ISSN: 1648-6897 / eISSN: 1822-4199

VILNIUS TECH
Vilnius Gediminas Technical University

JOURNAL of ENVIRONMENTAL ENGINEERING & LANDSCAPE MANAGEMENT

2025
Volume 33
Issue 1
Pages 97–109
https://doi.org/10.3846/jeelm.2025.22954

AN ASSESSMENT OF AN URBAN PROTECTED AREA THROUGH A SPACE SYNTAX APPROACH: THE CASE OF ORDU, TURKIYE

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Highlights:

- space syntax analysis provides important insights into historical textures;
- combining space syntax analysis with fieldwork allows for realistic proposals;
- the areas where most conservation work has been carried out in the city of Ordu include areas of high integration value;
- in addition to protecting spatial relationships and texture in new zoning applications, restoration processes should be accelerated to ensure the protection and usability of historic buildings.

Article History:

- received 13 May 2024
- accepted 10 December 2024

Abstract. Traditional architecture, preserved and integrated into urban life, has the potential to become a point of attraction for cities and contribute to their image. The aim of this study is to analyse the configurational characteristics of the urban conservation area and its immediate surroundings, which constitute the historical core of the city of Ordu, and the general condition of the registered architectural examples in the area. The evaluations of the spatial configuration are based on the analyses of connectivity, global and local integration, which are the basic parameters of the spatial sequence method. As a result of the study, it can be seen that the two main traffic arteries of the area, Sıtkı Can Street and Dr Osman Hilmi Memecan Street, have the highest sequence values. Although it can be seen that Sıtkı Can Street, one of these traffic arteries, is more advantageous than other streets in terms of the registered civil architecture stock in the area, it is important that restoration processes should be implemented as soon as possible in order to ensure structural and historical continuity and not to lose the registered civil architecture examples located in different parts of the study area.

Keywords: space syntax, urban protected area, spatial configuration, conservation, Ordu (Türkiye).

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1. Introduction

The preservation and restoration of historical monuments and important structures reflects the understanding of preservation inherited from the past (Peerapun, 2018; Garcia-Castillo et al., 2023; Wang et al., 2023). The planning and preservation management of historical cities involves a problem of values, where other aspects were emphasized at a certain period, and then returned to the agenda in the context of urban and regional preservation (Ashrafi et al., 2021). One of the criticisms directed at the various analysis and restoration studies carried out in historical cities after the Second World War was the excessive emphasis on the artistic, architectural and/or monumental aspects of individual structures or groups. This situation resulted in the selection of the elements preserved in the historical city center often being random and arbitrary, and the marginalization of "less important" areas (Zancheti & Jokilehto, 1997; Cabrera-Jara & Greene-Zuñiga, 2024).

As it was realized that monuments and their surroundings reflect the character of the urban fabric and represent cultural values, interest in architectural heritage expanded from the scale of a single structure to the environmental and historical context (Can, 1993; Lucchi & Buda, 2022; Jiao et al., 2023; Liang et al., 2023). The sustainable development and conservation approach, which started in the 1970s, emphasised the importance of recognising that natural and cultural values are not only the heritage of the geography in which they are located, but also have a universal value (Ahunbay, 1996; Meydan Yıldız, 2023; Ragheb et al., 2022; Zhang et al., 2023). The conservation of historic environments is also a means of transferring spatial knowledge in cities to future generations.

Urban heritage, with its tangible and intangible components, is a fundamental resource for enhancing the

liveability of urban areas and promoting economic development and social cohesion in a globally changing environment (Ricci et al., 2024). Since the future of humanity depends on effective planning and management of resources, conservation has become a strategy for achieving a sustainable balance between urban growth and quality of life (UNESCO, 2011). Urban heritage conservation should not be seen as an alternative to urban growth, but rather as an integral part of an urban development strategy that requires a full understanding of the cultural values of each place to be successful (Bandarin, 2019).

There are various international institutions and conventions that develop certain standards for the protection, restoration, re-functioning and similar situations of cultural heritage. Some of these aggreements are Convention for the Protection of the World Cultural and Natural Heritage, European Cultural Convention, Convention for the Protection of the Architectural Heritage of Europe, Convention for the Protection of the Archaeological Heritage of Europe, Convention for the Protection of the Intangible Cultural Heritage. Some of the international organisations are United Nations Educational, Scientific and Cultural Organisation (UNESCO), Council of Europe, International Council on Monuments and Sites (ICOMOS), Europa Nostra, International Union for Conservation of Nature (IUCN), International Centre for the Conservation and Restoration of Cultural Heritage (ICCROM) (Negiz, 2017).

