration in Antakya

KTB, TTV and architectural offices collaborate in the masterplanning and design of the pilot area

Plan revised on January 22

Conservation zoning plan suspended due to objections on June 11

Plan suspended a second time on February 5

AFAD, Turkish Red Crescent, international organizations and NGO's collaborate for the provision of container towns

Schools open everywhere in Türkiye

Collaboration between İBB and HBB stops

Projects and the masterplanning for the pilot area are announced

Tents are completely removed, population in container settlements are increased

events

Local elections take place, municipality changes

Ahbap Association launches school projects

Many educational facilities start activities in container schools

Some of the safe school buildings are used by the original schools

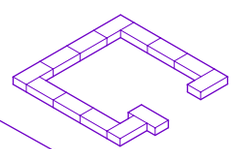
Light steel schools are constructed in Antakya

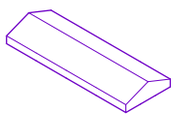
Envisioned projects for schools are not launched yet

transformations in space

Alternative spatial organizations are explored to improve the learning environment

New structures and construction techniques are explored, creating new school typologies





Some schools moved to light steel schools, reducing the pressure on container schools

Many schools are still in containers

While the individual school is back to before earthquake, the users and the network is still dispersed

04

The school under pressure: A case study

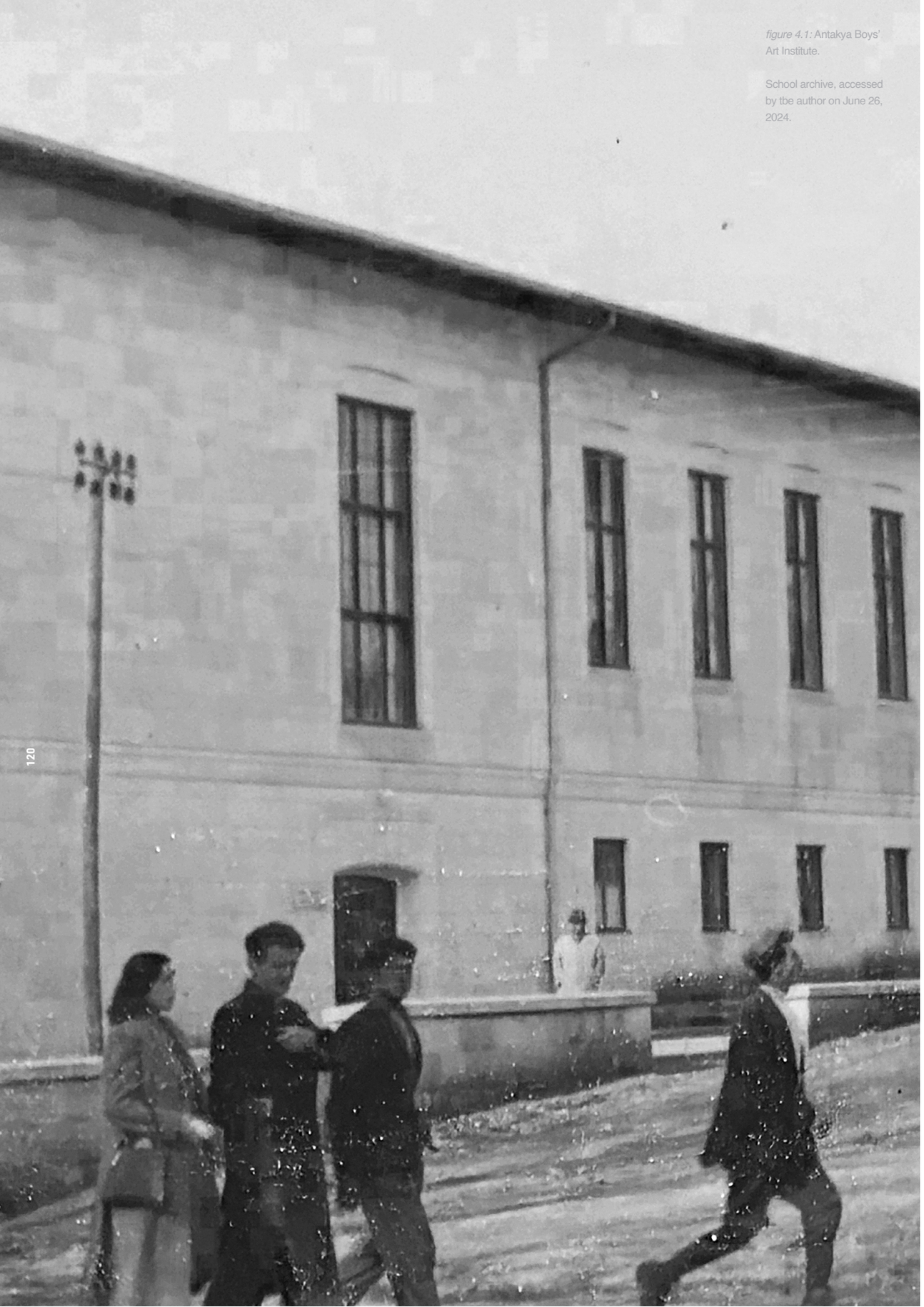


figure 4.1: Antakya Boys' Art Institute.

School archive, accessed by tbe author on June 26, 2024.

This section presents a story parallel to the one told before, of a single school chosen as the case study. It is aimed that the closer investigation of this case and its unique findings would further develop the discourse around understanding our changing physical surroundings and spatial politics that further dictate it.

The diverse usage and functions of a school space in the aftermath of the disaster can be described as something in-between the 'old times' and 'new times'. Even though it is a 'temporary' state in which the systems of living are struggling to function normally, the cases at hand show that such periods where 'space' as we know change drastically, have long-lasting effects and repercussions in the lives of the community that suffer from the disasters.[1] The severity and duration of this crisis period depends on the strategies and policies of the actors involved, and the different agencies that have reverberations on the architectural space. Putting together all the processes, projects, planning and actors around Antakya Vocational School as a case generates a lens to see something bigger in terms of the post-earthquake processes in Türkiye that concern the navigation of public spaces, earthquake damage and the welfare of vulnerable groups and communities.

It is essential to understand the urban context in which the school is located in order to perform an investigation around the transformation of the physical space in the wake of the earthquake. Right on the west side of the Asi River, the school has been located for more than 80 years next to the early Republican extention to the old city of Antakya; Cumhuriyet Square. Since the formation of the square and the significant buildings surrounding it, the city of Antakya has spread over on the west bank of the river, forming the urban texture that it had until the earthquake. Cumhuriyet Square that is the focal point of the extension area, was surrounded by a bank, post office, municipality building, and the parliament house which had historical value and have either collapsed or suffered heavy damage in the disaster.[1]

As mentioned in the previous section, the exact processes and the execution of policies concerning the preservation of the structural

1 Boano and Hunter, "Architecture at Risk (?): The Ambivalent Nature of Post-disaster Practice."

2 Karakuş, et. al. "Evaluation of the condition of Antakya (Antioch) Urban Site after the Kahramanmaraş Earthquake."

integrity of public buildings constructed and registered by ministries are unclear due to the confidentiality of construction-inspection works.[3] However, a scanning of what is left of the earthquake in the physical space, and uncovering the processes that took place in relation to the institutions and entities which are the decision-making actors, show us the repercussions of the damage that the school buildings suffered from and more importantly, the string of actions before and after the disaster that have a role in the cause-effect chain surrounding school spaces.

In this manner, the juxtapositioning of policies or a lack thereof and the evolving singular school space of a case study becomes a lens in which the discussion of a larger framework is done through. The significance of the particular case study stems from several factors that are also reflected in its architectural image. As a prominent public educational facility of Antakya, its architecture reflected its comprehensive curriculi as a technical vocational school thats establishment dates back to 1944.[4] The school has been one of the most prominent public educational facilities in Antakya until now. As a vocational school, the graduates of the school provided a large portion of the intermediate staff need in the province. It had professional connections with universities, the Chamber of Commerce in Antakya and various initiatives for networking and to establish workplaces for the recent graduates.[5]

As the first vocational school of the province, its historical significance as an example of early Republican Turkish architecture made it an important asset for the urban heritage of Antakya.[4] In relation, the policies and processes concerning the preservation and restoration of historical buildings in Türkiye resulted in post-earthquake period getting several actors involved in the management of school as a public space and as a site of rubble. Curiously, as it becomes clear over time that access to education in the territory is scarce, it remains a dire need for the especially vulnerable group of victims: children.[7] In the midst of the chaotic order that is the post-earthquake landscape, school becomes a sort of 'space of contestation' between the social and spatial narratives enforced and legitimatized by governmental and institutional bodies, and the resisting and contesting bodies of non-governmental organizations, civilians and users.

The case is studied through a series of literary findings, reports, visual data and the apposition of such fragments into a critical framework. Firstly, a forensic investigation concerning the collapsed and damaged elements is carried out in the original location of the school in account of situating the physical changes that occurred after the earthquake in the chain of events.[8] Then, the relationships between policies, projects, and actors behind such transformations are analyzed while the connections between pre-existing and post-disaster processes are rediscovered; through which the undermined correspondences between public space and society emerge as a new narrative.

A school is neither only a static set of walls and desks nor a legally constituted institution publicly used for education. It is a collection of all of its tangible and intangible elements, qualities, owners, actors, users and the relationships among these that dynamically correspond to the changing needs and circumstances.[9]

Before the earthquake, the school had 1226 students and 110 teachers providing education on the fields of information technologies, radio and television, electrical and electronic technology, machine technology, metal technology, furniture and interior design, motor vehicle technology, fashion design technologies, renewable energy technologies. There were 36 classrooms, 8 workshops, 1 conference hall, 25 laboratories, 1 painting class and 1 library.[10]

The significance of the institution stems both from its history and also because its evolution came through with the efforts and initiatives of various actors around the school space, including the philanthropist, Erol Bilecik, through various initiatives to extend the physical infrastructure of the school in both pre- and post-disaster times.[11]

The most extensive damage could be seen in the oldest buildings in the site, built between 1944 and 1967. There are various physical and political reasons why there were extensive structural failure of the buildings.

3 See page 16.

4 Şahin, "Cumhuriyet Döneminde Hatay'da Eğitim."

5 Hatay Erol Bilecik Mesleki ve Teknik Anadolu Lisesi, https://hatayerol-bilecikmtal.meb.k12.tr/ (accessed on April 21, 2025.)

6 Şahin, "Cumhuriyet Döneminde Hatay'da Eğitim."

7 Aktaş Salman et. al., "6 Şubat 2023 Tarihli Kahramanmaraş Merkezli Depremlerin Eğitime Etkileri - Bilgi Notu 1."

8 Two site visits were conducted on June 26, 2024 and May 16, 2025.

9 Selina Komers, "Beyond The 'Walls' of the School: Opening Up Education," Diss. UCL, October 2019. https://www.researchgate.net/publication/336678984_M_A_Philosophy_of_Education_Beyond_The_%27Walls%27_Of_The_School_Opening_Up_Education (accessed June 26, 2025.)

10 Hatay Erol Bilecik Mesleki ve Teknik Anadolu Lisesi, https://hatayerolbilecikmtal.meb.k12.tr/

11 Ibid.

The lack of awareness and care on earthquakes in history has resulted in the city of Antakya to be repeatedly built on 1st degree earthquake zone that has a weak ground despite being devastated many times in the past.[12] It is evident that this understanding continued in the early Republican period since important administrative buildings were built right across the bridge on Asi River, and the city continued to grow in that direction over the century. Therefore, some of the damage could be attributed to the proximity to the riverbed and faultlines, in which the severity of the earthquake is multiplied due to the soil liquefaction that happens on the ground.[13] As the effects of the earthquake were intensified due to the geographical reasons, it became harder for weaker structures to overcome the effects thereof.

The oldest building in the school grounds was built in 1944 by the initiative of the Ministry of Education.[14] During the early Republican period, the special attention given to the improvement of vocational education lead to the rising number of art institutes. Paul Bonatz, a German architect invited in to take a position in the Directorate of Construction Works and the Project Office of the Ministry of Education lead the construction of art schools and art institutes in many parts of Türkiye in 1943-1944, including Hatay which joined Türkiye as a city in 1939.[15]

The projects were designed as type projects to be applied everywhere in Türkiye. As the project and the constructions are carried out by the Ministry of Education, the public vocational schools that were opened during this time period have more or less similar typologies. The small differences in the implementation of the plans were based on various factors such as the limited building plot, economical restrictions and varying number of students and vocational school programs. Although the type plans were prepared by the Ministry of Education, it is clear that it was not mandatory to be applied exactly; and alterations were allowed depending on the local conditions.[16]

It is seen from the pictures showcasing the construction of the school that the main building which included the administrative offices

12 Bouchier, *A short history of Antioch*. as cited in Rifaioğlu "An Enquiry into the Definition of Property Rights in Urban Conservation", 134.

13 Korkmaz, "Antakya'da Zemin Özellikleri ve Deprem Etkisi Arasındaki İlişki."

14 Şahin, "Cumhuriyet Döneminde Hatay'da Eğitim."

15 Saadet Gündoğdu, "Samsun'da Bir Paul Bonatz Eseri: Samsun Erkek Sanat Enstitüsü Batililaşma Etkisindeki Mesleki Eğitimin Mimari Değerlendirmesi," *TÜBA-KED*, 2024, 30: 11-38. doi: 10.22520/tubaked.1363692

16 Celal Abdi Güzer, "Tip Projelere Alternatif Bir Yaklaşım Modeli: İSMEP ve Silivri Ortaokulu Örneği" MİMARLIK, 2022, 424: 40–43 as cited in Gündoğdu, "Samsun'da Bir Paul Bonatz Eseri: Samsun Erkek Sanat Enstitüsü Batililaşma Etkisindeki Mesleki Eğitimin Mimari Değerlendirmesi," 32.

figure 4.2: Antakya Boys' Art Institute, the photograph shows the main building in construction phase.

School archive, accessed by tbe author on June 26, 2024.

and classrooms is constructed with concrete structure. However, wood was used for window frames and stone cladding is preferred on facade. The quality of the materials can be seen as the biggest reason for the immediate collapse of the structure in the earthquake. The use of concrete structures for a public institution in 1944 was allowed, despite having no standards of concrete quality, dimensions and loadbearing quality set by regulations until 1970s.[17]

The school, named Antakya Boys' Art Institute at the time consisted of a main building that included administrative offices, teachers' room and classrooms. This main building formed an E-shaped organization by its connection to large rectangular atelier spaces. It is seen from the available data and pictures of 1968 revision plans by the Ministry of Education Directorate of Construction Works that the atelier spaces that were present when the earthquake hit were from a later time.[18] Their structural quality seemed to perform better than the oldest building when the level of damage is compared. Indeed, the atelier spaces also had different external surfaces and perhaps were constructed with improved quality of structural concrete. Accordingly, earliest plans of the ateliers that were available to access were from 1968, where adjustments to the

17 Cansız, "Türkiye'de Kullanılan Deprem Yönetmeliklerinin Özellikleri ve Eşdeğer Yatay Deprem Yükü Hesabının Değişimi."

18 School archive, accessed by tbe author on June 26, 2024.

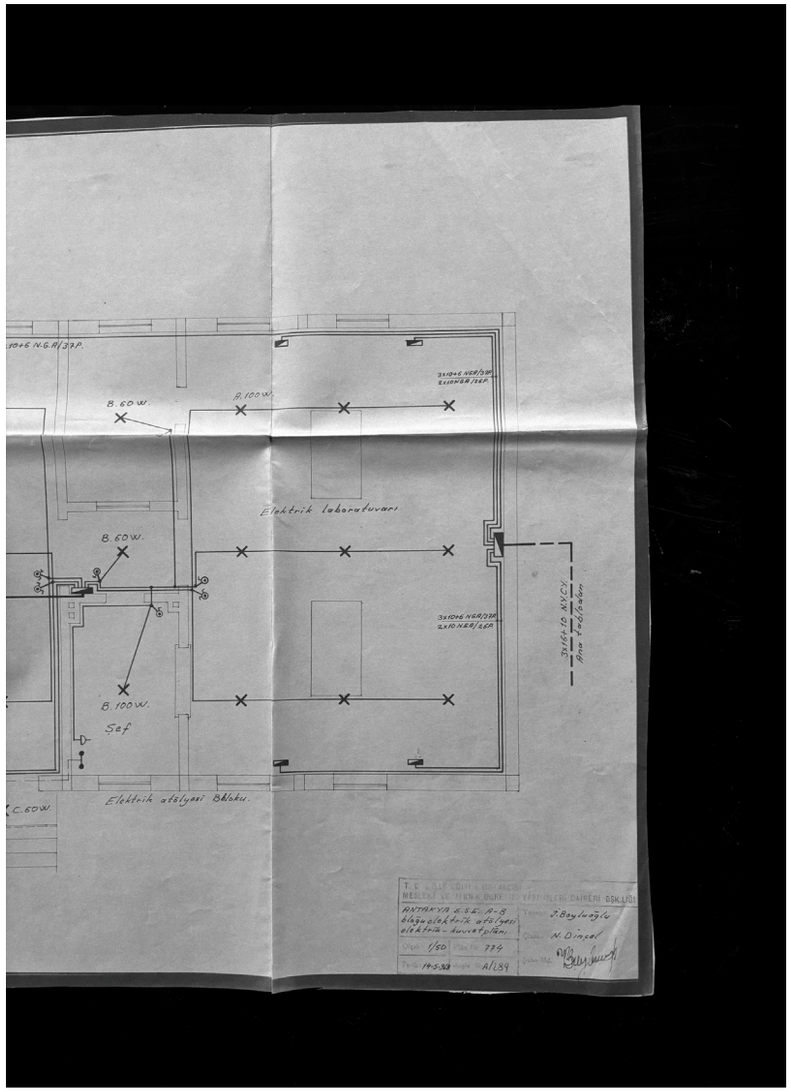


figure 4.3: Antakya Boys' Art Institute,atelier electric-power plan by Ministry of Education Directorate of Construction Works, 1968

School archive, accessed by tbe author on June 26, 2024.

electrical and mechanical system were made. It is assumed that there have been no structural alterations to the original buildings since then, except from minor changes to window frames, exterior and interior paints, and an additional space with a steel overhang built between two ateliers in a year unknown.[19]

There was, previously, another set of volumes apart from the E-shaped structure that consisted of classrooms, ateliers and a conference hall. It is unknown when this part was constructed, however it functioned until the rebuilding works in 2011. The two volumes of the school formed a courtyard between them. The rest of the plot was used for a basketball court and the ceremony area. In 2011 and 2014, changes and additions were made to the buildings in the site, funded by a philantrophist. The blocks that are not a part of the E-shaped building were transformed into bigger buildings that included more administrative offices, classrooms, ateliers and laboratories. The conference hall that also existed before changed in shape and form, allowing an open axis to form between one end of the plot to the other.[20]

These newly constructed buildings that are funded partly by the philanthropist and the Ministry of Education has performed significantly better than the rest of the buildings in the earthquake. The regulations have improved in Türkiye in the recent decades, and there are improved materials and techniques used in constructions, especially public buildings.[21] Alas, there was still enough damage on this part of the school that it was not possible to use it after the earthquake.

