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Article

Diagnosis of an historical layer from urban context to building scale: The case of Istanbul, Levent Farm and Barracks

Melih BİRİK*

Department of Urban and Regional Planning, Faculty of Architecture, Mimar Sinan Fine Arts University, Istanbul, Türkiye

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ABSTRACT

This paper presents a methodological approach to the process of identifying the traces of Levent Farm and Barracks in the urban landscape of late 18th- and early 19th-century Istanbul, contextualizing and recording these structures as part of a settlement complex. The research methodology includes the preparation of a prediction map, inter-scale evaluations based on cross-referencing with written sources, and the correlation of the findings with historical geography and the contemporary urban context. In this way, the building traces determined by the exploratory field surveys have been holistically identified as part of the Levent Farm and Barracks and registered as tangible cultural heritage values. The research outputs offer a new perspective on the spatial development of 18th-century Istanbul in the context of urban history and urban archaeology, while revealing the potential of evaluating current planning and design processes together with the cultural heritage of the modern period and the potential of valuing different cultural layers as a whole.

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INTRODUCTION

The aim of this paper is to identify the context of the late 18th- and early 19th-century Levent Farm and Barracks settlement complex, the traces of which have been lost due to rapid urbanization in Istanbul, within the historical urban landscape and to provide an overview of the process of developing the prediction map required for exploratory field surveys. In this context, an analytical process was followed for the holistic evaluation of a potential urban archaeological site that reveals an important cultural heritage value in the urban development process of Istanbul. The Levent Region, which is the subject of the research, is

currently under the pressure of rapid urban transformation. In the process of demolition and reconstruction, the spatial qualities of the urban area, as well as traces of cultural heritage values within the urban fabric that have not yet been identified, are under the threat of losing their structural integrity. It is necessary to identify the widespread area in the urban landscape where this potential can be located and to identify the structural traces in relation to the existing urban context.

Based on these concerns and following the general definitions provided by the research project (Birik, 2022), this paper focuses on the development of a dataset for the diagnosis of spatial traces through exploratory fieldwork.

***Corresponding author**

*E-mail adress: melih.birik@msgsu.edu.tr



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HISTORICAL BACKGROUND

Today's Levent Region became an important part of the defense of the Bosphorus with the allocation of Levent Farm to Cezayirli Hasan Pasha in 1793, in the process of innovative breakthroughs and modernization of the army during the reign of Selim III (Ahmet Fâiz Efendi, 1993). During this period, the Bosphorus was a strategic waterway connecting the Black Sea to the Mediterranean, and thus had strategic importance in terms of eliminating threats to the capital of the Ottoman Empire from the north. As the first spatial organization of the Barracks within the framework of the regulations dated 1794 declared the New Order for military organization within the scope of "Nizam-ı Cedid," a modern settlement model was created in the farm area (Shaw & Ezel, 2002). Although the settlement was burnt and destroyed during the Janissary Revolt in 1808, it continued to be partially used, with repairs made in the following periods (Beydilli & Şahin, 2001). Levent Farm and Barracks is seen as the first modern settlement of the New Order period (Beydilli, 1995). The official records of the Ottoman Archives of the Prime Ministry of Türkiye (hereinafter referred to as BOA), dated 1805, indicate that this successful development was seen as a model and an example for new military settlements (BOA, 1805). The settlement consisted of two hospitals, schools, workshops, administrative buildings, two large barracks, and various social and technical infrastructure units, as well as agricultural facilities associated with the complex. In addition to military personnel, many foreign technical advisors and trainers were also accommodated. These inhabitants exceeded ten thousand at its peak (Beydilli, 1995). However, after the late 19th century, there are no records of this settlement complex, except for a few agricultural farms, dairies, and a few military outposts.

From the 1950s, in parallel with the modern urbanization process and new housing policies in Istanbul, residential constructions started to develop in the area, and the traces of the Levent Farm and Barracks were lost under the modern urban fabric. Until 2021, neither the location nor any structural traces of the old settlement were precisely identified, except for the Sultan Pavilion. Despite this significant cultural heritage potential, the Levent Region is best known for the Levent Neighborhoods, which were developed in the 1950s in accordance with new housing policies, and are now recognized as a leading cultural heritage site of the modern period of Istanbul. During this period, offering a new lifestyle and change with a better urban environment for the neglected city center, Levent was defined as the area where the city meets modernity (Karabey, 2011). As one of the first modern neighborhoods in Istanbul, the first phases of the Levent Housing Projects were designed with the garden city approach in 1947. The 4th Section, the last phase of the Levent Neighborhoods

completed in 1957, was developed in accordance with the legislation on multi-storey construction and the principle of progression of public and private spaces (Arú, 1992). With its public spaces, residences of different typologies, wide avenues, social areas, facades with decorative modern art, and shopping spaces with large car parks, the Levent 4th Section Housing Project attracted public attention (Arú, 1956). In movies and magazine reports from the 1960s and 1970s, the city's elite, traveling by "automobile" on "proper roads" between "housing blocks" and "villas with gardens" in the Levent Neighborhood, were offering an attractive lifestyle. Meanwhile, in terms of the contemporary daily life of the period, the Levent Region offered ideal opportunities to workers, artists, writers, middle-income civil servants, and those who wanted to build a new life a little far from the city center, yet close to it. In short, the modern life of Istanbul was being shaped here.

This spatial configuration and the lifestyle that the Levent Region presented spread to a wider area, providing connections to the housing projects that developed in the 1970s. This situation extended to Nispetiye and Büyükdere Avenues, on the upper level of the Bosphorus, which Prost defined as the "Corniche Superieure" in his 1944 plan. The region was seen as a potential site for large housing projects due to its characteristic wide property pattern resulting from its former military lands and farms. Through new transportation strategies and the decentralization of industry, the revival of the peripheries as an alternative to the tired urban fabric in the center was defined as a step towards creating the modern city (Bilsel, 2010). The foundations of integrated, permeable neighborhoods starting from Levent and extending to Akatlar, Etiler, and Uçaksavar Neighborhoods through Baltalimanı Valley were established in recognition of this potential (Birik, Aksoyak ve Çalışkan, 2022). This situation reveals that the residential areas that developed in the region until the 1980s were a continuation of the period that began with modern housing projects and the expansion of housing cooperatives, while at the same time continuing the modern culture described above.

Two different perspectives emerged from the planning approach that developed in historic cities between 1950 and 1970: the development of new settlements outside the center, which allowed for spatial expansion, or urban renewal practices that did not yet include holistic conservation strategies and damaged the historic fabric (Dinçer, 2011). Similarly, the modernization of cities in Turkey, which started in the mid-20th century, was based on the demolition and reconstruction method in historical centers. It can be said that this practice allowed the traces of cultural heritage to disappear and damaged the identity of the place (Tekeli, 1998). Today, the need for a holistic approach to urban identity in a broad geographical context within the scope of the historical urban landscape has been recognized (UNESCO, 2012). With this contemporary

approach, it is suggested that potential areas outside the historic core should be mapped and identified, their vulnerability to rapid urban development should be diagnosed, and they should be integrated into planning and design processes, bringing them together with daily life (UNESCO, 2012).

Accordingly, the Levent Region, which is located today in the central urban area of Istanbul, has faced the risk of losing the spatial qualities it accumulated throughout the modern period. The transformation of permeable neighborhoods into gated communities has accelerated, and the spatial identity of the Levent Region has changed as a result of new and fast transportation connections, rising rent values, and increasing non-residential use of the area. Although Levent Neighborhoods were declared an Urban Conservation Area based on their modern settlement characteristics in 2017, plan decisions such as the connection roads proposed to pass between neighborhood units and "special construction conditions" continued to change the existing urban characteristics. Therefore, it can be said that potential traces of cultural heritage from the 18th century are also under threat of destruction, as are the modern neighborhood heritage elements, which have been visible since 1950.

Based on this issue, the primary objective of the research was to identify, document, and record the surviving building traces of Levent Farm and Barracks to increase their visibility. It is also aimed to determine how urban layers shape each other by revealing the spatial interaction of modern architectural heritage with these potential archaeological sites in Levent, starting from the 18th century.

METHODOLOGY AND TOOLS FOR THE DIAGNOSIS

The methodological approach is based on the historical landscape approach (UNESCO, 2012) to define the overlapping of different layers of urban geography over time through the synthesis of information collected from archival documents, literature, and cross-referencing of spatial information from superimposed historical maps, plans, and projects.

