

Agricultural Regeneration: Coalescence of Urban - Rural - Water Trilogy

Where soil feeds the city, water revives the land, and communities grow beyond borders ;a new alliance emerges between the urban, the rural, and the water.

seasonal cycle

rural anchor

Harvesting Future

Yani, öylesine ciddiye alacaksın ki yaşamayı,
yetmişinde bile, mesela, zeytin dikeceksin,
hem de öyle çocuklara kalır falan diye değil,
ölmekten korktuğun halde ölüme inanmadığın için,
yaşamak yanı ağır bastığından

— Nazım Hikmet, Yaşamaya Dair, 1947

agroecology

food justice

Collective Recovery

blue continuum

Productive Generosity

rural empowerment

edible landscape

Generosity

"The quality of being open-handed, abundant and giving beyond oneself, not only others, but to the land, the future and collective well-being."

In this project, generosity is redefined as a spatial and ecological recovery:

To give space, time and value back to land and people.

It means designing systems that regenerate rather than exploit, include rather than exclude and sustain rather than consume.

Local Knowledge

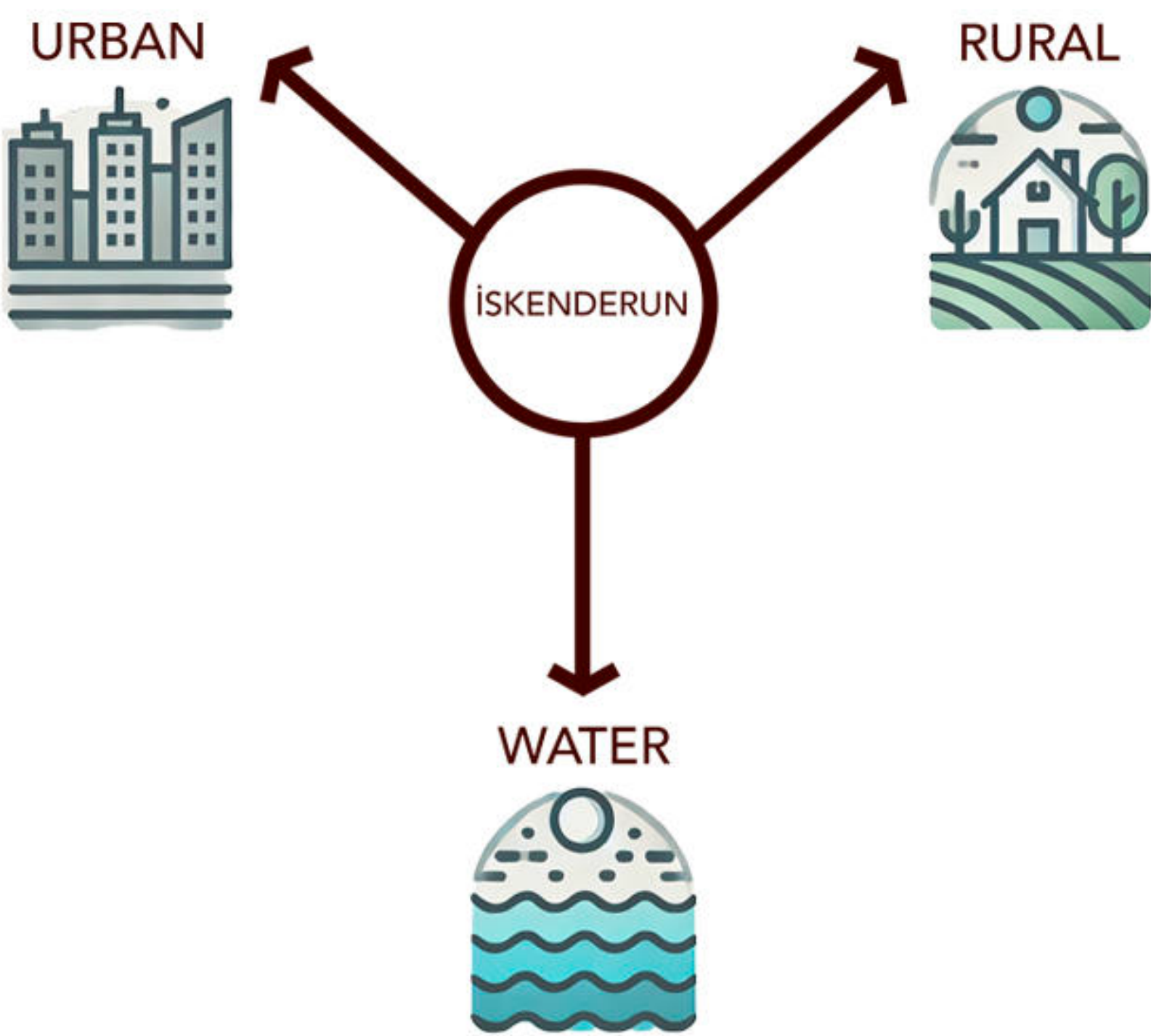
reclaimed periphery

Summer Resorts - Sayfiyeler



Summer houses in Iskenderun are organized in closed plots that **block access to the sea** and physically interrupt the water-city relationship. These areas **remain empty for most of the year**, thus both the coastal potential remains idle and temporary solutions are produced for the housing need. The closed nature of the summer regions also causes **the transformation of the surrounding agricultural and green areas**.

İskenderun in 2025



Coastline



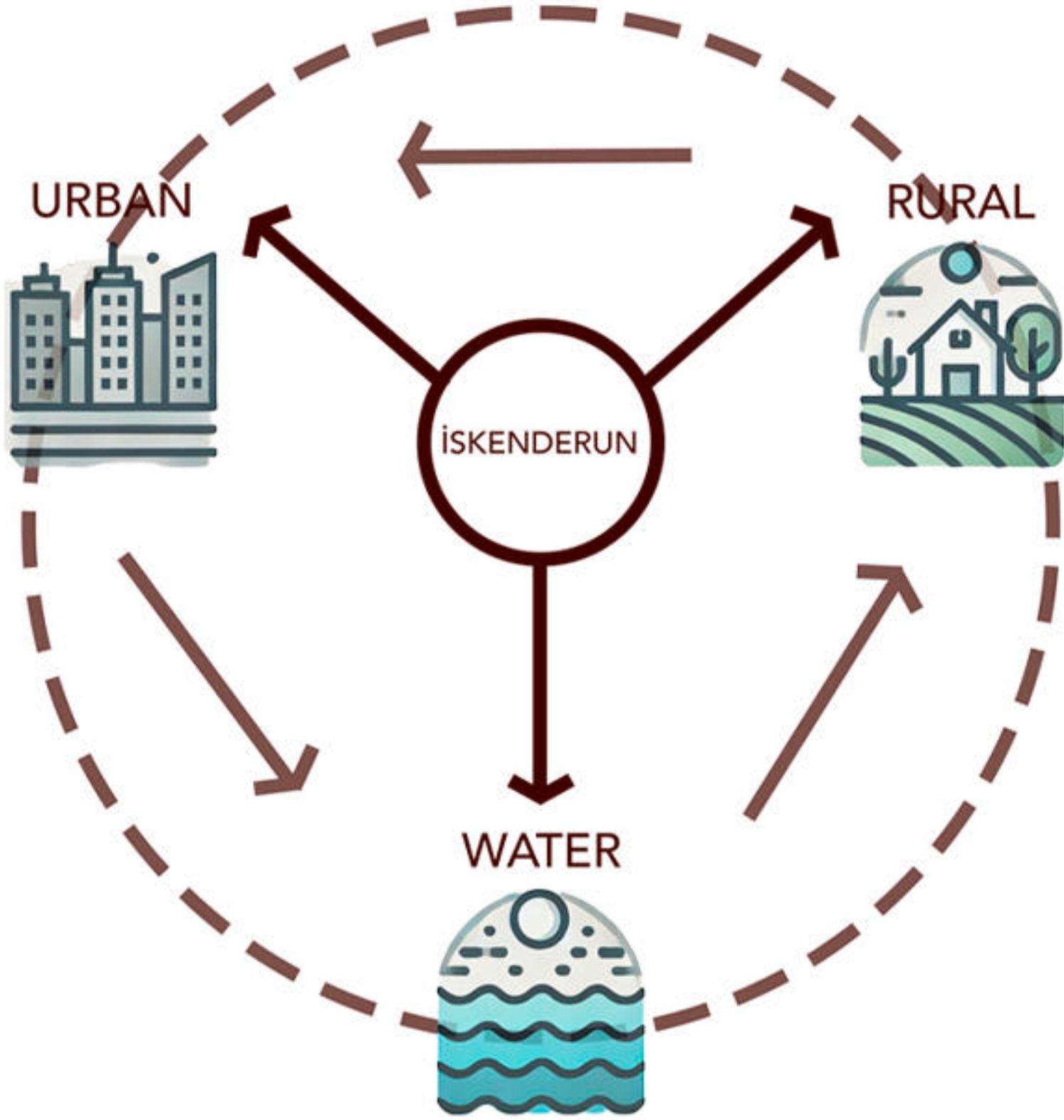
The coastline has a **discontinuous usage pattern** due to the fragmented placement of different functions. Luxury apartment blocks, marshlands, detached villas and stone structures placed later on the coast coexist; this **prevents both ecological continuity and public access**. Urban dwellers who come into contact with the sea usually spend short periods of time in stone areas outside the construction, which shows that **the coast remains socially dysfunctional**.