19 Ibid.

20 Ibid.

21 Akdemir and İnan Günaydın, "Türkiye Deprem Yönetmeliklerinin ve Deprem Haritalarının Tarihçesi."

figure 4.4: Antakya Boys' Art Institute.

School archive, accessed by tbe author on June 26, 2024.

An immovable asset..

The diverse elements of the school space resulted in various actors to be involved with various policies after the disaster, some of which dealing with the cultural value thereof. The oldest building in the site from 1944 by Ministry of Education, has been registered as immovable cultural asset located in the urban site and 3rd degree archaeological site in 1987 by the Ministry of Culture and Tourism.[22]

According to the definition in the Law on the Protection of Cultural and Natural Assets No. 2863, areas where cultural and natural environmental elements (buildings, gardens, vegetation, settlement textures, walls) are located together, which have architectural, local, historical, aesthetic and artistic features and have more value than their individual values due to their presence together; are defined as 'urban site'.[23]

Accordingly, the Boys' Art Institute is a part of such identity and heritage due to its proximity to and belonging in the same era as the Cumhuriyet Square's important historical buildings of governorship and administration. Therefore, it has been included in the urban plan of 1987 as an immovable cultural asset that needs to be protected. The importance of law numbered 2863 was that the scope of protection activities was expanded to the urban environment dimension by the definition of 'urban site' from only the single structure scale.[24] Consequently, urban conservation plans were prepared in Antakya by the municipality in 1987. While the studies were continuing, in 1982, the listed buildings that would be in the conservation plans were detected, and registered in 1985 by the High Council of Immovable Old Assets and Monuments.[25]

22 Rifaioğlu, "An Enquiry into the Definition of Property Rights in Urban Conservation."

23 Türkan Kejanlı, et. al. "Türkiye'de Koruma Yasalarinin Tarihsel Gelişimi Üzerine Bir İnceleme," *Elektronik Sosyal Bilimler Dergisi*. 6, 19 (2007):179-196. https://dergipark.org.tr/tr/pub/esosder/issue/6133/82249 (accessed June 26,

24 Ibid.

figure 4.5: Antakya Boys' Art Institute.

School archive, accessed by tbe author on June 26, 2024.

The period was also characterized in terms of institutionalization with the attempt to direct the development in the city parts with different institutions. The city was divided into pieces by the involvement of Municipalities, the Ministry of Culture and Tourism, the Ministry of Forestry, the Ministry of Public Works and Settlement, the Ministry of Environment, and the Land Office, and their productions did not integrate with each other.[26]

The disarray and confusion about authority and duty continued as various public institutions were responsible for heritage preservation through legal regulations and their areas of authority included the activity of various parties. According to the law, "Ministry of Culture" is authorized to preserve cultural values, and 'General Directorate of Protection of Cultural and Natural Assets' and the 'General Directorate

25 Rifaioğlu, "An Enquiry into the Definition of Property Rights in Urban Conservation."

26 Kejanlı, et. al. "Türkiye'de Koruma Yasalarinin Tarihsel Gelişimi Üzerine Bir İnceleme."

of Monuments and Museums' are established to carry out this duty. As such, it can be seen that the confusion and issues arising from the institutional structure in protection have started from the central organization with the fact that two general directorates became responsible for monuments, which have the status of immovable cultural assets.[27]

Despite the circumstances, many civil society organizations and some financial, industrial and media organizations continued protection efforts although they did not have a place in the legal framework and did not hold the power to impose sanctions.[28]

After 2004, the conservation legislation and its institutional framework were subject to extensive changes. With the Law on Amendments to the Law on the Protection of Cultural and Natural Assets and Various Laws No. 5226 in 2004 about the protection of cultural and natural assets, such organizations, professional chambers and citizens were also tried to be included for participation in addition to municipalities, governorates and relevant institutions.[29] Especially, a protection unit within the municipality's structure was established and authorized for the protection and maintenance of registered structures, which reduced the confusion about the authority. With the permission by the Ministry, metropolitan municipalities have established protection, implementation and inspection offices, where experts from various professions are responsible for the supervision of the applications, zoning plans, projects and materials for conservations and inspections.[30]

Another important change in 2004 was the transfer of rights of access. This included the possibility of the leasehold on property within Conservation and Development Areas to Turkish or foreign individual or corporate investors.[31] This made it possible for the philanthropist to be able to invest in the school by constructing new buildings to assist the improvement of educational space and have the right to ownership of the school in return.

The revision to the Urban Conservation and Development Plan was approved in 2009 with a revision to the conservation sites and their borders. The school's site remains in the urban and 3rd degree archaeological site until today, within the scope of the 1987 Conservation Plan, where Boys' Art Institute became a part of the urban site and a registered building.[32]

In 2009, ÇEKÜL Foundation, Chamber of Architects, in partnership with the Governor's Office and the Municipality, strategies to protect Antakya's cultural heritage were determined, with projects starting from the historical Kurtuluş Avenue, which were claimed to be mostly completed by mid-2012, however continuing until the earthquake happened in February 6, 2023.[33]

The registered building, together with the later-built ateliers in which it forms an E-shaped form, has almost completely collapsed into rubbles in the February 6, 2023 earthquakes. There are various reasons that came together that inevitably resulted in the collapse; the natural factors such as the proximity to the fault lines and the proximity to the riverbed that resulted in soil liquefaction.[34] The structural factors were that the materials and techniques of the buildings were not suitable to the standards for concrete structures in earthquake zones, which were not officially applied to begin with in their time of construction.[35] Additionally and perhaps most importantly, despite the registration as immovable cultural asset and plural revisions to the plans, institutional frameworks and legislations; protection and preservation measures were not implemented adequately; resulting in the total collapse and loss of an important cultural asset.

.. makes for a movable rubble

As the schools were moved to temporary settlements and other places in the first two months of the disaster, most of the city was cleared of the debris around April 2023. At the same time, the removal of the debris in the urban and archaeological sites were carried out starting from February 27, 2023 by the Hatay Disaster Zone Excavation Directorate, affiliated with the Ministry of Culture and Tourism;[36] and have received criticism by associations and professional chambers as they claimed

27 Ibid.

28 Ibid.

29 Esra Kurul and Neriman Şahin Güçhan, "A History of the Development of Conservation Measures in Turkey: From the Mid 19th Century Until 2004," *ODTÜ Mimarlık Fakültesi Dergisi*, 26, 2 (2009): 19–44. doi: 10.4305/metu.jfa.2009.2.2

30 Rifaioğlu, "An Enquiry into the Definition of Property Rights in Urban Conservation."

31 Kurul and Şahin Güçhan, "A History of the Development of Conservation Measures in Turkey: From the Mid 19th Century Until 2004."

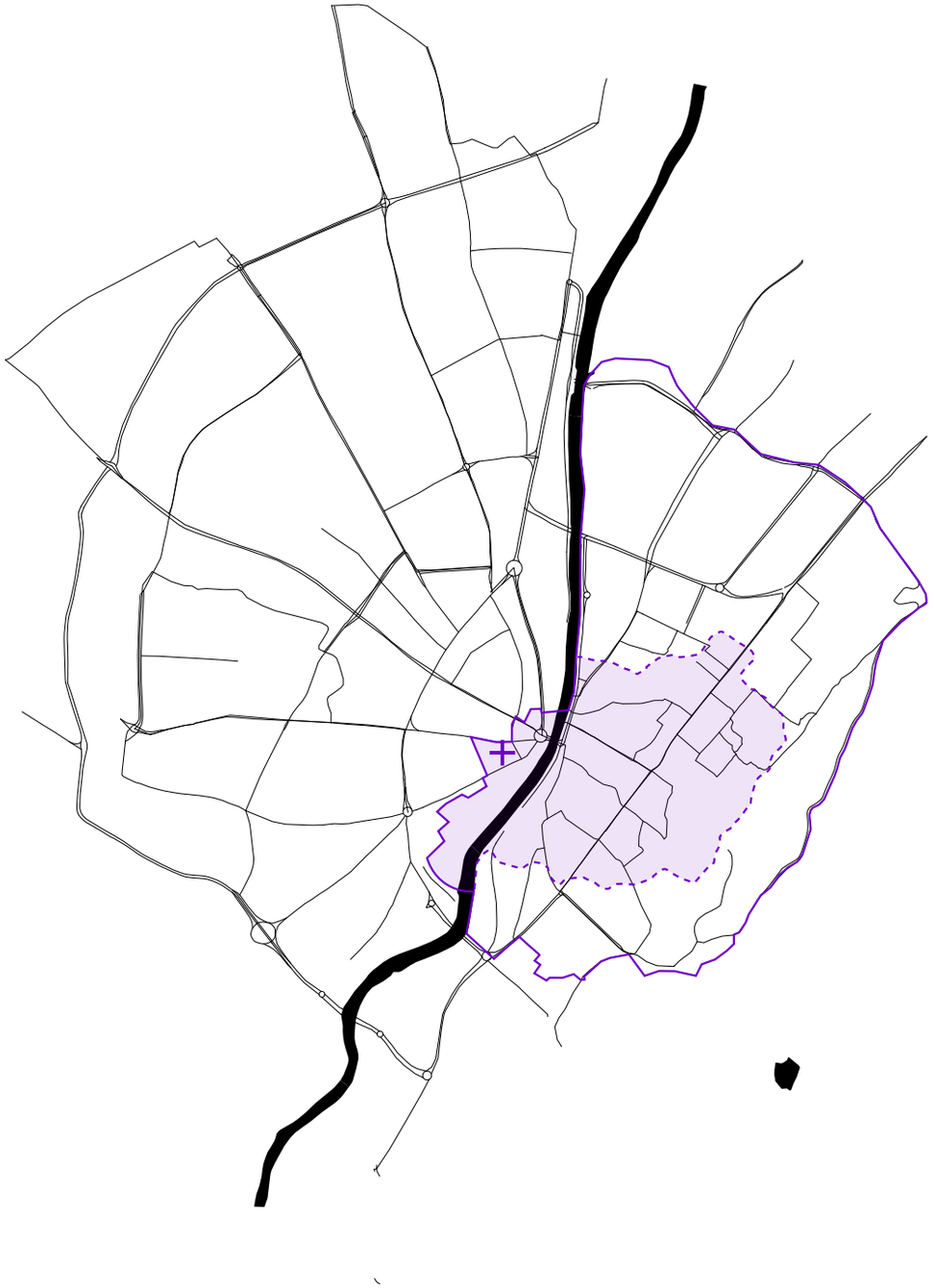
32 Rifaioğlu, "An Enquiry into the Definition of Property Rights in Urban Conservation."

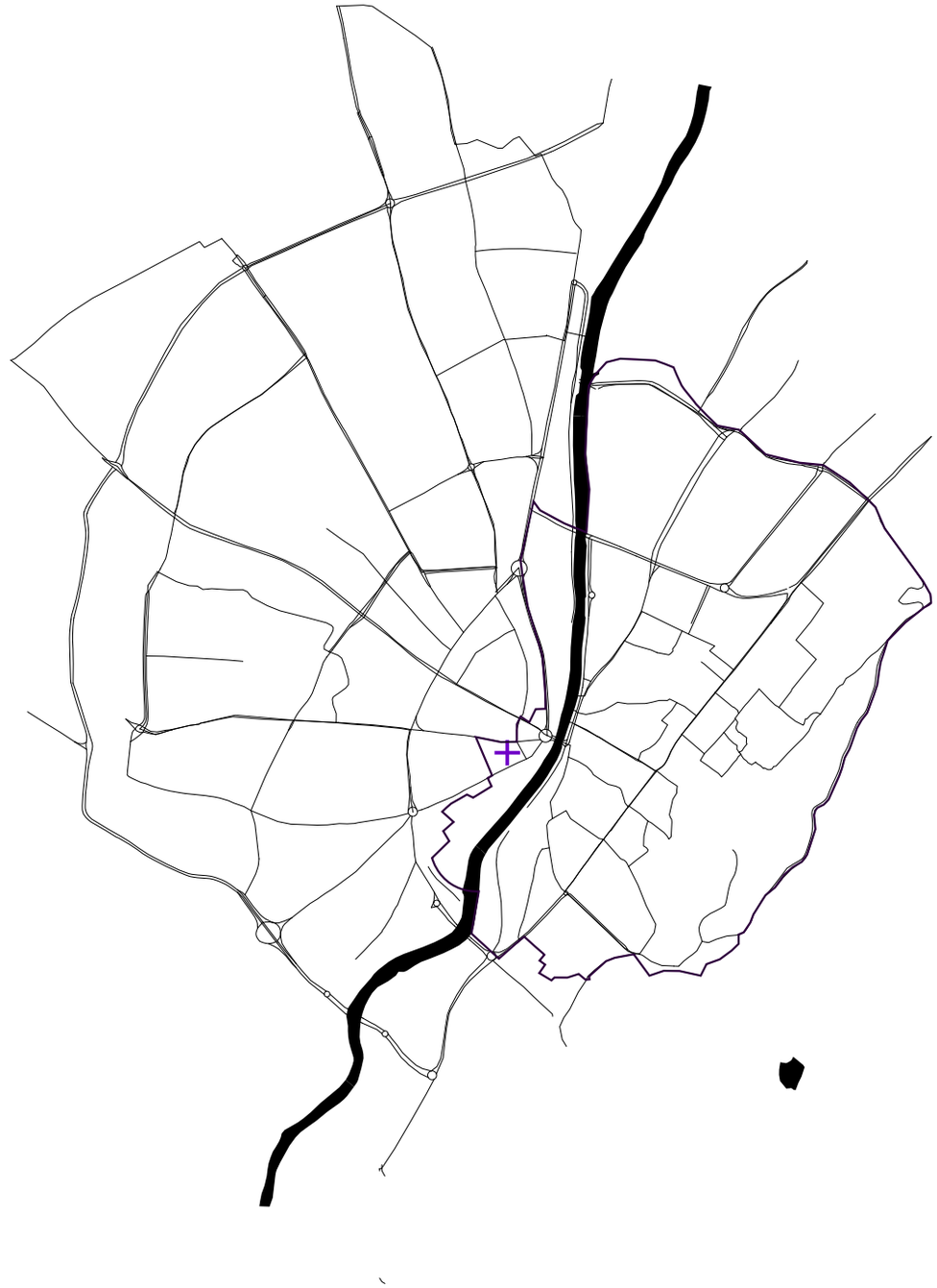
33 Asena Soyluk and Zeynep Köse, "Tarihi Alanlarda Afet Riski Azaltma Planları ve 6 Şubat 2023 Kahramanmaraş Depremleri: Kurtuluş Caddesi Örneği," *Journal of Architectural Sciences and Applications*, 9(2024): 64-83

34 Korkmaz, "Antakya'da Zemin Özellikleri ve Deprem Etkisi Arasındaki İlişki."

35 Akdemir and İnan Günaydın, "Türkiye Deprem Yönetmeliklerinin ve Deprem Haritalarının Tarihçesi."

36 "Antakya Tarihi Kent Merkezi Koruma Çalışmaları," T.C. Kültür ve Turizm Bakanlığı, https://antakyatarihikentmerkezi.ktb.gov.tr/ (accessed on June 26, 2025.)