Spatial data were evaluated with a holistic approach in part-whole interaction by considering inter-scale network relations in the urban landscape (Favory et al., 2012). In this approach, as in urban history and urban archaeology studies aiming to understand the processes of change and transformation of space, relational evaluations were made to understand and define the urban context in the historical process, including the location of the area within the urban geography, its functional connections, and the qualities of the buildings in this context (Butzer, 1980). A holistic approach is needed to conceptualize how the study area was established, developed, fragmented, and reconfigured over a series of periods. Therefore, spatial analyses are elaborated

in relation to each other from the urban scale to spatial sub-scales to understand change and transformation. These analytical approaches reveal not only the knowledge of a retrospective reading of space, but also clues to the transmission of memory by recognizing the interactions and connections between spaces that developed in different periods.

The historical maps, site plans, and aerial photographs were superimposed on the geographical coordinate system to provide a platform for mutual spatial evaluations. The findings obtained from written archival sources, such as BOA and Mihrişah Valide Sultan Foundation Records (hereinafter referred to as MVSV), were cross-examined with the spatial data. The unique topographical features of the Bosphorus were considered as important reference points for correlating different large-scale historical thematic maps and spatializing written documents. Considering similar characteristics and the current coordinate system, site plans of housing projects developed in the focus area between 1950 and 1960 obtained from the archive of Beşiktaş Municipality and aerial photographs from 1946 and onwards obtained from the General Directorate of Mapping of the Ministry of National Defense were used to create a common platform for spatial analysis.

The varying media noted above were superposed on the current coordinate system by geo-referencing (Benavides & Koster, 2006). This method can be described as overlapping the control points determined on maps prepared with different techniques to the common coordinate system using GIS tools. In urban archaeology studies, superimposing historical maps through the geo-referencing method is used for the detection of spatial traces in comparative analyses (Bitelli et al., 2009). Depending on the nature of each map, different geometric transformation methods can be applied based on the control points to transform historical maps with appropriate interpolation and position them on the current coordinate system (Balletti, 2006).

The concept of in-depth reading is discussed in the context of drawing technique, prominent geographical representations, semantic content, theme, and the relationship of the map with the geopolitical situation of the period. Among the 23 maps dated between the mid-18th century and the beginning of the 20th century, repeating maps were eliminated, and the maps that are the main source were selected. Geometric transformations were applied for in-depth reading to ensure the optimum level of alignments while preserving their semantic content. Each map was associated with the current coordinate plane based on the north direction, and at least three control points were kept constant by overlapping them to the coordinate system, and basic geometric transformations (trilateration and warping on the grid plane) were applied to ensure a minimum level of surface deformation.

HOLISTIC EVALUATION PROCESS

The discussion of the urban context in which the Levent Farm and Barracks interact is analyzed at three complementary scales to define the historical urban landscape as follows (Figure 1):

- Urban Area: Location within the urban structure through historical maps.
- Immediate Vicinity: Interactions with the immediate vicinity and definition of character zones.
- Focus Study Area: Structural elements and traces of the compound.

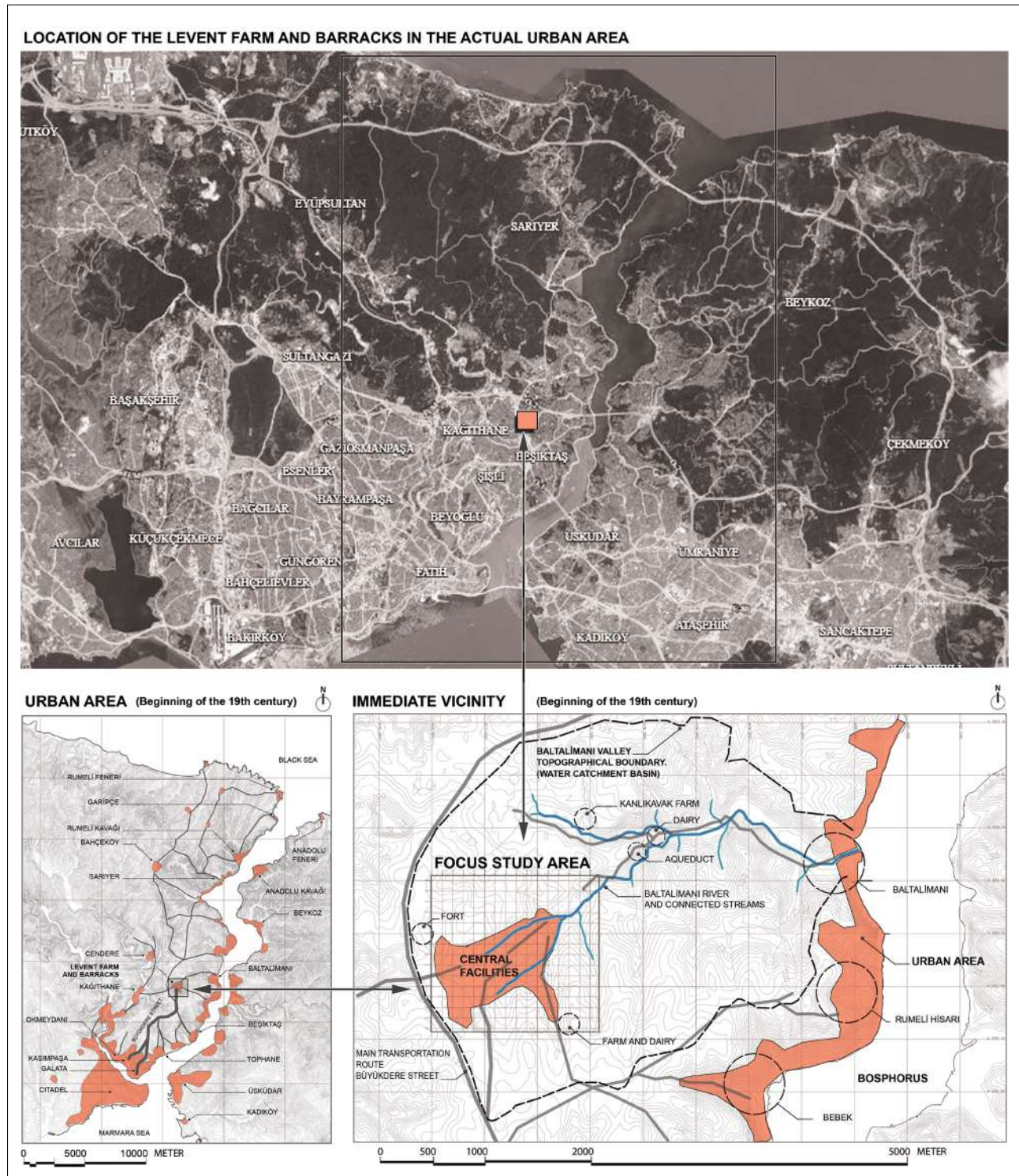


Figure 1. Three complementary scales for Levent Farm and Barracks to define its place in the historical urban context: Urban area, immediate vicinity and focus study area. (The maps were developed by the author using topographic maps obtained from the Istanbul Metropolitan Municipality database).

Urban Area: Location Within the Urban Structure Through Historical Maps

Four historical maps were selected to discuss the location of Levent Farm and Barracks within the spatial networks at the urban scale and its relationship with the city center. These maps stand out in terms of the number and representational quality of the control points and provide detailed spatial information for in-depth reading with reference to written sources.

From the beginning of the 18th century until the establishment of the Barracks in 1794, maps emphasized the strategic importance of the Bosphorus and showed the natural harbors and water resources. In this context, the map of Andelfinger (1703) is an important document that reveals the strategic value of the Bosphorus for the city center, which is also considered the first map that expresses the location of the farm before the Barracks and its relationship with other central nodes.

Guillaume Antoine Olivier's map (Olivier, 1801) stands out with its details describing the geological features of the Bosphorus (Lom et al., 2016). Levent Farm and Barracks is located within a strong transportation network with other military nodes built during the New Order and the city center (Şenyurt, 2016). Olivier's map provides information to support these evaluations. The farm, indicated on the map as the last central node in the north, is connected to Pera by land. From there, it reaches the Golden Horn shore where the shipyard is located via Okmeydanı and connects to Divanhâne, the military headquarters, and the armory in Kasımpaşa. Considering that the Kalyoncu Barracks and Mühendishâne, the Engineering School, where modern techniques were taught, are also located in Kasımpaşa, the importance of the Barracks' connection with military centers for the defense of the city is emphasized.

