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Rethinking on Cultural Sustainability in Architecture: Projects of Behruz Çinici

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Abstract: This study aims to open a discussion on the concept of cultural sustainability in architectural design. We asked the question of whether spatial planning has a role in cultural sustainability and in which terms cultural sustainability could be considered or discussed in the design process. We started with a presupposition of an example that achieved cultural sustainability in time. We exemplified a holiday resort village designed in 1970, which is still in use with inconsiderable transformations. Social engineering was a necessity for the architects, Altuğ and Behruz Çinici, and their design approach was to achieve sustainable living considering financial, ecological, environmental, and cultural dimensions. Behruz Çinici and his wife, Altuğ Çinici, were influential architects of their time. For an understanding of Cinici's design concepts, we first looked at the inspiration sources mentioned in his conferences. After studying their village projects, we suggested four spatial concepts for reading projects from the perspective of cultural sustainability. We analyzed their three resort villages, which were designed in the same decade, through the criteria we have suggested. In the evaluation, the distinguished features of Çinici's resort projects are discussed in relation to the concept of cultural sustainability. In conclusion, we aim to open a discussion for the criteria we proposed for cultural sustainability in spatial planning, and to emphasize the importance of cultural practices for housing policies for regional identity in a global world.

Keywords: cultural sustainability; housing; spatial planning; resort village; Behruz Çinici

1. Introduction

The concept of sustainability has been a topic in architectural circles since the mid-1990s [1], but cultural sustainability is a rather new issue for architects. The three pillars of sustainable development were declared in the Brundtland Report in 1987 as economic, social, and environmental sustainability [2], yet the cultural dimension of sustainability did not take part in international policy until the 2000s [3].

Architecture as a social discipline is influenced by the economic, technical, and political developments of society, and is concerned with almost all dimensions of sustainable development, including the cultural sustainability. The ecological dimension of sustainable development is the main concern of architects and urban designers who consider renewable sources in the formation of the built environment. These concerns are inadequate without the social and cultural dimensions of sustainability, as the United Nations Educational, Scientific, and Cultural Organization (UNESCO) declares that no development is sustainable without including the "culture" and "full integration of culture into sustainable development policies" [4]. Today, cultural sustainability is considered to be the fourth pillar of sustainable development, together with the economic, environmental, and social dimensions [5].

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It is not surprising that unique local experiences are becoming increasingly popular in the standardized products, services, and spaces of the globalized world. Many cultural products and services have already been adapted to the global market in order to satisfy the need for authenticity. Cultural features are also used in spatial design to create architectural product identity on the global stage, which more often ends up as kitsch. This loss in meaning becomes the main issue with the accelerated flow of cultural products and features. In this sense, cultural practices are more valuable than ever in the search for authentic representation. Thus, we can assume that the conservation of historic buildings is not adequate for the sustained continuity of cultural practices. The spatial qualities of build environments are questions of where the cultural practices take place and the contribution of design strategies to cultural sustainability.

1.1. Definitions and Descriptions

This article focuses on the contextual relationship between spatial planning and cultural sustainability and searches for the spatial qualities of a built environment that achieve cultural sustainability. The built environment, as an architectural product, reflects the culture of its inhabitants—the architects, the users, and the investors. We also have to account for the technology of the day, *force majeure* of the natural environment, and the sanction power of the authority of this reflection. Because all these data sets play a role in the production of the built environment and its cultural reflections, on which subjects should we focus to understand the relationship between spatial planning and cultural sustainability? It is necessary to give definitions of the terms culture and cultural sustainability before we make connections with spatial planning.

Culture has a broad meaning and has various definitions in different disciplines, which makes it more difficult to discuss when we talk about sustainability. Bozkurt Güvenç, as an architect and anthropologist, has pointed out the different uses of the word culture in four fields. Culture is civilization in the scientific field, the product of training processes in social fields, aesthetics in fine arts, and a production and agriculture reference in technologic and biologic fields [6]. Similarly, a Welsh theorist, academic, and critic, Raymond Williams, describes culture as a developed state of mind, as in a person of culture; the process of this development, as in 'cultural interests' and 'cultural activities'; the means of these processes, as in culture as 'the arts' and 'human intellectual work'; and as 'a whole way of life', 'a signifying system' through which a social order is communicated, reproduced, experienced, and explored [7]. Cultures can exist at the global, national, regional, city, neighborhood, and super-culture levels [8].

What we understand of and how we describe culture changes with time. Thus, academics and researchers develop various approaches to the concept of cultural sustainability, as it has to do with maintaining the aspects of cultural beliefs, cultural practices, and heritage conservation that change with technology. Cultural continuity and cultural practices are considered as indicators of cultural sustainability in spatial planning.

In the social sciences, cultural continuity is the transmission of meanings and value characteristics of culture, across time and generations [9]. Cultural continuity is the spread of cultural heritage from one generation to another and includes the means by which that transmission is done [10]. Every culture has cultural scripts concerning the favored patterns of thought and action that are considered cultural ideals. When groups move from a homeland to a new country, the scripts move with them. These scripts become a major source of cultural continuity in the transition [11]. As changes occur in values or in the environment, aspects of the culture may be lost, leading to changes in cultural continuity [12]. Continuity can only be possible by analyzing the change and making a connection between past and future that is based on humanity [13].