0
0.5
1 km
Antakya Vocational High School
Urban conservation site borders
Urban and 3rd degree archaeological site


0
0.5
1 km
Antakya Vocational High School
Risky area borders

that precautions were not taken against registered buildings.[37] Ministry of Culture and Tourism claims that, 'before the debris removal of all registered cultural heritage buildings within the Urban Protected Area of Hatay Province, Antakya District, the field examinations are carried out by experts from the Disaster Excavation Directorate and the Survey and Monuments Directorate'. Additionally, the cultural assets' debris are dumped in a separate area to be distinguished from other debris and each other, to be used for reconstructions later.[38]

On April 4, 2023; the area including the historical city center and Kurtuluş Street in Antakya District of Hatay Province has been declared a risky area within the scope of Law No. 6306 on the Transformation of Areas at Disaster Risk by Presidencial Decree. The law includes all buildings without a distinction between private and public areas.[39]

Between the Ministry of Culture and Tourism and the Ministry of Environment, Urbanism and Climate Change, the "Protocol on Works to be Carried Out in Hatay Province Due to the Earthquake Occurring on February 6, 2023" was signed on May 15, 2023, regarding the works to be carried out in the "Risky Area" decleared by the Presidential Decree.[40]

The conservation zoning plan covering an area of 307 hectares was suspended on June 11, 2024. 6.5 months passed after the objections and the plan was revised and suspended for the second time on January 22, 2025. The 15-day objection period was to expire on February 5, 2025.[41]

Concerning the school site, the rubbles of the collapsed building was removed by the Ministry of Culture and Tourism by the time of the site visit I conducted on June 26, 2024. It was mentioned at that time by the school staff that the rubbles which included the stone façade elements, the local 'fire brick' used for the construction of the ateliers, the wooden doors and similar elements which have historical value would be used for the project to be implemented to the site.

37 "Öne Çıkan Sorunlar ve İhtiyaçlar," HPM, November 2023, 16. https://hatay-planlamamerkezi.com/tr-TR/pages/yayinlarimiz (accessed May 12, 2025.)

38 T.C. Kültür ve Turizm Bakanlığı, "Antakya Tarihi Kent Merkezi Koruma Çalışmaları."

39 "Presidential Decree No. 7033 dated 4/4/2023," Official Gazette, Published on April 5, 2023. https://www.resmigazete.gov.tr/eskiler/2023/04/20230405-14.pdf (accessed on June 26, 2025.)

40 T.C. Kültür ve Turizm Bakanlığı, "Antakya Tarihi Kent Merkezi Koruma Çalışmaları."

41 Tuğçe Yılmaz, "Antakya Koruma Planı Kimi Koruyor?" *Bianet*, February 4, 2025. https://bianet.org/haber/antakya-koruma-plani-kimi-koruyor-304234 (accessed on April 24, 2025.)

Parallels and intersections

The other part of the school which was affected by the earthquake included the buildings that were constructed in 2008 and 2014 by the philanthropist.[42] The philanthropist normally owned the school grounds due to the legislation about the investments on cultural asset sites.[43] However, the risky area decision passed the confiscation of all the parcels in the area to the Council of Ministries. According to the law, the risk assessment of the buildings are to be made by the owners and their representatives in the area declared as risky by the Council of Ministers. If not done in the necessary time period, the Ministry will have the risk analyses made ex officio. These expenses incurred by the Ministry will be collected from the owners and an annotation will be added to the title deed.[44]

Accordingly, the risk analysis of the buildings were done in October 2023 and after the strength levels were assessed, the strengthening project was applied to the buildings in February 2024 with the support of the philanthropist.[45] When the author visited in June 2024, the strengthened buildings were in the condition to go inside.

However, processes concerning the decisions and declarations of the central government have affected progression of the restoration of the school space, along with other public and private spaces. A partnership protocol for "Antakya Historical City Center Conservation Plan Revision" between the Ministry of Culture and Tourism and Türkiye Design Council was signed on July 24, 2023.[46] According to this protocol, Hatay Design and Planning Collaboration Group was formed to actively engage in the urban and architectural design processes together with the involvement of various international and local architecture offices.[47]

According to this protocol, a pilot area was decided for the master plan to be implemented in Antakya as the first phase of the design process. In this regard, Ministry of Culture and Tourism is linked to the Ministry of Environment and several local governmental bodies such as the Governorship, Hatay Metropolitan Municipality, Antakya Munici-

42 School archive, accessed by tbe author on June 26, 2024.

43 Kurul and Şahin Güçhan, "A History of the Development of Conservation Measures in Turkey: From the Mid 19th Century Until 2004."

44 Ilgın Özkaya Özlüer, "6306 Sayılı Kanun Kapsamında Riskli Alanlarda Riskli Olmaya Yapıların Durumu," *Ankara Barosu Dergisi*, 1(2018): 247-269.

45 School archive, accessed by tbe author on June 26, 2024.

46 T.C. Kültür ve Turizm Bakanlığı, "Antakya Tarihi Kent Merkezi Koruma Çalışmaları."

47 TTV Hatay. "Hakkımızda."

pality and local civil society organizations for the practical matters concerning the application of the master plan; which is essentially supposed to be a revision to the Historical Center Conservation Plan.[48]

The area that was decided as the pilot involved several neighbourhoods that included mainly residential units. It was announced on November 14, 2023 that a 207-hectare area in Antakya and Defne districts was declared a "Reserve construction area". The decision was based on the recently published amendments to the Law 6306 on November 9, which included regulations regarding urban transformations on risky areas. The areas are determined by the Ministry of Environment ex officio or upon the request of the Housing Development Administration (TOKİ). With this historically important decision, a settlement area has been declared a reserve area for the first time in Türkiye. This declaration means that the Ministry of Environment is now legally authorized with the creation of new zoning plans and new roads, the relocation of all parcels and the use of the parcels, essentially transferring the parcel or residential property ownership of the public to the Ministry. The implementation of the declaration starts with the transfer of title deeds in the area to the Treasury; preventing citizens from filing objections and lawsuits against it.[49]

Within the framework of the purpose of the Law, the reserve areas can be used as new settlement areas for those residing in risky areas and risky structures, and any other application of workplaces that will generate income and revenue can be carried out.[50] The point in which the processes around the school intersects with the reserve area decisions is precisely that, with the application of the Law, the planned activities that a new school design is a part of, started to be speedily carried out by the collaboration of Ministry of Culture and Tourism and Türkiye Design Council; starting with the apartment complexes of TOKİ, and commercial areas on the both sides of the Asi River.

In late 2023, the project for the school was announced with a number of other public and private projects by the Hatay Design and Planning Collaboration Group.[51] The pilot plan area has slowly started

48 Ibid.

49 Tuğçe Yılmaz, "Türkiye Genelinde İlk Defa Bir Yerleşim Yeri Rezerv Bölge İlan Ediliyor," *Bianet,* November 28, 2023. https://bianet.org/haber/turkiye-genelinde-ilk-defa-bir-yerlesim-yeri-rezerv-bolge-ilan-ediliyor-288546 (accessed on April 24, 2025.)

50 Ibid.

51 TTV Hatay. https://ttvhatay.com/

to be constructed, and the rest of the city is slowly filling up with one-type apartment buildings by TOKİ that do not reflect the masterplanning ideas. During this time, although many schools have been constructed outside of the city with prefabricated structures and some continue in their own buildings with strengthening works, the site of Antakya Vocational School remains vacant, while its students and academic staff are waiting for the project to be implemented.

This vacancy is only interrupted by the continued efforts of the philanthropist to improve the current conditions of the school. After the strengthening works, it was mentioned by the school staff that the students and academic staff would like to come back to their schools as they were struggling with their situation at the time, and thought the strengthening works would accelerate the rebuilding of the school. Since then, the annex building and the conference hall has also been strengthened together with renewed open hard surfaces and stairs. The philanthropist also signed a new protocol with Ministry of Education in order to build new atelier spaces of reinforced concrete. [52] This structure is expected to initiate the school's return to their original building.

Eventually, it has not been possible for the students of Antakya Vocational School to be able to reinhabit their own school space for more than two years. Therefore, the investigation on their whereabouts and transformations that the school went under as an institution, gains importance in the light of the discoveries about processes, policies, actors and their effects on the physical school environments.

A lasting sojourn

As per the decision of the Ministry of Education, the schools have gradually opened in the affected regions of Türkiye, schools in Hatay being the last one to open on March 27.[53]

However in Antakya, the schools did not open until the beginning of the next academic year on October 2023.[54] Many schools were still damaged and out-of-use in Antakya during the time, including An-

52 Samim Selçuk, "Hatay'da Meslek Lisesine Atölye Yapımı Protokolü İmzalandı," *DHA,* Marcg 21, 2025. https://www.dha.com.tr/yerel-haberler/hatay/antakya/hatayda-meslek-lisesine-atolye-yapimi-protokol-2604857 (accessed on June 27, 2025.)

53 "Depremden En Çok Etkilenen 4 İlde Eğitim Öğretime Kademeli Olarak Başlanacak," MEB, March 21, 2023, https://www.meb.gov.tr/depremden-en-cok-etkilenen-4-ilde-egitim-ogretime-kademeli-olarak-baslanacak/haber/29406/tr (accessed on April 24, 2025.)

54 Personal communication with school's teachers.

takya Vocational High School. By the decision of the Ministry of Education and through the Provincial Directorate of National Education in Hatay, schools that were damaged were 'matched' with the safe schools. Hatay Erol Bilecik Vocational High School was matched with Piri Reis Multi-Program Anatolian High School.[55]

When I met the teachers of the school in their original school site for a site inspection, they expressed the difficulties of sharing an unfamiliar school space with others, and being, so to speak, an 'uninvited guest'. Although the teachers have reported that the students have received some governmental support such as mobile education where they have been transported to the school from the temporary settlements that they've been staying in, and food aid for the school lunch; they expressed that both students and the teachers cannot wait to be back to their own school grounds.[56]

While most of the students lived in the neighbourhoods around the school; this situation has changed after the earthquake as both the students and the school had to be displaced. Although now there is no neighborhood to be spoken of in relation to its distance to the 'new' school space, it can be said that the dispersion of communities into different temporary settlements inevitably decreased the opportunity to access education for many students, as confirmed by the teachers.[57]

The practical difficulties arisen from the matching can easily be understood from a comparison of the capacity of the schools. Before the earthquake, Hatay Erol Bilecik Vocational High School had 1226 students that were receiving education in 9 fields, in 36 classrooms, 25 laboratories and 8 ateliers,[58] while Piri Reis Multi-Program Anatolian High School had 730 students that received education in 24 classrooms and no ateliers.[59] The teachers of the school had mentioned in the meeting that out of the 1226 students, only around 600 were continuing education after the earthquake.[60] Evidently, when a school with 9 fields that require many laboratories and ateliers was having a hard time adapting to the new school space that was inadequate to provide for their educational needs. Additionally, as the schools that were matched were to pass to dual education system, each school had half day to use the school building. This resulted in shortened class periods.

In this sense, matching schools just to be able to open them while disregarding the problems that arise with this policy increased the issues of students and teachers who are earthquake victims still dealing with the long-term struggles that the disaster brought upon.

The school's journey did not end there. In October 2024, they was moved to a light steel school building that was constructed a month earlier.[61] The site of this contruction originally belonged to another vocational school, Ali Sayar Industrial Vocational High School. After the earthquake, the heavy damage that the buildings suffered prevented the school building to be used. In the meanwhile, students were moved to another school, similar to the case study that's being investigated. After the Industrial Vocational High School was demolished, two light steel school buildings were constructed for two schools.

The initiation goes back to the policies set before the earthquake. Ahbap Association, which is a non-profit civil society organization, had signed a protocol with Disaster and Emergency Management Directorate (AFAD) in 2021 that officiated the collaboration between two organizations.[62] Indeed, Ahbap Association has already initiated many aid efforts during the initial response for the February 6 earthquakes. Although the school projects did not concern the immediate disaster relief nor included AFAD, the protocol helped to make the collaborative approach official for the non-governmental organization and paved the way for other protocols to be signed between the NGO and governmental institutions. Ahbap expresses that the protocol signed between the association and the local government will help alleviate the need for quality space that the students would be able to continue their education in, 'safely and without fear'.[63]

When compared to the original school space, the physical capacity of the new construction is nearly not enough to house the number of students in classrooms. Additionally, the places of practice that are essential to vocational education such as laboratories and ateliers, and the

55 Two documents that have been published on *Antakya Milli Eğitim Müdürlüğü* website, which are currently unavailable in the address https://antakya.meb.gov.tr/, showed a list of schools in Antakya province with data about their physical conditions, who were to use it, and which school were students transferred to.

56 Personal communication with school's teachers.

57 Ibid.

58 Hatay Erol Bilecik Mesleki ve Teknik Anadolu Lisesi, https://hatayerol-bilecikmtal.meb.k12.tr/ (accessed on April 21, 2025.)

59 Antakya Piri Reis Çok Programlı Anadolu Lisesi, https://pirireiscpal.meb.k12.tr/ (accessed on April 21, 2025.)

60 Personal communication with school's teachers.

61 Personal communication with school's teachers.

62 "Ahbap ve AFAD Arasında İş Birliği Protokolü İmzalandı," *AHBAP*, https://ahbap.org/haberler/ahbap-ve-afad-arasinda-birligi-protokolu-imzalandi (accessed June 27, 2025.)

63 "Hafif Çelik Okullar Projesi," *AHBAP*, https://ahbap.org/haberler/ahbap-ve-afad-arasinda-birligi-protokolu-imzalandi (accessed June 27, 2025.)

mechanical and technological infrastructure necessary to sustain such activities are absent from the said educational space.

In this sense, the architectural provisions that are the results of the type of educational institution is disregarded with the intent to provide some sort of space for 'education'. The type of education envisioned here needs to be discussed further as all the other spaces that differentiate a vocational school from a high school, or even an elementary school from a middle school are omitted to leave a sort of perceptional 'core' of education: a classroom.

It is clear that the current learning environment is not nearly enough to compensate for the loss that the students and teachers experienced. Nevertheless, it is a step in recognizing the significance of school as space and the emphasis thereof as urban objects in the post-earthquake mitigation and adaptation processes.

Additionally, this case further underlines the necessity of the discussion of public space and public infrastructure in relation to other elements of the city. In the case of schools of Antakya, living conditions, the disorganization, displacement, socioeconomical repercussions of the disaster are still evident in the everyday life of people. These conditions also affect the educational system, its physical spaces and users. While the educational network is not a solitary element and cannot be thought or evaluated separate from the rest of the city functions; it acts as a microcosm in which, through its evaluation, the macro-scale post-disasterness of Antakya can be read.

Following are logbooks no.1 and no.2, documenting the study trips I conducted on June 26, 2024 and May 16, 2025. The first logbook covers my visit to the original school building, my conversations with people and observations. In the second logbook, I documented my trip to both the light steel school building and the original school building, with conversations with teachers and staff. While the logbooks contain mostly personal impressions and subjective comments, I believe it helps the discourse of this thesis by providing a real and interactive experience of what have I been studying, and what have I missed so far behind a screen.

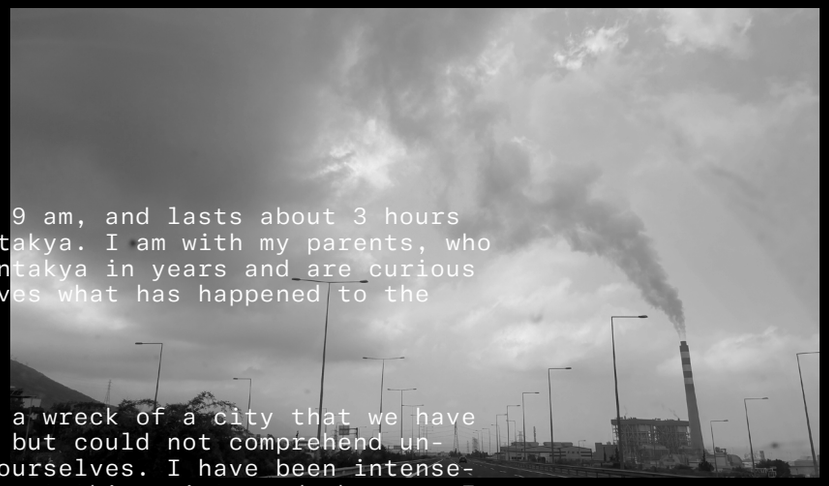
The findings from research and study trips are presented in the format of a process map at the end of the chapter.

MAP: Study trips

logbook no.1

26.06.2024

12:30



Our trip starts at 9 am, and lasts about 3 hours before we enter Antakya. I am with my parents, who have not been to Antakya in years and are curious to see for themselves what has happened to the city.

We are welcomed by a wreck of a city that we have seen from the news but could not comprehend until we saw it for ourselves. I have been intensely studying Antakya at this point, and wherever I look, I see a glimpse of what was there before, what is now lost.

This part of the city has many plots where excavations for new settlements have already started. It is one of the prioritized areas, as it is considered the city center.

Our destination is Erol Bilecik Technical and Vocational High School. I had a few phone calls made before, to arrange meeting in the original site. The school is now matched with another school, and use their building. Still, they were too kind to come to the original site and accompany us.

We park our car in front of the school building, where Atatürk Park's entrance is right across the street. Right away, the damage on the school building is visible. The annex building has a few walls sticking out of the broken windows and broken tiles all over the ground.

The main staircase that connects this level to the elevated playground is destroyed, so it is not possible to use it to go up.