In Türkiye, studies on the protection of cultural heritage are carried out by central institutions such as the Ministry of Culture and Tourism, the Supreme Board for the Protection of Cultural and Natural Assets, the Ministry of Environment, Urbanization and Climate Change, the Ministry of Interior, and the General Directorate of Foundations, as well as local governments (Negiz, 2017). Law 2863 on the Protection of Cultural and Natural Heritage, adopted in 1983, defines "protected areas" as "urban and urban ruins that are the product of different civilisations, from prehistory to the present day, and that reflect the social, economic, architectural and similar characteristics of the periods in which they lived; places where cultural assets are concentrated; places that have been the subject of social life or where important historical events have taken place; and areas that need to be protected for their natural characteristics" (Anonymous, 1983).

The definition of urban site in the Law on the Protection of Cultural and Natural Assets is made as "areas where cultural and natural environmental elements (structures, gardens, vegetation, settlement textures, walls) with architectural, local, historical, aesthetic and artistic features and which have more value than their individual values due to their presence together are located together" (Anonymous, 2006). Throughout history, cultural assets have faced the danger of not being able to maintain their physical integrity due to various natural factors such as natural disasters, wars, vandalism or corrosion of materials or the consequences of excessive human actions (Oktay et al., 2020). The main purpose of protection is to ensure the permanence and continuity of cultural assets. The protection of historical environments that serve as a bridge between generations and their integration with future generations are important in terms of maintaining the identity and livability of urban spaces.

Approaching the historical texture as a decoration and producing solutions from the outside unfortunately causes the texture that gives the place its identity to disappear over time, and unused, idle areas that are cut off from the city and life. In this respect, in the approaches to the protection of historical environments, the protection of the texture that creates historical value with a holistic perspective is an important issue. The physical dimension of protection is provided through consolidation, integration, re-functioning, reconstruction and cleaning, but it should not be forgotten that the aim of these processes is to obtain usable spaces and therefore living textures.

It is important that protected areas bring benefits to the region in terms of tourism. For example, in Türkiye, well-known historical textures such as Safranbolu, Odunpazarı and Hamamönü have been restored with a holistic approach and now contain many examples of traditional civil architecture. These areas are frequently visited by both locals and foreign visitors and are used as lively living spaces.

2. Study area

The study area consists of the urban conservation area of Ordu province, located between 40º–41º north parallels and 37º–38º east meridians in the eastern Black Sea region of Türkiye. The urban conservation area, which is located within the boundaries of Taşbaşı, Zafer-i Milli and Aziziye districts, covers an area of approximately 23.85 hectares and was placed under protection by the Supreme Council of Antiquities and Monuments on 20.10.1979. The resident population of the area is approximately 5239 people (Figure 1) (Anonymous, 2024a).

When the history of the city of Ordu is analysed, the first known name of the city is "Kotyora", which means "foothills". Findings of the first settlements of colonial communities in Kotyora were found in the 7th century BC. This area is the home of many prehistoric and post historic civilizations such as Hittite-Kashka and Phrygian. After the fire in 1883, which affected almost the entire city, the city entered the process of reconstruction in a region that includes the protected area (Anonymous, 2024b). In the study area, where people of different cultures and beliefs settled and left their structural traces until today, natural disasters, human impact and time deterioration affect the original and historical building stock of the city. Currently, there are 98 registered examples of civil architecture in the study area. Most of these works are located on Sıtkı Can Street and their preservation and utilization status varies. Atatürk Boulevard, which connects public, commercial, and private buildings such as administrative, educational, religious, residential, cafes, and coastal parks, is an important transportation network in the city. This transportation network sees intense vehicular and pedestrian activity at

