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INTEGRATED COASTAL TOURISM PLANNING IN YUMURTALIK, TURKEY: TOWARDS A LANDSCAPE SOLUTION

by

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1996

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ABSTRACT

Tourism is an economic alternative to revitalise Turkey's economy. However, without good planning, it can turn out to be a big damage on natural resources of an area. Yumurtalik is a study area of this thesis. Yumurtalik is a small town (population, 3970) located on the east Mediterranean coast 74 kilometre from the fourth biggest city, Adana, of Turkey. Tourism is in beginning stage in the town, though possible boom is expected because of town's natural, historic resources and availability to all budget types.

Review of literature on tourism, coastal and historic planning and our surveys indicate that integrated form of tourism that respect local landscapes as well as local culture and heritage is the most appealing way to benefit from tourism for Yumurtalik.

National scale tourism is suggested. Revitalisation of Old Town and creating new attractions are proposed along with preserving natural open space along the coast.

INTRODUCTION

Tourism has been and will continue to be one of the fastest growing social and economic phenomena of the twentieth century, and there is no sign of it slowing down as we look ahead the twenty-first century, especially in developing countries in need of foreign currency. The positive and negative aspects of tourism development and influence of conservation and recreational ideologies establish the need for better planning for the tourism areas throughout the world (Gunn, 1994). Tourism's economic values and tendency to visit new places to learn about other cultures attracts attention to tourist regions. Although tourism has produced significant economic benefits in terms of gross foreign exchange inflow and regional employment, it has also made a substantial impact on the environment. But these negative impacts are not inevitable, they occur if there is lack of sustainable and integrated planning.

Tourism is Turkey's "growth industry" and its largest single foreign exchange earner ($2.9 billion in 1990). In 1990, an estimated five million foreign tourists visited Turkey; the majority of them either visited or stayed along the coast. Over the last decade, foreign tourist arrivals increased at an exponential rate of over 40 percent per year from about 0.9 million in 1982. The addition of domestic tourists, including those staying with relatives or in secondary housing, would double the figure to about 10 million tourists on the coast in 1990. Tourist bed capacity has increased by roughly 90 percent during the last decade (from 200,000 beds in 1983 to 340,000 in 1989) and continues to expand. (State Institute of Statistics, 1991). Both the public and the private

sectors have made substantial investments in tourist facilities. Investment which has been concentrated in expanding accommodations, increased from 11 billion Turkish Liras in 1980 to 36 billion TL in 1989. Investment incentives have included exemption from local taxes, concessional land allocation and cheap credit (State Institute of Statistics, 1991).

Turkey tries to improve its tourism through the advertisement of unspoiled nature compared to its rivals. For tourists, the main attractions of Turkey are its sun, sea and natural beaches, history and inexpensiveness. The Turkish coastline is rich in natural and environmental resources. The degradation and eventual loss of these resources will cause decline in the tourism sector.

Statistics indicate that in Turkey, most popular tourism areas are located along the coastal regions in terms of the number of foreign and domestic tourists. There are several reasons for the popularity of tourism in coastal regions: rich natural, historical and cultural resources, warm climate, important metropolitan areas, diversity of accommodations, facilities and their quality, land and air transportation opportunities.

The Turkish coastal zone runs from the former Soviet border (presently Georgia) in the Northeast, along the shores of the Black Sea, through the Straits of the Bosphorus and the Dardanelles, along the sea of Marmara and, finally, along the coast of Aegean and the Mediterranean in the west and south. With a total length of 8,272 kilometres, Turkey possesses one of the longest coast lines in OECD Europe (Figure 1- 1). The climate is mild, particularly along the southern Mediterranean coast, and offers year round tourism.

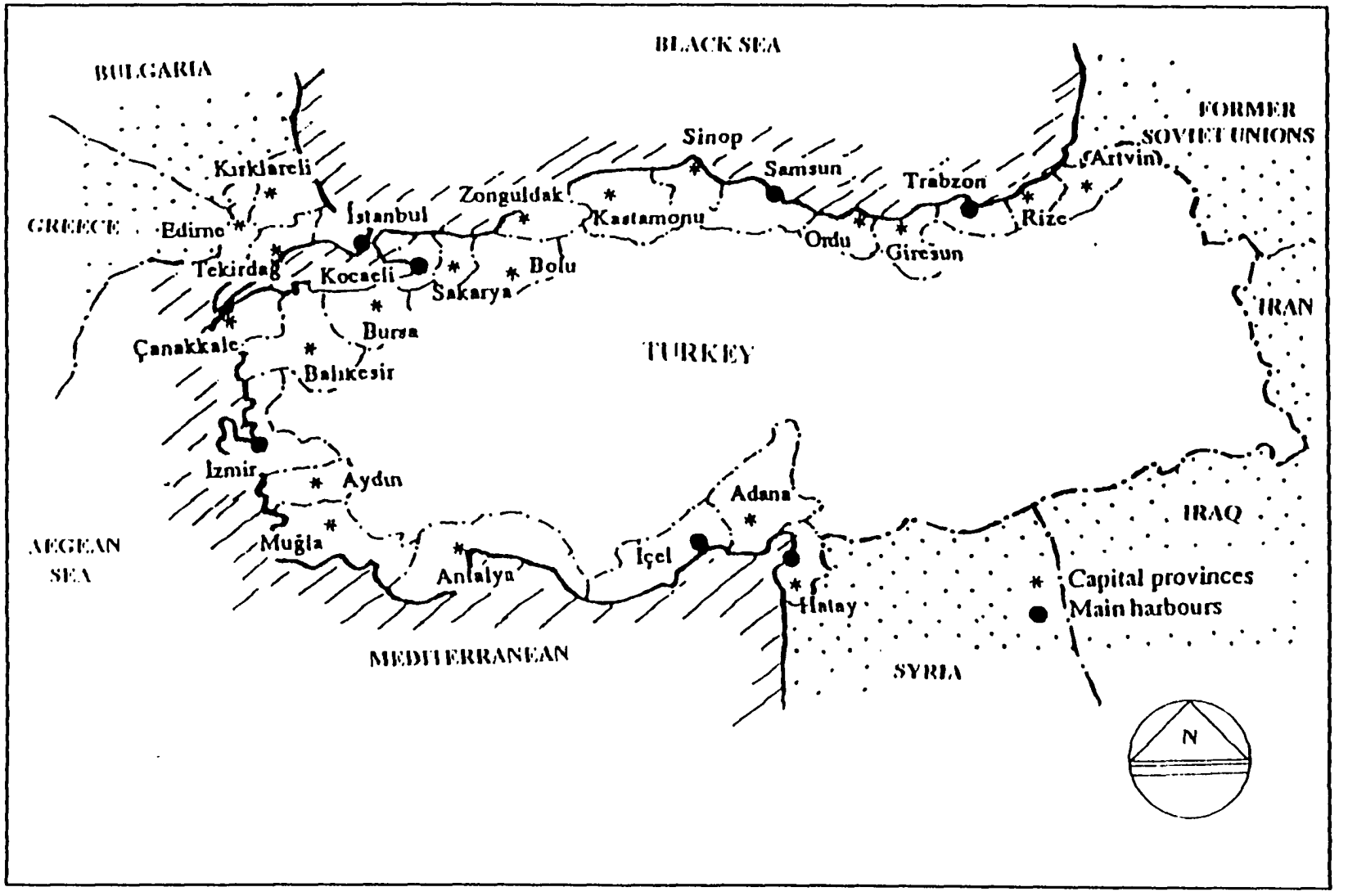


Figure 1- 1: Turkish Coastal Zone Runs From The Former Soviet Border In The Northeast To The Mediterranean Sea In The West And South.

Compared with the interior, and its harsher climate, Turkey's coastal areas are more attractive for tourism. Turkey is framed by major, scenic coastal ranges along both the Black Sea and the Mediterranean sea. With two major exceptions, the country's rivers traverse the coastal zone and drain into Turkish coastal waters. Many bays and estuaries offer harbour facilities; some of these have been used since ancient times and others are currently under development as marinas or oil refining facilities. Large tracts of the coastal ranges are heavily wooded and contain national parks of archaeological, ornithological and ecological importance.

Coastal zones are some of Turkey's most valuable economic and environmental assets. The fact that the country's major economic growth centres are located in these zones, which from a 20-to-40 kilometre band along the coasts, exerts a magnetic force on the country's inhabitants, particularly those from central and eastern Anatolia. This is reflected in a sharp increase of population density in the coastal areas. The environmental and economic profile of Turkey's coastal areas and the comparative advantages they offer for different types of economic development require an integrated/ holistic approach to environmental protection. As tourism, industrial and agricultural developments all compete for the same natural and environmental resources- especially coastal land- conflicts have become more and more apparent. Moreover, the intensity and range of these activities impact heavily on the fragile coastal environment and its natural resources. The coastal zones require a much higher degree of sustainable planning in

order to maintain their economic productivity while preserving their environmental quality.

CHAPTER 1: RESEARCH METHODOLOGIES

1. 1 SCOPE AND PURPOSE

This paper proposes that we need to be more sensitive regarding coastal tourism planning and development, especially where environmental and social impacts are concerned. The research focuses on the urban waterfront and adjacent coastal areas in tourism-based settlements and attempts to review existing literature and theory on sustainable tourism design and planning, and to synthesise the data into design and planning guidelines relevant to coastal zones of Turkey. Finally, the study applies and evaluates guidelines in an actual test site, Yumurtalik within Turkey. Yumurtalik is. a small town on the east Mediterranean coast of Turkey with a population of 3790, and is located about 82 kilometres from the fourth largest city in Turkey, Adana. Figure 1- 1. Although the settlements of the town dates back to very first ages of history, it is, now. a small fishing town. Although portions of the town and tourist locations are discussed in some detail, suggestions are given in general to complement the waterfront development concepts proposed by this thesis.

The result of this work has practical application in the promotion of enlightened development along the beach areas, and especially for the new locations with obvious tourism potential.

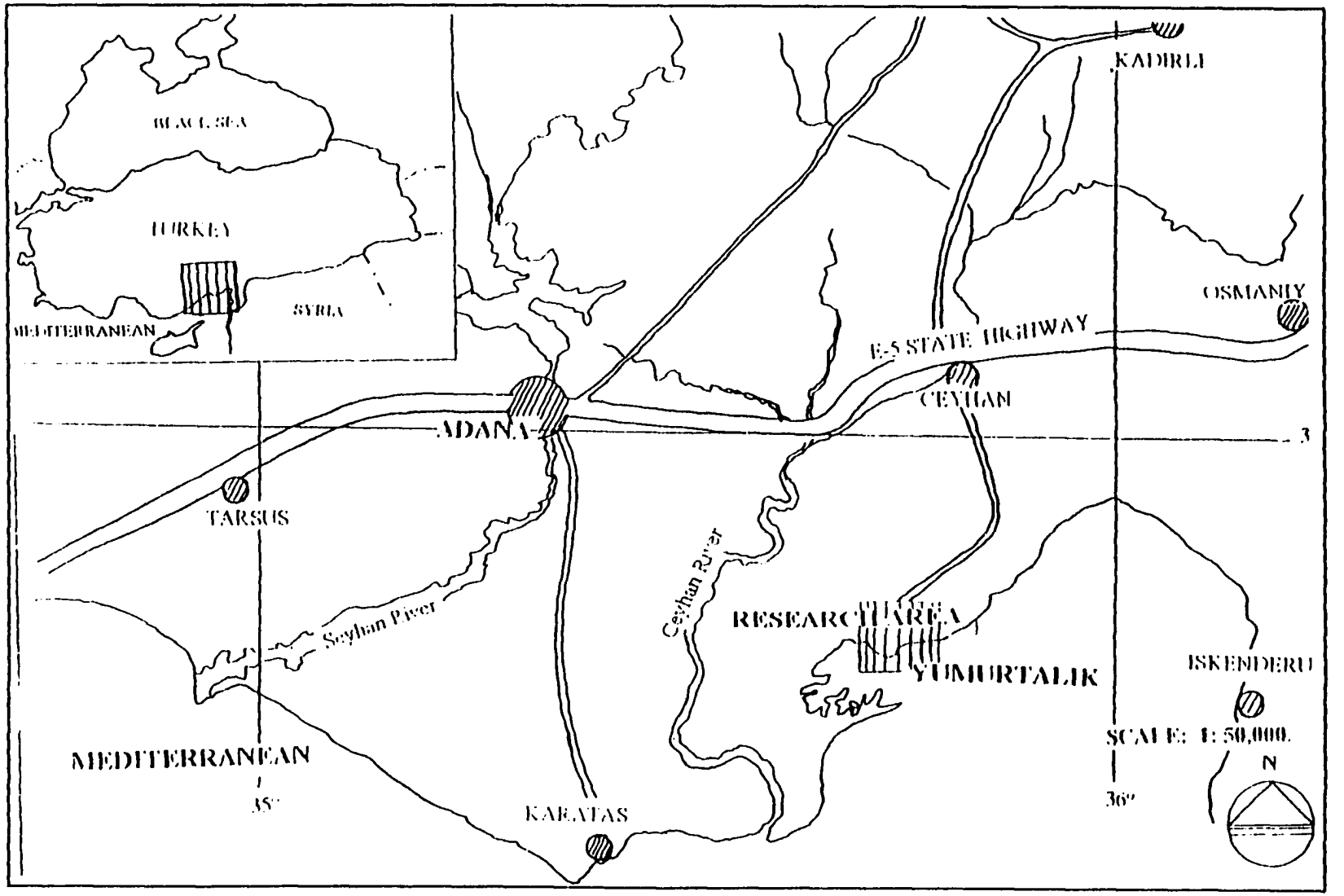


Figure 1- 1: General Location Of The Research Area.

1. 2 OBJECTIVES AND GOALS

The purpose of this study is to develop guidelines for assessing and protecting historic, environmental and cultural resources in coastal areas of Turkey through sustainable tourism planning.

The following specific objectives will be pursued;

1. To examine socio-cultural, environmental, and economic impacts of tourism in Yumurtalik.
2. To identify the existing environmental, social and historic potential of the town.
3. To assess attraction points for tourism in Yumurtalik.
4. To determine needs and expectations of tourists and the host community.
5. To develop waterfront planning and design guidelines.
6. To create a conceptual coastal zone plan which supports and integrates as well as supports tourism and presents waterfront recreational facilities with nature preservation.

1. 3 METHODOLOGY

The methods employed in this thesis consist of literature review, non participant observations, site visits, unstructured interviews and statistic analysis of survey questionnaires.

This study used two different types of surveys. The first questionnaire, surveys visitors regarding their needs and interests during their holiday in Yumurtalik. A total of 70 people were questioned. The questionnaire contains questions ranked by a likert scale,

1 to 7. The data relating to the attraction points and needs, and the indications of correspondence among and between observers was generated using RMRATE. The purpose of each question is explained in Chapter 3 (Also, please see attached questionnaire sample in Appendix I).

The second type of survey is the interview which aims at identifying outstanding issues of concern and needs, and to determine public preferences. As one of the principal research approaches, interviews were conducted on three major groups of Yumurtalik citizens and tourists. 1) Public officials, social and environmental scientists and planners who are familiar with the area. 2) Residents of the area. 3) Tourist groups. The interviews were recorded for further evaluations.

Three site visits were conducted, to see the different seasons of the town ,and the intensity of use as well as the diversity. This visits consisted of four days in December, 1994, five days in May, 1995 and seven days during the first week of July, 1995. During the site visits data collection was initiated through photography, and non-participant observations. Site visits give a holistic idea about the existing situations, and the future needs of the town. Information regarding physical features of the town such as topography, hydrology, soil character, and water table were collected from previous environmental impact studies conducted by the local university (Cukurova University).

In addition to the mentioned surveys, a 1/1000 scale comprehensive plan prepared by Municipal planning department was reviewed for more accurate information on land use patterns and future development in Yumurtalik. In order to bring more precise

planning guidelines a technical report of the comprehensive plan was authored and then, long and short range goals were developed along with a series of design and planning principles. Since we are dealing with coastal development for most part of the thesis, inquiry of Coastal Law is imperative.

Coast Law, completed in 1990, indicates the limitations and types of the activities allowed. It defines the coastal shore in terms of unrestricted access and a construction set back margin. According to the law, the shoreline is delineated as the " foreshore between the low water mark and the highest water level, including estuaries, tidal rivers, and harbours". The shore strip is defined as a strip of dry land measuring up to 100 metres in depth, but many old urban structures invades this limit. For future plans these limits must be taken into consideration. The coast law states the rules regarding the use of the historic sites and their protection and preservation. Coast Law is briefly reviewed under following "Environmental Management in Turkey" part.

Also, the current population report was obtained from the Government Data Centre Demographic analysis is important to estimate the growth rate, population projections and structure of the population. Every five years, there is a population census in Turkey. The most recent demographic information from 1995, the official census report was not accessible. The 1990 census report was therefore used for this analysis.

Chapter 2 describes the current issues regarding infrastructure, land use, economy, culture of Yumurtalik, along with the town's history. In Chapter 3, broader issues such as types of tourism and tourists, sustainable tourism planning, and tourism's social and

economic impacts are investigated. Literature review on coastal zone planning and designing waterfront facilities are presented. Recreational capability analysis for Yumurtalik is initiated. Chapter 4 is concerned with results of our surveys which assess the tourism from tourist and local point of view. Tourist's needs and locals expectations are determined. Finally, Chapter 5 analyses tourism in Yumurtalik based on knowledge gained during this process and presents conceptual plans for an alternative form of tourism in Yumurtalik, based on suggested objectives and policies.

CHAPTER 2: YUMURTALIK- PAST AND PRESENT

2. 1 THE HISTORY OF YUMURTALIK

The history of the town dates back to the middle of first century BC It was built by Greeks under the name of Aeigeai. The city was an important harbour and a naval base during Mellen emperor, Valerian's period (B.C 253-269). Later, it became an important commerce and transportation centre connecting two important trading points, Adana and Tarsus.

Aeigeai was an art centre as well. Even today, there are a lot of remains and ruins which has significant architectural styles and pictures in the town.

Because of Arab attacks in tenth century AD., the city had been abandoned and rebuilt by Armenians under the name of Iyas. As one of the important Christian centres and harbour cities of Mediterranean sea, the town maintained its importance until late 1200. Two castles built in this period by Armenians still remain standing today (Figure 2-1). Commercial sea merchants from Venice named the city "Lajazzo" in medieval times. During this period, the main economy of the city was based on trading. According to Marco Polo who visited the city in 1258, "Harbour was packed with a lot of merchants mostly from Venice and Ceneviz. They were trading spices, silk, and some other valuable merchandise and started their journey through the inner part of the continent from here". Also they had their own churches in the town.

The city was destroyed by the attacks of Memluks in 1275-1281, and Turks in 1284, had been constantly repaired by Armenians. For example, in 1323, the land side

castle had beer. expanded by addition of a new tower. In 1347 Yumurtalik/Lajazzo was completely occupied by Memluks. Nevertheless, it remained as an important harbour and capital city of Armenian territory under the name of Ayas until 1375.

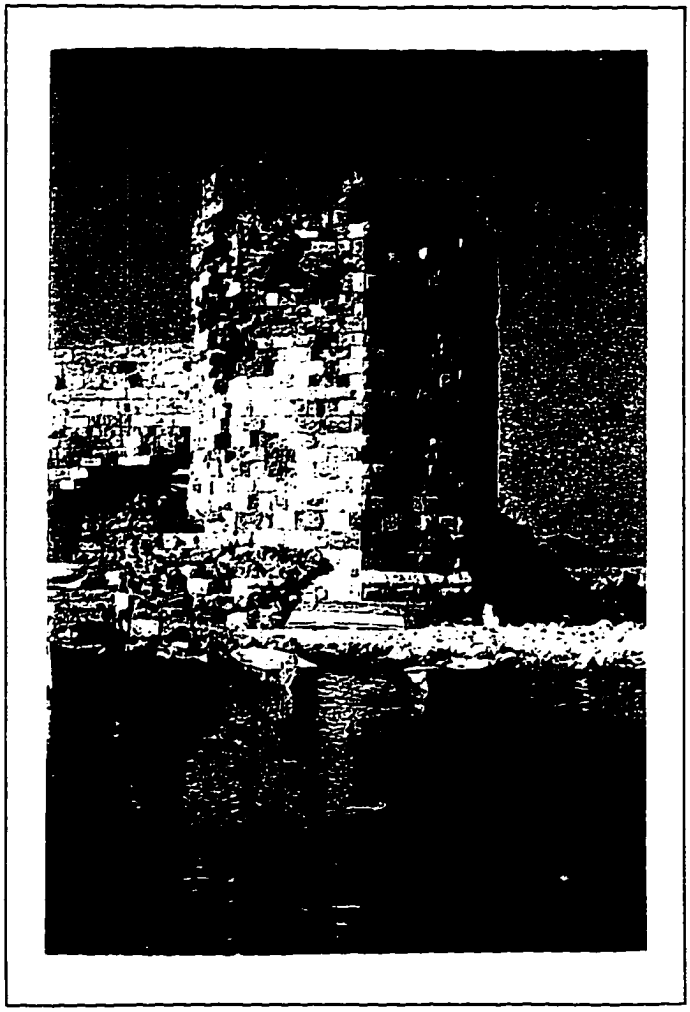


Figure 2- 1: A remaining part of the castle built by Armenians still stands.