There is also a pile of stones and dirt where the old building used to stand. I tell my parents this, as I know what the school looked like before the earthquake.

13:00

As we wait and observe our surroundings, the school staff approaches us and guides us around the plot to enter the school ground from the east side. I am trying to comprehend the pile of stones I see, imagining the historical school that collapsed on the spot here.

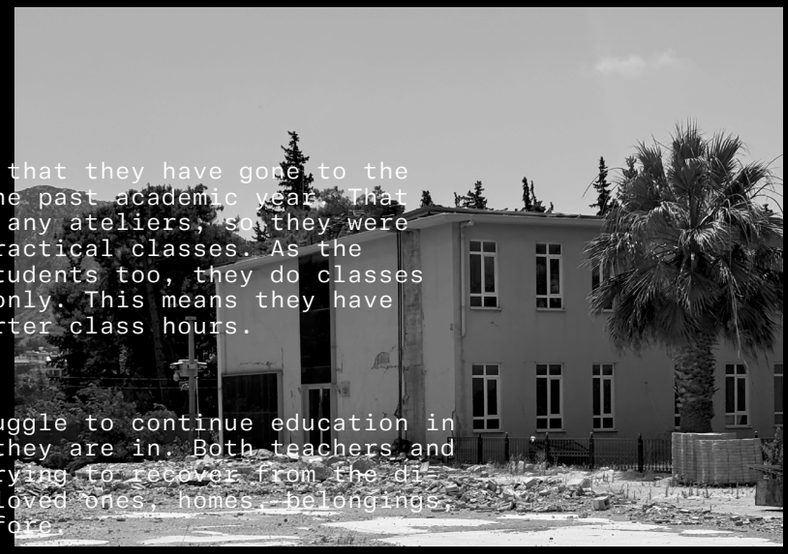
Upon entering the playground, we walk towards two containers that are set on the northern entrance of the school plot. Out in front of them, a few seats are occupied by the school staff and teachers; smoking, drinking tea and chatting.

They welcome us, and I am surprised that there are more people than I expect. As our visit is after schools are closed, the teachers are only there for the ‘seminar’ period. My parents and I shake hands with everyone before making our way into the strengthened building.

We enter the area right next to the auditorium, which contains the administrative rooms on the upper floor. Here, I request to look at any available drawings they have of the school.

As it is my first visit, I want to gather as much tangible data as possible. Also, the research I want to conduct requires me to understand the architecture of the school thoroughly.

14:00



The teachers tell me that they have gone to the matched school for the past academic year. That school does not have any ateliers, so they were not able to do any practical classes. As the school has its own students too, they do classes for half of the day only. This means they have less classes and shorter class hours.

They say it is a struggle to continue education in the conditions that they are in. Both teachers and students are still trying to recover from the disaster; having lost loved ones, homes, belongings, the life they had before.

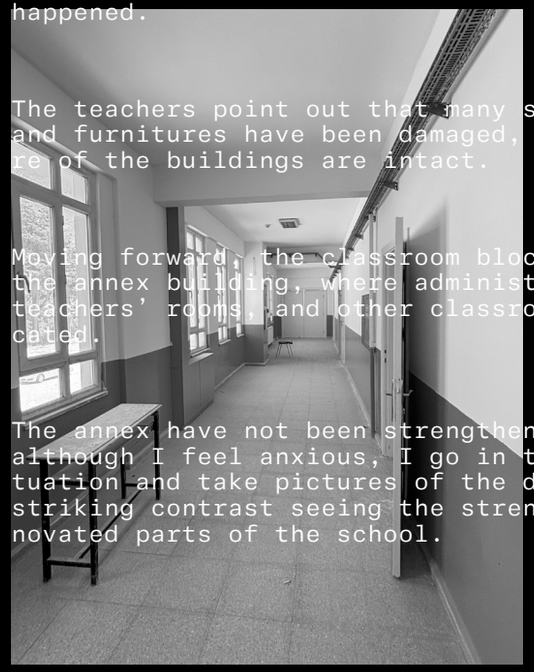
I ask if they received any support so far. They say *“Students did, they received free lunch service and mobile education. Most students live in containers far away now; so they received transportation service to school and back where they live.”*

15:00

As we have limited time, after I finish documenting the drawings they show me, I ask if I can have a walk inside the school and take some photographs.

The buildings that have been built earliest in 2011, have undergone strengthening, sponsored by the philanthropist Erol Bilecik-who also sponsored the building of the structures in the first place.

I walk into the strengthened building with teachers and see that it is in good condition. The strengthening works took place in the past months, and from the interior it seems as if nothing has happened.



The teachers point out that many school equipment and furnitures have been damaged, but the structure of the buildings are intact.

Moving forward, the classroom blocks connect to the annex building, where administrative rooms, teachers' rooms, and other classrooms had been located.

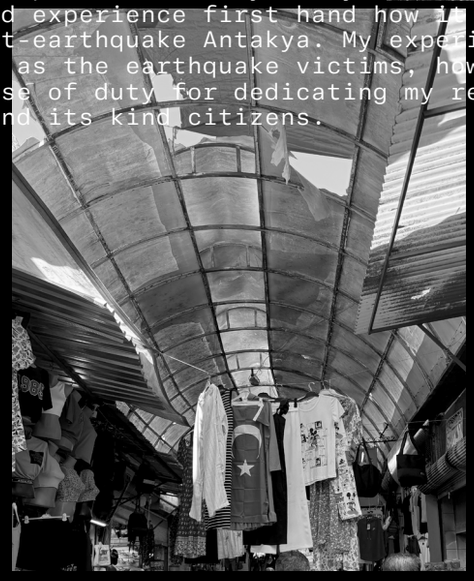
The annex have not been strengthened yet, and although I feel anxious, I go in to see the situation and take pictures of the damage. It is a striking contrast seeing the strengthened and renovated parts of the school.

16:00

With my research in the school is done, we take a stroll through the Long Bazaar in the city center.

There are still many ruins around, especially as this is the old district of Antakya; but we are surprised to see that they are not removed yet and people need to live and work among them.

This first trip is definitely an eye opener for me. I see and experience first hand how it is like to be in post-earthquake Antakya. My experience is nowhere near as the earthquake victims, however, I regain a sense of duty for dedicating my research to Antakya and its kind citizens.



Afterwards, I use the information I acquired during the trip in order to construct a retrospective spatial analysis of the school building. Combined with online sources, I use photographic evidence to assess the damage, and identify the timeline of transformations of school space between the earthquake and present.

This generates a new set of questions for me; why does the damage level vary? When is the rubble removed and by who? Who oversees the decisions regarding school space? Is there a difference in the process or procedures between the old building and the new ones, between heavily damaged and lightly damaged?

The spatial reading I perform through the study trip, documents and photographs help me reconstruct the process from even before the earthquake.

This way, I am able to connect and compare the before and after the disaster in terms of both architectural space and spatial politics. Additionally, I am able to materialize the dynamics between politics and architecture through visual representation; which is the very input that I use in the construction of an alternative, imaginary present.

Photographs [November 2022]

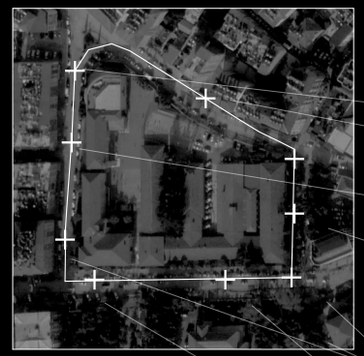
Photographs [May 2023]

Photographs [June 2024]

Photographs [May 2025]

The visual data is gathered to create a base for the investigation. The images are taken from the web sources that show the previous condition of the school and its state in the aftermath of the disaster. Additionally, a site visit is conducted on June 26, 2024 to collect more visual data in person.

Satellite imagery [22.12.2022]



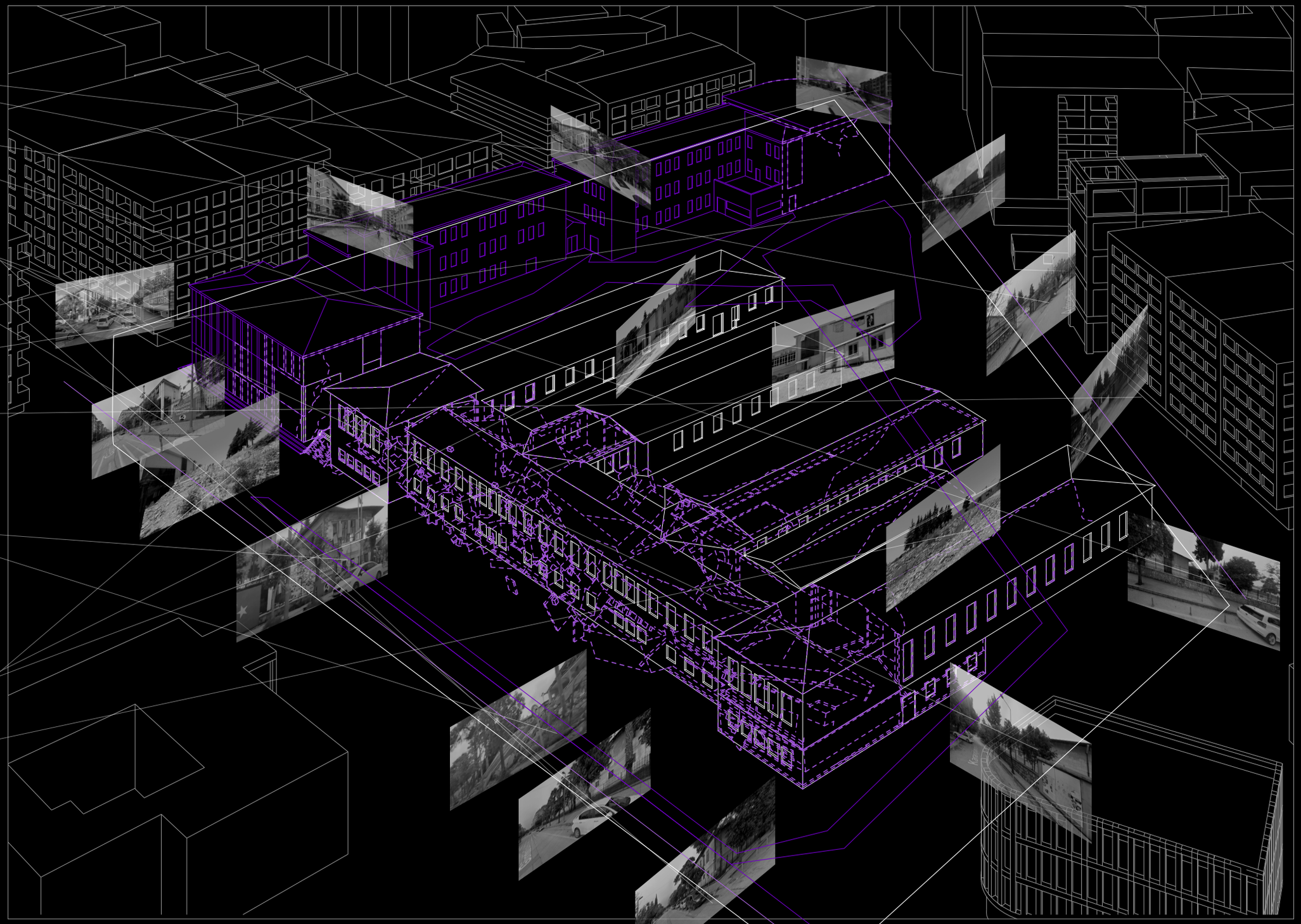
November 2022

Satellite imagery [26.04.2023]

May 2023

Satellite imagery [03.03.2024]

June 2024 by the author



LEGEND

November 2022

May 2023

June 2024

IMAGE CREDITS

November 2022: Google Maps Street View

May 2023: Google Maps Street View, https://www.youtube.com/watch?v=pmTvwTlc5BM

June 2024: Author's own photographs

logbook no.2

16.05.2025

13:00

While arriving at the city center, we spot many permanent settlements freshly made by TOKİ. They are mostly near villages and smaller settlements, though still relatively close to the city center.

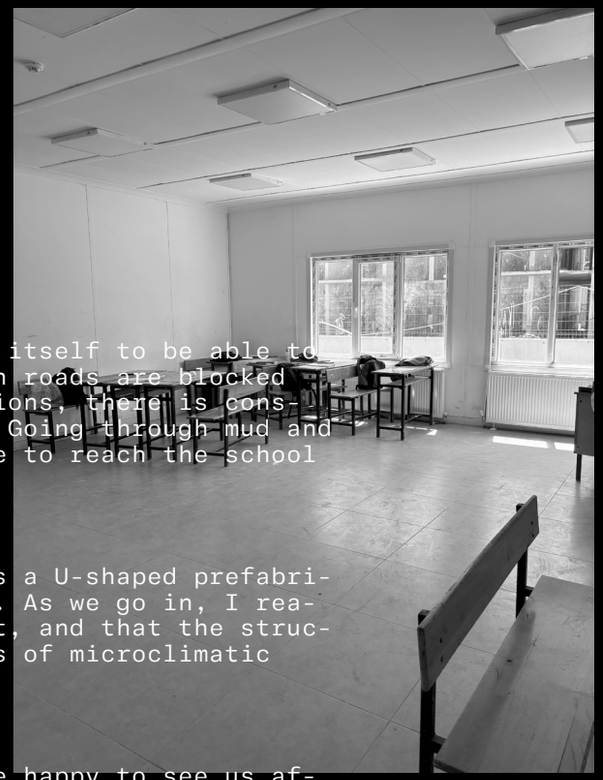
The city resembles a huge construction site. There are constructions literally everywhere, contributing to the air pollution and the chaotic situation still present. This reminds us the fact that the repercussions of the earthquake is still ongoing after two years, even though it is not frequently on the news anymore.

For this trip, our destination is the light steel building that the school uses. I planned ahead of the trip with the teachers, and know that it will be school hours when I go there.

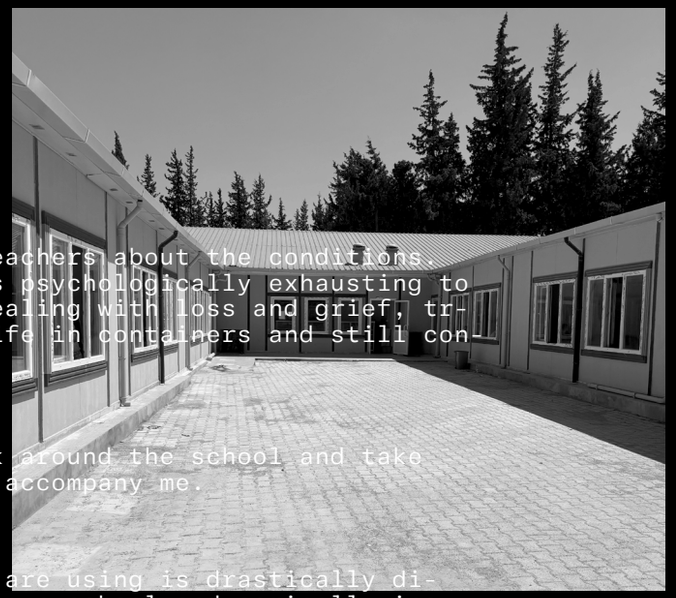
It is an entire challenge in itself to be able to reach the school. As the main roads are blocked due to wide spread constructions, there is constant traffic jam in Antakya. Going through mud and water with our car, we manage to reach the school site.

We go in the school, which is a U-shaped prefabricated single floor structure. As we go in, I realize that it is extremely hot, and that the structure is not adequate in terms of microclimatic performance.

We meet the teachers, who are happy to see us after a year. They value the research, especially since it makes them feel that they are not forgotten or left alone with their problems.



14:00



We chat with the teachers about the conditions. They say that it is psychologically exhausting to live in Antakya, dealing with loss and grief, trying to adapt to life in containers and still continuing education.

I ask if I can look around the school and take pictures, and they accompany me.

The structure they are using is drastically different from their own school and comically inadequate. It only has 13 classrooms - and they have to combine classes in order to accommodate for approximately 600 students.

I notice, aside from the microclimatic issues, the structure has many other problems. It does not offer any social spaces, the open space is basically emptiness, with no designated areas or greenery. It feel soulless, and temporary; although this has been their permanence for the last year.

Additionally, the maintenance and services are lacking too. There is suddenly a problem in the plumbing system and the floors get soaked in polluted water when we are there. I can see that it is annoying and defeating to try to continue in such conditions, although teachers and students seem to have gained a desensitized attitude, perhaps as a way to cope with everything.

15:00

We cut our visit short in the school as I have one more stop to make before leaving Antakya.

We make our way to the original school site, where a school staff is watching over. He greets us and walks around and inside with me to show the latest condition. I see that the annex building is also strengthened and repaired.

He says *“There will be a new, concrete atelier right here,”* while pointing to the empty plot left from the historical building. I learn that it is planned to be constructed soon, and school wants to be opened in its original location in the new academic year.

17:30

As we leave Antakya later that day, I try to recollect my thoughts and observations.

The two site visits I have conducted tremendously help me, because I get to personally interact with the school space. My research enables me to situate myself in the actor position, as I am generating discussions around it, while interacting with the space itself, the other actors and politics of such relations.