Informal Settlement Area

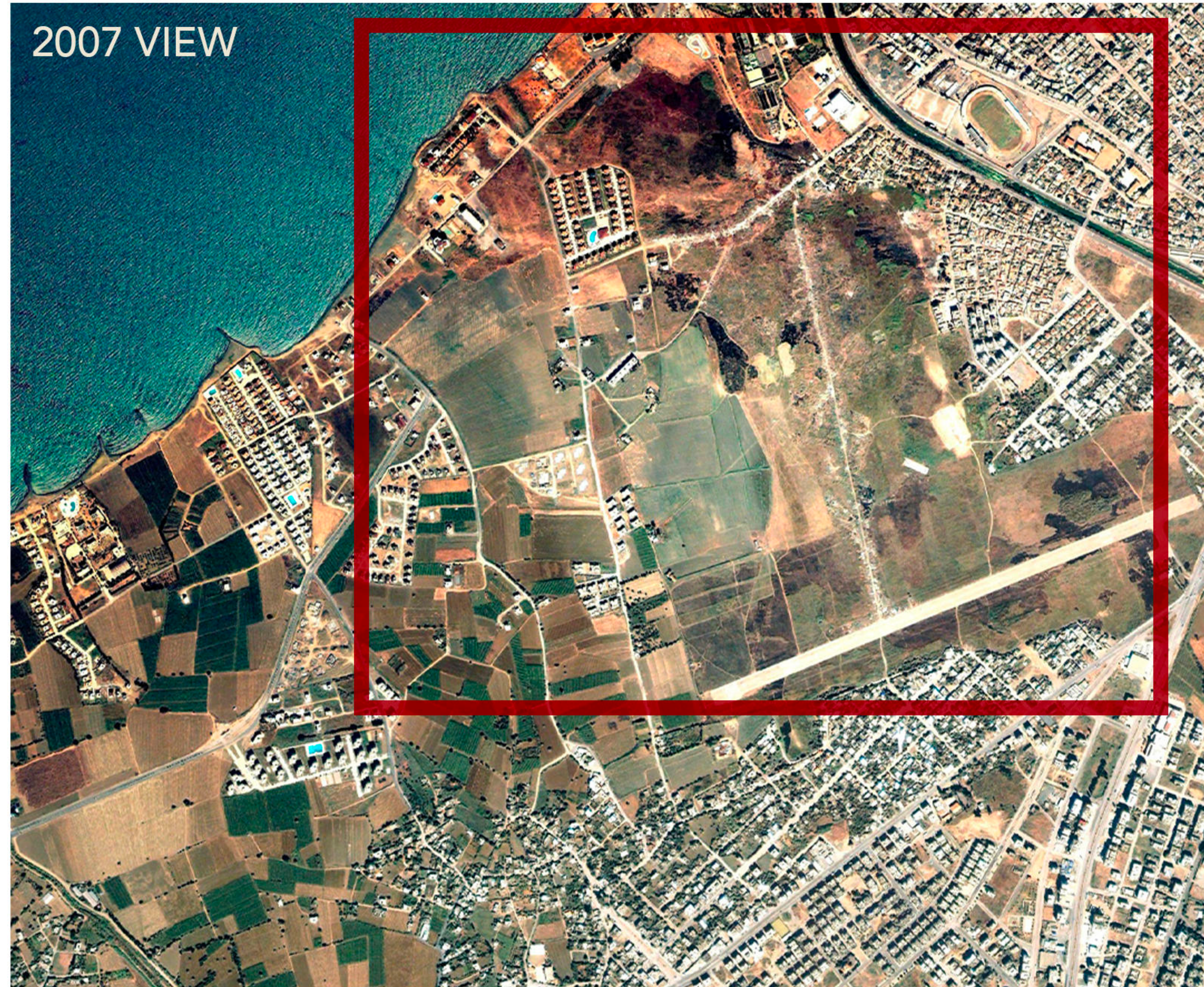


In the **informal settlement areas** of the city, **individual agricultural practices and active use of green areas are observed** despite limited resources. These areas demonstrate **the potential of sustainable and productive green systems** within the city; they offer an alternative approach to agricultural areas under settlement pressure. **Shantytowns keep the relationship with the land lost in planned systems alive.**

İskenderun in 2050



2007 VIEW



In **2007**, the southern part of Iskenderun was an area with a **lot of agricultural land**. Agricultural and residential plots are clearly visible.

In addition, there were **water channels and marshlands** in the region. As can be seen, **summer houses have been built outside the marshlands** and their numbers are still very few.

2025 VIEW



In **2025**, it is seen that almost all of the **agricultural lands** that were visible 17 years ago in the southern region of Iskenderun **have disappeared**. With the opening of Iskenderun Technical University in **2015**, a **large part of the urban void has been filled**.

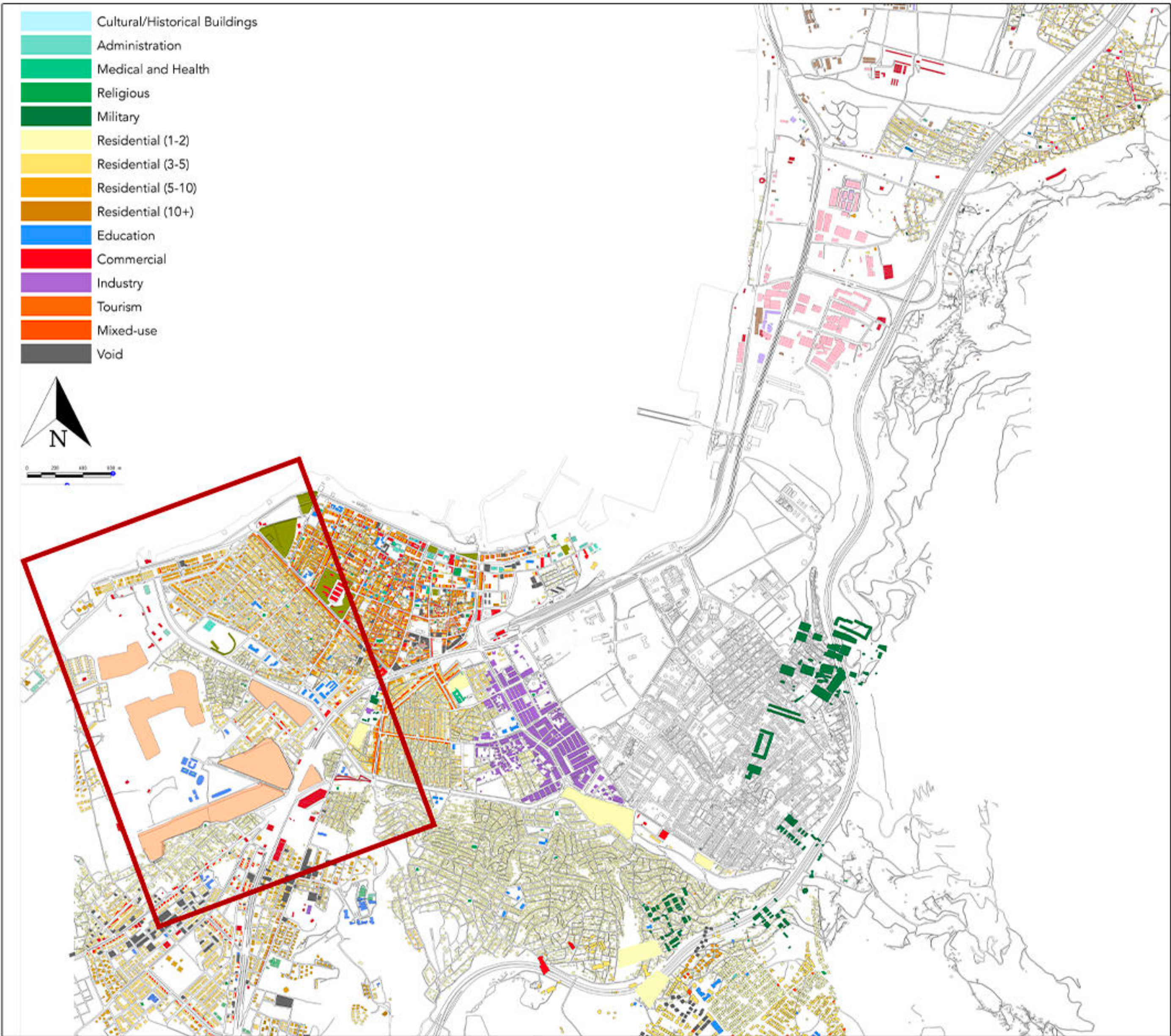
Temporary container settlements built due to the earthquake in 2023 **were built on marshland areas** which is very risky in terms of safety of the earthquake victims. Today, **summer resorts cover a very large area** and since they are designed as closed sites, they act as a **wall between the city and the sea** and have significantly reduced people's relationship with water.

