THE RELATIONSHIP BETWEEN SOCIO-CULTURAL AND ENVIRONMENTAL DEVELOPMENT: SUSTAINABILITY OF LOCAL CONSTRUCTION CULTURE AND CRAFTS

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ABSTRACT

Integrative sustainability of vernacular architectural structure, which provides significant knowledges about cultural values to transfer next generations, is related with usage of natural sources, accessibility of local materials and adaptation of crafts to recent conditions. The physical conditions, existing in the nature of place, give form to socio-cultural life as well as local construction culture. Systematic preservation of local construction culture and crafts enables to observe socio-cultural and environmental values on traditional architectural pattern. The usage of the local materials, which is an important part of the natural resources, by craftsman, provides to come up with the original details in the traditional pattern. This local production style that consider to physical and social usage, diversifies the unique traditional construction details.

Materials that are formed depend on the geographical features and climatic conditions create traditional architectural patterns by being detailed with knowledge, ability and experiences of the local constructors and craftsmans. Today, to be able to comprehend these architectural patterns which are formed with local labour and sources, new methods should be developed. Solutions, which will be comprised with association of architectural preservation discipline and other disciplines that are about humans, may support the sustainability of the traditional heritage. Continuance of the field works to preserve traditional architectural pattern in selected area, reveals the usage of local materials and application style of the local construction culture in today's conditions. In this regard, a fieldwork had been done on usage of local materials and local construction culture in Birgi rural by considering its socio-cultural values and

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environmental conditions. In these fieldworks, interviews with local residents and constructors who live in Birgi rural has been done.

Since Birgi is involved within the boundary of archaeological and natural sites and accepted to the UNESCO World Heritage Candidate List, its recognition has increased throughout the country and restoration works have been accelerated. Tourism activities, developed in Birgi rural during the recent years, have enhanced efforts to return to the local culture in accordance with financial concerns. Local construction culture require to be positioned in a contemporary language to sustain socio-cultural values and physical conditions.

Keywords: Sustainability, Local construction culture, Architectural conservation, Vernacular architecture, Birgi

1. INTRODUCTION

The uniqueness of the identity is first perceived by the visual and auditory senses (Deniz, 2004). According to Birol, the identity of the city is consist of the values that makes a city different from the others (Birol, 2007). Conserving, protecting and sustaining the cultural values of societies and local identity of the built environment, while maintaining their meanings, are the main factors that reinforce the cultural identity of a given place. In order to sustain these values in a holistic perspective, it is necessary to have a well understanding of authentic sociocultural structure and environmental conditions of the place. The authentic climatic conditions, the diversity of the living creatures and the characteristics of the earth's surface are influential factors that forms the local construction culture and the social life in a given place. To protect the local values of a city or town in a sustainable way, it is crucial to determine and apply methods that consider the sociocultural identity and authentic atmosphere of the place. In accordance with this purpose, a multi-disciplinary approach with inclusion of local people in key and active roles in the process should be adopted.

Thanks to cultural cumulation, the values of the historical cities are interwoven with the existing context of the place. From past to present by existing in social life, traditions, rituals, crafts and local forms of arts underlie the main channels of this cultural background and cultural cumulation. As a form of traditional crafts, presence and maintenance of local construction culture that exists in historical texture can be considered as concrete example of this claim. The process of transformation of local materials into authentic local construction is valuable. Main factors that makes this transformation process valuable are way that craftsmen use their labor, their knowledge, their skill and experiences. Therefore, to conserve tangible and intangible cultural heritages and to carry them into future, individuals who are part of the society and built these values, and the

individuals from different disciplines who feel responsible to protect these values should take joint actions.

Examples of local construction culture, which traditional crafts practiced skillfully, reflect the traces of sociocultural life. Restoration of the constructions would not be enough to protect the authentic meaning of these traces and to carry them into future. The approach that emphasizes the inseparability of cultural practices in social live from construction culture should be adopted. Today, any conservation works should be carried out by taking this holistic approach into consideration.

