Evaluation of Urban Identification Elements In Terms of Urban Design And Urban Image: Sample of Amasra, Turkey

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**Abstract**

Cities and communities are in a continuous change economically, socially and physically. Unplanned urbanization come with many problems as identity, function and visual problems regards to sustainability of cultural components. To achieve the correct synthesis in the context of human and environment interaction, protection and/or improvement of urban character is important for urban environment. In this study, Kaleiçi Quarter in Bartın Province Amasra District is selected as case study area which is taken to the UNESCO World Heritage Center Tentative List. This study focuses on expert opinion evaluation obtained from visual analyse results in conservation, improvement and integrative planning/design perspective according to i) determination of natural and cultural landscape values, ii) inventory work of study area-coastal relation, study area-settlement relation, study area-open green area relation, study area-whole city relation, iii) existing land use analyse in terms of urban design parameters belongs to cultural components, iv) presentation of study area perceptibility in the way of urban identity and city image. Consequently, Kaleiçi Quarter was evaluated in whole cultural components through urban design parameters, and suggestions for the improvement of this quarter’s perceptibility were discussed in city image effect and urban identity frame

**Key words:** Amasra, urban identity, urban design, city image, visual analyse.

1. Introduction

Cities are the structures serving a variety of purposes, heterogeneous, dynamic in nature, constantly changing and hosting historical layers [1][2]. Whole of the distinctive features of societies and spaces belonging to the cities constitute the identity of the city [3]. Continuity of urban identity is determined by local governments with high environmental conscious and the strength of belonging sense of the community living in the city. The belonging sense describing the bindings of the individuals with the environment is a phenomenon depending on the meaning that the individuals load to the space in terms of feeling well physically and emotionally and on the awareness related to the character of the surrounding area [4]. Consequently, in planning and designing processes, visual quality is used. Visual quality is an evaluation method, it represents the concrete features of visual sources revealed in the process of change [4]. Since natural, socio-cultural, historical and visual all landscape components create the city and it is surroundings, the sustainability of these components are important [5].

From the beginning to these days, the cities that are in a constant interaction and development socially and physically in the society due to especially economic growth entered into an dense urbanization process since especially 20th century and confronted with many problems functionally, visually and in terms of identity related to the sustainability of cultural components

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These problems damage historical and cultural tissue as well as urban image. In this context, urban design [7] that is a tool in directing the development of the cities, provides the protection of historical, social, cultural, structure and the areas, and on the other hand, it takes place as an approach aiming at functioning the old, torn and unused structures and giving vitality to the structures and areas that lost their value and relating them to the cities again. Urban design that is the interface of planning and designing is an important tool used to increase perceptibility of the structure, space or the regions faced with disappearing due to urbanization pressure and by balancing them with the developments of today in terms of making them sustainable[8][9][7]. City image is a form of expression orally or in writing that comes out in conclusion of the interaction of people with the environment, gathered in the mind through the sense organs and then that becomes perceptibility [11]. According to the theory of city image, it classifies urban image elements of Lynch [2] as districts, edges, nodes, landmarks and paths. While urban design approach is described in this way in the perception of the city, in the creation of city identity and image, environmental development, cultural activities, visual perception, public participation and design strategies are seen as the principles that must be discussed as integrated way in urban design [3]. For this reason, it is essential to make urban design in accordance with the criteria increasing the life quality of the individuals in terms of visual, physical and cultural aspects, at the same time discussing the urban values, local and spatial characters within protection-usage approach [10][8].

As understood by the people, visual evaluation studies are used both in measuring their own values and the description of environment features of the landscape [1] described as a space whose character is formed with natural and/or human activities and interaction in Europe Landscape Convention. These studies integrate physical, cultural and economic approaches in urban design with aesthetics. The most important one among the perceptions providing to be obtained of the information through the senses is the effectiveness of the eyesight. For this reason, in the evaluation of landscape perception, visual analysis/quality works are used as criterion. Especially, in order to perform protection and improvement of the natural and historical tissue in terms of their sustainability in a controlled way, identification of landscape structure and making the visual analysis revealing the importance of landscape elements within the space are important in urban design work [12][13].