François Kauffer, who served the Ottoman Empire during the New Order movement, produced maps in accordance with the modern standards of the period by using new techniques and tools in terms of cartography (Pedley, 2012). The map (Kauffer, 1819), published after his death, was improved by Barbié du Bocage's additions, providing a comprehensive description of the entire Bosphorus shortly after the Janissary revolt (Pedley, 2012). The "Great Levent Farm," defined on this map, consists of different building clusters between the Baltalimanı Valley and Büyükdere Road. It is located on a plateau between two branches of the riverbed without any structural boundaries. The fact that the "Great Levent Farm" is connected to the "Cargo Port" on the shore of the Bosphorus via the road running parallel to the Baltalimanı River reveals its important relationship to the sea.

Despite Kauffer's detailed illustration, Franz Fried's map of Istanbul (Fried, 1821) illustrates the settlement as a single structure. It emphasizes the strong connection of the road passing through the Barracks with Baltalimanı and the Büyükdere Road and presents a connection of the Barracks with Kağıthane, where one of the important military nodes is located.

Helmuth Moltke's map (Moltke, 1849) provides detailed information on the identification of geographic references in comparison with contemporary maps. The expression "Ruins of Great Levent Farm Barracks" on this map describes the period 40 years after the Janissary revolt, indicating the buildings were abandoned. Unlike the Kauffer Map, the functions or names of the buildings are not noted, but the location of the two barracks and the Sultan Pavilion are indicated in a way that corresponds to their current locations.

The maps above and the records describing the characteristics of Levent Farm and Barracks demonstrate the central role and strategic position of the settlement complex in the defense of the Bosphorus line. In the late 18th century, with the allocation of Levent Farm and its immediate vicinity to Cezayirli Hasan Paşa, Levent Farm and Barracks became an important point of attraction for the central military hub in Kasımpaşa. Connections with the Shipyard and the Engineering School in Kasımpaşa reveal its strong relationship with the political, administrative, technological, and cultural breakthroughs of the New Order period in the urban context. In addition to strong road connections to the city center, there was also a strong connection by sea to the central port at Tophane, indicating that Baltalimanı was used as the port of this settlement. Considering the transportation networks and the echelon of functions within the urban geography, Levent Farm and Barracks was an important settlement in proximity to the center.

From the 19th century to the mid-20th century, there was no large-scale development in the region, and except for the old settlements along the Bosphorus coastline, the boundaries of the existing city did not yet reach Levent on the upper levels. As described in the historical background section, the Levent Region has developed and become a center of attraction since the 1950s with new housing policies, the development of nearby industrial areas, and new transportation plans.

Interaction with the Immediate Vicinity and Character Zones

The immediate vicinity of the study area was analyzed by dividing it into character zones, as the widespread settlement and unbounded structural form of Levent Farm and Barracks make it difficult to identify potential archaeological sites and building traces. The term "character zone" is used in urban morphological studies to describe the unique regions that result from the interaction of building, street, and property fabric with the surrounding physical environment and topography (Larkham & Morton, 2011). As a contribution to this background, and with reference to characteristics of place defined at general assemblies of the International Council on Monuments and Sites (ICOMOS, 1987; ICOMOS, 2011), the term "Potential Character Zones," as used in this paper, refers to areas of potential archaeological value as well as clusters of interrelated groups of building traces and natural features

under pressure from rapid urbanization.

Through the evaluation of the research project outputs, four potential character zones were identified that define the possible locations of structural traces within 500 meters of the focus study area and their relationship with the existing urban structure (Figure 2). Nodes such as the water reservoir in Kanlıkavak Farm and Baltalimani harbor are not evaluated in this study as they define the peripheral fifth zone.

- **Character Zone 1** is the plateau where the new and

old barracks, two hospitals, mosques, baths, kitchens, shops, stables, arsenal, fountains, water reservoirs, ponds, training grounds, squares, roads, and the Sultan Pavilion identified in archival documents from the early 19th century (BOA, 1800; BOA, 1803) overlap with the clusters of buildings indicated on historical maps.

- **Character Zone 2** can be considered a natural boundary surrounding Zone 1. In addition to the riverbeds, gardens, and agricultural areas, the roads connecting the plateau to the city center and the bridges that serve as gateways were in this threshold area.

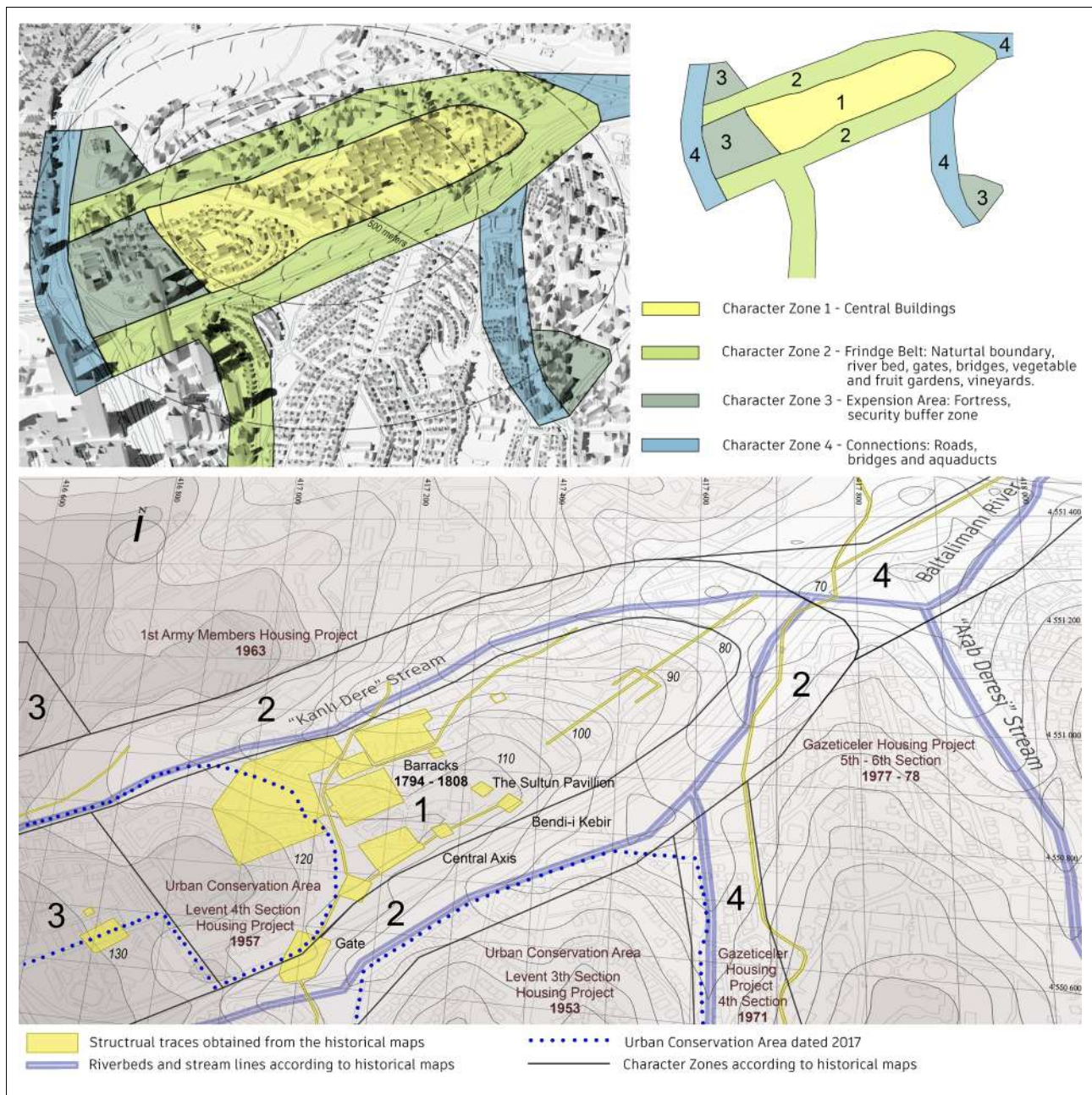


Figure 2. Structural traces according to historical maps referencing the character zones and topographical features within the existing urban structure.