As I plan to construct an alternative process within this research, I think of the possibilities, and the probability of those possibilities. It is easier to imagine the possibilities rather than the conditions in which it could be constituted.

I pay attention to the fact that although teachers and students are the actors that interact with school space the most, they have the least impact on the modalities of its formation. This is not only because there is no suitable political climate for it, but also because as the earthquake victims that have lost their old lives, they are in a vulnerable and powerless position.

Still, what I observe from their interactions with the space are valuable inputs in the scenario I generate. I use my impressions as a guideline for shortcomings and potentials of any alternative to the current reality.

Thus, I focus on including all aspects and all sides regarding the processes concerning the architectural space of the school. This helps in the understanding of the weight of the actors in constructing our current reality.

"Wait for us, we will eat künefe again, Hatay."
A graffiti in Antakya/Hatay.

Photo taken by the author on May 16, 2025.

TIMELINE: Post-earthquake school space in retrospect

1944
The original E-shaped building is designed by Paul Bonatz and applied by MEB.

1967
Minor changes and improvements are made on the atelier spaces.

1987
The original school building is included in the urban plan as a registered immovable asset by KTB and the plot became a part of the urban and 3rd degree archaeological site.

2008
Building Earthquake Regulations of 2008 started to be enforced by AFAD.

2011
The new annex building and congress center were opened by the philanthropist.

2014
A new building with 30 classrooms was opened by the philanthropist.

2018
Old structures are demolished and new, extended structures are built by the philanthropist. Additional structures are also added to provide for increasing need for classrooms, ateliers and other spaces.

2023 feb
Building Earthquake Regulations of 2018 started to be enforced by AFAD, also concerning previously built structures that require strengthening.

As a result of the earthquake, the oldest buildings from 1944 and 1967 have collapsed.

2023 apr
The buildings from 2011 to 2014 have suffered heavy damage and became unusable until further inspection and intervention.

The open space of the school was used by cars and containers for a short while.

2023 may
On April 4, 'Risky Area' including the school grounds declared by Presidencial Decree.

On May 15, ÇŞİDB and KTB signed protocol for the works to be carried out on the 'Risky Area.

2023 oct
Photo and video data showed that there has been no debris removal work on the plot until this point in time.

The rubbles were removed by KTB.

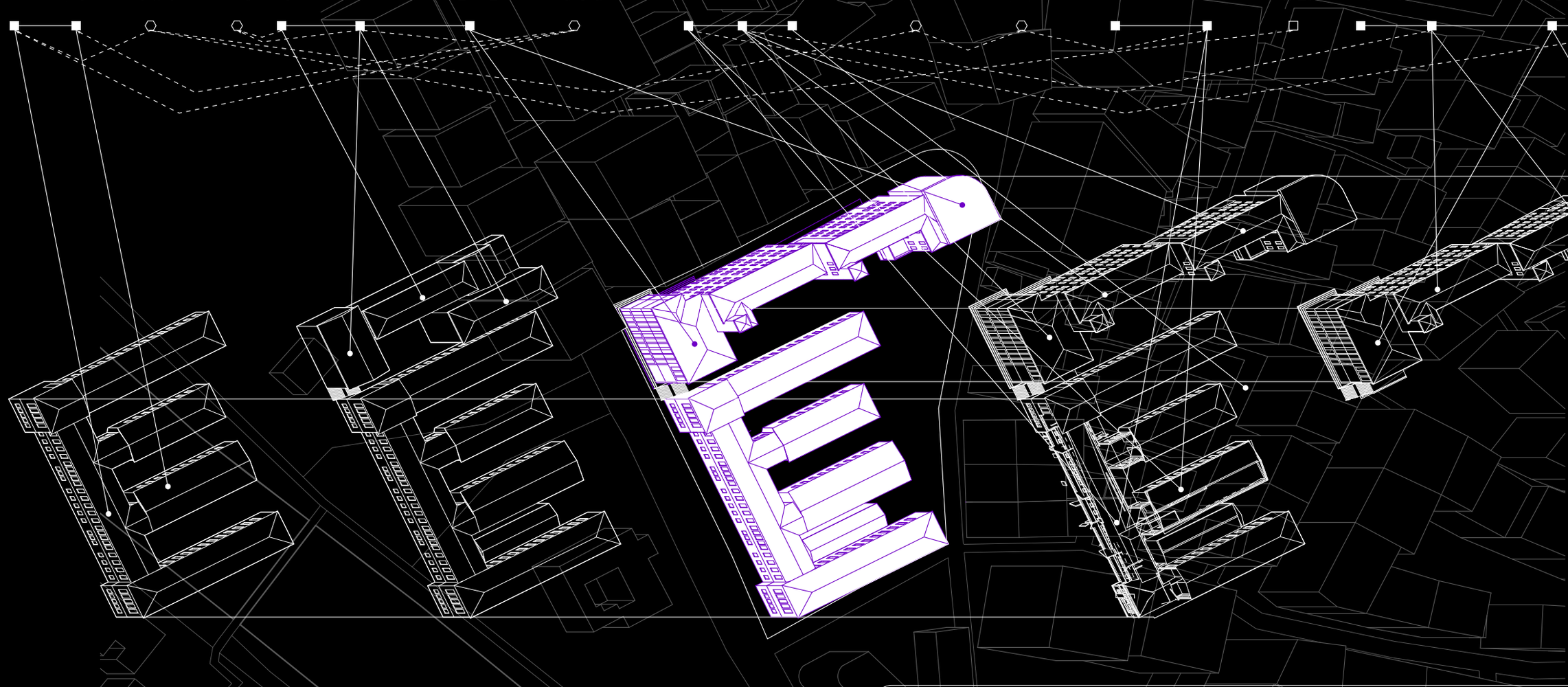
2024 feb
The school will be reconstructed according to the project by TTV with the protocol signed between TTV, KTB, and ÇŞİDB for the renovation of the urban site.

Risk analysis of the buildings were done for the strengthening works.

2025 mar
The buildings from 2011 to 2014 have undergone strengthening.

2025 apr
The annex building and conference hall are renewed together with the circulation spaces in the playground with the support of the philanthropist.

A new protocol is signed between MEB and the philanthropist to construct new ateliers from reinforced concrete.



The first investigation of the post-earthquake transformations is the physical manifestations of the different policies, projects and agencies that affect the original school environment. While the collapse can be linked to various causes, its effects on the school grounds forces a variety of new actors to be included in the school space. Between the emergency declarations, inspections, new constructions, and debris removal, the 'school' itself is no longer there.

LEGEND

- ■ Realized projects/constructions
- □ Unrealized projects
- ⬡ Policies
- —— Direct link
- - - - → Indirect link

ABBREVIATIONS

MEB: Ministry of National Education
ÇŞİDB: Ministry of Environment, Urbanism and Climate Change Directorate
KTB: Ministry of Culture and Tourism
TTV: Türkiye Design Council

ABBREVIATIONS

MEB: Ministry of National Education
MEM: Provincial Directorate of Education
ÇŞİDB: Ministry of Environment, Urbanism and Climate Change Directorate
AFAD: Disaster and Emergency Management Directorate
KTB: Ministry of Culture and Tourism
TTV: Turkish Design Council
NGO: Non-Governmental Organization

RELATIONS

- Relations of primary importance
- Relations of secondary importance
- Relations of indirect effect

EVENTS

- Causal event in the cause-effect chain
- Effect/resulting event cause-effect chain
- Interruption/end of a process
- Displacement

ACTIONS

- Actions of primary importance including governmental actors
- Actions of primary importance including non-governmental actors
- Actions of secondary importance including governmental actors
- Actions of secondary importance including non-governmental actors

— 2021
— 2023 feb
— 2023 mar
— 2023 apr
— 2023 may

policies

Protocol between AFAD and Ahbap Association

3-months State of Emergency declared by the Presidency

MEB announces schools are closed

MEB announces gradual opening of schools, latest April 27

Schools are matched by MEM to continue education within other schools or temporary settlements

On April 4, 'Risky Area' including the school grounds declared by Presidencial Decree.

KTB, TTV and architectural offices collaborate in the masterplanning and design of the pilot area

On May 15, ÇŞİDB and KTB signed protocol for the works to be carried out on the 'Risky Area.

events

February 6 earthquakes

Building collapse and heavy damage

Shelter need is born for the earthquake victims

Schools open everywhere in Türkiye, except for Antakya

transformations in space

The buildings from 2011 to 2014 have suffered heavy damage and became unusable until further inspection and intervention.

The open space of the school was used by cars and containers for a short while.

As a result of the earthquake, the oldest buildings from 1944 and 1967 have collapsed.

The school is moved to the light steel structure located on another school's plot

— 2023 jun
— 2023 jul
— 2023 aug
— 2023 sep
— 2023 oct
— 2024 feb
— 2024 jun
— 2024 oct
— 2025 mar
— 2025 apr

policies

The school will be reconstructed according to the project by TTV with the protocol signed between TTV, KTB, and ÇŞİDB for the renovation of the urban site.

Plan revised on January 22

Conservation zoning plan suspended due to objections on June 11

Plan suspended a second time on February 5

A new protocol is signed between MEB and the philanthropist to construct new ateliers from reinforced concrete.

events

Risk inspections and debris removal work of immovable assets are carried out by KTB.

The school is matched by MEM with another school with a safe building

Risk analysis of the buildings were done for the strengthening works.

The buildings from 2011 to 2014 have undergone strengthening.

Ahbap Association launches school projects

The annex building and conference hall are renewed together with the circulation spaces in the playground with the support of the philanthropist.

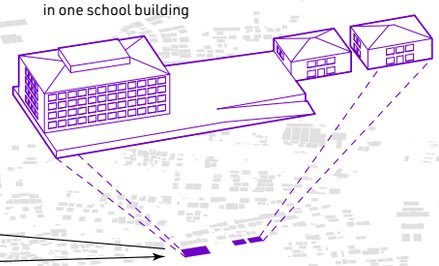
The rubbles are removed by KTB.

Light steel schools are constructed in Antakya

Envisioned projects for schools are not launched yet

transformations in space

The school starts dual education with the other school in one school building



05

Past imaginaries: A scenario for an alternative present

05.1 What if...

The imaginary scenario revolves around the case study school presented in the previous chapter. Firstly, an alternative process to the current reality is envisioned, in which the school is rebuilt in order to be present and functioning today. For this reason, volunteering groups and NGO's involved in the rebuilding of the school are imagined to have full autonomy. This eliminates the need for bureaucratic procedures between administrative bodies, ministries and local governments; speeding up the process. Secondly, it is imagined to keep the existing structure as much as possible. This would prevent the unnecessary demolishing and rebuilding processes which both stall recovery and harm the environment by creating more concrete waste. For this purpose, the concrete blocks are preserved, which have also been strengthened to be used in the current reality. For the new construction, the previously observed practices of NGO's and volunteers in the construction of temporary settlements and prefabricated schools are taken into account. Materials and building techniques that are quicker and easier to build are preferred; such as steel load-bearing structure, and surfaces from metal or wood.

As observed in the field studies, the number of students attending the school are significantly decreased. As the proposal focuses on accommodating the problems and opportunities that are created by the current reality, this change is also taken into account. This resulted in less number of classrooms and more open and closed social spaces to be integrated in the design. While education is the main function of the school, its potential in disaster situation is also taken into account, which shaped the spatial organization based on functionality and availability.

The envisioned scenario is visualized through a mix of digital and hand drawn images.

This narrative follows a scenario in which NGO's and volunteers are the decisionmaking actors in the rebuilding of the specific case study school. The narrative concerning the design process of the school is constructed through the process mapping methodology.

ABBREVIATIONS

MEB: Ministry of National Education
NGO: Non-Governmental Organization

RELATIONS

- Relations of primary importance
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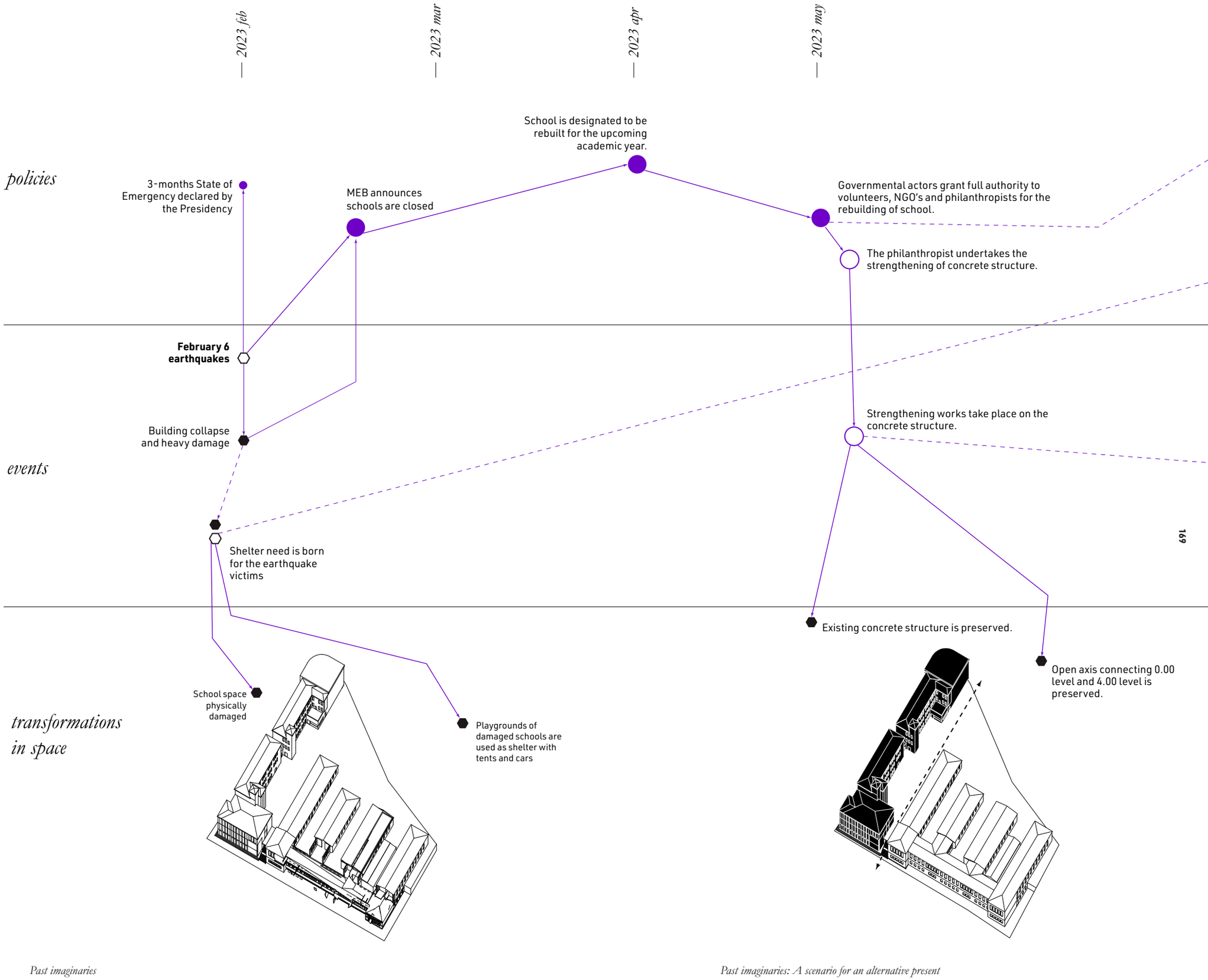


— 2023 sep

NGO's and volunteer groups collaborate in the new construction, and integration with the existing structure.

Materials such as steel and wood are decided to be utilized in the new construction for speed and availability reasons.

School playground is designated as emergency meeting point for future crisis situations.

Ateliers are designated as emergency service points for disasters.

Classrooms, laboratories and any other closed spaces of the school are designated as shelter spaces for emergency situations.

School opens for the new school year in September.

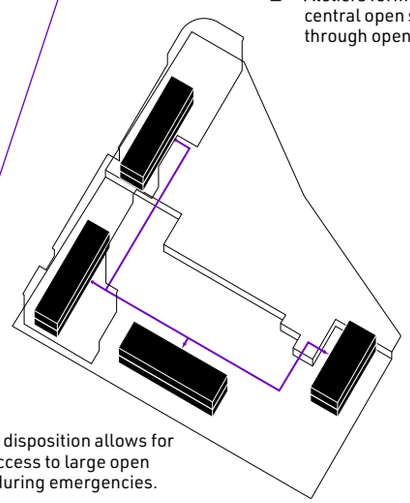
The whole space is broken down into four clusters that organizes ateliers, classrooms, open and closed spaces.

The organization allows for a large playground accessible from many spaces of the school. This space is to be utilized as a meeting point in an emergency situation.

Atelier spaces are placed on lower floors for accessibility.

The load bearing structure is constructed by steel elements, while surfaces are either metal or wood based on available resources.

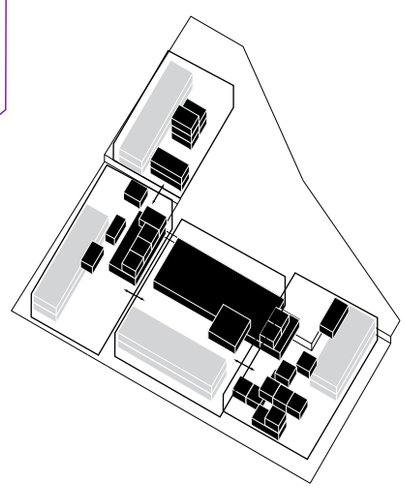
Ateliers form a U-shape surrounding the central open space, and are connected through open and closed spaces.