However, during the Ottoman Empire, Yumurtalik lost its power in terms of commerce, since oriental traders decreased their trade with Mediterranean cities. It was established as a fishing village on the historic centre of the city in 19 century and served

as a small harbour until the end of the 18th century diminishing its importance. Yumurtalik didn't developed as much as other main trade centres.

Figure 2-2 presents the location of existing remains and remnants in Yumurtalik. In 1920, a marble male figured statue was found belonged to early Meridian era. A lot of remnants from Roman and early Byzantine periods are visible throughout the town. In 1969, close to the Ceyhan - Yumurtalik highway, very valuable mosaic parts (B.C 235-325) depicting two wrestlers were discovered (No. 12). Through analysis of these remains, it is judged that the city was once an art centre. It also was an important medical centre of the empire. Because, the ancient tablets indicate that Bristien period's famous doctors, Cosmos and Damion lived in this area. All of these remains give us a brief idea about the rich history of the Yumurtalik.

Coastal areas, especially the harbour area comprise most of the massive remnants, along with, the two castles (Figure 2-3), one is on the land side (No. 10), another is on the sea (No. 11) still standing. Recently, at the Northwest side of the land side castle, a square shaped tower has been discovered. There are still some restoration work continue to preserve the existing remains, and to detect the possible buried parts. Though the process is very slow due to budget problems.

Adjacent to the rampart of the land castle, there is a beautiful ornamented column belonging to early Byzantine era with the Korinth style (Figure 2- 4)

At the north-west side of the city centre, huge marble columns that possibly could be the part of an alley or bazaar area stands on their original locations.

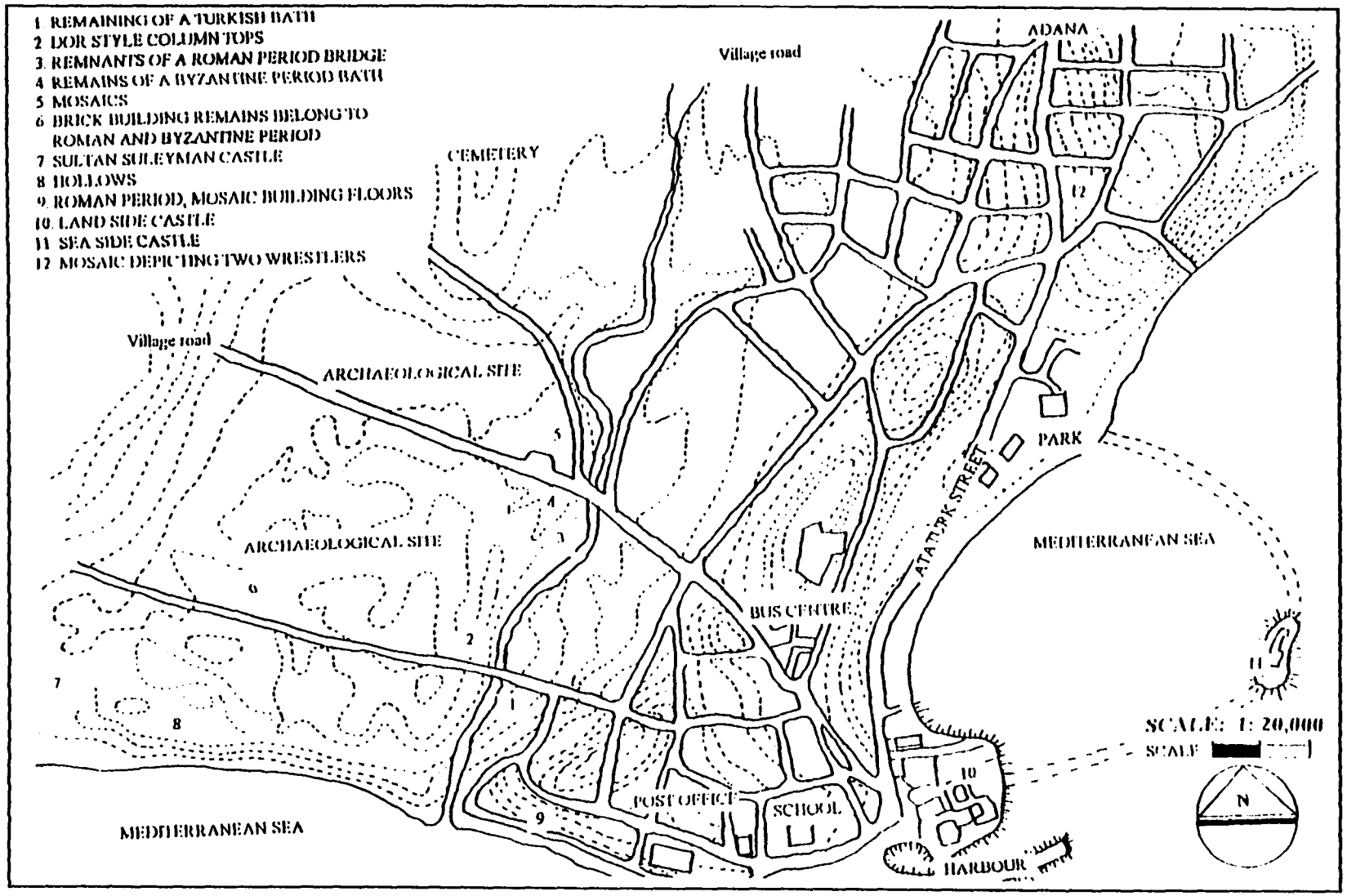


Figure 2- 2: Location Of Existing Remains In Yumurtalik

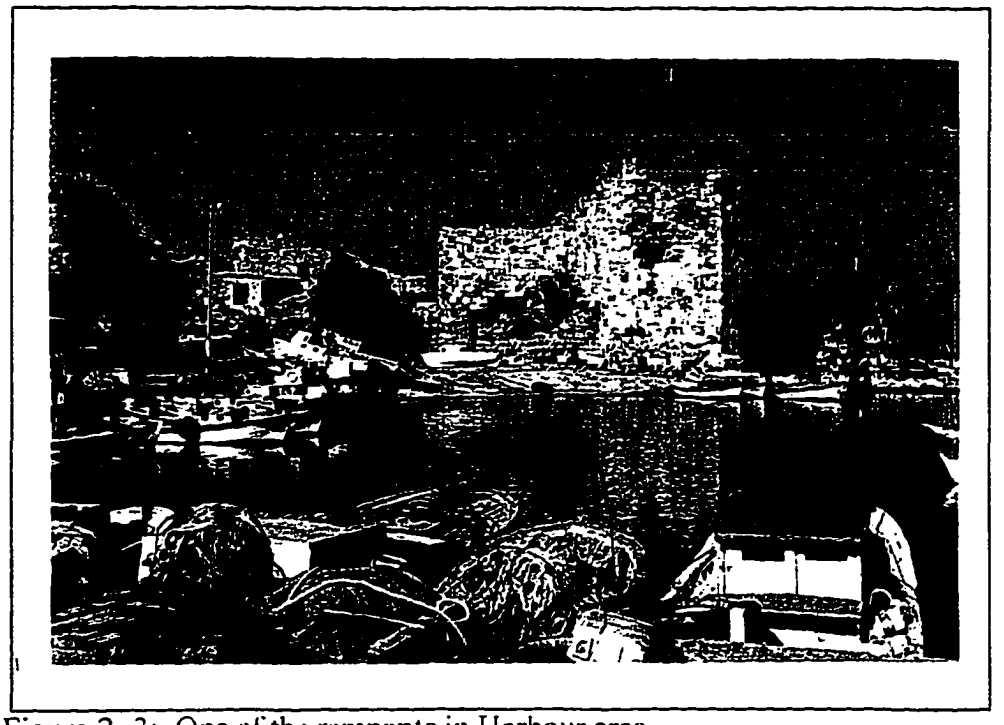
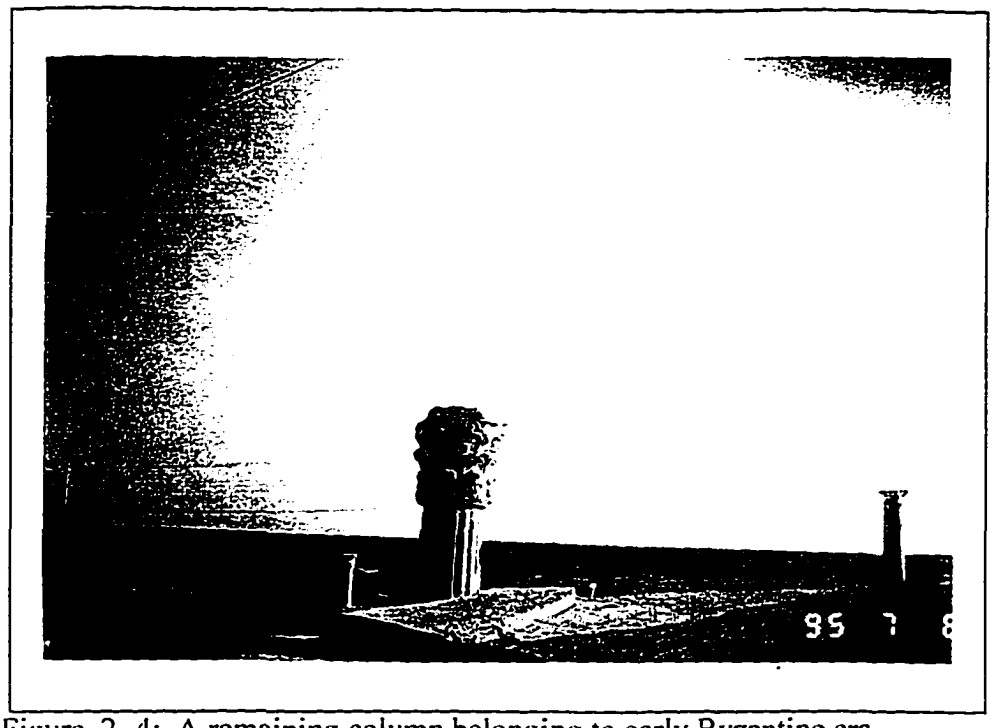
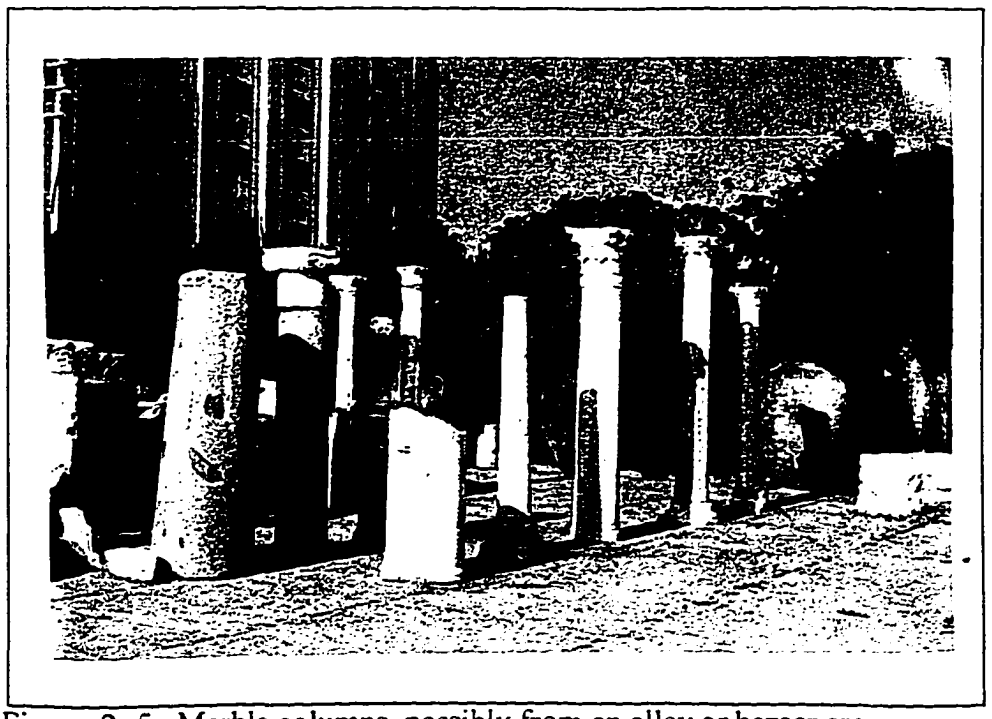


Figure 2- 3: One of the remnants in Harbour area.

On the far west side, right before the bridge on the river bed, the remaining of a Turkish Bath lay over (No. 1). On the other side of the river, couple of Dor style column tops and rims belonged, to a big marble building, are determined (No. 2). Right north side of this mass, there are brick wall remnants, possibly from Byzantine time, of a Turkish Bath (No. 4). Although it is not seen now, archaeologists found many mosaics left over from this site (No. 5.). The existing bridge standing in front of the Bath, is still in use (No. 3). On the surrounding agricultural fields, Byzantine and roman period, brick wall ruins lay (No. 6). On the west side of the town, on a high plateau, there is a watch



Figure, 2- 4: A remaining column belonging to early Byzantine era.



Figure, 2- 5: Marble columns, possibly from an alley or bazaar area.

tower built by Ottoman emperor Suleyman I, dated back to the middle of the 16 Th. century (No. 7) (Figure 2- 2). The tower is still in good shape.

From here to east, in many places along the coast, many gaps by hollowing out of rock are apparent (No. 8) (Figure 2- 2). These hollows might be old houses, graves and mines. During the construction of a coastal road, collapsed ceilings on mosaic floors was found from a lot of antique building and this development type continues through north (No. 9).

Pots, handmade tools, ruins of historic buildings and many columns are easily found on almost all over the town and surrounding lands. All of these remaining point that Yumurtalik is built and developed on very rich ancient Roman and early Byzantine settlement. Also, these remnants assure that compared to medieval era architecture which can be seen in the town, antique period buildings were decorated with better quality and rich materials.

2. 2 CURRENT SITUATION/ POSSIBILITIES/ LIABILITIES

2. 2a Environment:

The climate of the research area is a typical Mediterranean climate; high summer temperatures, high precipitation and low chance of clouds coverage. Prevailing wind direction is south, south-west in summer. Most significant feature of the Mediterranean climate is an inevitable drought period between June and September. This drought period is an important ecological factor for natural Mediterranean vegetation, and agriculture.

The topography of Yumurtalik consists of flat strip going along the coast, narrow on north- south direction, wider on east- west. Where coastal line change its direction. there is a large flat area around the Harbour. Also, the topography is slightly steep on north-south orientation, parallel to the coast line. Ayas stream passes into the town and pour into Mediterranean at south coast. Settlement of the town was built around the Harbour area where coastal line change its direction. From this point, it expands parallel to the coast, through west and north directions.

2. 2b Land Use Pattern:

Dwellings: The urban structure of the Yumurtalik is not compact and continuous. Figure 2- 6 shows the location of the districts in the town. Currently the centre of the town is on west side of the Byzantine and Armenian period ramparts, adjacent to the modern day harbour. The first nucleus of the Yumurtalik, Ayas District, which includes main commercial district of the town running along the Ataturk Avenue. This district composes of one or two story single family houses in central parts of the district, around the main government building and the high school. The height limits are 4 story, and 3 story in front of the sea-front park. Along the Ataturk avenue buildings are 5 story providing commercial use in their first floor. Lots are 200-300 square metres. Streets are narrow and not continuous. Coastal areas in the district are designated as parks with couple of exception around the areas in front of the Government building. The Ayas district relatively forms an intense urbanisation compared to west side neighbour, Oren District.

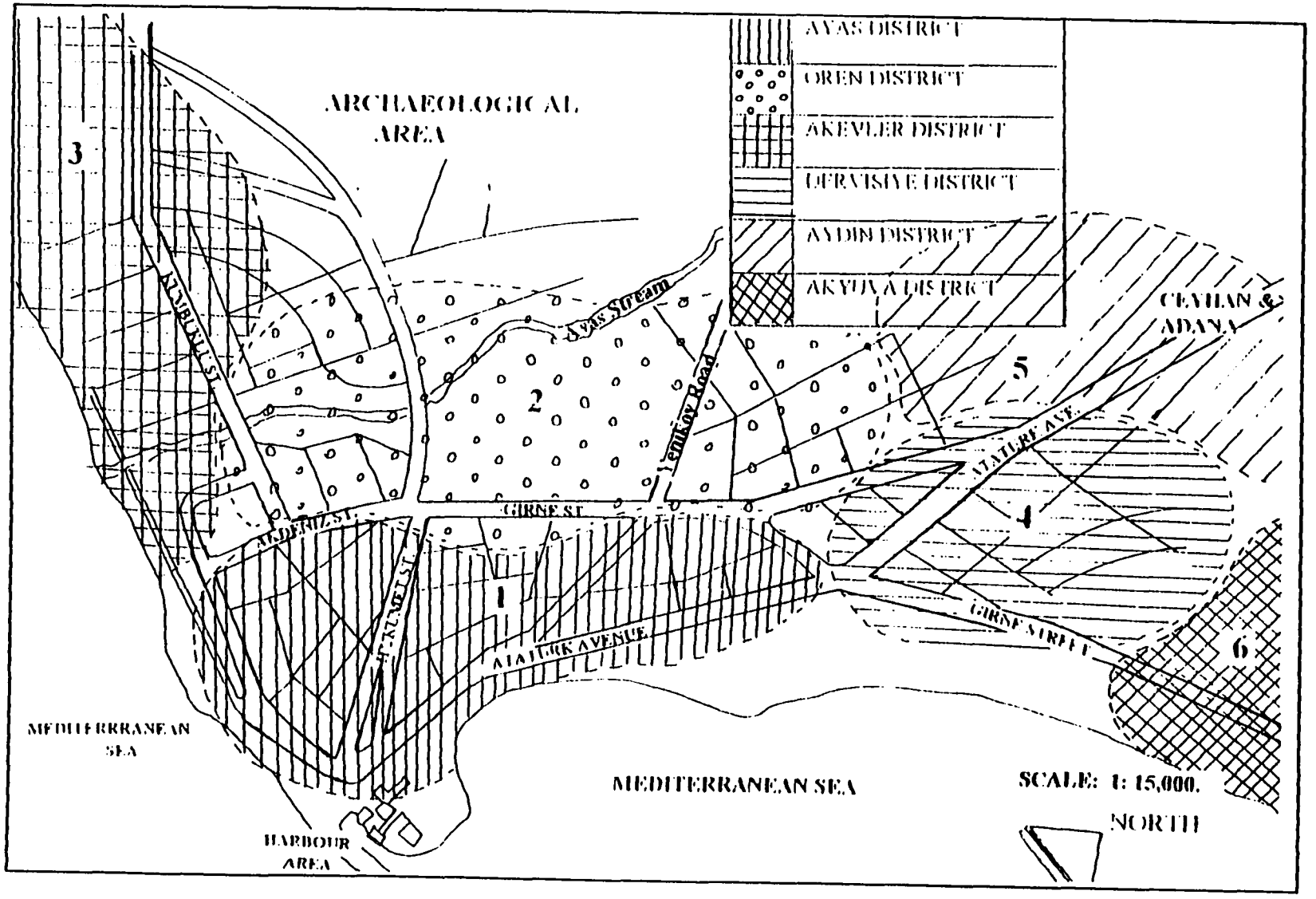


Figure 2- 6: Location Of The Districts In Yumurtalik.

Oren district lays between historic core, Ayas District, and the archaeological sites on the west, and include main bus terminal, main bazaar and the small industrial zones of the town. Unplanned and scattered development is followed by Akevler District on the very west corner of Yumurtalik. This area is mostly designated for tourism use, and contains summer houses. Akevler is very recent development in the vicinity and growing very fast. Since this areas reserve potential future development sites of Yumurtalik, some amount of local use is expected in the future. Therefore, all public and educational services is arranged in the comprehensive plan. Building heights are 3 story on street, 2 story inner parts. 15 metres wide sea side street, Kumburlu Street, is generally designed for daily recreational uses, tourism facilities and parks in the district. This area can be a magnet to direction of the future urbanisation in Yumurtalik.

As far as east side districts of the town; a street, branching from Ataturk avenue through east-Girne Street, bounds the old town with new development sites, Dervisiye District. The area includes a hospital, a proposed tourism school area, and main reservoir of the town along with two government buildings. Here lots get larger and less density. Buildings heights vary from 3 story for on road lots and 2 story on inner parts. Currently these areas are covered by summer houses, nevertheless, local residential development is expected in the future. The sea side of this belt road is designed for tourism facilities and parks. However, in some areas, summer house development is allowed

In the middle of 60's, north side of the Dervisiye District was designated as another dwelling aiming to prevent possible mushrooming of slum district. Now these areas

called Aydin District and the development of this area goes under special regulations. Since Yumurtalik is very close to Ceyhan, and by the declaration of custom free zone in the area, it is expected that this areas would be used as residential serving the workers of the free zone. Therefore, schools and parks are planned in the area already.