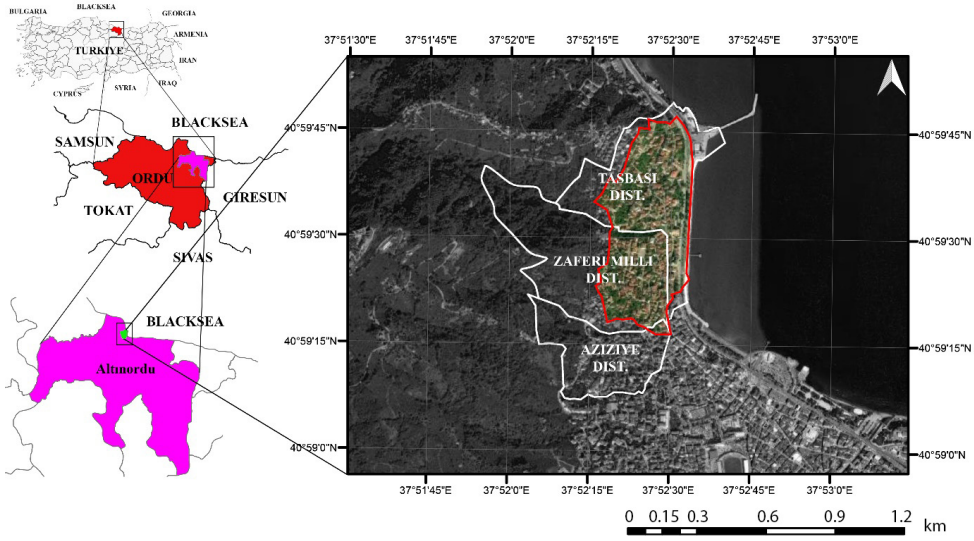

Figure 1. Boundaries of study area

all hours of the day. Access to the site from the city centre is via Süleyman Felek Street, which connects to Sıtkı Can Street within the boundaries of the study area and continues as a continuous line (Figure 2).

Digital and printed sources related to cultural inventories, field observation and photography were used to reveal the current status of the registered civil architectural examples in the study area. In the field observation, residential areas, residential and commercial areas, residential, commercial and tourist areas, educational areas, places of worship, areas of natural character to be preserved and green areas and registered architectural examples in the area were analysed.

3. Methods

To investigate the spatial characteristics of the urban site within the study area and to evaluate the movement tendencies of the users of the area, two basic methods were followed.

1. Space syntax method,
2. Field study based on the study of registered examples of civil architecture.

3.1. Space syntax method

3.1.1. Literature review

The Space Syntax Method was introduced by Hillier and a group of researchers he led in the 1970s. The publication entitled "The Social Logic of Space" is a work that introduced the method and contributed to its development and is an important reference in the literature (Hillier & Hanson, 1984; Kubat, 2015).

Spatial sequencing essentially allows for analysis and inference of how urban spatial structures of different scales and characteristics affect transport and land use in

Figure 2. Important networks in and around the study area

urban space, and how these affect human behaviour and social life (Sıkoğlu & Arslan, 2015; Van Nes & Yamu, 2021; Long et al., 2023; Yunitsyna & Shtepani, 2023). For this reason, it is a method often preferred by disciplines that deal with the city and urban environment, such as urban and regional planning, architecture and landscape architecture (Haq & Luo, 2012; Zhai & Baran, 2013; Griffiths & Vaughan, 2020). This method allows for the analysis of spatial configurations and helps to understand the movement patterns of physical urban components in urban space, how social life functions and what social consequences spatial form causes (Vaughan, 2007; Mohamed & Van der Laag Yamu, 2024). The physical components of urban space have a significant impact on shaping individual and social interactions, movement patterns or preferences. Indeed, there are many studies in the literature that examine the relationships between user behaviour and street connections (Hillier, 1999; Ismail et al., 2010; Soleh et al., 2022). The configurational characteristics of the space can also influence the way it is experienced and preferences. For example, one study found that street connections and the sequential characteristics of the built environment significantly influenced children's decisions to walk to school (Ozbil et al., 2021).

The protection of urban heritage areas and their integration into today's urban system, ensuring historical continuity in cities, and transforming the tourism potential of these areas into economic and cultural advantages are important issues in urban planning processes. While the functions of the buildings in such areas influence the movements of visitors and their preferences for the use of the area, the applied sequential analyses provide an analytical approach to the spatial use potentials in historic environments. For example, in the study conducted by Li et al. (2016) by adopting quantitative approaches to the use of historical spaces, local residents of the region were determined as a sample and the mind maps of these people, and the syntactic analyses of the space were mutually analyzed. Palaiologou and Griffiths (2019) also used the syntactic method in the context of urban heritage studies to explore the socio-cultural dimension influenced by the boundaries of protected areas, the scale of streets and spatial cultural components, and to examine their relationships with the present. In another study, the spatial sequence method was used to analyse the relationship between the street connections of the historic urban area and its surroundings and the functions of the buildings in the area, and it was found that the value of global integration was a strong factor in the positioning of tourism service structures (Wang et al., 2021).