Principles of sustainability based on the interaction of three different main subject, which are economic, social and environmental issues (WCED, 1987). In our country, many areas with historical texture are abandoned due to the negative effects of economic or environmental conditions. Birgi rural located in Ödemiş district of İzmir, which is determined as the example area of this study, is a historical settlement area where both the efforts to protect the historical texture are continued and the social life continues despite the immigration of the existing young population. The settlement, where conservation and planning studies started early compared to many historical textures, has been able to protect its architectural characteristics until today. In this context, local construction techniques and materials used in the past can be associated with today's techniques. Throughout the study, the sustainability of tangible and intangible cultural heritage, in terms of crafts and local construction culture, will be discussed through traditional texture of Birgi.

2. CONCEPT OF SUSTAINABILITY

2.1. Concept of Sustainability, Sociocultural Development and Architectural Conservation Relation

Quality and dimension of the production style, which performed in early history of humanity, did not have a negative impact on society as much as today. Along with the resource usage and production mechanism of the Industrial Revolution, which adopts the concept of capitalism, negative effects on natural environment and human life have caused reaction. Since 1960's, many researches have focused on these negative effects such as; "*The Limits of Growth*" (1972), United Nations Environmental Program and the World Conservation Strategy (1980), Brundtland Report titled "*Our Common Future*" (1987), the United Nations Conference on Environment and Development (1992), Fifth Environmental Action Program of the European Union (1992), International Conference on Population and Development (1995), Second United Nations Conference on Human Settlements (Habitat II-1996), Rio+5 Forum (1997) and Sustainable

Development Conference (2002). Brundtland Report and United Nations Conference on Environment and Development, which developed and presented in Rio, are both concentrated on defining the aim of "sustainability" (Tekeli, 2013). Studies which, are related with the concept of sustainability, have diversified with Brundtland Report and many definitions have been made about sustainability. Brundtland Report describes the sustainable development as; considering the needs of next generations while meeting today's needs (Şen-Kaya-Alpaslan, 2018). In the dictionary of urban science terms, the concept of sustainability described as a worldview that aims to provide economic development while taking into consideration on usage of the environmental values (Keleş, 1980). In accordance with this purpose, a practicable sustainability approach requires following a balanced process in the environmental, social and economic issues. Architectural conservation discipline also aims to produce solutions, which consider these three main issues in all cultural environments but especially, in rural heritage sites.

Developed countries pay regard to protection of intergenerational rights on issues that related to sustainable development. However, in developing countries, where the inequality between rural and urban still continues, mostly focus on the recent problems of living (Tekeli, 2013). Ovalı and Delibaş (2016), associate this problem to the rapid socio-cultural changes in developing countries. Environmental and economic problems in rural areas of Turkey make difficult to protect socio-cultural values, which are significant parts of traditional life. From this point of view, development plans that are prepared for the rural settlements should be more sophisticated in socio-cultural, economic and environmental issues (Özcan and Akci, 2016). Besides, tangible and intangible cultural heritage components that exist in inherent characteristics of traditional life and social-cultural dynamics should form the fundamental principles of conservation works. In this way, it is possible to develop sustainable conservation methods that are suitable for recent conditions and carry socio-cultural values from the past to the future.

2.2. Sustainability of Local Construction Culture and Traditional Crafts

According to Arpacıoğlu, the rural settlements have a rich local construction culture that contains the local construction materials, which reflect the physical and cultural characteristics of these settlements. Rural settlements are also a significant connection for a society between the past and today, because it shows how socio-cultural life was practiced originally in the past. Vernacular architecture is also an important part of this cultural background, which reflects the living of old people (Arpacıoğlu, 2016).