The term cultural continuity was first used in the 1960s in Turkish architectural journals [14], and then the issue was related to new housing projects and traditional Turkish houses in the 1980s, with criticism of cultural degeneration parallel to transition process in Turkey [15]. Cultural practices involve everything that humans do, above and beyond instinctual or unconditioned behaviors, not

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only in art and literature, but also in agriculture, manufacturing, recreation, war-making, childrearing, and behavioral sciences [16]. By way of cultural practices, the orientation and spatial behaviors of the society are developed. This relates to the users in our case, and the customs they have developed while using the space, such as the intimacy of the room, the use of open and half-open spaces, the seaside routines, spending time with neighbors, and so on. Studies on cultural sustainability considered continuity as cultural heritage in terms of manmade objects, landscapes, and combined man and nature systems in the past, while today it is considered as cultural heritage in terms of the practices, representations, expressions, knowledge, skills, instruments, objects, artifacts, and cultural spaces associated with cultural practices, including tradition, identity, values, cultural diversity, spirituality, and aesthetics. It is envisioned that these will involve tools and skills that will change the world in terms of sustainability in the future [17].

Regarding these definitions, the importance of the continuity of cultural practices for achieving cultural sustainability in the built environment is obvious. An architectural product, building, or built environment is not only a piece of cultural heritage to be conserved, but also a stage for the cultural practices to take place. Thus, in order to study the cultural sustainability of a medium-scale built environment, a holiday village that is designed by an architect who considers the cultural identity of both the user and the region is exemplified.

1.2. The Purpose of the Study

This article aims to open up a discussion on the concept of cultural sustainability in architectural design. The relationship between spatial planning and cultural sustainability is analyzed in order to impart the idea of cultural sustainability as a feature of spatial quality. Considering the housing production in Turkey held today, this argument opens a different perspective for reading the newly built summer houses and resort architecture in the West Anatolian coasts and the social sustainability of the gated community.

2. Methodology

The hypothesis of this study suggests that spatial planning has a role in achieving cultural sustainability. Starting from the design process, cultural references are related to the spatial design with the design approach of the architect and with his/her interpretation of cultural references. Secondly, four spatial criteria in which cultural references can be discussed in an architectural product are proposed. The spatial criteria (spatiality, planimetry, morphology, and terminology) are suggested depending on the discussions in the studio culture of architectural education for tracing the cultural references in the built environment. The third suggestion is that the architectural product meeting the spatial criteria has the spatial qualities in which cultural practices occur. The continuity of cultural practices increases the satisfaction level of the inhabitants in the built environment. Over a long period of time, the high satisfaction level of the inhabitants and the low ratio of spatial transformations in the built environment support our hypothesis. The methodology of the study is explained in the schema (Figure 1).

Behruz Çinici was a prominent social engineer of his period. His inspirations from cultural references regard traditional Turkish houses and ancient Aegean settlements. His interpretation of cultural references in the design processes is examined at the building scale and settlement scale. The role of the continuity of cultural practices in cultural sustainability is discussed. The terms, interpretation, and continuity are examined through the spatial criteria (spatiality, planimetry, morphology, terminology) in Behruz Çinici's architectural products. The spatial features of holiday villages are examined at building and settlement scales. The satisfaction of users over time and the spatial transformations in the exemplified holiday village are documented through a survey.

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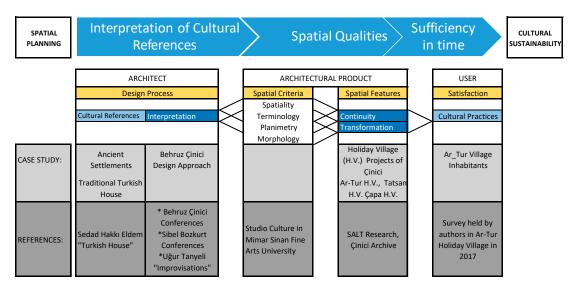


Figure 1. The methodology of the study.

3. Interpretation of Cultural References in Design Process

As interpretation of cultural references in the design process is put as a feature for cultural sustainability of the built environment, an architect who considers the cultural references of both the user and region in his/her design approach is exemplified.

3.1. Behruz Çinici and His Architectural Office

Behruz Çinici (1932–2011) was a well-known Turkish architect who was recognized mostly by his projects in Ankara—the Middle East Technical University Campus and the Mosque of Turkish Grand National Assembly. Beside these well-known projects, his architectural office also had numerous housing projects in Istanbul and holiday villages in the West coast of Anatolia, Libya, and Saudi Arabia. He was one of the priors among the Turkish architects of his period, as his design concepts strongly refer to the cultural structure of the physical and social environment. Çinici considers the users' contribution and values of the natural and the cultural identity of the region in the design process. His inspirations are based both on the ancient and the traditional settlements of the region, together with the cultural practices of the locals and features of the natural environment.

In this text, the surname Çinici does not refer to Behruz Çinici only, but to Çinici's architectural office in which his wife Altuğ Çinici was also a partner. The other architects that were obligated in projects are Servet Kılıç in the Ar-Tur Resort Village, and İbrahim Erkan and Oral Vural in the Tatsan Güllük Resort Town. The distinguishing features of the Ar-Tur Resort Village project, which is exemplified in this study, include it being a pioneering architectural production for its period in Turkey and it creating its own cultural environment by transferring and interpreting the cultural references of the geography.

3.1.1. A Pioneering Architectural Production in Turkey

The interest in holiday villages and summer houses raised in the 1970s with the growth of the middle-class, increasing domestic tourism. The production process of the Ar-Tur Holiday Resort was parallel with its contemporaries. Many of the holiday villages and summer houses constructed in the Aegean and Mediterranean coasts between 1960 and 1970 used formal elements adopted as they were with an architectural understanding of regionalism [18]. Though lack of planning can be observed in the production of some summer houses similar to the unplanned urbanization of that period, there are also some holiday villages and gated communities designed intensively at the urban scale [18]. In this sense, Çinici's sampled works can be considered as a few of the successful architectural productions of the period, together with the EPA-Architects and Urban Planning Ateliers' holiday villages in

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Bodrum and Datça built between 1972 and 1980 [18]. Çinici's resort village projects are noticeable examples in terms of interpretation of the regional and traditional values in the design of each unit and the environmental organization. The design concepts of Çinici's sampled villages are considered as "timeless" productions within the examples worldwide [19]. Starting with upper scale planning analysis, the archeologic finds of past civilizations, vernacular housing constructions, and existing habits of society are all considered and valued in his design process to create a contemporaneous architectural language.