3.1.2. Calculation of syntactic parameters

In the implementation of the space syntax method, the current settlement plan of the study area and its immediate surroundings obtained from local governments was used. First, the current settlement plan obtained was converted to .dxf format. The plan with .dxf format was transferred to depthmapX 0.8.0, an open access software, and the axial map required for the analysis to be carried out was produced in this software (DepthmapX Development Team, 2024). From the axial map analyses of the space syntax method, the connectedness, global integration [HH] and local integration ([HH]R3 and [HH]R5) values were assigned as features to the axes in the axial map. In the visualization phase of these analyses, it was transferred from open access geographic information systems software (GIS) to QGIS 3.16.6 and maps for connectivity, global integration [HH] and local integration ([HH]R3 and [HH]R5) analyses were produced (QGIS Development Team, 2024).

The connectivity score refers to the total number of other axes adjacent to any axis in the system (Hillier & Hanson, 1984). It is a static and local measure and includes all direct connections of any axis in the area with its immediate surroundings. Axes that are more interrupted by neighbouring axes have a higher connectivity value, while axes that are less interrupted have a lower connectivity value (Van Nes & Yamu, 2021). The connectivity value is given in Equation (1). In Equation (1), C_i is the connectivity value of axis i and k is the total number of axes crossing axis i.

$$C_i = k. \tag{1}$$

Depth is obtained by summing the number of steps taken from a given axis to all adjacent axes in the system. An axis is defined as deep if more steps are required to access other axes from one axis, and an axis is defined as shallow if access to other axes is provided with fewer steps (Jiang et al., 2000). To obtain the integration value, the depth value must first be calculated. The mathematical expression for depth is given in Equation (2). Where D_i is the depth, n is the total number of axes and d_{ij} is the minimum step between i and j axes.

$$D_i = \frac{\sum_{j=1}^{n} d_{ij}}{n-1}. \tag{2}$$

The integration value is the most widely used type of analysis in the space syntax method and measures the number of steps required to access one axis in the system from other axes (Giannopoulou et al., 2012). Using this value, it is possible to identify transport areas with high movement potential in the system, places that are highly integrated with their surroundings or isolated from their surroundings (Salheen & Forsyth, 2001). The low number of steps required to get from one axis to another in the area causes the axis to have a high integration with the system. The integration value of a particular axis is measured by global and local measurements. The global integration value is measured with a radius of n in the axis analysis and expresses the access of an axis from all axes in the system. The local integration value can be measured with radius 3 and radius 5 in the axial analysis. The radius here indicates the number of axes where access to the axis

is limited (Baran et al., 2008). The mathematical expression of the integration value is given in Equation (3). In the equation, D_i represents the depth.

$$I_i = \frac{n(\log_2((n+2)/3)-1)+1}{(n-1)(D_i-1)}. \quad (3)$$

3.2. Field study based on the examination of registered examples of civil architecture

A field study was carried out to determine the current state of the historic fabric in the study area. Architectural features and spatial information about the registered buildings visited during the field study were obtained from the printed Cultural Inventory of the Municipality. During the visit, registered civil architectures, street textures and examples of different urban equipment were photographed. The identified buildings were categorised and visualised according to their current status as per the zoning plan obtained from the Municipality.

The conservation and use status of the architectural examples in the area were evaluated in 4 different groups. A: registered architectural examples that have been preserved to date, have undergone restoration or reconstruction and are in a usable condition, B: registered architectural examples that have been preserved to date, have undergone restoration or reconstruction but are not in active use, C: registered architectural examples with externally observable structural deterioration such as plaster spillage on the façade, reinforcement deterioration, D: registered architectural examples in ruins where only partial parts of the building can be observed (Figure 3).

The structures determined in the field study conducted on the current status of civil architecture examples were transferred to the zoning plan obtained from the local government and an up-to-date map was created regarding the conditions of protection and use of the structures categorized according to their current status. Then, the data obtained from the field studies and the findings obtained from the axial analysis of the space syntax were brought together and discussed.

4. Results and discussion

4.1. Examination of registered examples of civil architecture

To protect the urban historical fabric of Ordu, it was declared an Urban Site in 1979, and the borders were expanded in later periods. Since there was no protection decision until the 1990s, Taşbaşı Urban Site area lost many valuable examples of civil architecture and became the scene of illegal and unplanned construction. The area, which is located on the slopes of Boztepe extending to the sea and constitutes the historical core of the city, overlooks the sea. The area has two different borders: the Urban Site Area covering a part of Taşbaşı, Zafer-i Milli and Aziziye Neighborhoods with an area of 23.85 hectares, and the Conservation Zoning Plan Area covering Taşbaşı, Zafer-i Milli, Aziziye and Düz Neighborhoods with an area of 37.19 hectares.

