URBAN GROWTH AND CONSERVATION PROBLEMATIC IN MUĞLA, KARABAĞLAR

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FERAY KOCA

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Approval of the Graduate School of Natural and Applied Sciences

_____

Prof. Dr. Canan Özgen
Director

I certify tat this thesis satisfies all the requirements as a thesis for the degree of Master of Science.

_____

Prof. Dr. Ali Türel

Head of Department

This is to certify that we have read this thesis and that in our opinion it is fully adequate, in scope and quality, as a thesis for the degree of Master of Science.

_____

Asst. Prof. Dr. Adnan Barlas
Supervisor

Examining Committee Members

Assoc. Prof. Dr. Baykan Günay _____

Asst. Prof. Dr. Adnan Barlas _____

Prof. Dr. Mükerrem Arslan _____

Assoc. Prof. Dr. Çağatay Keskinok _____

Inst. Erhan Acar _____

ABSTRACT

URBAN GROWTH AND CONSERVATION PROBLEMATIC IN MUĞLA, KARABAĞLAR

Koca, Feray
M. S., Urban Design, Department of City and Regional Planning
Supervisor: Asst. Prof. Dr. Adnan Barlas
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Karabağlar is a rural area where agricultural community lives and which locates in the vicinity of Muğla town. It was registered as third grade natural site that must be preserved according to its rural character, natural and cultural assets and rural life. Property pattern consisting of private ownerships (yurts), specific road network that emerges from irims and kesiks, traditional houses, variety of vegetation, abundant water, self-sufficient agricultural production, and traditional life style are the main features that create and shape Karabağlar.

Kesiks, irims, kabalıks, and yurts are the major man-made components, which are unique to Karabağlar, and these characteristics conform to the natural landscape structure.

Urban growth, interventions due to misuse of lands, new housing demands of urban residents in Karabağlar resulted in urban pressure on the area. This situation puts forth the conservation necessity of Karabağlar.

This research analyzes the speculative housing development in Karabağlar, identifies the type of interventions and their physical, social, economic and environmental effects on Karabağlar; in addition, develops proposals for sustainability of the traditional pattern of Karabağlar.

Key words: Natural Site, Rural Character, Urban Growth, Private Ownership, Yurts, Irims, Kesiks, Kabalıks, Traditional Pattern

ÖZ

MUĞLA, KARABAĞLAR' DA KENTSEL BÜYÜME VE KORUMA PROBLEMATİĞİ

Koca, Feray
Yüksek Lisans, Kentsel Tasarım, Şehir ve Bölge Planlama Bölümü
Tez Yöneticisi: Yar. Doç. Dr. Adnan Barlas
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Karabağlar tarıma dayalı yaşamın sürdüğü Muğla civarında yer alan kırsal bir alandır. Sahip olduğu kırsal karakter, doğal ve kültürel değerler ve kırsal yaşam açısından korunması gerekli üçüncü derece doğal sit alanı olarak belirlenmiştir. Özel mülkiyetlerden oluşan mülkiyet deseni (yurtlar), irim ve kesiklerden oluşan özel yol sistemi, geleneksel evler, vejetasyonun çeşitliliği, geniş su rezervi, kendi kendine yeten tarımsal üretim ve geleneksel yaşam tarzı Karabağlar'ın kırsal karakterini oluşturan ve şekil veren temel özelliklerdir.

Kesikler, irimler, kabalıklar ve yurtlar Karabağlar'a özgü insan yapımı temel öğelerdir ve doğal peyzaj yapısına uyum gösterir.

Kentsel büyüme, arazilerin yanlış kullanımı sonucu ortaya çıkan müdahaleler, kent insanlarının Karabağlar üzerinde gelişen yeni konut talepleri Karabağlar üzerinde kentsel baskı oluşturmaktadır. Bu durum Karabağlar'ın korunmasının gerekliliğini ortaya koyar.

Bu araştırma Karabağlar üzerinde spekülatif konut gelişimini analiz eder, alan üzerindeki müdahalenin niteliğini, fiziksel, sosyal, ekonomik ve çevresel etkilerini tanımlar ve Karabağlar'ın kırsal dokusunun sürdürülebilirliği için öneriler geliştirir.

Anahtar kelimeler: Doğal Sit Alanı, Kırsal karakter, Kentsel Büyüme, Özel Mülkiyet, Yurt, İrim, Kesik, Kabalık, Geleneksel Doku

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INTRODUCTION

In the process of development of cities, we witness the differentiation of rural and urban concepts. Although the rural areas exist on earth for many years, the concept of rural was introduced with the concept of urban. In spite of long urban development period, the rapid increase of population, related with new housing demands and the need of urban development area caused a rapid urban growth and urban sprawl. In this way, the distances between urban and rural areas became shorter and the rural areas at the city periphery were appeared. The demands of urban residents for agricultural production, recreational facilities, and green areas started to be provided by the rural areas at the periphery of cities. Consequently, peripheral rural areas of cities have gained an importance.

Furuseth and Lapping (1999) state an analysis done by experts in North America. According to the analysis, the importance of rural areas and agricultural lands for different purposes are determined as follows:

> "Food and fiber production
> Ensuring local supplies of food
> Maintaining open space
> Wildlife habitat
> Livelihood, employment

> Preserving rural character and landscapes
> Preserving cultural and heritage values
> Environmental quality
> Preventing urban sprawl
> Preserving rural lifestyles
> Providing a supplementary income
> Sustaining rural economics
> Role in the overall economy
> Leisure activities "(Furuseth and Lapping, 1999, p.76).

These purposes have been attraction factors for use of rural areas and urban residents began to move towards rural areas to escape from the busy life of downtown. Although rural areas have been a buffer zone for the urban sprawl, they have also obtained a potential of being new urban development area.

Due to misuse of rural areas, deterioration is observed in such areas therefore not too sooner it is understood that a conservation program is needed for rural areas, which will provide agricultural production, recreational facilities, open spaces, a pleasant scenery, and vegetation. For this purpose, new definitions are brought relating to rural areas in order to ensure their conservation. To protect natural, cultural, and environmental assets, sites are determined. According to Cultural and Natural Assets Conservation Law, no. 2863, the definition of site is done as follows:

> **"Site:** Product of various civilizations that existed from the pre-historical period till now, such as urban and urban remains, which reflect social, economic, architectural and other similar features of the era they existed, and where took place the major historical events. They are the areas with particular environmental characteristics" (Cultural and Natural Assets Conservation Law, 1983).

According to the definition of site, conservation oriented development plans are being prepared. The criteria that should be taken into consideration while preparing conservation oriented development plans should be as follows:

- Conservation objectives and aims differ according to characteristics of environment to be conserved. However, the common objective in conservation initiatives should be to do the planning of the area in a way to ensure their contribution to development (Gürpınar, 2000-2001).
- While developing conservation plans, before and during the course of planning process, required information, inventory related with area should be gathered, required evaluation and synthesis should be done, and conservation decisions should be explained with justifications with required care (Gürpınar, 2000-2001).
- In conservation plans, conditions for the sustainability of natural, cultural, and economic assets should be guaranteed.
- The balance between conservation and utilization limits should be set and the plans should be assessed by adopting a comprehensive approach.

Karabağlar settlement is a large plain expanding over an area of 25km^2 and in the needs of conservation as a result of its rural character. Muğla/Karabağlar Urban and Third Grade Natural Site spreads over an area of 15, 5 km^2. Conservation is considered as a 'must' for Karabağlar. Due to problems such as increase in the number of buildings, alteration of property via division of fields by inheritance, interventions to natural formation, diminishing of green fields, decrease in the number of species that are important for vegetation, wrong utilization of water resources, etc. To this end, Muğla Municipality applied to Dokuz Eylül University City and Regional Planning Department for preparation of Conservation Oriented Development Plan of Muğla/Karabağlar Urban and Third Grade Natural Site.

Karabağlar possesses a rural character thanks to its physical, social, and cultural formation; nevertheless, it is not a village. Especially as a result of

cultural formation that has come from past so far, Karabağlar settlement is composed of many small focal points and displays a dispersed settlement type; but changing life style and social habits affected the sort of rural life of Karabağlar, which has been a property for this site once upon a time. This settlement pattern is a very distinct characteristic of Karabağlar; more outstanding the ‘irim and kesik’. Moreover, they constitute the road pattern of Karabağlar. Irims are function as water channel in addition being a path to reach fields and houses.

Kesiks, irims, kabalıks, yurts are the main components of rural character and they are specific expressions used in Karabağlar. Kesiks may come from ‘kesmek’ that means to cut. The cut plants on irims are put on the kesiks every year and the diminishing soil is aimed to be supplemented with these cut plants by forming turf.

Kesiks, unique to Karabağlar are similar with hedges in terms of certain characteristics. In order to see these similarities, it would be better to search history of hedges and their structure. Hardiman (2000) indicates that the early-emerged communities used walls in order to protect farmlands from animals, invaders, and harsh winds. Early Egyptians (1400 B.C.) enclosed the symmetrical patterns with high walls. Although today there is no threat of invasion and wild animal attack, people are using hedges, fences to identify the boundaries of their property and to provide security.

> “A hedge is a man-made boundary made up of growing plants- a line of thick, woody bushes which do not die down in winter. The Anglo-Saxon word for enclosure was ‘haeg’ or gehaeg’ and this is where we get the word ‘hedge’. It is believed that the Romans may have first planted hedges in Britain …….This system changed in the late Middle Ages when landlords wanted to put boundaries around their property, so they enclosed their land with walls or hedges” (Young Peoples Trust for the Environment).

Hardiman (2000) cites the benefits of hedges in her article. Hedges create a microclimatic area by breaking the wind. In rural areas, hedges identify the boundaries of outdoor spaces and set barriers against wild animals. Hedgerows prevent soil erosion that may be born by wind and rain. Hedges are natural corridors for birds, animals, and insects. Hedges enhance the enjoyment and appreciation of people (Worcestershire Biodiversity Partnership).

> “Although hedges add venerable presence to a garden, they demand pruning and shearing on a regular basis. Hedges are hungry and thirsty, quickly depleting the soil of all available nutrients and moisture at their base. The soil around established hedges is often too dry to sustain much in the way of plant life” (Hardiman, 2000).

In Karabağlar, kesiks are different from hedges, they provide their nutrient provided from the cut plants of irims every year so kesiks have no problem unlike hedges. The moisture need is provided from flooding water and large underground water. Furthermore, they absorb the extra water that is not used by agricultural plants. The shoulders formed in front of kesiks on the field side canalize the water along irims. It seems that kesiks are the developed type of hedges.

Although kesiks need trimming every year, they make good scenery, a bioclimatic area for agricultural plants, absorbs surplus of water, create cool climate, provide privacy and security, create a habitat for animals, and suit nature.

If it is assumed that the source of life was linked to agriculture in the past, the importance of Karabağlar for Muğla can be perceived. In the past, it was a kind of tradition or necessity to migrate from Karabağlar to the settlement of Muğla that is situated at the skirts of the mountains; because when at the end of summer with the first falls of rain, the plain used to fill up with rainwater and people used to give up agricultural activities.

However, today new occupational groups have set barriers against agrarian life and the traditional houses and fields in Karabağlar have converted into secondary houses and horticulture fields of Muğla residents for recreation and escape from urban stress. Furthermore, it is also observed that people migrating to Muğla from other provinces would like to have secondary houses in Karabağlar as do the actual Muğla dwellers.

People living at apartment buildings in Muğla have taken up the habit of going to their detached rural type houses in Karabağlar to stay at weekends or during summers. Furthermore, the sprawl of campus and the university area after the establishment of Muğla University caused an increase in the construction frequency at Ortaköy, Kötekli Villages, which are located near Karabağlar. In addition, new housing area demands, increasing in parallel to urban population, could not be met in the city center, so new residential area demands have emerged. Therefore, the city began to enlarge to the east and west by passing over the Muğla Plain. Especially the eastern sprawl has reached to Düğerek settlement situated in at the north of Karabağlar. Such changes demonstrate that Karabağlar is surrounded with rapid urbanization potential; therefore, the indirect effects of such kind of urbanization must be taken into account.

Being a rural area where people used to migrate for summer, Karabağlar has maintained its importance so far and it has been set a good example of traditional life. However, with the time passed *irim* and *kesik*, which are distinguishing characteristics for Karabağlar started to be destroyed. While some of the houses of traditional architecture are being harmed due to neglectfulness, some of newly constructed houses, which are in complete disharmony with traditional architecture, have appeared. In addition, with the opening of deep wells, utilization of water has become unstable and the overflowing areas have changed. Karabağlar is a natural, cultural, social, and ecological habitat in which everything exists in a balance; so

any intervention made towards a single distinguishing characteristic of Karabağlar affects the whole habitat completely.

The objective of this research will be to analyze the speculative housing development on the sample of Karabağlar rural area, to identify the type of interventions on property pattern of Karabağlar together with their physical, social, and economic effects on rural areas, and to develop solution recommendations for sustainable traditional pattern of Karabağlar.

I.1 RESEARCH QUESTIONS AND HYPOTHESES

For this purpose, this thesis puts forth these research questions:

- What is the reason laying behind diminishment of farmlands?
- What is the reason of increase in the number of residential units, especially the rate of secondary housing in the fields of Karabağlar?
- What is the reason of city sprawl to the eastern and southeastern part of Muğla?
- What is the reason of deterioration of traditional property pattern of Karabağlar?

This thesis focuses on sustainability and conservation problem of Karabağlar rural settlement by the help of an investigation on conservation oriented development plan. At the end of the analyses, the below hypotheses are put forward.

- The reasons lying behind the diminishing of farmlands in Muğla are speculative housing development over rural areas and the enlargement of university campus.

- The reason of increase in the number of residential units on rural areas (farmlands) is the demand for secondary house ownership of city-dwellers.
- The increase of population and inadequate dwelling units in city causes sprawl of the city to the eastern and southeastern part of the city, surroundings, consisting of large unused areas.
- The reasons of the deteriorated traditional pattern of Karabağlar are the problems encountered in the implementation of the conservation plan and its inadequacy of the conservation plan.

In this research, primarily the assets of Karabağlar are identified in order to approach the research problem and to provide an easy introduction to the related problems. Then some survey studies are conducted on use of land in Karabağlar. In problems, computer aided drawing and geographical information system programs have been used. The reasons of the deterioration are explained and the requirement for conservation is evaluated. For the conservation aims of Karabağlar and its environment, firstly, the interventions and problems that can be a threat for the region are determined, then decisions regarding development plans aiming of conservation of natural and cultural assets in Karabağlar are criticized and solution recommendations are brought up. Furthermore, the studies relating to conservation oriented development plan are evaluated and the adequacy of the plan is discussed.

I.2 APPROACH

This thesis consists of six chapters. The first chapter comprises on introduction to the issue. The second chapter describes the problematic area, Karabağlar; its location; its management, natural and cultural assets; property relations and life in Karabağlar, and gives information about location of some important focal points. In this chapter, it is aimed to

define the conservation area. The third chapter explains the decisions relating to Development Plan Report of Karabağlar Third Grade Natural Site and examines land use in Karabağlar through survey maps. In this chapter, characteristics of certain man-made formations that must be under preservation are described. The fourth chapter puts forward the problems and interventions influencing traditional pattern and life of Karabağlar. In this chapter, the implementations and development processes that do not consider conservation plan are discussed. The fifth chapter mentions about the achievements of conservation oriented development plan, the failures are discussed, and some solution recommendations are proposed. The sixth chapter presents evaluations and makes suggestions for conservation of Karabağlar, in addition to comparing kesiks with hedges and accentuating the necessity of conserving kesiks and irims.

CHAPTER II

ASSETS OF KARABAĞLAR

This chapter aims to enlighten initial settlement activities in the course of historical background, property relations, natural and cultural assets and life style in Karabağlar. Moreover, the relation amongst life style and property structure, assets that must be preserved together with important focal points are introduced.

II.1 A GENERAL DESCRIPTION OF THE AREA

The name ‘Karabağlar’ comes from dense shady black tree structure of the area, which constitutes a dark color. The word *‘bağ’* comes from planted grapes and vineyards. Besides, five-century-old plane trees are the assets that must be kept under conservation. Karabağlar is located within the boundaries of Muğla province and administration of Karabağlar belongs to the Municipality of Muğla. Karabağlar is qualified as Natural Site by Monuments High Committee on March11, 1977, pursuant to the decision no.394.

There is not a single noteworthy written information source about Karabağlar history except for legends, travel notes of Evliya Çelebi and some wakf (vakıf) documents. According to these references, it can be

considered that Menteşeoğulları (One of the first Anatolian ranks of a ruler) establishes Karabağlar settlement approximately between 1280-1424.

The initial settlement process is explained in Analytic Study (2002) of Muğla-Karabağlar Urban and Natural Site. According to this study, it is considered that after the settlements of Turks in Anatolia, Turcoman nomads, living near Kütahya, move to southern part of Anotolia because of drought. They first settle down in Menteşe region. Some of them settle down at the skirts of the mountain situated in the north of Karabağlar and Düğerek. At that time, Karabağlar was covered with dark, shady, and dense vegetation. A Turcoman nomad with the name Kahya starts trimming shrubs and trees to open a road from beginning of Düğerek and he settles in Keyfoturağı. The name 'Keyfoturağı' comes from 'Kahya Oturağı' that means seat of Kahya. He raises corn firstly and realizes that the land is fertile for vegetable production; therefore opens a road to Muğla. Possessor of Muğla (Muğla Mutasarrıfı) distributes the lands of Karabağlar, each with 1000-2000 m^2 lot size to Muğla residents. Karabağlar was then divided up according to neighborhoods of Muğla.

According to magazine that is published by Karabağları Geliştirme ve Güzelleştirme Derneği (1996), in 1671, Evliya Çelebi visited Muğla and he mentioned about vineyards and dark green black trees in his book. He cited 11 thousand vineyards that existed in Karabağlar. He wrote about the pattern of roads in Karabağlar, mentioning that they were not getting sunlight inside because of dense and shady trees throughout the road.

Recently, some tombs have been uncovered, belonging to 2000 years before in the ground of streambed situated just on the opposite side of Lime Factory, thus the first archeological studies started with these tombs in Karabağlar (Karabağları Geliştirme ve Güzelleştirme Derneği,1996).

According to tabulative information obtained from Muğla State Institute of Statistics (2003), the number of houses, the number of people living in Karabağlar and their distribution according to settlements are shown in Table 2.1. According to the table, it is discerned that Süpüroğlu settlement has the densest population as of today.

II.1.1 LOCATION OF KARABAĞLAR

Karabağlar is in the vicinity of Muğla town that locates at the southwestern side of Turkey. Karabağlar was settled on a plain, which is situated on the eastern side of Muğla. Karabağlar is 4 km away from Muğla, separated from the city with Hamursuz Mountain. It is located at the center of Düğerek District, Kötekli Village, and Ortaköy Village. Denizli Road that passes through green lands of Karabağlar separates Karabağlar into two parts. Karabağlar is about 660 m high from sea which is nearly the same in height with Muğla. In Figure 2.1, the location of Karabağlar according to sea and Gökova Bay is seen and in Figure 2.2, geomorphologic map of Karabağlar and its neighborhood are presented. According to geomorphologic map, Muğla Plain locates between Toros and Saruhan-Menteşe metamorphic masses and this large plain covers an area of 48km^2. Karabağlar locates at the lowest part of this plain that is formed by tectonic-carstic movements (Analytic Study, 2002). In Figure 2.3, the photos of Karabağlar and Muğla settlement with Hamursuz Mountain are presented.

Karabağlar Plain has been important for Muğla residents throughout the history with its economic, social, and cultural structure that has formed its traditional pattern so far. Karabağlar Plain is the largest and the lowest part of Muğla Plain that spreads over an area of 25km^2. It is called *'plateau'* because of its cool weather and its climatic effect. Please refer to

Table 2.1 *Number of houses and number of people in Karabağlar according to 14th population census done in 2000.*

Source: *Muğla State Institute of Statistics*

Settlements	Number of Houses	Number of Person				
		2	3	4	5	Total
Düğerek Plateau Settlement	167	30	80	53	3	527
Tozlu Coffee House Settlement	78	10	40	28	0	252
Berberler Coffee House Settlement	118	17	58	40	2	378
Süpüroğlu Settlement(Begins with Mehmet Özçelik house)	50	13	26	11	0	148
Süpüroğlu Settlement	245	31	129	83	2	791
Keyifoturağı Settlement	99	4	59	36	0	329
Hacıahmet Settlement	95	1	55	39	0	323
Kadı Coffee House Settlement	51	1	28	22	0	174
Opposite side of Hacıahmet Settlement	103	8	48	46	1	349
Beginning of Kır Coffee House Settlement	13	1	6	6	0	44
Poultry-house of Kır Coffee House Settlement	35	4	15	16	0	105
Poultry-house of Kır Coffee House Settlement(Begins with 62 section and 263 land of map)	121	7	65	49	0	405
TOTAL	**1175**	**127**	**609**	**429**	**8**	**3837**

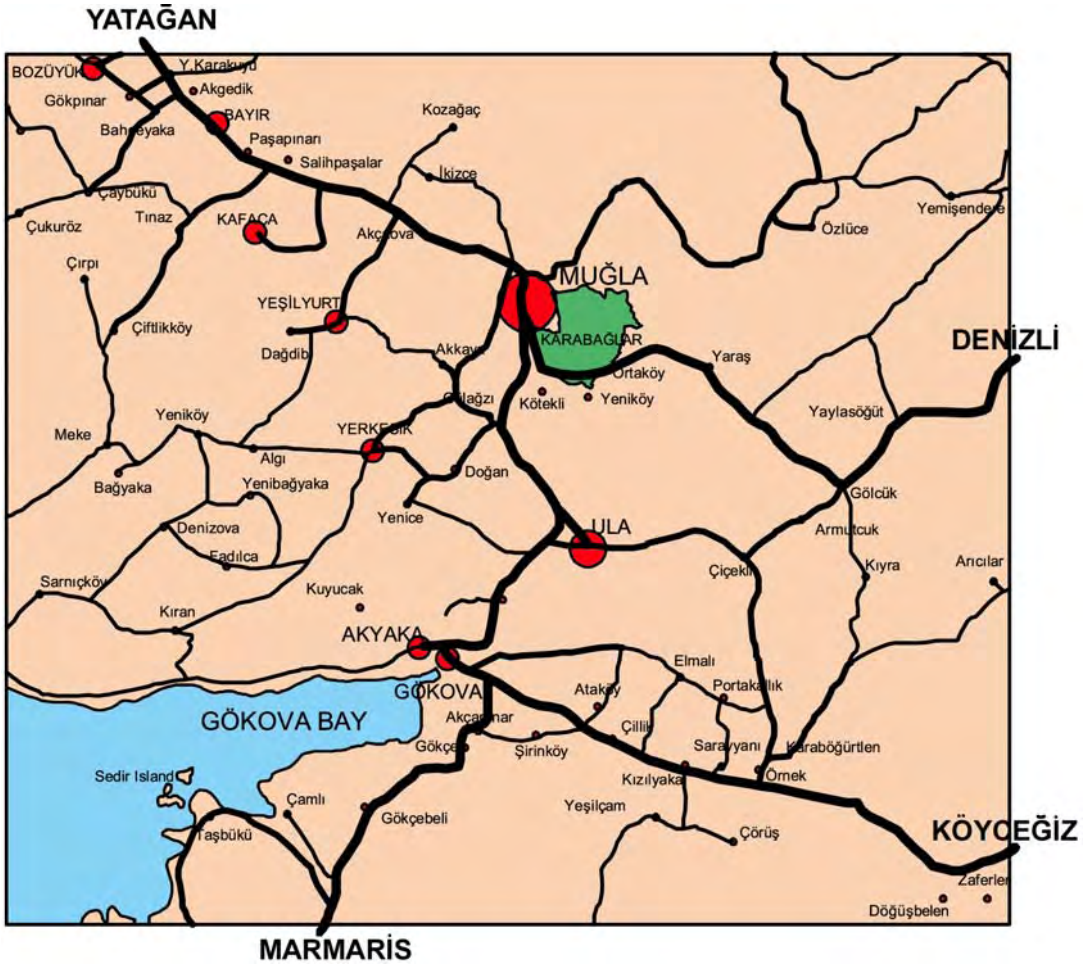
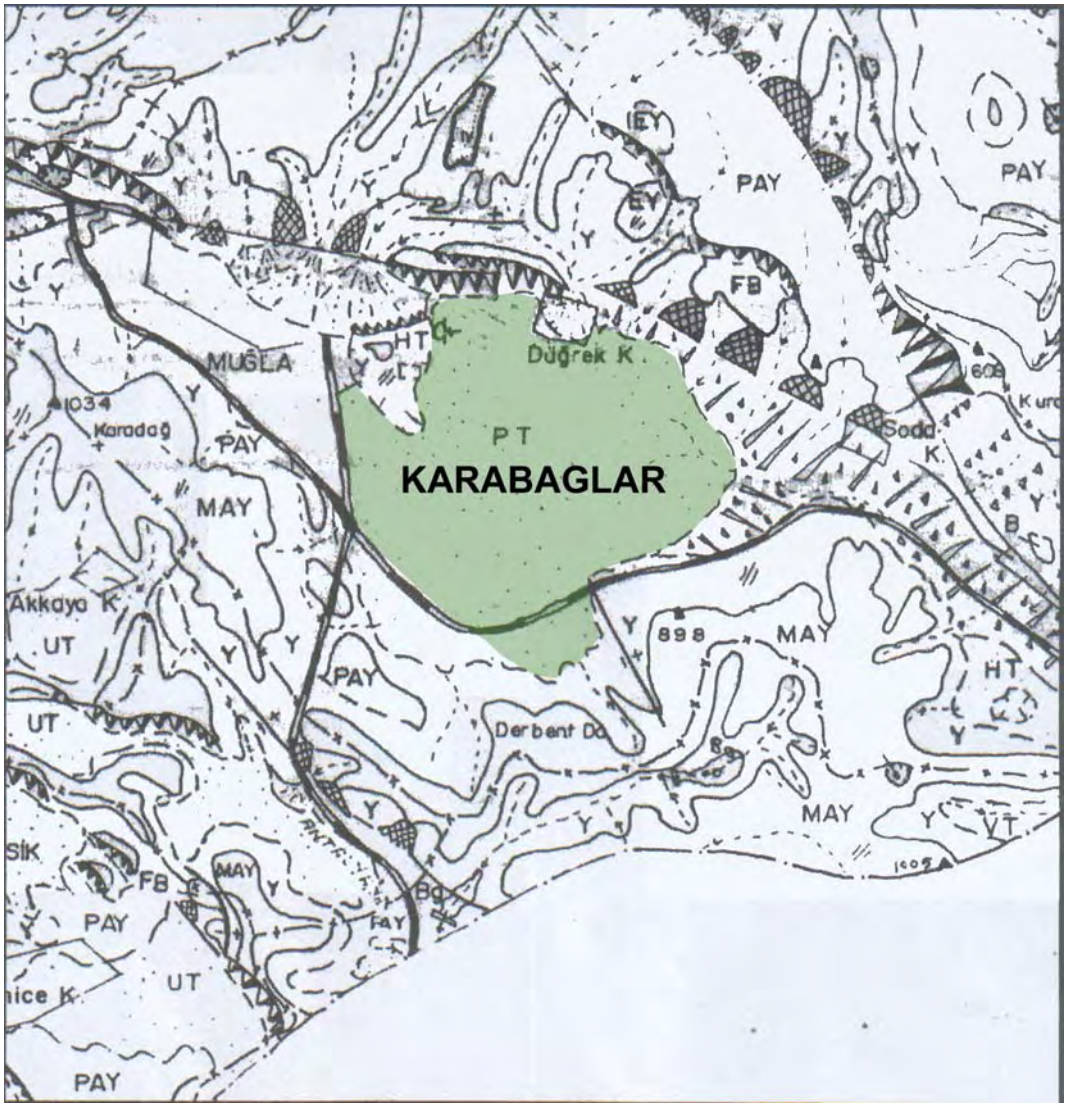


Figure 2.1 *The location of Karabağlar reference to Gökova Bay*

Figure 2.4, the picture taken from the southern part of Karabağlar showing lands and grazing areas on Karabağlar Plain.