According to Kuban, local architecture is that built organically by the owners or having built by a craftsman in accordance with the understanding of local construction culture (1995). This natural process in the formation of local construction culture includes the tangible values of the region such as art, craftsmanship and architecture, as well as intangible values such as tradition and identity. Craftsmen, who play an active role in maintaining these values, are treasures in terms of transferring the traditional construction style, master-apprentice relationship, the usage of authentic materials, traditional detail technics and the characteristics of the local cultural identity. However, since recent systems give priority to global and industrial construction style, local construction culture and crafts are at risk. Thus, sustainable conservation implementations aiming to sustain the tangible and intangible values of the architectural heritage have to consider the continuity of the local construction culture and its actors.

Associated with the changing today's conditions, interests and production industry have become different with compared to the past. This rapid change, which we can observe through the consumption habit in the cities, appears as discontinuance of master-apprentice relationship and leaving craft spaces abandoned in the rural areas. In this context, the rural settlement of Birgi, which has been continued its inhabiting characteristic since the 18th century, is an important case to question the sustainability of both the local construction culture and the crafts, and their contribution to the conservation of the heritage place. Within the scope of this study, local construction culture and traditional crafts that encounter in the socio-cultural structure of Birgi will be evaluated within the context of architectural conservation.

3. BIRGI

Birgi is located on the foothill of Bozdağ, on the east side of Küçük Menderes River, in the Ödemiş district of İzmir. It is a small settlement built on a chain of valleys extending along the north-south direction. The settlement is surrounded by Bozdağ in the west, Gökcen Mountain in the east and Ödemiş settlement in the south (Gülhan, 2016). Birgi stream, which passes through the middle of Birgi, divides the valley into branches and has been effective in shaping the physical environment of the settlement. Besides, the sloping landform of Birgi, has been a determining factor in the lot organization, the formation of streets and the distribution of neighborhood. Birgi, consists of nine neighborhoods including Cami-i Kebir, Cumhuriyet, Kurt Gazi, Sasalı and Taşpazar.

Birgi Stream (Altundal, 2019)

Residantel Settlement in Birgi (Altundal, 2019)

Topography and geographic location shape the physical structure of the settlement, where Mediterranean climate characteristics are effective. The climate and mineral structure of the soil have also determined the natural vegetation of Birgi and its surroundings, and the economic structure that based on the agriculture. Olives, figs and grapes were significant agricultural products that grown in the region and played an active role in the socio-economic structure.

3.1. Birgi in History

From past to present, water resources, existence of agricultural lands, topographic structure of land and defense mechanism have been effective in the formation of settlements. The settlement of Birgi, which dates back to 3000 BC, has hosted Lydian, Persian, Hellenistic, Pergamum, Roman, Byzantine, Aydınoğlu Principality, Ottoman Empire and Republic of Turkey. In this historical process, different cultural and physical formations belonging to each community have transferred today and contributed to the tangible and intangible cultural values of Birgi.

Though it hosted many civilization since 3000B.C., the most significant historic period was the period of Aydınoğullları Beyliks. Birgi, became an administrative center during this period and many monumental structures such as were constructed. The city was an important center for economic activities, especially in the field of silk weaving which caused an important movement in its crafts and trade activities (Altınoluk, 2007). According to the tax information sources of Ottoman period, Birgi continued its development until the beginning of the 17th century, and due to the commercial interrelations the craft activities were gradually increased. During this period, great incomes have also gained from olive oil production. Until the first half of the 18th century, leather trade has also

carried out with France and Italy, and many tanneries along the Birgi stream were constructed. However, due to the social and political disorder that was effective in the whole of the Ottoman Empire in the first decade of the 17th century that called "Celali Rebellions" caused an important turning point in Birgi's spatial, economic and functional development. The income of the settlement from agricultural activities and crafts has decreased significantly. The city entered a spatial and economic restructuring process in the late 17th century. Besides, due to the construction of the Aydın-İzmir railway in the 19th century Birgi that located far from the railway line started to lose its socio-economic importance and became a settlement affiliated to Ödemiş (Gülhan, 2016).