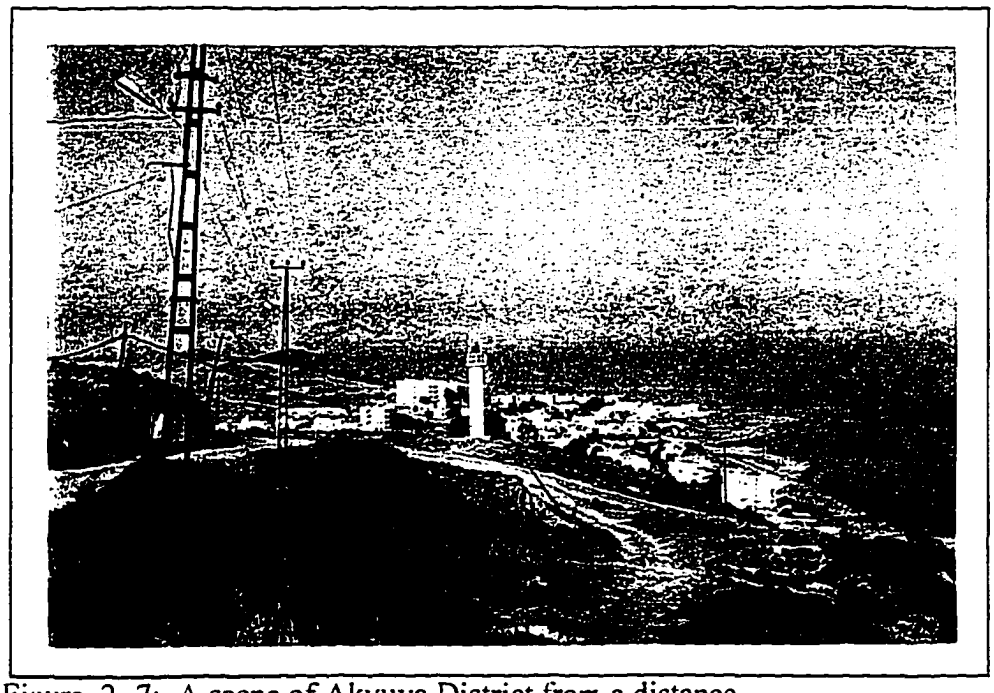
Last of all, in the middle of 1970's, there was another settlement appeared physically separated from the town, Akyuva District (Figure 2- 7). This area contains summer homes of wealthy people who live surrounding big towns and cities. Lots, here, are larger than the ones in downtown area. Usually 1 or 2 story single dwellings cover the beach front lots, back lots contain relatively high rise, 4- 5 story apartment complexes. This area is under development with it is modern architecture and better quality of life offered to its users.

Archaeological sites: The south side of the road running in front of government building is declared as second degree archaeological sites. Although the preservation and the protection of the existing remains are mandatory, there is no building restriction in this area. Low density development is encouraged for future development due to existing urban structure.

It is obligatory to inform the authorities during the beginning stages of the building construction. Harbour area and its surrounding area including old castles are announced as second degree archaeological area as well. Except the areas containing remains that needs to be preserved and protected, rest of the area in this part is designed as parks. The rest of the remains in Yumurtalik, are protected by establishing green spaces around

them. The north-west side of Yumurtalik is first degree archaeological site. Currently, this area is under agricultural use and the development goes under restrictions. Existing land use pattern is indicated in Figure 2- 8.

Commercial sites: Main commercial areas are on Ataturk avenue, and Hukumet avenue. Additionally, there is another commercial development is planned along the Kumburlu street. Locals are allowed to first floor of their houses for mercantile.



Figure, 2- 7: A scene of Akyuva District from a distance.

The area where State highway meets with Ayas street, is occupied by small industries (24,625 m^2), main bazaar and animal bazaar (37,500 m^2), and main bus station (24,800 m^2). Briefly, Yumurtalik has not developed well in terms of commercial opportunities.

Administrative and Governmental Buildings: A building for municipality offices is set up on Ataturk Avenue, on a 4000 m^2 lot. The main floor of this building is under

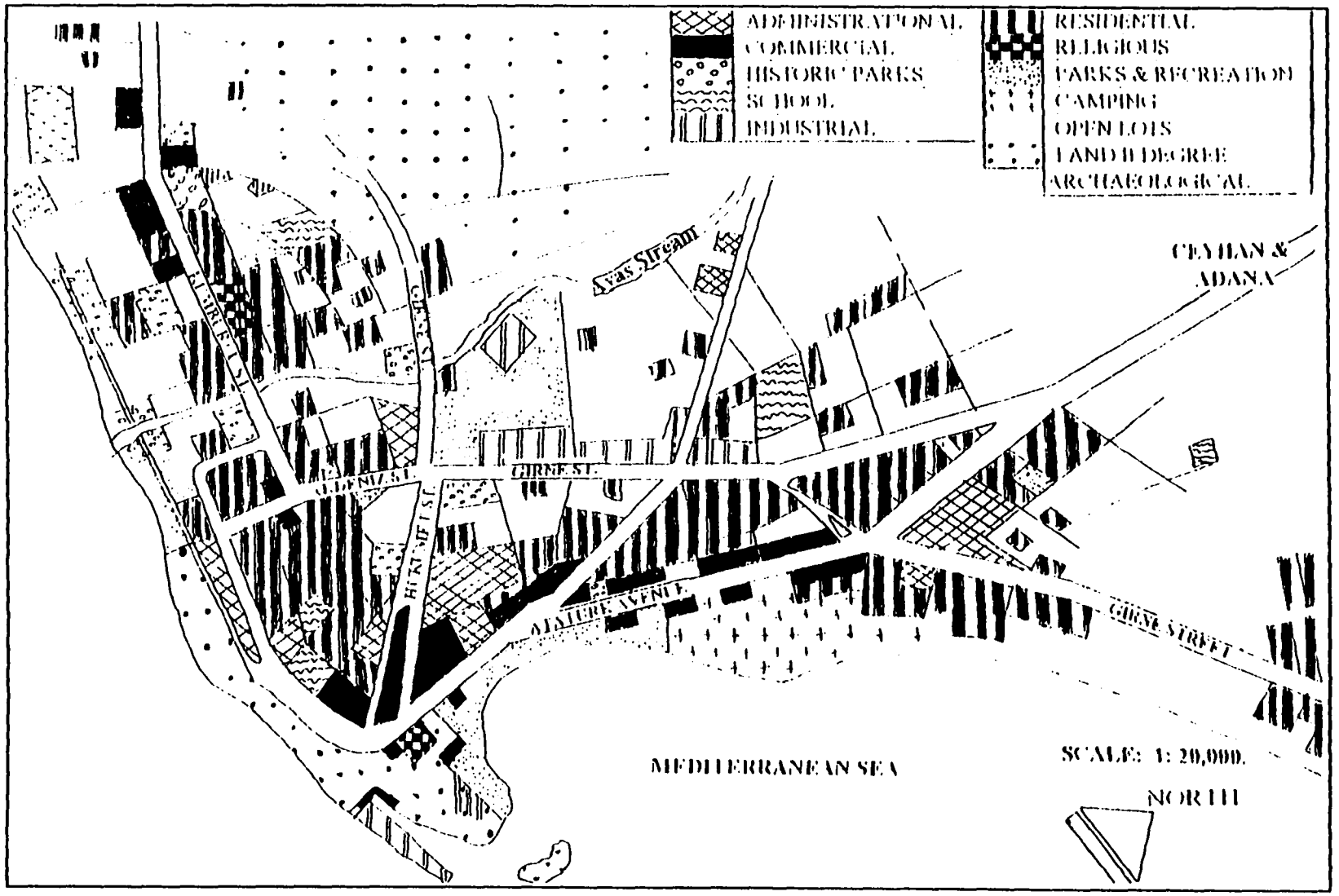


Figure 2- 8: Existing Land Use Pattern In Yumurtalik.

commercial use. Agriculture department, army base, post office, health facilities, Office increase of Soil Crop, electric company covers totally 41,624 m^2 and all of them are managed by government. Although administrative buildings are spread all around Yumurtalik, they mainly are gathered in Ayas District.

Tourism facilities: In order to answer the needs of tourism in Yumurtalik following facilities is planned.

- Daily Use Recreational facilities: These facilities are on the sea side of Ataturk Avenue and on the coastal side of Kumburlu street. Except for a couple of stores and restaurants, Kumburlu street is designed for parks. Though there is not much of a integrated recreational and waterfront parks is established yet.
- Camping facilities: There is a big camping ground for those who stay in tents and comes to Yumurtalik to take advantage of its sun and sea, on the east part of Ataturk avenue. Another area used by the same type of tourist is on the Hukumet street. Compare to first one, it has smaller capacity, and is located in the front yard of an elementary school. These areas have not sufficient infrastructure. Total area of camping facilities is 3888 Hectare. This areas are controlled and maintained by Yumurtalik municipality.

  Education and Sport facilities: Currently, in Yumurtalik 3 elementary, 1 secondary and two high schools are exist. But on the recent comprehensive plan necessary amount of areas are reserved for future needs. There is a Tourism school proposed for the town although it is not exist yet, the area reserved for the tourism school is

10,000 m². Main sport facilities are gathered in an area on Akdeniz street, however, these facilities present limited variety of activities, generally soccer, and basketball. In comprehensive city plan the sites for the sport activities are expanded by the addition of new areas, and the total areas are 127,000 square metres

- Green spaces: In Yumurtalik, the green spaces can be evaluated in two categories: 1- Coastal parks: usually located in west part o of the town, along Ataturk street and the coast side of the Kumburlu street. These completely open areas which gives an opportunity for swimming and sun bathing, continues along the coastal strip. However, the areas remain empty and, recently, lay without any infrastructure and design attempt. In the areas where are severe erosion problem due to topographic conditions, extra plantation is essential. Besides, this will help to create more green space in Yumurtalik. 2- Archaeological parks: designated to preserve the historic remains in their vicinity. However, they are still on the paper as an idea, and needs to be activated and bring to life as soon as possible.

Traffic: Yumurtalik is connected to surrounding cities in the region by a road taking Ceyhan. A newly built road will connect the town to Karatas on west, closest town which offers tourism, and it also adjoin the town to custom free zone on the east side. 40 metre main road continues as Ataturk street in the town. During peak season, this main street has traffic congestion due to insufficient parking spaces and heavy traffic. Ataturk avenue is 17 metre wide and ends at the harbour area. From this point the 12 metres road continues through west part of the town. 15 metres Kumburlu street and Akdeniz street

carry less traffic. Girne street works as a belt in the urbanisation of the town. Also Kumburlu street is attempt to become one of the main streets by the enlargement of it to 15 metres.

2. 2c Infrastructure:

The comprehensive plan fixed in 1969 aimed to strengthen the connection among Ayas, Dervisiye and Oren Districts, but lack of integration on planning stage caused unhealthy and scattered development pattern. Although all of the districts have electricity and sewer system, the quality and the capacity of the infrastructure is not adequate to handle future developments, and population increase (Figure 2- 9).

Figure 2- 9: An example of uncontrolled and open sewer to sea.

In some places, due to insufficient and irregular infrastructure, sea pollution increases daily, because sewer runs to the sea, and there is not any measures taken yet. Water is a problem for the new development sites, because of low water table of the area and insufficient infrastructure. As the waste water treatment is a very new issue in Turkey, Yumurtalik can be one of the pilot area to practice and to test the feasibility and the practicality of the topic.

2. 2d Landscape/architecture heritage:

As a part of the Mediterranean architecture, two story, small white coloured homes are the general rule for the central district of the town (Figure 2-10).

For the future developments, being strictly close to traditional architecture of the town is imperative to create a sense of place. Rapid urbanisation damages the environment and nature. Furthermore, as buildings and highways usurped finite stretches of beach, back lands are stripped of much of their utility, further compounding the pressure on small areas of land adjacent to the water. Unfortunately, the typical traditional Mediterranean silhouette is being dominated by vertical and horizontal high-rise buildings (Figure 2-11). As this type of development is against the characteristics of a small Mediterranean fishing village, it also threats the romantic appearance of the Yumurtalik (Figure 2-12).

Especially the declaration of this place as a tourism town by the Ministry of Tourism would expand this view drastically. Since, the main objective of sea side housing is to benefit from sea as much as possible, along the coast, "strip development' and "punctuation" on where physical features are not suitable, is observed. Because of

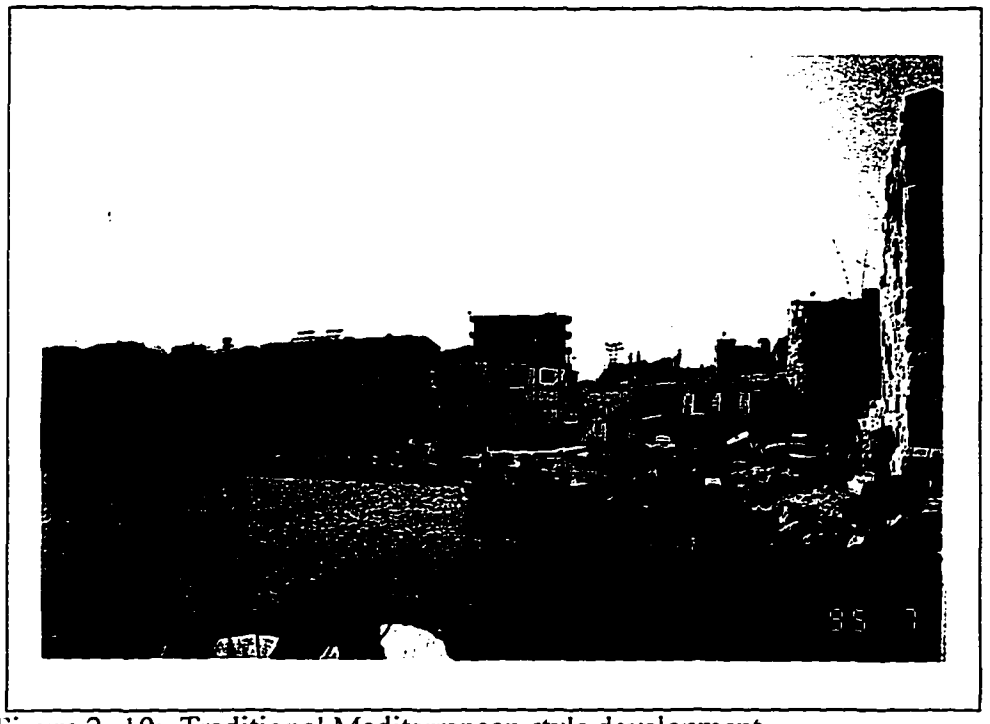
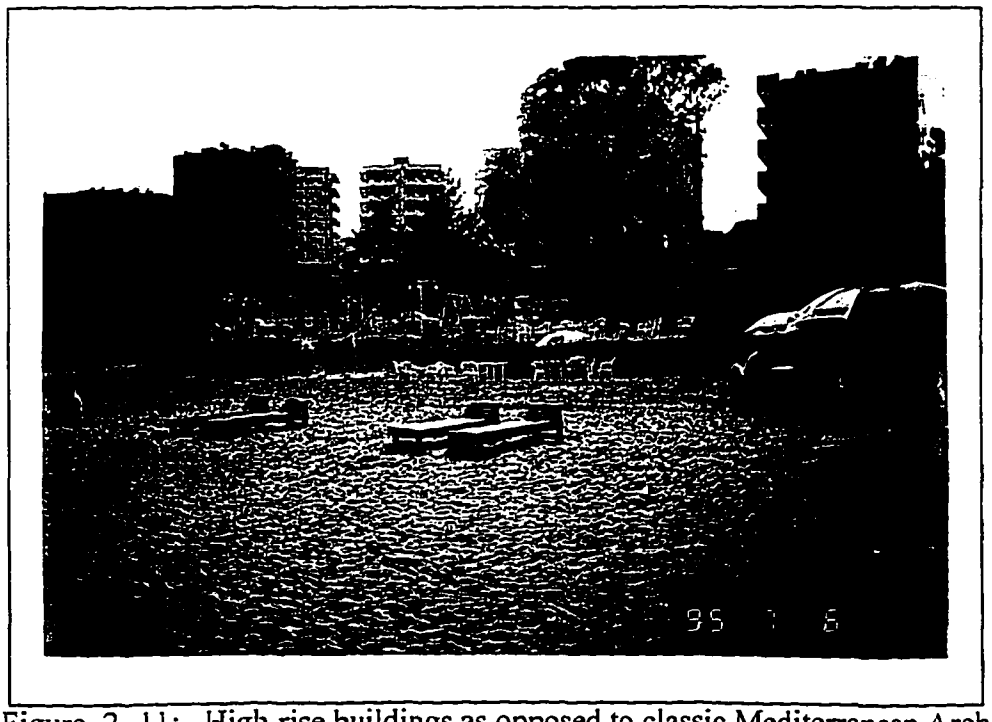


Figure 2- 10: Traditional Mediterranean style development.



Figure, 2- 11: . High rise buildings as opposed to classic Mediterranean Architecture.

Figure, 2- 12: A new development style in Yumurtalik

secondary homes, nice and quite site of the old days, transfers to the concrete city. Sometimes, the secondary housing development occurs on agricultural sites which has productive alluvium soils.

During the construction of houses, roads or infrastructure, by removal of native plants and inadequate protection techniques of soil, erosion started or accelerated (Figure 2-13). After certain points of population and density, noise pollution happens as well. The population of the town increases to 40,000-50,000 during peak season.

Due to lack of landscaping hundreds of secondary vacation homes which cover the coastal parts, cause visual pollution along with environmental degradation. Because in summer months, approximately 1500 tents are set up on east coast of the town without

permission. Consequently, this type of developments increase the pressure on fragile ecosystems, marshy places and sand dunes.

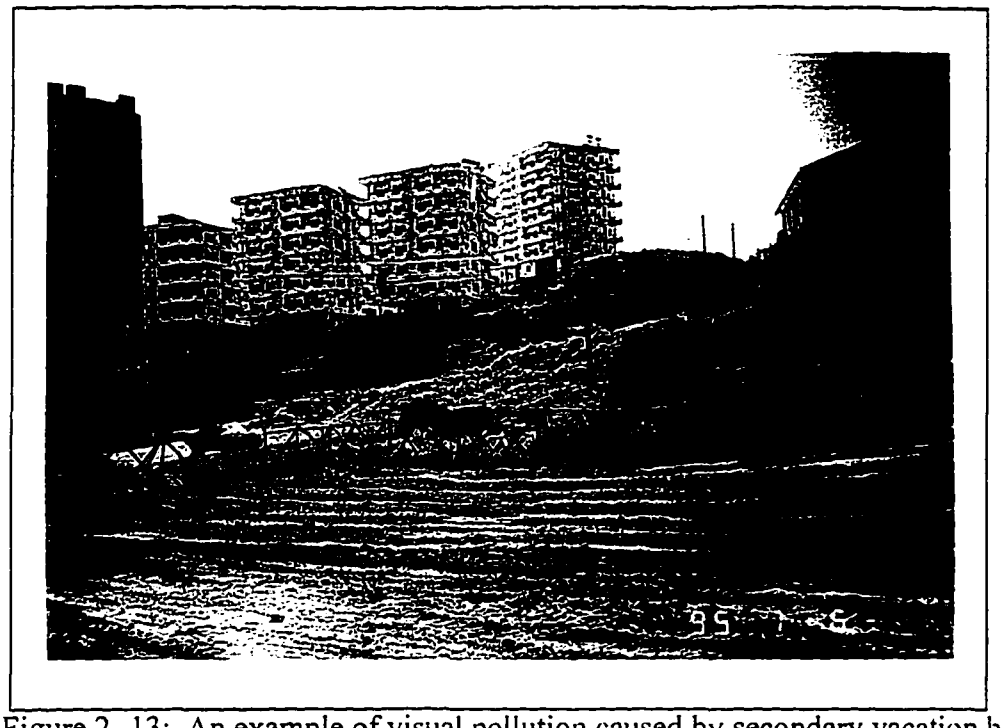


Figure 2- 13: An example of visual pollution caused by secondary vacation homes.

2. 2e Economic Conditions:

Yumurtalik is one of the rare towns along the adjacent shore towards Iskenderun that gives a chance to recreation, and brings about demand for recreational uses which will cause big scale increase of the population in the town and its surrounding areas. Moreover, the population growth rate in last five years verifies this opinion. Although the lands are not productive, the agriculture sector still carries on

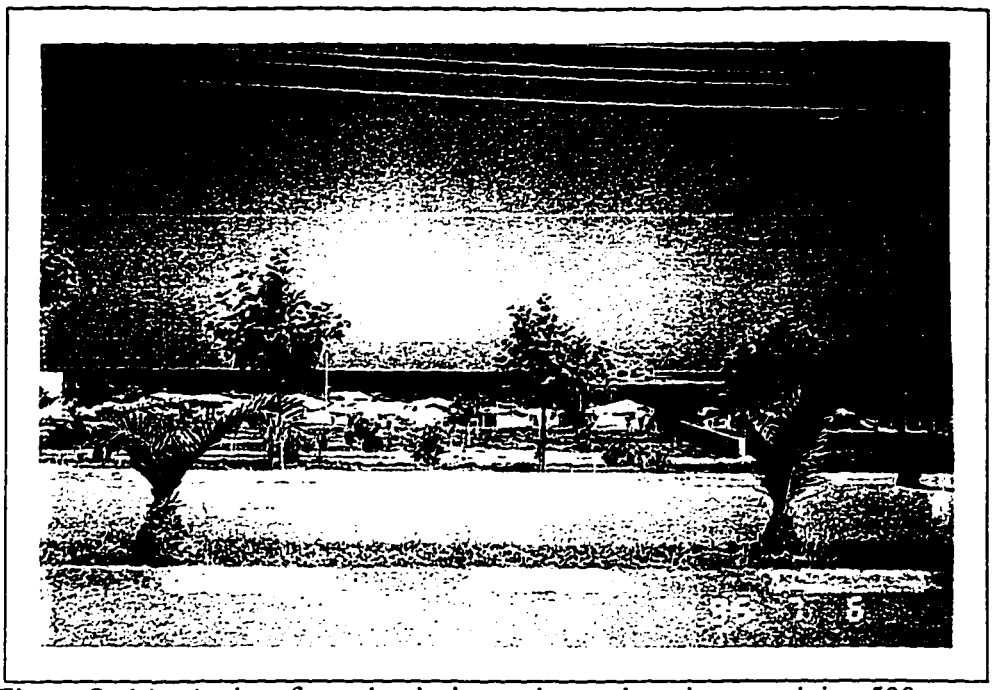


Figure 2- 14: A view from the designated camping site containing 500 tents

importance for the town's economy. Administrative services and commerce aimed at tourism follow the agriculture sector as well. The current facts regarding the town of Yumurtalik are that the soils of the town are relatively less productive than that of surrounding areas, even some of it is not suitable for agriculture. Thus some anti-environmental uses such as Iraqi pipe line, fertiliser industry or thermal plant have and will be launching in very close distance. In the future, along with the establishment of these industrial foundations, it is expected that some of the people working for these industries may reside in Yumurtalik. Besides the increasing demand for tourism is expected (Iller Bankasi, 1987).