Solid - Void Analysis After 2023



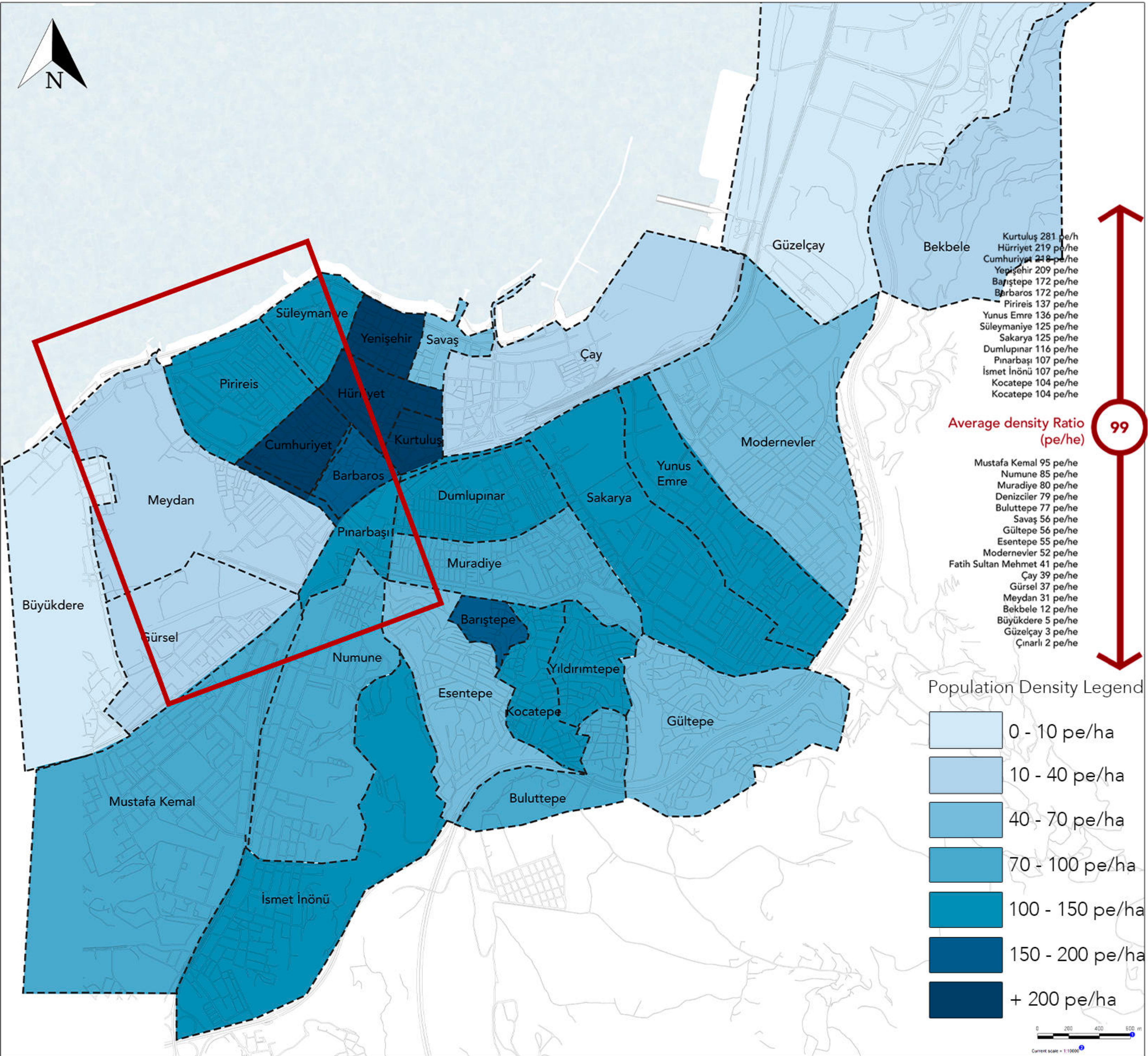
This analysis reveals the **solid-void ratio in the city after the 2023 Hatay earthquake**. The reason why there is so **much idle space in the project area** is that there are natural areas such as **marshes or water channels** and the **İskenderun Technical University** area in this region.

Land Use Analysis



Land use analysis demonstrates that the **project area is dominated by temporary housing areas** such as container cities, mid-rise secondary housings and low-rise shantytown areas, is located **close to the city center** and is an area where the diverse fuctional buildings of the **university campus** is located.

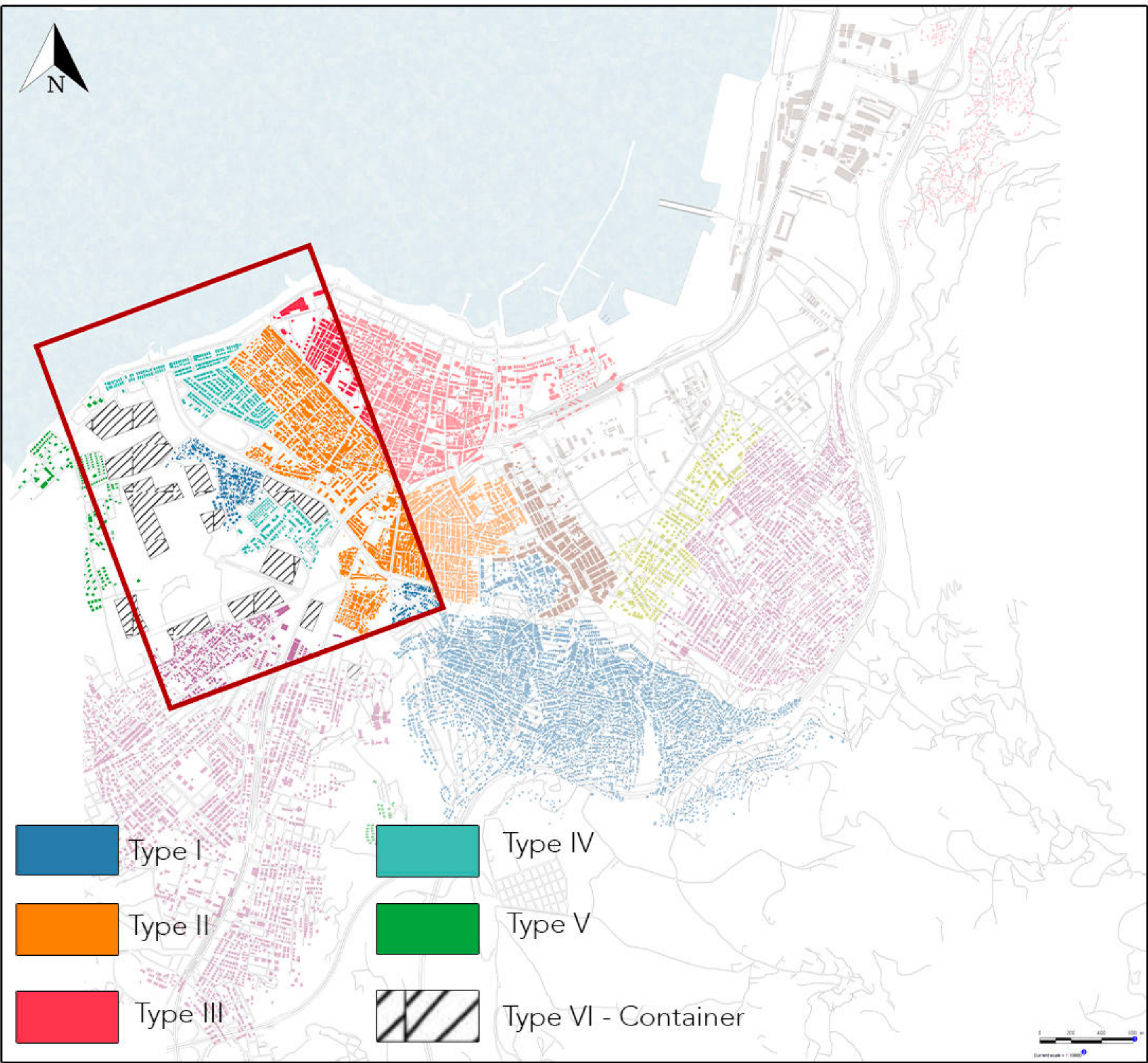
Population Density Analysis (pe/ha)



Population density analysis indicates that **northern central neighborhoods** such as Hürriyet, Yenişehir, and Cumhuriyet exhibit high densities **exceeding 200 pe/ha**, significantly surpassing the **citywide average of 99 pe/ha**.

In contrast, **peripheral neighborhoods** like Meydan, Gürsel, and Büyükdere have **low population densities**, highlighting key implications for urban services, infrastructure, and post-disaster planning. The map also provides a basis for analyzing **the differences between physical structure density and demographic density**.