The second historic threshold for the settlement was the war of independence happened in the country in the early 20th century that caused not only social, but also cultural, economic and physical changes and loss. In 1922, after the War of Independence, a fire outbreak in Birgi, as in many parts of İzmir. Birgi has lost many cultural heritage values in this fire. After the big fire, some neighborhoods were rebuilt based on the local characteristics. However, the flood disasters in 1939 and 1946 and the earthquake in 1944 caused important changes in the traditional fabric of Birgi. Many monuments and civil architecture samples have damaged during these disasters. Despite all these disasters, Birgi has been able to conserve its multi-layered cultural structure until today.

3.2. Demographic Structure of Birgi

Until the 19th century, Birgi's population increased in parallel with the developing industry and trade. In the beginning of this century, wars, earthquakes and flood disasters affected the population development negatively. On the other hand, the location of the settlement that is away from the İzmir-Aydın railway line, protected Birgi from an early urbanization process and immigration. Furthermore, due to the loss of its former commercial importance, the young population emigrate to the nearby cities for work and education. As a result, Birgi has become a residential area where the majority of the population is elderly.

According to the data in the public improvement report prepared inyear of, the population of Birgi was 2490 in 1935, 3235 in 1940 and 2799 in 1944 (Gülhan, 2016). In Address-based population registration system, the population of settlement was 2061 in 2011 and the average age was forty years and above due to migration of young population. According to the data of 2004, the population of the settlement was 2551 with has 950 people aged fifty and over, and 651 people aged sixty-five and over. In consideration of these datas, the eldery population is predominant in Birgi with a great percentage of 63% (Gümüşoğlu, 2008). According to the data in the Turkish Statistical Enstitute the population of

Birgi was 1894 in 2018 (URL-1). Having a stable population structure provides Birgi to conserve its local architectural fabric. On the other hand, the gradually decreasing young population caused the houses to be abandoned and neglected.

3.2. "Birgi" as a Cultural Heritage Site

Birgi has a significant architectural characteristic with its 18th-century traditional housing fabric and monumental structures belonging to the periods of Beyliks and Ottoman Empire. Moreover, it has hosted different cultural identities and this diversity has also manifested itself in the historic process. Birgi, about which planning studies have been continuously done, has preserved its cultural values since the Republican period. After the1922 fire, many examples of the vernacular architecture and many significant monumental structures were damaged in Birgi. The report that prepared in 1929 with the purpose of revealing the situation after this fire is a significant document for today. However, the primary purpose on this period was to provide new living places for the citiziens instead of conserving the local cultural values. The developing areas of Birgi were planned based on a grid plan (Özcan K. and San, Koç D., 2011). In 1944, the local government decided to organize a competition for the Ödemiş-Birgi Development Plan. Due to the result of this competition, The Urban Planning Department approved the selected development plan in 1945. In the report of the Development Plan of 1945, there is a huge data about Birgi's population, trade and agricultural production. According to the report, the main income of the settlement was based on agriculture, leather and silk production. The report was also containing data on local construction systems and material use, besides the detailed information about the availability of materials such as stone and terracotta used extensively in Birgi's local residential architecture. According to this information, there were proper sources of stones for construction in the river bottom and slate quarries in Bozdağ, besides the suitable soil sources for making bricks around Semit Village, which is 2 km away from Birgi, (Diri, 2010).

The 4th item of the report of the Birgi Develeopment Plan, contains information on the local construction systems and material specifications of the settlement. Moreover, it is stated that, the spatial dimensions should be compatible with the existing vernacular architectural characteristics in the rebuilt construction area. According to the fourth item, one of the most characteristic features of the settlement was the stone construction system of the buildings. The colour of the stone, the style of masonry, the simplicity in the form of the structures, the harmony of the masonry and the wooden parts, the narrow and cool streets that protect people from the heat, the eaves covering the streets, the fountains

placed in the corners of the streets were pointed out as the other significant features of Birgi. In addition to that, the local construction techniques especially the masonry construction techniques were proposed to be used in reconstructions with the adapted methods from the past. In this Development Plan, the street-courtyard relationship and architectural functions of vernacular Birgi houses was also mentioned. In brief, the given decisions of 1947 Development Plan ensured the sustainability of the local construction culture of Birgi.