As it is seen in Figure 2.5, the area of Karabağlar is about 4 times greater than the area of Muğla. It has characteristic features like agriculture, animal husbandry, plantations, cropping, sheds, natural vegetation, farmhouses, and large underground water that makes it a rural area.



PT= Large river basin with closed drainage area that is formed by tectonic and carstic movements.
HT= 'Hum' Hill.

Figure 2.2 *Geomorphologic map of Karabağlar and its neighborhood*

Source: *Analytic Study (2002) of Muğla-Karabağlar Urban and Natural Site*

Figure 2.3 *Muğla and Karabağlar settlements with Hamursuz Mountain*

Figure 2.4 *Karabağlar Plain*

Figure 2.5 *Muğla – Karabağlar Conservation Strategy Plan*

Figure 2.6 shows a panoramic northern view of Karabağlar. This photo includes the ponding and overflowing areas. Figure 2.7 shows a panoramic western view of Karabağlar landscape. Aran (2000) points out the scattered miniature cubic houses and one- five-acre horticultural flatlands of Karabağlar landscape in this photo.

Figure 2.6 *A panoramic northern view of Düğerek and Karabağlar*
Source: *Aran, K., 2000, p.75*

Muğla University Campus is situated on the eastern part of Muğla, in the south of Karabağlar in Kötekli. In the surroundings of university campus, there is a residential area, Kötekli Village and it serves mostly to university staff and students. With the enlargement of university, campus there seems a development in the area and increase in construction of public facilities like tourism and recreational facilities through Karabağlar, Ortaköy and Denizli Road.

Figure 2.7 *A panoramic western view of Karabağlar landscape*
Source: *Aran, K., 2000, p.76*

II.1.2 NATURAL AND CULTURAL ASSETS

Karabağlar has a large variety of properties with its natural and cultural assets. The main assets that must be taken under preservation are traditional houses, coffee houses, man-made formations like *'yurt, 'irim'*, *'kesik'*, *'kabalık'*, natural vegetation, landscape character and plane trees. It has a large bio-diversity.

Agriculture has been the main source of living. Agricultural production is carried out at *'yurt'* which is mostly 3000-5000 m^2, composed of a field, a well and a house or a wooden hut [1]. Yurts are separated from one another with 1-2-m-width and 1,5 -2-m-high trees and shrubs on a soil heap which is called as *'kesik'* [2]. The trees and shrubs on the *kesiks* that grows on the corners of yurts are called as *'kabalık'*. Rainwater that comes from yurt and *kesiks* is collected in the space between *kesiks* called as *'irim'* [3]. *Irims* are used as road to cross from one yurt to another as well as providing drainage. In Figure 2.8, scenery of irims, kesiks and kabalıks is presented.

A few main roads provide arrival to Karabağlar. In the past, these roads were narrow and there were no cover material on the surface of the roads in order not to disrupt the drainage system and not to allow speedy vehicle circulation. However, beneficiaries of lands demanded asphalt roads because of the mud problem, which emerged with the rainy weather.

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[1] According to Turkish Language Institution, yurt means 'the place where Turkoman nomads stay both in summer and in winter'.

[2] According to Turkish Language Institution, kesik means 'the ditch that is dug around field, vineyards, and orchards'.

[3] The term 'irim' is used also in Aydın. However, it means 'Cul-de-sac' in there.

Figure 2.8 *Photos of irims, kesiks and kabalıks*

Therefore, the first intervention to these roads was to cover them with materials. There are also middle roads like leaf vessel that connects the farmlands. These are mostly cul-de-sacs and reach only to one *yurt* and are also known as irim. Someone who does not know the area can easily get lost because of the road network that looks like a labyrinth.

Houses of this area have the characteristics of traditional Muğla houses and are situated as clusters that composed of a few yurts, a coffee house, and a mosque. Every cluster is called with the name of the coffee house. The number of these coffee houses is 20. In most of the clusters, coffee house buildings have been devastated but plane trees still stand. Some of these coffee houses are run as restaurant or open-air coffee house now. There are püryan wells (püryan kuyusu) which are well type fireplace

where goat meat is cooked on the coffee house areas. Püryan is the name of the special meal.

The difference of Karabağlar houses from traditional Muğla houses is the utilization of the ground floor as animal shelter, whereas it is used as warehouse in traditional Muğla Houses. Most of them are consisted of a room and a '*sofa'* around room. Houses are located at the corner of the lands to benefit from the farmland in the best way. Figure 2.9 shows a two-storey traditional house of Karabağlar. Every yurt has a well to provide the required water and water is got out with a pump. This water is used for irrigation. The unused water is collected in a small pool to be used for house works. The *'hayat'*, the courtyard of the traditional Muğla houses is also seen in the houses of Karabağlar, too. Hayat is the place where life goes on.

Plane trees constitute important natural assets that should be preserved. Plane trees were planted on coffee house areas to determine locations of coffee houses. Most of them are huge and magnificent enough to be registered as monumental assets; however only one of them, Allan Kavağı is the sole tree registered as monumental assets. Among the local folk, this tree is linked to historical events, legends, and witnessed experiences.

II.1.3 FOCAL POINTS

There are 20 coffee houses that have engendered a traditional life among the residents of Karabağlar. These coffee houses also determine the name of neighborhood area located by the coffee houses. Some of these coffee house buildings were wrecked; in addition, two of them (Yamalı and Başoturak Coffee Houses) were disappeared and their location is not known exactly today. These coffee houses have old plane trees. There is a registered plane tree that is about more than 500 years old and called as

Figure 2.9 *Traditional Karabağlar house type*

'Allan Kavağı'[4]. There are two düdens, which are known as natural well that is formed by the water that flows through underground. Underground water is discharged to Gökova Bay with these *düdens*, which are found by Hamursuz Hill and near Kötekli Village.

In Figure 2.10, the numbered locations and focal points point out a coffee house, düden or an important focal point like mosque or a registered plane tree. With each number, angle of view of each photo taken from these locations is given. The numbered locations are described as follows:

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[4] Although 'Allan Kavağı' is a plane tree, Muğla residents call it as poplar

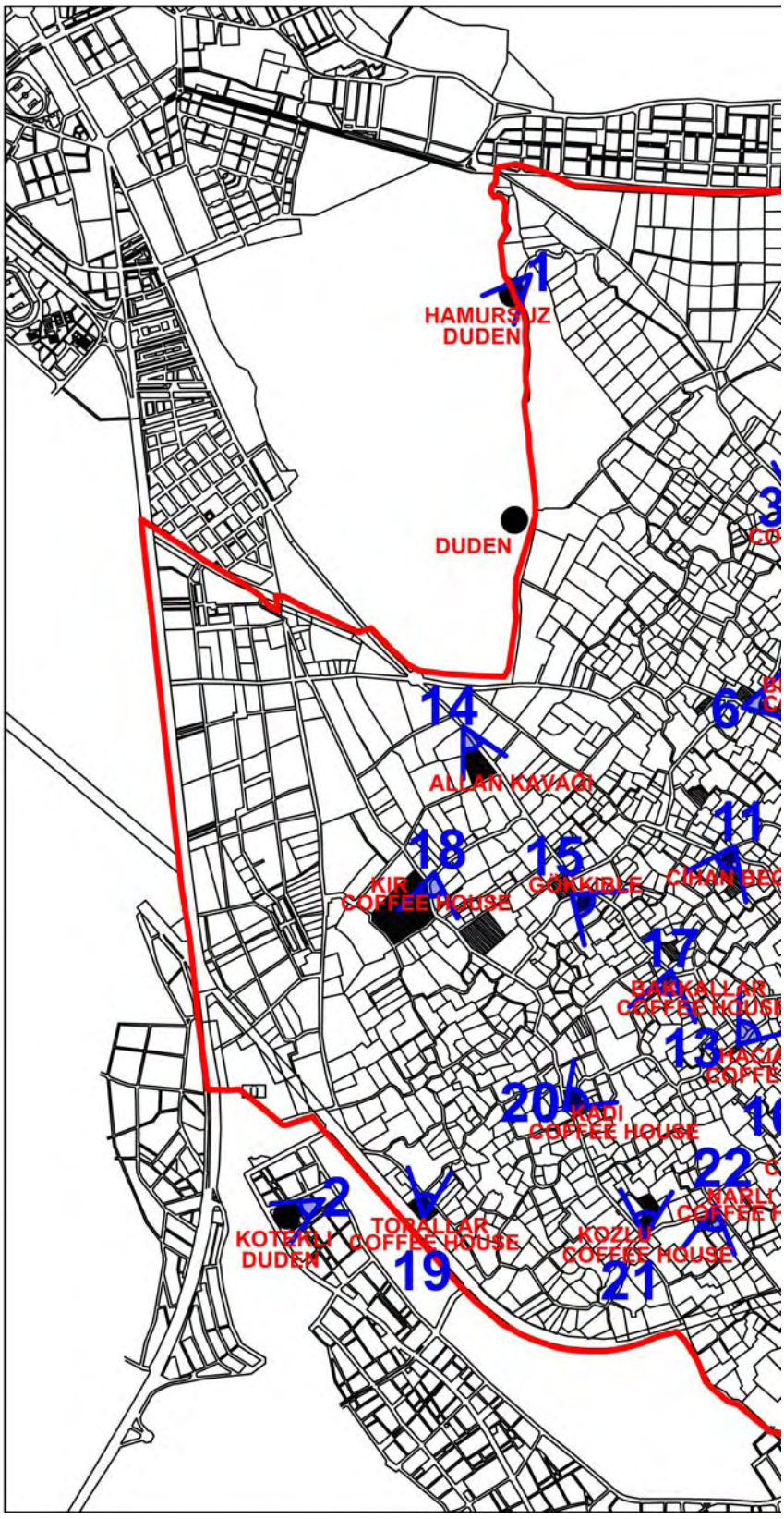

Figure 2.10 *Angles of views and photos' numbers taken from the focal points of Karabağlar*

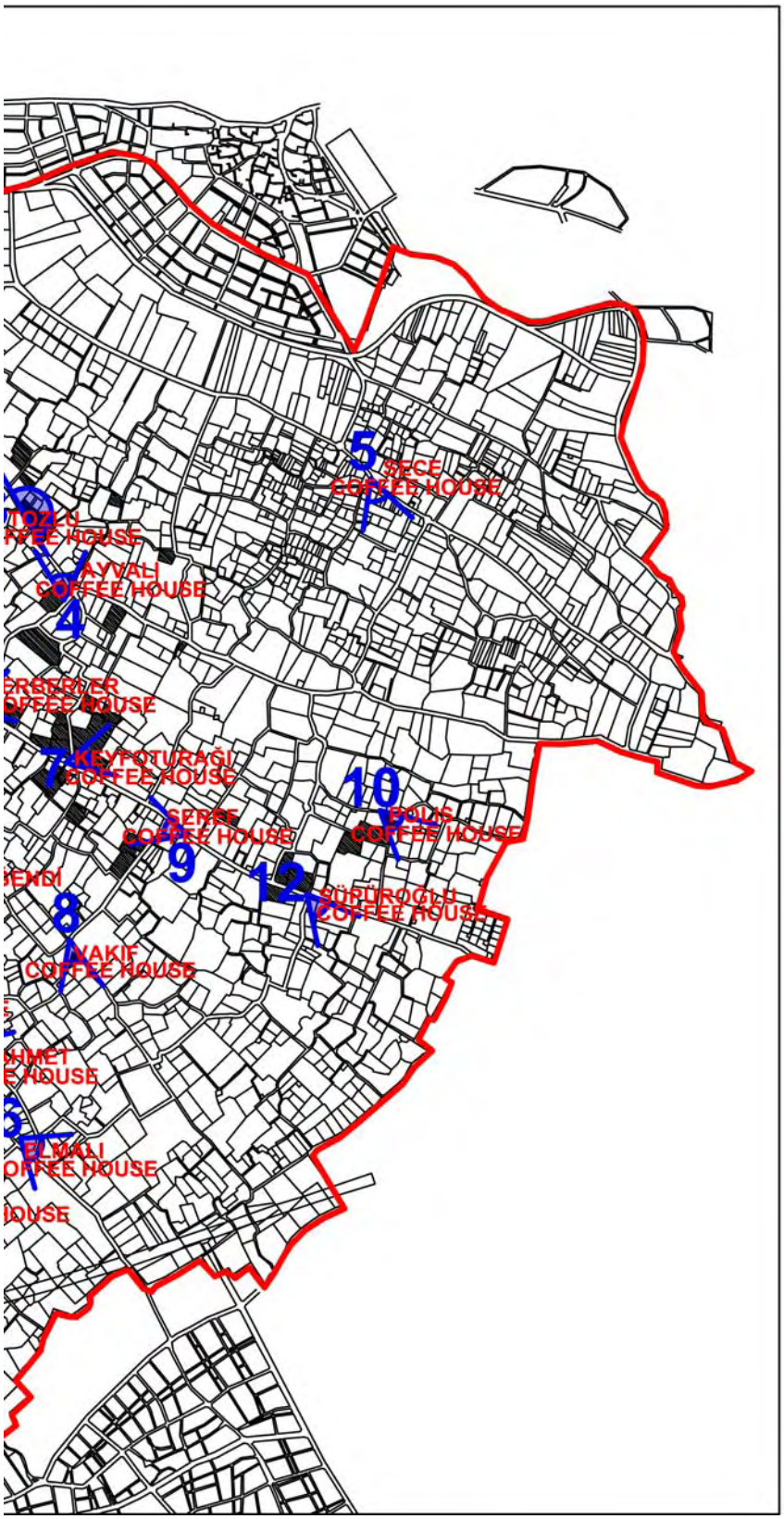

Figure 2.10 *Angles of views and photos' numbers taken from the focal points of Karabağlar*

1: Hamursuz Düden is known as natural well that discharge water from Karabağlar to Gökova Bay. This düden is the first düden located by Hamursuz Mountain, on the way to Düğerek. Both hand and machinery cleaning are done with 2500-meter long canal by D.S.İ. (Devlet Su İşleri, State Hydraulic Works) (Karabağları Geliştirme ve Güzelleştirme Derneği, 1996). Figure 2.11 shows Hamursuz Düden and leveling rod that is put by D.S.İ. to measure the level of water.

2: Kötekli Düden is known as natural well that discharge water from Karabağlar to Gökova Bay. It takes place at Kötekli Village near university premises (Figure 2.12).

Figure 2.11 *Hamursuz Düden*

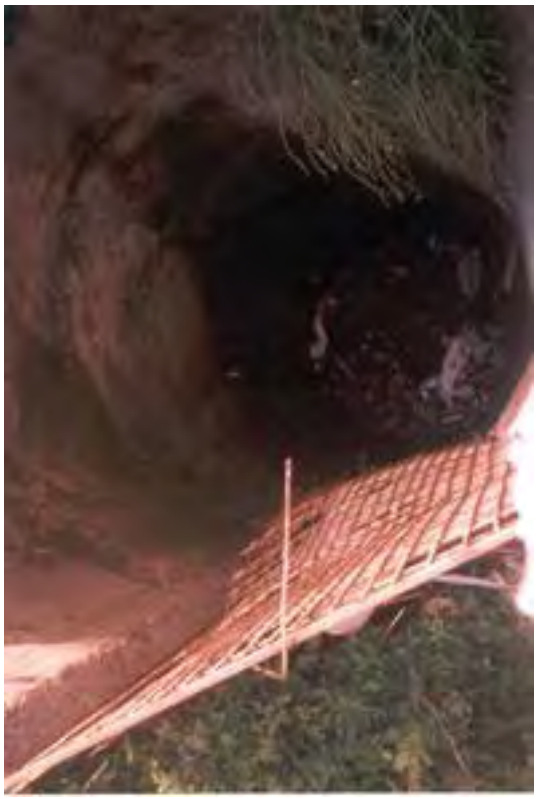

Figure 2.12 *Kötekli Düden*

3: Tozlu Coffee House is situated in the pasture in the southern part of Karabağlar and it has a small coffee house building that is out of service (Analytic Study, 2002). Its small mosque is operational in summer months. The coffee house and the field in front that belong to wakf were sold to Ömer Ündül who was father of Hayri Ündül Paşa. There is a stone on, which the coffin was put during the funeral (Figure 2.13). It was built in the first half of 19th century. There are one mulberry and three plane trees in the parcel.

Figure 2.13 *Tozlu Coffee House*

4: Ayvalı Coffee House is on the way connecting Keyfoturağı to pasture parts of Karabağlar (Analytic Study, 2002). Its ownership has been taken over from wakf by Mehmet Ali Eren. Its coffee house is used as house. It has two coffee house buildings as they are named according to their use in summer and winter. Although its small mosque remains standing, it is out of service. Small mosque's minaret that was covered with wood and tinplate was disappeared. There are seven plane trees, which have monumental value, and there is a well in the garden (Figure 2.14).

Figure 2.14 *Ayvalı Coffee House*

5: Sece Coffee House is located in the southeastern part of Karabağlar on the way of Düğerek. Its coffee house is just about to be wrecked but its mosque is used by the residents today. There is a plane tree near mosque (Figure 2.15).

6: Berberler Coffee House was built in 19th century and later on, it was re-built. (Analytic Study, 2002).There is a small mosque in its courtyard. Its coffee house and mosque is out of service. The center of the mosque roof has a characteristic feature. There are four plane trees, twelve poplars in the parcel. There are a well and a pool in its garden (Figure 2.16).

7: Keyfoturağı Coffee House has been owned by the Municipality of Muğla (Karabağları Geliştirme ve Güzelleştirme Derneği, 1996). The residents use its coffee house and mosque and some important cultural activities take place in this coffee house. Coffee house is used as a

Figure 2.15 *Sece Coffee House*

Figure 2.16 *Berberler Coffee House*

restaurant today. It was built in 1287 and it has a large courtyard with nine plane trees, one mulberry, two pines, and two poplars in it (Figure 2.17).

8: Vakıf Coffee House was built in 19th century. Although its coffee house has the characteristics of traditional coffee houses, it has not been used for years (Analytic Study, 2002). Its ownership belongs to Halilibrahim Ağa (Karabağları Geliştirme ve Güzelleştirme Derneği, 1996). Its mosque has been wrecked. In 1930s, it was the only coffee house that was allowed to be used as slaughterhouse because of the alum disease. There are three plane trees in the parcel (Figure 2.18).

Figure 2.17 *Keyfoturağı Coffee House*

Figure 2.18 *Vakıf Coffee House*

9: Şeref Coffee House is situated between Keyfoturağı and Süpüroğlu Coffee houses (Karabağları Geliştirme ve Güzelleştirme Derneği, 1996). It was built by Şeref Turan who gave the name to the coffee house. Its coffee house building is wrecked now (Figure 2.19).

10: Polis Coffee House is located between Ayvalı and Süpüroğlu Coffee houses. It does not have mosque (Analytic Study, 2002). It was made built by a retired police officer. It is turned into a yurt and used for agricultural production. There are a poplar and two huge plane trees in the parcel (Figure 2.20).

Figure 2.19 *Şeref Coffee House*

Figure 2.20 *Polis Coffee House*

11: Cihanbeğendi Coffee House was built in 19th century. Its coffee house premises have been wrecked (Analytic Study, 2002). Its mosque is out of service. The detail in the middle of the mosque roof is significant. The parcel is used for agricultural production. Its ownership belongs to Gülbekir (Karabağları Geliştirme ve Güzelleştirme Derneği, 1996) (Figure 2.21).

12: Süpüroğlu Coffee House was built in 19th century. It has the largest courtyard with seven plane trees and is used as a restaurant. It does not have mosque. Its ownership belongs to Molla Bekir (Karabağları Geliştirme ve Güzelleştirme Derneği, 1996) (Figure 2.22).

13: Hacıahmet Coffee House was built in 19th century (Analytic Study, 2002). It has coffee house and mosque, which are used by the residents. It has two old plane trees and a pool. The coffee house, as being used today, was built later and does not suit traditional architecture character. Its ownership has been taken over from Hacıahmet Ali Efendi to Ilyas Ersoy by inheritance (Karabağları Geliştirme ve Güzelleştirme Derneği, 1996) (Figure 2.23).

Figure 2.21 *Cihanbeğendi Coffee House*

Figure2.22 *Süpüroğlu Coffee House*

Figure 2.23 *Hacıahmet Coffee House*

14: Allan Kavağı is a plane tree registered as monumental asset, which has hollow inside and is known as holy. It is more than 10-centuries old (Figure 2.24).

Figure 2.24 *Allan Kavağı*

15: Gökkıble Coffee House was built in 1959 (Analytic Study, 2002).The coffee house was used as a restaurant once. Its mosque is at the other corner of the land and it is owned by the wakf. In 1964, Neşet Dişcigil built a minaret on the mosque so Gökkıble Coffee house is known as the only mosque that has minaret in Karabağlar but its mosque out of service. There are three plane trees, pines, and poplars (Figure 2.25).

Figure 2.25 *Gökkıble Coffee House*

16: Elmalı Coffee House has a coffee house and a mosque but its mosque is almost wrecked and its coffee house has disappeared (Analytic Study, 2002). There are plane trees and two poplars near coffee house building (Figure 2.26).