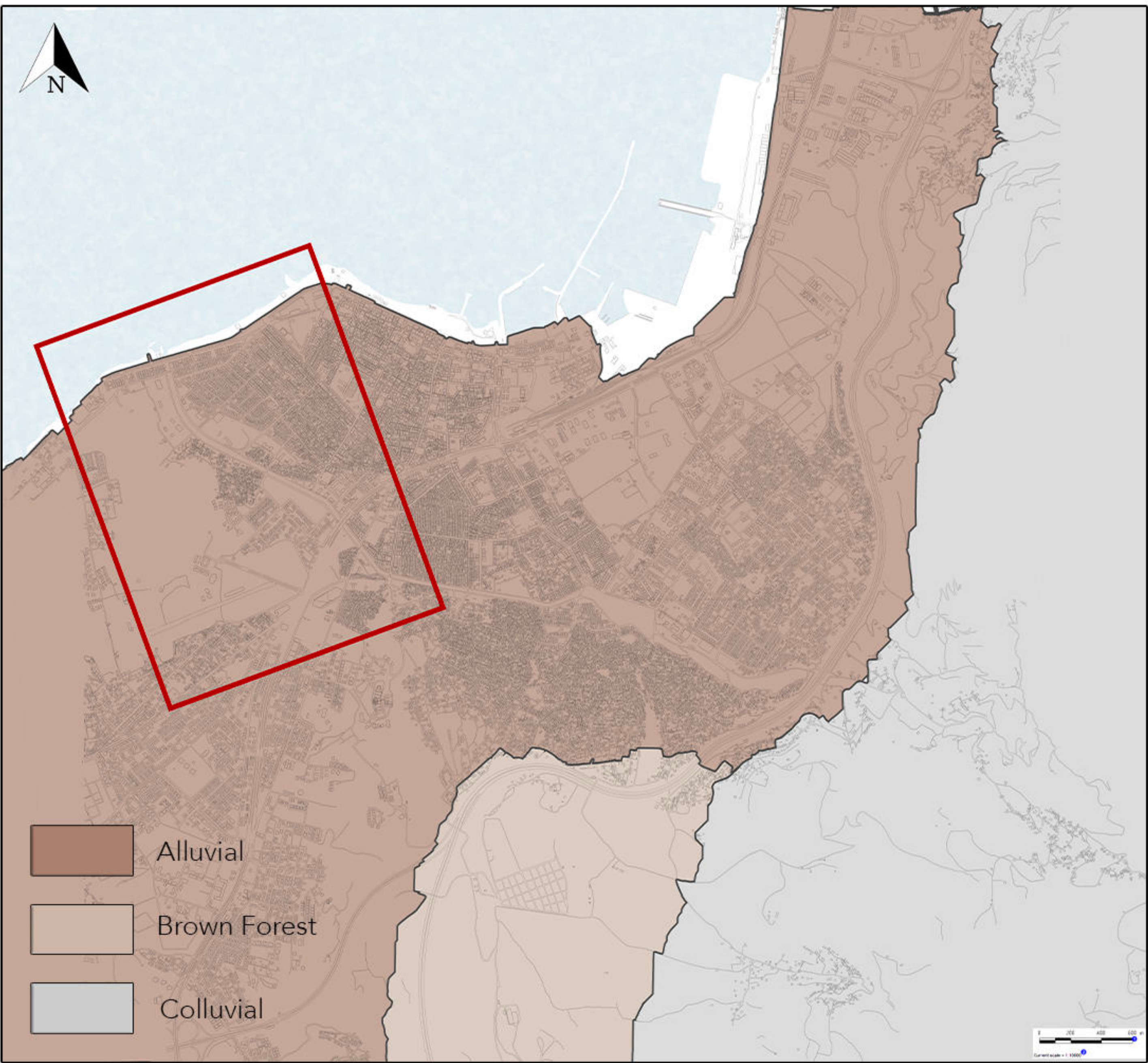
Built Density Analysis



Different building typologies in Iskenderun are evaluated in terms of number of **floor space index (FSI)** and **ground space index (GSI)**. **Type I** represents the slum area near the city center. **Type II** and **Type III** represent **high-density residential areas** with dense construction in the city center, **high-rise and dense settlement patterns**.

Type V represents **summer resorts**, generally used in the summer months, and is defined by medium-density, 4-storey blocks. **Type IV** on the other hand, offer examples of **vertical construction with low GSI but high FSI values**, covering less floor area but increasing in density with the floor height. Finally, **Type VI** shows the **temporary settlement form of container settlements** after the 2023 Hatay earthquake.

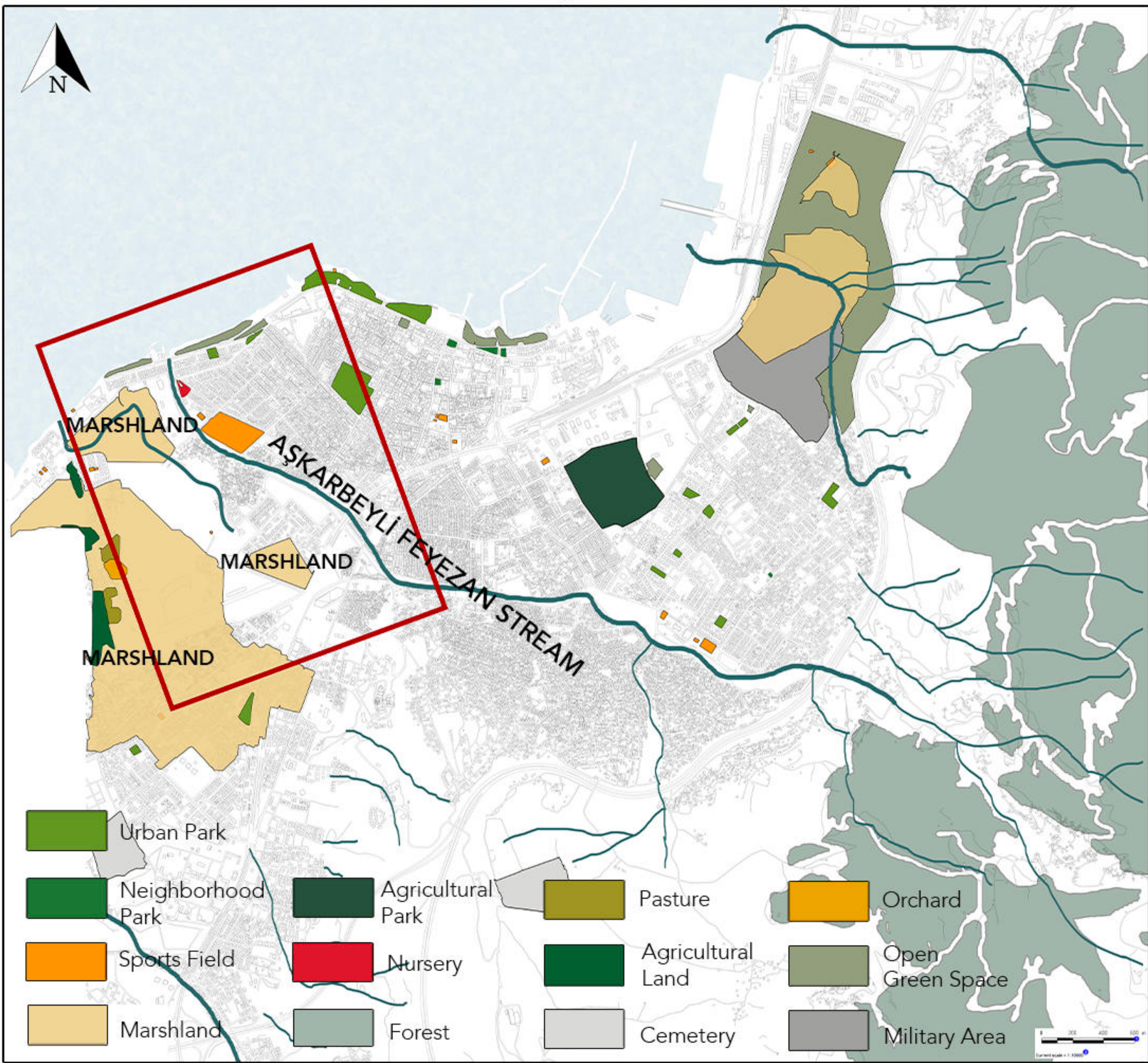
Soil Analysis



When the spatial distribution of different soil types in Iskenderun is examined, the region is predominantly composed of **alluvial soils**, which are **fertile and suitable for agricultural activities**, but **unsuitable and risky for settlement**. This type of soil is observed particularly in coastal areas and plains.

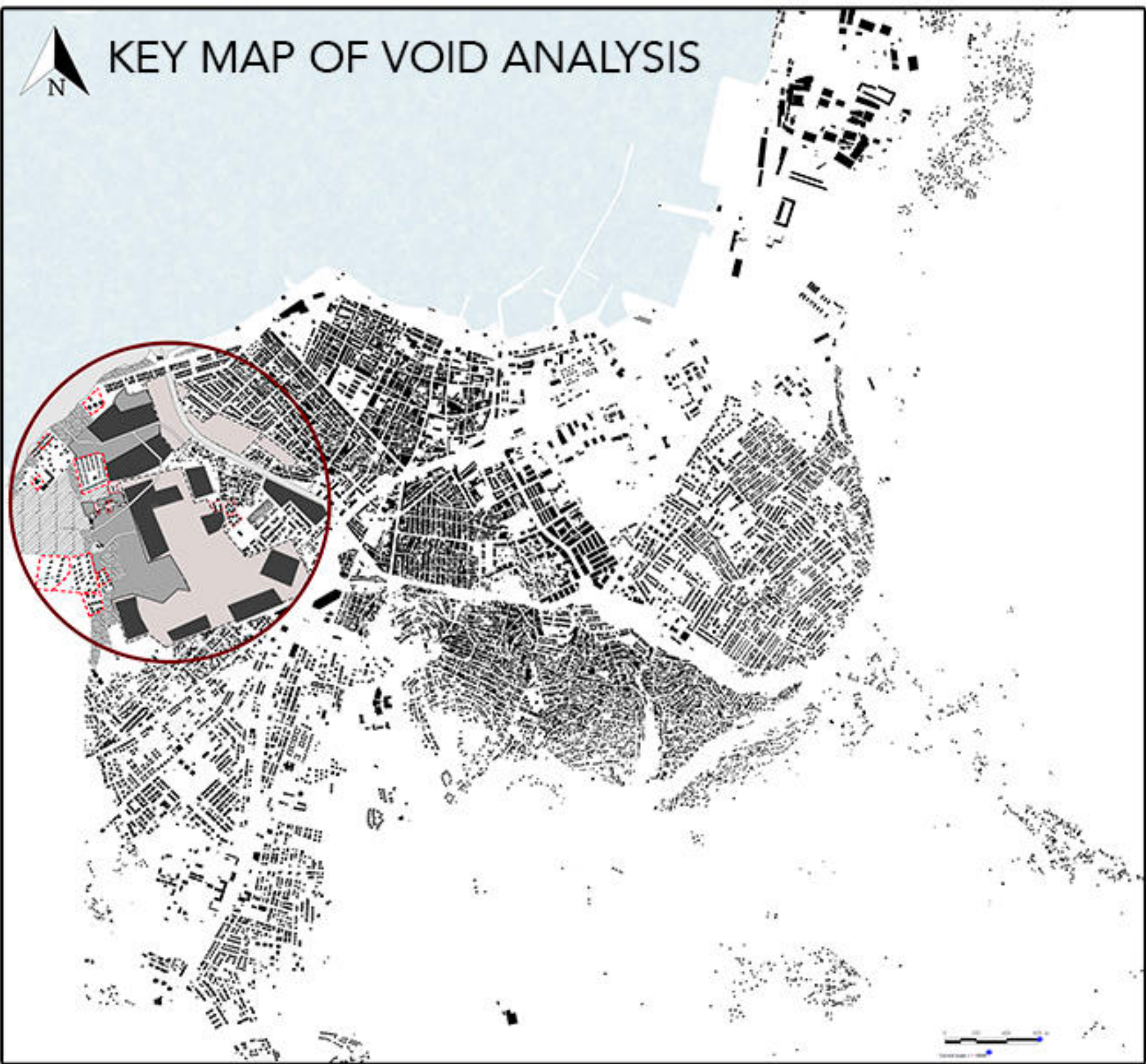
Brown forest soils are found in areas with **high slopes and denser vegetation**, while **colluvial soils** consist of **materials accumulated and transported on the slopes**. This diversity directly affects the agricultural potential of the region, landscape use decisions and settlement plans.