3.1.2. Creating the Cultural Environment

Çinici drew from spatial concepts of ancient settlements and traditional Turkish houses by integrating them into his projects, which opened a way for cultural continuity. He stated that the cultural references he used in his projects are based on literature studies, observations, and site works with the master builders. Considering his design concept, all these studies take part as a whole in his design process and play a role for the cultural sustainability of the built environment.

Unlike today's gated communities, the atmosphere of the Ar-Tur Resort Village enables interactions between the user and the environment and strengthens the relationship between man and nature. The recreational and public spaces that are open to common use are the connection points of the village to its neighborhoods. The integration of the resort village to its social and natural environment creates a new cultural environment on its own, which increases the sense of belonging of its inhabitants and encourages social sustainability.

3.2. The Interpretation of Cultural References in Çinici's Projects

Çinici has adopted the social engineering responsibility of an architect [19] and questioned issues of identity and belonging in the design process. Uğur Tanyeli, as an architect and a critic, claims that Çinici was an improviser as he relates his projects to the context: "Instead of using motifs, Çinici works with an attitude without referring to either the national or local. He applies the improvisation techniques that are rooted in Turkish tradition" [20].

The improvised manner of Çinici's work is strongly related to his ability to read the local references and to chase the marks of settled culture. In his works, the context is the sum of data that contains the references of the culture and user. The cultural continuity issue in Çinici's works cannot be reduced to a simple interpretation of the formal ornament/motif of traditional Turkish houses. His realization of continuity in cultural processes is to interpret and transfer cultural practices, which adds a characteristic feature to his architectural products. Tanyeli states that Çinici's projects are far from historicism, but rather are singular cases that are reproduced each time.

"It can even be claimed that Çinici does not benefit from history. Maybe he loves the numerous singular phenomenon of history not itself. It does not much matter whether they are Turkish or foreigners. Naturally, his Turkish origin as a data case has a considerable role in his architecture, but this amount/share is not Çinici's argument. After all, if he is an improviser, leaning on mindscapes for improvisation is not a matter of discussion" [20]. As Çinici interprets historicism immanently with this aspect, his design approach and his architectural products are examined usefully in the context of cultural sustainability.

Çinici's cultural inspirations for the resort villages are discussed at two different scales of spatial design—in the scale of a settlement, the village; and at the scale of a building, a house unit in our case. In the housing scale, the design elements of the traditional Turkish house are examined, as he used planimetric items and terms referring to these in his projects. On the scale of the settlement, the ancient settlements in the region are examined, as he claims that he is inspired from their grid plans, axes, and the spatial organization of public and semi-public spaces.

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3.2.1. The Design Elements of a Traditional Turkish House

The term Traditional Turkish House became disputable over time, after Sedad Hakkkı Eldem, one of the pioneers of nationalized modern architecture in Turkey, published his research in his "Plan Types of Turkish House" in 1954, in which over one hundred houses are examined and drawn with details. The discussion over the traditional Turkish House is its origins, as some academics claim that it is the civil architectural product of the late period of the Ottoman Empire. However, the term is used in this paper regarding its distinguishing features of the cultural infrastructure of the society. Eldem describes three design elements of the traditional Turkish House as "rooms", the "sofa" (the halls and their dependencies), and the "stairs". Other parts of the house, the bathroom, kitchen, laundry, pantry, and store room, are mostly situated outside the main floor, so they are not considered as the main design elements [21].

Eldem describes the characteristics of the house as follows: "The Turkish room is in itself the equivalent of a house. It is used to sit, eat and sleep in; for each activity, the room is provided with cupboards, closets, built-in wardrobes and side boards. Originally, the meaning of the word room, 'oda' or 'hane' was the same as that dwelling or house and a room with only one door serve the same purpose as a house. The rooms open onto the hall 'sofa' like the houses open to public space. The Turkish house differs greatly from its Western European counterpart. Every room gives onto the hall and the hall is the means of access to the whole house" [21]. The Turkish house arises from the combination of these three parts and the plan typology is developed from the sofa placement.

3.2.2. The Characteristics of Ancient Settlements of Aegean Civilizations

By the eighth century BC, the Greek settlements in the Aegean region had confirmed their possession of the whole coastline and had consolidated themselves into 12 major cities—Phocaea, Erythrae, Clazomenae, Teos, Lebedus, Colophon, Ephesus, Myus, and Milets on the mainland, along with the islands of Chios and Samos. In this period and down to about 500 BC, Ionic rational thought dominated the intellectual life of Greece. The Ionic dialect of Greek became the language of literature and learning, and Ionic architecture and art were also influential. Miletus was the birthplace of natural philosophy [22].

Hippodamus first applied to his home city, Miletus, the grid plan that he developed on inspiration from geometrically designed settlements. Many cities were later laid out according to this plan. Miletus, which is a fine example of the grid plan, comprises houses on blocks created by streets and side streets crossing at right angles, with public buildings in the city center [23]. The hub of every such city was the agora or civic center, an open space roughly in the middle of a regular rectangular grid of houses and other buildings [24]. Hippodamus arranged the buildings and the streets of Miletus around 450 BC such that the winds from the mountains and the sea close to Miletus could have an optimal flow through the city and provide cooling during the hot summer [23].

4. Spatial Criteria That Refer to the Continuity Cultural Practices in Architectural Space

Tracing the cultural references of an architectural product is an interdisciplinary issue that exceeds the scope of this study. However, the spatial concepts suggested to discuss the interaction of culture and spatial design in this essay, based on the critics in architectural education, can be regarded as a base for further studies. The assumption is that the built environment that meets the spatial qualities of the suggested spatial criteria also serves as a stage for the continuity of cultural practices. A medium-scale built environment is exemplified for tracing the cultural references in an architectural product at different scales and to determine the spatial qualities for the continuity of cultural practices.