17: Bakkallar Coffee House was bought by Selçuk and Bayram Kalay from Bakkaloğlu Family and constructed again to serve as a restaurant in 1980 but then it was turned into a house (Analytic Study, 2002). It has a mosque but it is out of service. There are two plane trees. In Figure 2.27, one of the plane trees is shown.

Figure 2.26 *Elmalı Coffee House*

Figure 2.27 *Bakkallar Coffee House*

18: Kır Coffee House is the first coffee house you will meet if you take the road on when the east of Small Industry Site. The coffee house and the small mosque are separated from each other by the road (Karabağları Geliştirme ve Güzelleştirme Derneği, 1996). While the small mosque belongs to wakf, the coffee house belongs to Ayten Savran with inheritance and has been transformed into a house. There are two plane trees, eight poplars (Figure 2.28).

19: Topallar Coffee House was built in 1932 and is at the outside of Natural Site boundaries (Analytic Study, 2002). Its coffee house and mosque have been restored and they have lost their traditional property. Its coffee house is used as house now and the coffee house area is used as restaurant (Figure 2.29).

20: Kadı Coffee House was built in 19th century (Analytic Study, 2002). It has coffee house and mosque but its mosque is out of service. Its coffee house is used as house. There are plane trees and mulberries in the parcel and agricultural production is done in the parcel (Figure 2.30).

21: Kozlu Coffee House was built in 19th century (Analytic Study, 2002). Its coffee house building had been burned. Its mosque is nearly wrecked and is out of service. 'Kozlu' word comes from the walnut fruit. There are one plane tree, walnut tree, pines, and poplars (Figure 2.31).

22: Narlı Coffee House was built in 19th century. It is on the way of the road to Denizli. It does not have mosque. It was owned by Municipality of Muğla and it is used as greenhouse by the municipality. There is only one huge plane tree in the parcel (Figure 2.32).

Figure 2.28 *Kır Coffee House*

Figure 2.29 *Topallar Coffee House*

Figure 2.30 *Kadı Coffee House*

Figure 2.31 *Kozlu Coffee House*

Figure 2.32 *Narlı Coffee House*

II.2 PROPERTY RELATIONS IN KARABAĞLAR

II.2.1 CLUSTERS AND PROPERTY

Rural pattern of Karabağlar consists of many yurts that have façades to roads and irims. Yurts are situated around some specific buildings like coffee house and mosque to constitute clusters. These clusters are called same with the name of coffee house that is located at the center of the cluster. In Figure 2.33, approximate drawing of one cluster and its catchments area can be seen.

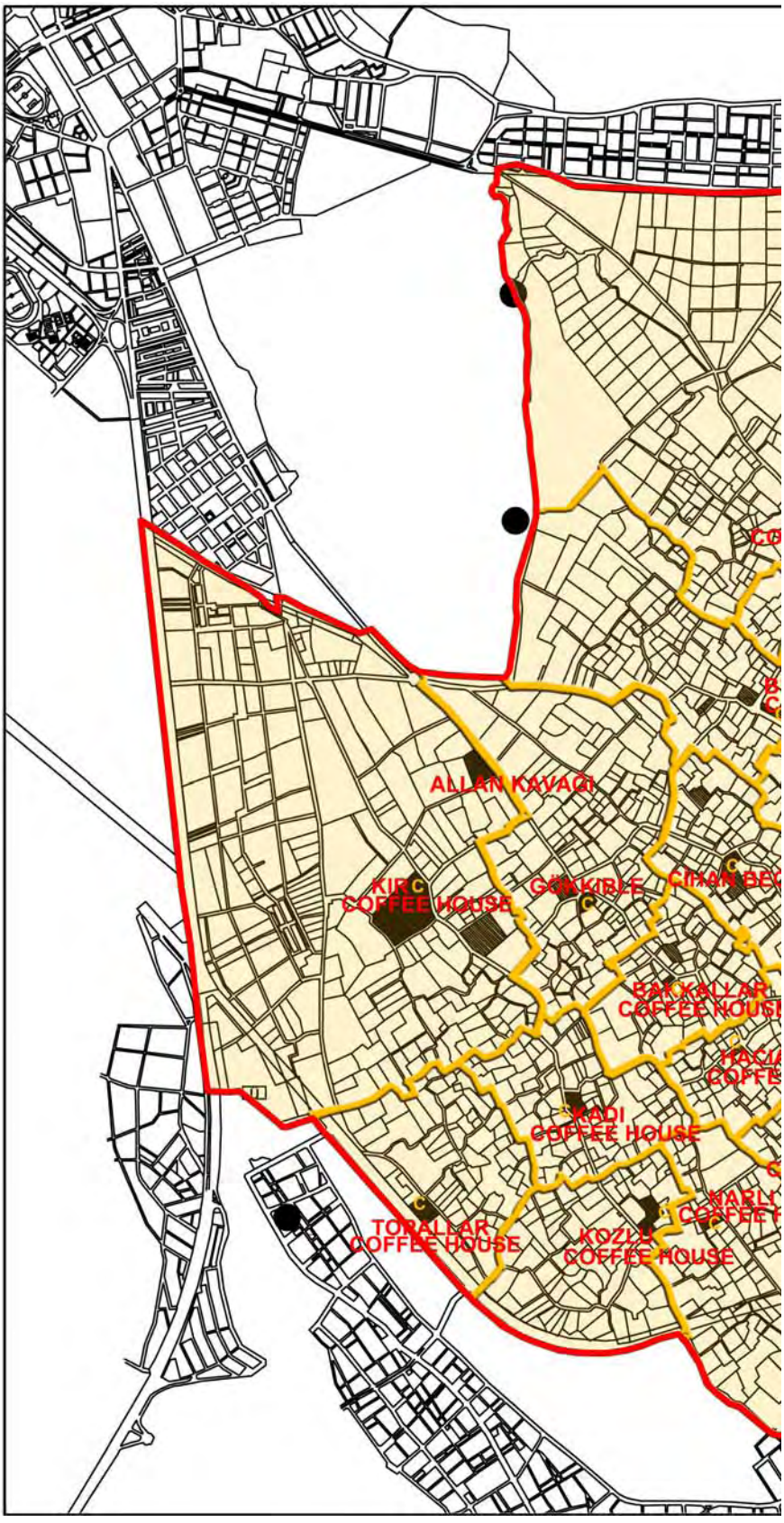

Figure 2.33 *Clusters and Coffee Houses in Karabağlar*

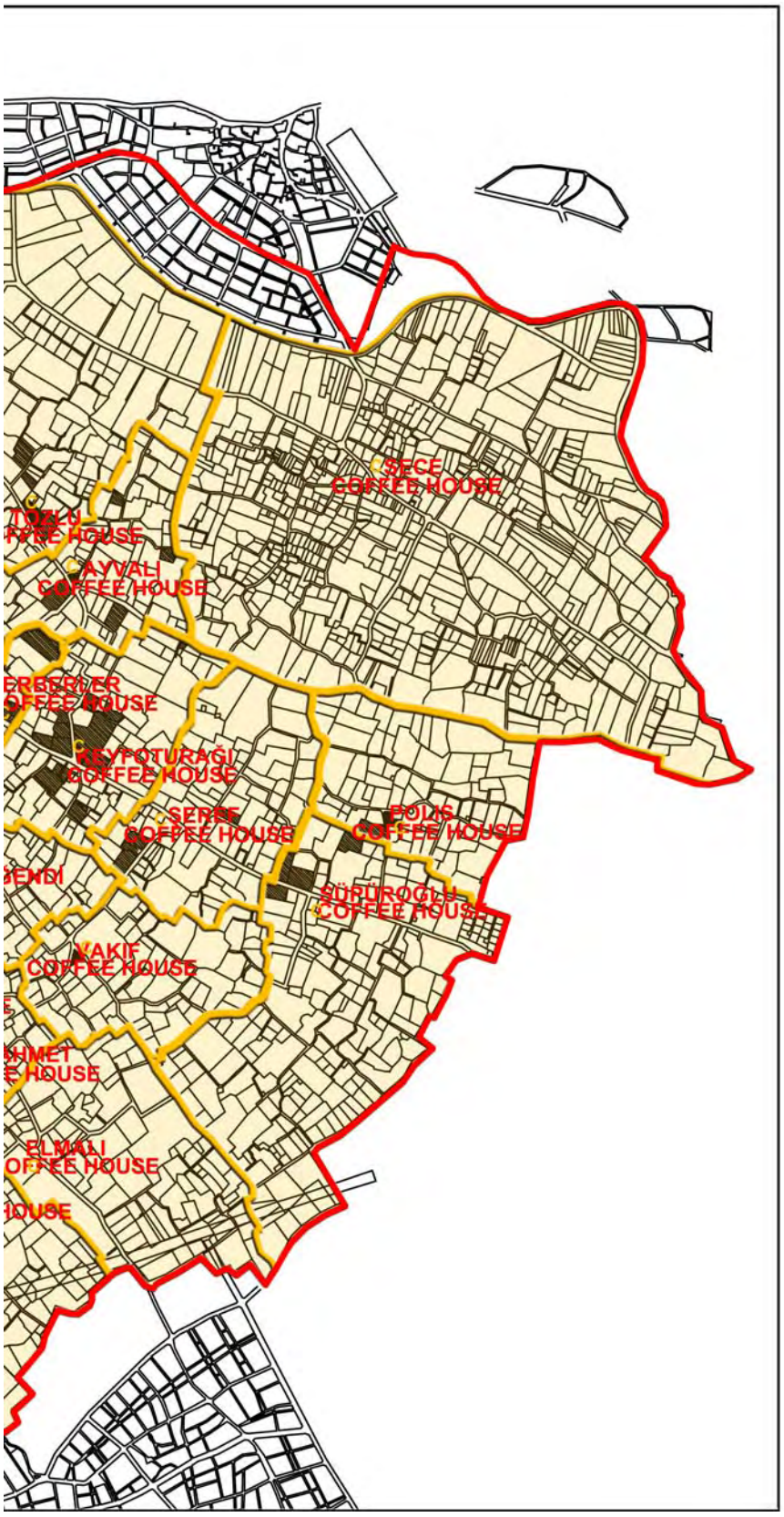

Figure 2.33 *Clusters and Coffee Houses in Karabağlar*

All the commercial functions and services could be carried out in one cluster. The area that coffee house, mosque, and the other commercial buildings stand function as common spaces for residents of that cluster. Each common space is determined with plane trees. The reason for choosing plane tree is the magnificent view. Plane trees have a long life period that they can live up to more than 1000 years so initial local residents planted plane trees to prove how many years they and their culture existed on lands of Karabağlar. Moreover, these plane trees are of significance as historical buildings. Figure 2.34 shows Keyfoturağı Coffee House and its neighborhood and Figure 2.35 shows the space organization in Keyfoturağı Coffee House.

Although common spaces that are consisting of coffee house, mosque, well and plane trees were used and preserved by the native residents of the cluster, they were lands of private property. Therefore, some of coffee houses are called with the name of property owners (Hacıahmet, Süpüroğlu, Keyfoturağı), some of them are called with the names of fruit trees (Narlı, Kozlu, Elmalı), some of them are called with the values that are attached to them as a result of witnessed experiences (Cihanbeğendi, Gökkıble, Allan Kavağı), some of them are called with the occupations of their owners (Berberler, Bakkallar, Polis). Most of the coffee houses have changed owners by inheritance or by sale however; they are called with the name of their initial owners.

As well as physical factors, life style and needs of people at that period were effective to shape common spaces. Coffee houses were the meeting places of the local residents. Some of major events such as wedding ceremonies, sport of wrestling, feasts used to take at these common spaces.

When traditional houses of Muğla are examined, it is observed that houses are located close to one another and sometimes two houses use

common courtyard; because in the past there were relative or good neighborhood relations amongst the residents. In this residential organization, residents were carrying out their house works in common courtyards, which are called as ‘hayat’. Hayat was the place where life went on. However, high courtyard walls standing parallel to roads were separating the house and courtyard from the road to preserve privacy. In Karabağlar, kesiks and trees act as high courtyard walls. Kesiks are at the height of man; so anyone passing by the road cannot see the courtyard of a house easily. Besides, back façades of houses face the roads or irims; therefore, it is impossible for a person looking from road or irim to see front façade of a house and its courtyard. In comparison with Muğla, courtyards are large in Karabağlar; however, habits do not vary. Life style shows parallelism with Muğla.

Karabağlar also shows similarities with Muğla in terms of property relations as relatives and neighbors used to have close yurts in the past. Moreover, this situation introduced joint ownership. Two or more landowners used one yurt jointly, without separating the property. In the past, kesiks, trees, and house boundaries were important separators determining the property boundaries. As for joint properties, the residents did the identification of boundary with trees. Sometimes there were no written documents to prove which part was belonging to whom; however, at that time trees have been functional in separating properties.

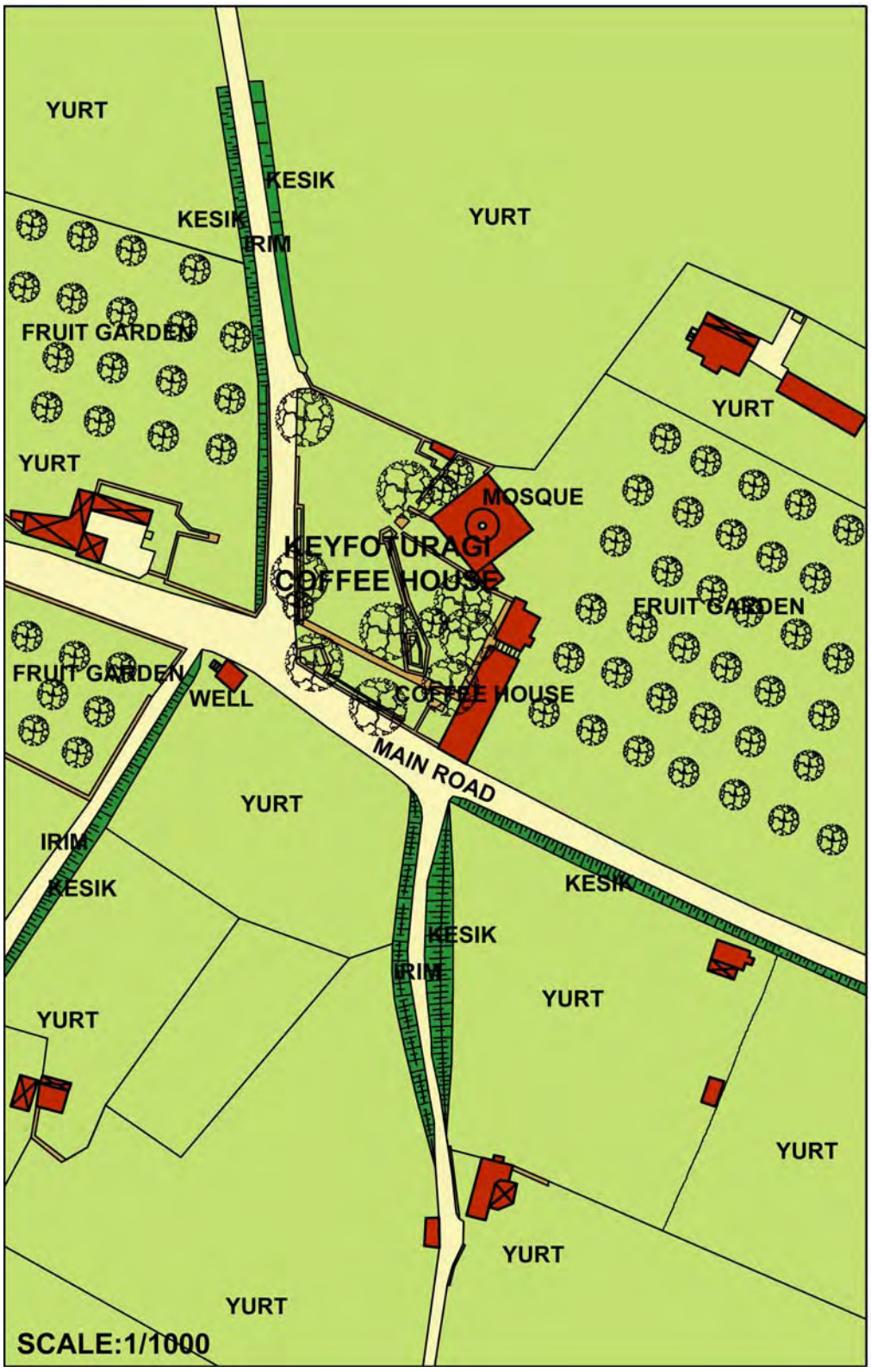

Figure 2.34 *Keyfoturağı Coffee House and its neighborhood*

Source: *Analytic Study (2002) of Muğla-Karabağlar Natural Site*

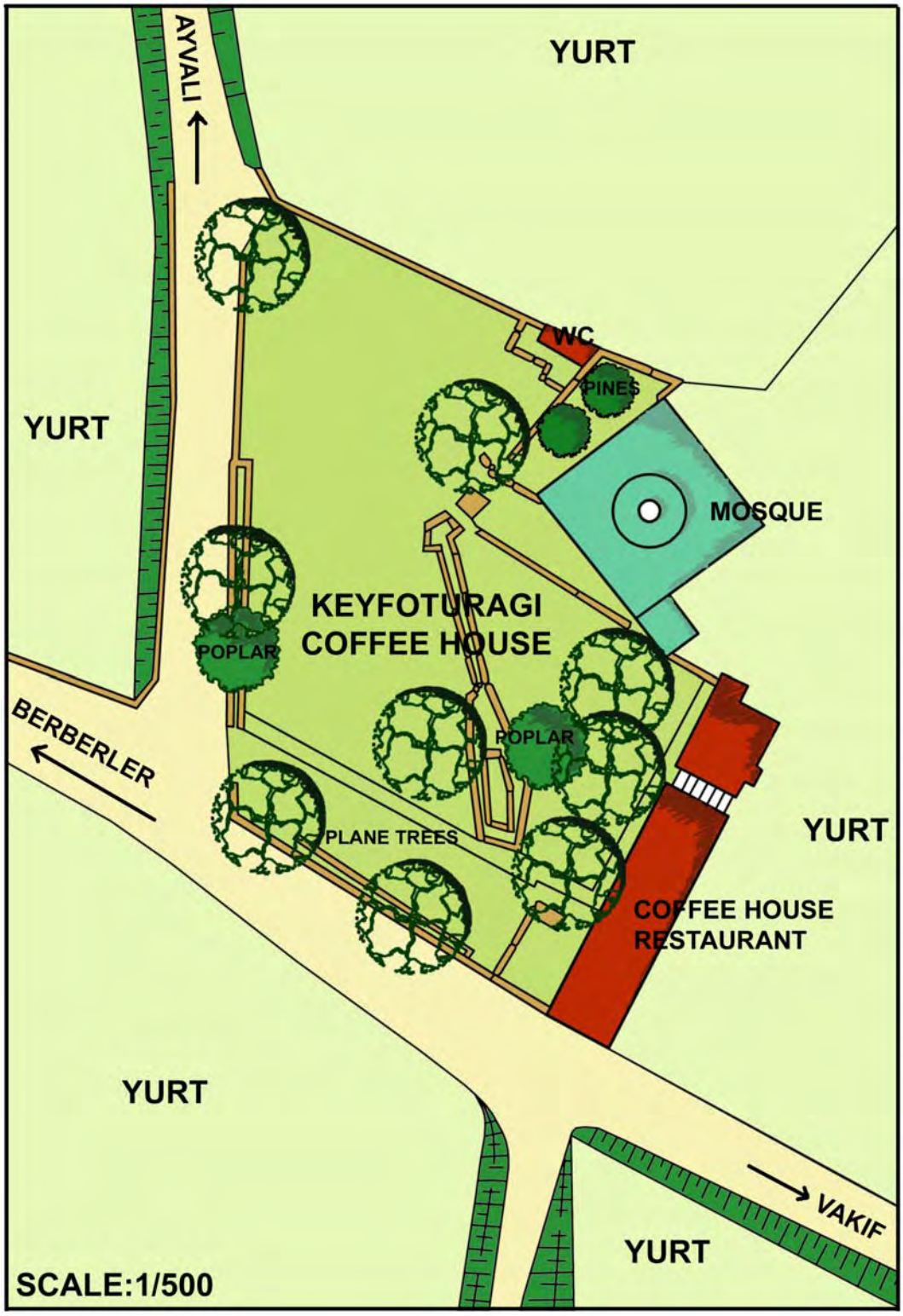

Figure 2.35 *Space organization in Keyfoturağı Coffee House*

Source: *Analytic Study (2002) of Muğla-Karabağlar Natural Site*

II.2.2 POSSESSION AND OWNERSHIP

Karabağlar is composed of yurts that are completely private properties; however, in the past it was typical characteristic of Karabağlar to use the private property jointly. Local residents used to have the right of use and develop their property as they wished. They never needed to identify the boundaries of their lands. This case can be defined as possession right; thanks to this fact, common spaces like irim, kesik and road that were not the subject of private property were preserved well. Furthermore, coffee house areas were the meeting places and they were possessed by local residents and visitors. By the time, with definition of property rights through laws, irims and kesiks started to be deteriorated. Development plans prepared as an outcome of urban environment supported this transportation.

> "Once appropriated, one matter arises concerning property, that is, the distinction between possession and ownership as far as the evolution of the urban environment is concerned. In the transformation of agricultural land into urban or landlord-tenant relations or squatting, this distinction plays a prominent role" (Günay, 1999; p.34).

Urban environment and technological development brought alterations of property relations in Karabağlar. In the past, local residents used to carry out agricultural production on the lands of Karabağlar for their benefits. Private ownership brought new kinds of benefits from lands by way of renting and selling the property; therefore, secondary house ownership emerged and other changes in land ownership brought differences in land use, land developments, and prices, as well. The negative effects of transformation of possession into ownership can be considered as the deterioration of irims and kesiks, abandonment of agricultural production, identification of property boundaries, new changes that enhance the value of private property, but do not conform to traditional pattern.

II.2.3 ALTERATIONS OF PROPERTY RELATIONS IN KARABAĞLAR BY THE TIME

In 1950s, tobacco yeomen emerged because of the increase at the prices of tobacco (Sapmaz, 1996). Tobacco yeomen brought workers from near villages to make them work at tobacco fields. They bought new yurts to enlarge their fields and to do more tobacco production. In order to provide accommodation for tobacco workers, yeomen built stone houses. These houses had flat roofs and they were one-storey construction, but these buildings became an important factor that altered the pattern of property. These houses are located all along the road. They were extended with walls to determine property boundaries. However, these walls harmed kesiks and irims. The habit of vineyard had been abandoned in these years due to tobacco production. One of the important plants forming kesiks was grapes and this abandonment affected the forms and dense appearance of kesiks.

In 1960s, new technological improvements had occured. In 1970s, socio-economic life in Karabağlar changed with introduction of new professions and capitalist development. Properties changed owners by inheritance and the new generation preferred to migrate to the city by abandoning agricultural production completely; thus they chose a new life style. In this way, some of them sold or rented their yurts and fields to new comers from close villages, some of them abandoned the lands only. New demands like owning a flat in a modern apartment building or owning a car were far more important than owning a field in Karabağlar in the 1970s. This abandonment brought up problem of dividing joint properties. The new generation and newcomers who wanted to identify their assets within yurt boundaries made their property divided. They built soil heaps or stonewalls to identify boundaries.

In addition, some of the newcomers from near villages constructed village houses in Karabağlar. These houses were different from traditional house types of Karabağlar with regard to their appearance and living spaces so village houses have been a factor that has disturbed construction silhouette of Karabağlar.

In 1980s, the emergence of secondary house ownership led high-income owners to buy yurts from Karabağlar (Sapmaz, 1996). They restored old or damaged houses on yurts, added new buildings or they built new ones instead of wrecked houses. Then modern outside seats took the place of '*sedir*' which is a traditional seat without back supporting part, arbor the place of '*çardak*', a kind of traditional pergola consisting of posts and a roof of grape branches. Grasses were used to identify courtyards instead of ground hederas. In the hobby gardens, there were picea, fir trees, junipers that do not take place in Karabağlar vegetation. In addition, second house owners wanted to identify boundaries of their property in order to provide security so they used stone, concrete walls and wire frames. They destroyed kesiks thinking that kesiks were unable to provide privacy and security sufficiently. Some of them built wire frame fences on the kesiks.

One more reason of the lack of confidence was that Karabağlar was not only open to local residents but also to visitors and tourists. Roads of Karabağlar became crowded due to increase of vehicle traffic circulation. In 1980s, increase of population in coastal settlements directed people towards rural life again, for that reason; Karabağlar became a resort for tourists. In fact, some coffee houses that were common spaces of the residents were converted into restaurants in parallel to the change of owners. Some coffee houses owners who did not like to share their property with residents converted coffee houses into houses. Some of the coffee houses were abandoned as it is so they were wrecked due to lack

of maintenance and lack of preservation. Today, only plane trees represent the place of coffee houses.