Green and Blue Network Analysis



The eastern part of Iskenderun is completely covered with mountainous forest areas, and there is almost **no green system** within the city and it is **discontinuous**. **Agricultural areas, orchards and pastures** have decreased as settlement increased, and **marshlands** have formed on the south and north sides of the city.

Although the **Aşkarbeyli Feyezan Stream** acts as a natural barrier dividing the city in two, it is quite useless and does not serve the city's green system. There are a few **unnamed water channels in the marsh areas**, but due to the weakness of the intervention in the marshes, these water sources are also dysfunctional.



- Compound Boundary
- Building
- Waterscape
- Official Border Area
- Container Settlement
- Marshland
- Green Area
- Idle Area



This analysis evaluates the **typological characteristics of voids** in Isikenderun and reveals the environmental impacts of urban sprawl.

Container settlements and Isikenderun Technical University's campus built on marshlands both disrupt the natural balance and pose serious risks in terms of site selection.

Luxury residences and summer houses located close to the coastline almost completely **prevent the public from directly accessing the water**, creating an uninterrupted structural barrier along the coast. Over time, these borders have caused the **destruction of agricultural areas and green areas**, negatively affecting ecological permeability and food production potential.

In addition, failure to intervene in the **idle areas formed after the earthquake** has led to both the dysfunctionality of these areas and the deepening of **environmental problems**. All these situations reveal that urban voids should be reconsidered from a strategic, ecological and accessible perspective.



D.S.1 - Productive Landscape as Generous Infrastructure

Goal: Transform southern Iskenderun's underutilized lands (especially around summer resorts) into agri-urban zones where food production is not hidden, but celebrated and shared.

- Multi-crop agricultural patches in vacant areas (2–3 harvests/year).
- Seasonal rotation fields for teaching permaculture and soil regeneration.
- Publicly accessible food forests and community herb gardens.
- Link to food banks and co-ops, strengthening food security.
- Irrigation networks that double as landscape features and educational tools.

The land offers food, knowledge, and healing, freely shared and visible to the public.

D.S.2 - Rural and Urban Housing Clusters

Goal: Introduce "productive housing" typologies that blend living, farming, and community engagement, especially targeting low-density southern areas and revitalizing summer housing.

- Live-Work-Farm modules: Housing units with adjacent farming plots or greenhouses.
- Transform underused summer houses into co-housing clusters with communal gardens and year-round services.
- Build affordable, modular eco-housing and radburn for permanent or temporal residents who engage in agriculture, education, or stewardship.

The home is no longer private property alone, it becomes a source of food, labor, community, and belonging.

D.S.3 - Research & Development Centers

Goal: Reintroduce the R&D model in a contemporary way, using agricultural education, digital learning, and cultural exchange as tools of empowerment.

- Agro-education campuses: Combine classrooms, greenhouses, and workshops.
- Collaborate with NGOs and municipalities for vocational training (farming, food processing, cooperative development).
- Include hostel-style dormitories to attract seasonal students, interns, or volunteers.
- Link institutes to a local radio/podcast station and exhibition spaces for storytelling and knowledge exchange.

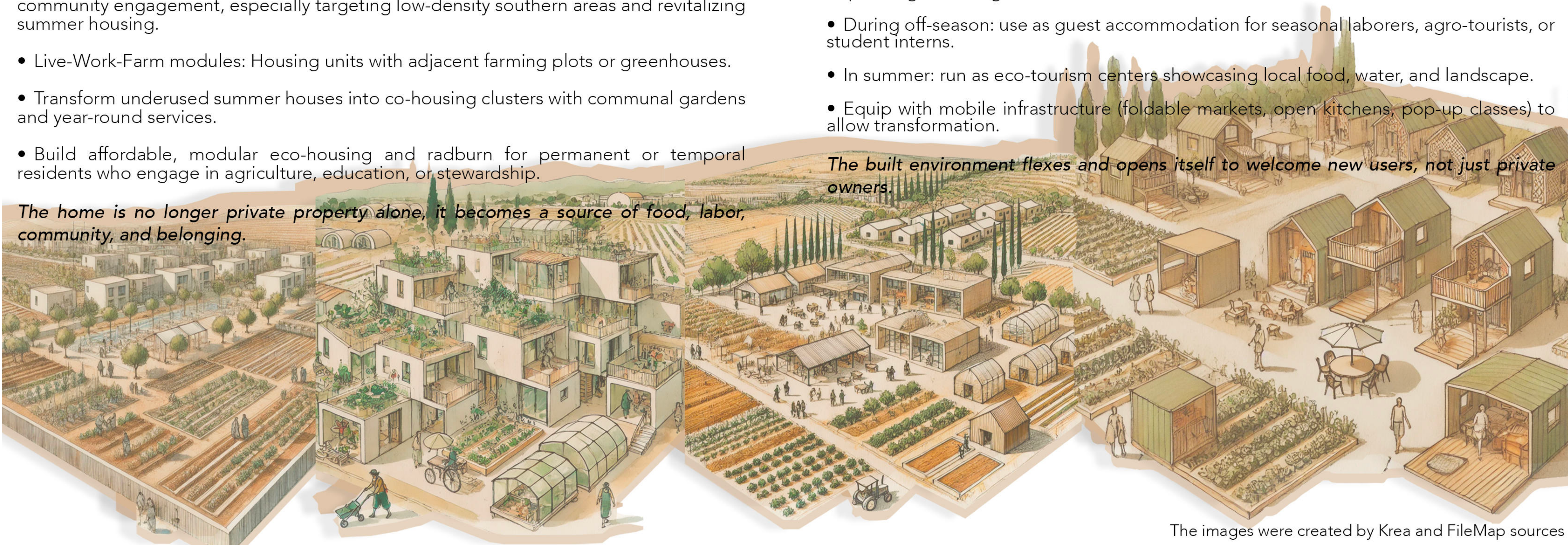
Education is seen as a gift to society, shared across generations and geographies.

D.S.4 - Seasonal Adaptive Use of Resorts

Goal: Turn vacant summer resorts into multi-use seasonal hubs that shift functions depending on the agricultural calendar.

- During off-season: use as guest accommodation for seasonal laborers, agro-tourists, or student interns.
- In summer: run as eco-tourism centers showcasing local food, water, and landscape.
- Equip with mobile infrastructure (foldable markets, open kitchens, pop-up classes) to allow transformation.

The built environment flexes and opens itself to welcome new users, not just private owners.



The images were created by Krea and FileMap sources

D.S.5 - Coastal Continuum: Blue-Green Corridors

Goal: Redefine Iskenderun's relationship with the coast through accessible, nature-integrated public spaces and micro-infrastructure.

- Build waterfront parks that integrate productive gardens, fishing piers, market stalls, and learning pavilions.
- Use bioswales, reed beds, and irrigation canals to filter and manage agricultural runoff.
- Connect coast to inland agri-zones through pedestrian + cycle greenways, promoting mobility and access to land.

The coastline, once exclusive, becomes a shared threshold where ecology, economy, and community meet.

D.S.6 - Decentralized Urban Cores (Sub-Centers)

Goal: Strategically place agriculture-led subcenters in the south that combine service, economic, and ecological functions.

- Clustered around existing roads, small mosques, or community centers.
- Include weekly markets, tool libraries, crop storage hubs, and multi-use plazas.
- Each center acts as a node for logistics and exchange, easing pressure on the northern core.

These nodes act like "community gifts", they provide value without demanding density or high capital.

D.S.7 - Threshold Softening & Convergence Interfaces

Goal: Tactically address the edges (roads, railways, commercial strips) that divide communities by designing generous interfaces that invite crossing and mingling.

- Use productive buffers (orchards, vertical gardens, shaded market walks) along tram lines or highways.
- Introduce shared spaces between refugee communities and locals: cooking gardens, storytelling areas, and shaded plazas.
- Design "land bridges" or overpass-agri decks that connect divided lands with symbolic and functional continuity.

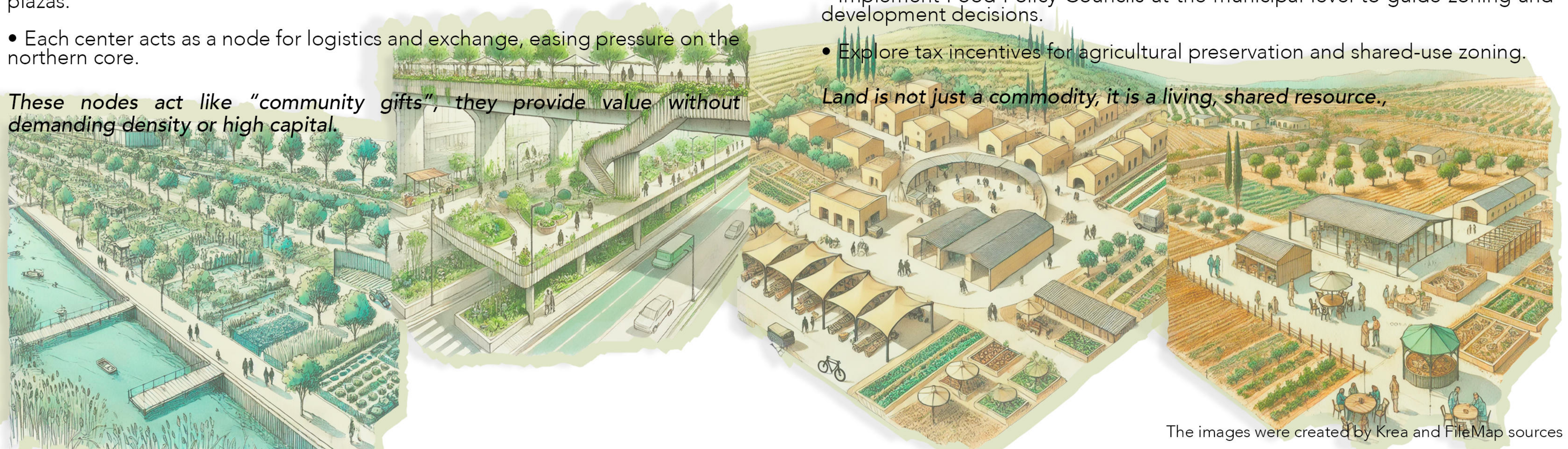
Even thresholds become places of meeting, growth, and care.