- **Character Zone 3** is defined as the improvement area where new functions were added over time, including agricultural fields, farm buildings, infrastructures such as sewage drains and clean water ducts, and defense structures in fragmented sub-areas.
- **Character Zone 4** consists of natural corridors that provide connections and passages between built-up areas within the fragmented identity zones. It includes bridges and water supply structures following historical waterways and riverbeds.

Focus Study Area and Definition of Spatial Traces

The focus study area is the central cluster of building traces within Character Zone 1 selected for the exploratory field survey. This area is located within the boundaries of the Konaklar Neighborhood of Beşiktaş District and has been subjected to residential development since 1957.

At this stage, detailed maps, plans, and aerial photographs conveying building-scale information were added to the GIS environment, creating a prediction map showing the focus study area for exploratory field surveys. In addition to the spatial data located in the coordinate system, the gravure from Mahmut Raif Efendi’s book dated 1798 (Beydilli & Şahin, 2001) and the drawing titled “The Plan Showing the Boundaries of the Area Around Baltalimanı and Kanlıkavak” dated 1873 (BOA, 1873) provide important spatial clues. While the gravure describes the building composition of Levent Farm and Barracks during the period when it was in active use, the 1873 plan, which presents the abandonment of the settlement, shows the prestige buildings and their descriptions on a central axis and pattern of central buildings (Figure 3).

Aerial photographs reveal that all the buildings associated with Levent Farm and Barracks in the focus study area were

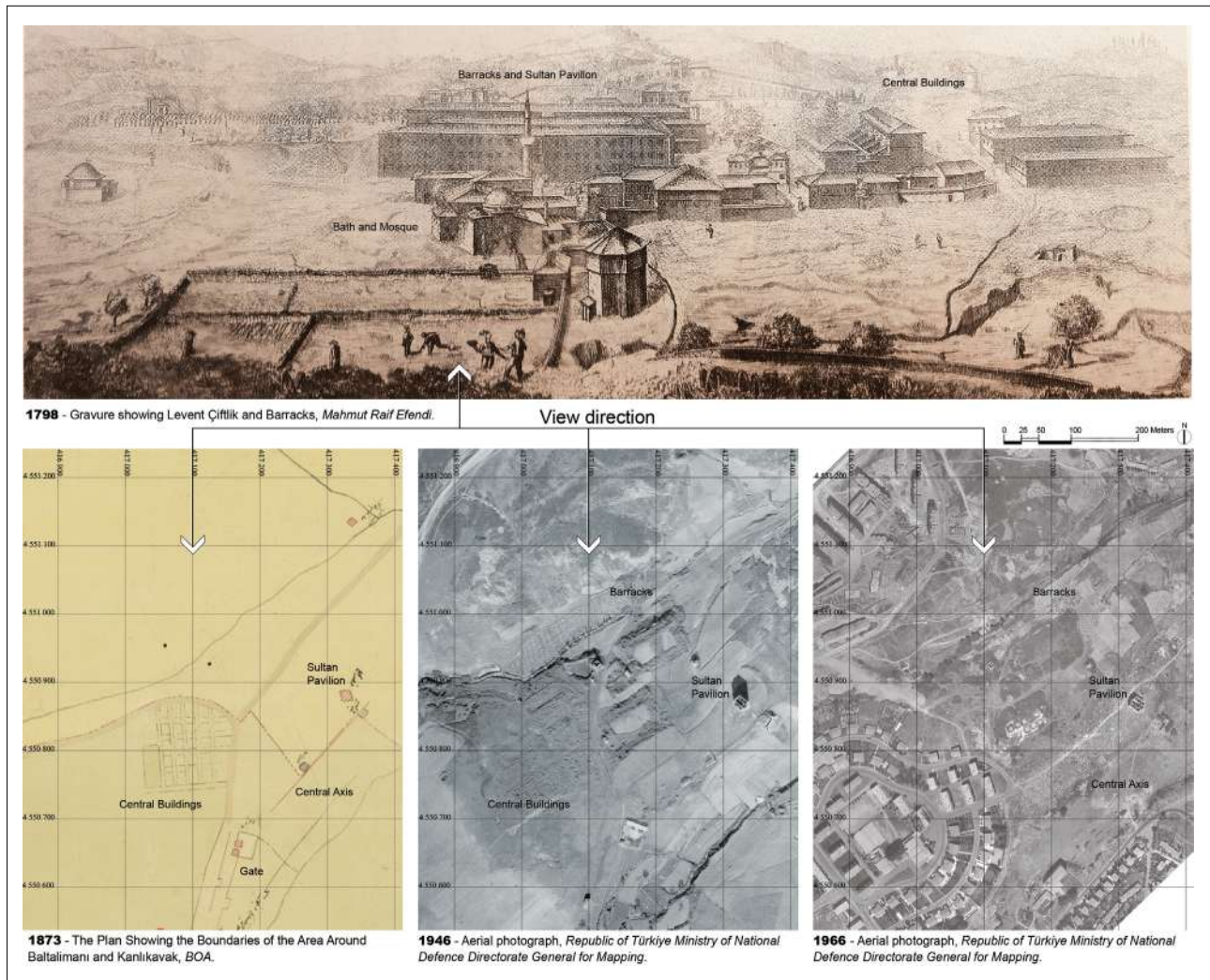


Figure 3. Spatial change 1798-1966.

abandoned, in ruins, with only a few structural traces legible (Figure 3). The aerial photographs present the trace of two large rectangular buildings with courtyards and a cluster of building traces to the west. These traces complement each other when evaluated together with the traces of a group of buildings lined up on the central axis, which is also coherent with the 1873 plan. The location of the rectangular building traces and other structural clusters can be determined within the coordinate system, and necessary connections can also be made with reference to the Sultan Pavilion and the riverbeds, as their locations are known today. The photograph shows that the central buildings, whose exact location is not specified in the written sources, are located to the west of the rectangular building traces corresponding to the Barracks.

Through the superimposition of the spatial information and synthesis of findings described above, a prediction map was developed to locate potential central structures and identify their interaction with the existing urban pattern (Figure 4). As a result of the comparative analysis of the findings of the past periods with the current maps, it was revealed that four building traces in the present structural context could be identified on the prediction map, and the exploratory

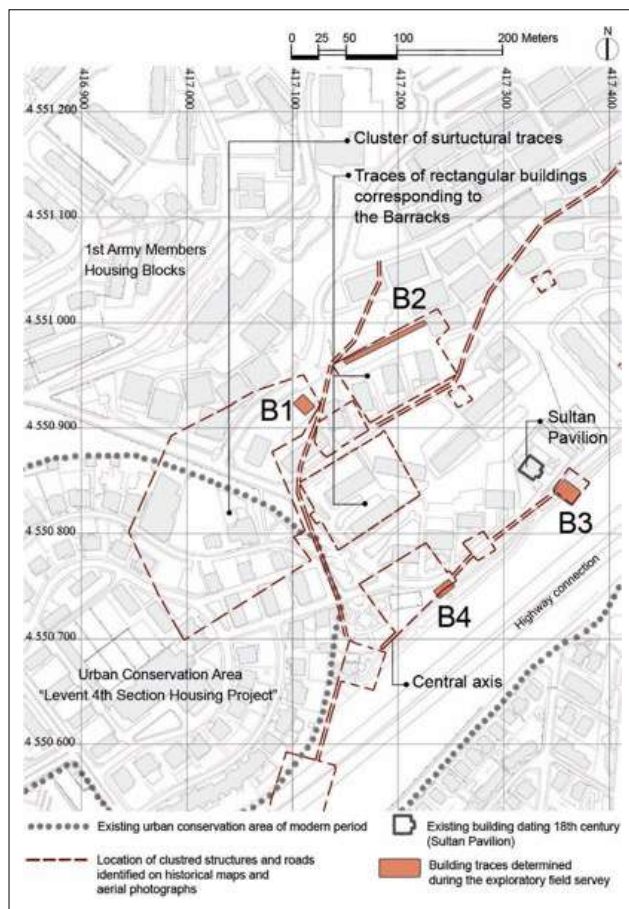


Figure 4. Prediction Map. Location of potential structures and building traces.

fieldwork phase was initiated. In this way, the conceptual framework for the location of the potential single structures to be identified was determined by establishing their relationship with the urban context.