Karabağlar cannot be accepted as a village although it provides opportunity for agricultural production, because the long distances between houses and fields that are characteristics of Turkish villages are not observed in Karabağlar. House, field, and well are a whole and constitute yurts that spread all over Karabağlar. Agglomeration house groups cannot be observed in one part of Karabağlar. There are no commercial concerns for agricultural production because there exists self-sufficient production. Furthermore, while the property of common spaces belongs to village, in Karabağlar it belongs to persons. In villages, public squares function as the coffee houses in Karabağlar. As a result, it would be better to describe Karabağlar as countryside.

Topography has been effective at formation of property structure in Karabağlar. Property size has been homogeneous because of the area being a plain and spread over a large field. The differences between the areas that have divided into zone have arisen from the effects of overflowing and ponding areas. In general, there have not been too much construction movements in overflowing and ponding areas, fact that was essential in order not to effect natural water formations and underground water resources negatively.

Relationships of people were another factor that affected the formation of property structure since in the past people who knew each other used to share common spaces, their yurts, and even their houses. However, this tradition could not be sustained. As a result, property structure has been deformed due to alteration of initial owners.

II.3 LIFE IN KARABAĞLAR

In the past, Muğla, which was established at the skirts of the mountains, benefited from Muğla Plain and Karabağlar Plain for agricultural purpose. In summers, agricultural products harvested from plain used to be consumed in winters. In the past it took days to travel to Karabağlar Plain from Muğla, so wooden huts were built in Karabağlar. Residents of Muğla living in these wooden huts were dealing with agricultural production in summers and were leaving Karabağlar Plain in winters because of heavy rainfalls of the winter season. Such movement of habitants was called 'migration' and used to take place twice a year. Today, although it is very easy to reach Karabağlar Plain, elderly people still maintain to name such seasonal moves as 'migration'.

Seasonal immigrants from Muğla to Karabağlar were consisting of masters of main crafts or those dealing with small commercial works. These masters of crafts were tailors, shoemakers, grocers, hairdressers, etc. who gave their crafts' name to the coffee houses. They were carrying on both agricultural production and their artisanship. Moreover, these crafts have led to nicknames of artisans and their families for years. The nicknames by being used before the real name in Muğla and Karabağlar have become the names, which introduce artisans, their family, and even their yurts. The owners of yurts are still called with these nicknames among local residents. Local residents used to prepare food for winter during the period that they stayed in Karabağlar and to consume these foods in winter after they had migrated to Muğla.

With time passed, expansion of Muğla residential area towards the southern part of the plain due to increase in the population and the technological developments diminished agricultural activities that are carried out only in Karabağlar Plain and at the southeastern part of Muğla

Plain. The agricultural production has never been at big scale in Karabağlar. There exists self-sufficient agricultural production in Karabağlar and there is high variety of agricultural products. Stockbreeding mostly consists of poultry and large ruminants that meet living costs of every house and field.

Muğla is the second province, which gets heavy rain in Turkey. Consequently, the amount of underground water is high so there is a great vegetation variety. The most grown plants are fruit trees like sour cherry, apple, quince, almond, fig, vegetables, and melon field. *Kesiks* have their own natural vegetation. Residents of Karabağlar for contribution to economics harvest some of the natural plants that grow on these kesiks like blackberry, rosehip, and 'tilkişen', which is used in meals, and these plants. The animals mostly raised are cow, sheep, and chicken for their contribution to economics. There are not large pastures in Karabağlar so the way of life is mostly linked to agriculture.

Once upon a time, the living source of Karabağlar was viticulture as can be understood from the name of Karabağlar. The grape products were important sources for economics. In 1950s, economic living sources of Karabağlar changed with the increase in the costs of tobacco production (Karabağları Geliştirme ve Güzelleştirme Derneği, 1996). Changing habits vis-à-vis agricultural production with harvest of tobacco resulted in giving up the viticulture that gave its name to Karabağlar. Nevertheless, this caused widespread tobacco production although it had never grown among natural vegetation of Karabağlar.

Muğla residents have secondary houses as well. These houses are mostly used during summers and these residents carry out horticultural activities as hobby. However, there are also native residents of Karabağlar who live on agriculture. They sell their crops at the bazaar of Muğla every week. Residents of Muğla have tendency to possess secondary houses in

Karabağlar and these new houses have different features when compared to the traditional houses of Karabağlar.

As well as nature, life style of local residents shaped and formed Karabağlar. The desire of living in the nature and the devotion to soil of Muğla residents resulted in annual migration.

CHAPTER III

LAND USE IN KARABAĞLAR

This chapter identifies land use and land assets in Karabağlar in order to emphasis if the types of uses are eligible or not. Furthermore, it describes the formation of irim and kesik and their main features.

Development Plan of Muğla/Karabağlar Urban and Third Grade Natural Site was developed by Dokuz Eylül University for Muğla Municipality in 2002. In this chapter, the site boundaries are determined and conservation decisions are clarified. According to this plan, land use details, zoning, road system, some natural formations, and data that have been obtained from D.S.İ., locations of focal points like cafes, düdens and plane trees are marked.

III.1 DEVELOPMENT PLAN OF KARABAĞLAR THIRD GRADE NATURAL SITE

III.1.1 ROAD SYSTEM AND FOCAL POINTS

In Figure 3.1, we see the road system of Karabağlar that is perceived a bit complicated. According to plan, three types of roads are observed. Leaf

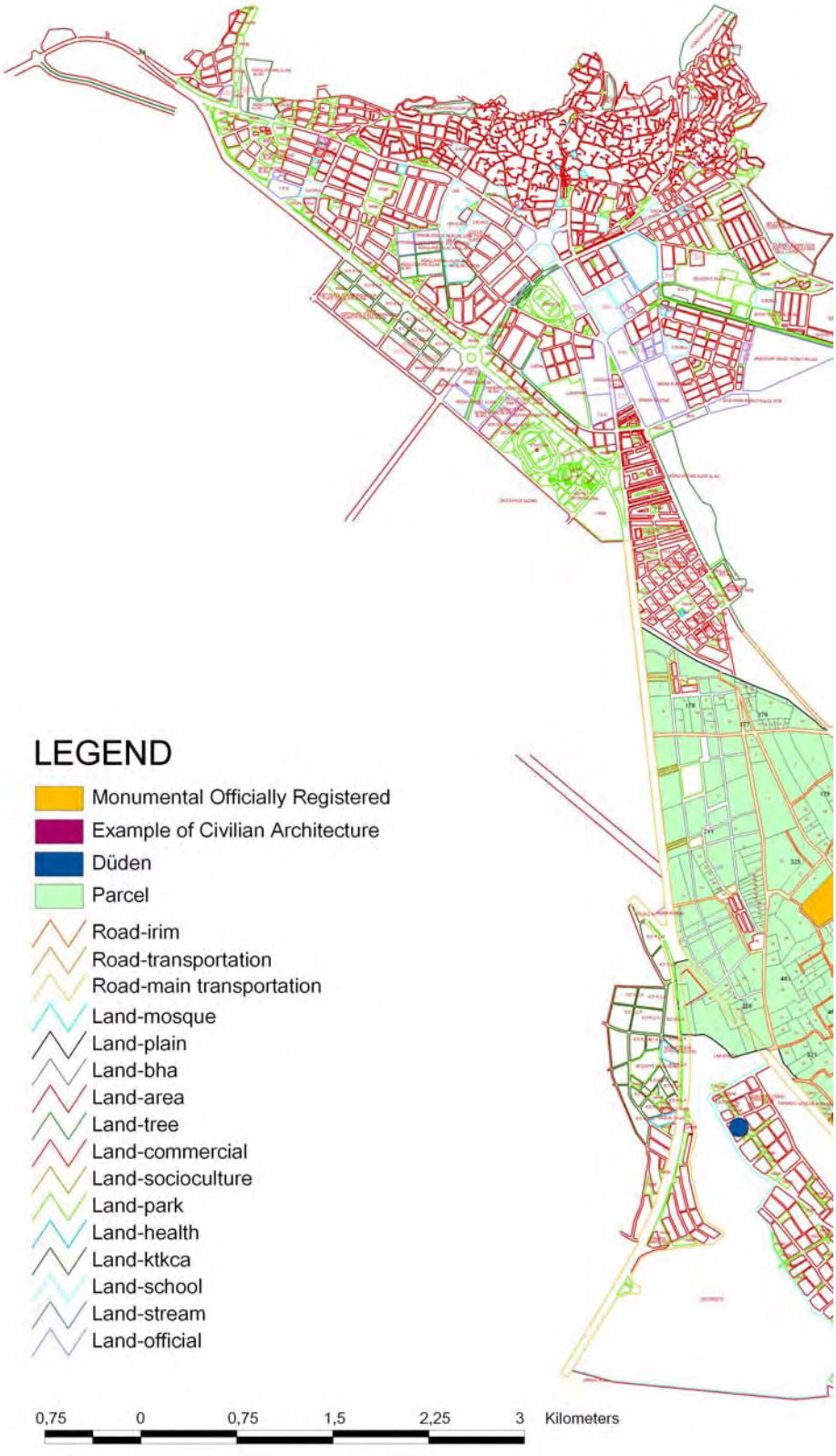

Figure 3.1 *Development plan of Muğla/Karabağlar Urban and Third Grade Natural Site*

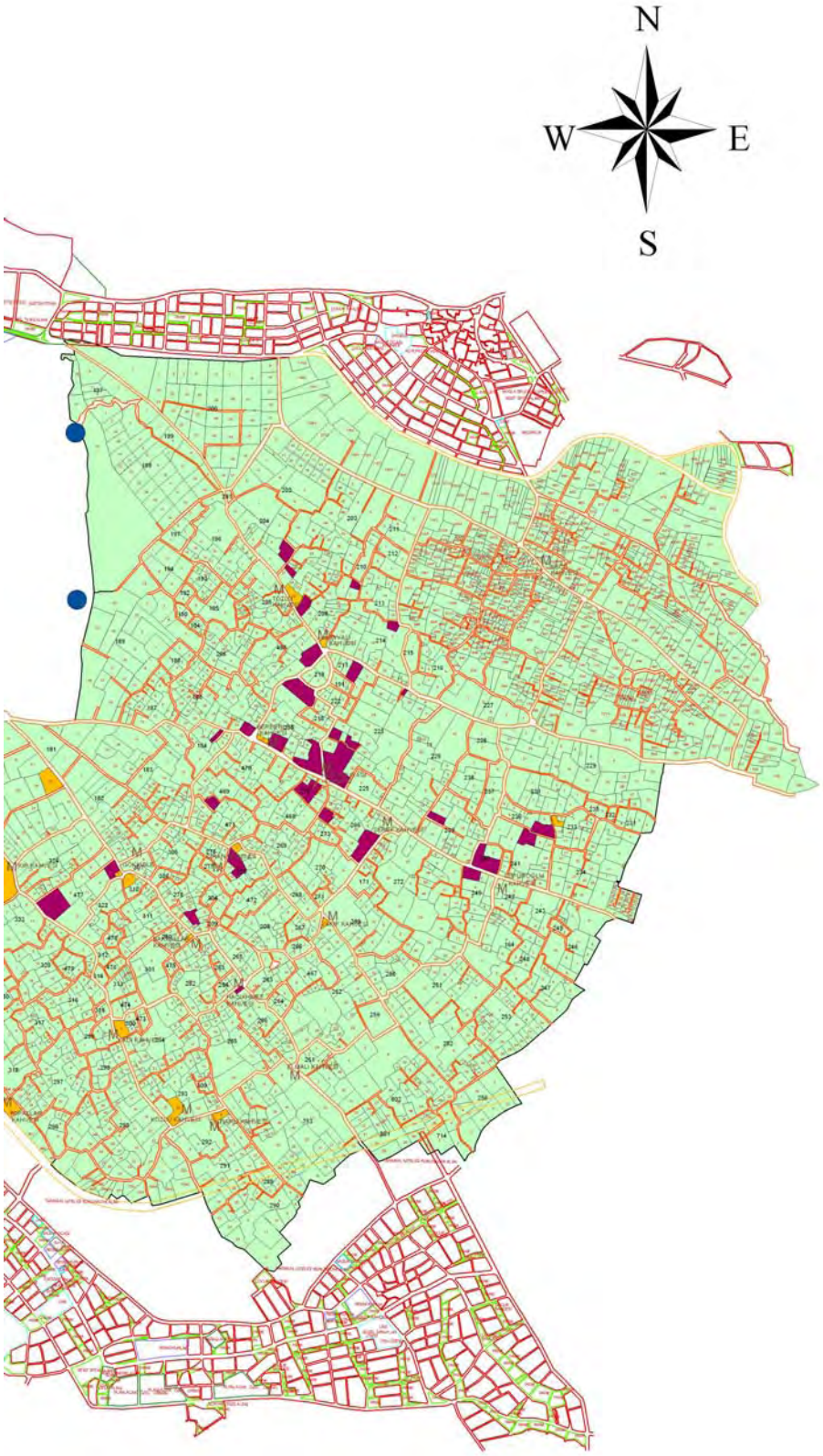

Figure 3.1 *Development plan of Muğla/Karabağlar Urban and Third Grade Natural Site*

vessels like roads are called as ‘irim’. Road-irims usually function as water channel that discharges rainwater from the fields. The utilization of these types of roads is forbidden for car transportation. Road -transportation are those were shuttles serve between the city and Karabağlar. They separate Karabağlar into cadastral blocks. Roads-main transportation are the ones with high rate of traffic circulation. Denizli main transportation-road separates a small part of Karabağlar in the south from the whole plain.

In this plan, parcels having examples of civilian architecture and buildings registered as monumental assets are illustrated in different colors. The buildings registered as monumental assets are mostly the cafes that still possess traditional values and identify focal points.

III.1.2 ZONES

Four zones are designated according to Development Plan Report (2003) of Muğla/Karabağlar Urban and Third Grade Natural Site. These zones show obvious discrepancies with respect to construction and utilization conditions. In identification of the zones:

> “- property pattern
> - construction characteristics
> - drainage and overflowing area
> - existing cadastral block boundaries
> - existing cadastral parcel boundaries
> - overflowed stream areas determined by D.S.I.
> - infrastructure facilities decided by D.S.I.
> - existing agricultural activity types
> - existing natural landscape elements
> - relation of region with its surroundings” (Development Plan Report, 2003).

are taken into account. In Figure 3.2, zones are shown and in Table 3.1, the percentages of the zones are given. In the table, it is observed that the first zone has the largest area (11, 95 km^2) and the fourth zone has the smallest area (0, 33 km^2).

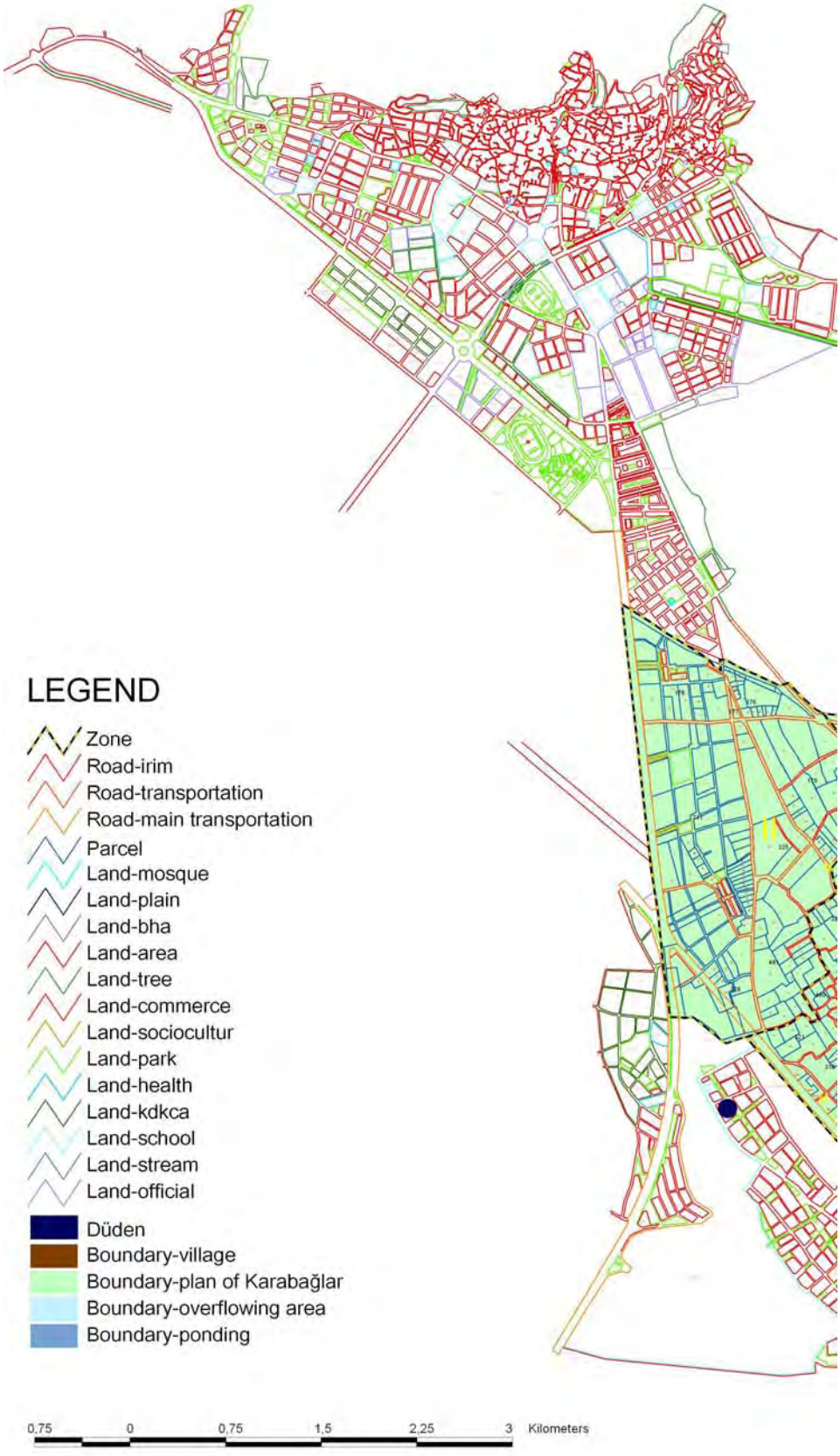

Figure 3.2 *Zones and water agglomerations*

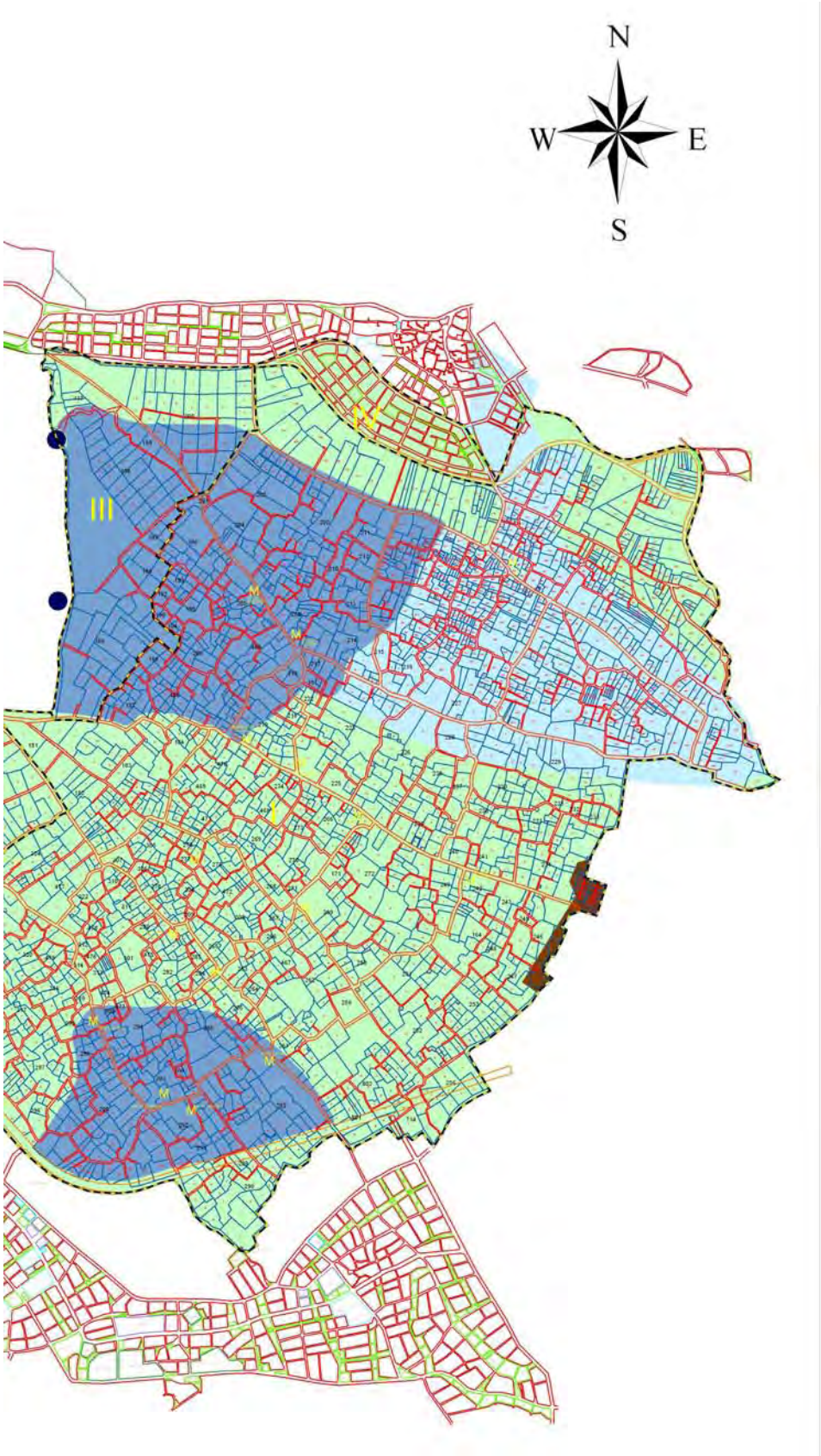

Figure 3.2 *Zones and water agglomerations*

Table 3.1 *Percentage of Zones in Karabağlar*

Zones	**Area(km^2)**	**%**
Zone I	11,95	77
Zone II	1,94	13
Zone III	1,28	8
Zone IV	0,33	2
TOTAL(Karabağlar Natural Site)	15,50	100

The First Zone includes a large area where traditional pattern is observed best. Generally, medium and small parcels are prevalent in this area. Constructional activities are at the medium level. It is discerned that traditional houses are dense in this area and at most, officially registered houses are found. It is productive and economically active with its natural vegetation and agricultural activities.

The Second Zone, which is situated at the far western end, differs from other sub regions due to its parcel size and traditional constructional properties. In terms of construction capacity, this zone is not a dense housing area. In the large and medium-sized parcels, it is observed that constructional tendency is so high that big parcels are divided into lots. It is poor in terms of natural vegetation. Agriculture and stockbreeding are rarely observed.

The Third Zone is at the far northwestern end of Karabağlar Plain and at the overflowing area of düden. It is discerned that big parcels and agricultural activities are observed here and there is no constructional activities.

The Fourth Zone is located at the southern part of Düğerek residential area and there seem to be high constructional activities.

According to the decisions of the plan, second and fourth zones are considered as separated lands from Karabağlar Plain.

The second zone is designed for daily activities and night tourism facilities and exhibition or shopping centers with settlement units as being the extended part of Muğla downtown residential area, such a design will separate a part of Karabağlar from the whole and cause enhancement of constructional activities. Construction activities like inception of housing and tourism facilities will harm the agricultural and stockbreeding activities that are still being carried on.

Constructional conditions of fourth zone, which is situated at the southern part of Düğerek residential area, are laid down according to Düğerek Application Development Plan with a scale of 1/1000. Such a plan will be a potential constraint for Karabağlar. In the future if it is considered that there is a possibility of moving the fourth zone boundaries towards the inside parts of Karabağlar, it will be more suitable to use the fourth zone as a buffer.

III.1.3 WATER AGGLOMERATIONS AND BIOCLIMATE IN KARABAĞLAR

In Figure 3.2, extending areas of some water agglomerations that are designated by D.S.İ. are shown and in Table 3.2, the areas and the percentage of these agglomerations are calculated. According to the plan, ponding areas are located close to ‘düdens’ that are known as natural wells. There are two ponding formations. One of them is at the northern part of Karabağlar region and it is found around two düdens. The other one is at the southern part of Karabağlar region and it is connected with Kötekli düden. The third zone is almost covered with ponding. Due to this

ponding, the area is flooded with water. As a result of ponding, overflowing areas are observed at the northeastern side of Karabağlar. These formations show that the permeability of the soil is not eligible in order for water to find a way to flow into underground water.