Most of the cultural assets in the historical fabric are examples of civil architecture belonging to the late Ottoman period. There are 143 registered monuments in the city, of which 131 are examples of civil architecture and 12

Figure 3. Examples of different levels of conservation

are monuments. There are 94 registered examples of civil architecture within the protected area.

Most of the examples of civil architecture have been restored and are still used by the local people. In recent years, there has been an increase in the number of houses that have been restored and opened as businesses (cafes, hotels, restaurants, etc.). There are also houses that are not being used in the area but are still standing and can be restored and opened up for various uses but are in danger of disappearing if left abandoned. There are also buildings that have been demolished, some of which have only a few walls left.

As a result of the field observations and studies carried out in the area, 41 registered architectural examples of 41 houses that have survived to the present day have been restored or reconstructed and are usable (A), 9 registered architectural examples of 9 houses that have survived to the present day have been restored or reconstructed but are not in active use (B), 28 houses are registered architectural examples (C) with externally observable structural deterioration, such as plaster spillage on the façade, deterioration of the reinforcement, and 10 houses continue to exist as registered architectural examples in ruins, where only partial parts of the building can be observed (Figure 4).

There is an active use of open space in the city, with coastal parks running along the coast from the western entrance of the city to the city centre. These areas are used by the city's residents and many local and foreign users from other cities. The study area has a sea view to the east and the slope gradually decreases. The presence of traditional architectural texture together with contemporary buildings on the slopes of Boztepe forms the dominant feature of the urban image (Figure 5).

The registered civil architecture on Sıtkı Can Street, which continues along the Taşbaşı neighbourhood and reaches the city centre, is quite valuable. In 2012, part of Sıtkı Can Street and some of the historic buildings on Menekşe Street were restored as part of the Street Sanitation Project. The buildings here, when considered in their original use, have the characteristics of family housing, but some of these buildings have lost their original functions after the restoration and have been re-functionalised by adding features such as food and beverage areas, accommodation areas, administrative units of associations (Figure 6).

Figure 4. Current status map of registered civil architectural buildings based on field observation

Figure 5. Taşbaşı Neighbourhood (old image from 1950 on the left (Anonymous, 2019), image from 2023 on the right)

Figure 6. Menekşe Street

Sedat Güler Park, located on Sıtkı Can Street, forms a perceptual boundary. From the perceptual boundary, the registered buildings become sparse. This section of the street and the residential buildings are the dominant architecture in the area. Deterioration of the buildings in this area is quite common due to the interventions of the users of the area and the effects of time. A similar deterioration is also observed in the pavements. In the repaired section of Sıtkı Can Street, the ground is paved with natural cobblestones, but in the rear sections of the street, the natural cobblestones are replaced by asphalt (Figure 7).

The entire area is located on sloping land, with steep streets running parallel to the slope. The area has streets with slopes ranging from 20% to 45%. The slopes can be steep enough to cause walking difficulties in places, and steep staircases can also be found in various areas. Most of the street textures that have survived to the present day are characterized by building-street-structure, building-street-garden, building-street-garden wall (Figure 8).

The houses generally have two different characters, wood and stone, and are built with 2 or 3 floors. External staircases are very common, and in some houses, according to the slope, separate external staircases are observed on each floor. In most of the houses, the bay windows, overhangs, balconies, windows, doors and eaves are the most prominent features of the houses. The façade

Figure 7. Examples of buildings in different states of preservation on Sıtkı Can Street

Figure 8. Street patterns located on steep slopes

Figure 9. Examples of architectural elements that add identity to outdoor spaces

Figure 10. Examples of registered monumental and administrative buildings

elements of the architectures shape the buildings, and the pattern formed by the juxtaposition of similar architectures gives identity to the area (Figure 9).

The roofs are mostly of the hipped roof type, which is the least affected by the adverse conditions brought by the excessive rainfall in the region and is a simple construction technique and are paved with Turkish style tiles. Overhangs and bay windows are architectural features that are mostly located on the floors above the ground floor and show the importance given to family life and are also observed in the registered architectural examples in the study area. Doors are generally wooden and single or double-leaf door types are observed. Windows are mostly vertical sliding "guillotine" type, single or double casement. Although the width of the eaves varies in the surveyed buildings, it is a prominent element to drain rainwater from the façade due to the intense rainfall climate of the Black Sea region.