Ateliers' disposition allows for easier access to large open spaces during emergencies.

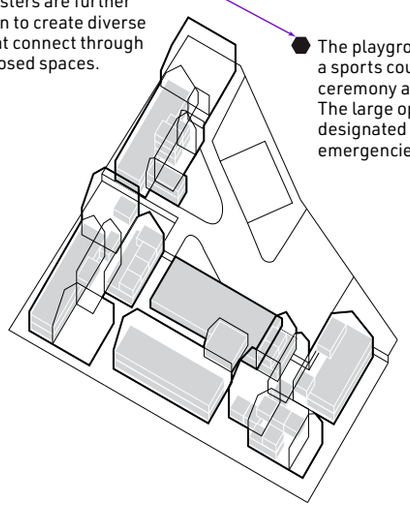
Classrooms, laboratories and other closed spaces are placed in relation to each other and ateliers.

Each cluster has two ateliers that can be used for emergency services, and classrooms can become shelter.



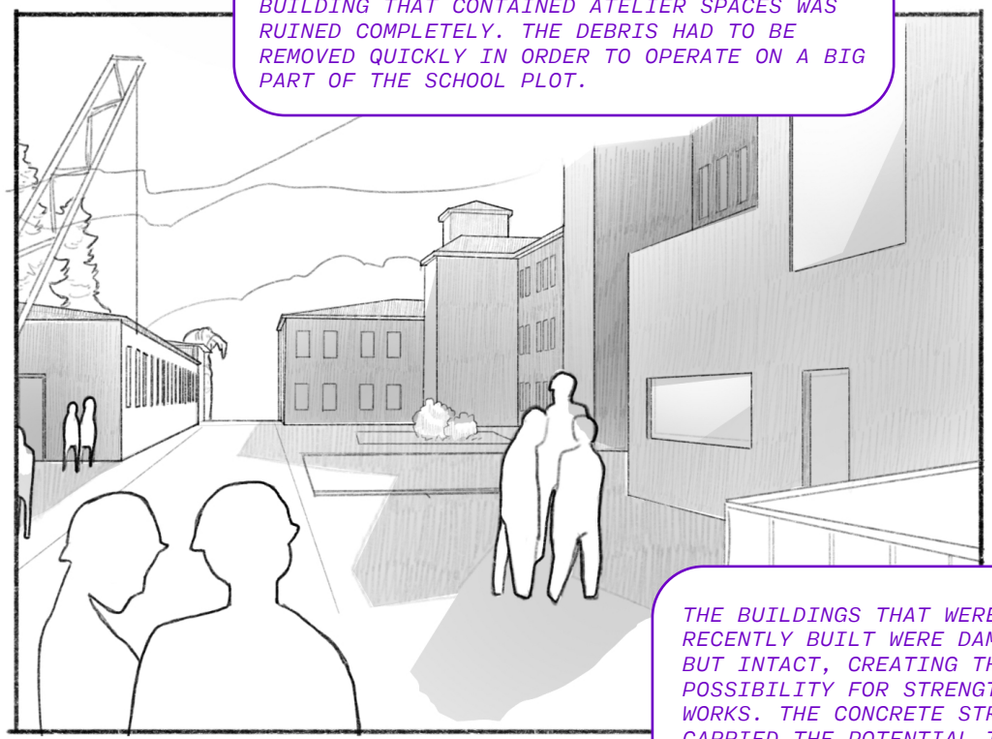
The four clusters are further broken down to create diverse volumes that connect through open and closed spaces.

The playground of the school includes a sports court, a carparking area, a ceremony area and green spaces. The large open space is also designated as a meeting point for emergencies.

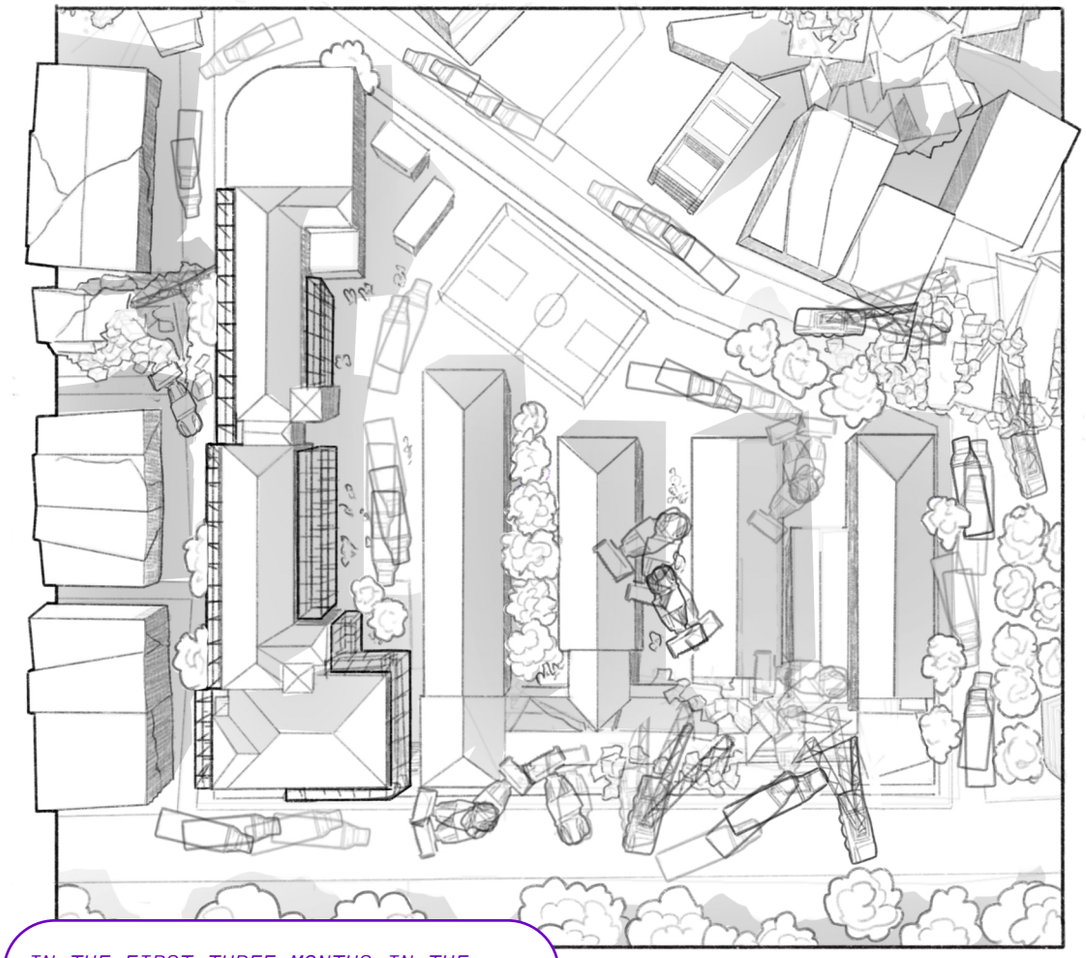


THE EXTENT OF THE DAMAGE ON BOTH THE SCHOOL ITSELF AND THE REST OF THE CITY CALLED FOR SPEEDY RECOVERY INITIATIONS BY THE AUTHORITIES. THE RECONSTRUCTION OF THE SCHOOL WAS ASSIGNED TO NGO'S AND VOLUNTEER ASSOCIATIONS THAT HAD LIMITED ACCESS TO RESOURCES BUT WAS ABLE TO ACT QUICKLY IN ORDER TO GET BACK THE RUINED SCHOOL ON ITS FEET.

A LARGE PART OF THE HISTORICAL SCHOOL BUILDING THAT CONTAINED ATELIER SPACES WAS RUINED COMPLETELY. THE DEBRIS HAD TO BE REMOVED QUICKLY IN ORDER TO OPERATE ON A BIG PART OF THE SCHOOL PLOT.

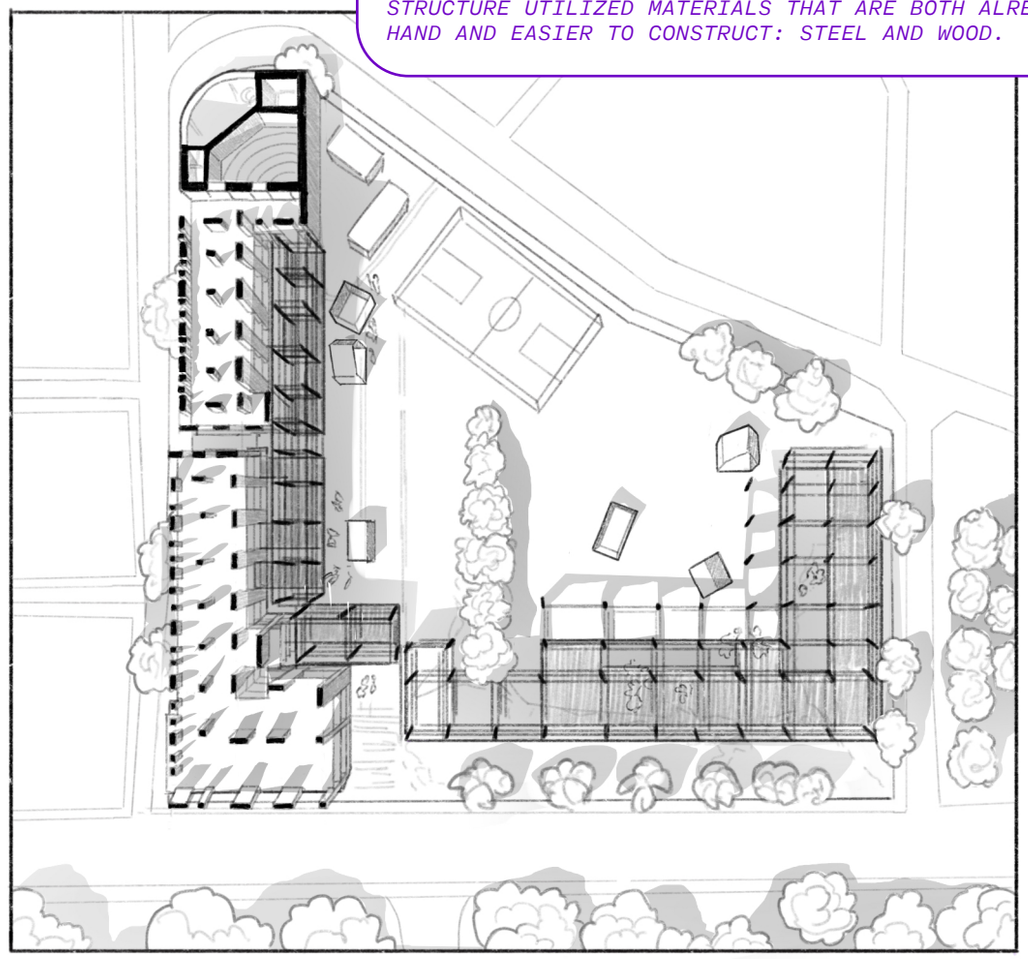


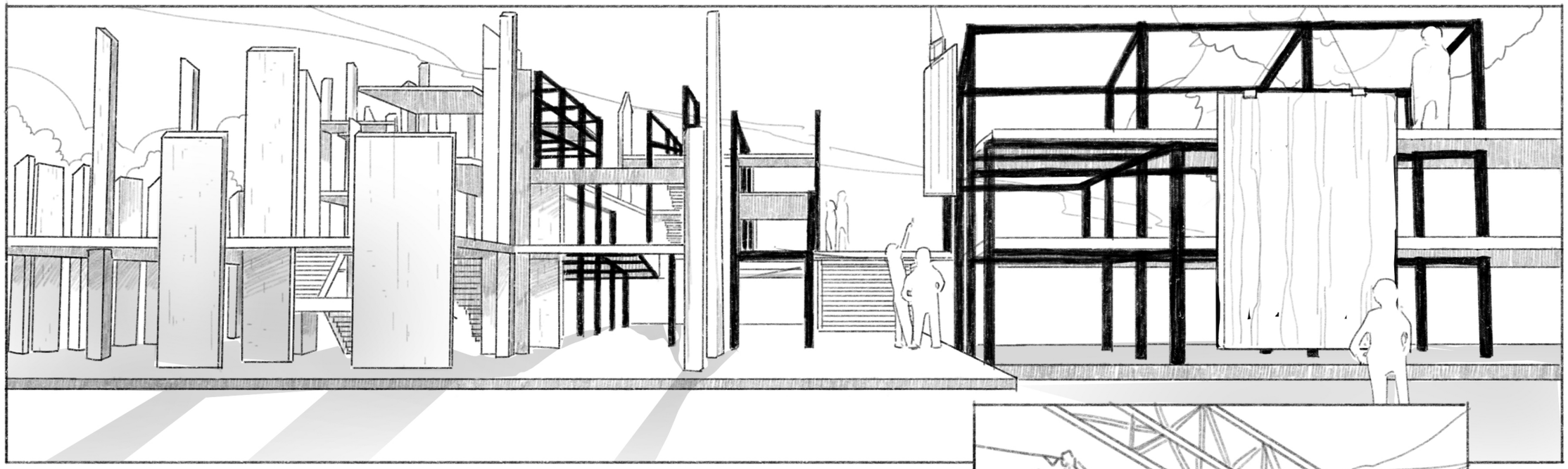
THE BUILDINGS THAT WERE MORE RECENTLY BUILT WERE DAMAGED BUT INTACT, CREATING THE POSSIBILITY FOR STRENGTHENING WORKS. THE CONCRETE STRUCTURE CARRIED THE POTENTIAL TO BE KEPT AS IT IS, AND WAS DECIDED TO BE UTILIZED FOR THE RECONSTRUCTION.



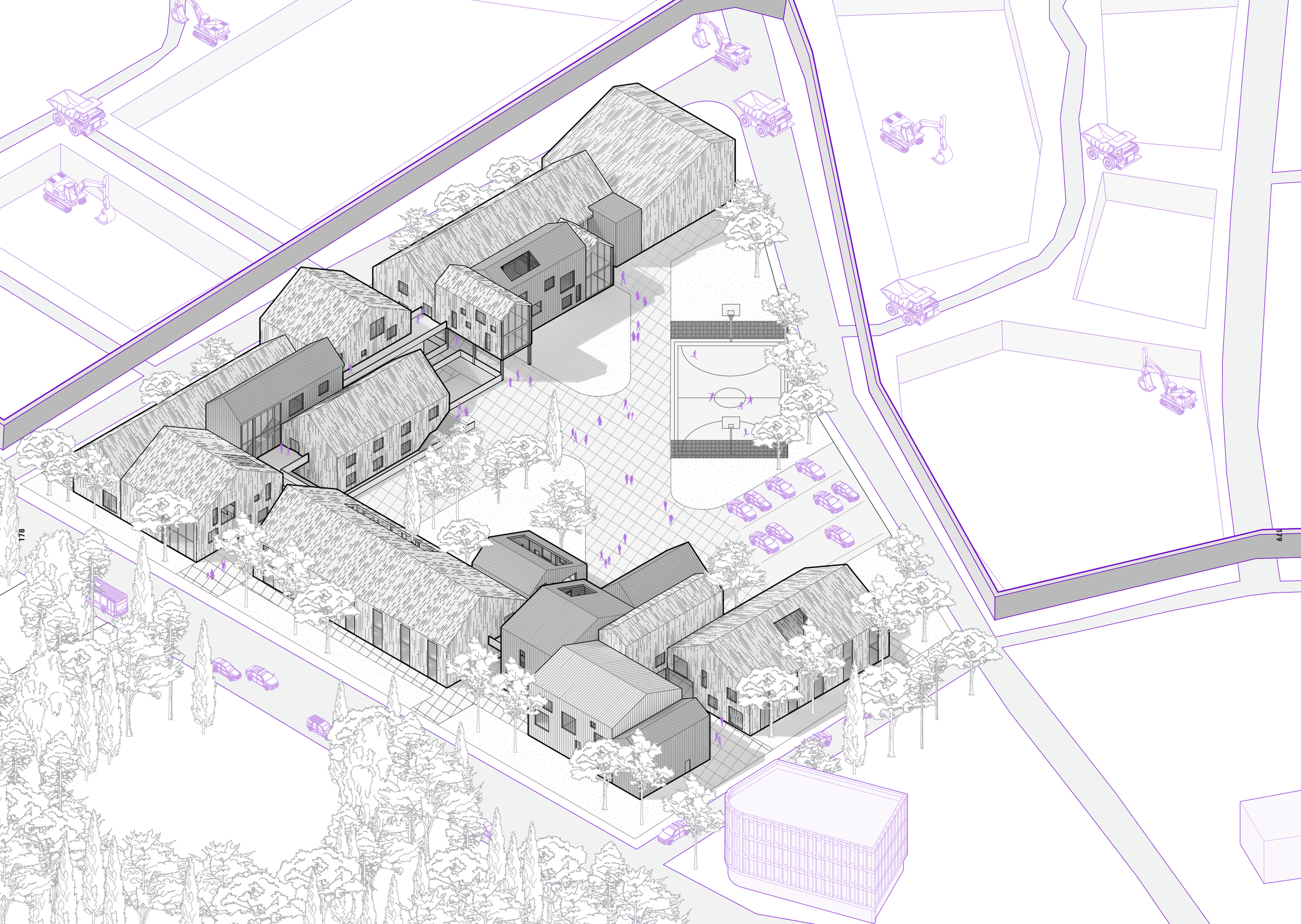
IN THE FIRST THREE MONTHS IN THE AFTERMATH OF THE EARTHQUAKE, THE DEBRI REMOVAL AND STRENGTHENING WORKS WERE CARRIED OUT BY THE VOLUNTEERS, NGO'S AND PHILANTHROPISTS CONTRIBUTING TO THE SCHOOL RECONSTRUCTION.