4.1. Spatial Criteria for the Use of Cultural References in Spatial Planning

The formal variables in urban design aesthetics are defined as enclosure (openness, spaciousness, mystery), complexity (diversity, visual richness, ornamentation, information rate), and order (unity,

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clarity) in Nasar's study because of their relevance to human environmental experiences. They integrate with symbolic aesthetics, the study of human responses to the content of forms [25]. The spatial criteria suggested in this study differ from the spatial features introduced by Nasar, as our concern is not to discuss the aesthetics of built environments, but to determine the spatial qualities in which traces of cultural references can be found. A specific vocabulary for discussing the cultural traces is introduced: spatiality, morphology, planimetry, and terminology. The spatial criteria that are suggested in this paper are raised from the discussions in architectural studios and depend on the common features of exemplified projects at building and settlement scales. By studying different scales in spatial planning and considering different cultural levels, the researchers may suggest new criteria to discuss cultural sustainability in spatial design.

4.2. Spatial Qualities for Continuity of Cultural Practices

The spatial qualities discussed in this chapter were raised from the interpretation of cultural references in spatial design. The cultural practices develop and take place in natural and built environments. The environment is shaped by the customs of its inhabitants, while it shapes the cultural practices of them as well. The spatial features of the built environment that allow the continuity of the cultural practices are examined through the use of cultural references in the spatial criteria. The cultural practices change over time even if the built environment stays the same. Sampling a holiday village gives one the opportunity to look at the cultural practices of its inhabitants at two different scales of spatial design—the scale of the house and the scale of the settlement. One can assume that the inhabitants of the village may have cultural practices that are in common or that at least may develop over time, by preferring to spend their summers in a holiday village by the seaside. One can also assume that they are high-income families to have a second home.

Even though users make some transformations to their houses over time, the built environment and the landscape were designed at once in the exemplified Ar-Tur Resort Village. The architect verbalized that he was inspired by the cultural identity of the region in which the village was built. What he transferred was not the motifs of the past as cultural features, but the customs of using space in that geography. The difference between the formalist transfer and the transfer in planning is more obvious in housing production of the villages. While the transfer of the motifs and/or ornaments from traditional architectural styles has the risk of ending up as shallow reproductions, an adaptation of the planning principles of the past to contemporary lifestyles may give successful results.

4.3. Exemplifying a Holiday Village for Cultural Continuity

The spatial planning of holiday villages is exemplified to discuss the cultural sustainability of an architectural product depending on the fact that the relationship between architecture and cultural sustainability is an interdisciplinary issue to be discussed by explaining the relevant definitions to find common terms. As the definition of the term "sustainability" is "the quality of being able to continue over a period of time", it is necessary to exemplify an architectural product that has been in use for a "period of time".

The cultural sustainability of an authentic town naturally has spatial and cultural continuity, as it is spatially shaped by its inhabitants over time according to their cultural practices. Different from an authentic town, the spatial planning of a holiday village may or may not feature spaces for the cultural practices of its users, depending on the architects' design approach. The scale of a holiday village project is one of those large-scale projects that an architect can design as a built environment. Dealing both with the design of housing units and facilities of the village, the architect designs both the public spaces and the private spaces of a community, in which all the cultural practices will take place. Exemplifying a holiday village gives us the opportunity to discuss the spatial criteria for cultural sustainability at the scales of both public and private spaces. The holiday village sets a stable example of a built environment—it is an imitation of a town with a homogenous population and it decreases the variables of the hypothesis.

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A holiday village is designed for the everyday practices of a person, such as in residential architecture. Although it is expected to be used only for a short time of a few months, different from a commercial building or a hotel building, it facilities various spaces for daily activities and cultural practices such as housing, shopping, and entertaining. The essential neighborhood relationships are also a part of these cultural practices. The exemplified holiday village has been in use for a long time with the high satisfaction of its users, verified by a 2017 satisfaction survey. The architect of the holiday villages has stated that he used cultural references in design projects of holiday villages [26] and that he was inspired from the traditional housing culture and spatial planning of ancient settlements. His design approach, embodying inspirations and interpretations of cultural references, is described as an "improvised style" by architectural historians [20]. The cultural references that inspire the architect are described in order to relate them to the spatial criteria.

The proposed pivots are the subjects that Çinici has stressed in his design process and terminology. The architect considered the cultural practices of the user as an important input in his Binevler Project in Çorum, in which he conducted surveys with the users in the design process. His improvisational attitude and holistic approach to design will be contextualized through the following terms: spatiality, planimetry, terminology, and morphology.

Çinici's exemplified projects will be associated with both the traditional and vernacular architecture of the region, with the criteria of spatial organization, architectural features, and with the terminology used for naming the spaces. As the traditional houses and the ancient civilizations are the compounds of the cultural identity of both the society and the geography by which Çinici was inspired, his projects are examined in relation to his inspiration sources.

4.4. A Reading on Çinici's Holiday Village Projects through Spatial Criteria

Three of Çinici's architectural design projects, the holiday resorts in the West coasts of Anatolia, Ar-Tur Arkent, Bodrum Çapa, and Güllük Tatsan resort villages, which were designed in the same decade, are analyzed in this article. Using examples of holiday villages for understanding cultural sustainability can be perceived as contradictory, as secondary houses are used only for a few months in a year. The architect also expressed his concern about prodigality in use of the space [26], and in Çapa village he pretended that housing units could be rented when they are not in use, and so he designed each unit as equivalent to a house.