Yumurtalik has big potential for tourism because of its natural, historic beauty and location. There are 1995 summer homes along the coast, and also several new buildings

under construction. In the downtown area there is one hotel, with a 52 bed capacity and six boarding houses with 100 bed capacity located throughout the town. Two camping sites containing 500 tents (Figure 2- 14) with insufficient infrastructure are serving tourist (Berberoglu, 1994).

2. 2f Social and Cultural Situation:

According to State Institute of Statistic (1993), the population of Yumurtalik grew at an annual rate of 1.1 to 1.3 percent, compared to previous annual averages during the period from 1980 to 1990. Much of the information regarding social and cultural structure of the town is provided by Yumurtalik municipality, a division similar to counties in the United States. Yumurtalik is the centre for the municipality which includes 20 additional rural settlements. Yumurtalik comprises 17% of the municipality population in 1985, 20% of the population in 1990. Agriculture is the biggest part of the town economy although it is a seaside town. Second main part of the economy is government services and commerce, especially tourist business. There is a growing demand for construction business which mainly encourages 5% migration rate in the town. The employment structure is shown in Table 2- 1. 98% of the locals were from south east part of the Mediterranean Region of Turkey. And almost 60 percent of the population were born in the municipality. The largest sources of immigrants were from the other towns of Adana such as Kozan, Ceyhan, Karatas, and surrounding cities such as Iskenderun, Maras.

Moslem religion is practised by 99% of the people. About 95% of the school age and adult population is literate. Currently there are 2 elementary and two high schools in

Table 2- 1
Yumurtalik's employment structure.

PERCENTAGE (%)	TYPE OF EMPLOYMENT
31	AGRICULTURE
18	GOVERNMENT SERVICES
18	COMMERCE: both tourist and locals
12	TOURISM
10	FISHING
7	CONSTRUCTION
4	OTHER

Source: Municipality technical report, 1987

Yumurtalik. Native language is Turkish, though some dialects are spoken by less than on percent of the population.

Nearly 89% of town residents live in a single family dwellings mostly owned by the occupants. Yumurtalik people is usually quite and busy with their own daily livings. They spend their day at the cotton, vegetables or watermelon fields. Friendly neighbourhood relationship is observed. Although the interaction with the tourists is not often, there is a raised awareness regarding the economic benefits of tourism on local economies. As it is common all small Anatolian towns, locals have conservative values in terms of life style.

2. 3 COASTAL MANAGEMENT IN TURKEY:

From the perspective of environmental management there are two broad classes of governmental agencies: Development agencies and resource management and environmental agencies. The ministry of Interior through its representatives in coastal provinces, the governors, plays a vital role in balancing competing claims between "development agencies" and "resource management and environmental agencies".

The main development agencies include the Ministry of Industry and Trade, the Ministry of Tourism, the Ministry of Public Works and Settlement, the State Planning Organisations, the metropolitan municipalities and other major municipalities.
Environmental and resource management agencies are the Ministry of Environment, the Ministry of Agriculture and Rural Affairs, the Ministry of Forestry, the Ministry of Culture.

From an environmental perspective, coastal zone management needs to be evaluated according to the following criteria:

1. Integration of policy objectives and achievements: During the past decade, the two main policy objectives for the development of the coastal areas have been industrialisation and tourism. These were partly accompanied and partly led by urbanisation and infrastructure development. From the environmental perspective, two related and unfavourable factors- the speed of development and the uncoordinated nature of policies-have resulted in the partial degradation of Turkey's coastal resources.

2. Administrative arrangements for coastal management: All governmental agencies are present in coastal areas and participate in their development. The metropolitan and other municipalities also have a major role to play in land use planning. Turkey has suffered from overlaps and gaps in its administration. Confused land-use management and the associated, unplanned industrial, commercial and tourist facilities are the result of gaps and overlaps in the allocation of responsibilities to the various levels of government. Unless this process is controlled to allow both municipal planning and infrastructure construction to catch up with urban growth, this chaotic situation will continue. There is no evidence that the Turkish authorities have made great progress in their efforts to control illegal settlements. Similar gaps or overlaps are appearing between tourist and industrial planning, a situation which has resulted in parallel development in the same area.
3. Financial arrangements for the various policy objectives: As a general proposition, it is true to say that environmental protection in Turkey is under-financed relative to the needs for protection. This is particularly true for the protection of coastal zones where the environmental effects of development are severe. In contrast, the subsidising of developmental activities some cases, amount to the subsidising of pollution.
4. Availability of legal instruments for coastal management: As the list of agencies indicates, practically all government department and all levels of government are heavily involved in coastal management. Consequently, all the laws and regulations

governing these agencies are applicable in these areas. As recently as April 1990, the Turkish government passed a coastal law and issued an application decree pertaining to the "definition, use and planning" under the law. The various pieces of legislation have developed over time in an ad hoc manner, with no overall framework. As a result, there are considerable contradictions between the various laws and no clear understanding as to which should prevail. Current practice indicates that the most recent legislation is given preference; the development of tourist" tourist regions", for example, takes precedence over the preservation of agricultural or forest land.

At present the new Coast Law (1990) and a number of other laws relate directly or indirectly to coastal management. Two steps are needed to strengthen existing legislation: a review and revision of the Coast Law of 1990; the reconciliation of various existing legislation. Furthermore, the Coastal Law has not proved to be highly effective in protecting the coast. The law provides definitions of the coastal space, procedures for its use, and limits for its physical modification. Here again, to implement this law would require a high degree of co-operation between a number of ministries. Nevertheless, the

The Coast Law is the only law which transcends all powers, whether Ministerial, provincial or local, requiring a setback margin. This margin is, however, fixed at a maximum of 100 metres, beyond which anything is possible. Furthermore, the manner in which the law is to be implemented remains unclear, especially the extent to which structures built prior to its enactment can be demolished or modified.

The Coast Law should be reviewed for the effectiveness of both the "set-back limits" for construction and the "boundaries of the zones" for management purposes. The various limits defined for "set-back" from the highest water level should be extended to ensure effective protection of shore areas. Although construction on the "shore strip" is prohibited, no guidance is given for the proper maintenance of the strip. Activities harmful to the shore, such as dumping and mining, should be prohibited by law. At present, the Coastal Law gives a definition of the boundaries of the coastal zone. However, these boundaries appear to be drawn too narrowly for effective management. A revision of the law needs to extend these boundaries along the lines described below.

The revision of existing laws is recommended by OECD (1992) as well. "A revision of the laws needs to begin with the elimination of obvious contradictions and then move to minimise those "grey areas" left to the discretion of the governor or to the various departments and which could potentially damage the environment. This review recommends that all overriding powers be abolished and that government agencies acting as developers should be subject to the same rules as private enterprise. The revision need to ensure that the law is interpreted according to the priorities of sustainable management. It is also recommended that special attention be given to providing better safeguards for areas of high conservation value so that these can be protected more securely than at present.

CHAPTER 3: REVIEW OF RELEVANT LITERATURE

3. 1 COASTAL TOURISM PLANNING

The coastal area is a precious part of an environment and an important zone of human habitation. It is source of a number of resources that give rise to distinctive activities, including tourism. Many case studies show that many developing countries are keen to develop tourism in their coastal areas. But the coastal area is also the zone of conflicting uses and misuses. In recent years, attempts to minimise or resolve the problems have led to more better planning and management of the coastal areas. Increasing attention is given to more planned or integrated coastal tourism. The inherent character of the coastal area makes its tourism distinctive. Sun, sea and sand provide the necessary ingredients for coastal tourism (Cohen, 1978; Stanfield, 1969; Pigram, 1977).

Coastal tourism is spatially and temporarily varied and can be related to the type of coast. It is largely concentrated on sandy coasts and less on rocky or marshy coasts. Such tourism-environment relationships in the coastal areas have included Defert's typology on coastal morphology and resort development (in Mieczkowiski, 1990) and Wong's (1990) classification of resort sites based on coastal geomorphology.

There is increasing recognition of the environment as a tourism resource and the need to consider the sustainability of that resource. To attain the objective of sustainable coastal tourism, the use of the basic concept of the carrying capacity of the coast (Pearce and Kirk, 1986) is to be encouraged and the Environmental impact assessment to be applied more often. Guidelines for the evaluation of tourism as part of the coastal

resources are available (Snedaker and Getter, 1985; Clark, 1985). The environmental planning of tourism should not be overlooked and planning and development controls relating to coastal tourism should be implemented (Lawson and Baud-Bovy, 1977: WTO, 1981; Inskeep, 1987).

The United Nations Environmental Program has determined that the objectives of sustainable coastal tourism are: "1. to promote and enhance the tourist resources, 2. to promote tourism in harmony with its resource base, and 3. to preserve tourism against conflicting activities and their adverse effects, in so far as promotion of tourism provides a greater net social benefit than the conflicting use" (Ahmad, 1982).

Miller (1986) discusses tourism development policies and stresses the opportunity for coastal tourism planning. Most marine tourism takes place in the coastal zone- along the shorelands and in the water immediately adjacent to the shoreline; it occurs outdoors and indoors, as recreation, sport and play, and as leisure and business. The fundamental tourism activity is the observation of the environmental and social scene. The most frequently enjoyed active recreational pursuits are undoubtedly the various swimming and boating activities. These activities, among a host of others are made possible by an elaborate tourism infrastructure (Miller, 1986).

The good and the bad effects of marine tourism involve changes in the quality of life for local populations and environmental degradation (Smith, 1989; Bosselman, 1978; de Kadt, 1979; Gunn, 1994). It can be summarised from the articles that marine tourism is both a cause and consequence of congestion. It contributes in a predictable way to

multiple- use conflicts (e.g., resort development vs. retention of residential housing; or curio, retail, and restaurant trade vs. traditional water-dependent commerce) and allocation conflicts (e.g., commercial vs. recreational vs. subsistence fishing interests).

The very nature of tourism- characterised by growth, urbanisation, commercialisation, and functional diversification will always result in environmental change to some degree (Wilkinson, 1989). The route to environmental damage is not inevitable, because there are less-damaging options available (Cohen, 1978). The major factor determining the degree of impact of tourism on the physical environment are according to Cohen (1978), the intensity of tourist side use; the resiliency of the ecosystem; the time perspective of the developers; and the transformational character of the development. If these factors were to be considered in the development of tourism, policy, the setting and construction of facilities, and tourist programs and activities, many negative impacts could be easily avoided (O'Flaherty, 1994).

Environmental effects of Coastal Tourism: Environments has various meanings for tourism. In its broadest sense, the environment includes all natural and cultural elements as in OECD's 1981 definition to encompass the natural, built ant cultural aspects. This approach is encouraged in understanding the potential impacts arising from tourism. A narrower meaning of environments the natural and built environment is used by Cohen (1978) and Inskeep (1987). Environment can also be restricted to the natural or physical environment, in order to distinguish it from the economic and social aspects of tourism, as used by tourism researchers (e.g. Mathieson and Wall, 1982; Pearce, 1989).

Coastal areas have had their fair share of positive and negative impacts of tourism. The negative effects are due mainly to ignorance of the coastal environment or inadequate planning. From recent overviews of impacts of coastal tourism (Mathieson and Wall, 1982; Pearce, 1989) and regional accounts (Hall, 1991 Wong, 1991), the environmental problems commonly associated with coastal tourism are: demands on water, aggregates, etc. on the environment; pollution arising from sewerage discharge; changes to coastal processes; changes to coastal dunes, vegetation, etc.; vulnerability of coral reef islands; coastal erosion and related measures taken to combat erosion and over development resulting in urban blight.

Tourism and environment in the coastal areas has been the focus of much recent discussion. This includes some issues on the coastal environment and tourism in the Coastal Zone conference series which serve as a forum for discussion on coastal and ocean- related problems. Suprisingly, the physical distinctiveness of the coast has not been given sufficient attention in studies on coastal tourism. Some general idea of the coastal environment is available in Ahmad (1982) and in texts on coastal tourism planning (Lawson and Baund-Bovy, 1977; Gunn, 1972; Inskeep, 1987).

More area-specific discussion on tourism-environment issues are found in the 1991 Coastal Zone companion series on ' Coastlines of the world' focusing on Japan, the Caribbean and California. Even in the coastal zone management programmes of many developing regions, e.g. West Indies, South Pacific, Southern Asia, tourist development is considered on a sustainable basis. Environmental planning and management is applied

to various coastal areas, e.g. the heritage coasts in the United Kingdom (Edwards, 1987). Environmental criteria are currently used in the Blue Flag criteria to evaluate beaches and marinas in Europe (FEEE, 1991) A modification of Blue Flag programme is being considered for the resorts in the Asian-Pacific region.

In Maldivian resorts and their environmental impacts Damroes (in Wong, 1993) emphasis the impact of tourism on a reef ecosystem and the results in ecological and environmental conflicts.

Wong (1993) examines the development and nature of tourism on the islands of the Malaysia and discusses the tourism environment relationship and issues specific to them. Awosika and Ibe (in Wong, 1993) assesses the tourist industry and its resulting effects on the coastal complex.

In his Co-operative tourism and the coastal zone, Farrell (1986) assesses the effects of tourism in coastal areas which has attractive seascapes, desirable beaches, lowland plains juxtaposed with inland mountains, clear warm waters, temperate climates. Throughout the world, coastal zone tourism involves a wide variety of human and physical systems.

1. In course of creating a tourist destination, a process may endanger or destroy indigenous plants and animals. These changes and the associated attempts to preserve habitats have been documented in places such as Galapagos, Hawaii, and the island of Caribbean (Farrell, 1982, Pigram, 1980, Cohen, 1978) With tourism development, native plants are often removed in favour of exotic flowering species and the original

wild landscape is replaced by foreign cultivated ornamental varieties. As a result soil water relationship change. Eroded topsoil, along with fertiliser and other agricultural chemicals, is deposited in the coastal waters. These are just examples of tourism's effect on environment mentioned by Farrell. Increase in tourism can lead to conflicts between tourism oriented groups and traditional local interest.

In coastal geomorphology and tourism on the German north sea cost, Kelletat emphasise the interrelationship between tourist development and infrastructure and the demands of future planning.

Alain Miossec (in Wong 1993) explores a wide range of tourism environment relationships for the Atlantic and Mediterranean coasts of France. These are illustrated by various coastal communities resolving conflicts involving shoreline protection, particularly sea walls, beach nourishment and dune stabilisation.

Since there is really intense land use along the coast, tourism development now has to provide proper safeguard for the protection of the coastal environment. The degradation of dune fields is one of the most serious side effects of tourism. In essence, coastal dunes form an attractive mix of natural environments for recreation, near to popular beaches. As a result the dunes periodically receive large numbers of visitors and are often subdivided for bathing huts. For several years, ecologists have highlighted not only the environmental value of shoreline protection particularly sea walls, beach nourishment and dune stabilisation. another case study which has shoreline crisis is conducted on southern Spain by Mc Dowell et. all (1993) In this case the most favoured

technique for shoreline defence has been installation of 'T' shaped or hammer-head groins, usually 200-300 m. apart and 50-80 m. in length. the widespread adoption of beach nourishment has obvious benefits to both the environment and the tourist industry, although the clamour to develop marinas may trigger yet anther cycle of erosion and shoreline recession (Mc Dowell et all., 1993).

In three case study mentioned above, the lack of understanding as to how the coastal system work, was the part of the problem. According to Wong (1993), it will be important to restrict such environmentally deleterious practices as the removal of sand and gravel, as well as taking steps to introduce an effective form of environmental impact assessment, in order to reduce the problems imposed by shorefront development.

Hilling highlights the impact of port decline on social and economic conditions of coastal areas. He emphasises the interrelationships of port and city, and stresses that revitalisation strategies address only one set of problems if they focus on derelict port zones to the exclusion of port related inner-urban problems. The availability of extensive waterfront zones close to the urban core requires very careful consideration of the character and timing of appropriate redevelopment. Waterfront renewal is an expensive and sensitive process: skilfully done, it can bring new life into dead and dying urban areas, can create a wide range of new economic and social opportunities, and can provide a welcome antidote to the widespread tendency towards peripheral rather than central urban development.

Riley and Smith recognise the power of international forces in the process of decline and revitalisation, but also argue that analysis and understanding are seriously impeded if the influence of local site factors, and of local attitudes, decisions and policies is ignored. Hayuth, meanwhile, views waterfront redevelopment largely in terms of the ecological, technological and economic systems affecting the transformation of the port-city interface, adopting a model based approach to clarify the potentially confusing proliferation of revitalisation programmes.

On the other side there are some successful examples of waterfront revitalisation, such as Toledo's waterfront revitalisation. Kenneth Basset (1986) lists the benefits of the revitalisation as a coherent framework for a variety of improvements to the downtown, increase tax revenues and employment opportunities, an attractive setting for corporate investment in new facilities and retail activities, recreation opportunities, and last of all, impetus for further revitalisation of neighbouring sections. Also a sense of pride and accomplishment on the part of the numerous organisations, individuals and governmental entities that were involved.

Social and Cultural Effects of Coastal Tourism: The intersections involved in coastal zone tourism can only be understood if all levels of culture are understood. We must read between the lines and ascertain to what extent the pervasive 'primary level cultures' express themselves in the total coastal landscape. For this reason, Farrell brings up an idea, co-operative tourism, believing that problems associated with tourism might be partially solved, or at least tolerated, if local people believed they shared in the

rewards of tourism and in decisions determining their own future. When we think of the coastal zone, we should broaden our perspective to include human systems and natural systems in interaction. Once the fundamental cultural context is thoroughly known the groundwork would be set for economically effective, ecologically sound, and culturally compatible human use (Farrell, 1986).

Meltzoff and LiPuma (1986) have suggested a three step 'comparative method' to implement coastal zone management from the perspective of the local society:

1. Identity environmental problems in relationship to their socio economic causes and implications
2. Discover possible solutions given the prevailing structures of the social and political economy

Compare similar problems with First World problems and their solutions to adopt to the local context.

Tourism policies have not escaped the criticism that they are disjointed, imbalance, poorly implemented, and weakly integrated with private sector programs (Smith, 1989; Bosselman, 1978; de Kadt 1979; Gunn 1994). This is not to say, however, that coastal tourism development must be unsuccessful. In theory and in practice, interactive coastal tourism planning by host, guest, and management factions can achieve tourism and economic development while minimising damage to resources. Farrell (1982) makes exactly this point in his examination of the unfolding of tourism policy in the Hawaiian Islands. In "Co-operative Tourism and the Coastal Zone," Farrell reflects

the question of whether tourism leads to unbalanced ethnic relations and neo-colonism, while looking often to the pluralistic societies of the Third Word. Farrell argues that while cultures can fall victim to ethnocentrism, it is the responsibility first of the promoters of tourism to respect cultural differences. For Farrell's co-operative tourism to really succeed, all parties to the causes and effects of tourism must craft policy as a joint venture.

Tourism and recreational pressures in the coastal zone are not uniformly distributed; most often, concentrated use of beaches occurs near urban environments. The advantage of coastal living can provide the incentive for tourists to become locals, for seasonal residents to shift to full-time residence, and for community members to expand real estate holdings. Housing development can, in turn, stress the natural and recreational environment through waste disposal and shoreline modification (Miller and Ditton, 1986)

Low impact development, however, may be integrated more readily into existing social and economic life of a community. If developers are residents, they are more likely to be well acquainted with resource limitations. Low impact development has greater opportunity for feedback from each increment of growth. However, this type of development is a logical part of the whole of tourism and not dispersed so widely that it is insufficient to service and confusing for visitors. Many regions are finding that both kinds of development may be needed, provided that they are kept on balance (Gunn, 1994)

This implies the adoption of two concepts. First, the tourism developer must treat the protection of environmental quality, that is, as a cost of doing business (Bosselman, 1973). The second concept is that of tourist carrying capacity which is in reference to the number of tourist that can be accommodated at any time with minimal environmental damage (Wilkinson, 1989). This is different the concept of "social carrying capacity," which includes crowding and the impact on the experience of the tourists themselves. The concern with tourist carrying capacity is with natural systems, rather than with the satisfaction of the tourists. Carrying capacity thresholds can be raised by various means. The techniques may include provision of bus series to beaches so that large back shore areas need to be cleared for car parks; improved hotel room design, with ventilation, screening, and ceiling fans to reduce the need for air conditioning and, therefore, electricity; litter disposal facilities; education campaigns to alter the attitudes of both local people and visitors; and regulatory mechanisms to relieve crowding at times of peak demand (Wilkinson, 1989; Meldon, 1994; Inskeep, 1994; Gunn, 1977).