Table 3.2 *Percentage of Water Agglomerations*

Water Agglomerations	**Area(km^2)**	**%**
Ponding area	3,62	23
Overflowing area	2,35	15
Other areas	9,53	62
TOTAL(Karabağlar Natural Site)	15,50	100

A research concerning The Effect of Bioclimatic Comfort Values on Landscape Planning Process carried out by Çınar (2002). According to bioclimatic comfort values, there is difference between Karabağlar and Muğla settlement although these two settlements are close to each other and there is not a major difference between their altitudes from the sea level. It is calculated that the temperature in Karabağlar is 4-5 ^{0}C lesser than that in Muğla urban settlement between the hours of 15:00-16:00 during which the temperature is the highest of the day. During other hours, this difference is calculated as 2-3 ^{0}C. At the hottest period, the relative moisture value is calculated 10-15% higher in Karabağlar. The reason of this difference is the ponding areas and the moisture that emerges related to ponding. *Kesik*, *kabalık*, *irim* and the shoulders of *irims* that form a natural drainage are important factors in the process of ponding and soil moisture. It is known that the underground water of Karabağlar is found under the 76 meter depth of the main rock and reaches to Gökova Bay by the help of underground channels and *düdens*. Therefore, all these natural

formations are in great relation with each other and any kind of deterioration in their structure and formation can affect the climate, vegetation, fauna, and consequently the balance of the nature.

III.2 LAND ASSETS OF KARABAĞLAR

III.2.1 AGRICULTURAL LANDS OF KARABAĞLAR

As it is shown in Figure 3.3, according to Land Assets of Muğla (1998) there are two kinds of agricultural land in Karabağlar:

First Quality Agricultural Lands: These are the main agricultural lands (Land Assets of Muğla, 1998). These kinds of lands are found nearly in all parts of Karabağlar region. They have a great potential in agricultural production but are very limited in Turkey. The features of such type of lands are as follows:

- The depth, heat, and reaction of the soil are suitable for the cultuvation plants that adapt to local region.
- There is no underground water or the available water can only suffice to grow cultivating plants in the region.
- the permeability of soil should not restrict the irrigation
- the slope must be 6% maximum and there must be no erosion problem
- the rocky formation should not be more then 10% on the surface of soil
- Soils should not be exposed to flood of water during the growing season of plants.

Second Quality Agricultural Lands: These lands occupy an important place in country economy as being suitable for growing grain and some industrial plants (Land Assets of Muğla, 1998). Only a small part in the northeast of Karabağlar is suitable for production of these kinds of plants.

As it is seen in plan, Muğla city settlement is observed to be situated amongst other groups of lands. These types of lands are not suitable for agricultural production and they are mostly under forest regime. In Karabağlar, problems relating to overflowing and ponding areas encountered. These problems are threats for the First Quality Agricultural Lands and for agricultural production in every season.

According to the classification of lands in terms of their use cability, Karabağlar has Class I and Class II lands. As it is seen in Figure 3.3, Class I is observed on the north of Karabağlar and in the southeastern settlement; at the very small part of Karabağlar near Kötekli village. Class II is found in the center of Karabağlar.

Class I: Such type of soils may have a few constraints with respect to their utilization (Land Assets of Muğla, 1998). They have almost smooth topography. There is no water or wind erosion. The depth of soil is high and the drainage is suitable. There is no problem about being salty, alkali, and stony. The capacity of water permeability is high and the productivity is good. They respond to fertilization. These soils can be used in the production of cultivating plants as well as being used pasture, meadow, and forest. These types of soils can be processed easily and they need to be fertilized with leftovers of plants, animals, and lime.

Class II: These types of soils need a painstaking soil management, with conservation practices to the interaction between the air and water in the process of soil formation (Land Assets of Muğla, 1998). The classification is few and application is easy. These kinds of soils can be used for cultural

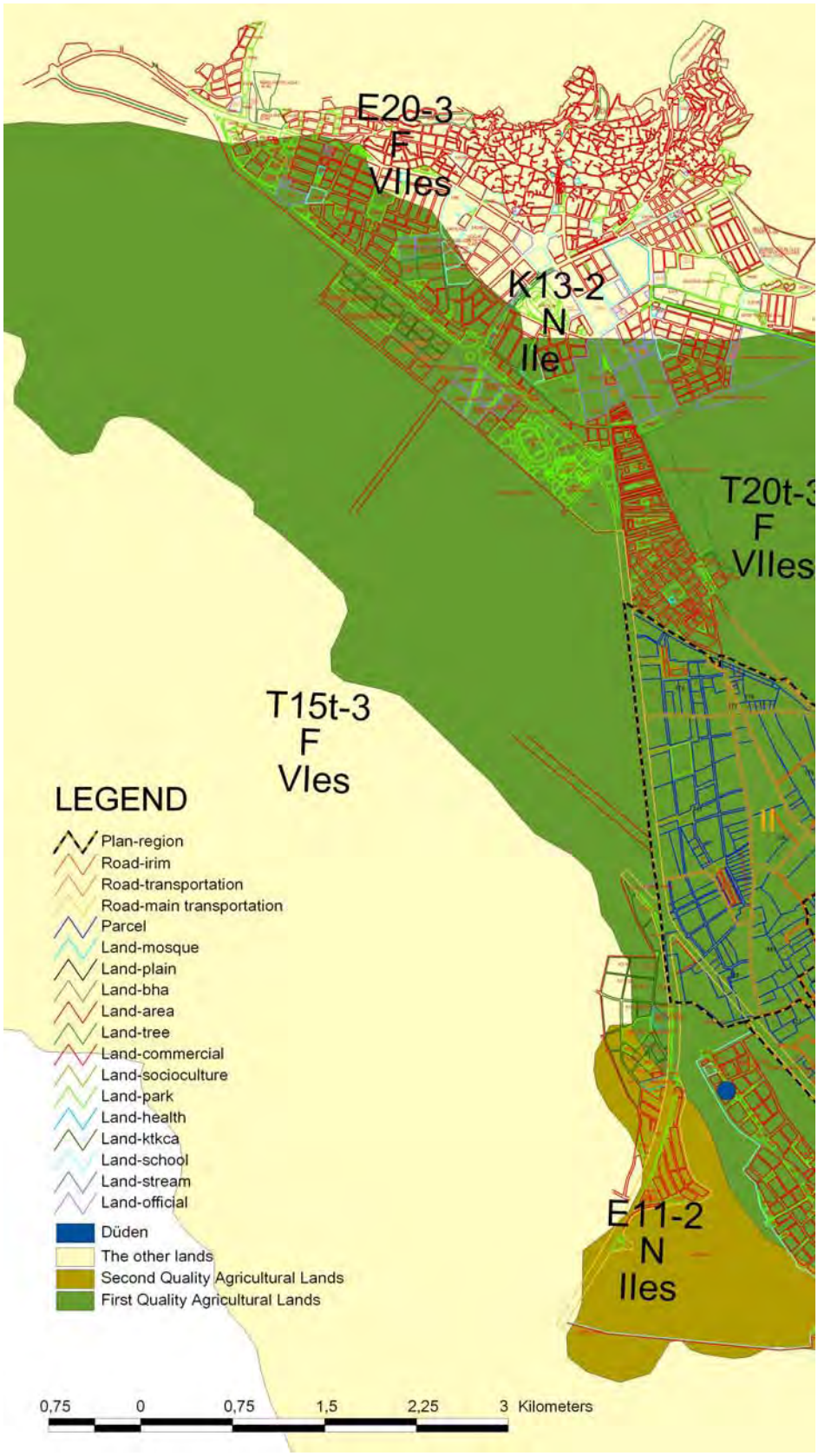

Figure 3.3 *Agricultural Lands of Karabağlar*

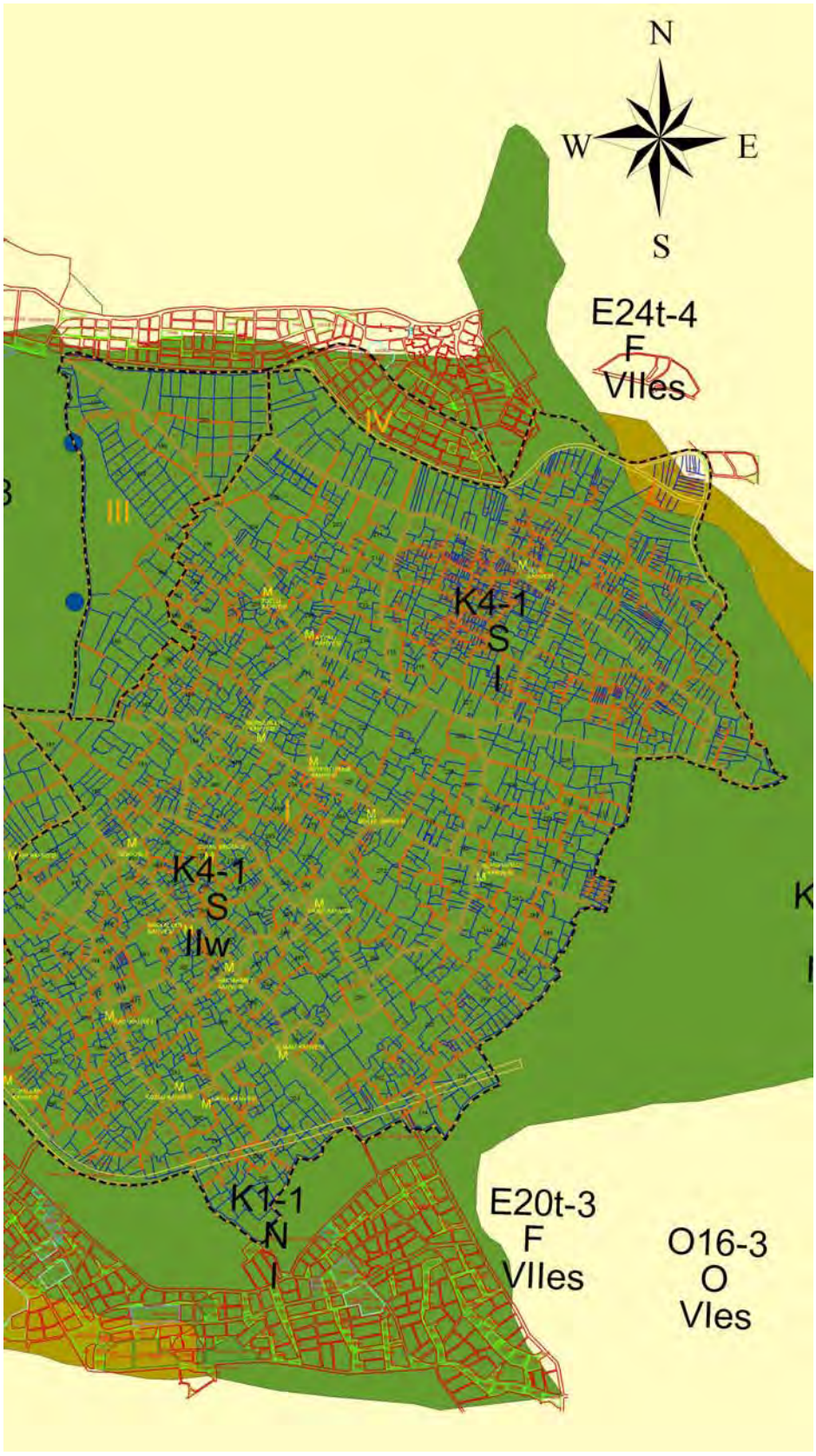

Figure 3.3 *Agricultural Lands of Karabağlar*

plants, pasture, meadow, and forest. The classification of these soils as follows:

- little slope
- exposed to medium amount of water and wind erosion or medium degree of negative effects of erosion
- less soil depth than ideal
- little amount of inconvenient soil for processing
- insignificant amount of salt and sodium formation
- formation of ponding areas from time to time
- can be improved by drainage but it has climatic constraint impact on the utilization and management of these soils.

These types of soil display less adaptation to plant species and management applications according to Class I soils (Land Assets of Muğla, 1998). They need to be processed with specific plant growing methods that protect soils, as well as with soil conservation applications, water control system, or with suitable processing methods for cultivating plants.

When we examine the subclasses of land capability, we observe only the class of excessive water (w).

Subclass w (excessive water): Major harm and constraints in processing are born by over irrigated soils (Land Assets of Muğla, 1998). Unsuitable soil drainage, wet structure, high underground water, and overflowing are the criteria that determine these subclass soils.

In Karabağlar region there is no water erosion problem, so its degree is 1 (minimum level). The main reason of this may be the minimum slope of the area.

III.2.2 CURRENT USE OF LANDS IN KARABAĞLAR

As it is seen in Figure 3.4, irrigated farming is practiced at a large part of Karabağlar (Land Assets of Muğla, 1998). In the northeastern part of Karabağlar and at Kötekli Village dry farming is observed. The slope is about 0-2% and the soil consists of small and medium sand particles. The depth of organic soil for planting is high.

III.2.3 LARGE SOIL GROUPS IN KARABAĞLAR

It is coluvial soil that is mostly observed in Karabağlar region (Figure 3.5). The features of coluvial soils are as follows:

Coluvial soils: They are mostly found at the skirts of high slopes and at the intersection of valleys (Land Assets of Muğla, 1998). They are young soils that are formed by accumulated materials with the help of streams, land sliding, and gravity. Moreover, although they have similar properties with the soils found in higher lands, there is no classification of the main material. At profile, layers in various dimensions are observed, which change according to flow of surface and degree of slope. These layers are not parallel to each other. The soils on high slopes mostly include thick stones and rubbles. The diameter of materials gets smaller when the flow of surface decreases. In these kinds of soils, only one type of slope is observed and it increases parallel to the direction of flow of particles (Land Assets of Muğla, 1998). Although they are exposed to overflowing, their drainage is good owing to their slope and structure. There is no formation of salt and sodium.

In Karabağlar, the reason of coluvial soil formation is related to overflowing and ponding areas; however, the drainage problem is seen in winter in terms of dense rainfalls.