The Ar-Tur Holiday Resort was designed in 1969 and constructed in 1972 in Burhaniye, Balıkesir, in the Northwestern Aegean coast of Turkey. The resort village is managed by Ar-Tur Tourism Industry Incorporated Company with 2000 partners. Built on an area of 2,165,000 m², the village is settled on a hill on the bays of Aegean Sea. Consisting of 1738 villas, the village was one of the biggest holiday settlements of its time. It offers a lively social life with its restaurants, open cinema, disco, supermarkets, restaurants, and open recreation spaces.

Designed in 1971, the Çapa Resort Village was settled on a hill on the bays of the South Aegean Sea in Bodrum on an area of 20,000 m². The ancient settlements in the region, Priene and Miletus, inspired the architect as a source of the site plan [26].

The Tatsan Güllük Resort Town was designed in 1976. Only a few examples of the Tatsan Holiday Resort were constructed in the Bodrum Peninsula because of the socio-economic conditions of the time. Still, together with Ar-Tur and Çapa resort villages, Tatsan resort town provides a qualitatively strong design parameter.

4.4.1. Spatiality

As French geographer Denise Pumain notes, "spatiality combines all conditions and practices of individual and social life that are linked to the relative position of individuals and groups with regard to one another ... Each society organizes its territory in function of a spatiality of its own that depends on its values and norms as well as on its choices of activities and its technical mastery" [27]. Using

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spatiality, the volumetric features of the housing units, the proportions of design elements, and the spatial organization of the villages are examined.

Ar-Tur Holiday Resort is settled close to Ayvalık, a Greek town of the Ottoman period. The housing units of the resort village have similarities with the typology of the two-story houses of Ayvalık built in the 19th century. They are both rectangular in shape, with backcourt yards and two stories with extensions "cumba" (exhedra) at the second floor. Ayvalık town has linear streets extending to the seaside where the coast of the village is occupied with a harbor and facilities of olive manufacturers carrying the characteristics of the local identity. Similarly, the housing blocks in Ar-tur village are connected with linear pedestrian ways and streets perpendicular to the seaside. The terraced houses of Ar-Tur holiday village open directly onto each other without halls or corridors similar to the vernacular houses in urban fabric of Ayvalık. Çinici has also explained the main criteria of the project as "to create the housing units integrating with the natural environment" [26]. The village is synchronized with the topographic and climatic parameters of the geography.

The terraced houses in Çapa Holiday Village are constructed on a grid, which refers to the ancient cities of Priene and Miletos, as Çinici emphasized by adapting the modules of houses on a strong topography. The quarters of Artemis, Mozol, and Demeter are placed in this grid where the topography is softened with streets conjoining to the harbor and with the pathways reaching the beach. The project offers a lively social life with its restaurants, an open cinema, bazaar, supermarkets, and a square, as carried out in the Ar-Tur Holiday Resort. Synchronization with the topographic and climatic parameters of the geography is also a common outstanding point characterizing Ar-Tur village.

Çinici appreciated the beauty of the natural environment of the Tatsan Resort Town and intended to harmonize the natural and built environment in the layout plan. The natural elements, including hills, bays, creeks, and rocks by the sea, are considered as built elements in the layout plan and play an important role in the formation of the village. A holistic approach in the design process is obvious in this context, regarding the use of open spaces without exception between architecture and landscape architecture (Figure 2).

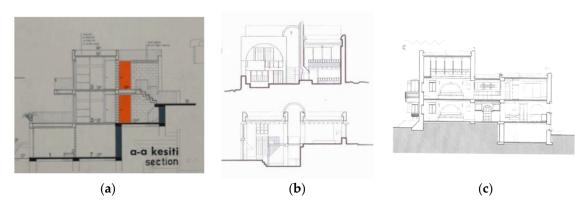


Figure 2. Spatiality in the resort villages of Çinici. (a) Section of a housing unit of the Ar-Tur Holiday Resort [28], (b) Section of a housing unit of the Çapa Holiday Village [20], (c) Section of housing unit of the Tatsan Resort Town [20].

4.4.2. Planimetry

By planimetry, the plan typologies of the housing units and the design principles of the settlements in site plans are studied in relation to the references of the traditional Turkish House and ancient settlements. In the Ar-Tur Holiday Resort, the planimetry of the houses is based on grids in a modular system of 3.20 by 3.20 m² varied as cross-shaped, square-shaped, T-shaped, and L-shaped forms according to their areas. Each shape and module existing in harmony with topography have different planimetry.

The 90 m² version has a fireplace at the center of the cross and a skylight in the roof at the top of it for both lighting and airflow. The open kitchen, which occupies one of the modules of the grid

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with the bathroom, was planned with the dining space. The $60~\text{m}^2$ group is a single house planned on five modules and in a T-shaped form. The $40~\text{m}^2$ group of the house is L-shaped and consists of three modules and one module terrace. This group has a small-scale group of houses with one bedroom. Each unit of the terraced houses has its own square shaped garden in the grid and an L-shaped back court, which allows the user to control the effects of climatic conditions naturally. The kitchen and the bathroom occupy the same space (half of the $3.2~\text{m}^2\times3.2~\text{m}^2$ module) in each group. The architect proposed a simple way of living for the user having both the smallest and largest unit of the housing groups. There is no extra space for the kitchen or bathroom in larger versions of houses, but they have larger terraces.

In the Çapa Holiday Village, the terraced houses are placed on a grid as well, in a modular system of 5 m \times 5 m with a hall between each unit. These units have their own square-shaped garden in the grid and an L-shaped back court so that the user can use the open space at different hours of the day, escaping from the sun. The courtyard, surrounded by three rooms defined as "oda" (room), which are the main spaces of each unit, carries traces of the traditional Turkish House as a central figure.