The Building Trace 1: Bathhouse (Hamam) of Levent Barracks

The Building Trace 1 (B1 in Figure 4 and 5) is located between the proposed Barracks and the clustered building traces. Today, it is in the public area and is located 40 meters south of the road covering the branch of the riverbed visible in the 1946 aerial photograph.

A part of the arced wall element above the soil surface was observed during the exploratory field survey (Figure 6).

The building with a dome and skylight shown in the gravure dated 1798, located between the riverbed and the Barracks, is a bathhouse. This building also corresponds with the remains of the square-shaped building presented in the site plan of the 1st Army Members Housing Project dated 1963 (Figure 7).

It is notable that Mihrişah Sultan, the mother of Selim III, supported the construction of mosques, bathhouses, and fountains, especially for the newly developed military complexes (Uğurlu, 2016). Detailed information about the Bathhouse of Levent Barracks is obtained from the foundation records established by Mihrişah Sultan. The records dated July 1795 indicate that the building consisted of 2 small rooms (halvet), 3 large rooms (sofa), a passage (dehliz), an entrance hall (camekân), a staff room (tellak room), stables, and various storerooms, and its surface area was approximately 500 square meters (Kala & Akarçeşme, 2019). This dimension approximately corresponds to the area of the identified building trace.

The information about the bathhouse in the written sources and the location determined on the prediction map corresponds to the remains of the building observed during the exploratory field survey. Therefore, the arched wall element of B1 located on the prediction map is considered to belong to the Levent Farm and Barracks Bathhouse.

The Building Trace 2: Barracks Embankment Wall

The Building Trace 2 (B2 in Figure 4 and 8) is located northwest of the central cluster of buildings. The part observed on the surface belongs to an embankment wall, approximately 4 meters high and 25 meters long. This stone masonry wall is located along the northern edge of the Barracks traces close to the riverbed. At present, the wall is within the public area. However, the trace of the Barracks, of which this wall was a part, is now covered with housing blocks (Figure 9).

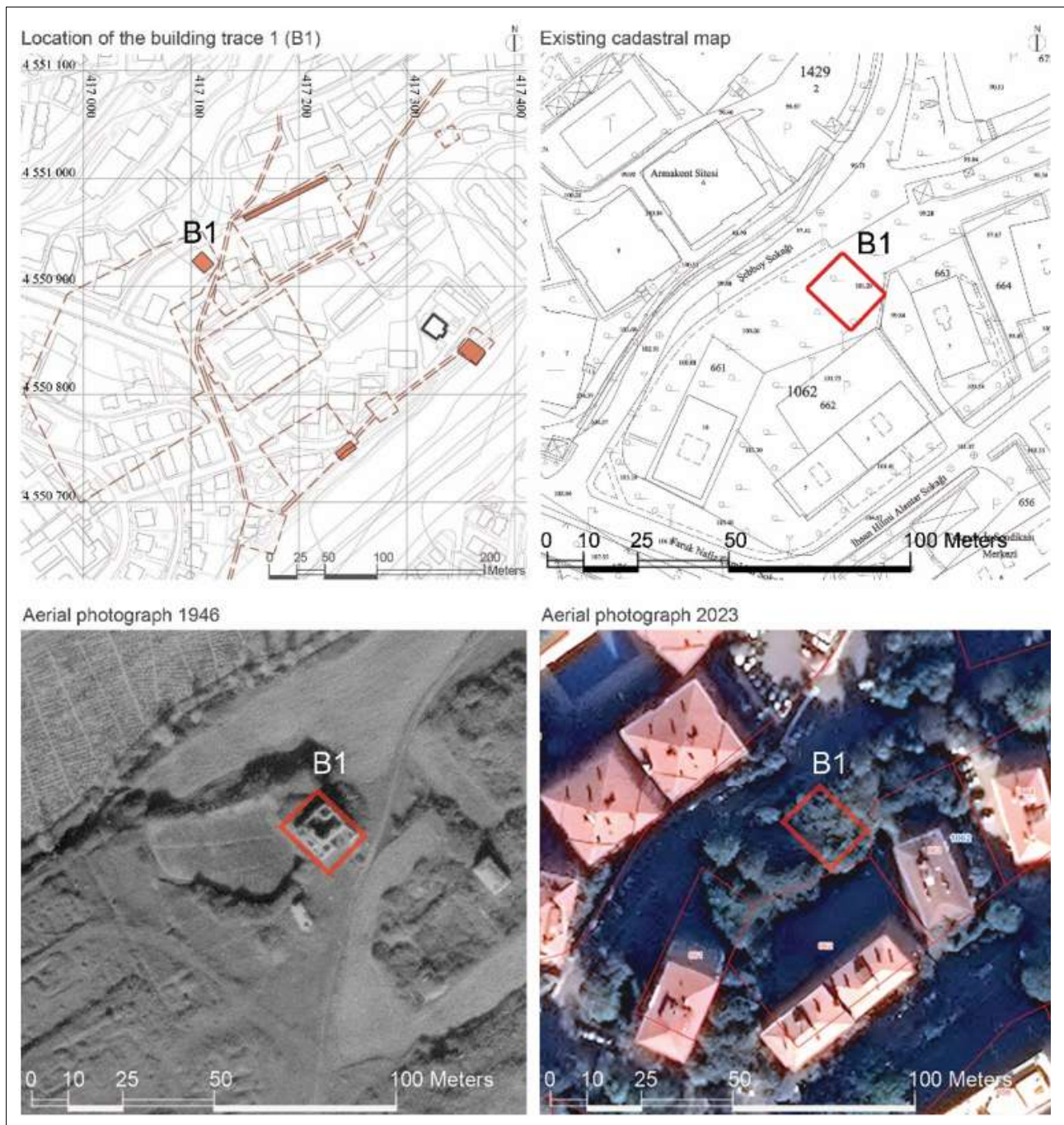


Figure 5. Location of the Building Trace 1 (B1).

The perimeter of the Old Barracks (Atık), dating back to 1797, is approximately 230 meters long and 13.5 meters wide (BOA, 1797). The BOA document dated 1803 mentions both the Old and New (Cedid) Barracks. The perimeter length of the New Barracks, related to the roof repair, is approximately 238 meters, and its width is 12 meters. This document also mentions the construction of a masonry embankment wall on the riverside to support the New Barracks built on a slope (BOA, 1803). This

statement suggests that the rectangular building closer to Kanlıdere, which appears to the north of the site in the aerial photographs, is the New Barracks remains. In addition, the dimensions of the traces of the rectangular building, which can be seen close to the riverbed in the 1946 aerial photograph, correspond to the dimensions of the New Barracks described in BOA documents dated 1803.



Figure 6. Arched wall element observed during the exploratory filed survey.

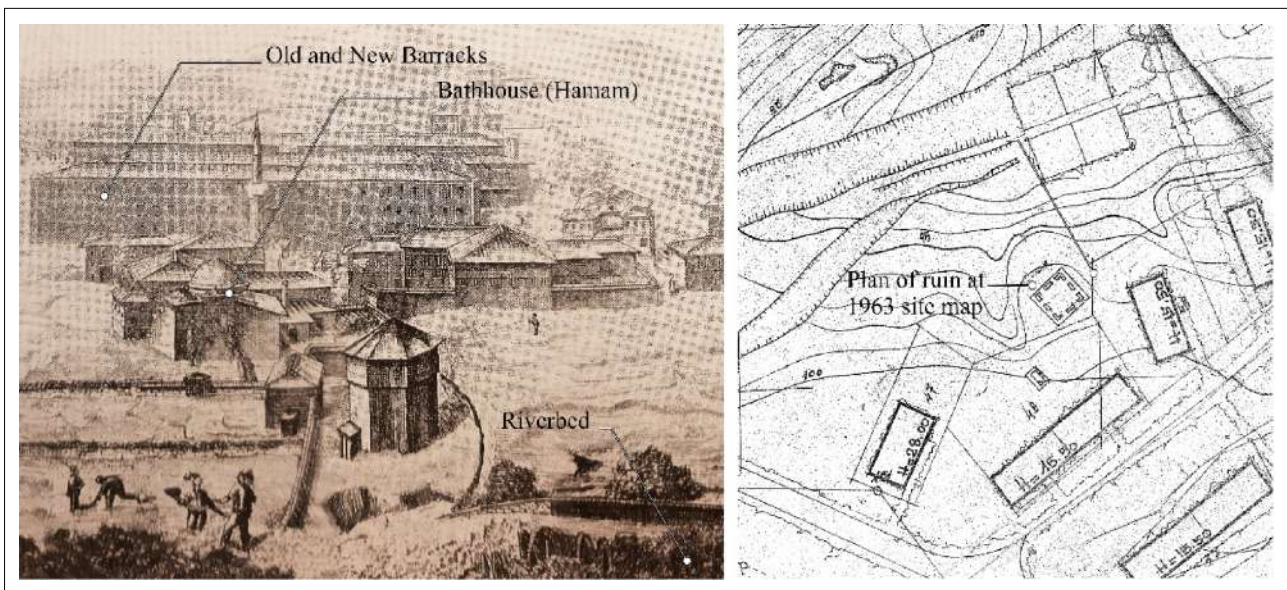


Figure 7. Gravure dated 1798 (Left). The Building Trace 1 in the Site Plan of the 1st Army Members Housing Project dated 1963 (Right).