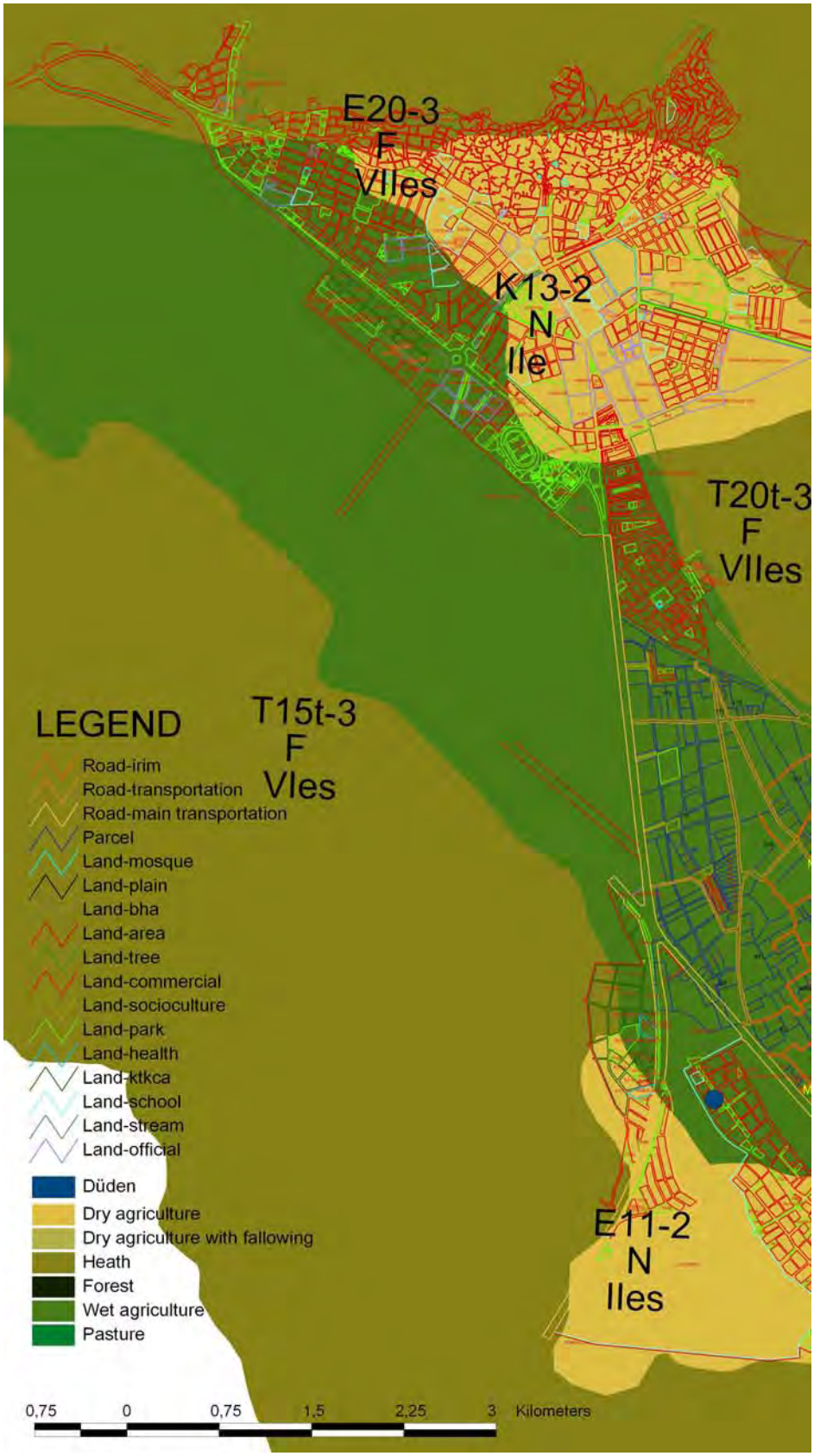

Figure 3.4 *Current Land Use of Karabağlar*

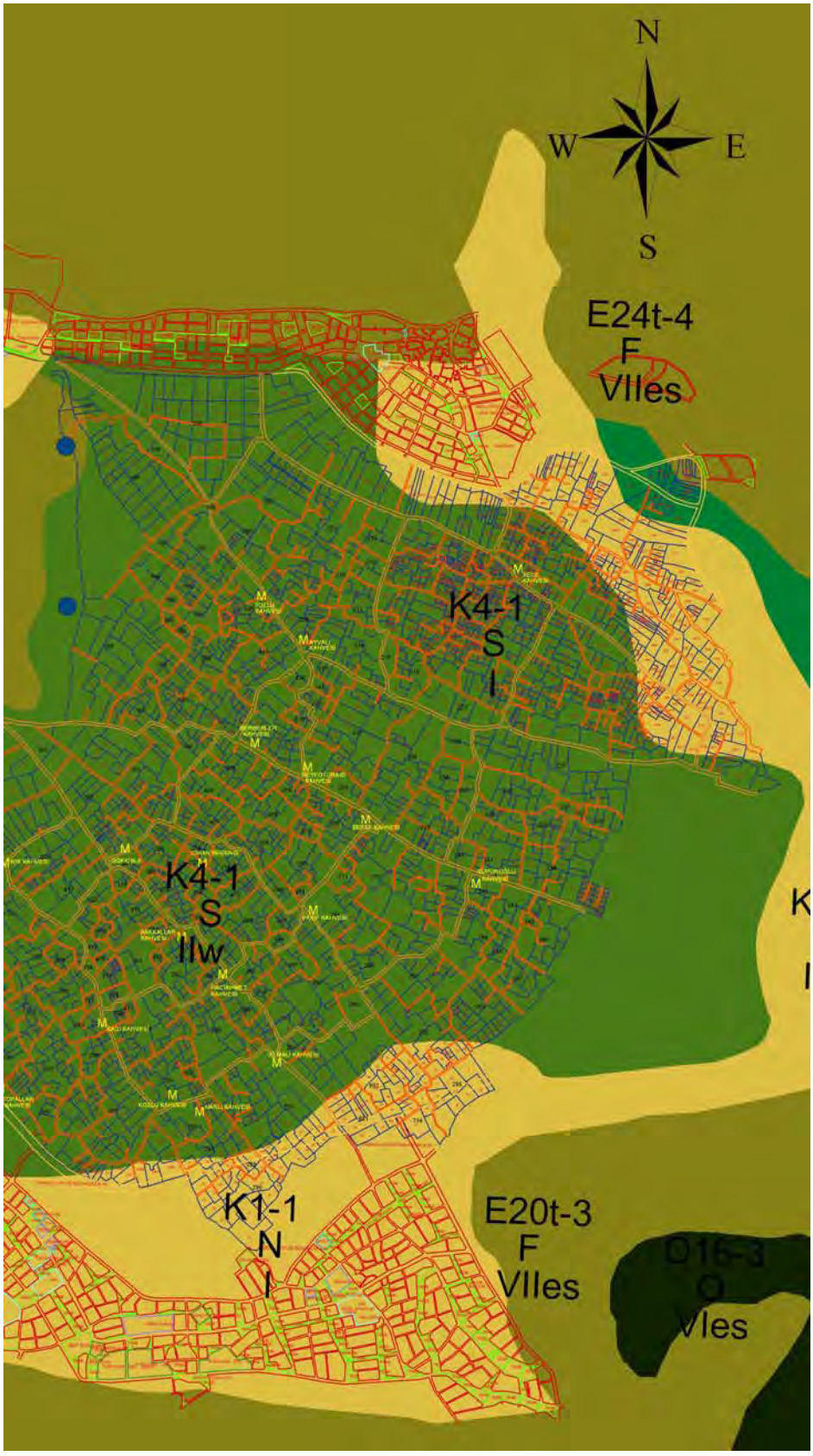

Figure 3.4 *Current Land Use of Karabağlar*

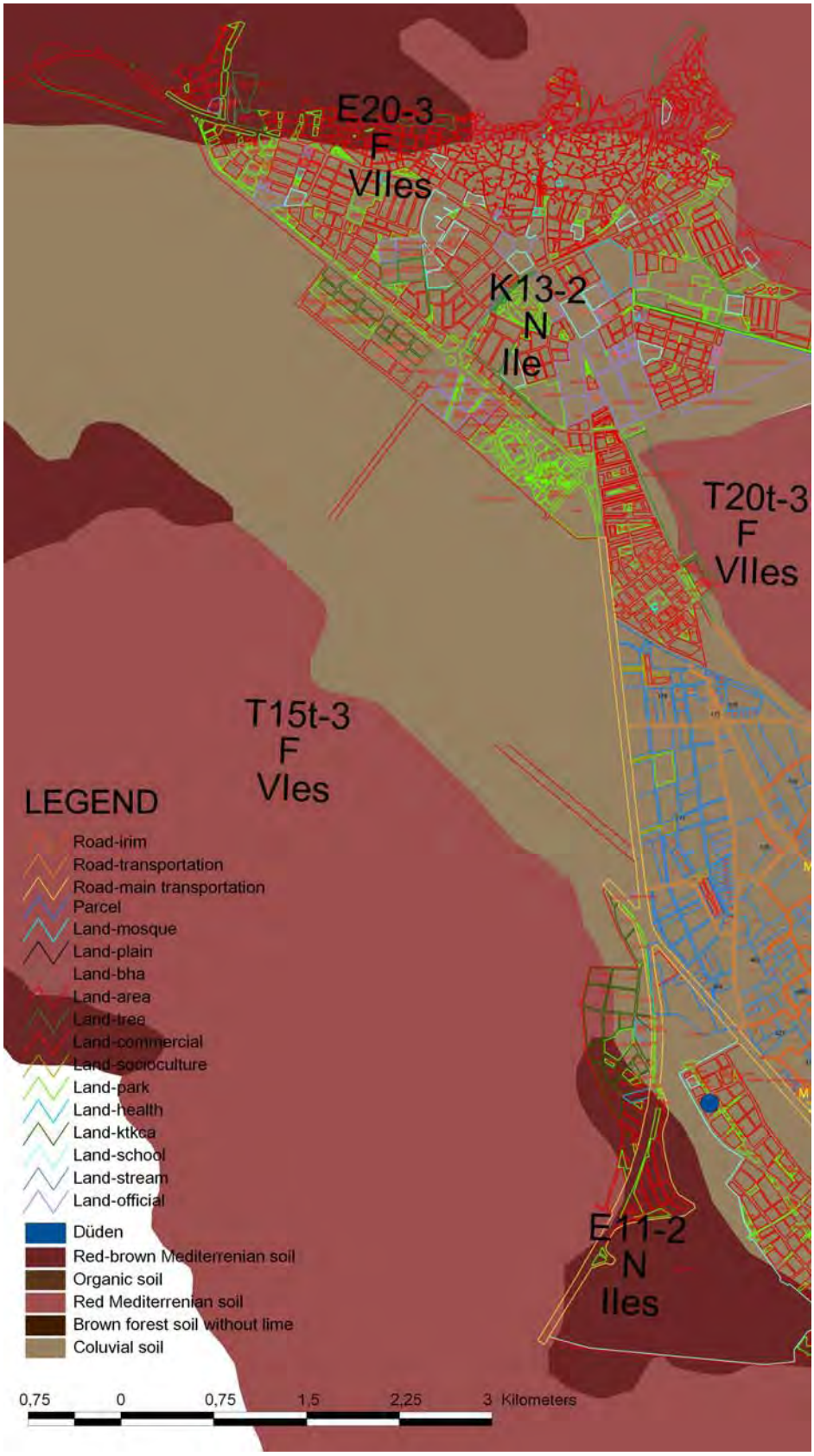

Figure 3.5 *Large Soil Groups of Karabağlar*

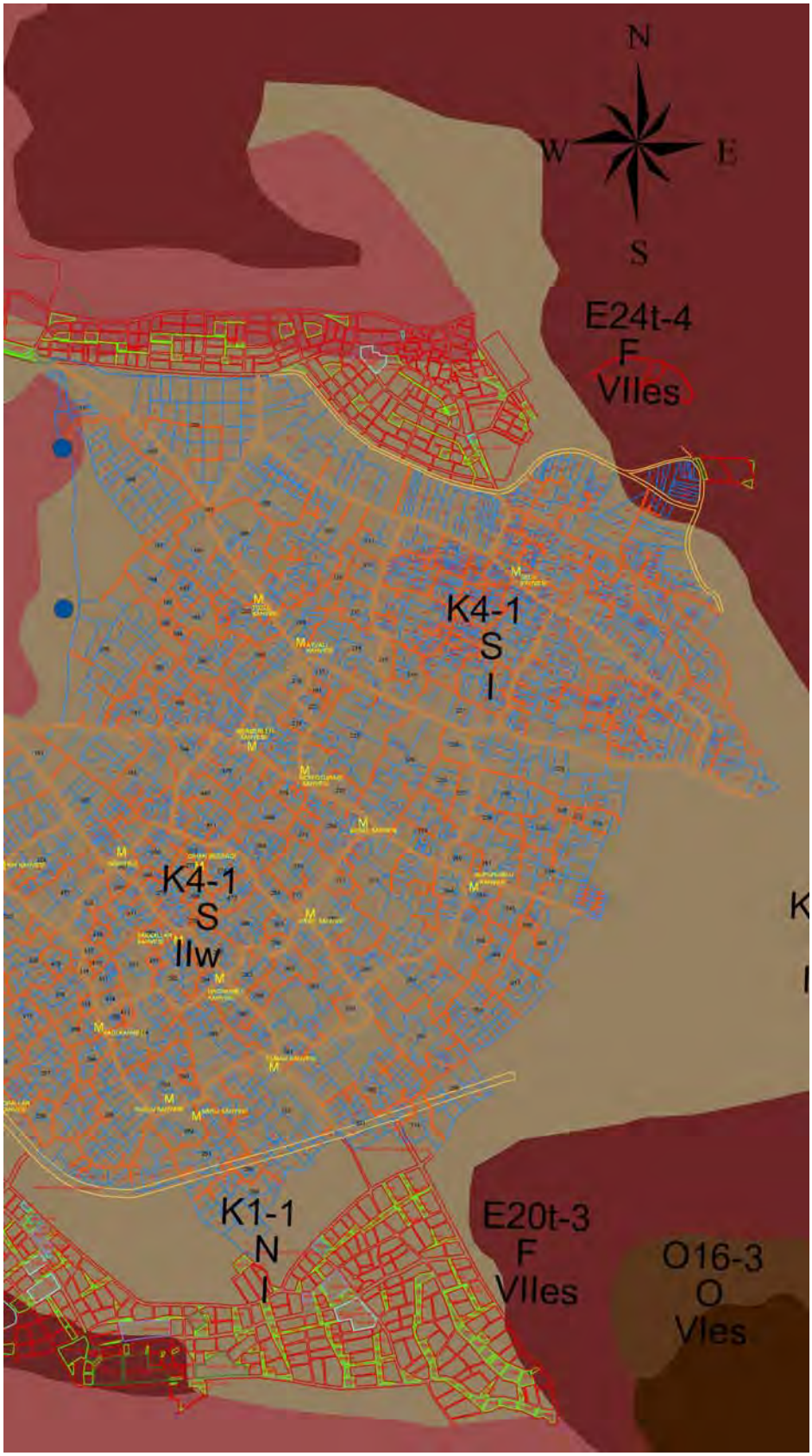

Figure 3.5 *Large Soil Groups of Karabağlar*

III.3 THE FORMATION OF ‘IRIM’ AND ‘KESIK’

Although it is not known the early days of Karabağlar and the first formation period of irim and kesik, it is certain that they must have been planned by our ancestors to serve for a specific purpose (Figure 3.6 and 3.7).

III.3.1 IRIM

Irims were planned for discharging surplus of water coming from fields. This surplus of water may be either rainwater or irrigation water. Irims are perceived as a channel or tunnel when the trees of kesiks cover it but every year weeds must be cleaned and irims must be opened because the natural weeds can cover and fill the whole irim. The properties of irims are as follows:

- Irims are mostly planned with a width of approximately 1, 5-3 m and they have depth of 1-1, 5 m in comparison to the level of field.
- Kesiks extend parallel to irims on the both sides.
- Material, covering the surface of irim is mostly natural soil, whereas gravel and sand are observed in some places. Gravel and sand may be carried by rainwater from streams.
- Irims extend in parallel to the fields and parcels. They never divide a property in two parts.
- They mostly provide access to a yurt. The function of irim at this point is to provide access to other yurts.
- Irims are not eligible for motor-vehicle traffic. They are simply made for human and horse transportation.

III.3.2 KESIK

Kesiks were probably formed after irims because water discharge from a field to a channel formed irims. The material, which left over from digging irim, was heaped at the two sides of the irim. These heaps formed kesiks. With the time passed nature covered kesiks with wild plants and kabalık (shrubs). Through this new formation, kesiks covered the upper surface of the irim and gave it the appearance of a plant tunnel. The properties of kesiks are as follows:

- Kesiks have a width of mostly 1-1,5m and they are 1-1,5m height in comparison to irims.
- Kesiks have a natural vegetation
- Filtering water from soil plants on kesiks prevent erosion of field soil.
- Kesiks constitute the habitat of many living things such as animals (birds, snakes, insects, reptiles, etc.) and plants.
- Kesiks are formed at both sides of the irims and they extend in parallel to the fields and irims.

Irim – kesik - field three formations constitute the pattern of ‘Karabağlar Plain’

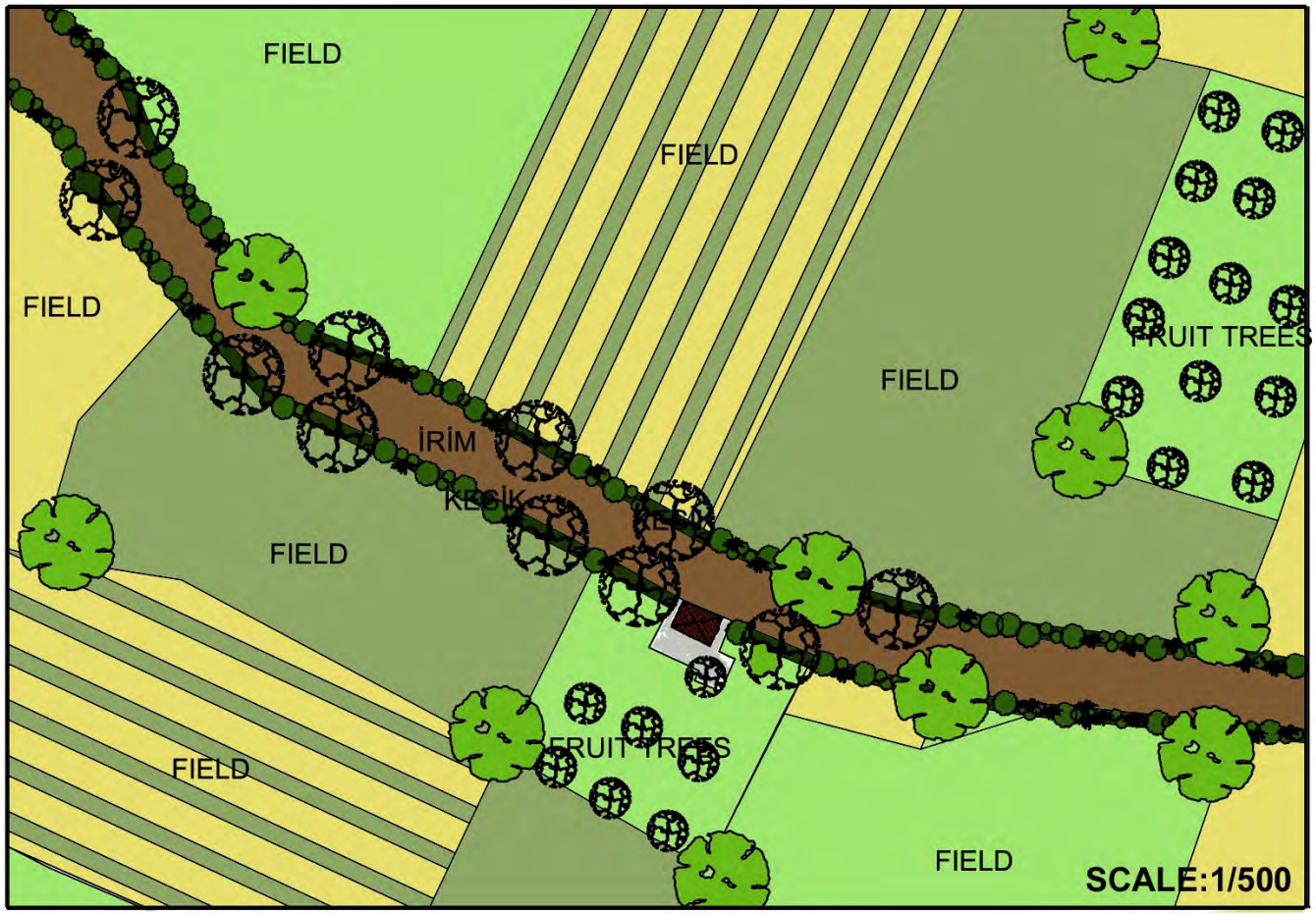

Figure 3.6 *Plan of Irim and Kesik*

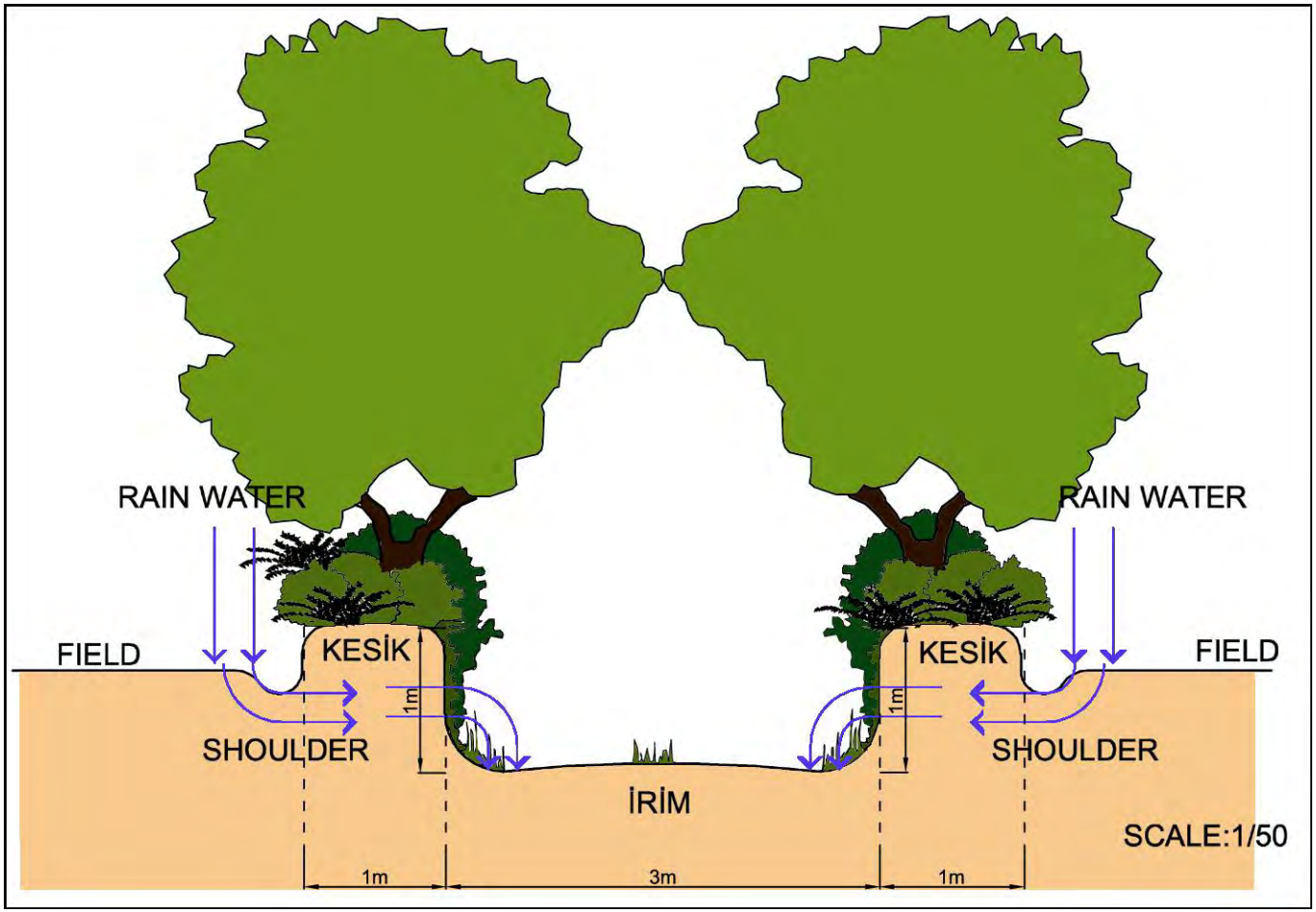

Figure 3. 7 *Section of Irim and Kesik*

CHAPTER IV

NON-CONSERVATIVE INTERVENTIONS

Not only socio-cultural deterioration but also physical deterioration, stemming from wrong utilization and implementation strategies, has been observed in Karabağlar. Consciously or unconsciously and directly or indirectly what so ever, certain interventions have harmed natural formations, vegetation, fauna, water resources, climate, etc. It would be advisable to list these interventions that are made without following any aim of conservation to prepare a conservation strategy and to propose solution recommendations.

IV.1 INTERVENTIONS AND THEIR EFFECTS

In our daily life, it seems impossible to avoid physical, socio-cultural, and economic transformations, which emerge in the aftermath of technological development; however consequences of these transformations convert into interventions when they become a threat for existing settlement and its environment. Interventions may occur in a short time but their effects may continue for years. Karabağlar has been exposed to a number of interventions since 1950s; in this chapter, type of interventions and their effects are elaborated in detail. The effects of interventions are addressed

particularly in regard to their physical, cultural and ecological impacts on traditional pattern.

IV.1.1 FIRST INTERVENTIONS TO IRIMS, KESIKS AND ROADS

According to Sapmaz (1996), in 1950s, as a result of the increase in the prices of tobacco, a tendency for tobacco production emerged in agricultural production. Some of local landowners started to rent adjacent lands in addition to their lands so as to produce tobacco, hence tobacco yeomanry (aga) was born. Those yeomen brought workers from close villages to employ tobacco fields. In response to provide accommodation for workers, tobacco yeomen built stone walled worker huts. In order to build those huts they generally ruined kesiks and kabalıks along main roads. In the same way, they carried on building stonewalls around yurts instead of kesiks and kabalıks as extension of huts.

In 1960s and 1970s with the technological development in automobile industry, automobiles and autobuses took place of horse carriages on the roads of Karabağlar. Enabling faster transportation, motor vehicles caused augmentation in the number of visitors. Therefore, the roads of Karabağlar required renovation. Firstly, the narrow roads were widened, and then the roads were made of asphalt. While widening the roads, kesiks on the each side of the road were destroyed. The low branches of trees and shrubs, which led out to roads, were cut. Roads were raised through covering the way with materials after they were paved asphalt. Soil compression problem arose with asphalt. Asphalt canalized water from higher road level to ‘yurts’ by preventing the drainage on the road. Consequently, irim lost its drainage function.

Sapmaz (1996) cites that in 1985-90s, Karabağlar began to transform into secondary housing area and the real landowners sold or rented their yurts

to newcomers. Those newcomers built stonewall around their yurts to identify boundaries of their property. This process resulted in interruption of drainage system therefore fields turned into ponding areas.

In the past, on lower levels of the fields, irims were formed between kesiks, which were at the same level with field boundary. Irims were used for the evacuation of rainwater. They were connected to main roads, which were at lower levels, and they were also used as road when water was strained in summer. Water was canalized to the meadow pond areas. Today, destruction of kesiks, increase in the height of the main road because of asphalt layers and obstruction of 'irims' prevent the evacuation of rainwater, as a result of which unevacuated water accumulates in fields and yurts. The devastation of kesiks to enlarge fields area, cutting down trees and bushes for purposes of heating and so on, setting up fences for identification of properties by secondary house owners are important interventions made against conservation of natural structure of kesiks. Furthermore, such acts constitute threat for fauna living in kesiks. The bushes (kabalıks) like blackberry and rosehip are devastated.

IV.1.2 DUDENS AND OVERFLOWING AREAS

In winter, approximately 3200da land stays under water with the rainwater according to DSİ data (Karabağları Geliştirme ve Güzelleştirme Derneği, 1996). Enlargement of main roads and insufficient trimming of irims interrupt drainage system of Karabağlar. There are two düdens in Karabağlar. One is in the west of Karabağlar near Hamursuz Hill. According to Conservation Plan of Third Grade Natural Site, it is near the third zone and close to the overflowing area. The other düden is in the southwest of Karabağlar near Kötekli Village and Denizli Road. This düden is also close to the overflowing area but Muğla-Denizli main road is separating Kötekli düden from the overflowing area. The overflowing areas

are mostly located on a flat surface, on a lower layer. Given the point, it is observed that the rainwater, which flows down due to the slope is accumulated on the lowest part of the Karabağlar. Any intervention such as opening of Denizli main road can be an obstacle for drainage and may affect the channel that reaches Gökova Bay. This is a major problem for natural environment and ecosystem.

IV.1.3 INCREASE IN THE NUMBER OF SECONDARY HOUSES

So far, Karabağlar Yaylası has been an attractive focal point for visitors with its natural environment, traditional houses and pattern. The attractive features have been a reason for secondary housing too. Most of the yurts were sold for building secondary houses. New owners from different provinces used these houses seasonally. Some of the old traditional houses were renovated with contemporary techniques. The increase in the number of secondary houses has diminished agricultural activities, which are carried out for economic reasons. Some of secondary house owners are not carrying out agricultural activity; some of them are converting fields into hobby gardens. With the increase in the number of the secondary houses, an augmentation is observed at the number of vehicles. As a result, each householder demands asphalt roads to reach the yurts. Asphalt road brings the other problems like noise pollution, soil compression and drainage problems. Another intervention due to secondary housing is the construction of walls. The house owners have started to encircle their yurt lands with walls and barbed-wire fences to identify their boundaries. There is no conformity among these fences in terms of their types, styles, or materials (Figure 4.1).

Figure 4.1 *A new house surrounded with wire frame fence*

IV.1.4 DUST AND POLLUTION

Dust, stemming from circulating vehicles on the main roads of Karabağlar, hinders respiration of plants by covering the stomas of the leaves in dry summer days and prevents survival of plants. Besides, vehicles are causing physical harm to the kesiks and kabalıks just standing by the roads by hitting them due to narrow roads.

Furthermore, the leftovers of the lime factory that is located near Hamursuz Mountain pollute Karabağlar. Especially the gases that spread out from lime factory by the help of winds cause elms to wither as in Figure 4.2.

Figure 4.2 A dead elm

IV.1.5 DEEP WELLS

The most important attribute of the yurt is the wells. According to Sapmaz (1996), rich underground water is utilized in irrigation with the help of these wells. They are mostly 8-10m in depth. In the past, the water was brought out with the help of pumps and this water was canalized to the small stone pools to be used for daily house works. Water is brought out from the well with electricity. Therefore, the water at the very deep side of the ground could be brought out. It is known that there are small ponds under the ground. To get water from these ponds keson wells are used. During drought periods, new means have been found to open wells. These new

wells, which are approximately 25 m in depth, caused decrease in the level of water in keson wells. Moreover, each new well is diminishing the water level of the other wells. This case requires new wells and this vicious circle continues as it is. In the past, water in wells was used only to irrigate vegetables but with cultivation of tobacco, well water started to be used to irrigate tobacco fields. So people gave up growing vegetables, thus vineyards disappeared. Besides, although the actual reason is not perceived, the change at the level of underground water has an impact on the withering of elms that gives the 'Kara' name to Karabağlar Yaylası. Today elms are dying as shown in Figure 4.2.

IV.1.6 ACCUMULATION OF LEAD

According to searches made by Balcı, the director of Muğla University Environmental Problems Research and Application Center, the lead pollution near highways will be a threat for natural life in the future. He examined the plants growing along Muğla-Denizli Highway. He states that the lead proportion on plants has reached to 6,5 milligrams. This proportion can be a danger for plants. 100 meter inside from the highway, it is observed that the lead proportion is decreasing on the same kind of plants according to experiments.

> "Lead pollution can cause a danger for people's health and for the living species under danger. The lead components added to benzenes are carried by exhaust as a result of burning. This situation causes lead accumulation nearby the highway. Mostly, the people who live or work around highways and agricultural plants are affected by lead pollution" (Balcı).

Balcı claims that if lead components enter into the human body it may result in cancer. It will be suitable to leave 100 meter between fields and highway but as it seen in Muğla, Denizli Highway is passing through Karabağlar. It is the same case with Karabağlar minor roads, too.

IV.2 INTERVENTIONS TO IRIM AND KESIK

Irıms and kesiks are the main components that make up Karabağlar's traditional pattern so it is considered crucial to deal with the interventions made against irims and kesiks in detail under a different section.

IV.2.1 NEGATIVE FACTORS AFFECTING IRIMS

1. **Rare Utilization of yurts and irims:** In the past, it was a tradition to migrate to Karabağlar in summers but nowadays most of the actual owners of Karabağlar have passed away and by way of inheritance, the property changed owner. The new owners could not maintain this tradition. The abandoned yurts have been left as they are and they have been wrecked due to lack of care and maintenance. As a result, irims; the only pathways to the yurt have been closed with wild plants and irims have been disappeared from sight.

2. **Inclusion of irims in fields and yurts:** In the past, initial owners of Karabağlar were quite conscious about the function of irims and they never thought to change the boundaries of their yurts and to destroy irims, which enabled water drainage and discharge of irrigation water from fields. Today, owners of the fields divided by way of inheritance, try to enlarge their field boundaries to get maximum benefit from their field. Consequently, they do not hesitate to include irims in their fields through filling irims with soil and cutting kesiks. This result in eliminating the difference in the levels of irims and fields, so the surplus of rain and irrigation water could not be discharged and is accumulated on fields by changing the boundaries of large puddles.

3. **The accumulation of garbage in irims:** Because there is no garbage accumulation area, irims – especially closed and abandoned irims – have begun to become a garbage dump. Sometimes visitors of Karabağlar who cannot find any garbage can around are compelled to throw the garbage into irims, hoping that the nature can dissolve the garbage like glass, can, and plastic. Nevertheless, these kinds of garbage cannot be dissolved in a short period, thus they form garbage heaps in irims because of accumulation, which constitutes another reason for closure of irims (Figure 4.3).

4. **Renters:** Some of the renters of yurts, coming from different villages, are mostly unconscious about the utilization and the function of irims and kesiks so they sometimes close irims, and add them to their property by using them as a part of their field. Furthermore, they are destroying kesiks and kabalıks in order to build concrete walls or wire fences.

5. **Covering the surface with different materials in irims:** Although it is forbidden to cover the surface of irims with different materials, some yurt owners pave the irims near their yurts with pebbles. This processing changes the ratio of water drainage as well as underground water level and in the same way boundaries of ponding.