In addition to civil architecture examples, there are registered administrative and monumental structures in and around the site. Among these structures, Taşbaşı Church located on Sıtkı Can Street holds an important place in the city's memory. The structure was built in 1853 for worship by the Greek-Orthodox community living in the region, and in the following years it lost its original function and was used as a prison. The structure, which is an important landmark of the city, continues to function as a cultural center today. The church was built with a system of stacking cut stones and stands out from its surroundings in terms of its structure. With a similar construction technique, the facade and garden walls of İsmet Paşa Primary School, one of the registered administrative structures in the region, were also built with a system of stacking cut stones, and the structure stands out from the architecture in its immediate vicinity with these features (Figure 10).

4.2. Space syntax method

The space syntax method is a method used to understand the physical components of urban space, such as buildings, building zones, and open spaces, and relate them to human actions (Kubat, 2015). One of the preferred analyses in spatial sequence to measure the pedestrian circulation of people in space and their access to different urban activities is the connectivity analysis (Yıldırım & Çelik, 2023). The results of the connectivity values of the study area and its surroundings are visualized in the map in Figure 12, where the colour scale is ordered from blue for the lowest connectivity values to red for the highest connectivity values. Süleyman Felek and Sıtkı Can Streets be the dominant traffic elements and the total length of the two axes is approximately 1,803 meters. These avenues and the streets around them have the highest values in the analysis and are considered convenient for pedestrian circulation. Although Süleyman Felek Street is not within the boundaries of the urban conservation area, it is important in terms of providing access to the area. Within the boundaries of the conservation area, the connectivity value of Sıtkı Can Street is 11. Short and irregular axes are concentrated in the area and these streets have low connectivity values (Figure 11).

Another analysis conducted in and around the study area is the integration analysis. The analyses are visualized as global integration maps (Figure 12) and local