D.S.8 - Land Trusts and Cooperative Land Stewardship

Gaol: Establish a system to protect agricultural lands from speculation and promote community ownership and long-term care.

- Promote land cooperatives with shared decision-making models.
- Implement Food Policy Councils at the municipal level to guide zoning and development decisions.
- Explore tax incentives for agricultural preservation and shared-use zoning.

Land is not just a commodity, it is a living, shared resource.



The images were created by Krea and FileMap sources





This 1/2000 scale master plan proposes a post-disaster recovery framework based on the principle of generosity. Designed in İskenderun, the project rethinks urbanization through a regenerative lens, integrating agricultural resilience, ecological restoration, and social cohesion.

The design addresses the fragmented urban fabric by weaving together three core systems: urban (city center, housing zones, institutions), rural (agriculture, food production, village networks), and water (wetlands, canals, coastline). Each zone is designed not in isolation but as part of a productive continuum.

Wetlands along the northern waterfront serve as natural sponges for flood control and biodiversity support while offering accessible ecotourism loops.

Agro-parks and **urban agriculture fields** are integrated within housing areas and public facilities to promote food sovereignty and seasonal productivity.

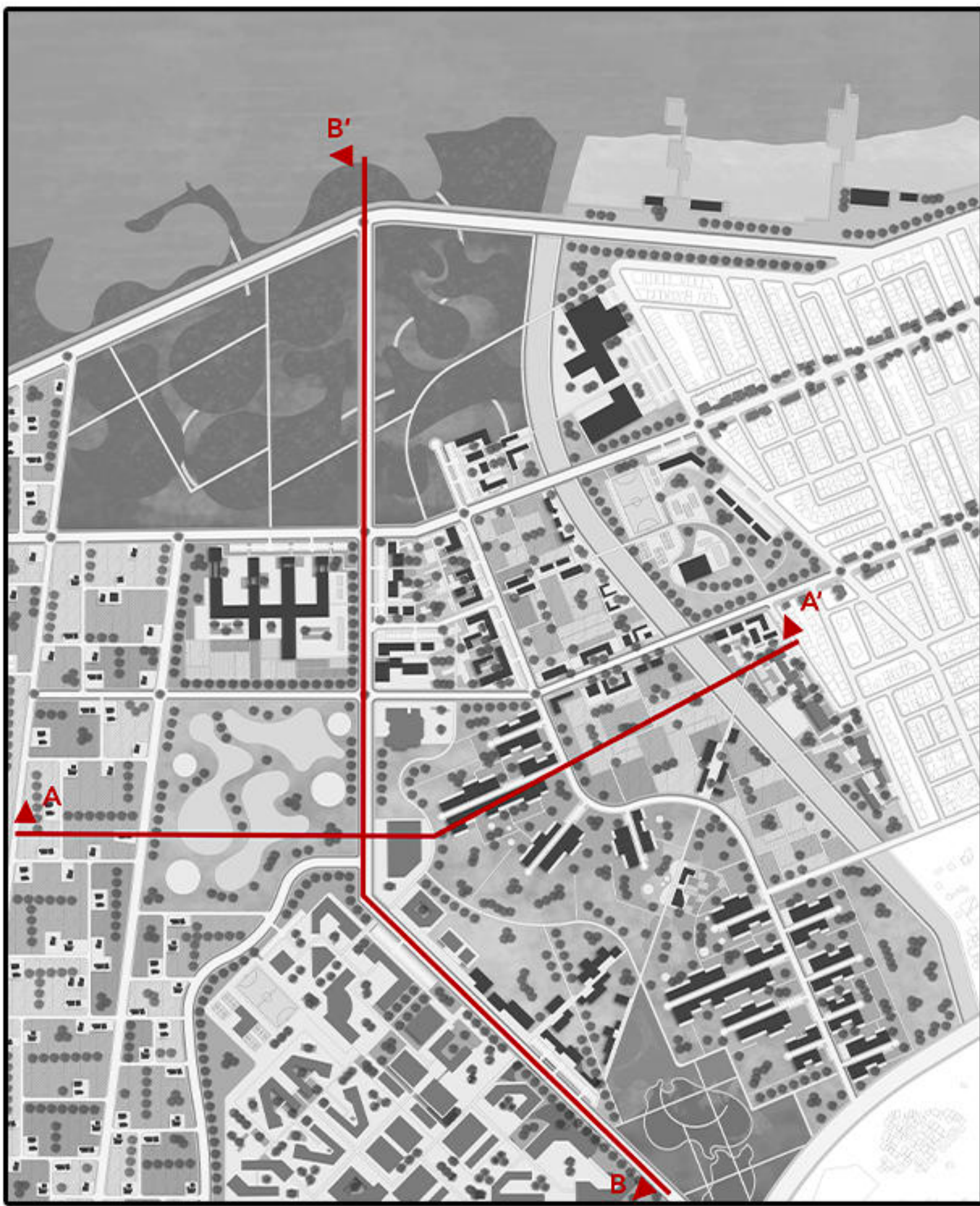
ISTEK Pond, Wetland Areas and İskenderun Public Beach simulate ecological cycles and serve as community gathering spots, blending education with environmental stewardship.

The Radburn Housing Zones, İSTEK Culture Center, and İskenderun Technical University act as urban anchors, surrounded by decentralized clusters of self-sufficient sub-centers and cooperative settlements.

Village Housing with Agriculture Fields reflect rural empowerment strategies, enabling year-round use of previously underutilized summer housing areas.

The linear **sub-center** spine functions as a shared public realm that links educational, cultural, and ecological spaces.

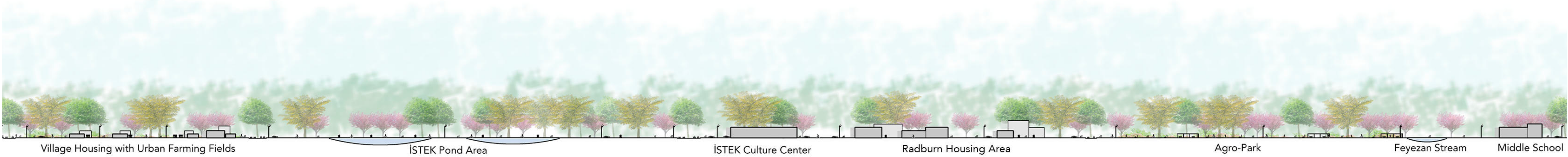
Each component is phased in a way that prioritizes short-term recovery, medium-term restructuring, and long-term transformation, drawing inspiration from Frank Lloyd Wright’s agricultural city, the Turkish Village Institutes model, and Food Policy Council systems.



These sections illustrate the spatial and ecological gradient of the master plan, stretching from inland village housing with farming fields to the Mediterranean coastline. The journey passes through diverse programs such as pond areas, agro-parks, cultural and educational centers, resilient housing zones, and restored wetlands. Each typology is carefully positioned to reflect a layered transition between rural production, urban life, and ecological restoration.