In the Tatsan Resort Town, the planimetric construction is organized with the movement of each space to widen the vista of the gulf from each corner. Having its own view, each room can be considered as being inspired from the "cumba" (exhedra, oriel window) of traditional Turkish House. The affinity between the typologies of the holiday village and traditional Turkish housing is the harmony with nature, topography, and climate. The use of open and half-open spaces and creation of shaded spaces in a hot climate comforts the daily life in the village, which is one of the important aspects of the project as well (Figures 3 and 4).

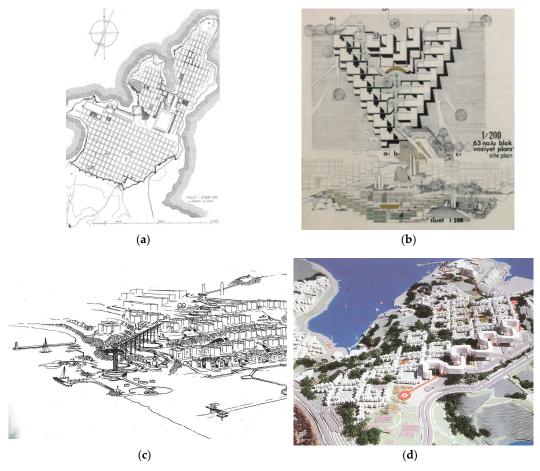


Figure 3. Comparative table of planimetry in the scale of the settlement. (a) The plan of Miletus [29], (b) The site plan of the Ar-Tur Holiday Resort [28], (c) The perspective of Çapa Holiday Village [20], and (d) The model of the Tatsan Resort Town [20].

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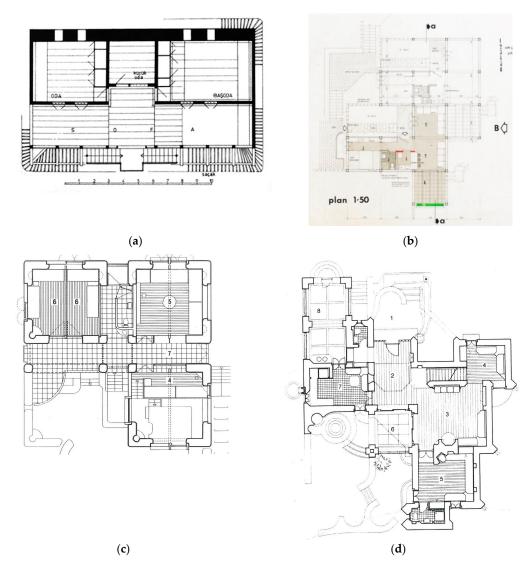


Figure 4. Comparative table of planimetry in the scale of the housing units. (a) The Halici Izzet House in Bursa (Turkey), seventeenth century. Drawings by S.H. Eldem. [30], (b) The plan of the housing unit of the Ar-Tur Resort Village [28], (c) The plan of the housing unit of the Çapa Holiday Village [20], and (d) The plan of the housing unit of Tatsan Resort Town, [20].

4.4.3. Morphology

Çinici's resort village projects should be contextualized within his period, especially with the growing interest in vernacular architecture after the exhibition "Architecture without Architects" at the Museum of Modern Art (MoMA) in 1964 in New York. In her conference about the morphologic analysis of Çinici's site plans, Bozdoğan evaluates this period as follows: "vernacular architecture is not a model to return to, it is proposed as an allegory to carry us forward" [19]. The idea that modernist principles are always present in traditional texts, such as rationality, modularity, and repeatability, was brought to the attention of modernist architects [19].

Under the topic "A Morphological critique of Modernist block, fragmental macro-form in continuity", Bozdoğan states that the historical background of Çinici's architecture is the morphological critique of post-war revisionist architecture. She describes the vernacular morphology as the pre-industrialization manifestation of rationality, that is, the idea of serial housing production, which constitutes the starting point of modernization [19]. The aesthetic created by forms of repetitions we like in veneered settlements and traditional urban textures is not only an aesthetic issue, but also a prefabricated rationale behind them [19].

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Çinici has stated that his aim is to combine the local values and contemporary technologies [26]. Bozdoğan claims that canonical modernism is both criticized and attached to its basic principles by combining precast elements on-site and prefabrication techniques combined with vernacular morphologies in Çinici's works [19]. In this sense, Bozdoğan considers the Ar-Tur resort village and Çorum Binevler as distinguished examples in the search for the modern vernacular. Site plans are characteristics of Çinici's design approach. Clusters settled on the hillside, in a V-shape or in terraced row houses towards the contours, are connected with axes and spines. Social engineering was a necessity for Çinici.

Organic morphologies, plans formed by fragmental blocks, clusters, patios, and mat buildings; the search for low rise and high density in terraced and row housing typologies were criticism of the prismatic blocks, as Bozdoğan states.

The plasticity of the forms, the use of motifs, texture, and color in the holiday villages were carefully designed at each scale; urban furniture in public spaces, sitting benches, flower beds, sun sheds, and even waste baskets are still in use.

In the Ar-Tur Holiday Resort, different kinds of morphological elements were used because of the typology of the houses. Instead of appearing as the motifs of the nearby settlements, these elements comprise an interpretation of past and present architectural features. Although the cubic expression dominates the general plasticity of the settlement, the dialectic manner of combining open and closed spaces, as discovered in ancient Greece, can be observed. After fifty years, the resort is still lively with all kinds of morphological directions as a result of this convention.

The morphology of the houses in the Çapa Holiday Village is influenced by the geography as well as the traditional Turkish House. The form of the vaulted roofs gives the plasticity of the building while carrying the winds inside to the courtyards. This approach is also observed in Hassan Fathy's works, carry cultural marks that are simple in planimetry but complicated in the third dimension.