The Building Trace 3: Great Dam Wall in Front of the Sultan Pavilion, Bend-i Kebir

Based on the prediction map, the location of the Building Trace 3 (B3 in Figure 4 and 10) lies between the neighborhood road passing in front of the Pavilion and the highway connection. Although not recognized as part of Levent Farm and Barracks, the only registered cultural heritage in the focal study area is the Sultan Pavilion.

The 1873 Plan shows a road connecting the settlement complex to the city center. The Sultan Pavilion is located at the end of this linear road axis, which offers a ceremonial route, and the name Bend-i Kebir is indicated next to the building symbol in front of the Pavilion (Figure 11).

"Kebir" in Turkish refers to "Great," and the term "Bend" is used to describe retaining walls built to collect water. Therefore, from this expression, which can be translated as "Great Dam," it is expected that the structure supported the

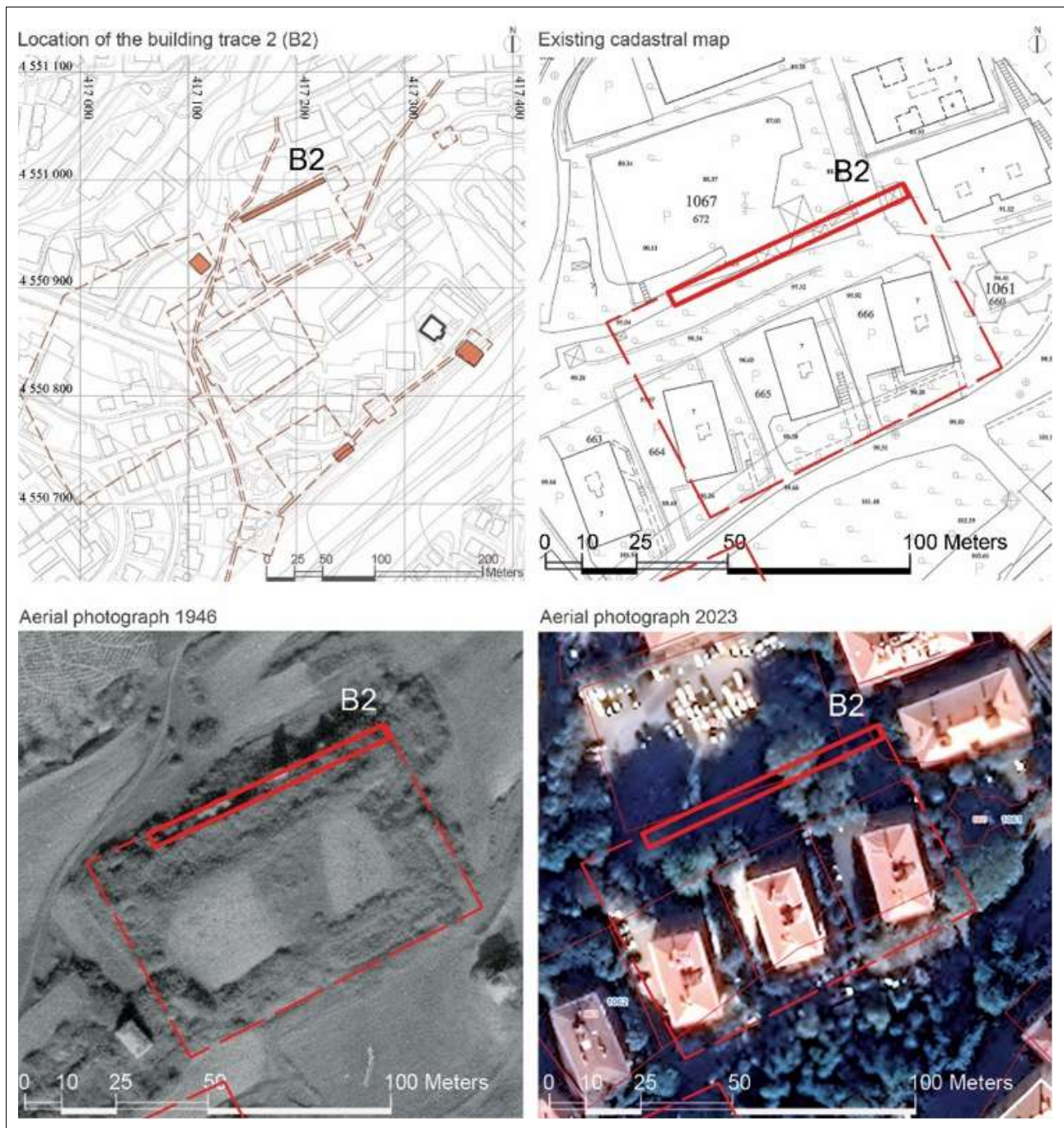


Figure 8. Location of the Building Trace 2 (B2).

platform built on the sloping land in front of the Pavilion overlooking the view and that a water element such as a pond was located on it. The corresponding information for Building Trace 3 was also found in the records of the Mihrişah Valide Sultan Foundation archive. The archive document D.1452 p. 28b–29a defines the 9-hectare area where the Pavilion is located as agricultural land and a large garden. There was a pond and a kitchen in this area, together

with the Pavilion (Kala & Akarçeşme, 2019). BOA records dated 1803, which provide information on the maintenance of the central buildings, mention the Havuz-ı Kebir (Great Pond) in this area and the retaining wall in front of it.

When the 1946 aerial photograph is analyzed, traces of a structure built perpendicular to the slope can be seen on the entrance axis of the Pavilion. It is approximately 15 meters and parallel to the slope with a length of 22 meters (Figure 11).



Figure 9. The embankment wall detected during the exploratory field survey.

Based on the above-mentioned findings, it is considered that Building Trace 3 was built on the sloping terrain in front of the Pavilion, supporting a platform overlooking the landscape, and that there was potentially a pond on it.

The exploratory field surveys revealed two groups of wall remains on the sloping terrain at the entrance axis of the Pavilion, corresponding to B3 (Figure 12). It was also observed that the structure in question was damaged and partially covered with soil fill due to the highway connection road completed in 1988 and the neighborhood road passing in front of the Pavilion.

The Building Trace 4: Potentially a Service or Storage Structure

The location of Building Trace 4 (B4 in Figure 4 and 13) was identified on the prediction map and on the same sloping terrain in a park approximately 120 meters from B3. The 1946 aerial photograph shows that the building is approximately 12 meters by 6 meters (Figure 13).