Besides important positive results, this tendency that tourism demand has undergone a formidable growth process and an increase in territorial diffusion, has also had undesirable effects: on still undeveloped areas where the environmental "system' is under pressure, and on traditional tourist resorts, many of which have entered a declining phase, partially as a result of environment deterioration (Commission of the European Communities, 1993). It is claimed in the book that in the near future at global level this request for environment will increase the tourist will be more selective and experienced

and environmentally friendly products are expected to be more successful than other; for the same reason, products which don't have even the minimum of environmentally compatible standards are expected to decline and lose competitiveness. Therefore a series of interventions are needed:

- At new tourist areas where development should be carried out in a "sustainable" way i.e. must be realised in a way that is compatible with the local environment (natural resources, social and cultural values of the host population, etc.);
- At older tourist resorts through stimulation of a revitalisation process answering the needs of the mass consumer but at the same time adopting measures and starting projects with the aim of up-grading the local environment.
- Environmental resources is taken to indicate the whole range of non -economic factors characterising an area which have an influence on tourists and have an effect on their satisfaction (Pearce, 1988; Dernoi, 1981; Gunn, 1972). This definition of environment includes various factors which taken together may influence the tourist's desire to return to a given area: natural resources (the quality of the sea water or the attractiveness of the countryside), the hospitality of the local people, local traditions, the presence of well-preserved works of art or historical monuments and so on.

The concept of a recognisable cycle in the evolution of tourist areas is presented, using a basic s curve to illustrate their waving and waning popularity in Butler's research (1980).

Stansfield in discussing the Atlantic City, refers specifically to the resort cycle 1. discovery 2. local response and initiative 3. institutionalised 'institutionalisation.

Tourist areas are attractive to different types of visitors as the areas evolve, beginning with small numbers of mid-centric as the area become accessible, better serviced, and well known, and giving way to declining numbers of psychocentrics as the area becomes older, more outdated, and less different to the areas of origin of visitors. Destination areas carry with them the potential seeds of their own destruction, as they allow themselves to become more commercialised and lose their qualities which originally attracted tourist (Inskeep, 1995).

Butler proposes 5 hypothetical steps in tourist area cycle. The first step is involvement which means as number of visitors increase , some local residents will enter the step and begin to provide facilities primarily or even exclusively for visitors. The development stage is second step, reflects a well-defined tourist market area, shaped in part by heavy advertising in tourist-generating areas. As this stage progresses, local involvement and control of development will rapidly decline (Gunn, 1977). As the consolidation stage is entered the rate of increase in visitors will decline, although total numbers will still increase, and total number of visitors will exceed the number of residents. On the stagnation stage, the peak numbers of visitors will have been reached. this stage is the one that environmental, social and economic problems arise. The area will have a well established image but it will no longer be in fashion. Finally, in the

decline step, the area will not be able to compete with newer attractions and so will face a declining market.

On the other hand, there is literature mentioning the possibility of rejuvenation which means a complete change in the attractions on which tourism is based on (Butler, 1980; Stansfield, 1978; Cohen, 1972). Although it is almost certain that rejuvenation stage will never be reached without a complete change in the attractions on which tourism is based. Two ways of accomplishing this goal can be seen at present. One is the addition of man-made attractions, as in the case of Atlantic City's gambling casinos. Obviously, if neighbouring and competing areas follow suit, the effectiveness of the measure will be reduced; a major part of Atlantic City's anticipated success is the element of uniqueness which it has obtained by the change (Stansfield, 1978).

An alternative approach to rejuvenation is to take advantage of previously untapped natural resources. The development of new facilities becomes economically feasible, and simultaneously serves to revitalise the older summer holiday trade. As new forms of recreation appear, it is possible that other tourist areas will find previously unappreciated natural resources to develop (Butler, 1980). As a conclusion, Butler emphasises that change of attitudes is required on the part of those who are responsible for planning, developing, and managing tourist areas. Tourist attractions are not infinite and timeless but should be viewed and treated as finite and possibly non-renewable resources which could then be more carefully protected and preserved. The development

of the tourist area could be kept within predetermined capacity limits, and its potential competitiveness maintained over a longer period.

Work on the environmental social, and economic impacts of tourism would undoubtedly benefit from more detailed information about patterns of use. The application of the concept of carrying capacity to the management of coastal environments requires quite a detailed knowledge of the spatial and temporal concentration of activity (Pearce, 1988)

Research on tourist destinations has focused primarily on issues of development and impact with little attention being paid to what tourists actually do, how they use their time, and where they go within destinations. Pearce brings an approach, the time budget, which involves systematically recording the tourist's activities within a destination by using diaries, questionnaires, or interviews. More and better empirical research on tourist activity patterns could provide an additional perspective in three main areas of tourism: demand, development, and impact.

Gunn (1994) demonstrates the idea that for betterment of tourism there are at least the following four planning goals; Enhanced visitor satisfaction; Improved economy and business success; Protected resource assets.

3. 2 TOURISM DEVELOPMENT

3. 2a Types of Tourism:

Tourism can exist in many different forms, with many different purposes, and oftentimes a given destination host more than one type of tourism in varying degrees (Bodenchuk,

1993). In this section different type of tourism is discussed based on Smith's (1977) typology consisting of ethnic tourism, historical tourism, recreational tourism, cultural tourism and environmental tourism.

Environmental tourism a relatively broad term, which has evolved to incorporate several variations on the same. Smith defines the environmental tourism as elite tourist who travel to remote places to experience a truly alien scene or to observe man-land relationships. A close association with ethnic tourism is mentioned.

Ethnic tourism takes place at a considerable distance off the "beaten path" where an indigenous, often exotic people become objects of examination. The numbers of these tourists are limited, so their impact on the host society is minimal compares to other types of tourism. The attractions for ethnic tourist is submergence to the total life experience of the host culture. According to Smith (1977) the ethnic tourist seeks to visit native homes and villages, observe dances and ceremonies, and shop for primitive wares or curios. Similarly ethnic tourism, cultural tourism has minimal impact on society. The main difference between ethnic tourism and cultural tourism is the numbers of tourists and the accessibility of the host culture. In cultural tourism, nostalgia is perceived for a vanishing way of life. This type of tourist described by Smith has large numbers of tourists seeking to photograph and observe, and to experience meals in rustic inns, costumed festivals, and folklore entertainment. One thing to keep in mind is that cultural and ethnic tourism can be intrusive and disruptive as tourist numbers increase, Parris (1984) devoted model culture tourism which is a planned recreation of a historical or

ethnically environment. The special part of this concept is that activities and facilities is designed for tourist consumption, so that the visitors may observe and experience the particular culture without disruptive effects on the everyday lives of the people whose culture is under inspection.

Historical tourism attracts many education-oriented tourists. Typically, historical tourism occurs in the form of organised, guided tours of easily accessible monuments and ruins. By the preservation and the promotion of historic remains in Yumurtalik, this type of tourist can be drawn into the town. Historic sites also attract Educational tourism which is often recognised in the literature informally.

Recreational tourism characterised by sand, sea and sun, is probably the most common type of tourism in Yumurtalik recently. The purpose of this type of tourism is to seek good food, entertainment, recreational activities, sunbathing, and swimming. Away from the structure and confines of their normal community, tourists feel free to indulge in a new morality and life style.

Science tourism as described by Farrell and Ruyan (1991) is similar to nature tourism in that natural systems are the main attraction. The difference between these types of tourism is in the approach and purpose. Bodenchuk (1993) states that nature tourism revolves around "intimate" experiences with nature, while the science tourist travels for the purpose of conducting scientific research within a specific natural ecosystem. Science tourism combines both scientific and tourist motivations and the provision of research facilities are of equal importance. Yumurtalik have sufficient amount of precious marine

and wildlife features. One of the regional research university, Cukurova university, already has a research facilities located very close to town. By the addition of new facilities and the advertisement the other local universities can be attracted to the area. This will encourage the scientific tourism.

Nature tourism and Eco-tourism are lumped together by some and differentiated by others. Nature tourism is described as visitation of natural areas that involves no consumptive use of those areas, while eco-tourism is exclusively purposeful and focused on the enhancement or maintenance of natural systems through tourism.

Inskeep (1988) brings an another type of tourism, special interest tourism. The concept emerges from organised special interest tours centred n a great variety of themes having appeal to specific market segments.

3. 2b Sustainable Development:

The term alternative tourism, also called responsible, appropriate, or, as recently suggested, sustainable tourism, is used to refer to small-scale, non conventional non mass specialised forms of tourism that are socially and environmentally sensitive and respectful, as opposed to conventional forms of mass tourism such as large multinational resorts (Inskeep, 1995; Commission of European Communities, 1993).

There are various terms for "alternative" (Dernoi, 1981) or "soft" (Krippendorf, 1986) forms of tourism development. One term is "The New Tourism," for which Rosenow and Pulsipher (1979) present a set of principles. Theirs include a sensitivity to a unique heritage and environment; preservation, protection, and improvement of the

quality of major tourist attractions; development of other attractions rooted in the local or complementing local attributes; provision of both economic opportunity and a basis for cultural and social enrichment; development of visitor services that enhance the local heritage and environment; an expand view of travel marketing; growth being beneficial not destructive; and development within current and anticipated energy constraints.

A relatively unexplored concept is "integrated development". It is characterised by smaller scale, more indigenous capital and management, and lower prices which are geared to different type of tourist, one who is more easily assimilated into the host community (Jenkins, 1980).

Although the forms of tourism typically identified as "alternative", "responsible," or "appropriate" are important and should be considered in many tourism development planning studies, the meanings are rather ambiguous.

With proper planning and controlled development, all forms of tourism can and should be socially and environmentally sensitive and responsible, aiming toward sustainable development, and that types of tourism selected for an area depend on many environmental, social, and economic factors that must be analysed (Inskeep, 1995).

Alternative forms of tourism in particular can be considered where there is concern about the socio-cultural, economic and environmental impacts of mass tourism, especially in areas with traditional cultures and ecologically sensitive environments (de Kadt, 1979). Forms of alternative tourism relate to facilities and activities that allow tourists to directly experience the host culture and/or environment in non-exploitive ways

that respect the society and environment. But even though small-scale, social and environmental safeguards must still be planned into development of alternative tourism (Pearce, 1988). One of the benefits of alternative tourism is that most of the economic benefits of employment and income are received directly by the resident population who own and operate the tourist facilities and services. Because one of the important goals of tourism is economic growth, tourism can provide appreciable monetary inputs to communities. As they see other areas gaining from tourist revenues, they seek the same rewards (Gunn, 1972).

As Gunn (1972) states that economic goals can vary greatly but are strong motivating forces for much regional tourism- recreation development he reminds the fact that the price of tourism should be accepted. Any region, state, or community must be willing to pay the price of disruption and change in order to cater to enough tourists to make an economic impact (Gunn, 1972). On the other hand, Inskeep (1995) develops just product-led approach, opposite of Gunn's market-led approach, to preclude serious cultural and environmental problems. Some places such as Bhutan and Oman have adopted product-led approach. this approach implies that only those types of attractions, facilities, and services that the area believes can best be integrated with minimum impacts into the local economy patterns and society are provided, and marketing is done to attract only those tourist who find this product of interest to them. Since this approach of balancing economic, environmental and social objectives within the framework of maintaining sustainable development is the most appropriate one, I will use it in my

planning guidelines for Yumurtalik. It is also known that the success of the approach depends on the overall national, regional, and community objectives. The regional scale of planning objectives will be mentioned in chapter five.

D'Amore (1983) argues that, while each case differs greatly, there are basic guidelines that need to be considered in working in harmony with a host community. He emphasises that tourism planning should be based on overall development goals and priorities identified by local residents, to whom the physical, economic, and social costs and benefits have been clearly demonstrated. Tourism activity, however, should not increase unless more effort is undertaken to mitigate local growth problems. Destination areas should adopt or refine themes and events that reflect their history, lifestyles, and geographic setting, with promotion of local attractions being subject to resident endorsement (Meldon, 1994). Meldon concludes that opportunities should be provided to obtain broad-based community participation in tourist events and activities and to allow for capital, entrepreneurial ability, and labour to be invested in local tourism development. To ensure that the residents are not alienated from their own area's amenities, public and private efforts should be co-ordinated to maintain the integrity and quality of local opportunities for recreation and relaxation.

Another advantage is that these small scale forms of tourism do not require major infrastructure development or high capital investment costs. Examples: village tourism, rural, farm or agro-tourism, walking and cycling tours, fishing tourism, nature eco-tourism (Inskeep, 1995; Gunn, 1994; Wilkinson, 1989).

As another possible form of alternative tourism, it is now becoming common for small groups, often community organisations, to travel to and stay in an area assisting local people with particular project such as building low-cost houses or developing a village water supply.

Sustainable development has been modified many ways but the following. developed in British Colombia, Canada may be most applicable to tourism planning. Sustainable development is positive socio-economic change that does not undermine the ecological and social systems upon which communities and society are dependent. Its successful implementation requires integrated policy, planning and social learning processes; its political viability depends on the full support of the people it affects through their governments, their social institutions, and their private activities. Examination this definition reveals key applications to tourism. The basic premise of " positive socio-economic change" allows growth but requires that it be positive. This implies that such change must provide social and economic good. Second, it then qualifies change by standing that it does not undermine the ecological and social systems. The definition states further that these social and ecological systems are the foundation upon which communities and societies depend. Then, the definition states that successful implementation requires several public and private policies and actions, such as integrated policy, planning, and social learning process.

The tourism industry depends on the environment. If quality of the environment is to be maintained and enhanced while at the same time tourist spending is to be

increased, the industry has to be developed in accordance with the principles of sustainable development (Meldon, 1994). According to Meldon one definition of it sustainable development is as development strategies meeting contemporary needs without jeopardising the opportunities of future generations to satisfy their own needs.

Sustainable development means every improvement in the quality of life-economic welfare and subjective well-being which is achieved with less use of non-renewable resources and less burden on the environment and on people. His plan for action to achieve sustainable tourism requires application of the five R's principle: refuse to pollute, reduce pollution, reuse products and materials, recycle, recover. The guiding principles for tourism should be to minimise the overall impact on the environment, to benefit the host community and the locality, and to be sustainable (Inskeep, 1995).

Tourism must not abuse the natural environment and must respect its architectural integrity (Meldon, 1994). Decision making should be local where possible, with local cultural values and societies maintained (Pulsipher, 1979). Growth should be gradual with the benefits of tourism diffused through many communities, not concentrated on a narrow coastal strip or scenic valley. Approaching tourism from the perspective of the region, rather than through the development of product themes, would help to safeguard and sustain local identity so that the local community would operate an effective brake on development not in keeping with local goals and objectives. Such an approach could help to minimise the conflict that can arise as a result of the intrusion of the speculative

developer, whose aims and objectives may be at variance with those of the local community (Miller and Dittos, 1986).

Although tourism is expanding rapidly in many places and becoming one of the world's major social and economic activities, a particular country, region, or community should be cautious about developing an over-dependence on tourism (Inskeep, 1995; de Kadt, 1979; Meldon, 1994). For both economic and social reasons, diversification of an economy is usually desirable, although not always possible. Economically, diversification provides a sounder basis for development in that any periodic economic fluctuations in one sector can likely be counterbalanced by strengths in other sectors. Socially, diversification encourages a greater mix of types of people and activities in an area. Wherever possible, all the potential economic sectors, based on the resources of the area, should be considered for development with tourism integrated into the multi-sectoral economy (Inskeep, 1995). It is sometimes too easy for an area to rely on tourism, as a growing sector, to neglect of its other potentials. However, for some places that own limited resources except for tourism, there may be few other options open, and tourism must be given priority to achieve economic objectives (D' Amore, 1983).

Tourism should not be seen categorically as a panacea to solve a community's economic problems. Each place must be carefully evaluated in terms of its tourism attraction potential, based on both its own resources and the possible domestic and external markets.

3. 2c Attractions Enhancing Tourism Development:

According to Gunn (1977), tourism as an industry occurs at "destination areas"- areas with different natural and/or man made features, which attract non-local visitors for a variety of activities (Georgulas 1970). This definition by Georgulas possesses two key aspects which distinguish a destination area; it must contain features that will attract and it must appeal to "non local visitors."

Some of the literature agree on the fact that a destination area must have attractions which appeal to at least one type of tourist (Gunn, 1972; Murphy, 1985; Inskeep, 1995; D' Amore 1983). These attractions can be as varied as the tourist types, but they are generally divided into two categories, natural or man-made. Natural attractions include such features as sunshine or scenic landscapes, while man-made features can be primary attractions like amusement parks or support facilities like hotels and restaurants.

Table 3-1
Existing and potential natural tourist attractions in Yumurtalik.

Environmental Attractions	Cultural Attractions	Economic Attractions
• Climate • Sun • Sea • Beaches • Scenic Beauty • Marine Life • Seashore flora and fauna • Historic remains	• Old town historical district • Indigenous architecture • Harbour area and fish market • Southern culture • Cuisine • Arts and Crafts • Hospitality	• Convenient travel distance • Cheap cost of recreation • Affordable accommodation • Variety of good shopping, food, entertainment facilities

Table 3-1 illustrates existing natural and potential tourist attractions in Yumurtalik. A third category, which is now receiving more attention, would be a destination area's hospitality record. The manner in which visitors are received, and the quality of service provided, forms a major component of a destination's tourist image (Murphy, 1985).

An important result of an evaluation will be deciding which are the primary attractions, that is, those that would induce tourist to visit the area, and which are secondary, that is, those that are sufficiently important to induce tourists to visit but that would serve as complementary features to provide more activities and interest.
Different type of attractions for tourists increase their length of stay. The evaluation will indicate which are the predominant types of attractions, such as nature or culture oriented, an important consideration in the market analysis. It is often a combination of attractions that provides the best basis for tourism development (Inskeep, 1995). Table 3-2 presents the primary and secondary attractions in Yumurtalik.

Tourism has been described as an aspect of recreation that can be viewed in turn as an aspect of leisure (O'Flaherty, 1994; Miller and Ditton, 1986; de Kadt, 1979). Increasingly, tourism researchers and professionals are recognising that recreation and leisure are important motivations in tourism experiences. It is essential that in developing the tourist industry we do not kill the potential of the given area, and its attractiveness.

Capability analysis provides information regarding the distribution and quality of resources. The capability survey, by its very nature, is a neutral method of assessment,

drawn up to aid graphic representation and hence visual comparison of the various units within the study area (Murphy, 1985).

Table 3-2
Existing and potential Primary/Secondary Tourist Attractions in Yumurtalik.

Primary attractions	Secondary Attractions
• Climate • Beach • Scenic Beauty • Historic and waterfront parks • Shopping facilities • Affordable accommodation, recreation and entertainment facilities • Marina • Cuisine • Festivals	• Marine Life • Aquarium • Seashore flora and fauna • Harbour and fishing market • Indigenous architecture • Museums and art galleries • Conferences and conventions • Performing arts • Southern culture and life style • Hospitality

The identification of an activity within an element does not necessarily mean that activity is present within the area at this time, nor is it a recommendation that it should be. In some cases the exploitation of such potential could lead to user conflict or negative impacts on the environment. However, O'Flaherty concludes that the recreational capability analysis does provide a solid foundation upon which to build strategy for the study area. The strategy will entail that application of a spatial framework which link place with activity, using criteria such as access, recreation capability and distance from urban centre.

Recreation capability analysis involves a number of steps (Murphy, 1985, O'Flaherty, 1994). The first one is breaking down of a site into a broad geographical units by using criteria such as physiography, land use, or routeways. In Figure 3-1

Yumurtalik is broken down of sites by major streets in the town. Second step is classification and weighting which is called an activity analysis. This involves an assessment of the range of activities the study area is likely to support (Table 3-3)

The activities within the categories underwent further testing and grading on the basis of skill, appeal, and organisation. Table 3-4 illustrates set of categories and sub-categories Arising from categorisation, O'Flaherty develops a points system which could be applied to each element to establish the recreation potential of the area. The complete range of activities are classified and graded in Table 3-5.

Primary Activities	Group A	20 Points
	Group B	18 Points
	Group C	15 Points
Secondary Activities	Group A	14 points
	Group B	10 Points
	Group C	6 Points
Tertiary Activities	All	5 Point

Having drawn up a list of activities and a points system to facilitate scoring, it was necessary to examine the activities themselves to establish basic resource criteria. This was then applied to each area in the town to identify what activities were appropriate and possible. For example, canoeing requires water (river , lake, sea), which is accessible by road.