Morphologically, the architectural design is developed by adjoining the single "room" unit in Tatsan Resort Town. By placing the service units at the joints, the plan typologies are easily articulated contemporarily. This type of planimetry creates an open-ended morphology in harmony with the topography. The morphology of the Tatsan Resort Town is similar to the architect's design of the Aytan House in Marmaris, built in 1982, which has the planimetric and plastic elements of Turkish architecture. The vaulted roofs that merge into the texture and color of the geography carry a plastic value. The dominant manner is apparent in both projects (Figure 5).



Figure 5. Morphology in the resort villages of Çinici (a) the Ar-Tur Holiday Resort, (b) the Çapa Holiday Village [20], and (c) the Tatsan Resort Town [20].

4.4.4. Terminology

Çinici has named the quarters, squares, roads, and paths of holiday villages with the names of ancient Greek and Anatolian gods, assigning the names of heroes and kings to the streets and squares in Ar-Tur and Çapa holiday villages. In naming the spaces of the house units, he used the terms of traditional Turkish House typology (Table 1).

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Table 1. Terminology used in the Holiday Village Design Projects of Çinici Architecture.

Reference	Space	Ar-Tur Arkent Holiday Resort	Çapa Holiday Village	Tatsan Güllük Resort Town
Spatial Names of Traditional Turkish House	Başoda (Main Room)	X	X	Х
	Seki (wooden platform)	X		Х
	Hayat (porch)			X
	Sofa (hall)			Х
	Musandıra (sideboard)		X	
	Divan (couch, ottoman)	X		
Spatial Names of ancient Greek settlements	Amphitheater	X		X
	Agora (public open space for assemblies and markets)			Х
	Forum (the area used for public business)			Х
	Odeon (building for musical performance)			Х
Spatial Names of Seljuk and Ottoman Periods	Meydan (square)	X		X
	Çarşı (Bazaar)	X		
	Hamam (Turkish bath)			Х
Gods and Goddesses names of Greek Mythology, Emperors Names	Gates, passages, quarters, squares, boulevard, roads, squares, wine house	Mindos Gate, Mylassos Boulvard, Labranda Passage, Alabanda Passage, Artemis Square, Mylasa Square, Mozol Square, Hermes Square, Aphrodite Rocks, Hexapolis Intersection, Piteos Road	Demeter Square, Artemis Quarter, Demeter Quarter, Mozol (Karia king) Quarter, Dioynsus Wine House, Pirates Restaurant	
Lausanne Peace Treaty of Turkish Republic (1923)		Lausanne Square		

Data source: own study based on research. X indicates that the term is used in naming the spaces of the holiday village.

The terms "sofa" (hole), "başoda" (main room), "taşlık" (stony place), and "seki" (platform) used in the housing units of the Ar-Tur and Tatsan holiday villages carry clues for the spatial organization and give us an idea about how the spatiality is studied. Still, reading on terminology can be deceptive as the terms do not correspond to the spaces of traditional Turkish Houses, but correspond to the functional organization as an interpretation of the architect.

Housing units in the Çapa Holiday Village are organized similarly to the traditional Turkish House in terms of the unity of the plan, but the spatiality of the unit does not have the same aspect. The well-known design elements of the traditional house appear with their names in the new house units, referring to the function of the space, but not the form. The term "başoda" (main room) is used for living room and the term "musandura" (sideboard) is used for storage space in the room, making the room well-equipped. "Musandura" is the special part of the room of traditional Turkish House—a large closet for bedding. A house with "musandura" is also a housing type in Bodrum; this type has a mezzanine floor for storage with a height of 120–150 cm at the entrance of the stone house. Çinici has used this term for the storage space in the housing unit.

Çinici has also named the public spaces of projects with names referring to ancient Greek cultures, such as Demeter Square (of Çapa Holiday Village) or Mindos Gate (Ar-Tur Holiday Resort). The entrance of the Ar-Tur Holiday Resort is from Mindos Gate. East of the gate, an amphitheater is placed on the slob of the topography. Mylassos Boulevard ends up with Mylassos Motel on the South. Labranda Passage, crossing the Mylassos Boulevard, connects Caria Square to Hermes Square North of the Aphrodite Rocks. South of rocks is Artemisia Square. Leading from Artemisia square, the Alabanda Passage ends up in Mylasa Square, opening to the marina. An elevator tower at the square directs people to the pirate ovens around a circle-shaped pool by the sea. The grid system is

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closed with Lausanne Square at the North. From Mozol Square at the Mindos Gate, one can reach the Hexapolis intersection and sports facilities by following the Piteos Road.

Three districts of Çapa Holiday Village have names of ancient Greek mythology—the Artemis and Demeter quarters, except for the Caria King Mozol quarter. The stone-tiled Caria Road is the natural border of the resort town. Çinici has designed the road, imaging the horse-drawn carriages of the Caria Kingdom, which he also drew on the project [26]. Similarly, the activities that are described at the focus points of the axes in the Güllük Tatsan Resort Town have both ancient references, such as Agora, Forum, Odeon, and Anatolian Seljuk, and Ottoman references, such as square or *hamam* (Turkish bath). Bozdoğan claims that the Anatolian urbanization is described with these trans-historical and timeless archetypes [19].

The terminology referring to the past civilizations or cultures were seldom used in spaces of modern social life, such as Dionysus wine houses, casinos, discos, nightclubs, and café-bars in resort villages. The use of cultural references can be observed in the planimetry and terminology of the traditional Turkish house, ending up with a contemporary interpretation of the spatiality and morphology.

5. Users' Satisfaction as a Compound for Cultural Sustainability

Users' satisfaction is considered as one of the indicators to evaluate the cultural sustainability of a built environment in this article. The assumption relates the users' satisfaction to the continuity of cultural practices together with other spatial qualities.