B4 is one of the structures on the linear axis extending from the entrance of Levent Farm to the Pavilion and is visible in the 1946 aerial photograph. The aerial photograph shows that the northern part of the building, leaning on the upper level of the land, is covered with soil

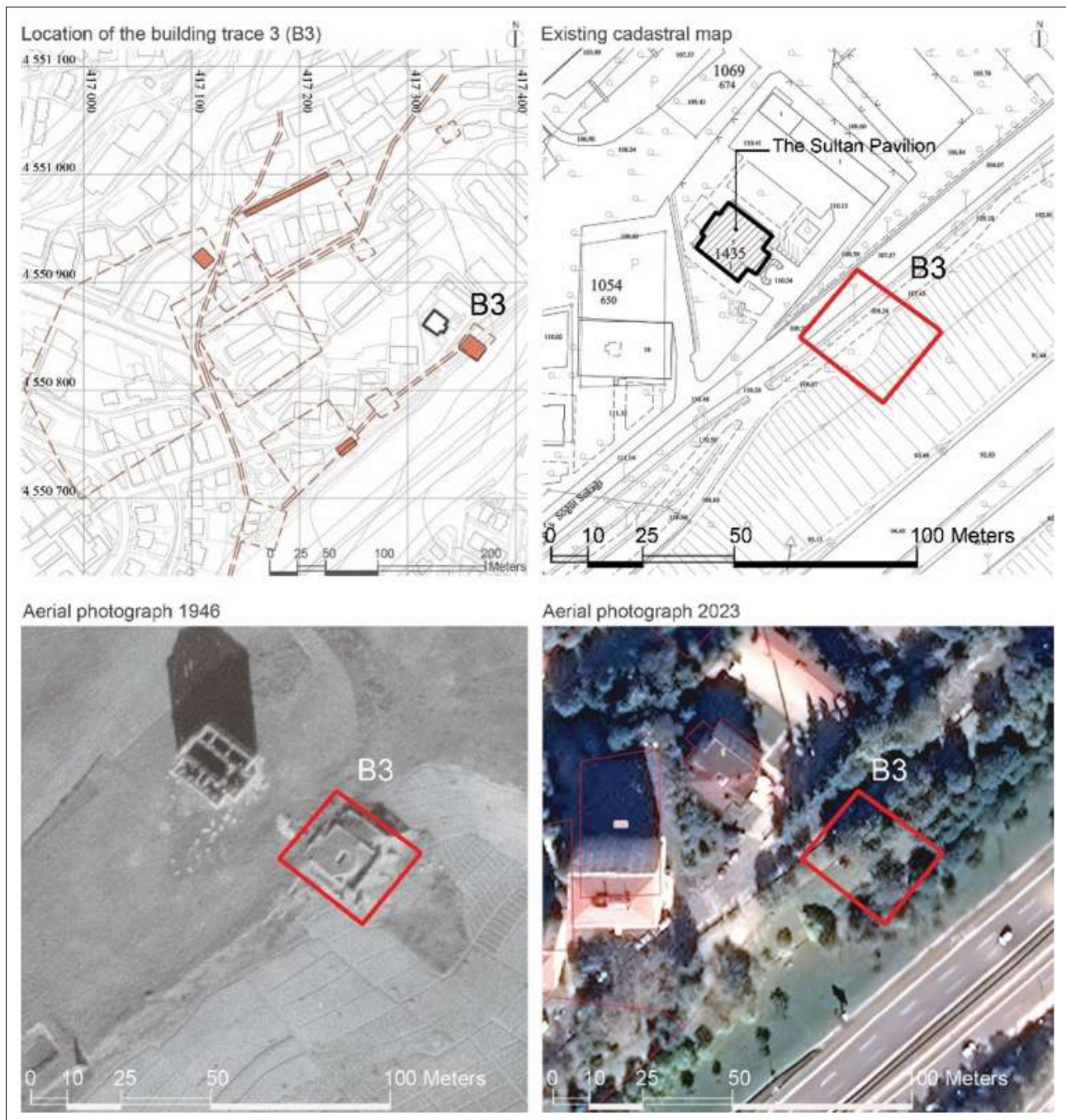


Figure 10. Location of the Building Trace 3 (B3).

and partially buried. No detailed information matching this building was found in written sources. On the other hand, it is expected that the linear axis extending from the entrance gate of the Farm to the Pavilion was used during the visits of the Sultan and members of the dynasty to the Barracks (Uğurlu, 2016). There are ponds, vineyards, and gardens in this area, therefore it is considered to be a prestige axis. For this reason, there is a perception that

the building in question is a service or storage structure associated with this axis.

B4 is preserved and has been repaired and re-functioned but not recognized as a cultural asset. The 10-meter-long entrance façade facing southeast and located on the opposite side of the road is exposed from the soil surface, while the rear façade below the road level is buried.

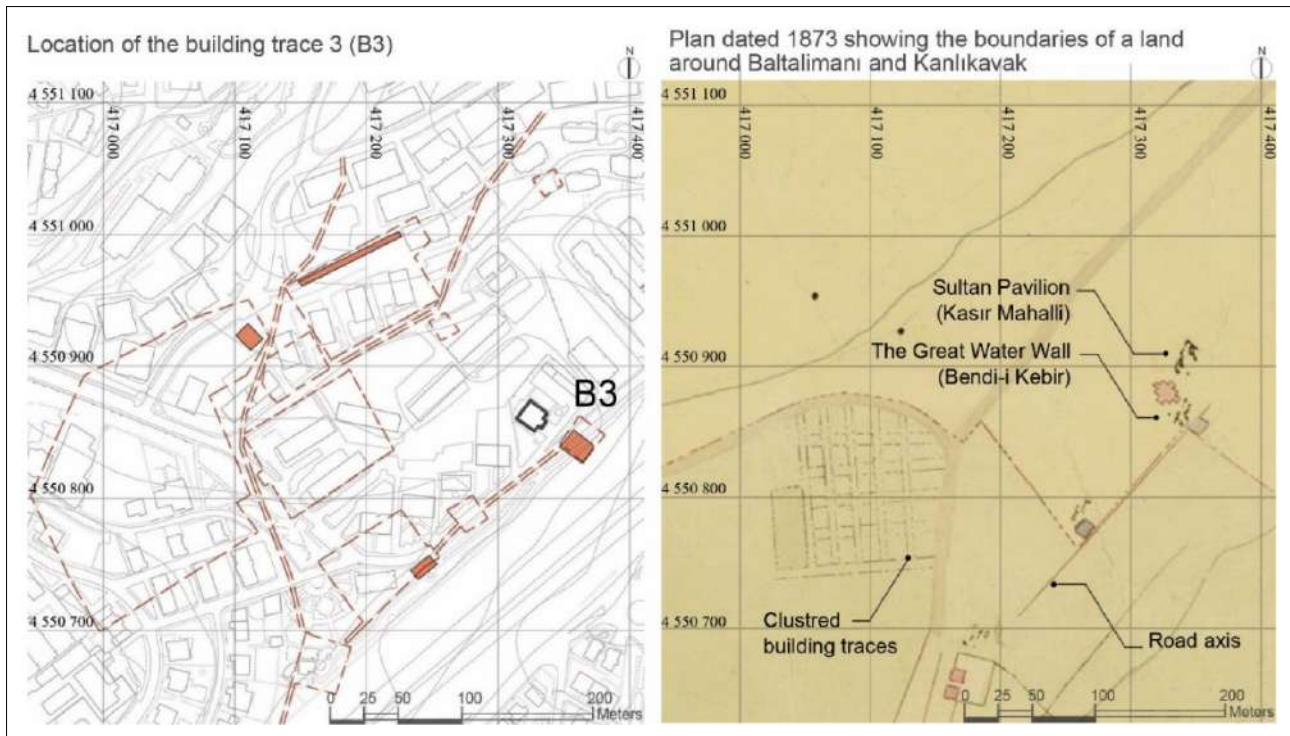


Figure 11. Location of Bend-i Kebir.

Although it was observed that the façade of the building has been renovated with recent materials and the roof cover has been added, the building preserves its structural qualities. Today, it is used as a social center and workshop by the local municipality (Figure 14).

FINDING AND CONCLUSION

The Levent Neighborhoods, developed in the early 1950s, were important for offering living spaces suitable for the modern lifestyle of the period, compared to the city center of Istanbul, which was inadequate for the rapidly growing population and the need for contemporary housing units. From the point of view of the historic landscape, the construction of these new neighborhoods can be considered to have mitigated the pressure of urban renewal based on demolition and reconstruction, and thus the destruction of the central area. Contrary to this approach from a dialectical point of view, in the 1950s and 60s, when Levent Farm and Barracks were not yet accepted as part of the holistic cultural landscape, and its location and impact area had not yet been determined, the construction of projects representing the modern period brought about a new spatial destruction, and thus traces of the 18th-century cultural landscape were lost. Despite these contradictory situations, this research determined

that there is still potential for the traces of the 18th-century settlement to be revealed in open public spaces, and that the continuity of urban memory can be ensured by evaluating them within the current urban fabric. This situation gives important clues for the evaluation of modern-period tangible urban heritage values and the 18th-century settlement layer together in planning and design processes.