Figure 4.3 *Garbage thrown to irim*

IV.2.3 NEGATIVE FACTORS AFFECTING KESIKS

1. **Deformation of kesiks to extend field boundaries:** Some of the residents cut and trim kesiks and ruin heaps of kesik in order to include irims in their fields. Some of them use the woods of trees and shrubs of kesiks as fuel for heating.

2. **Ruining kesiks, leaving soil and plants on top of kesiks after trimming irims:** Some residents try to clear irims by themselves and due to lack of sufficient equipment and vehicles to carry the remains; they throw them (plants, leaves, soil, etc.) on top of kesiks.

Therefore, the plants that survive in kesiks wither because of insufficient respiration. Moreover, kesiks covered with soil and plant remains do not seem aesthetic.

3. **Utilization of new means instead of kesiks for identification of boundaries:** With the increase in the rate of secondary housing, new houses are built with new technological equipment. However, this should be carried out in conformity with the natural characteristics of the surroundings. House owners are ruining kesiks and they are using wire fences and walls to identify boundary of their properties ignoring the natural structure and environmental conformity.

4. **Excessive trimmings of kesiks:** Some kesiks near vehicle roads are trimmed excessively. Nevertheless, some vehicles destroy the low branches of trees and shrubs on kesiks. Some kesiks are trimmed during enlargement of roads.

CHAPTER V

CONSERVATION ORIENTED DEVELOPMENT PLAN DESICIONS OF KARABAĞLAR THIRD GRADE NATURAL SITE AND CRITIQUE OF THE PLAN

In previous chapters the rural characteristic of Karabağlar, alteration of traditional property pattern related to urbanized life and the potentials of the area are put forth. In addition, the adverse effect of urban growth that the area confronted is examined. In this chapter, the decisions of the conservation plan, its objectives, and implementation purposes will be discussed and the inadequacies of the plan will be held in a critical way.

Plan is criticized with the purpose of:

- Identifying planning approaches to physical, economical, social structure of Karabağlar
- Identifying and measuring the level of conservation strategies considered for traditional property pattern, natural landscape, natural formations, natural and cultural assets, rural life, and agricultural lands of Karabağlar, which constitute the rural character of the area.
- Revealing existing conservation policies in Turkey and their inadequacies.

- Proposing solution alternatives in order to preserve the rural character of Karabağlar.

V.1 CONSERVATION ORIENTED DEVELOPMENT PLAN DECISIONS OF KARABAĞLAR THIRD GRADE NATURAL SITE

Conservation Oriented Development Plan of Muğla/Karabağlar Urban and Natural Site was approved with the decision number 42, by the Municipal Council on 20.08.2002, and Muğla Conservation Committee approved the plan on 18.12.2002 with the decision number 2041 on the conditions of renewing some sections of the law and the expansion of the conservation area. Revision of plan reports and projects were accepted with majority according to Construction Law no. 3194 and 8/b item.

V.1.1 MAIN GOALS OF THE PLAN

Social, economic, physical objectives and targets:

- To revive social life of Karabağlar with physical arrangements.
- While attempting to revive the social life, necessary precautions as to mitigate the negative effects of physical arrangements will be taken.
- To use technological opportunities in a way that it will not affect traditional architecture.
- The architectural units (cafes or unused housing units) will be determined and they will be assigned functions, which can be associated with the potentials of the site.
- To use agricultural lands correctly.
- To develop tools to develop natural quality with an emphasis on transportation of the site.

Social objectives and targets:

- To convert old activity centers into new activity centers.
- To unify those qualities that give Karabağlar its rich cultural essence.
- To enhance the responsibilities of elected head of villages who strengthen local management relations, in order to enable public participation in the revival of social life.
- To bring old and new users together in order to sustain a balance between natural and social relationships, to create a milieu those users can communicate within.

Economic objectives and targets:

- To develop tools that provide productivity of agricultural activities.
- To provide economic sustainability of Karabağlar that preserve the social and natural life balance via physical arrangements that achieve sustainability of traditional attributes of natural or built environment or gives opportunity to daily uses as regards the natural potentials of the area.

In order to achieve these objectives, plan proposes zoning. Zoning criteria and decisions about zoning area are given in Chapter 3.

V.2 THE CRITIQUE OF THE DEVELOPMENT PLAN

The main goals of the plan approach Karabağlar as an ordinary rural settlement or a village. However, this thesis asserts that Karabağlar displays a specific and unique rural character. Therefore, the preservation of man-made and natural formations (irim, kesik, kablalık, property pattern, plane trees) shaped by residents' traditional life style is the missing part of

the plan. The objectives of the plan do not specify the details of the preservation of the rural character. Moreover, they do not mention hydrological data, flooding, ponding problems, underground water, and the quality of water, which is a crucial factor for Karabağlar, which in turn sustains agricultural production and natural vegetation.

The decrease in population of Karabağlar is mentioned in the plan report and is associated with economical problems. However, it is estimated that during summer months, the population doubles, because Karabağlar is an attraction point with its natural landscape character, its natural cool climate, rural life environment with natural structure and traditional property pattern that give opportunity to agricultural production. The decrease that is mentioned in the plan report can be valid for population that attends agricultural occupation. Indeed, the population that earns their life from agricultural occupation is decreasing while the population that uses their yurts as secondary houses is increasing as a result of previously urbanized development. This plan should aim the continuity of traditional life, because the change of land ownership has brought about a change of land use and land prices. Furuseth and Lapping (1999) suggest that newcomers to rural areas from urban areas drives the prices of lands and tax rates up therefore the owners sell their property in order to afford to pay taxes. They claim that farmers cannot find land for agricultural uses adjacent to their lots because of new residential units. Land price is an important fact for speculative housing problem in Karabağlar and this situation forces farmer to sell their farmlands to newcomers from urban areas.

As the decreasing population dealing with agricultural production is set as a problem, some new kind of alternative uses are proposed for Karabağlar in the plan report, such as recreation including usual daily activities. In the process of shifting the agricultural traditional life type to recreational oriented uses, the area is gradually commercialized and thus loses its

agricultural character. Support of recreational activities and tourism may cause the area to be exposed to a high-density population; a frequently seen scene in the coastal settlements. Moreover, recreational activities will bring new responsibilities and management strategies to the area that must be held in detail. However, the report is not specific in recreational facilities and their management.

Coppock and Duffield (1975) conducted a research in United Kingdom. In this research, landowners who accommodate in countryside were part of a questionnaire. The problems arising from the recreational use of rural lands were summarized as the disturbance to livestock, left open gates, problems of litter and rubbish, damage to dykes and fences, vandalism, damage to crops/grazing, poaching/theft, problems of fire and arson, noise, trespass, damage to trees and the blocking of access roads. However, they point that the revenue from tourism is more than the farming income. Therefore, farmlands turn primarily into recreational uses. Profits of recreational use of rural lands may be attractive for landowners of Karabağlar. However, provisions of recreational uses among farmers do not interfere with agricultural production. This means the abandonment of agricultural production in order to develop recreational potentials of their yurts.

Resorts and tourism facilities are held as potentials for Karabağlar. Tourism and recreational facilities are the main resources of consumption activities. Townships of Muğla, like Marmaris and Bodrum are instances for how tourism and recreational facilities disturbed and reduced natural resources. Coppock and Duffield (1975) cited in the term capacity according to Countryside Recreation Research Advisory Group as follows:

> “The level of recreation use an area can sustain without an unacceptable degree of deterioration of the character and quality of the resource or of the recreation experience” (Coppock and Duffield, 1975, p.98).

In order to take precautions against the deterioration of the rural pattern, reduction of resources and loss of farmlands in Karabağlar, the decision-making process, first has to include an examination of the resource capacity. In addition, high level of population pressures, pollution that will arise with high population and intensive construction provisions should be reckoned. Gilbert (1971) suggests that rural hinterlands would continue to be farmed; however, in order to secure farmlands from recreational pressures. The rural areas should not be turned into empty wilderness. He claims that the aim of conservation as to isolate beauty of rural, to provide the remoteness and high visual quality of farmlands.

Recreational facilities require a developed road network. Yet, the plan report seems unable to bring up solutions to traffic flow and the resulting pattern of improvement and reconstruction. It is perceived that Denizli Highway is an instance of wrong implementation in Karabağlar. Muğla-Denizli Highway was constructed after Karabağlar was accepted as a Third Grade Natural Site and this highway serve the inner-city. It is disintegrating the green, separating natural and traditional pattern by dividing the area into two parts.

Forman and Alexander (1998) explain the major ecological effects of roads on landscape. Road networks interrupt horizontal ecological flows, alter landscape spatial pattern, and therefore inhibit important interior species. Furthermore, they contend that road networks have chemical, hydrologic and erosion effects on landscape. Muğla-Denizli Highway is crossing through fields and olive groves, interrupting natural landscape and habitat of some species. Moreover, it has chemical effect like lead accumulation on plants. Besides, during summer months dense traffic is observed on this highway with the vehicles driving to coastal settlements. Therefore, it is major mistake to accept the construction of this highway in

Karabağlar. Skinner (1976) suggests that designation of rural roads entails feasibility studies in order to realize indications of environmental problems.

> "Feasibility studies tend to pose the environmental questions in terms of values preserved or lost by the route selection, and this will often be the way in which the problem will present itself to the design team." (Skinner, 1976, p.27).

As it is cited here, feasibility and resource capacity studies are helpful in proper decision-making.

V.2.1 KARABAĞLAR NATURAL SITE BOUNDARIES

The boundaries of Karabağlar Natural Site encompass an area of 15, 5 km^2. Analytic Study of Karabağlar (2002) referenced the book written by Eroğlu in 1939. According to him, Karabağlar covers an area of 25 km^2. He describes Karabağlar as the summer resort of Muğla and says that it takes between forty-five sixty minutes to reach the nearest point and one and a half hours to the farthest point of Karabağlar. This reveals that Karabağlar settlement has somehow shrunk in time. In the past, Karabağlar settlement might have included Düğerek, Ortaköy, Kötekli and Muğla plain on which a section of Muğla residential area takes place now. Today, Ortaköy and Kötekli are villages of Muğla. In addition, Muğla has expanded towards east where the sites of the small industry and the recently founded university campus are found. Düğerek, a district of Muğla has also contributed to this expansion. Thus, today Karabağlar is facing a rapid urban expansion and its area is gradually shrinking.

It is also seen that some cafes are out of Karabağlar Site boundaries. This means that some parts of Karabağlar are excluded from the natural site. Karabağlar settlement is a whole with its cafes, fields, and traditional

pattern so exclusion of some parts from Karabağlar site is an inadequacy with respect to conservation.

The plan discuses the expansion of the site boundaries to the forest area and Bağlarbaşı; and this plan was approved with the stipulation of this modification. Today two new development plans are prepared for Ortaköy Village and Düğerek (Figure 5.1 and in Figure 5.2). Construction areas that are added are indicated with red dots. Ortaköy Village boundary is enlarged as it covers the olive groves. Second section of Düğerek Village is also added to the development plan. This situation will create dense construction activities around Karabağlar Site and will cause olive groves to disappear.

According to the plan report, although the implementation area is described inside the boundaries of urban and natural site, any kind of implementation activity that take place in near vicinity should be evaluated and should be investigated for conservation.

> "Conservation as a process does not end at the boundaries of designated area" (Woodruffe,1976, p.59).

In accordance with this idea, planning does not end at the boundaries of conservation area.

V.2.2 CONSTRUCTION CONDITIONS IN PARCELS

The plan report indicates that in the main building parcels, in which buildings that need reconstruction with protection according to their appearances and façade properties, if the building is reconstructed again, an enlargement of the building area is possible. This decision may bring in the danger of demolishing the main building down in order to enlarge it.

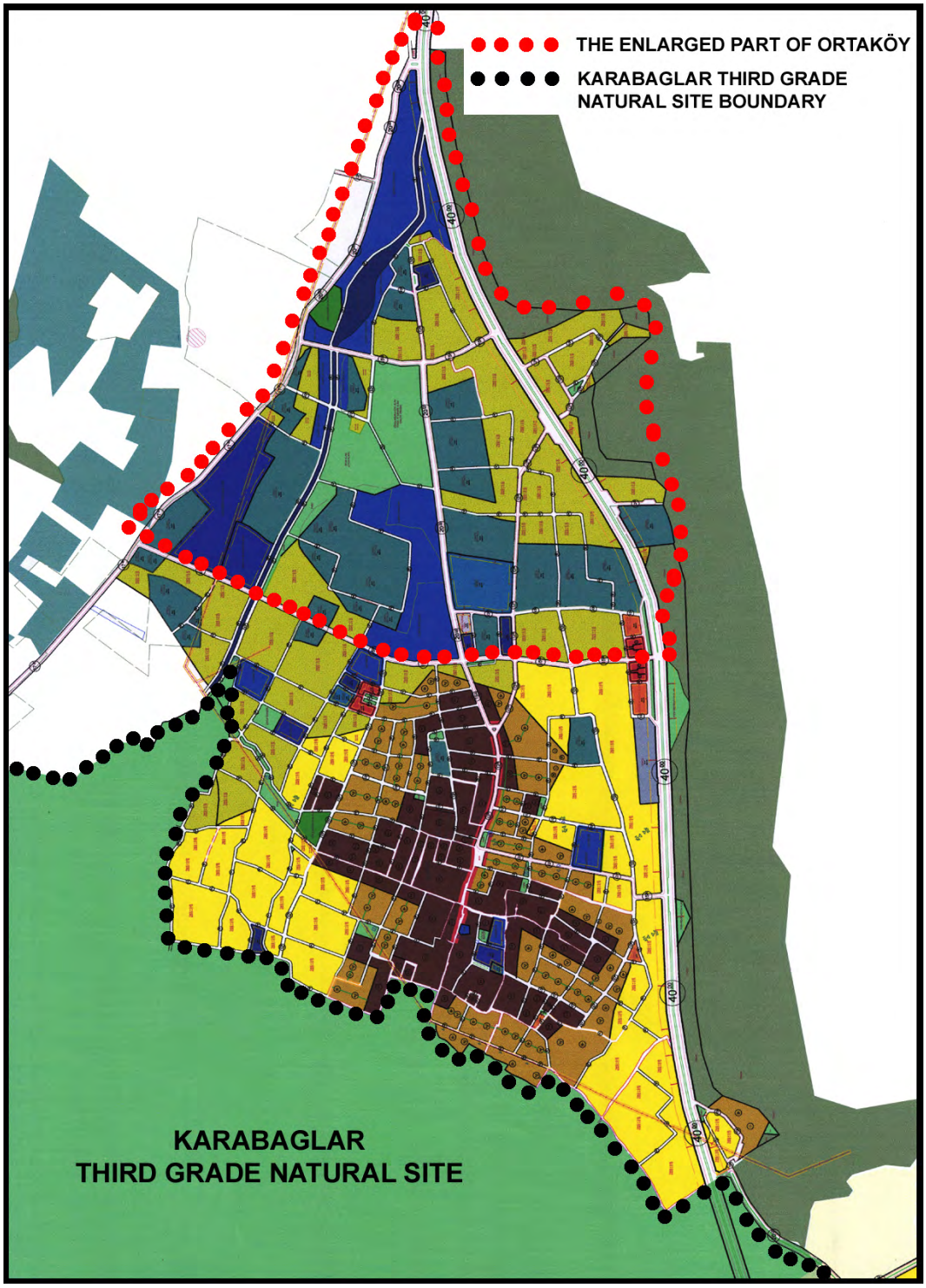

Figure 5.1 *Ortaköy Development Plan*

Source: *Muğla Municipality,2003*

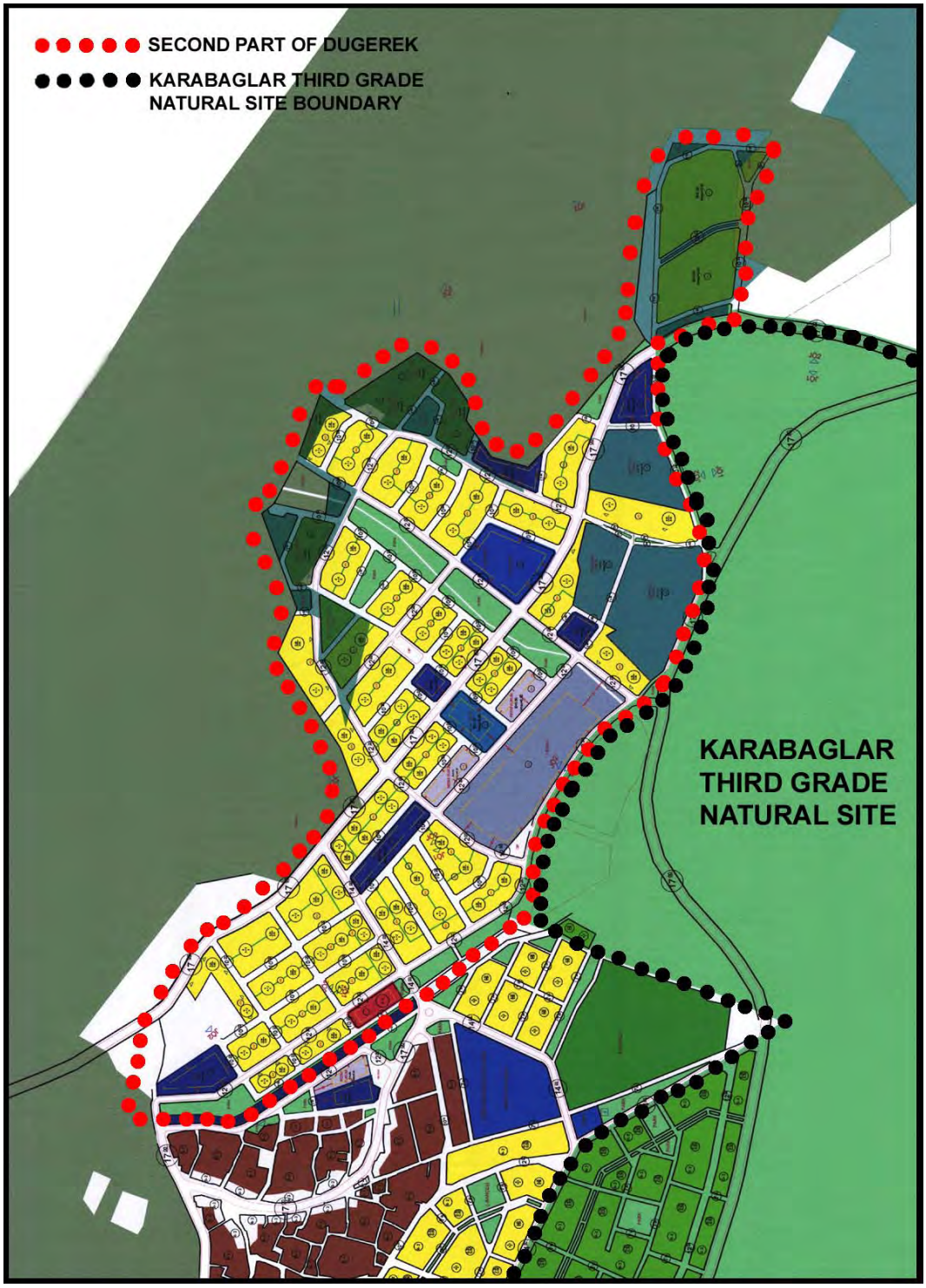

Figure 5.2 *Düğerek Second Part Development Plan*

Source: *Muğla Municipality,2003*

Furthermore, this decision may cause the encouragement of new building construction instead of restoration. Plan gives opportunity for the construction of a second house in the parcel to preserve the main building structure. As a result, there may be a variety of small and big building structures, with WC, outhouses, etc. in the parcels. Although the plan points that this decision cannot be carried on at the scales, which might increase the density of construction by deforming the traditional pattern, the new constructed buildings may lessen the conservation attempts of main buildings in parcels. Moreover, the condition that new and old buildings stand together in a parcel can lead to a syntactic problem in terms of architectural language.

According to the plan report, the floor area ratio is determined as 0, 05 in the parcels that are more than 1600 m^2 and the total construction area can't be more than 120 m^2. Total construction area cannot be more than 80 m^2 in parcels smaller than 1600 m^2. Permission is given to build outhouses that cannot be more than one third of the total construction area. This condition requires 40 m^2 of outhouses in the parcels smaller than 1600 m^2, 27 m^2 of outhouses in the parcels larger than 1600 m^2. However, it says that total ground area of every kind of additional building and outhouses cannot be more than 100 m^2. This situation causes uncertainty about the size of additional buildings.

Minimum division conditions of joint properties and other properties that have changed owners by inheritance were the same for all parts of Karabağlar until now. However, minimum division conditions are determined according to zoning areas via Karabağlar Development Plan:

- The minimum division condition is 3000m^2 in the First Zone
- The minimum division condition is 5000m^2 in the Second Zone
- The minimum division condition is 5000m^2 in the Third Zone
- The minimum division conditions of the Düğerek Development Plan is accepted for the Fourth Zone

This final decision shows that parcels in the Fourth Zone will be very small. As it is seen in Figure 5.2, a small section from the north of Karabağlar is added to the Düğerek Development Plan propagating a loss for Karabağlar. In the Düğerek Development Plan, the part shaded with brown color has cadastral parcels when we compare with the new construction areas. It displays that this part was an old settlement and once was related with Karabağlar, because Düğerek is called as Düğerek Plain in the old literature and display similarities with Karabağlar. In the Karabağlar plan report, it is explained that the maximum parcel size is 12000m^2 according to conditions of parcel unification. It is pointed that parcels smaller than 400m^2 cannot be constructed without uniting.

V.2.3. LAND USE CONDITIONS OF ZONING AREAS

Zoning criteria that development plan put forward and that are given in Chapter 2 takes into account only physical factors but social, ecological, and economic factors are ignored. Whereas, the values that constitute Karabağlar are explicitly composed of these factors.

First Zone: Here, commercial and tourism uses are permitted. The report cites that this area is a residential area and commercial and tourism uses can be possible when the cafes are opened to tourism and recreational uses. This zone is the largest area.Therefore, agricultural production of Karabağlar is provided mainly from here. To cite only tourism and recreational facilities and disregarding agricultural production is an inadequacy.

Second zone: Plan contends that any kind of intervention and implementation that cause the disintegration of the property pattern is discarded. Furthermore, considering this area as a gate to Muğla center settlement, plan gives opportunity to daily or camping tourism facilities,

exhibition, or sales units in addition to housing. However, this decision may cause a quick and easy disintegration of the property pattern because when the local residents abandon this area to recreational facility developers, the character of property pattern will change.

Third Zone: In this zone, permission to temporary units that support agricultural activities is given.

Fourth Zone: The zone is at the south of Düğerek. Thus, Düğerek Development Plan will be valid for this area. Under these circumstances, building constructions will start to the north part of Karabağlar. In the past, Düğerek District was a part of Karabağlar settlement, today it is extension of Muğla settlement. If this zone is added to Düğerek District, it might be possible to expect that other sections of the site will be separated in the future.

Conversion of some lands into village settlements in Karabağlar due to zoning may cause Karabağlar to get even smaller. In this sense, zoning should be considered as an important factor that influence land development.

> “Zoning is designated to prevent the harm that one landowner’s use of his or her land can have on the community and on the value of neighboring property. Zoning achieves this purpose by designating permissible uses for all parcels of land in terms of allowable activities, characteristics of buildings, and placement of buildings on lots. Strict enforcement of zoning regulations can prohibit or restrict development in some areas. Land zoned agricultural, for example, can be excluded from urban development entirely" (Lee, 1979, p.26).

In Karabağlar if the aim is the continuity of traditional life and agricultural productivity, then zoning should be forced accordingly; zoning is especially an important fact that affects the future of the area. It should be kept in mind that Karabağlar is a natural site that must be preserved. Yet, it is

surrounded with developing areas and villages. Thus, this kind of a zoning may purport urban development in Karabağlar.

Furuseth and Lapping (1999) claim that private landowners' decisions are important for the future of the rural-urban fringe. They state that greenbelts, farming districts and large lot-zoned acreage preserve open space for urban development and hobby farm uses. They describe open spaces as rural countryside. The urban edges are the transition zones for speculative house development, landfills, urban-rural waste transfer facilities, electric transmission lines, rail-lines, roads and highways, airfields and cable lines. Weller (1967) alleges the necessity of greenbelts for definition of rural and urban boundaries:

> "As agriculture becomes more industrialized, it becomes clear that urban and farm land must be distinct and, moreover, that recreational and farm land must have a clear division. Thus, there must be greenbelts round all urban centers, preferably with clear-cut definition. These belts may be agricultural or recreational in character ……. Pockets of poor land in the country will in any case be used for recreation, some of which should act as viewing places over intensive farm land to make it possible for the public to see and possibly understand modern farm practice" (Weller, 1967, p.153).