5.1. Sufficiency of Private and Social Spaces

The exemplified holiday village has been in use for a long time with high satisfaction of its users, which can thus be regarded as a "sustainable design". This hypothesis is supported by the survey conducted with twenty-one users of the Ar-Tur Holiday Village (Balıkesir) in June 2017. A full 90% of users are the owners of the houses, while the others are tenants. Fifty-seven percent of the users are over the age of 60, and 38% of the respondents are between the ages of 45 and 60. A reported 43% of users have been using their houses for over 15 years, while 14% of them have been living in the village for 10–15 years.

The respondents were asked to evaluate their living in the holiday village. They described it as "like a paradise" (14%); "peaceful" (14%); "great, excellent" (33%); "quite comfortable and secure" (14%); and "happy to live here" (14%). Only one of the users described it as "too boring and quiet". The results show that 57% of the respondents have been living in the village for more than 10 years and are completely satisfied with their living in the Ar-Tur village.

The use of social spaces is leveled by users as "the beach" (57%), "casino" (33.3%), "restaurants" (9.5%), "sports facilities" (4.7%), and "market" (4.7%). The respondents designated social spaces they do not use as "the pool" (19%), "restaurants" (9.5%), "sport facilities" (4.7%), "disco" (4.7%), "cinema" (9.5%), "game arcade" (4.7%), and no response (38%). The social facilities are found to be "sufficient" (95.3%) and "insufficient" (4.7%) by respondents. The facilities that the town should have are a shopping center or bazaar (9.5%), transportation opportunities (9.5%), a café-bistro and wine house (9.5%), housing for the elderly, a spa, rest areas (14%), and no answer (47.6%). The sufficiency of social facilities is considered to be high, although they can be improved.

5.2. Spatial Transformations

The use of private spaces is questioned in two steps—the sufficiency of sizes of spaces and the renovations that the users made. The respondents evaluated the sizes of the spaces in housing units including the living room, kitchen, bathroom, bedroom, and terrace as "all sufficient" (57%), but the size of the kitchen can be larger (19%), the size of the living room can be larger (9.5%), and the size of the bathroom can also be larger (9.5%). Only one of the users indicated that the terrace should be larger, and one indicated that the terrace should be smaller.

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The transformations and renovations that the users made in the units are questioned in the survey. The renovations include enlarging the terrace (33.3%), paint and white wash (28.5%), restorations (28.5%), demolition works in interior spaces (4.7%), none (9.5%), and no answer (4.7%). The renovations that the users made are considered minor transformations.

The results of the survey lead us to except that the holiday village has the necessary spatial qualities to satisfy its inhabitants comfort and social needs with a high level of satisfaction. Instead of selling or renting out their houses, most of the users prefer to use their houses with minor renovations for years.

6. Results

The study puts out three indicators to relate the spatial planning to the cultural sustainability of the built environment:

- the architect's interpretation of cultural references;
- spatial qualities of the architectural product that refer the cultural continuity;
- satisfaction of users.

The importance of interpretation for transferring cultural features in the design process is discussed through the architectural products used as examples. The determined role of the built environment towards the continuity of cultural practices together with the changing dynamics of the society is discussed. The cultural sustainability of the built environment is related to its spatial quality and its ability to transform according to the changing/unchanging cultural practices of the society. The spatial organization, which enables the transformation of the built environment, is presented as a feature for the satisfaction of the user.

This study is also regarded as an essay analyzing the quality of the built environment from the point of cultural sustainability, as the spatial quality of the built environment does not only depend on physical features, but also on the social and economic inputs [31] that shape the cultural practices. Interpretation, continuity, and transformation are the featured keywords of any kind of product, including the built environment necessary for its sustainability. An architectural product ignoring these concepts is condemned to be an idle form. The demand for a more sustainable environment can be met by means of these conceptual approaches.

7. Discussion

The sustainability of tourism architecture, including hotels, holiday resorts, gated communities, and summer houses, is mostly discussed under the topics of spatial approaches to landscape, energy conservation, and economic social and environmental dimensions of sustainability, while the spatial planning of private and social spaces, which strengthen neighborhood relations and stage the cultural practices carrying the cultural dimension, is a neglected issue.

The spatial identity issue in contemporary built environments is still questioned as a notion of cultural sustainability in relation to architecture. "The question remains: in a contemporary environment, can architecture engage with its traditional role as the embodiment of cultural symbolism (updated to include contemporary flows), while at the same time remaining open to constant re-interpretations, re-imagining, and re-appropriations of its fabric, spaces, and its surroundings?" [32].

A semantic shift can be observed in contemporary built environments, where the issues of energy, sustainability, and scale are reproduced, and the production type is context-free. User-centered design is another semantic shifted term in architecture. The participant-driven methodology, which was developed by Çinici parallel to its contemporaries in the 1970s, was not noted by a survey of yes/no answered questions, but rather was dependent on the flexibility of the user who transforms the space according to his/her needs to use the space for different purposes.

Cultural references are more necessary than ever regarding emergent global identities. The cultural features and cultural codes of the users are used as marketing tools not only by architects and

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builders, but in every field of design and production. The demand for distinctive products evokes the designers to use cultural references more than ever, without regarding the differentiation of real or false, as Guy Debord emphasizes [33]. This article can be regarded as a critical reading of the architectural products of global culture as well, which are subject to cultural breaks. It addressed the necessity of rethinking the new housing projects that will not support social and cultural sustainability in the short-or long-term. Reconsidering concepts of spatiality, terminology, morphology, and planimetry in each scale of spatial design can guide designers towards cultural sustainability of built environments.

The topics mentioned in this study are issues that are discussed in architectural education and the architectural production process. Criticizing, comparing, and conducting surveys that serve as an accumulation of architectural knowledge by enhancing and transferring it to the next generations is necessary to critique and relate new concepts to their sociological sources. Architectural production can be understood more deeply through these discussions; otherwise, production will be confined by emergent new concepts.

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