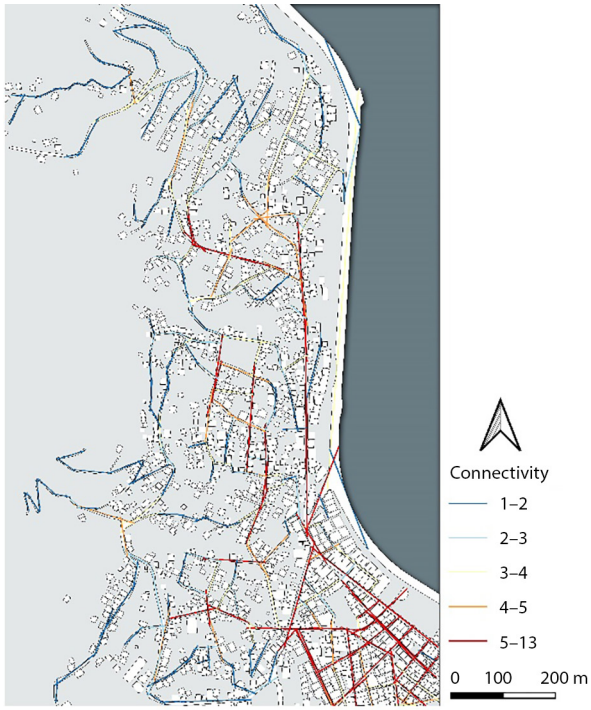

Figure 11. Connectivity map

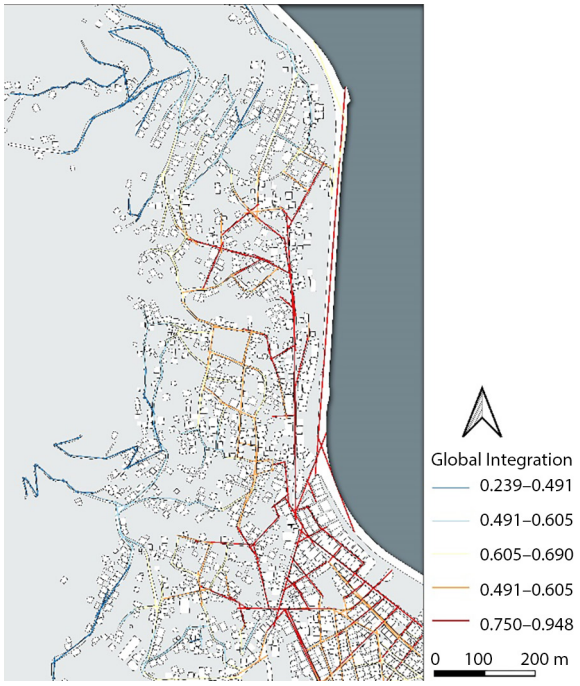

Figure 12. Global integration map

integration maps (Figure 13). The axes with the highest integration value are those that can be easily reached with the least number of steps from neighbouring axes. A high integration score has a positive effect on the distribution of pedestrian movement in the area and on people's sense of orientation. These areas have more intensive land use than areas with low integration values (Ortega-Andeane et al., 2005). According to the global integration [HH] analysis, the 515 meter section of Sıtkı Can Street within the boundaries of the study area received the highest global integration value and was measured as 0.948. At the same time, access axes such as Süleyman Felek and Sırrı Paşa Streets in the immediate vicinity of the area have high integration values. Therefore, this area has an intensive land use and pedestrian potential. The local integration analysis ([HH] R3) shows the relationship of the axis in the system with its closer neighbours (Hillier & Hanson, 1984). In other words, it is a local measure that analyses a set of axes in terms of people's access to another axis. It is an important indicator of the preferences (consciousness) of local users of the city, revealing their spatial perception of the physical environment and wayfinding activities (Kim & Penn, 2004). The local integration values of Sıtkı Can Street and Sıtkı Çebi Street within the protected area defined as the study area are 2.4571 and 2.1913, respectively. It is seen that these streets have high values in terms of local integration values, but it is seen that the highest values on the map are the road connections in the grid form around the protected area.

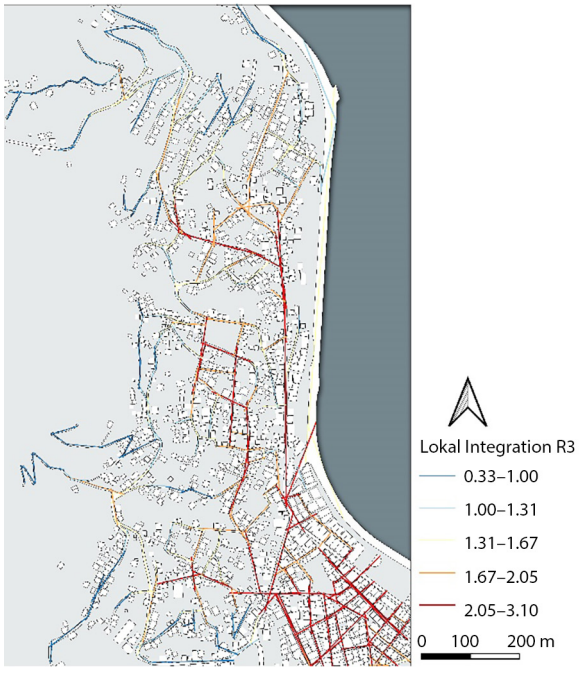

Figure 13. Local integration map

The space syntax method contributes to the development of urban designers and planners' work by providing an understanding of the extent to which urban spaces are connected and integrated with each other, the potential of people to use these spaces, and the movement patterns people create in the space, based on the physical characteristics of the built environment (Atakara & Allahmoradi, 2021). This assumption is also supported by the study conducted by Yeşil et al. (2024), which revealed that the potential land use predicted by the space syntax analysis coincides with the actual pedestrian mobility in the area. In

the area where the study was carried out, the main transportation roads are Sıtkı Can Street and Dr. Osman Hilmi Memecan Street, and the first 515 m section of Sıtkı Can Street had the highest values in all space syntax measurements. According to the spatial syntax analysis, this section of the street, which has the highest values in the area, has better accessibility and more intensive land use compared to the roads with lower values in the area. At the same time, Taşbaşı Church, which is one of the important landmarks in the city, and a dense registered civil architecture stock are in this section of the street. The building stock and quality in this section of the street indicate that the relevant section may have hosted an intensive land use in the past. The monumental structure in the area and the registered building stock that has been preserved to the present day attract visitors to the study area and play an active role in increasing the use of the area.

The necessity of preserving the texture of these heritage buildings and streets, which bear traces of the city's past, produce solutions for the region's life and geographical conditions, and need to be passed on to future generations, forms the basis of this study. Similarly, there are many studies in the literature that were carried out by applying the space syntax method to the historically protected areas of the city (Karimi, 2000; Li et al., 2016; Eldiasty et al., 2021; Liang et al., 2023). It is observed that this traditional architectural texture, which is located in an advantageous position of the city and adds identity, is treated as a decoration from the viewable points of the city, and the textures that do not enter the silhouette remain idle, and the number of protected structures begins to decrease as the elevation above sea level and distance from the main transportation routes increases. In this context, it is seen that the first section of Sıtkı Can Street has more advantages than the others in terms of registered civil architecture stock. At the same time, the high value of syntactic measurements and the good preservation of the structures are factors in the concentration of the 500 m area on Sıtkı Can Street. The restoration work of a large part of the registered structures in this section of Sıtkı Can Street contributes to the preservation of the historical street texture and the spatial and historical continuity of the city. However, a decrease is observed in the registered structure stock in the continuing rear sections of Sıtkı Can Street. The measurements in this section are lower than the first 500 m axis. Although the small number of postponed civil structures in this section of the street and the distance between the locations of the structures do not allow for conservation at the street level, it is important to restore and re-function the structures in order not to lose them, thus creating a conservation-use balance. According to Lyu et al. (2023), areas with high levels of accessibility in urban space are considered core areas. These areas have a higher potential for people to be preferred for gathering activities than areas with low accessibility to others.