Another important period for the preservation of Birgi was 1970's. Çakırağa Mansion was registered as a cultural entity in 1973, 136 civil architectural works and 25 monumental-public buildings were registered. After than, the historic fabric of Birgi was registered as a protected area, including urban, archaeological and natural sites in 1977 (Gülhan, 2016). Since than, the borders of the protected site have changes until 2012 and many decisions have been taken regarding its preservation.

According to "Birgi Conservation Development Plan" prepared by Türkoğlu and Uzel in 1996, not only black pine and red pine forests but also chestnut, poplar, walnut, and pistachio trees were observed in the regions of Birgi. Due to this finding, the site has declared as a 1st degree natural asset and taken into protection. Besides, to protect the construction culture of the region, it was emphasized that the traditional materials should be used in the restoration of existing pedestrian ways while the conventional materials should only be used on new constructed roads. Moreover, the restoration of registered / unregistered civil architecture samples such as garden walls, garden doors, and porches should be built with traditional materials. As a result of these statements, it was decided to rebuild the damaged areas in harmony with the local architectural character of the settlement. As a result of the characteristic heritage sites of the settlement and the efforts to conserve these values, Birgi was nominated for the UNESCO World Heritage Temporary List in 2012.

Today, according to the latest inventory records of İzmir No.2 Regional Board Directorate for the Protection of Cultural Heritage; Birgi's historic fabric consists of 50 monumental buildings and 208 civil architectural samples, where all these buildings are located as a whole and forms its fascinating urban fabric. These cultural assets contain many data in the context of local construction culture and crafts. Therefore, the continuity of Birgi's environmental and socio-cultural values can only be possible by ensuring the sustainability of local construction culture and crafts besides the sustainability of the physical features of the heritage place.

3.3. Vernacular Residential Architecture and the Construction System in Birgi

The vernacular residential fabric of Birgi has been shaped with significant features such as street-building and building-lot relations. Due to the fourth item of the 1947 Development Plan of Birgi, there are three types of building-lot relations in the settlement. These types were based on the position of the open spaces and classified as; buildings with backyard, buildings with courtyard and buildings with backyard and courtyard.

When the pattern of traditional houses and their street-garden relations are analyzed, it is observed that the main factors are climate and topography. As it was stated in the report of the 1944 Ödemiş-Birgi Development Plan Competition, the typology of the vernacular residential architecture of Birgi that based on the façade properties can be defined in four groups. Within this research, the distinct characteristics of these buildings are eaves with a width of 30-200cm and number of the stories. The distinct characteristic of the first type is eaves with a width of 100-200 cm. Most of the samples of this type, have been damaged due to natural disasters and only fourteen of these traditional houses have reached to today. The distinct characteristic of the second type are the mass of two-story constructions and the eaves with a width of 100-120 cm. The samples of the third type has eaves with a width of 60 cm and most of them were reconstructed after the natural disasters. The fourth type is differentiated due to their construction period. These residential buildings were built after the 1922 fire. These type of houses were built by brick, completely plastered and have eaves with a width of 30 cm. These houses are differentiated from the vernacular construction technique of traditional Birgi houses (Anonymous, 1944; Diri 2010). Local rubble stone, brick and small pieces of brick were used in the main walls of ground floor. The exterior surfaces of the walls were exposed masonry in the examples of vernacular architecture.

The spatial organization of the vernacular residential architecture of Birgi has also significant characteristics. The main entrance of the Birgi houses are generally provided by courtyard or taşlık and the houses are separated from the street by high courtyard walls to provide privacy. The ground floor is composed of taşlık, barn and storage, which are connected to courtyard, while the first first floor is composed of sofa and rooms. The sofa that dominates the first floor is formed in different geometries such as I, L and U shapes. There are also examples of inner sofa in the settlement. Sofa has the function of everyday activity area, which has an oven and a small washing area in itself, while providing the circulation between the rooms. The ground floors were constructed in masonry while wooden timber was the main structural material that mostly used in the first floors.