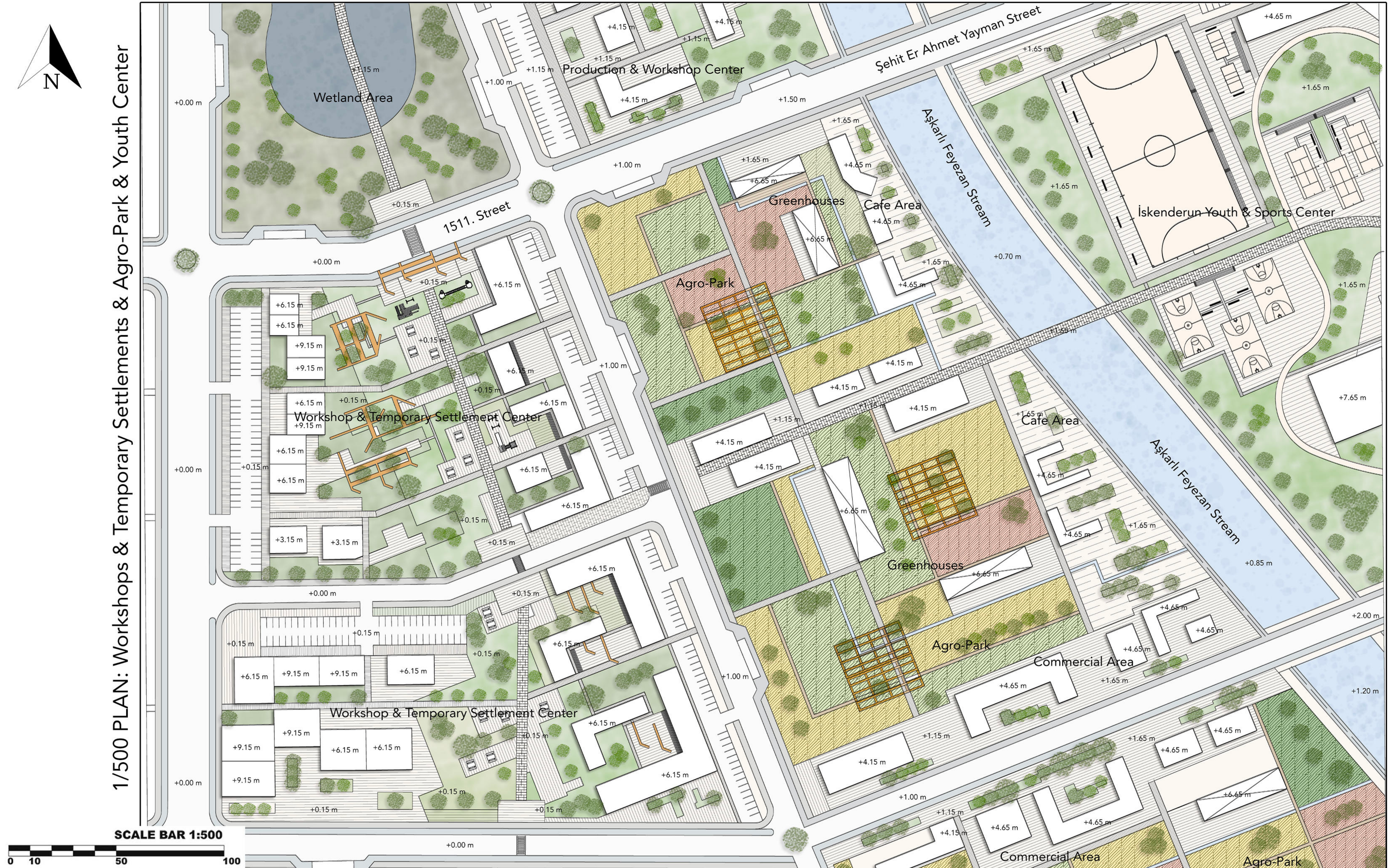
This views reveals the core principle of generosity in design where land is shared between nature and people, and where each zone offers multiple functions across time and scale. By combining productive landscapes, hydrological corridors, and social infrastructure, the project forms a resilient system that celebrates seasonal cycles, encourages community interaction, and supports long-term recovery and sustainability.

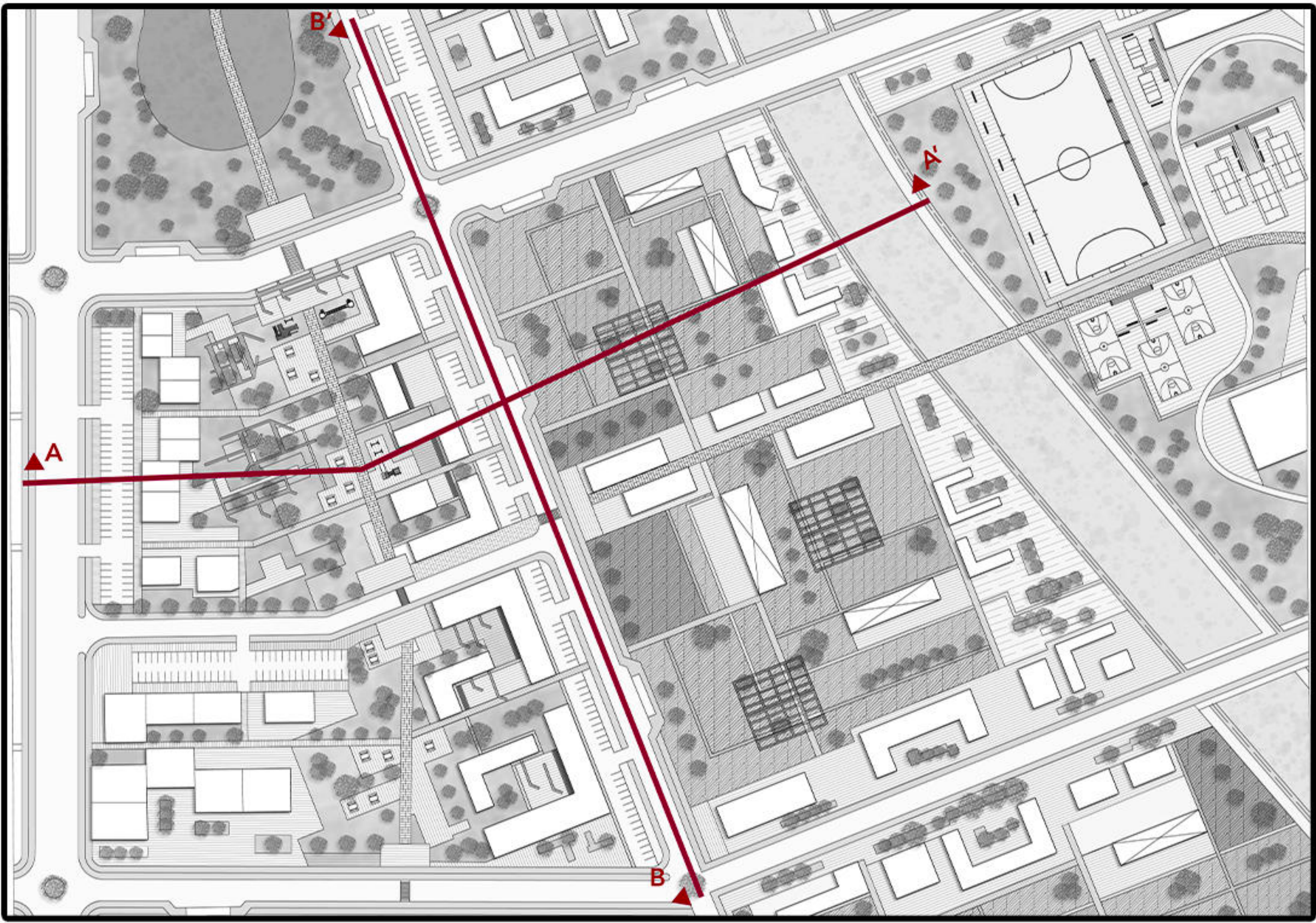
Section A-A'



Section B-B'







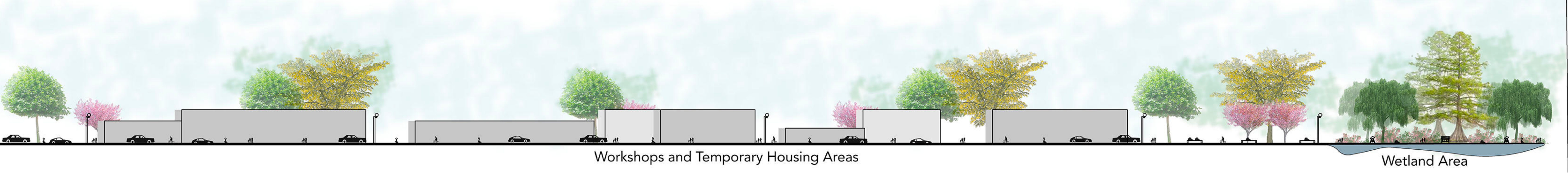
This scale focuses on the interface between temporary settlement, agricultural production, and daily urban life, acting as a microcosm of the larger master plan strategy. The layout weaves together Workshop & Temporary Settlement Centers, Agro-Parks, and Greenhouses to support both short-term recovery and long-term self-sufficiency through food production and community empowerment.

The proximity of commercial zones, cafe areas, and pedestrian paths fosters interaction between diverse user groups, residents, farmers, students, and visitors. The design emphasizes permeability, with canal-side access, shaded gathering spaces, and integrated programs that encourage coexistence between production, habitation, and recreation. This section of the project illustrates how generosity is embedded into everyday spaces through layered, multifunctional design.

Section A-A'