Our evaluation took quality of resource and level of organisation and facility provision into account, and awarded bonus points accordingly. However, it was felt that the quality of resource for a given activity should play some part in the scoring system. By adding all the scores, a total score was established for each area. there was a variety scores

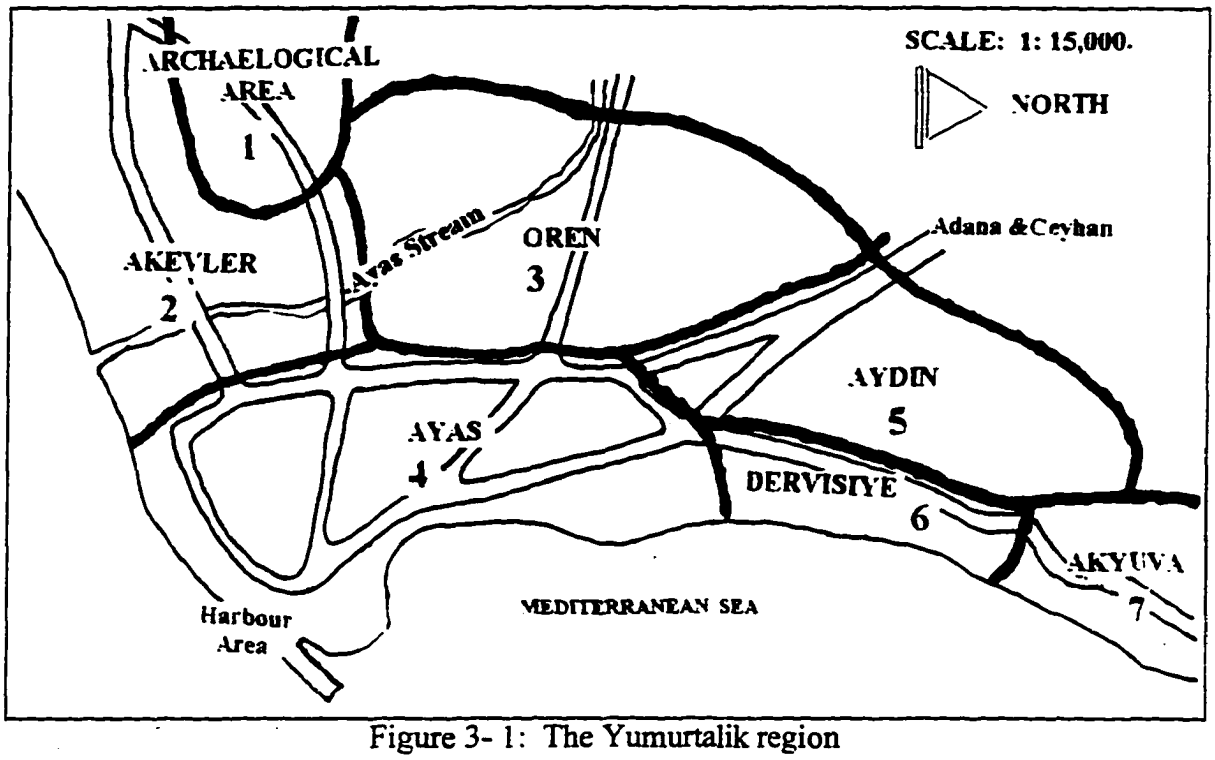


Figure 3- 1: The Yumurtalik region

Table 3- 3
Listing of Recreational Activities for Yumurtalik

1- Boating	12- Hunting
2- Camping	13- Picnicking
3- Canoeing	14- Sailing
4- Coarse Fishing	15- Shopping
5- Court and Organised Games	16- Shore fishing
6- Cruising	17- Sightseeing
7- Cycling	18- Sunbathing
8- Diving	19- Swimming
9- Deep Sea Fishing	20- Walking
10- Dancing, entertainment, music	21- Water-skiing
11- Game fishing	22- Excavating (archaeology.)
	23- Wind surfing

Table 3-4
Classification of Activities

PRIMARY	Group A	Universal appeal and involvement. Minimum facility requirement, minimum skill to participate, high linkage.
	Group B	Wide appeal, modest facility, amenity requirements, minimal skill requirements.
	Group C	Wide appeal, dependent on available facilities, considerable level of skill required, equipment content (private) high, organisational content high.
SECONDARY	Group A	(Within category) widest appeal and least organisation, facilities and equipment input, least skill requirement.
	Group B	Wide appeal (through limited in terms of Primary activities), considerable facility/ organisational input, some skill required.
	Group C	Appeal limited (by facilities and skill requirement) and high skill and facility content required.
TERTIARY		No grouping indicated or necessary

Source: O'Flaherty (1994) Recreation Capability Analysis: A Case Study of Southwest Mayo.

recorded, ranging from the lowest at 87 to the highest at 163. The scores were grouped as follows:

150 Points and more wide range of activities possible

100 -149 Points medium range of activities possible

less than 99 Points limited range of activities possible

Finally, the activity range or capability was mapped accordingly to the above groupings (Figure 3- 2). The findings suggest that the area has considerable recreation potential, with only two areas having a limited activity range. The inland areas and Ayas area have a medium activity range, while the wide activity range is dominated by the Akevler coastal area, as it can accommodate water-based as well as land-based activities. The are

in the immediate vicinity on West beach has a wide activity range, and has potential which is not being fully exploited, reflecting, perhaps, the dominant concern with the development and management of the town itself.

Table 3- 5
Listing and Classification of Activities

CODE	ACTIVITY	CATEGORY	GROUP
1	Swimming		A
2	Sunbathing		A
3	Walking	Primary	B
4	Dancing and entertainment		C
5	Court and Organised Games		C
6	Camping		C
7	Coarse Fishing		A
8	Cycling		B
9	Deep Sea Fishing		C
10	Picnicking	Secondary	B
11	Shopping		C
12	Shore Fishing		A
13	Sightseeing		A
14	Boating		
15	Canoeing		
16	Cruising		
17	Diving	Tertiary	
18	Game Fishing		
19	Hunting		
20	Sailing		
21	Water-skiing		
22	Excavating (Archaeological)		
23	Wind Surfing		

The potential of the coastal area of Dervisiye I recognised in this study. In addition to receiving increasing use from future development, two activity centres have been set up in this area. Oren area which includes riparian areas is under-utilised.

However, before development of such recreational potential is considered, problems of access and unsightly agricultural practices and riparian ecosystem protection systems need to be tackled.

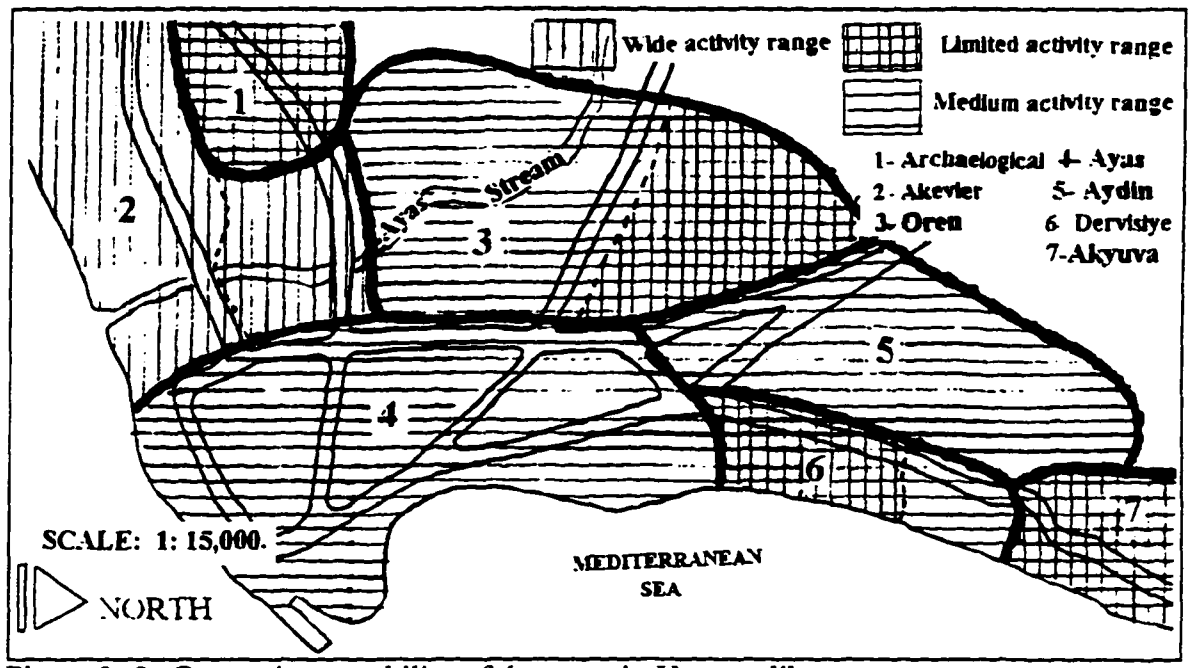


Figure 3- 2: Recreation capability of the areas in Yumurtalik.

3. 2d Social, Cultural and Economic Aspects Of Tourism:

Although tourism may be regarded as just another "industry", it differs from other transformations of the countryside in one very important respect; tourism is a service oriented operation that generally entails a great deal of face-to-face contact between visitors and residents (Pi-Sunyer, 1989). The opportunities presented by the industry and the difficulties arising from its rapid development can best be examined and resolved through a community approach (Murphy, 1985). Taking a community approach permits

a more balanced assessment of the industry and its impacts, since it involves the interest of many groups with in one setting (Smith, 1989).

Tourism can play a major role in reinforcing pride in rural areas, which in turn leads to greater desire to develop traditional skills and abilities and to share them with others. Cultural tourism stands to have a profound effect on communities, not only in economic terms but by shaping the very character of rural culture in the future (Kneafsey, 1994). Robert H. Mc Nulty (1985) assess cultural tourism by looking to some of industrial cities and their urban revitalisation techniques in favour of tourism. Cultural tourism does not only bring new money into a region, it also brings new demands upon the residents, who must meet the challenges of sustaining and monitoring tourism.

As it is observed, two polarised positions emerge from the growing body of literature on the effects that tourism has on host population. On the one side, economists tend to depict the obvious benefits of tourism in the way of creating jobs, on the other side, social scientists generally focus on the negative impacts of tourism. Manning (1987) aims to show that tourism has yielded socio-cultural as well as material benefits, as he investigates the case of Bermuda. He emphases that usually the dilemma between economic gain and social cost inherent in the nature of tourism and yet some societies dealt creatively and constructively with tourist influences. He explains how Bermuda achieved a process of culture revitalisation and a system of planning and control without destroying the natural or social environment.

The relationships between hosts and guests in destination areas can be characterised by four major features according to UNESCO study (1976). First, they involve transitory relationships. Visitors are only in a community for a short period. so any interaction between hosts and guests has little chance to progress beyond casual and superficial levels. Second, there are temporal and spatial constraints to visitor- host interaction. Visitors are usually seasonal and non- repeated events, so the hospitality business often becomes exploitative to take advantage of this situation. Tourism facilities and services are frequently concentrated in a few locations, due to the location pull of outstanding attractions and the destination community's desires to minimise the disruption of other activities. Third, with the development of mass tourism visitor-resident meetings lack the spontaneity associated with individual schedules. Most contacts are now arranged via package tours, planned attractions, or even " arranged" meetings. Such meetings are controlled events and often become commercial arrangements. Fourth, when visitors and residents meet it is generally an unequal and unbalanced experience. Residents often feel inferior when they compare their situation to a visitor's apparent wealth, and can become resentful at the contrast. Furthermore, the visitor is on holiday and enjoying novel experience while for the resident such events and meetings have become routine, and represent work for fun.

Some tourists today search for unique experiences and activities, and the cultural dimension is being added to the aims of mere rest and relaxation in peaceful rural surroundings (Gunn, 1972; Nunez, 1985; Young, 1973). Like the travellers of the

eighteenth century, some contemporary tourists are acknowledging the educational value of travel. Increasingly, culture is being seen as a source, and history has entire way of life, history, tradition, society, and people is being marketed as a product. However, this mass tourism; indeed, the aim of many contemporary 'travellers' is to avoid better known destinations in search of an experience which seems more real and authentic (Kneafsey, 1994). Mass tourism indirectly affects everyone in a small community, including other tourists who seek to get away from the beaten path and those who make a conscious effect to learn local way (Pi-Sunyer, 1989).

Will the development of tagged attractions lead to the self-fulfilling prophecy situation as Boorstin fears, and result in the irreversible cultural change of traditionally closed societies? One theory which outlines the possible dangers for such societies is the acculturation theory (Nunez 1977). The acculturation theory states that when two cultures come into contact for length of time an exchange of ideas and products will take place. This exchange process, however, will not be even, because the stronger culture will dominate and begin to change the weaker culture into a mirror image.

The introduction of outside ideologies and foreign ways of life into societies that have been relatively closed or isolated can lead to "changes in attitudes, values, or behaviour which can result from merely observing tourists' (de Kadt 1979,).

Jeffrey Brewer (1984), in his Tourism and Ethnic Stereotypes, presents data from a Baja California tourist resort to show that natives hold two kinds of ethnic stereotypes of tourist which is used as guides to conducting business with tourists. These stereotypes

are based on ideas learned from others or created a new from observations. The results gathered from native and tourists confirms inaccurate tourism, inter-cultural relations. Of most importance, this study indicates that not only is communication between native and tourist small, but also that native - tourist interventions themselves generate distortions of understanding. In the process of interaction, both natives and tourists learn to adapt their behaviour to the expectations of others, including those expectations created by the specific stereotypes.

Another study on changing perceptions of tourist conducted by Oriol Pi- Sunyer (1989). With the growth of mass tourism traditional stereotypes may become applied to all foreigners without the corrective factors that were normally applicable when guests were relatively few. This is more likely to occur when the average length of residence is short and the number of visitors high. Under these condition, there is a temptation to apply traditional stereotypes virtually automatically, and with increasing emphasis on those attributes of ethnic group identification deemed most negative by the villagers. (Pi-Sunyer, 1989). The attitudes that residents hold respecting tourists are in part founded on direct experience, but also strongly mediated by images and stereotypes concerning different types of visitors. These categories are not immutable; rather they are influenced by changes in tourism and by major societal transformations (Smith, 1989).

The demonstration effect can be a benefit if it encourages local people to adopt and work for the things they lack, because in the process this helps their development. Mary Tubridy (1994) describes the inter-linked series of initiatives required to increase

the economic and social benefits of tourism to low income groups. These include policy changes among statuary agencies, training initiatives, and financial assistance for the types of products whose development would specifically benefit on low income as well as community based development tourism groups.

There is a need for change in approach among tourism policy makers, to shift the emphasis of development towards the unique assets of the region; its scenery flora, fauna and people. it must be recognised that tourism will be sustainable only if serves to allow for maximum amount of local control which must be kept informed through appropriate training. This implies that the administration of tourism must be reconstructed to allow for greater control of its development at the local level by community based groups (Tubridy, 1994). However, in many third world destinations it has resentment, as local residents find themselves unable to emulate the lifestyles and products they are witnessing. As the demonstration effect illustrates, two contrasting situations can evolve from tourist development, representing the separate polar points along a social interaction continuum (Y Valle, 1979; Smaoui, 1979; Manning, 1987). At one extreme tourism-induced social change can lead to development, representing socio- economic advances in the community, and improvement in the quality of life indices, and overall net social benefits. Y Valle (1979) gives an example to support this idea from tourism development in Ixtapa-Zihuatanejo. The cumulative effects of tourism on education, employment, the political scene, and the special impact on the role of women are analysed. Tourism will eventually become an integrated force than a disruptive one, even if habitants are not

involved in, they will gradually adjust to changes introduced by tourism (Y Valle, 1979). At the other extreme, change can lead to dependency, represented by economic growth which leaves an underdeveloped social structure or reinforces existing social discrepancies (Inskeep, 1995). Ahmed Smaoui looks to tourism in Tunisia and its effects on economy and society. The author first describes the type and nature of jobs created by tourism and assesses social and cultural patterns of the society. As a conclusion, it is understood from the article that tourism helped to solve some of Tunisia's problems by earning foreign exchange and providing job opportunities. It does, however, encourage social change that could result in serious cultural degradation. The main idea of the article is that before tourism developments occur, the authorities should investigate its economic returns in precise terms including its advantage and disadvantages.

Greenwood (1989) points out that tourism provides a considerable stimulus to the local and national economy, but it also results in an increasingly unequal distribution of wealth. Tourism thus, seems to exacerbate existing cleavages within the community. The tourism-related development tends to produce inequalities produced by other development strategies (Greenwood 1989, Inskeep 1995, Gunn, 1977). In this latter situation a few members of the destination community are gaining from the tourism development, but the majority are not participating in or benefiting from the experience. the tourist can be seen as the patron of new forms of creativity and production, such as the commodity of culture, the creation of place and the construction of identity. The commodity of culture does not require the consent of the participants. Once set in

motion, the process seems irreversible and its very subtle prevents the affected people from taking any clear cut action to stop it (Greenwood 1989). The commoditization process does not stop with land, labour and capital but ultimately includes the history, ethnic identity, and culture of the peoples of the world (Murphy, 1985). Thus tourism is forcing unprecedented cultural change on people already reeling from the blows of industrialisation, urbanisation, and inflation. The loss of meaning through cultural commoditization is a problem at least as serious as the unequal distribution of wealth that results from tourism development (Gunn ,1994)

The growing awareness of tourism's ability to create social stress and negative community attitudes towards the industry has led to the creation of several resident-visitor social relationship models (Murphy, 1985; De Kadt, 1979; Inskeep, 1995; Young, 1973). One direction taken by the theorists has been to focus on the stress factor and seek a threshold level between acceptance and rejection of the industry.

One guide to the development of appropriately scaled tourism that has been suggested is the creation of a social carrying-capacity approach for each destination. Young(1973) in discussing the negative local impacts of tourism states one obvious solution is to influence national tourist policy so that the flow to each particular region is optimal- neither too high nor too low- and convince the policy makers that beyond a certain level further increases are counter- productive. The approach has much in common with the carrying capacity concept, but tends to be more abstract because one is measuring the intangibles of human stress and attitudes. Young illustrates this view,

believing there is a saturation level for tourism in a given locality or region, and if that level is exceeded the costs of tourism begin to outweigh the benefits.

Doxey (1975) has taken this idea a step further with his "irridex" model, which identifies the cumulative effect of tourism development on social interrelations. The other direction taken by the theorists places more emphasis on the type of contact between residents and visitors, and takes into account that stress can be more bearable if the residents' involvement brings economic or other benefits. Doxey (1975) noted that the existence of local tolerance thresholds and hosts' resistance to further tourism development were based on a fear of losing community identity. Based on his observations in Caribbean and Canadian tourist destinations, he developed a model that shows a direct link between increased community irritation, or stress, and continual tourism development.

A social carrying- capacity concept offers two useful functions to tourism planning. First, it presents the philosophical stance that every destination has a finite supply of resources, including hospitality. Second, it provides a framework within which to assess the relative social tolerance levels is not expected because of dependency on resident's perceptions of the industry and its impacts, which can vary considerably (Murphy, 1983).

3. 3 HISTORIC PRESERVATION AND PLANNING ON HISTORIC SITES

It is well known that historical and cultural centres are among the most popular areas of the contemporary tourists trade and are consequently exposed to the violent

pressures involved in this process. Though, there is very limited numbers of literature on this topic emphasising that it is important to preserve the historic urban character, with application of development controls and management policies to make optimum use of existing facilities and development in general (Aysan, 1982; Ashworth and Thunbridge, 1990, Brett, 1994). In the context of the re-use of historical centres tourism can, if handled carefully and correctly: represent a form of environmental preservation, provided precautions are taken to control vehicular traffic, advertising and other pollution, while also ensuring that the local population mixes with and benefits economically from the tourist influx (England, 1980). From the architecture point of view, England continues that interaction may be directed towards the encouragement and revival of ethnic crafts, agriculture and other small industries of the area. Recycling, with new uses for old buildings together with additions carefully inserted, therefore provides a more positive formula than pulling down and redevelopment.

Fraser (1985) pays attention to the fact that the new is woven delicately into the pattern of the old in order to produce an effect of unity, homogeneity and compatibility. Another architecturally approach brought by Aysan (1982), adopted as a solution for housing tourists, the re-use of historic buildings or even anonymously traditional vernacular ones must be considered as a valid option from every aspect. Besides preserving the life of the buildings themselves the system provides accommodation in a humane, scaled-down architectural environment, conceived and concerned not with

applied twentieth-century cosmetics but with an inborn reality, deeper total integrity of truth.

It is also particular interest this formula of rehabilitation being extended to less important, simple, ethnic vernacular buildings. The vernacular can not be repeated; it can only be recycled, adapted and reused (Aysan, 1982; England, 1980; Mathieso and Wall, 1995).

William Fraser (1985), in a workshop for improving tourism related facilities in downtown and harbour front areas, talks about the restoration and use of historic and old structures for tourist uses in Antigua and Barbuda, emphasising that preservation must not be conceived as a kind of petrifaction - the indefinite fixing of a dead past. He claims that it should be conceived as the integration of the past into the present and the future in a living and meaningful way.

Organisation and control of visitor flows and sometimes the overall total numbers of tourist may be necessary to reduce congestion levels. Legal regulations on historic preservation are essential to preserve the historic character of these places, with no new building development allowed and incentives offered to restore existing buildings and renovate interiors for modern functions, or requiring that any new development be in a compatible scale and architectural, style with the historic character (Brett, 1994).

Because of their obsolete street patterns, control and management of traffic is particularly important in historic towns. In addition to congestion, vehicles of the

combustion engine type generate air pollution, which can greatly corrode stone buildings and sculpture and degrade the historic value of these towns (Inskeep, 1995).

Ashworth and Tunbridge (1990) attempt to define and explain the composite concept of the tourist- historic city. According to Ashworth and Tunbridge, the tourist is necessarily selective and the tourism industry will generally make intensive use of only a limited portion of the historic city. The implications in terms of land use are obvious but made more serious by changes in the development of the conservation movement itself. Later phase of urban conservation are marked by a proportionate increase in the attention paid to smaller domestic buildings rather than the larger more spectacular monuments. Yet it is primarily these larger monuments that will be of interest mainly as a setting for the few major sights. Young (1973) assesses the question of 'whose history or whose heritage, is being presented?' As far as tourism concerned the answer will always be 'the heritage made relevant to the visitor'.