AS DECIDED, THE CONCRETE STRUCTURE WAS KEPT. THE DESIGN INTEGRATED NEW STRUCTURE WITH THE EXISTING MASS, ALLOWING FOR SPEEDY CONSTRUCTION AND LESS WASTE OF EXISTING MATERIALS AND RESOURCES. THE NEW STRUCTURE UTILIZED MATERIALS THAT ARE BOTH ALREADY AT HAND AND EASIER TO CONSTRUCT: STEEL AND WOOD.



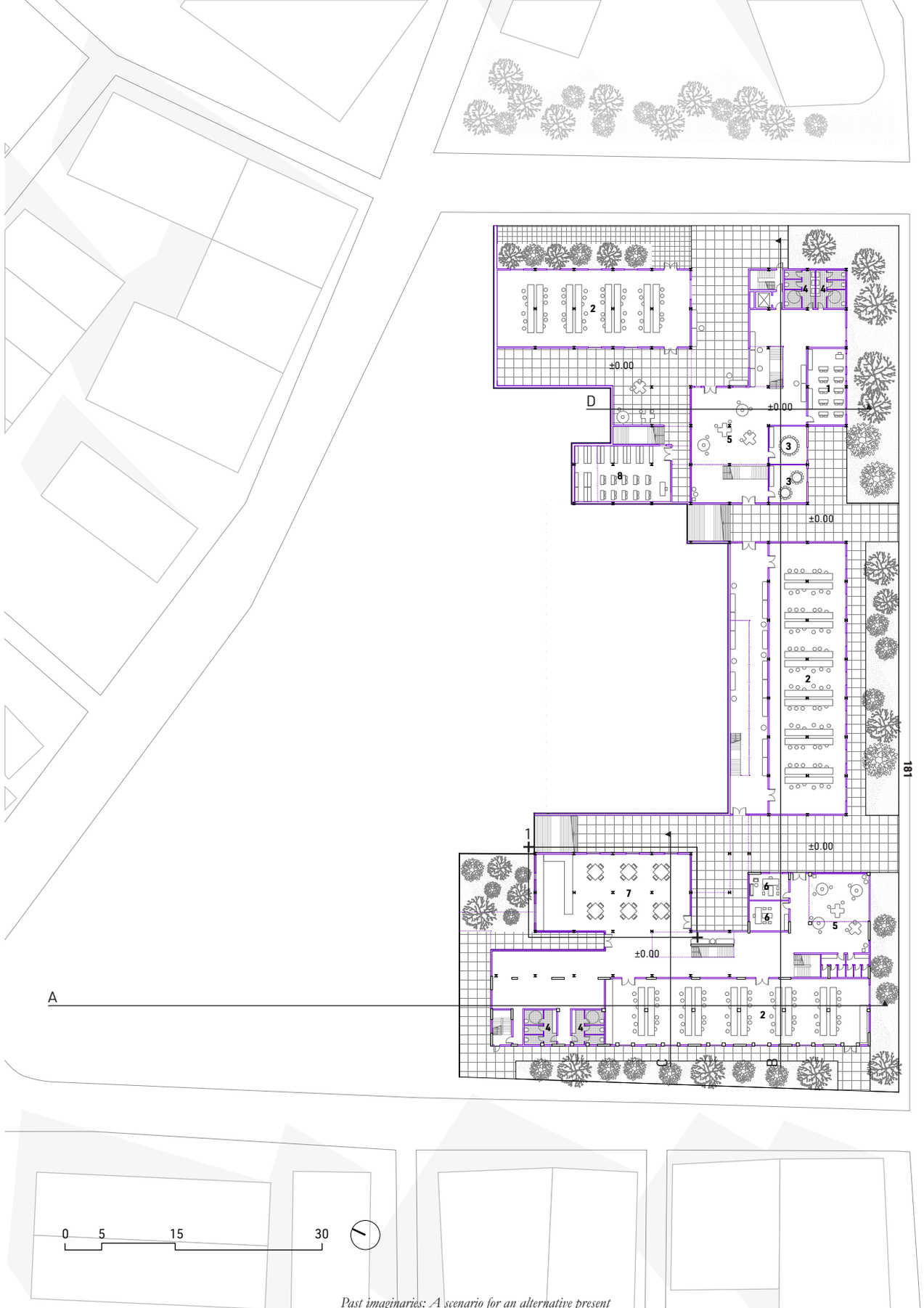


STEEL FORMED THE LOAD-BEARING STRUCTURE FOR THE NEW CONSTRUCTION, WHILE THE WALLS AND FLOORS WERE FROM AVAILABLE METAL AND WOODEN ELEMENTS THAT WERE QUICKER AND EASIER FOR MANTLING BY VOLUNTEERS.


178
179

Ground floor plan

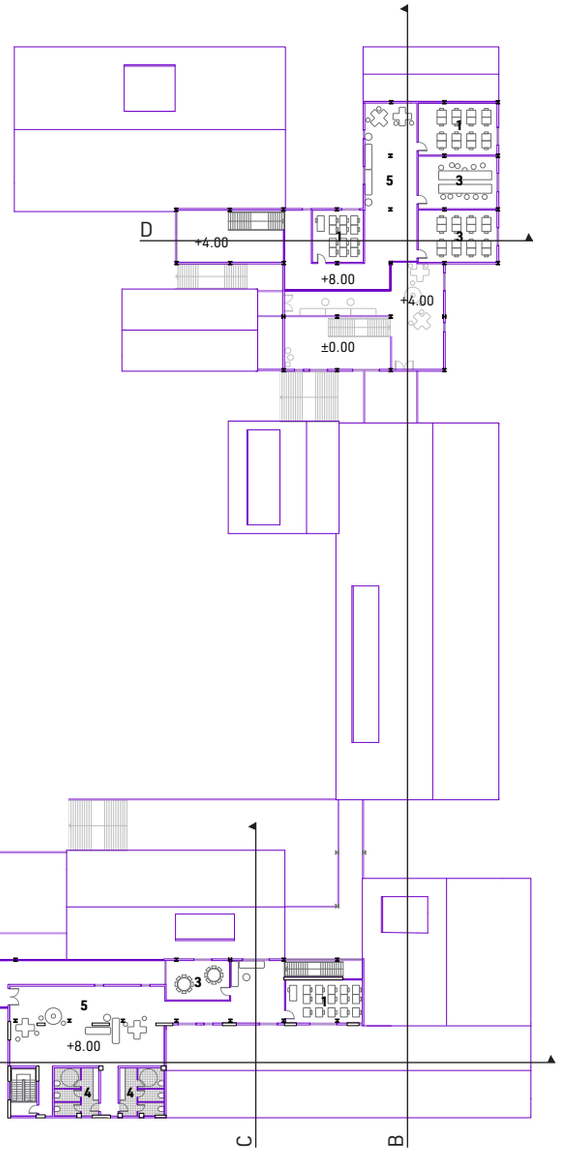
Classroom	**1**
Atelier	**2**
Laboratory	**3**
WC	**4**
Social space	**5**
Administrative room	**6**
Canteen	**7**
Library	**8**
Conference hall	**9**
Art class	**10**
Teachers' lounge	**11**
Ceremony space	**12**
Carpark	**13**
Sports' court	**14**



First floor plan

Classroom	**1**
Atelier	**2**
Laboratory	**3**
WC	**4**
Social space	**5**
Administrative room	**6**
Canteen	**7**
Library	**8**
Conference hall	**9**
Art class	**10**
Teachers' lounge	**11**
Ceremony space	**12**
Carpark	**13**
Sports' court	**14**

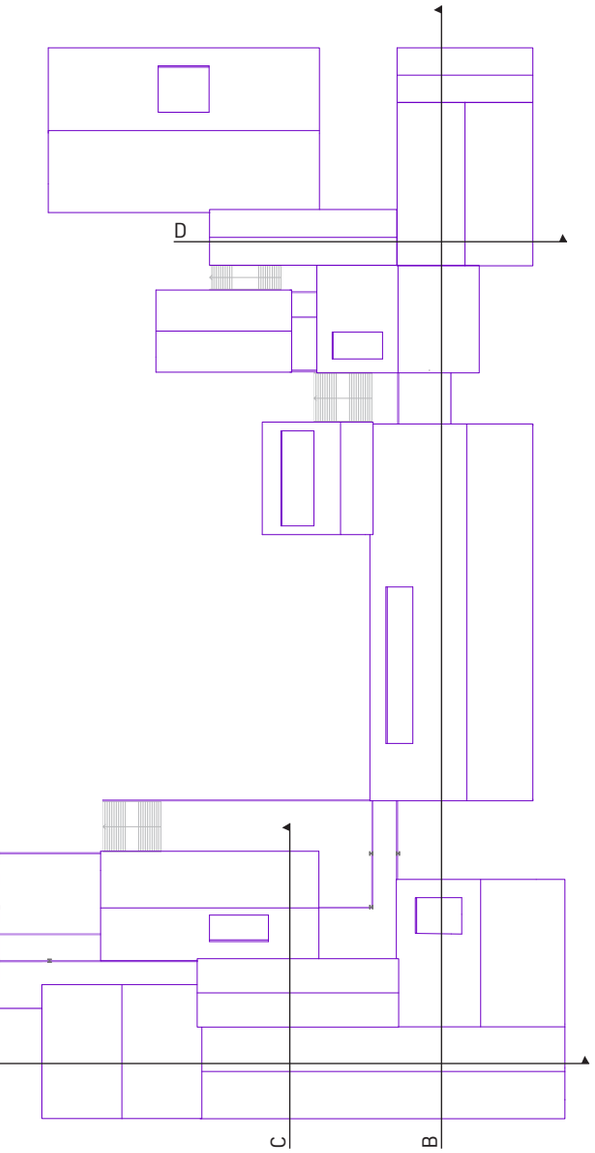
Second floor plan



Classroom	**1**
Atelier	**2**
Laboratory	**3**
WC	**4**
Social space	**5**
Administrative room	**6**
Canteen	**7**
Library	**8**
Conference hall	**9**
Art class	**10**
Teachers' lounge	**11**
Ceremony space	**12**
Carpark	**13**
Sports' court	**14**

0 5 15 30

Third floor plan



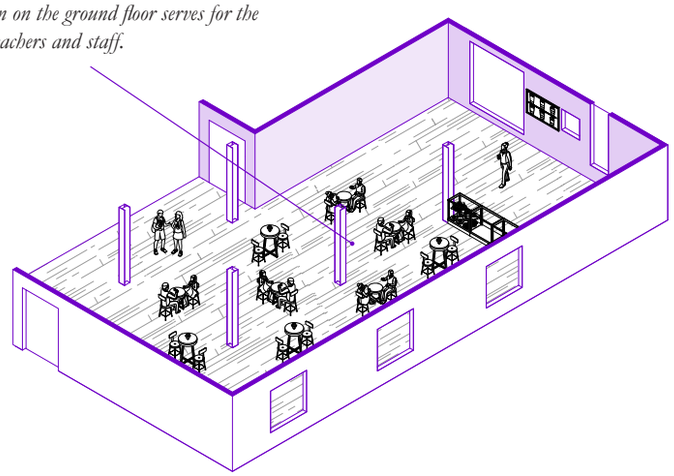
Classroom	**1**
Atelier	**2**
Laboratory	**3**
WC	**4**
Social space	**5**
Administrative room	**6**
Canteen	**7**
Library	**8**
Conference hall	**9**
Art class	**10**
Teachers' lounge	**11**
Ceremony space	**12**
Carpark	**13**
Sports' court	**14**

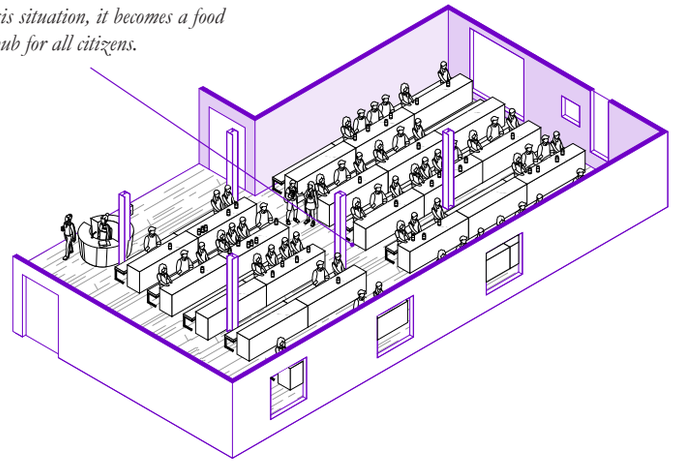
05.2 In/out (of) a crisis

How does the envisioned school space accommodate public needs in the face of disaster? Spatial configurations in a disaster scenario are explored through a set of drawings of closed and open school space.

1

The canteen on the ground floor serves for the students, teachers and staff.



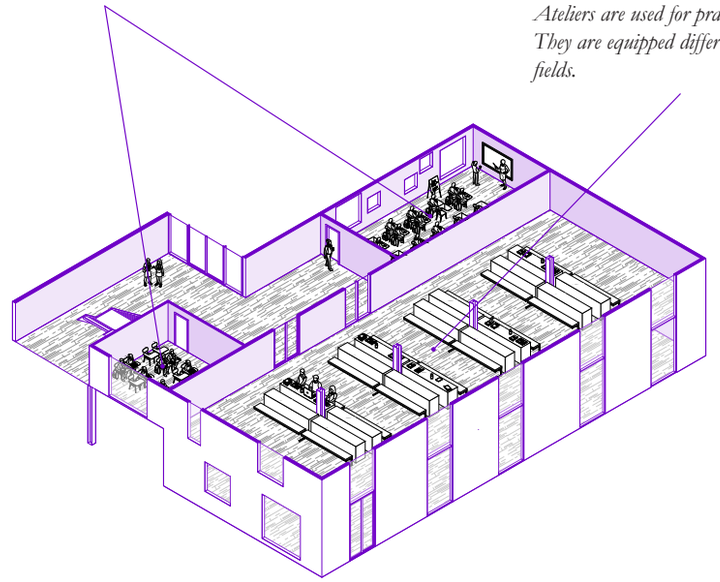


In a crisis situation, it becomes a food service hub for all citizens.

2

Classrooms and laboratories are used by students from all grades.

Ateliers are used for practical courses. They are equipped differently for special fields.



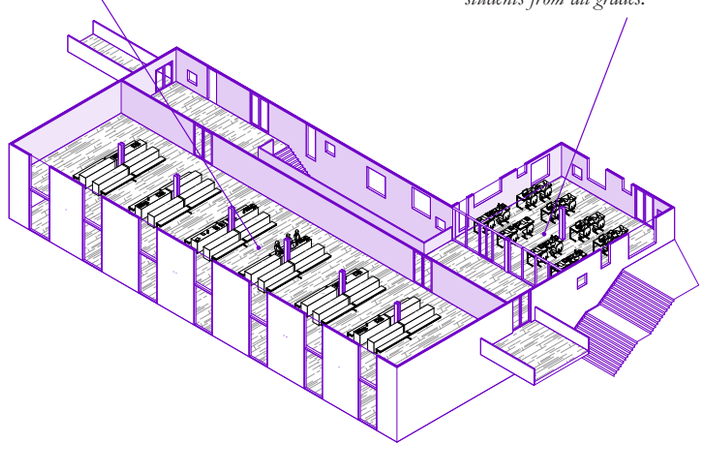
Smaller spaces become first aid/ health service rooms for citizens.

Larger spaces are used for healthcare units.

3

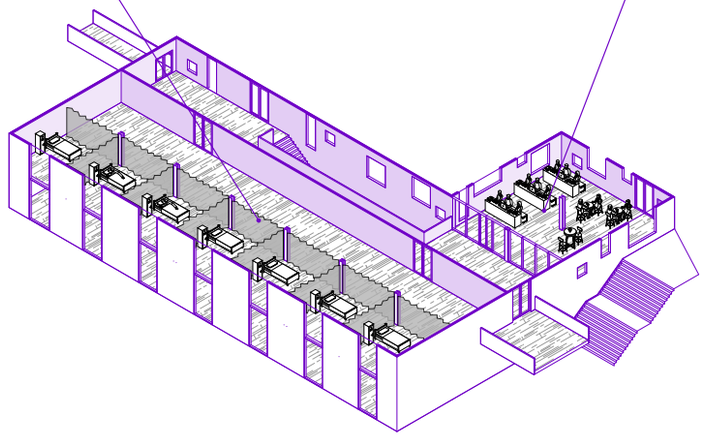
Ateliers are used for practical courses. They are equipped differently for special fields.