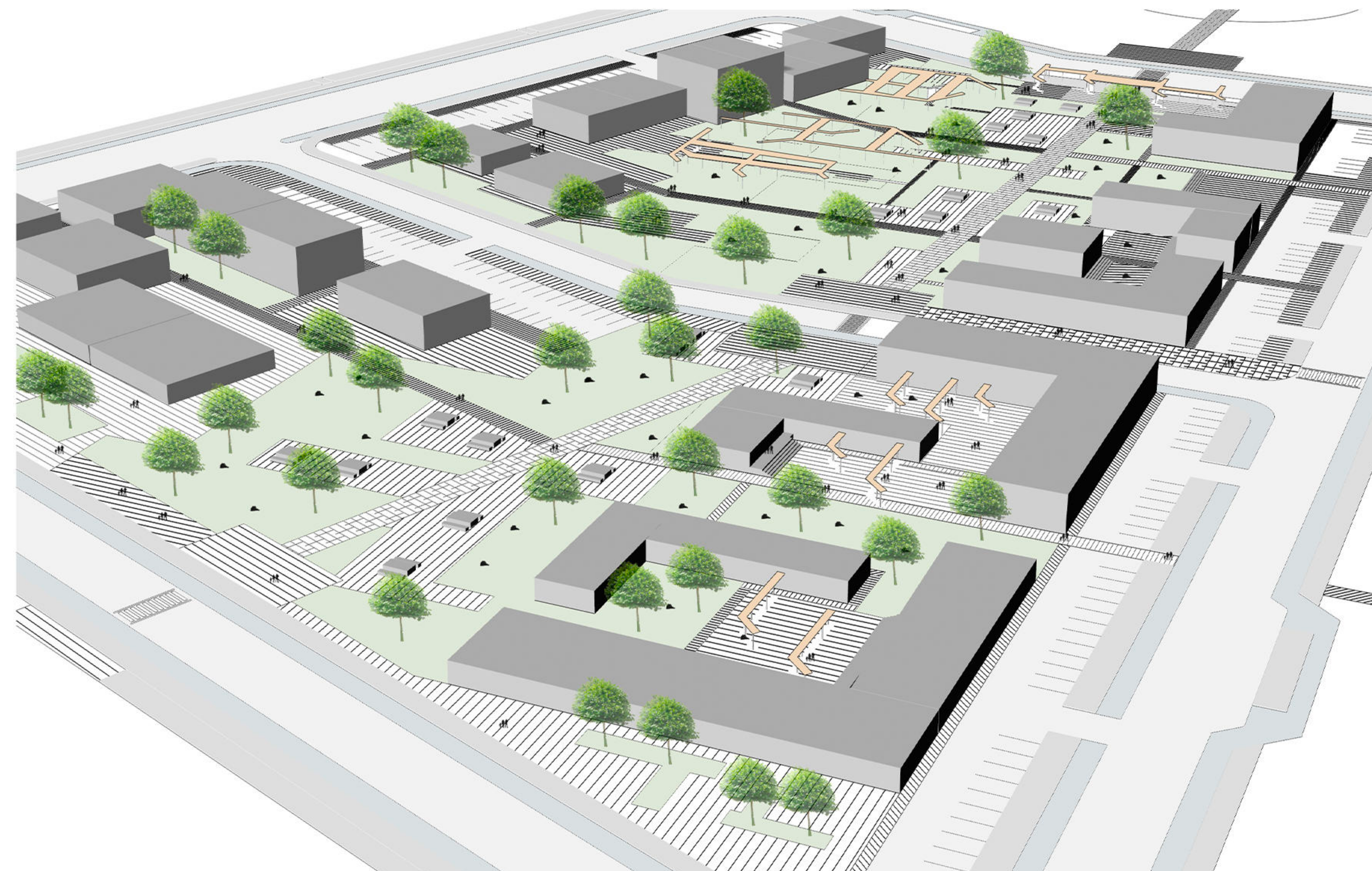
Section B-B'

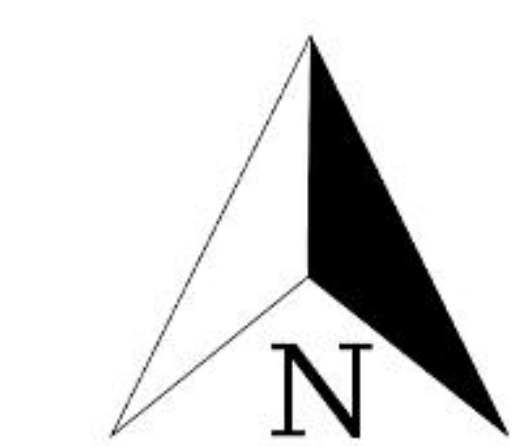




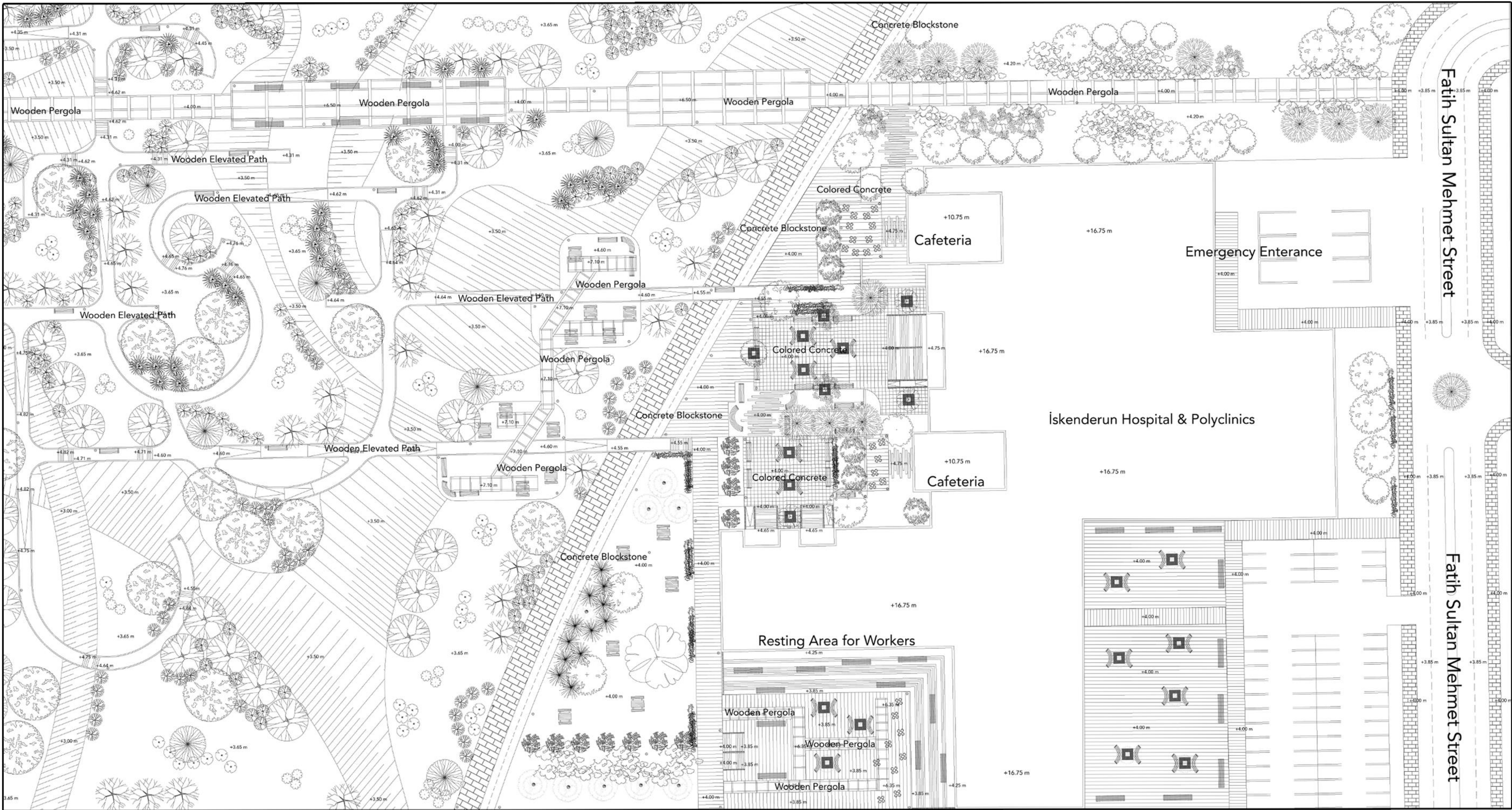
This view captures the intersection of production and living, where temporary settlement units, community workshops, and a vibrant agro-park coexist in close proximity. The visual layering highlights how everyday life, education, and food production are integrated within a walkable and shaded urban fabric. Wooden structures and public gathering spaces between the blocks foster community interaction, while the adjacency of agricultural zones emphasizes the project's goal of creating a self-sufficient and socially generous environment.

This zoomed-in perspective provides a closer look at the temporary settlement units and community workshops, emphasizing the layered relationship between built forms, circulation, and open space. Wooden structures serving as gathering points, learning shelters, or production hubs are carefully embedded within a generous public realm. The modular layout allows flexibility in use, while tree-shaded paths, pocket plazas, and integrated seating elements promote a sense of community, comfort, and dignity in post-disaster living environments.





1/200 PLAN: Wetland Area with Elevated Paths & Hospital Area with Resting Areas



Wetland Plants:

- Lemna minor
- Nymphaea alba
- Nymphaea caerulea
- Salix alba
- Salix babylonica
- Salix integra
- Salix purpurea
- Spirodela polyrhiza
- Tamarix ramosissima
- Tamarix tetrandia
- Taxodium distichum

Trees:

- Acacia floribunda
- Albizia julibrissin
- Cercis siliquastrum
- Ficus carica
- Lagerstroemia indica
- Laurus nobilis
- Laurus novocanariensis
- Olea Europaea
- Platanus orientalis
- Punica granatum
- Tilia tomentosa

Shrubs:

- Cistus spp.
- Lavandula angustifolia
- Nerium oleander
- Pittosporum tobira
- Rosmarinus officinalis
- Santolina chamaecyparissus
- Spiraea japonica
- Spiraea x vanhouettii
- Thymus vulgaris
- Viburnum opulus
- Viburnum tinus





1/200 scale illustrates a therapeutic and ecologically immersive hospital landscape, where the natural topography and vegetation are carefully preserved and enhanced. The wooden elevated paths and pergolas gently float above the terrain, allowing visitors and healthcare workers to walk through a biodiverse environment without disturbing the existing soil and root systems. Shaded trails and resting areas promote mental recovery, reflection, and sensory relief, especially for those navigating moments of stress and fatigue.

A key feature of the designed area is the wetland zone, which has been designed as a site of natural regeneration. By preserving native species and reintroducing water-tolerant plant communities, this area functions as an ecological sponge, supporting both biodiversity and passive stormwater management. The sectional drawings emphasize how the elevated paths weave through this regenerative landscape, offering a unique interface between healthcare infrastructure and living ecology, an approach that merges environmental healing with human well-being.

Section A-A'



Section B-B'



Agricultural Regeneration: Coalescence of Urban - Rural - Water Trilogy

Yani, öylesine ciddiye alacaksın ki yaşamayı,
yetmişinde bile, mesela, zeytin dikeceksin,
hem de öyle çocuklara kalır falan diye değil,
ölmekten korktuğun halde ölüme inanmadığın için,
yaşamak yanı ağır bastığından

— Nazım Hikmet, Yaşamaya Dair, 1947

THANK YOU!