Urban conversation areas, one of the cultural heritage areas, embodying historical layers, describing the life style and quality of the people, being identified as an archive, museum, park, settlement, tissue and an art [10], integrated with the tissue formed in the close environment due to the urban development but by considering the ethic values as it is not lose the values and features in this process with urban design work as well as not losing visual importance in urban macroform [14][9]. In this context, Kaleiçi district within the borders of Amasra Castle taken to UNESCO's World Heritage tentative list in Bartın Province Amasra district was chosen. Kaleiçi District is an important space in terms of sustainability, ethic and urban design relationship. The space within the borders of urban protected area was examined in terms of protection-improvement-integrative planning/design was examined in the cultural components and urban design parameters were examined within the framework of urban image, urban identity and visual analysis and recommendations have been made.
2. Material and Method

2.1 Material

In the study, Kaleiçi district within the borders of Amasra Castle taken to UNESCO’s World Heritage tentative list in Bartın Province in the borders of Amasra district in West Black Sea Region of Turkey was identified as research area. Amasra district is located between 41º-45º northern latitude and 32º-25º eastern longitude. It is surrounded by the Black Sea in the North, Bartın province in the South and Southwest and Kurucaşile in the East. Amasra district center has been formed with the unification of four of the five small islands at the foot of the steep slopes Black Sea coast months in time (Figure 1) [15].

![Figure 1. The Location of Amasra in Turkey](image)

2.2 Method

In the identification of research areas, the photographs taken from the construction plan belonging to Amasra Municipality and land studies were used. The method used in the study is formed by 4 main processes. These are:

**The detection of natural and cultural landscape values:** By revealing natural and cultural data belonging to research area, the importance of the region in terms of urban identity elements within the urban unity of the area was mentioned.

**Research area-coast relationship, research area-settlement relationship, research area-open and green area relationship, inventory study related to the relationship between research area-city integrity:** the location relationships of Amasra Kaleiçi District in terms of coast, settlement, open and green area and city integrity related to urban design was revealed.
Current situation analysis by evaluating cultural components in terms of urban design parameters: The cultural components that research area has were examined in terms of urban design parameters. According to Lynch (1960), these parameters [32] are:

- Space: Positioning of the public spaces, the links between the scale and the form
- Visible activity: Creating spaces for various activity groups and making the space suitable for these activities,
- Serial perspectives: Capturing consecutive images forming series,
- Communication: Conveying meaning to the user via symbols,
- Surfaces: All the surfaces especially the floors and the walls of the city,
- Details: It is formed by grids, seating units, panels, stairs, plates etc elements. [16].

Specialist opinion assessments related to revealing the importance of perceptibility of the area in terms of urban identity and urban image:

Within the scope of analysis revealing the importance of perceptibility of the area in terms of urban identity and city image, visual landscape quality evaluation was made [17][18]. For this evaluation, an integrative method formed by some aspects of objectivist and subjectivist evaluations was used. Under the scope of this evaluation, ecological and socio-cultural approaches were also considered and the method was based on expert opinion. Defined visual landscape quality evaluation method was applied to the specialist group composed of 15 people in total from the academicians of Bartın University Faculty of Forestry Department of Landscape Architecture over Amasra Kaleiçi District (Zindan). In 2014 summer term, 6 photographs taken from different angles under the scope of field survey were taken to assessment in terms of visual quality criterion. Specialist opinion evaluations were finalized by giving 5 pieces of potential indicator points for each under 10 evaluation concept under the scope of (Table 1) and interpreted over 100 points.

3. Research Findings

3.1 The detection of natural and cultural landscape values

The first establishment of Amasra with the name of SESAMOS is seen in B.C. 12th century with the event that Phoenicians established colonies along the coasts. Due to the presence of natural harbors, Phoenician sailors conducted commercial activities for a long time. Then, the reestablishment of Amasra ruled by Milesians, Cimmerians, Lydian, Macedonians and its having the appearance of big city was at the time of Princess Amastrist. The city often changing hands after being killed of the princess was held by Romanians, Byzantians and Genoveses and then Fatih the Conqueror received the city without fighting in 1460 and added the city within the borders of the city [21]. Amasra district center consists of Boztepe, Zindan (Kaleiçi), Küçük Ada and Tekke Hill. It is different from four islands forming a peninsula by joining with Büyük Ada (Figure 1) [22]. The morphological characteristics of the city are steep and precipitous cliffs. Amasra district is under the influence of Black Sea climate. The annual average temperature is 13,8°C, total annual rainfall is 1035.22 mm and annual relative humidity is 69,8%. The wind blows in the direction of north-east between October 15 and March 15. The district is also in an open status to North, Southwest and Northwest winds [23].
It shows the characteristic features of Black Sea region in terms of natural vegetation. In flora study conducted in Amasra district by Yatgın [24], 265 pieces of plant taxon belonging to 68 families.