Dr. Osman Hilmi Memecan Street, one of the two main transportation roads within the boundaries of the study area, is the axis where the results of connectivity, global [HH] and local integration ([HH] R3) analysis and other high measurements in the area are observed. Although the presence of registered civil architectural structures on the axis increases the spatial and syntactic quality of the axis, it has been observed that some of these civil architectural examples have structural deteriorations that can be observed from the outside, such as plaster peeling off on the facade, and some are in ruins. In order to prevent the rapid destruction of urban areas that stand out with their historical character, it is important to integrate the historical texture into urban life, strengthen the collective urban experience and ensure cultural continuity in these areas (Turgut, 2022). Therefore, in order not to lose the standing structures on the axis and to preserve structural and historical continuity, restoration processes must be implemented as soon as possible. For those in ruins, the necessary survey work must be carried out using wall remains and written and visual documents, and reconstruction processes must be initiated in a way that is true to the original.

The architectural texture of the area contains the characteristics of typical "Traditional Black Sea" houses. The study area is an area where Turks, Greeks and Armenians lived together in history. Therefore, the diversity of culture, religion and economic conditions can be observed here and there in the architecture of the area with features such as the use of materials, construction techniques or location on the land. Such examples need to be protected, their structural and functional sustainability ensured and evaluated as a whole with their surroundings. Ensuring the continuity of the texture in the area will be possible by preserving the spatial relations, building proportions and main character of the envisaged new development practices instead of duplicating and repeating existing historical structures (Kaya et al., 2023). Accordingly, the potential of the area to become an attraction point for city dwellers and users from outside the city should be evaluated.

5. Conclusions

In this study, the spatial configuration of the urban site area, which constitutes the historical core of the city of Ordu, and the status of the registered architectural structures in the area were analyzed comprehensively. As a result of the spatial syntax analyses, it was observed that the highest syntactic values in the urban site area were concentrated in the important transportation arteries of the region, such as Sıtkı Can Street and Dr. Osman Hilmi Memecan Street. It was determined that Sıtkı Can Street has an advantageous position in terms of registered civil architecture stock. This finding reveals the critical role of transportation axes in the preservation of the historical texture of the area and urban planning processes and provides an important basis for the sustainable planning of urban site areas.

Urban sites are important places that carry the social, economic and cultural conditions of the period in which they were built to the present day and keep the

city's memory alive. The protection of these areas not only maintains the physical existence of the structures but also brings with it opportunities to increase the cultural identity and tourism potential of the cities. The evaluations made in the study on the spatial use quality have once again revealed that the space syntax method is a powerful tool. Syntactic analyses and field observations overlapped and provided important clues about how historical textures were shaped over time. The high level of accessibility in the regions where registered structures are dense shows that these structures formed the core areas of the city in the past.

However, there are also registered civil architecture examples in the study area that are at risk of disappearing today and have high spatial syntax value. Including these structures in the restoration processes as soon as possible is a great priority to ensure both structural and historical continuity. Preserving and reintegrating these regions that are on the verge of disappearing into city life is a critical step for preserving the city's identity and increasing sustainable heritage tourism opportunities.

The space syntax method stands out as an important analytical tool in understanding the spatial configurations of historical structures and areas. This analysis in Ordu city not only provides inferences specific to this region but also suggests applicable strategies for other urban sites of similar nature. Supporting the restoration processes of areas where registered structures are in urban sites with spatial analyses will provide more realistic and sustainable solutions in conservation planning processes. As a result, this research reveals important findings for the sustainable conservation of the urban site area located in the historical core of Ordu city and its transfer to future generations. It is necessary to accelerate the restoration processes, protect the registered structures and handle these structures in a way that will contribute to the cultural, economic and tourism value of the city. In this context, integrating spatial analyses into urban planning and conservation processes will contribute to the sustainable conservation of historical textures and their integration into urban life.

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