Studies on tourist types (Brett, 1994; Mathieson and Wall 1982)show that the visitor likely to have a more limited knowledge of the city than the resident, as well as different expectations. The result may be a 'bowdlerisation' of history or a significantly different valuation placed on historical artefacts in their interpretation (Ashworth and Tunbridge, 1990). The first is the reduction of the complexity and richness of the urban heritage to a few simple recognisable and marketable characteristics. The second is subtler but equally important, namely that an orientation towards the requirements of visitors will emphasise those aspects of the local history that can be related to the

experience of the visitors while history under-emphasising or ignoring those that cannot. The problem addressed by Brett (1994) that consequently arises is not that these 'heritage' tailored to the characteristics of the market, offend abstract tenets of authenticity or comprehensives, for the historic city as argued earlier is necessary a selection from the many possible urban 'pasts'; it is that the heritage of the tourist and that of the resident may be different enough to initiate conflicts about the purpose, and thus applications, of urban conservation.

The difference of cultural backgrounds of visitors and residents are easy to identify in general on the international scale, where the differences between foreign visitors and the local residents are greatest. A clear example from the many possible would be the interest of Western tourist in the, to them, relevant Graeco-Roman and early Christian heritage of the cities of Western Turkey and their lack of interest in Islamic Seljuk, Ottoman or more recent Kemalist heritage, although this is of critical significance for Turkish national and local identity. The problem for the Ministry of Culture and Tourism and those of residents has posed very real dilemmas about what to conserve in cities such as Istanbul (Aysan, 1982).

Heritage tourism makes use of a particularly wide range of facilities, which themselves serve a wide variety of different types of users. Therefore, according to Mathieson and Wall, the starting-point for this analysis must be the city as a whole rather than any ineffectual attempt to isolate a specific set of exclusive tourism resources. A basic simplifying division of resources is the distinction between 'primary', i.e. resources

which attract visitors and are the principal motive for the visit, and 'secondary', i.e. resources which support visitors during their stay. The distinction between primary and secondary does not imply a quantitatively more intense use of the former. On the contrary, visitors may come to cities for their primary attractions but spend most of their time and money on secondary facilities which are often more suited to repeated use (Mathieson and Wall, 1982).

Logically, as it is stated by Inskeep (1995) the historic areas can be defined as the area of overlap between the historic and tourist cities, this being the part of the historical artefacts and associations are being the part of the city where historical artefacts and associations are being actively used for tourism, whether as a primary attractions, secondary supporting services or merely as a background environment for the enjoyment of visitors engaged in non-historic activities.

The historical continuity of the area's morphology allows the address itself to convey an association of long-standing creditability and probity. Conversely this very transference of an atmosphere of tradition and continuity will be unattractive to activities that wish to associate themselves and their services with novelty, modernity and progress (England, 1980). In some instances an inference of adaptive change is deliberately sought so that the unfamiliarity of the new is tempered by the familiarity of the past. Equally there will be a substantial category of functions that are largely indifferent to historic address associations, if only because they predate the creation of the tourist-historic city. Aysan (1982) cites that the conservation of the historic morphology

however, will probably have preserved a street pattern and imposed constraints on vehicle circulation, loading and parking, and thus reduced accessibility within it. This poses a clear dilemma for many activities that are dependent upon a high density of casual pedestrian consumers drawn to the area by its historic atmosphere and yet conveyed to it by modern transport media.

CHAPTER 4: SURVEYS

4. 1 DATA COLLECTION

To assist in developing planning guidelines for tourism in Yumurtalik, a survey study was initiated during the summer of 1995. The author's research gathered data on tourism in Yumurtalik using the following methods:

1. Non-participant observation
2. Unstructured interviews
3. Questionnaires

4. 1a Non-participant observation:

It is a central data collection method with the interviews and questionnaires serving to complement, augment and verify observations made. This method included drawing upon the author's past experiences as a tourist in the town. This category of observation also included reflective observation of existing natural, cultural and infrastructure issues relevant to Yumurtalik. Data collection was completed concerning the following points:

1. Natural environment and setting of the town.
2. Assessment of the harbour area and the facilities along the coast.
3. Existing land use and tourism facilities in Yumurtalik.
4. Historic sites, condition of remains and their potential to serve tourism.
5. Sites for future tourism development in Yumurtalik.
6. Cultural, social and economic structure in the town.

7. Interaction among locals and tourists.

8. Types of tourist and the tourism types of use in Yumurtalik.

Three site visits were initiated for data collection.

4. 1b Unstructured interviews:

8 to 10 minutes unstructured interviews were completed with interested 20 tourists to evaluate the town from a tourist's point of view. Likewise, other unstructured interviews were executed with 30 locals and the 10 planners. These interviews garnered information regarding their past experiences and opinions regarding tourism in the town. Their comments were recorded on audio tape and through field notes. The first attempt conducted a structured interviews to enable us to examine responses statistically. But the style of the interview had to be changed to casual and unstructured interviews.

We discovered that in Turkish culture, people are not familiar with this process and very unwilling to co-operate. To get information from them I had to create a very friendly atmosphere, and let them lead the conversation. Therefore, the issues and the questions were varied in each interview. The interviews , however were necessary to assess the sense of tourism and tourist from different points of view, and also to draw a clearer picture of the existing situation in the town.

The interviews were held with as many tourists as possible to discuss their perceptions of the following:

1. Attraction points of the town

2. Quality of the facilities serving to tourism

3. Quantity of the facilities
4. Interaction with locals
5. Preferred tourism type for future development
6. Recreational needs

All the participants were domestic tourists, mostly coming from cities in close proximity (20 minutes to 2 hours). Sampling of the people was based on the tourists willingness to participate. There were no any international tourist perceived. This showed us the fact that the type of the tourism in he town was not international which brings big revenues to local economy.

There were also unstructured interviews with locals and planners concerning their experience with tourism. These interviews generally discussed the following:.

1. What type of tourism and tourist is preferred?
2. What kind of benefits are expected from tourism?
3. Negative and positive points of possible tourism boom.
4. Possible effects of tourism on Yumurtalik's culture
5. How will the town plan for tourism development in terms of infrastructure

4. 1c Questionnaires:

To evaluate tourism potential in the town from a tourist point of view, a questionnaire with 70 respondents was implemented. A mid-July date was decided on because this was peak season and the variety of the tourists was at its highest.

Since there were few if any international tourists, questionnaires were conducted with domestic tourists. 80% of the questionnaires were given to the tourist on the beach and the waterfront portions of the town since these places attracted tourists and tourism use. Inspired from Smith's typology of tourists (1977), frequency of types of tourist and their adaptations to local norms can be illustrated in the following chart (Table 4-1);

Table 4- 1
Frequency of types of tourist and their adaptations to local norms in Yumurtalik.

TYPE OF TOURIST	ECONOMIC & EDUCATION LEVEL	NUMBERS OF DAYS STAYED	ADAPTATIONS TO LOCAL NORMS
Beach tourist	Low/ Middle	2 weeks - 3 Months	Accepts fully
Bed &Breakfast	Middle	1 Day - 2 Weeks	Adapts fully
Weekend tourist	Low/ Middle/ High	1 - 2 Days	Expects good amenities
Resident tourist	Middle/ High	1 Week - 4 Weeks	Demand good amenities

For "beach tourists", the education and economic level of the participants vary, although most were in middle to low income strata. Since the accommodation alternatives were very limited, and the tourists were coming from mid to lower economic levels, the beach area was inhabited by those who travelled as whole families and lived in tents. There is obvious damage to the nature because of this unconscious use and inadequate services along the coastal areas. Water pollution, the degradation of dune and

tidal ecosystems. Since most brought food and necessary materials with them, they do not contribute to the local economy as the other tourists might. The length of their stay varied from, 2 weeks to 2 months.

The bed and breakfasts served those who came for a shorter periods, usually weekends, or 2 weeks. The bed and breakfast tourists were mostly middle class, and helped the town's economy more than the previous group. The restaurants and pubs were generally used by tourists who visit the town for weekend or daily trips. Although this group contains tourists from all type of education and economic levels, generally middle to high level economic level is dominant. They come, benefit from beach and sea, enjoy their food at one of the seaside restaurants, and at the end of the day or week leave the town.

The fourth type of tourists are those who own summer homes along the north east coast of Yumurtalik, they are considered as sort of residents. Although, this area contains some middle and upper class residents, the interaction with locals is weak. Physical settlement of this part is separated by a large hill, so there is not an easy and direct access to town. Another reason for less interaction is that the summer houses were built in a large independent community approach, and they have better environment than the town can provide.

Sampling of the people was not random; it was based on the participants willingness. This is a potential area of invalidity, but in a culture that people have very

ambiguous feelings about the questions asked buy a stranger, it is very hard to develop a purely representative sample.

The following is a listing of the questions asked (also please see enclosed copy of this questionnaire in Appendix 1)

1. Frequency of your visit to Yumurtalik?
2. The importance of historic structures, when you pick this place as your travel destination?
3. How would you feel about the prices in the town and the cost of your whole vacation compared with other tourism locations in Turkey?
4. How is the quality and cleanliness of the beach and water?
5. How often do you use harbour area and facilities?
6. Is the number of parking lots and spaces adequate?
7. How would you feel about the sufficiency of good quality facilities serving for tourism (Hotel, Camping, Entertainment)?
8. How was the overall attitude of the locals?
9. How would you describe your holiday in Yumurtalik?
10. Have you ever faced with the insufficient infrastructure problem during your visit to Yumurtalik?

Respondents were asked to circle the most appropriate scalar value out of range of seven possible responses as in the following example:

The importance of historic value, when you pick this place as your travel destination?

Very important						Unimportant
1	2	3	4	5	6	7

4.2 RESULTS

The questionnaire contained 10 questions ranked by a likert scale of 1 to 7. The data relating to the attraction points and needs, and the indications of correspondence among and between observers was generated using RMRATE. (Please see Appendix II for the document of the statistics).

An initial analysis assessed the reliability of the questionnaire. This was achieved by evaluating the level of agreement between individual's and groups of observer's responses to the measured stimuli. Correlation coefficients were computed to assess the internal consistency and reliability of responses to the individual stimuli. An initial test measured the individual observer-to-observer relationships, a second test assessed the correspondence between the test group consisting of 18 questioners out of total 70 participants, and each sub-group consisting of 18 respondents, and also assessed the correlation between each sub-group and the total population (n= 70).

The observer-to-observer reliability statistic is an indication of the projected correlation between two individuals selected from an observer population. The group-to-group statistic relates to the projected correlation between group mean ratings from respondent groups of equal size. This measure estimates the conformity or agreement

between the respondent group from the same population. Generally, the reliability measurements displayed high levels of consistency in both the observer and group categories.

RELIABILITY	
OBSERVER TO OBSERVER	.454
GROUP TO GROUP	.983

The group-to-group correlation indicated high reliability, with the value of .983. A perfect agreement would result in a coefficient of 1.00. In the principal component analysis, the component scores show that the highest two stimuli on component is between questions 5 and 7. On the contrary, questions number 4 and 10 showed the lowest agreement. On question four, the mean (mean= 3.46) indicate that the tourists found the beach area and sea, and the quality of the area clean and convenient, however, they stated, on question number 10 (mean= 2.66) that they faced with insufficient infrastructure problems. The data is apparently conflicting, perhaps the questioners were evaluating these two related issues were if they are separate from each other.

Another important method of assessment is the evaluation of means for each question. Because it will give us an idea about where people generally fall or rank on each question. According to the associated statistics;

	MEAN(S)
QUESTION 1	3.62
QUESTION 2	4.22
QUESTION 3	3.62
QUESTION 4	3.46
QUESTION 5	4.87
QUESTION 6	4.55
QUESTION 7	5.02
QUESTION 8	3.47
QUESTION 9	4.37
QUESTION 10	2.66

The first question (mean= 3.62) aimed to find out how often tourists visit the town. It will give us an idea about the frequency of the use of facilities and intensity. Our findings demonstrated that 60% of the tourist plan their vacation to the town in high to medium frequency, this may vary from every weekend for close proximity, or every summer for the tourists coming from long distances. The intense use of the coastal part and the town is observed as 5 months, starting from May, reach its peak season during June till mid July, and end at the end of the September.

The statistical analysis of the questionnaire indicated that the tourists mostly didn't come to Yumurtalik because of the historic values of it, or for learning about ancient times. During the interviews, 9 tourists expressed that they were aware of the historic ruins, but it didn't suit their recreational needs. 56 percent of the total questioners corroborated our interview results. The third question of the questionnaire illustrated how the tourist felt about their vacation cost, and evaluated the prices in the town compared with other tourism areas of Turkey. There is an agreement between the general conclusion of our interviews and the result of questionnaire (mean= 3.62) that the tourist ranked the prices moderate, or, comparison to other tourism regions of the country, it is cheap. The data gathered from the observations led me to the reason that it must have been the economic level of the tourist (for example, 74% of the interviewed group was falling in low level of income), non existing luxurious or fancy facilities, and premature concept of tourism by locals.

Tourists assessed (mean= 3.46) the quality and cleanliness of the beach area and sea as clean and convenient. It was the another reason to come to Yumurtalik in addition to cheap cost of it for 64 % of the questioned group. On the other side, observations and the interviews with the planning people showed that if there is not any action taken through coastal preservation and the improvement of infrastructure and the facilities, there would be serious pollution emerging in the very near future. The existing industries, and the proposed additional ones make this picture even darker.

Our observations has shown that the harbour area of the town has a potential for tourism type of use because of its outlandish historic remaining, and the physical features. And yet, questionnaires and informal interviews didn't corroborate our observation. 12 of the tourist didn't stated much interest, and it was asserted that they went to harbour area rarely during their holiday. It might be lack of facilities and not easy access to this area on top of lacking parking spaces. Nowadays, the harbour area is used by fishermen and their boats, except for several empty stores, there is not much of a potential for other type of commercial buildings.

Observations anticipate that there is a big need of parking spaces and lots all around the town, particularly on the coastal strip. In peak seasons, all the streets are blocked by cars which is parked on two side of the main strip, cause traffic congestion. The questioners agreed on the inadequate parking spaces as well as inadequate entertainment, hotel and camping facilities, in question 6 (mean= 4.55).

The interaction with the locals is limited, however, tourist evaluate the overall attitude of the locals friendly and hospitable (mean= 3.47). Since majority of the locals are busy with agriculture and fishing for living, the percentage of the locals involved in tourism is very low. During the interviews, 85 percent of the locals and 55 percent of the planners expressed their wish to earn big revenues from tourism and to see more tourist in the town. The mean (mean= 4.37) of question 9 showed that tourists describe their holiday as monotonous and little boring in the town. Our interview findings concerning the type of the tourism presents the major activities as swimming and sunning. This data supported by our observations too. The big complaint was about the lack of entertainment opportunities, and the hours of existing places. According to 95% of the young people entertainment services are very limited, moreover this facilities are closed by eleven o'clock, because of the noise and other nuisance.

As the last question, it is intended to find out whether the town has enough infrastructure to handle the future development, along with to see the existing capacity of the infrastructure. Majority of the answers (73%) proofed that there was an obvious need for the improvement of the infrastructure. This is the general problem of the most of the Turkish cities and towns, as it is for most of the world. During our site visits, many times insufficient sewer and treatment facilities were observed. Especially, in 3 locations on the coast, open sewer systems threats the public health and the sanitary of the beach area. Planners stated the need of a water treatment facility and good sewer system along with effective garbage collection techniques.

4. 3 ANALYSIS:

Although the results of the questionnaires didn't indicate certain frequency of the tourist visits, interviews corroborate the fact that depending on the tourist type the frequency and the length of the visit may vary. In Yumurtalik, four main tourist group identified, first group, in our research called as beach tourist, camps on the beach. This is a very intensive use. Our observations illustrate that the beach areas need improvement of infrastructure and waterfront facilities. Second tourist group contains the tourists usually stay in bed and breakfast facilities. There are six bed and breakfast in Yumurtalik. All of them owned by locals. Interviews with the owners showed that they want to see tourism growing. Also it is stated that municipality planning department must work on urban revitalisation in the town along with new tourism facilities to attract more tourist. Observations yield the same fact that there are a lot of places particularly around the harbour area, and the waterfront part that needs better planning and revitalisation. Weekend visitors of the town, seeks better entertainment, shopping, and restaurant facilities. Our findings form the questionnaires that compared with other tourism areas of Turkey, Yumurtalik offer cheaper holiday cost. This may be one of the reason for most of the low income tourist flowing to the town. Economic and good quality use and facilities should be offered for those who has limited budget. Key part, here, is the presentation of good quality services to attract the middle to high income as well, so that local can earn revenues from tourism.

Although during our observations, we anticipate that the main attraction of the town was its sea and the beach our interviews support this fact as well. Therefore, the improvement in quality and the quantity of the tourism type of facilities especially on coastal part of the town is essential. Questionnaire's results indicate that tourists evaluate the quality and cleanliness of the beach and water as clean and convenient to use. On the other hand the questionnaires point that there is an obvious need for the improvement of the infrastructure. For this reason , necessary measures should be taken from the beginning. Especially in this situation, when there is a big chance to rapid urbanisation and development, it is more rudiment. And the best thing to do is planned development with it is all aspects, including infrastructure.

Fourth type of the tourist called residents since they have a summer house in the town. It is observed that they come every year. There is not much interaction with the town because of the physical separation of the area they locate and possession of better quality facilities than the town can offer. Questionnaires and the informal interviews with tourist indicate that historic values of the town is not a big factor to attract the tourist.

We observed that Yumurtalik has a historic potential to be used in favour of tourism. Many remains and ruins are still in good shape. There are couple of abandoned historic buildings which can be used as either art gallery or a museum. Observations and interviews with the planners assist us to build this historic and cultural tourism concept While the result of the questionnaires conflict with this concept, it also shows that the sense of historic tourism was not adapted. Whereas, our observation suggest that since

most of the remains and historic buildings located in the harbour area, this asset can be used to attract the tourist to harbour area to nourish the business and the facilities in the area. It is indicated in questionnaires result that tourists don't use the harbour area often. The stated reason at the interviews, was lack of facilities and parking spaces. The number of the parking spaces insufficient all around the town, especially on the coastal strip where intensive tourism use is seen. Both our interviews and the questionnaires' results revealed that there is a definite need for a designated parking spaces. In peak seasons, all the streets are blocked by cars which are parked on two sides of the main strip, cause traffic congestion. The respondents also agreed on the inadequate entertainment, hotel and camping facilities as well as inadequate parking lots. This is the one of the explanation of why most of the tourist describe their holiday in Yumurtalik monotonous in the questionnaires. We have observed that as there are limited number of the entertainment facilities, all of them are suppose to be closed by eleven o'clock every evening. The only hotel in the town can't answer the peak season's demand, in terms of the number of the bed and other entertainment facilities. Locals express that they don't attempt to get in hotel business because of the risk of finding the customer. Although we have anticipated that the locals prefer to involve in agriculture and fishing, interviews showed the fact that they are willing to be in tourism business, if they can get some loans and low interest government grants. What is really appealing for them is that they convert a part of their house a boarding house facility, and rent the room for a short period tourist. One of the planners expressed the awakening perception of tourism among the locals.

Generally friendly attitude towards tourists was observed. Moreover, the statistics showed that tourist consider the attitude of the locals as friendly.

4. 4 CONCLUSION:

To assist in developing a sustainable planning guidelines in this thesis work, observations, unstructured interviews and questionnaires conducted on three different group in Yumurtalik. Interviews were completed with interested 20 tourist to evaluate the town from tourist's point of view. Likewise other unstructured interviews were executed with 30 locals and 10 planners who have knowledge about the town. Questionnaires were initiated on 70 tourists. Based on the data collected in three different means, it is concluded that in order to apply a sustainable development in Yumurtalik, following considerations should be keep in mind:

1. Beach areas is the main attraction points of the town, and these areas need improvement in infrastructure and waterfront recreational facilities.
2. Infrastructure is an important issue because existing infrastructure is inadequate already, and cause pollution in some of the areas. To manage the future development , the infrastructure should be reassessed and improved.
3. Urban revitalisation is essential to nourish the environment and to provide green spaces which will work as a lung of the town and will offer different recreational uses.
4. In three different methods it is agreed that quality and quantity of the services serving tourist or local are very limited and insufficient. Therefore, the quality and the

quantity of the existing facilities should be improved, and new type of facilities should be promoted.

5. When the new facilities is planned and designed , these facilities is to diversified to provide convenient use for both low income and high income people, keeping in mind that tourist in Yumurtalik is attracted by cheap coast of the vacation.
6. New and good quality entertainment, shopping, restaurant and sport facilities should be created. Observations, interviews and the questionnaires indicate that main in addition inadequate number of these facilities, most part of the complaint of the tourists was the lack of entertainment facilities and the hours and the quality of the existing ones.
7. Since inadequate accommodation, camping and parking facilities have negative impact on tourism, new ways should be conceived. Especially, around the harbour area and the waterfront areas, with the future tourism development, this necessity will arise more.
8. Yumurtalik has a very rich history. Most of the remains still can be seen. Although tourists didn't state much interest in historic values during the questionnaire and interviews, observations show that the historic heritage and the remains in Yumurtalik should be preserved and promoted to create additional attractions for tourism in the town. This will awaken the historic tourism concept, and attract the different type of tourist.