**Table 1.** Visual quality evaluations (Lynch, 1984; İnceoğlu and Aytuğ, 2009; Voordt., 2005, Tveit et al. 2006, developed from Tüfekçioğlu 2008) [2][17][18][19][20],

<table>
<thead>
<tr>
<th>PARAMETERS</th>
<th>POTENTIAL INDICATORS</th>
<th>PARAMETERS</th>
<th>POTENTIAL INDICATORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSISTENCY</td>
<td>The harmonisation of land use in natural conditions</td>
<td>READABILITY</td>
<td>Perceptibility of the site</td>
</tr>
<tr>
<td></td>
<td>The existence and spatial location of water</td>
<td></td>
<td>Explicit Orientation</td>
</tr>
<tr>
<td></td>
<td>The harmonisation and integration of the objects with each other</td>
<td></td>
<td>Sharp borders and Regions</td>
</tr>
<tr>
<td></td>
<td>Repetition of the colors</td>
<td></td>
<td>Focus Points and Emphasis Points</td>
</tr>
<tr>
<td></td>
<td>Repetition of the tissues</td>
<td></td>
<td>Connection Points</td>
</tr>
<tr>
<td>COMPLEXITY</td>
<td>The existence, diversity and richness of different objects, structures, plants and</td>
<td>TEMPORARINESS</td>
<td>Vegetation suffered from seasonal change</td>
</tr>
<tr>
<td></td>
<td>functions</td>
<td></td>
<td>Fauna effect to space</td>
</tr>
<tr>
<td></td>
<td>Land shape diversity</td>
<td></td>
<td>Water area affected by seasonal changes</td>
</tr>
<tr>
<td></td>
<td>Shape diversity</td>
<td></td>
<td>Original Weather Conditions</td>
</tr>
<tr>
<td></td>
<td>Dimension diversity</td>
<td></td>
<td>Change in the nature of ownership</td>
</tr>
<tr>
<td></td>
<td>Heterogeneity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DESCRIPTIVENESS</td>
<td>The existence of landscape points</td>
<td>BELONGING-CONSERVATION</td>
<td>Not abandoned area</td>
</tr>
<tr>
<td></td>
<td>The existence of rare elements</td>
<td></td>
<td>Well maintained buildings and Linear objects (wall, fences, road etc.)</td>
</tr>
<tr>
<td></td>
<td>The existence of emphasize points</td>
<td></td>
<td>Lack of waste and drenage</td>
</tr>
<tr>
<td></td>
<td>The existence of historical elements and tissues</td>
<td></td>
<td>Existence of community garden</td>
</tr>
<tr>
<td></td>
<td>Proximity to water</td>
<td></td>
<td>Experiences</td>
</tr>
<tr>
<td>HISTORICITY</td>
<td>The existence of historical cultural elements</td>
<td>NATURALNESS</td>
<td>Intact Vegetation</td>
</tr>
<tr>
<td></td>
<td>The existence and diversity of Linear Historical Element</td>
<td></td>
<td>Fractal Dimension</td>
</tr>
<tr>
<td></td>
<td>The visibility of Historical Time Layers</td>
<td></td>
<td>Existence of Water</td>
</tr>
<tr>
<td></td>
<td>The existence of the Area with Historical Sustainability</td>
<td></td>
<td>Existence of Natural Elements</td>
</tr>
<tr>
<td></td>
<td>The usage of traditional area and the existence of its tissue</td>
<td></td>
<td>Temporal Vegetation</td>
</tr>
<tr>
<td>PANORAMIC VIEW</td>
<td>Visibility from every aspect</td>
<td>SPACE SENSE</td>
<td>Perception of space identity</td>
</tr>
<tr>
<td></td>
<td>Visible Area Size</td>
<td></td>
<td>The objects gaining originality to the space</td>
</tr>
<tr>
<td></td>
<td>Image of the object</td>
<td></td>
<td>The harmony of topography, vegetative elements and structural elements</td>
</tr>
<tr>
<td></td>
<td>Openness Degree</td>
<td></td>
<td>The existence of well-maintained and clean spaces</td>
</tr>
<tr>
<td></td>
<td>Prevention of the image by the objects</td>
<td></td>
<td>Being strong of relationship between the objects belonging to the space</td>
</tr>
</tbody>
</table>
Kaleiçi district identified as research area and located within the borders of Amasra Castle is known as Zindan District as its Ancient name. The area is in the status of 3rd Degree archaeological protected area and bears an intensive settlement within itself. It is on one of the mentioned five islands forming Amasra town center in Kaleiçi District. The district bounded to Boztepe via Kemere Bridge at the center of Amasra city center is located that can see Small Harbour and Big Harbour bays [15]. Kaleiçi district includes important cultural elements gaining identity to the city where cultural landscape products are also seen intensively. The most important ones of these elements are Castle walls limiting the area, Genova Castle ruins, Fatih Mosque, Kemere Bridge, İnner Castle Masjid (Chapel), Direkli Rock and civil architecture samples (Table 2).