The architectural character of Birgi houses that based on the typological diversity and local construction techniques are tried to be protected by the Conservation Development Plans of, 1945 and 2012. In the 1945-Ödemiş-Birgi Conservation Development Plan, there are detailed data related to the construction materials and even the sources. According to the notes of the Plan, the stones, which are used in the walls of the houses and courtyard, are gotten from the streambeds and quarries. Stone generally were used as covering material in taşlık and it was used a basement of the timber stairs in many examples of vernacular architecture. While slate stone was used for the floor covering of streets. Muddy mortar was used as binding material in the stonewalls.

Sun and spica symbols, which were used in façades of vernacular Birgi houses and the chamfer on the corner of the exterior walls, are the common characteristics of local constructions. The chamfers ease the movement of animals in the Street. (Diri, 2010)

The usage of wooden timber material is important as much as the stone masonry in the local houses of Birgi. Wooden timber is used as a structural framing material in the first floors, while; stone, brick, straw and mud were used as filling material. Besides, timber is seen at floor beams and coverings, stairs, door and windows, hand rails, sedirs and cupboards which exist in almost every living rooms. In a local house, Baş Oda is differentiated from the other rooms with its material use such as; wood carving techniques in the cover of the ceiling. In much more qualified samples like Cakırağa Mansion, the material usage were detailed with hand-drawn ornaments on timber and plaster, unique ornamentations especially on its walls and ceilings (Gülhan, 2016).

Restoration of a local construction in Birgi (Genç, 2019)


Restoration of a traditional house in Birgi (Genç, 2019)

3.4. The Local Construction Culture and Crafts in the Context of Socio-cultural Sustainability

Besides the characteristic residential buildings of Birgi, it is known that the settlement had a significant commercial fabric with shops, production spaces and various types of crafts in the past. However, social transformations, technological innovations and new manufacturing trade branches caused the the traditional crafts weaken, and even disappeared. Stonework, saddlemaking, silkworm breeding, farriery, milling, bakery, helvacılık and, shoe manufacturing are the local crafts that used to disappear in the last decades. Silk breeding and silk weaving on handlooms were the most common manufacturing branches of Birgi. In the years of 1940's and 1950's there were 200 handlooms in Ödemiş, which were mostly in Birgi. But, due to the increase in the prices of raw material in 1970's and 1980's, a great number of hand looms were fallen into disuse. Within the thirty years, the number of handlooms decreased to 20-30 and a rapid decline in the silk production was occurred. As a result, the number of handlooms have decreased to 5 in Birgi while the number of the mechanic hand looms has decreased to 15-20 in Ödemiş and its surroundings (İmer, 2004). Because of the demandingness of hand weaving and the emergence of new manufacturing branches, silkworm breeding has decreased in time.

Demirli Mağaza (Genç, 2019)

Silk Weaving Atelier with Industrial Machines (Genç, 2019)

Mutlu Sulukan, the headman of Birgi states that, only five families are still continue to silkworm breeding in their courtyards. In addition, two families continue the silk weaving in their small atelier with industrial machines in Birgi. Silk weaving products, which were handled in Sem Silk Atelier, are presented for sale in a historic commercial place callesas called as Demircili Shop.