Classrooms and laboratories are used by students from all grades.



Ateliers become shelter for citizens who need accommodation.

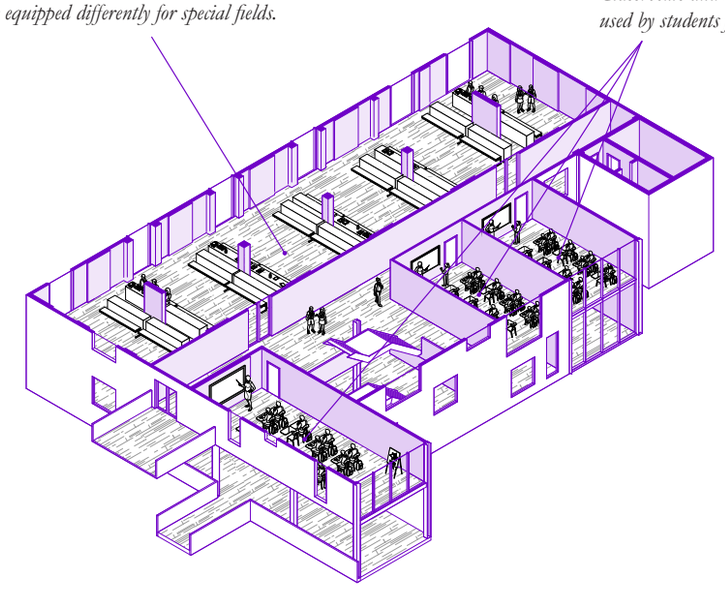
Classrooms and laboratories are used as social and educational spaces for citizens, especially vulnerable groups such as children, women and elderly.



4

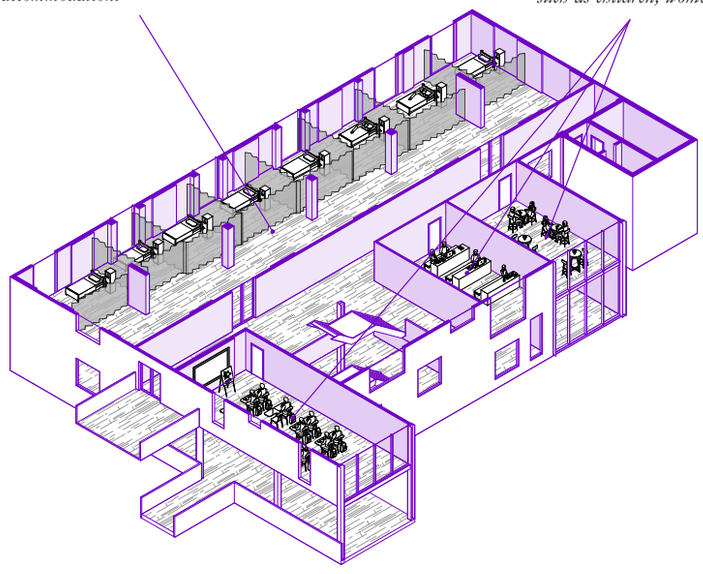
Ateliers are used for practical courses. They are equipped differently for special fields.

Classrooms and laboratories are used by students from all grades.

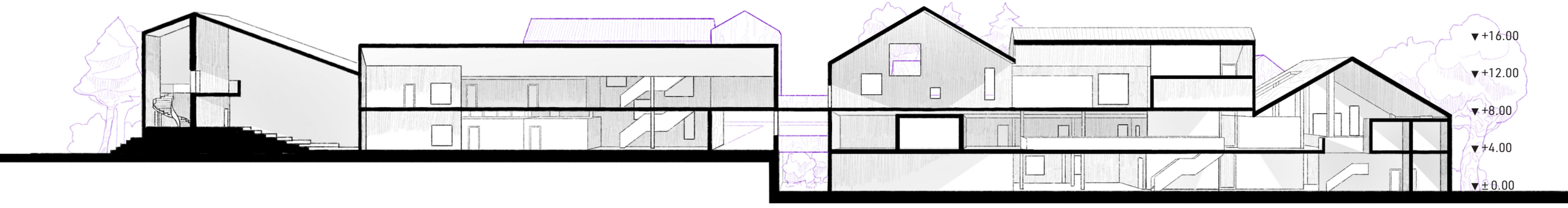


Ateliers become shelter for citizens who need accommodation.

Classrooms and laboratories are used as social and educational spaces for citizens, especially vulnerable groups such as children, women and elderly.



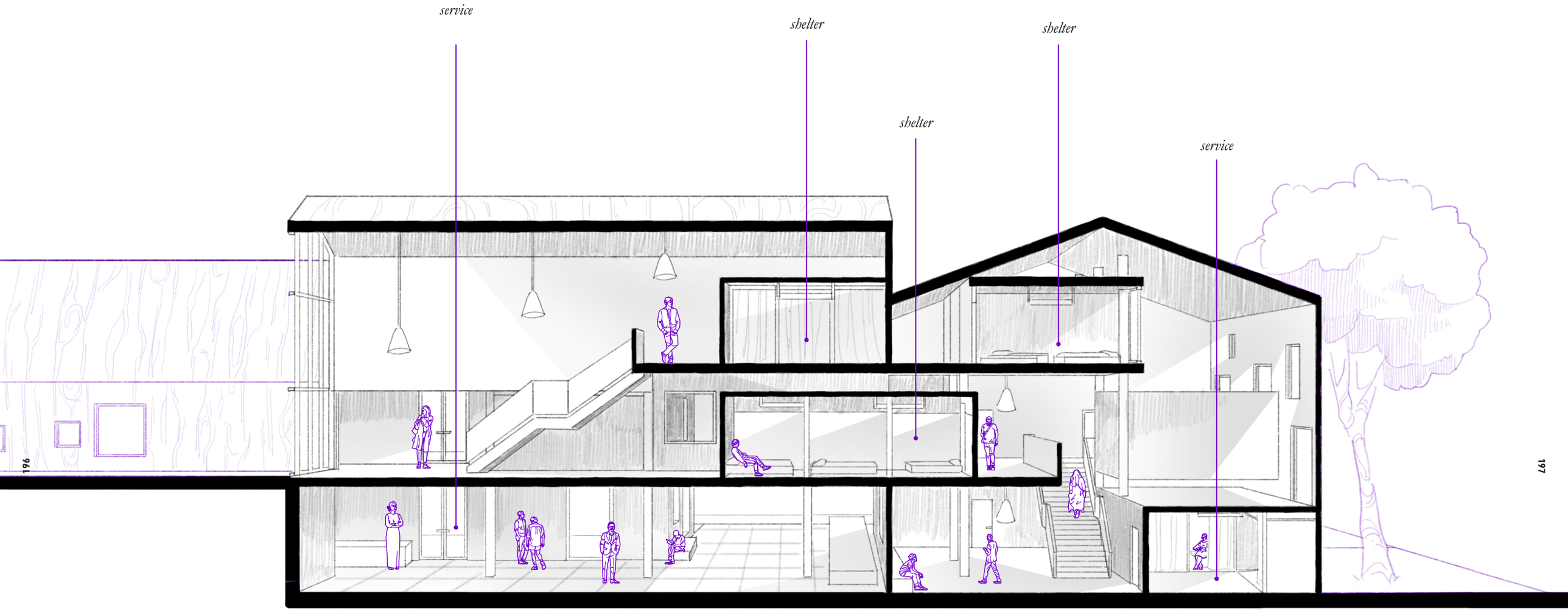
Section A



Section B

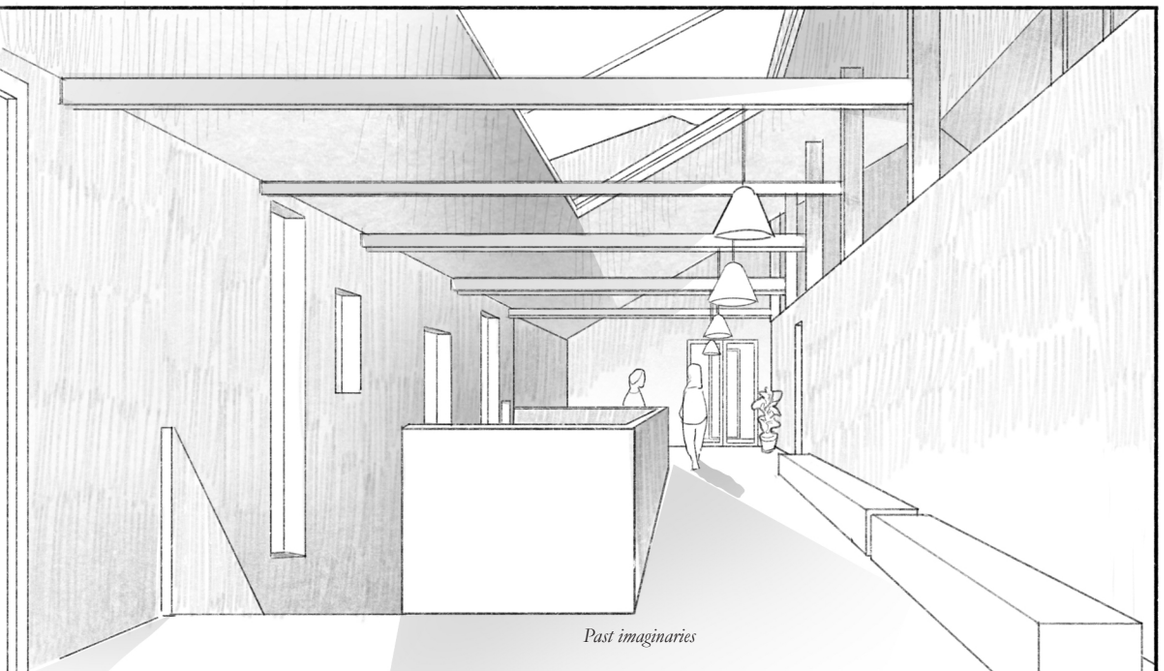
Ateliers, laboratories and classrooms in the school are connected through the social spaces which promote the interaction of users among themselves and with the building in various ways.

Section D



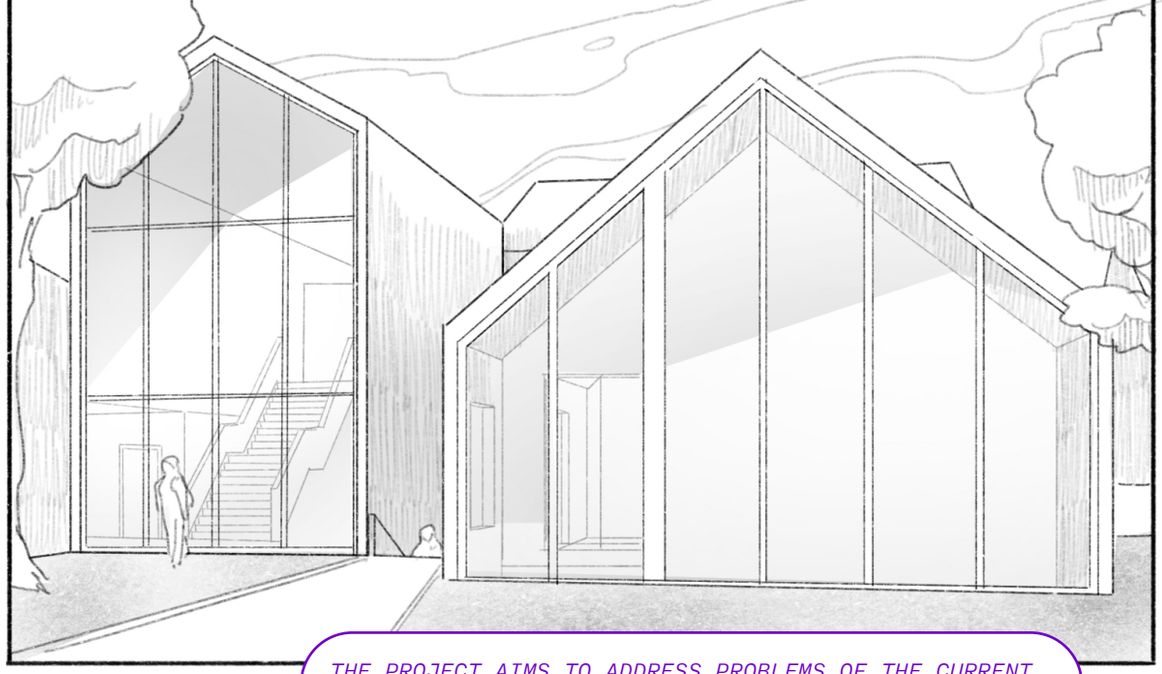
During an emergency situation, the school space becomes a publicly owned and used service and shelter area. While closed spaces are used for healthcare and accommodation, open and social spaces sustain the community life in crisis situation.

INTERIOR OF THE SCHOOL SPACE ENABLES SOCIAL INTERACTION THROUGH THE JUXTAPOSITION OF DIFFERENT FUNCTIONS; CLASSROOMS, ATELIERS, LABORATORIES AND OTHER CIRCULATORY SPACES ARE UNIFIED IN A WAY THAT PROMOTES EXCHANGE BETWEEN DIFFERENT FIELDS AND LEVELS OF STUDENTS.



Past imaginaries

THE MASSES ARE BROKEN DOWN INTO SMALLER UNITS THAT EACH HOUSE ATELIERS, CLASSROOMS, LABORATORIES AND SOCIAL SPACES. THESE MASSES ARE ORGANIZED IN WAYS THAT CREATE DIFFERENT DYNAMICS BETWEEN VOLUMES; THUS GENERATING UNIQUE SPACES THROUGHOUT THE WHOLE SCHOOL BUILDING.



THE PROJECT AIMS TO ADDRESS PROBLEMS OF THE CURRENT REALITY IN AN ALTERNATIVE DIMENSION. THROUGH THE EXECUTION OF THE PROJECT, IT IS IMAGINED THAT THE SCHOOL WOULD RETURN TO THEIR ORIGINAL SITE IN TWO YEARS. IT IS ALSO IMAGINED THROUGH THE DESIGN AND ORGANIZATION OF THE MASSES THAT THE NEW SCHOOL WOULD PROVIDE FOR CURRICULAR, SOCIAL AND EXTRACURRUCILAR NEEDS OF THE STUDENTS COMPARED TO THE PRESENT REALITY. IT IS IMAGINED THAT THE BUILDING TECHNIQUES BOTH ANSWER THE NEED FOR QUICK CONSTRUCTION IN POST-EARTHQUAKE PHASE, AND ALSO SHAPE THE PHYSICAL CHARACTERISTICS OF THE SCHOOL.

ANOTHER PROBLEM ADDRESSED IN THE PROJECT IS THE CRISIS SITUATION. FIGURING THAT CLOSED, LARGE SPACES ARE NEEDED FOR SHELTER, MEDICAL AND SOCIAL SERVICES; THE ATELIERS, CLASSROOMS AND LABORATORIES ARE IMAGINED TO BE USED FOR SUCH PURPOSES. AS THE STRUCTURAL INTEGRITY IS ACCEPTED TO BE ADEQUATE, IT IS IMAGINED THAT THE NEW SCHOOL ENVIRONMENT IS FLEXIBLE ENOUGH TO RESPOND TO PUBLIC NEEDS IN DIRE CIRCUMSTANCES. HOWEVER, THERE ARE STILL MANY ASPECTS TO CONSIDER WHETHER A SCHOOL CAN FULLY SUSTAIN ALL NEEDS OF DISASTER, AND FOR HOW LONG.

ANOTHER IMPORTANT POINT IS THE DECISIONMAKING MECHANISMS AND AUTHORITATIVE POWER EXECUTED THROUGH EDUCATIONAL FACILITIES. WHO HAS THE RIGHT TO USE THE SCHOOL, AND WHO ENABLES OR DISABLE SUCH RIGHT? IN WHAT WAY CAN THE SYSTEM OF RELATIONS BE ORGANIZED TO ENABLE DIRECT ACCESS OF THOSE IN NEED TO SCHOOLS IN CRISIS SITUATIONS?

Notes

Abbreviations

AFAD: Disaster and Emergency Management Presidency (Afet ve Acil Durum Yönetimi Başkanlığı)

ÇŞİDB: Ministry of Environment, Urbanization and Climate Change (Çevre, Şehircilik ve İklim Değişikliği Bakanlığı)

HPM: Hatay Planning Center (Hatay Planlama Merkezi)

İEGM: General Directorate of Construction and Real Estate (İnşaat ve Emlak Genel Müdürlüğü)

İEM: District Police Department (İl/İlçe Emniyet Müdürlüğü)

İPA: Istanbul Planning Agency (İstanbul Planlama Ajansı)

KTB: Ministry of Culture and Tourism (Kültür ve Turizm Bakanlığı)

MEB: Ministry of National Education (Milli Eğitim Bakanlığı)

MEM: Directorate of National Education (İl/İlçe Milli Eğitim Müdürlüğü)

NGO: Non-governmental organization (Sivil toplum kuruluşu)

TMMOB: Union of Chambers of Engineers and Architects of Türkiye (Türkiye Mühendis ve Mimar Odaları Birliği)

TOKİ: Housing Development Administration (Toplu Konut İdaresi Başkanlığı)

TTV: Türkiye Design Council (Türkiye Tasarım Vakfı)

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