3.2 Inventory study on research area-coast relationship, research area-settlement relationship, research areas- open and green area relationship, research area-city as a whole
Research area is located surrounded by the Black Sea from the North and the West and directly linked to the sea with steep cliffs. Big Habor is located in the direction of East and Southeast, and Small Harbor in the Southwest. It has a feature of qualified area having important aspect points where human-sea-cultural tissue relationship can be established in the most powerful way in terms of perception from the sea and the sea perception. At the same time, steep cliffs surrounding the area substantially offer important visual effects in terms of morphological silhouette of the area. Looking at the research area-settlement relationship, its closeness to the sea and high visual value causes to increase the settlement areas in Kaleiçi district. In conclusion of dense population and growing user demands, the structuring that are not suitable for the protection status of the area has brought opening new ways within historical tissue, finding location of the new housings, and an unhealthy change incompatible with the urban identity. Besides this, while Kaleiçi District is ensuring its connection with Boztepe in the North via historical Kemere Bridge, it ensures its connection with the district center in the South between the narrow streets that are located between the settlement and commercial areas and via a graded descent through the castle walls. The amount of open and green area in research area is suppressed among the dense structuring. Under the scope of open and green area, there is a recreation area outside some private property areas. Kaleiçi district bearing a quality of transition area between the North and South of the area within the whole of the city is one of the most important cultural components of the city completing city silhouette as well as its natural and cultural landscape features (Figure 2).

![Image of the research area](Original 2014)
Table 2. Historical and Cultural Landscape features in Kaleiçi District

<table>
<thead>
<tr>
<th>Historical and Cultural Landscape Values</th>
<th>Historical Importance and Current Uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMASRA CASTLE AND WALLS</td>
<td>Amasra Castle and walls formed by two main masses named Sormagir and Zindan Castle are known as established in Roman period. Although most of the walls stretching from the door of Sormagir Castle to the west and surrounding the east and north east are destroyed, 50 meter part of the western walls adjacent to the door reaches today [15][25][26].</td>
</tr>
<tr>
<td>GENOVA CASTLE</td>
<td>The entrance to this area is ensured via a main door with Genova emblem to which it is reached via cascade sidewalk from the side of big harbor and from the castle door protected with a high bush to the castle. On the walls of the castle and above the doors, there are emblems belonging to the Genoese [15][25][27].</td>
</tr>
<tr>
<td>FATİH MOSQUE</td>
<td>The structure constructed in Amasra Castle as a Byzantine Castle in 9th century was turned into a mosque in 1460. It had a major restoration in 1887. The mosque is not used actively today [15][25][28].</td>
</tr>
<tr>
<td>KEMERE BRIDGE</td>
<td>Kemere bridge that is a single arch bridge belonging to Roman era and in the mood of Middle Ages, is a historical structure that connects Sormagir Castle in Boztepe with Zindan castle in Amasra [15][25][29].</td>
</tr>
<tr>
<td>SMALL CHURCH (CHAPEL)</td>
<td>The structure that is an ancient Byzantine Church took the name of Church Masjid afterwards and converted into the masjid of Fatih Mosque. The structure used after having a major repair and restoration is known to have been converted into a masjid by Ottomans in 15th century and closed to the in 1930 [15][25][30].</td>
</tr>
<tr>
<td>DİREKLİ ROCK</td>
<td>Direkli Rock that is in the east of Small Harbor is a structure of 7 metres high constructed with knitted columns on the rock in the bay. In Direkli Rock, a pool in the shape of square linking to the sea, the steps carved into the rock and marble steps are seen. That this column is the remnant of a tower made for lightening and observing the sea and the pool is the bath of Amastris are known. [31].</td>
</tr>
</tbody>
</table>
3.3 The evaluation of cultural components in terms of urban design parameters

**Space:** Kaleiçi District predominantly shows inconsistent and insufficient features in terms of the presence of public space, scale and positioning. The most important reason of this situation is illegal and unplanned structuring rising within the castle walls. In the area, limited number of areas whose original tissue can be protected are able to be encountered.

**Visible activity:** Research area shows convenience both with its research area and topographic structure in terms of rich activity spaces. With urban design applications compatible with the identity of the city, the original spatial practices can be evaluated in terms of this parameter.