In the year of 1945, there was a large commercial district with, two restaurants, three butchers, seven coffeehouses, four shoemakers, six tanners, five bakeries, one vehicle atelier, two saddlemaker, two coppersmiths, one tinsmith, nine carpenters, two dressmaker and various peddlers in Birgi. In the year of 1947, placethe economic and utilization capacity of the commercial district was continuing with, five bakeries, a public bath, twenty fountain, one slaughterhouse, almost eighty local shops, fifty silk weaving handlooms and one olive oil factory (Altınoluk, 2007). In 1960's, the commercial district was separated in two with, ten coffeehouses, ten watermills, two electrical mills and an olive oil factory in total (Dural, 2004). In the year of 2008, eleven coffeehouses, a bakery, a flaky pastry, a mill, a dressmaker, five silk weaving ateliers, a shoe repairer, a hummer smith, a hardware dealer and a carpenter in Birgi (Gümüşoğlu, 2008). Due to the transformation of the commercial district of Birgi, it is observed that the variety of the branches of traditional crafts have decreased by years.

Stonemasonry and the stonemasons are among the other cultural values of Birgi that weakened in last decades. Yakup Karaca, a stonemason in Birgi states that the stone masonry was a developed working area in Birgi but it lost its significance as in all other rural settlements. Today's advancing technology and economic conditions are significant factors on the loss of its significance of the stonework in rural settlements. Ali Öksüz, a stonemason aged 57 from Tire states

that the material supply for masonry is very difficult, so it became an unaffordable construction type today. Today masonry construction is preferred by those who immigrate to the rural settlements instead of being a traditional construction culture sustained by the local people. Yakup Karaca also points out the lack of the material source. As he claims, the stone that used for the construction were gathered from the Birgi's streambed in past. But, as a result of the climate change, the stream bed is no longer a sufficient material source today. On the other hand, the stonemasons points out that the interest on masonry has increased due to the increase in the restoration works in Birgi. In addition to that, Osman Korkmaz a carpenter aged 69 states that the variety of trees has negatively affected by the climate changes. Therefore, while poplar and chestnut were common materials that used in the construction of traditional Birgi houses in the past, the affordable black pine has to be preferred as the timber material today.

4. CONCLUSION

Birgi is a heritage place with its architectural and natural assets, agricultural productions and crafts. The local construction culture, material usage, and the local crafts are important factors of this heritage. Unfortunately, the tangible and intangible cultural values of the settlement have been weakened even vanished in the past decades. Due to the observations and interviews, it is determined that the stone that obtained from the local quarries and the streambed, enabled to develop the local construction in Birgi. But, developing technologies and the increase in the mass production techniques caused a decline in local crafts and construction culture. On the other hand, as the location of the historic settlement that surrounded by the archeological and natural sites enables the protection of the local architectural texture in Birgi. In addition to that, the acceptance to UNESCO World Heritage Candidate List increased the public recognition and the restoration works in Birgi.

The interviews underlined that the demand for the use of local materials is increased in parallel to the restoration works. However, the supply of local materials has become more difficult due to the changes in natural and social dynamics. As emphasized by local construction masters; the local construction materials such as "yayla kavağı", "deli kestane" and "çay taşı", are hardly found today so they had to use alternative materials in the reconstruction and restoration works. This limited resource use has a negative effect on the transfer of knowledge between construction masters and the apprentices. Local people with low-income, who tend to work in building constructions prefer to work in sites which require less labor. In consequence, master-apprentice interaction,

which is one of the most important components of the local construction culture is weakened and sustainability of the local crafts value is at risk.

Emigration of the young population for the seek of job and education to cities has caused another important lost; the decline in local commercial life. The elderly population has become the majority and the local crafts that expected to own by the youngs, have gradually declined. On the other hand, the touristic potential of the settlement has come to the forefront and local people have started to deal with hostel, restaurant and café management. Though it may seen as an actual, a natural socio-economic change, this new economic dynamic has been one of the factors that caused the decline of local agricultural production.

Birgi, with its significant cultural values and important problems related to sustain these values is among many other rural heritage places with similar values and similar risks. To sustain these rural heritage places, not only the historical architectural assets but also the inputs that shaped this assets have to strengthened. In order to maintain the identity of these places. The local construction culture, material culture and local crafts which, have a significant role on social identity, should be interpreted contemporarily according to today's sociocultural and environmental conditions.

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