As it is mentioned here, there should be a transitional zone around Karabağlar Natural Site that will function as a buffer for urban interventions like speculative housing development, high traffic and the other urban infrastructural activities.

Harvey and Works (2002) point out the impacts of urban growth in Portland, Oregon and cite establishment of Urban Growth Boundary to protect rural landscapes, farms, and forests from urban sprawl. Exurban developments and hobby farming are arising problems of urban growth. They argue that land-use changes in rural areas concerning urban and rural residents' suggestions regarding urban growth boundary. They

contend that urban residents are favored in farm, rural landscape, and visual amenities more than farmhouses and large-lot residential developments. Therefore, Urban Growth Boundaries function as transitional landscape like greenbelts and they prevent spread of suburbanization outside of boundaries.

Karabağlar is surrounded with Ortaköy, Kötekli Villages, and Düğerek District. However, these villages are becoming dense, and they are transforming into an urban fringe. Moreover, they are on the way of becoming some districts of Muğla settlement. The urban growth can be under control by establishing a transition zone that reduces direct effects of urban sprawl.

V.2.4 AREAS WITH SPECIAL REGULATIONS

In the plan report, two areas with special regulations are determined. These areas have some privileges as follows:

First area with special regulations: This area is tried to be converted into tourism facility. The need of tourism facilities in Karabağlar should be evaluated first, because Karabağlar is close to Muğla Center and Kötekli Village settlements. Especially Kötekli Village has a great potential of having motels and accommodation facilities due to presence of Muğla University. Although Karabağlar Natural Site should be protected from construction activities and pressure of population increase, with this decision, new construction movements are being incited. Plan allows, building mandatory technical services for tourism facilities and basements for storage. Under these circumstances, the construction codes stipulated in General Construction Legislation would be conformed instead of Special Construction legislation that has been laid down for Karabağlar.

Second area with special regulations: Here, plan allows the building of residential use in addition to camping facilities. This area is at the western section of Karabağlar.

V.2.5 COURTYARD AND PARCEL WALLS

Plan allows building stonewalls at the places where there are no kesiks. The length of the parcel walls cannot exceed half the total length of parcel perimeter. At the rest of the parcel boundaries, existing irims and kesiks are required to be rehabilitated; or the arrangement of new ones are allowed. However, stonewalls surrounding half of the parcel perimeter may damage the integrity of the landscape pattern and the continuity of kesiks that creates a green corridor. Moreover, wire-frame fences are also allowed provided that they are used together with kesiks. Today on account of changing conditions, life style and predecessors of original residents, a trust problem is discerned. In the past while residents were feeling no need to lock their doors, today people want to enclose their yurts with barbed wire fences. Most of the residents want to identify and signify the boundaries and want to take security precautions. Hence, they prefer enclosing their yurts with wire-frame fences instead of creating kesiks because it is hard to create and maintain a kesik, which needs trimming, and cleaning every year. However, they mostly forget that kesiks are the habitat of the animals so these wire-frames fences and stonewalls will be obstacles for bird nests and movements of animals like reptiles.

V.2.6 OTHER INADEQUACIES OF THE PLAN

Karabağlar conservation plan also discounts some of the problems.

One of the inadequacies of the plan report is the planning of services. Power network, drinking water, waste collection, and infrastructure is not mentioned. It is known that the water provided from wells have some bacteria and chemicals that will be harmful for human body. Public Health Laboratory Management analyzed the water from different district wells in Karabağlar (Karabağları Geliştirme ve Güzelleştirme Derneği, 1996) According to these analyses, it is cited that the well waters are dangerous to drink without purifying them. Moreover, it can be dangerous to use only some of the wells for other domestic purposes as well.

Weller (1967) contends the planning of services across farmland as a growing problem, especially power cables:

> "Electrical distribution, and in particular the extension of the national grid with its mammoth pylons, is a subject of public concern…....There is an amenity problem of sitting and scale. With care the 90ft pylons are not disproportionate in great sweeps of landscape where contours and features are bold……..The main problem which seems to be inevitable and a growing menace is that in many districts two or more grid lines, plus intermediate supply lines, convert the sweep of landscape into visual chaos. This is particularly true when lines disperse from a power station across the neighborhood" (Weller, 1967, pp. 140-141).

Electricity distribution is another problem for the scenery and landscape of Karabağlar because the power network that extend and suspend above the trees may harm birds and some kind of trees. Moreover, they are not aesthetically pleasuring. TEK (Türk Elektrik Kurumu-Turkish Electrical Institution) is also trimming trees and kesiks with the opinion that they damage power lines. Another inadequacy of the report is that there is no explanation about by whom, how these cleaning and trimming studies will

be carried on, and how and where infrastructural elements will be installed.

The report does not clarify the pavement material of courtyards and plant types in the parcel. Most of the residents prefer covering the floor with concrete or different hard material and planting grass around courtyards although grass needs large amount of water. This kind of implementation may affect the permeability of the soil, the underground water, and the drainage.

It is known that the agricultural production is at the level of self-sufficiency in Karabağlar so there should be some legislation about the unification of the field-lots, to improve agricultural production. Plan report does not mention about the incentives of farmers and there is no legislation about farmland preservation. One of the main characteristic of Karabağlar is the farmlands. If these farmlands disappear, Karabağlar will become an ordinary residential area or an extension of Muğla. According to Furuseth and Lapping (1999), the effectiveness of a farmland preservation strategy depends on various socioeconomic, political, and environmental conditions and circumstances. They put forward that the effectiveness changes according to degree of urbanization effects. They assert some factors that may affect farmland preservation strategy are as follows:

> "- the sensitivity of the environment
> - the context of existing land-use controls and planning
> - local mix of agribusiness and family farming
> - land productivity
> - farmer income levels
> - the skill and leadership of government officials
> - public attitudes towards land-use control
> - the local importance of agriculture
> - the number and location of parcels
> - population growth" (Furuseth and Lapping, 1999, p.81).

These factors may be crucial in taking the decisions that pertain to the plan. The factor that includes farmer income level is indeed important in farmland preservation, so there should be incentives like tax reduction/exemption to get better production and land-use controls like purchase and transfer of development rights.

V.2.6.1 Incentives for Farmland Preservation

Furuseth and Lapping (1999) introduced existing and proposed innovative farmland preservation strategies in North America in two categories. Accordingly:

Land Use Controls: In North America, *agricultural zoning* is widely used because of its low cost and political acceptability (Furuseth and Lapping, 1999). *Right to farm laws* attempt to prevent farm and non-farm conflicts that cause farmers to leave farming. *Purchase and transfer of development rights* provide farmers to sell the development rights to government or another organization. *Land banking* provides farmers to buy land while the government retains development rights. *Comprehensive planning* is usually related on a land use plan strategy with comprehensive planning it is aimed to guess alternative futures for the area, costs, and benefits. *Land trusts* are non-profit or quasi-governmental organizations that accept gifts and forfeiture of land. *Foreign land ownership and purchase restrictions* provide the continuity of agricultural activity and local farmers.

Integrated Programs: *Comprehensive growth management strategies* are used to provide a balance between preservation goals that conflict with growth and development (Furuseth and Lapping, 1999). *Integrated state/provincial programs* usually combine one or two incentives: a tax incentive and land use control, and two or more land use controls.

V. 3 DISCUSSION OF PROBLEMS AND SOME SOLUTIONS

When rural settlements around the world are compared, they more or less display similar problems. In Europe, the term countryside describes rural lands adjacent to cities. The main problems arise from suburbanization, farmhouse, and hobby garden demands of urban residents. However, greenbelts between rural and urban lands are developed to preserve rural lands and give opportunity to recreational uses. In America, rural land term describes larger areas different from Europe but exurbanization and deterioration of habitat and landscape emerge as problems. Both in America and Europe rural settlements and villages emerge with their scattered structure. The house and the field are in the same lot. In Turkey, villages display a compact structure therefore fields locate around a group of houses. However, Karabağlar differs from Turkish villages by presenting a dispersed layout as it is in the countryside.

Karabağlar residents consisted of private landowners therefore the implementation and development rights have been under the responsibility of landowners. The most crucial attribute of Karabağlar is the rural pattern formed by private landowners. However as a result of urban growth, related alterations of property and the users, there is a deterioration of vegetation, agricultural soil, road system; thus, basically the quality of rural life and character. Therefore, this natural heritage in Karabağlar must be focused on in order to sustain the amenities of its landscape by planning.

In Turkey, studies about rural areas have not been successful and these studies were not efficient and adequate to evaluate the social, cultural, and physical values of rural areas. The traditional settlement form and the components of site are not studied yet. In Turkey, the term rural planning is not valid. In Turkish Planning System, there is no law about rural planning and rural preservation. The first law was 1924-dated Village Law

No. 442; however, its planning approaches could not be effective at the rural development, and they are deteriorated with the urban development. 1987-dated Agricultural Incitement and Support of Farmer Law No. 3380 is related with taxes only. These laws are not appropriate and efficient for preservation of traditional pattern of rural areas. Rural areas like Karabağlar are considered in the concept of Unmoved Cultural and Natural Assets Law, however Law on the Preservation of Cultural and Natural Assets does not include rural areas phrase.

All the activities and revisions about electricity, water, and infrastructure in Karabağlar should be fulfilled and organized according to a plan carefully and these kinds of studies should be stated at Karabağlar Conservation Oriented Development Plan Report. There should be solution proposals about power lines and transformer buildings that harm existing vegetation.

To prevent uncontrolled trimming and cleaning facilities of kesiks and irims there should be cooperation between the municipality and other public institutions so that unconscious trimming activities of kesiks and shrubs can be prevented. Cleaning and trimming in Karabağlar should be carried out and controlled systematically by only one institution and this should be mentioned in the report.

Lassey (1977) suggests that goal setting, design, and implementation must be realistic in order to fit varying conditions of the future. People's impacts on environment and artificial development can be identified with the help of projections of urbanization, the rate of migration and population dispersion. Some projections for water source, underground water, irrigation water, drinking water, agricultural production, population before taking decisions about Karabağlar should be prepared.

National Environmental Action Plan (1997) suggests that there are many legal arrangements related to conservation of environment and agricultural

areas today, however these arrangements are under the authorization of different establishments. Laws related to conservation and utilization of agricultural areas have been the subject of regulations concerning conservation and utilization of agricultural areas out of agricultural objectives. Constitution of 1982, Environment Law No. 2872, Act relating to Duties and Organization of Village Service General Directorate No. 3202, Agricultural Reform Act concerning Land Arrangement on Irrigation Areas No. 3083, Construction Law No. 3194, Municipalities Law No.1580, Mass Housing Act. No. 2965 were related regulations. Owing to inapplicability of these regulations at the same time and lack of cooperation between the organizations and institutions, agricultural areas have been used for different purposes for years. There should be explicit, understandable, and applicable legal arrangements that will put an end to the complexity of concepts and regulations.

While preparing physical plans, natural resources, geomorphologic and topographic data, climate, vegetation, geologic position, earthquake, streams, overflowing areas, soil capability, resources that provide irrigation, drinking and domestic water, mineral deposits, and environmental problems are not held sufficiently (Lassey, 1977). Plans are hold without considering the areas around the planning site are inadequacies of the planning processes and they result in an awkward urbanization. In this concept, surveys should be done in detail and inventory studies that are updated every year should be prepared.

In his book, Woodruffe (1976) explains the aims of conservation policies in England as follows:

> "(1) the safeguarding of listed buildings and other buildings contributing to the character of the area…… (2) a closer control over new development by insisting on detailed designs or sketches before any decision is given; …… (3) a more critical assessment of existing development, including advertisements and 'permitted development'; (4) a greater attention to details-

> street furniture, signs, poles, wires and lighting can all detract from the appearance of an area; statutory undertakers, local authorities and developers will be encouraged to give priority to minimizing clutter and unsightliness; (5) local effort and initiative from individuals or local societies must be encouraged "(Woodruffe,1976).

In Turkey, there are no conservation policies for rural areas. There should be determined general rural conservation objectives. Importance should be given to participation of local residents in decision-making process and their initiatives for Karabağlar should be supported. New standards for Karabağlar should be prepared, which conserve the continuity of traditional life and appearance.

There should be controls during implementation and there should be legislations about charges and fines to prevent interventions and illegal implementations.

V.3.1 SOLUTION RECOMMENDATIONS TO THE PROBLEMS AT IRIMS

1. Local governments such as municipalities should clear the abandoned and closed irims every year. They should trim the wild plants to clear irims.
2. Yurt owners and residents of Karabağlar should clean the irims, providing access to their yurts.
3. Non-governmental organizations should increase awareness of people vis-à-vis importance and preservation of irims.
4. Garbage cans must be located at certain important points like cafes and there must be a garbage accumulation point. Municipality should collect the garbage from these accumulation points.
5. Everybody should assume the responsibility of preserving and maintaining irims. This should be stipulated by relevant laws.

6. Inclusion of irims in fields and covering the ground surface with materials should be banned by law.
7. The infringement of laws should be punished with fees and faulty individuals should be obliged to carry out necessary interventions in correcting the fault.
8. Specific code or number may be given to each irim as is the case with street number. As a result, irims will not be disappearing and it will be easier to control each irim.

V.3.2 SOLUTION RECOMMENDATIONS TO PROBLEMS AT KESİKS

1. Each resident should assume responsibility of kesiks of their yurts
2. Residents of Karabağlar should be made conscious about the formation of irim and kesik.
3. It must be forbidden to destroy kesiks in order to use another boundary identification tool. These kinds of identification tools should be used at the entrance of yurt.
4. If a new house is to be built, the house should conform to environmental aspects, otherwise environment should not be forced to conform to man-made buildings; so kesiks should be preserved as they are.
5. Municipality should take necessary care in order not to destroy plants during the process of trimming the kesiks.
6. Vehicle transportation should be forbidden in irims. Vehicle traffic should be limited and should be allowed only at the main roads of Karabağlar
7. Non-governmental organizations may select the best kesik of each year to encourage residents to preserve and maintain their kesiks.

CHAPTER VI

CONCLUSION

This thesis puts forth that Karabağlar rural settlement is facing the pressure of urban expansion and the precautions taken for preserving Karabağlar are insufficient and inefficient. The reasons of urban expansion are various and the effects of urban growth on Karabağlar depend on proximity of Karabağlar to the urban area. Karabağlar is in the course of transition into an ordinary secondary residential settlement of Muğla. The main features that shape and create rural character of Karabağlar are property patterns consisting of private ownership (yurts), specific road network whose roots emerge from irims and kesiks, traditional houses, variety of vegetation, abundant water, self-sufficient agricultural production, intimate relationship of residents and their traditions.

A series of alterations in the life styles of Muğla residents have been observed due to social and economical reasons. Technological developments have been influential on such alterations as well. Changes in life styles result in variety of demands from residents on new residences. These demands led to increase in the number of dwellings in Muğla plain; however nowadays Muğla plain, surrounded with mountains is inadequate in terms of meeting housing requirements. Therefore, Muğla city is continuing its expansion towards the east and west. Karabağlar is

located in the middle of urban development fields, enlarging toward the eastern side of Muğla.

One more reason for transition of villages into urban-rural fringes is the establishment of Muğla University. Right along with the enlargement of university campus, housing needs of new dwellers that moved to the city for education at university tried to be met from Kötekli and its surroundings. Today Ortaköy and Düğerek settlements are being enlarged for new housing requirements. Therewith it is considered to open Muğla industrial site to settlings after the industrial site moved to the western side of the city. All these speculative housing developments impinge on farmlands and olive groves in Karabağlar and its surroundings, consequently diminishing their area.

The alteration in the social statutes caused high-income earners to possess secondary houses on the coastal area. Secondary house owners dealt with horticulture as a hobby and converted fields into hobby gardens and augmentation of non-native plants, automobiles, artificial fences, installment of infrastructure and service materials have emerged as problematic issues in the lots. All these alterations in Karabağlar resulted in interventions like restoration of roads, expansion of irims, utilization of different materials like stone, concrete and wire for fences to encircle the boundaries of yurts for the security purposes, deep well constructions, etc. that damaged traditional pattern of Karabağlar.

As a result of such events, it did not take too much time for the community to realize that the traditional pattern of Karabağlar was under danger; nevertheless the approval of Karabağlar Third Grade Natural Site has not changed the users of Karabağlar and the interventions emerged as a result of urban growth. Whether the area is under conservation or not, it did not affect the demands. The rural character and the traditional pattern of Karabağlar are the attractive factors for the visitors and secondary

house residents. Development plan decisions focusing on conservation are important to maintain the characteristics of the area through the time by identifying land-use strategies. Moreover, if implementation controls are done then the conservation aimed development plan becomes functional. In Karabağlar, some uncontrolled construction acts have been observed so far. This fact proves that there are problems related to implementation of the conservation plan. In addition, it demonstrates that all the inadequacies, complexity of laws concerning rural conservation result in simplification and deterioration of the rural character, natural and cultural assets of Karabağlar.

Property can be considered as the main structure of Karabağlar's rural character. In addition, property pattern of Karabağlar may be the result of irim and kesik or vice-versa irim and kesik may be the result of property pattern; however, this relationship has been the source of life for Karabağlar and Muğla residents for years. Property should be taken into consideration also with its benefits relating to agricultural production. Cloke (1983) defines conservation aim of 'villages of special overall character as follows:

> "The conservation and enhancement of general character and appearance would be the primary planning objective. In general, new development would be restricted to minor infilling and, in any event, would be required to be of a high standard of design, in sympathy with the existing village character" (Cloke, 1983).

In traditional pattern of Karabağlar, we observe man-made structures (kesiks, irims, kabalıks, yurts) in great balance with nature and constructions. As it is cited in Chapter 2, the transition process of Karabağlar was inevitable however, before losing all the natural and cultural assets of Karabağlar, conservation plans should focus on the required conservation strategies of rural character. However, these conservation strategies should be considered as being independent from the development plans as existent property and cadastral patterns

contradict with the development plans. Conservation cannot be achieved with rearrangement of property.

If enough importance is not attached to conservation of farmlands and cadastral pattern, the sustainability of agricultural production might be jeopardized in the future. The sustainability of agricultural production is also important for the sustainability of physical structures in the area. The existence of coffeehouses, irims and kesiks is an indication of an environment which is alive, and the transformation of the traditional social life will create a contradiction concerning the functions of Karabağlar. The alteration of the utilization balance of the environment in Karabağlar might cause the disappearance of existent physical structures and several natural formations.

Therefore, this thesis puts forth use of lands in Karabağlar and discusses what kind of strategies for use of land can be eligible for Karabağlar in addition, to its surroundings. The landscape character, natural formations, socio-cultural structure of an area and its relationship with other area designate strategies related to use of lands. Term of ‘conservation of site’ could not be perceived only conservation of natural landscape but also property pattern and rural life together with agricultural production. Weller (1967) argues that most of the farmers were not sensitive to ancient charm of the villages and they perceived conservation as controlled change therefore, they usually had a positive attitude to overall planning concept. In Karabağlar, we observe extinction of rural attractiveness due to erroneous considerations about conservation.

The preservation of Karabağlar can be achieved through a sustainable development and balance between utilization and preservation. For a sustainable development of Karabağlar Natural Site:

- Property pattern, natural formations, irims, kesiks, underground water level, traditional uses of cafes, briefly the rural character should be preserved.
- Sustainability of traditional life depending on agricultural production should be preserved and incentives for farmers should be provided.
- Most of the café buildings were wrecked or they are out of service now. These café buildings should be restored and should be preserved.
- The balance between natural landscape and built environment should be preserved.
- All kinds of interventions should be controlled and any kind of intervention that destroying natural and traditional pattern should be prevented.
- Sufficient emphasis should be attached to preservation and enhancement of rural heritage.

Consequently, an effective conservation can be performed by taking into account of the overall character of Karabağlar and its contribution to the region. Irims, kesiks, kabalıks and related to those, property pattern are the assets that should be considered as man-made components of Karabağlar and their existing conformity with natural landscape is worth of evaluating to preserve. In this regard, firstly, identification of the special character of Karabağlar should be done and man-made assets should be introduced in order to perceive the necessity and significance of conservation.

REFERENCES

Analytic Study of Muğla/Karabağlar Urban and Natural Site, May 2002. Dokuz Eylül University, Architecture Faculty, City and Regional Planning Department, İzmir.

Aran, K., 2000. *Beyond Shelter*, *Anatolian Indigenous Buildings*, Tepe Architectural Culture Center, Turkey.

Balcı, A., Muğla University Environmental Problems Research and Application Center, http://www.evrensel.net/01/12/05/toplum.html.

Cloke J. P., 1983. *An Introduction to Rural Settlement Planning*, Methuen, London and New York, pp.315-323.

Conservation Oriented Development Plan Report of Muğla-Karabağlar Third Degree Natural Site, January 2003. Dokuz Eylül University, Architecture Faculty, City and Regional Planning Department, İzmir.

Coppock, J. T. and Duffield, B. S., 1975. *Recreation in the Countryside*, The Macmillan Press Ltd, London and Basingstoke.

Cultural and Natural Assets Conservation Law, 1983.

Çınar, İ., 2002. *The Effect of Bioclimatic Comfort Values on Landscape Planning Process,* Fethiye A.S.M Koçman M.Y.O, Taşyaka/Fethiye.

Forman, R. T. T. and Alexander, L. E., 1998. *Roads and Their Major Ecological Effects,* Harvard University Graduate School of Design, [Electronic version] Annual Reviews, Cambridge, Massachusetts, Retrieved December 17, 2003, from Academic Search Premier Database.

Furuseth, O.J. and Lapping, M.B., 1999. *Contested Countryside: The rural Urban Fringe in North America*, Ashgate Publishing Ltd., Great Britain.

Gilbert, E. W., 1971. *Land and Leisure,* Associated University Presses, Cranbury, New Jersey, pp. 267-290.

Günay, B., 1999. *Property Relations and Urban Space*, METU Faculty of Architectural Press, Ankara.

Gürpınar, E., October 2000-March 2001. Preservation of Archeological Remains, Formations and Natural Beauties, Natural Wonders, İstanbul University, Faculty of Political Sciences Magazine, No: 23-24, from http://www.istanbul.edu.tr/siyasal/Turkce/Dergi/Sayi%2023-24/14.htm.

Hardiman, L., 2000. *Hedges, Fences and Walls*, [Electronic version] Horticulture, Vol.97, Retrieved January 10, 2004, from Academic Search Premier Database.

Harvey, T. and Works, M. A., 2002. Urban Sprawl and Rural Landscapes: perceptions of landscape as amenity in Portland, Oregon, Department of Geography, Portland State University Portland, [Electronic version] Local Environment, Volume 7, Carfax Publishing, Retrieved January 7, 2004, from Academic Search Premier Database.

Karabağları Geliştirme ve Güzelleştirme Derneği, April 1996. Yayla Bülteni, No: 2, Esin Ofset & Tipo Matbaacılık, Muğla.

Land Assets of Muğla, 1998. T.C. Başbakanlık Köy Hizmetleri Genel Müdürlüğü, Etüd ve Proje Dairesi Başkanlığı, Ankara.

Lassey, W. R., 1977. *Planning in Rural Environments*, McGraw-Hill Book Company, United States of America.

Lee, L., 1979. *Factors Affecting Land Use Change at the Urban-Rural Fringe*, [Electronic version] Growth and Change, Vol. 10, Issue 4, Retrieved November 7, 2003, from Academic Search Premier Database.

Muğla Municipality, Muğla.

Muğla State Institute of Statistics, Muğla.

National Environmental Action Plan, March 1997. *Land Use and Management of Shore Settlements*, Iller Bankası, Retrieved November 22, 2003, from http://ekutup.dpt.gov.tr/cevre/eylempla/arazikul.pdf.

Sapmaz, S., January 1996. *Basında Karabağlar,* Architekt Magazine.

Skinner, D. N., 1976. *The Planning and Design of Rural Roads; The Implications of Landscape and Recreation*, Edinburgh Scottish Tourist Board, Countryside Commission, Edinburgh.

Turkish Language Institution, *Online Turkish Dictionary*, from www.tdk.gov.tr/sozluk.html.

Weller, J., 1967. *Modern Agriculture and Rural Planning*, Architectural Press, London.

Woodruffe, B. J., 1976. *Rural Settlement Policies and Plans*, Oxford University Press, Ely House, London, pp. 46-60.

Worcestershire Biodiversity Partnership, Retrieved January 8, 2004, from http://www.worcestershire.gov.uk/biodiversity/Habitats1-10/hedges_text.htm.

Young Peoples Trust for The Environment, Retrieved January 8, 2004, from http://www.yptenc.org.uk/docs/factsheets/env_facts/ dishabitats.html.