**Serial perspectives:** Kaleiçi District having different spaces with its location as peninsula ensures interesting perspectives from different angles and navigation facilities. The spaces within the scope of these perspectives show convenience for the applications that will strengthen the image influence.

**Contact:** The research area where the identity elements of the city is seen predominantly is in the quality of an important area offering original details about the detectability and experience of the city and bearing strong expressions about spatial practices. By ensuring the integration of these expressions into the spatial practices, the evaluation of it in the whole of the city can be evaluated as an important urban design approach.

**Surfaces:** Castle walls especially forming the walls of the city and limited traditional furnishing are the most important surfaces in the area in horizontal and vertical aspect.

**Details:** City’s furniture suitable for the historical tissue of the city is one of the most important designs that should be evaluated convenient for identity of the city. Extremely wrong and insufficient applications in the research field in terms of these details are seen.

3.4 Specialist opinion assessments related to revealing the importance of detectability in terms of urban identity and city image.

Research area was submitted to the evaluation of 15 specialists over the photographs taken from six aspects. Over the parameters identified in conclusion of these evaluations, the potential values
of the area were scored and it was reached to Figure 3. According to the evaluations, the visual quality value of Kaleiçi District generally reached to 59%. According to this result, the one with the status of belonging to this area, being consistent and having the spatial sense felt is low but the status of readability, naturalness and panoramic view is moderate. However, it was detected as an important area with well temporariness, complexity and historicity and strong aspect of being able to depict.

4. Conclusion and Recommendations

Uniformity caused by globalization was increasingly made the cities without identity. It causes the belonging concept to be meaningless both functionally and sensationally. The sustainability of historical urban tissues in the quality of cultural heritage should be ensured in general urban tissue of the country within the process of change and development. In the urban design studies to be made in this scope, the surroundings of urban protected areas having natural and cultural values required to be protected in today’s development process must be taken in an integrated planning and design. At the same time, according to Cengiz [33] in sustainable tourism planning and management for the protection of natural, cultural and historical values, survival of it and being sustainable of the tourism, tourism development suitable for the carrying capacity of the city must be planned. In this scope, both the natural and social data must be taken in an integrated way and conducted suitable for national and international regulations.

The coastal features of the research area must be taken into account and the sustainability of the sources must be considered and as well as the negative contributions to city silhouette, the spreading of the settlements that are located along the areas where important impression points predominant on the coast must be prevented and some spatial strategies that will decrease the current pressure to the minimum level must be identified. The original tissue of Kaleiçi District with an important potential in terms of tourism must be protected, the number of aspect/landscape where sea-human-culture-tissue relationship must be increased and their connection with the coast must be strengthen. As well as the vehicles of Kaleiçi vehicles, pedestrian and bike transportation must be expanded.

Urban open and green areas are important for creating a fund for urban silhouette and making contribution to urban identity as well as the research area in terms of urban ecology. In the whole of urban open and green area system, it must be expanded within research area in terms of both traditional urban agricultural areas and recreation areas. With street tissue improvement projects, the situations with historical importance and civil architecture samples must be made functional within the balance of protection-usage by performing restoration and restitution studies. The recorded structures are made emphasized and detectable in the scale recorded structures and of the city as a whole and the continuance of their contributions to the sustainability of the city and urban identity as nodes must be ensured. At the same time, public interest must be evaluated as social benefit, and in this scope illegal and unplanned construction must be prevented considering the balance between protection and usage.

The walls surrounding Kaleiçi District area forms the edge effect as the walls of the city. At the same time the research area has the feature of a region within the city with dense settlement area
bordering these edges. According to specialist opinion evaluation results, while Kaleiçi District was being evaluated as weak in terms of belonging, being consistent and making feel the sense of space parameters, its complexity and permanency was evaluated as high. One of the most important reasons of this is the dense and unplanned structuring and not being able to protect the identity. Design and planning approaches to reveal the original tissue reinforcing belonging and identity perception are important priorities for this area. At the same time, it is an important transition area and connection point between Boztepe in the North of Amasra and Amasra town center in the South. Reinforcing the relationship between the research area and the other settlements within the city and revitalizing the connection axes, urban design studies ensuring the construction with less density within the time are required. In the urban silhouette, the area urban identity having the function of urban aspect and in the quality of landmark for Amasra in terms of tourism, it is an important inflection point. In master plan with the aim of protection, the priorities must be identified; planning decisions for the future must be produced in the scale of city macro form by being evaluated within Kaleiçi city whole with socio-cultural, economic and ecological data in terms of urban planning and design strategies.

4. Sources