The challenge to utilizing this high potential lies in the fact that these traces of cultural heritage are not yet addressed in the current development plan (Figure 15). In addition, infrastructure projects such as highway connections and urban transformation implementations with more extensive reconstruction conditions introduce significant risks. Among these risks, allowing basement floors that cover the entire parcel area threatens the traces of cultural heritage potential within private properties. For this reason, there is a need to protect potential cultural values by adding temporary provisions to the existing development plan and to make comprehensive regulations as soon as possible.

Through this research, a prediction map covering the focus study area was produced in relation to the urban context, and the findings superimposed through different media were transferred holistically to the building scale. The building traces indicated on the



Figure 12. The traces of walls detected during the exploratory field survey.

prediction map were confirmed during the exploratory field surveys, and four building traces were determined to be within the context of Levent Farm and Barracks. Thus, the necessary database was created for the official submission for registration of these traces as tangible cultural values.

As a result of the submitted proposal in May 2023, four building traces identified within the historical and spatial context described in the article were evaluated by the Istanbul Regional Board for the Protection of Cultural Assets. In August 2023, upon the Board's assessment, these four building traces were identified as part of the Levent Farm and Barracks and registered as Grade 2 tangible cultural assets (Turkish Ministry of Culture and Tourism, 2023). The registration of these four buildings as cultural assets, with reference to the findings presented in this paper, has revealed the existence of an

urban archaeological layer belonging to the late 18th-century Levent Farm and Barracks settlement complex. Revealing the interaction of this urban layer with the modern layer that developed between the 1950s and mid-1970s increases the current value of the building traces. Considering the rapid urban change and transformation in the region today, the dynamic structure of Istanbul, and the vibrant urban life, the issue of how the different layers of urban heritage can be carried into the future in interaction with each other gains importance. It is necessary to define policies and administrative and management decisions that will support planning and design tools to preserve and transmit historical heritage values. Research findings can guide and constitute data for new studies to be developed in the fields of urban archaeology and history, urban design, and planning. Therefore, the identification of this potential

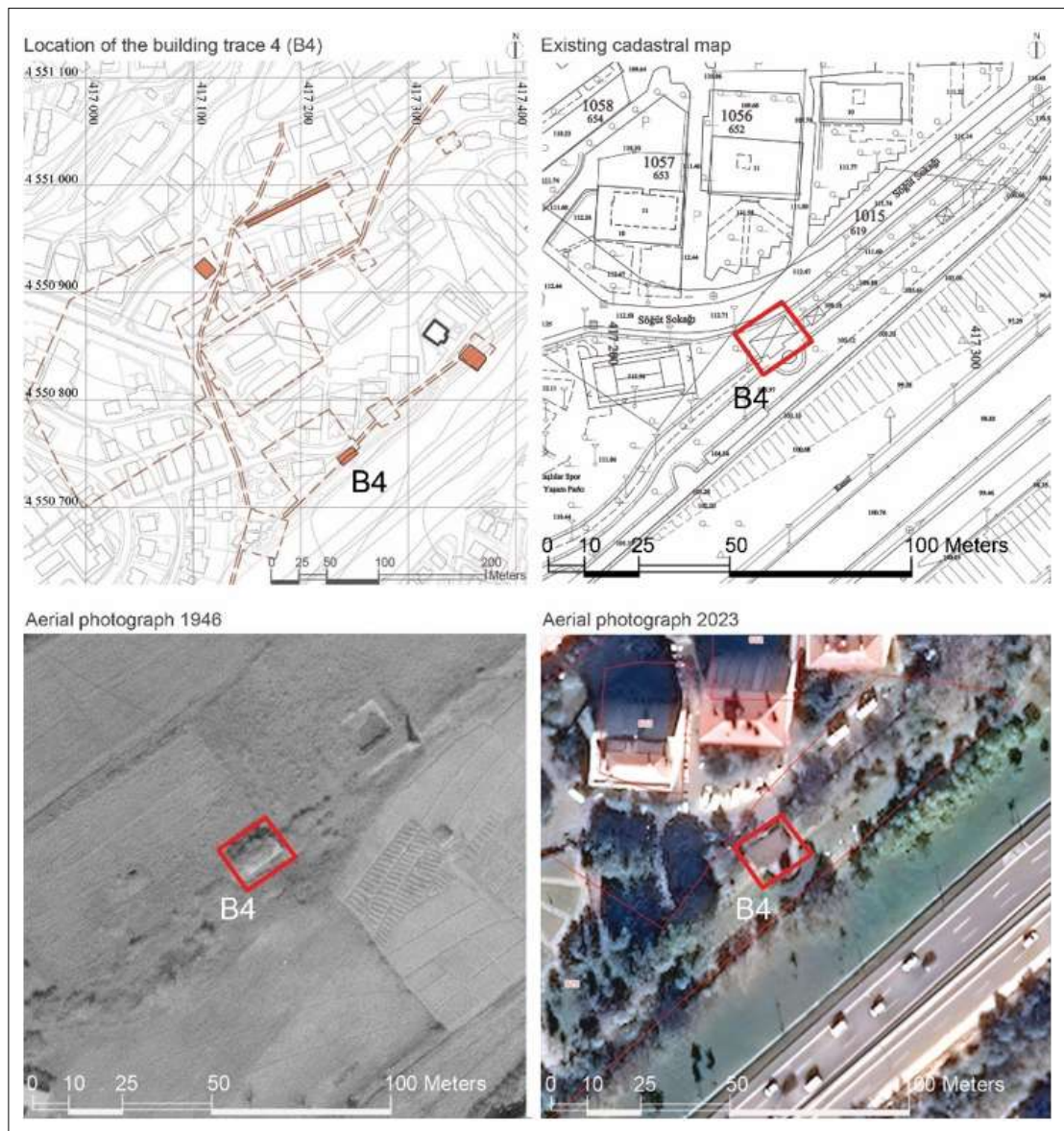


Figure 13. Location of the Building Trace 4 (B4).



Figure 14. The existing structure of B4.

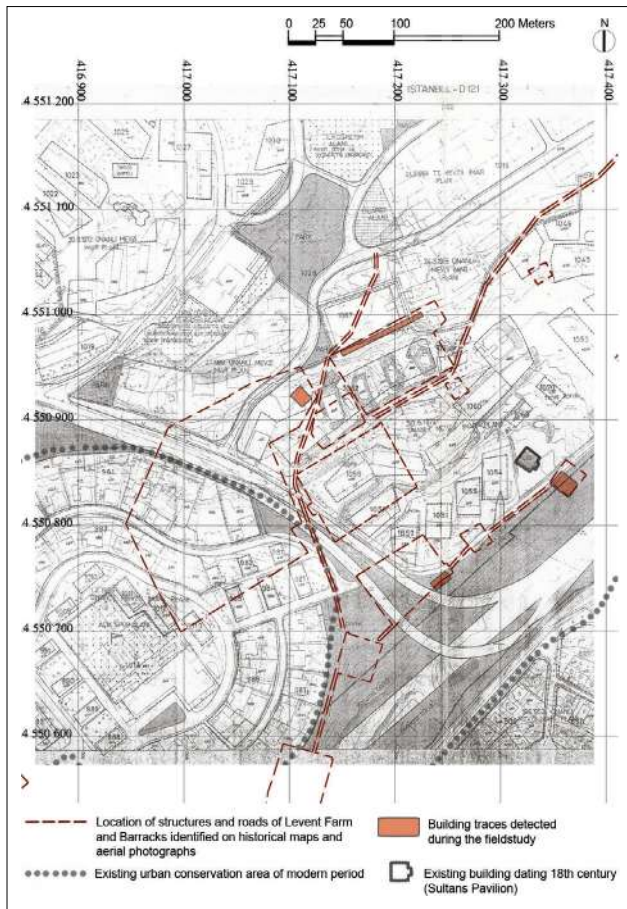


Figure 15. Potential location of spatial layer of Levent Farm and Barracks in the actual urban development plan (Bosphorus Urban Development Plan dated 10.12.1993).

archaeological layer is important not only for the spatial identity of the Levent Region, but also for providing a new perspective on the spatial development of Istanbul in the context of historical geography.

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