9. Another area that tourist didn't show much interest is the harbour area. Because of unattractive and not diversified facilities, harbour area is used by the fishermen only. However, it comprise many historic remains and buildings. Our findings from the observations confirm that harbour area should be revitalised to create a better environment for fishermen, and also to take advantage of historic features in use of culture and art oriented activities.
10. Findings from the interviews and the questionnaires show that the interaction between the locals and tourists is friendly. However, it is indicated by the interviewed planners that the training programs are essential for local participation to tourism.

CHAPTER 5: SUMMARY AND RECOMMENDATIONS

5. 1 ALTERNATIVE FORMS OF TOURISM FOR YUMURTALIK

This final chapter is intended to summarise what has been learned from our research, along with objectives and policies for integrated coastal zone planning for tourism in Yumurtalik. More detailed and focused suggestions can be found under "Specific Planning Recommendations" part of this chapter.

Research methods and the literature review initiated the planning guidelines of this thesis and led this research to a sustainable approach to tourism development which is socially and environmentally sensitive and respectful, as it is mentioned by deKadt (1979) that sustainable tourism can be considered where there is concern about the social, cultural, economic and environmental impacts of mass tourism, especially in areas with traditional cultures and ecologically sensitive environments. Rosenow and Pulsipher (1979) state that planning should be sensitive to unique heritage and social enrichment, and development should not exceed environmental carrying capacity or adversely effect the quality of community life.

The following categories elaborate general planning considerations to enhance alternative forms of tourism in Yumurtalik.

Environmental: Yumurtalik has unique environmental assets which need to be protected from uncontrolled tourism development. Recreational activities of tourism can have detrimental effects on the natural environment (Pearce, 1989; Boo, 1990).

Increasingly, however, tourism is recognised as an opportunity to protect threatened environmental resources.

The viability of tourism can be established through environmental conservation in Yumurtalik. Visitor numbers and satisfaction will be increased as the inherent setting is improved. Tourism development in Yumurtalik overlaps coastal areas, historic sites and fragile ecosystems. Therefore, approaches for managing and protecting the environment in the town should fall into two categories:

General protective measures include establishing parks, preserves, and endangered species list, as characterised by Cohen (1978) as protecting the environment for tourism. In contrast, management through regulation and control of tourism development protects the environment from tourism (Inskeep, 1995). When the conceptual tourism plan of this thesis was initiated for Yumurtalik, this fact was kept in mind. In addition to existing parks, a sufficient amount of new parks, and preserved areas were designed such as the harbour area park to preserve the historic sites in the area while providing new art and cultural facilities, and new beach area on west coast of town to offer better infrastructure and a variety of new recreational opportunities. The goal was to enhance the natural parks at the same time minimising liabilities.

Moreover, to keep the tourist interested in visiting Yumurtalik presentations, protection and improvement of major attractions is essential as well as development of surrounding tourist attractions in a complementary manner, respecting local roots and attributes (Rosenow and Pulsipher 1979). This was established in this study, first, by

determination of external and internal factors that contribute to the potential for tourism recreation development, and second, by realistic implementation approaches which should be considered throughout the planning process (Inskeep, 1995). Implementation stages of the plan for Yumurtalik will be presented in following section of this chapter.

It is well known that historic and cultural centres among the most popular areas of contemporary tourist trade and consequently exposed to the violent pressures involved in this process. Yumurtalik has a very rich history and a lot of remains from old periods which need to be protected. England (1980) emphasises that in the context of re-use of historical centres, tourism can represent a form of environmental preservation while also ensuring that the local population mixes with and benefits economically from the tourist influx. By the restoration of these historic areas in the town, new tourist attractions can be created. This will in turn contribute to the economy of the town. William Frase, in a workshop talks about the restoration of and use of historic and old structures for tourist uses in Antigua and Barbuda to improve tourism related facilities in downtown and harbour front areas. In the context of re-use of historical centres tourism can represent a form of environmental preservation, provided precautions are taken to control vehicular traffic, advertising and other types of pollution, while also ensuring that the local population mixes with and benefits economically from the tourist influx (England, 1980). For this reason, it is wise to take advantage of harbour area and its surrounding historic sites. The historic buildings and the castle remains can be maintained and preserved to serve tourism. These areas' feel of history, authenticity and the magnificent views create

a base of use which contain museums, galleries, and amphitheatre for art events. Although tourists are drawn to the Yumurtalik in large part because of the beach and the mild, sunny climate, this thesis would hypotheses that many tourists are also drawn to the area by the charm of a historic village and its friendly people.

Socio-Cultural: As tourism development grows in a destination area, the local people eventually develop a strategy of adjustment to cope with psychological tension caused by the many changes in their lives. These strategies, outlined by Dogan (1989), are: resistance, retreat, boundary maintenance, revitalisation, and adoption. Every region has a threshold for tourist development. When this level is exceeded, negative feelings toward tourism and tourists become wide spread among the local population. There are several conditions that may help generate hostile feelings toward tourists: 1) The existence of a large number of tourists and the fact that the inhabitants have to share facilities and services with them: 2) the apparent material superiority of the tourists, which may lead to feelings of envy and resentment among the inhabitants; 3) facilities managed by foreigners who receive superior salaries; 4) the increase of tourist facilities which local people are not allowed to utilise; 5) the weakening of traditional institutions under the impact of tourism; 6) conflicting norms of dress, speech, and behaviour (lifestyles).

In order to prevent a situation in which locals find themselves in competition with tourists for infrastructure resources and natural resources such as parks and beaches, equal opportunities for locals should be provided in Yumurtalik. Tourism development

can be a source of irritation to residents of Yumurtalik due to the irresponsible attitudes of tourists towards local life. Establishment of local festivals and the promotion of tradition can be a way to raise local pride and provide a friendly atmosphere between locals and tourist. It will also provide understanding of local motives and culture of Yumurtalik for the tourists.

Simper (1986) emphasises the importance of local participation in tourism planning, "the master design suggest to gather as much input from all appropriate sectors as is feasible, reflects as much of the community's requests as reasonable and be sensitive and is sensible in how you define the plan and let this participation in its formulation lead to the feeling that this is as much their plan as it is yours". Our findings from the interviews and the observations initiated during the beginning stage of this thesis showed that Yumurtalik people are very friendly, and are willing to see increased numbers of tourists because of the improved amenities due to tourism development in town. Nevertheless, it should be remembered that they should get most of the economic benefits through ownership and management of tourism facilities. As long as locals gather revenues from tourism, they will be more supportive in the protection the natural beauty of the town and the man-made attractions. May be a form of activity that is familiar to the locals as well as serves the tourism development will be a natural way to participate in tourism for the locals. For example, agricultural villages, or a special crop which is indigenous to area, foods and beverages made out of this crop, or even crafts and souvenirs depicting the particular agricultural product is very appealing, since the

agriculture currently is dominant economic activity in Yumurtalik. This agricultural-tourism concept will be a good transition for locals drawing them into tourism.

In order to pull the locals into tourism development, there are several other methods stated by different authors. Niewioroski (1975) suggests a Small Hotel Corporation (SHC) concept to establish the local's participation in international level of tourism. Although we are not proposing national level of tourism for Yumurtalik, SHC concept is still appealing to because, depending on the future tourism development pattern, there is a possibility to move forward to international tourism in the future. The SHC is envisioned as a partnership between the host country, foreign investors and a major international hotel chain that would feature local ownership of small hotel franchises, with technical support provided in the areas of management, marketing, and reservation services. These low-to-medium priced hotels would provide local employment and utilise local suppliers to a large degree. Most importantly, however, the small hotel would reflect the "character" and "indigenous charm" of the local culture, and the preservation of local styles, foods, entertainment, and architecture.

Dernoi's (1981) concept of Alternative tourism (AT) is another, maybe most suitable technique, to nourish the tourism in Yumurtalik, in terms of social and cultural issues. AT provides advantage for almost everyone, starting at the individual or family level and progressing through the local community, host country, originating/industrialised country, and the international relations levels. Locally the greatest advantage is economic, with revenue passing directly to individuals and the local

economy by bed and breakfast scale development. Conversely, this means that less revenue is realised by the state and national governments of foreign investors. For the community, AT ensures that local housing conditions improve as hosts upgrade their homes to make the accommodations more attractive to tourism. The Turkish government's effort to provide training for tourism, or low interest loans and grants will improve local participation as well. Financial assistance in the form of home improvement loans or grants would be required to help local entrepreneurs. The kinds of tourist that would likely be attracted to Dernoi's (1981) concept of AT are those who "prefer close contact with local people (and/or) are highly cost conscious" students are specifically mentioned, but tourists on fixed incomes and middle class families with children are an additional market segment, and this group is observed as a dominant type of tourist in Yumurtalik. There are two tourist segments in the town- a group of long term visitors who own vacation homes or stay in tents, and short term or weekend tourists. Because of close proximity to the fourth largest city, Adana, and other south-east cities, usually tourists are from same region representing the same culture. The result is mass quantities of independent travellers, many of them budget travellers who bring their substances. This type of tourist may explain the proliferation of campground, small hotel and bed and breakfasts as opposed to large luxury hotels.

The absence of large hotels and foreign business investments at this stage indicates that this type of tourism is not large scale international tourism. Yumurtalik is the only place left along the Mediterranean coast of Turkey offering vacation

opportunities on the national level. An affordable holiday is a very important issue for most developing countries. This asset should be protected through offering holidays for all economic levels of the population. In order to do that existing facilities should be improved, and diversity of the quality and the quantity of the facilities should be maintained.

Aesthetic: Each design proposal should expose functionality and efficiency in the experience. Also, priority to indigenous is essential. Gunn (1994) emphasises that when characteristics of a place are special, the development can become special and less easily replicated.

Yumurtalik is a small tourism and old fishing town on the Mediterranean coast of Turkey. The original architecture is simple and functional Mediterranean architecture reflecting the industrious nature of the people and the fishing and agriculture economy. Unfortunately, new developments do not follow the same architectural structure with high rise, concrete blocks being built along coast. As Inskeep (1995) and Gunn (1977) suggest, traditional Mediterranean architecture should be established to preserve the identity of the town.

Eckstut (1986) draws the conclusion that the most successful and appropriate projects, whatever their size, follow modest guidelines: think smaller, learn from what exists; integrate and design streets not buildings. Parallel to these guidelines, in his "Vacationscape", Gunn (1972) mentions design principles. According to him, structural functionalism is important, because all structures must withstand the bombardment of

outside forces and stresses placed upon them. Equally important is physical functionalism, since tourism recreation environment must be designed to allow proper manoeuvring of people. Inskeep (1995) draws attention to cultural or aesthetic functions, emphasising that environments must provide for values and images associated with attractions. In Yumurtalik, attractions are its sea, sun and beach, also rich history of the town can be another attraction for a new types of tourist. During its improvement and restoration indigenous motifs should be conserved, and the parks and other facilities in the surrounding area should nourish the image and the historic heritage. Therefore, the castle, in old town area, should be conserved and maintained in green space systems, and some of the old buildings should be used as museums, art galleries, and other type facilities offering art and culture type of use. An amphi-theatre host concerts, plays, seminars etc. Individuality and suitability in design as a design criterion can be remembered, as well as sequence. Certainly, appropriateness is a cultural thing and extremely difficult to define. Many aspects of this problem of sustainability can be eased by carrying on the required land research and synthesis to gain a full understanding of its potential (Inskeep, 1995). Likewise, a design review board consisting of experts will establish the principals to maintain the sustainability.

Many case studies indicate that where tourism develops spontaneously, it typically begins slowly and is but one of many economic activities characterising a town. Eventually, city services and utilities become inadequate because of the numbers of the tourist and the housing of workers who migrate into the area in search of jobs. Pollution,

especially by untreated sewage dumped into the sea becomes a serious problem that threatens the health of residents and the tourists. Planners in Yumurtalik have similar concerns which should be addressed at the beginning of the planning process. These problems cause degradation in aesthetic values of an area. Currently, Yumurtalik faces with some of these issues not only due to tourism but also because of uncontrolled urban development and high immigration rate. This study recommends the establishment of enough infrastructure for Yumurtalik in terms of water treatment, improvement of water and electric systems, and using modern engineering and construction techniques. Not only will it will help overall aesthetic appearance, but also locals will benefit from it. The objectives and the policies to accomplish the aesthetic beauty is summarised in Table 5-5.

An effective design process, according to Inskeep (1995) should include research and analysis of users. Most helpful to the designer is information on both quantitative and qualitative characteristics of potential users. It is essential to know the kinds of experiences these people would like to have. Gunn talks about two areas of user research, 1) activities now engaged in and 2) opinions of desired activities.

Environmental analysis is important too. Mumford's assessment of urban design gives a good example, he states that all good planning must begin with a survey of natural resources: the landscape, the people, the workday activities in a community. Good planning does not begin with an abstract and arbitrary scheme that it seeks to impose on the community; it begins with a knowledge of existing conditions and opportunities

Functional: The tourism plan must be prepared in such a manner that it is realistic to implement. The plan should contain a specific section on implementation, with the techniques and procedures clearly set forth so the users of the plan understand the approach to implementation, with the techniques and procedures to be followed. During the implementation of the plan, the community should be kept informed of the approach and status of implementation through community awareness programs. The success of implementation will depend on political determination and commitment to the concept of planned and controlled tourism, community support of the approach, and strong political leadership that is backed up by competent technical advice. An essential technique and efficient implementation is accomplished through phasing and programming of the development. Phasing is usually indicated as first, second and later stages and related to time periods, often in five year increments. Bodenchuk (1993) suggests the same approach, because phasing larger plans for tourist development into several stages for implementation purposes has numerous advantages. Financing would be easier to obtain in relatively modest amounts spread out over time. installation of infrastructure and other tourism facilities would gradually answer the demand. Phasing controls the rate of development. As each phase is completed by monitoring the responses and reactions of tourists, planners can predict the demand for future development and make changes in original plans and projects.

Table 5-1 shows a model action program which is basically the phasing of the tourism plan initiated in this study for Yumurtalik. It includes both public and private sector type

projects and other actions required, categorised by type, such as tourist facilities, tourist attractions, special projects, infrastructure, further studies and detailed planning, and actions require on institutional elements.

Table 5- 1: Model Tourism Action Program For Yumurtalik

PROJECT/ ACTION	1st. YEAR	5 Th. YEAR	10 Th. YEAR	15 Th. YEAR
Tourist Facilities				
Urban hotel expansion	Plan & Design Construct	Construct / Open		
New urban hotel	Plan & Design	Construct	Open	
Beach Hotel 1 (on west beach)		Plan & Design	Construct	Open
Beach Hotel 2 (on north beach)	Plan & Design	Construct	Open	
Beach Motel 3 (on North Beach)		Plan & Design	Construct / Open	
Motel expansion (West Beach)	Plan & Design	Construct / Open		
Upscale Hotel (North Beach)				Plan & Design
Revitalisation of Existing Harbour	Plan & Design Construct	Open		Expand facilities
Marina (on North Beach)		Plan & Design	Construct	Open
Small Port for West Beach		Plan & Design Construct	Open	
Tourist Information Centre	Plan & Design Construct Open			
Tour Agency 1		Organise	Open	
Tour Agency 2			Organise	Open
Duty Free Shop			Plan & Design Construct	Open
Tourist Attractions				
Harbour area historic restoration	Plan & Design Construct	Construct/ Open		
Museum	Plan & Design	Collect Pieces/ Construct	Open	Expand

Table 5- 1: Continued

Historic sites in West Beach	Plan & Design	Restoration work	Construct Facilities/ Open	
Archaeological site	Plan & Design	Conservation Work		Construct Facilities/ Open
Waterfront Park & Recreation Facility	Plan & Design Construct	Construct Facilities Open	Expand Facilities	
Waterfront Park (West Beach)	Plan & Design Construct	Construct Partial Open	Open	Revitalisation
Waterfront Park & Marina Area	Plan & Design	Construct	Construct/ Open	
Amphi Theatre		Plan & Design	Construct/ Open	Expand facilities
Shopping Mall		Plan & Design	Construct/ Open	
Water taxi service		Plan / Construct	Open	
Entertainment& Convention Centre	Plan & Design	Construct	Construct / Open	
Sport Area	Plan & Design	Construct/ Open	Expand Facilities	
Fishing Pier	Plan & Design Construct	Open		
New campsite (West Beach)	Plan & Design Construct	Open		
Riparian Park along Ayas Stream		Plan & Design Construct	Open	Expand Facilities
Aquarium			Planning &Design	Construct/ Open
Cultural Centre	Plan & Design	Construct/ Open		
Infrastructure Revitalisation of the town (Sidewalk, Landscaping etc.)	Plan/ Construct/ Open	Continue	Continue	Continue
Improve Sewer System	Plan/ Construct	Construct/ Open	Regular Maintenance	Regular Maintenance
West Beach Area Water & Electricity	Plan/ Construct/ Open			
North Beach Area Water & Electricity		Plan/ Construct/ Open		
Coastal area Road	Plan & Design	Construct / Open	Construct/ Open	
Bike Path		Planning &Design	Construct/ Open	
Promenade	Plan & Design	Construction	Open	
Parking lots	Plan &Design Construct	Open	Expand	Expand
Other Projects Tourism law & Regulations	Review & Adopt			

Table 5- 1: Continued

Coastal Law & Regulations	Review & Adopt			
Socio-cultural Program	Organise & Commence	Continue	Continue	Continue
Economic Program	Organise & Adopt	Continue	Continue	Continue
Investment Incentives	Review & Adopt			
Tourism School	Plan	Construct	Open	Continue
Tourism Training Centre	Plan & Construct	Open		
Subregional Planning of New Tourism Area				Plan

For Yumurtalik, phase one must include installation of sufficient infrastructure to serve both residents and the projected number of tourists. After available ground water levels are determined, it is necessary that the supply system should be upgraded to maintain a reliable source of running water, because water is a big determinant for how large development can become. Although, there is currently not a big problem of waste collection, in the future, with new development, waste management could be a critical issue. Currently, there are many problems due to inadequate sewer systems. Therefore, not only must sewer lines be improved but also sewer connections must be made to all development sites, and adequate treatment plants should be constructed.

Electric supply must be pre-determined. For the safety and aesthetic purposes, power lines must be buried and electricity must be extended where needed. Establishment of adequate infrastructure will be a base to revitalising stages of old urban structures. The existing roads, parking and transportation facilities must be assessed and improved to answer the need of future development.

The early phases should concentrate on providing small scale accommodations such as small rental units with kitchenettes that will invite the relatively limited budget bed and breakfast type of tourist. Locals should be encouraged to turn their homes to bed and breakfast facilities. At this point, small scale motels and hotels with maximum 10 or 15 units are adequate in order to establish low impact criteria. Depending on what future development shows this limit can be expanded to. Low interest loans could be provided for local entrepreneurs.

Development of new tourism and recreational areas- North Beach (Figure 5- 4), West Beach (Figure 5- 3), and Riparian areas along Ayas stream (Figure 5- 5) should also be initiated in phases. For instance, in early phases of West Beach development, opening of camping sites (Figure 5- 3) should have priority along with installation of efficient infrastructure. In order to complete the Old town revitalisation, shifting all of the camping sites to West Beach is necessary. North beach development would logically be a later stage due to high cost upscale amenities (Figure 5- 4).

5. 2 OBJECTIVES AND POLICIES:

In order to be successful tourism planning and design, must establish a set of objectives. So that the purpose of the project is clearly made known to everyone involved. In addition, these parameters are critical to guide the rest of the planning process, and to keep the project on its intended path. Inspired from Bodenchuk's (1993) objectives and policies for tourism development in Puerto Penasco, Mexico" the

following tables presenting preliminary objectives and policies for tourism in Yumurtalik are formed.

Table 5-2
Proposed economic objectives and policies for tourism.

Objective: Create new employment opportunities for Yumurtalik people.
Policies: • Offer jobs by developing tourism industry in the town. • Open a business and tourism related school. • Nourish other industries in the town to give other job opportunities. • Provide equal opportunities for men, women.
Objective: Provide most economic benefits going to locals
Policies: • Encourage big investors for partnership with locals. • Require certain percentage of local workers for tourism facilities. • Plan for a variety of tourist accommodations owned by locals, such as small hotels, B&B, guest houses. • Provide low interest loans or government grants to locals for tourism related businesses • Establish some standards and rating systems for independently owned guest accommodations. • Encourage the production and the marketing of hand made arts and crafts.
Objective: Maintain economic stability.
Policies: • Support gradual growth. • Diversify the economy, recognising that one-industry towns are very vulnerable to economic crisis. • Plan for long term, maintain sustainable development. • Find year round attractions to reduce the seasonality of the tourism.
Objective: Increase local standard of living.
Policies: • Prevent over -dependency on tourism. • Ensure a reasonable and competitive minimum wage. • Limit investments to locals corporations to reduce discharge of tourism revenues. • Improve education facilities and infrastructure by reinvesting the profit to local economy.

Table 5-3
Proposed environmental objectives and policies for tourism in Yumurtalik

Objectives: Minimise negative impacts of tourism. Protect, preserve and improve natural resources and sensitive ecosystems. Protect public health, safety, and welfare.
Policies:
• Reuse products and materials.
• Recover the ecologically sensitive and under danger.
• Secure the source of drinking water.
• Apply water conservation methods in landscape uses.
• Improve the sewer connections and construct a good system.
• Construct and maintain environmentally sound landfills.
• Maintain effective garbage collection and proper disposal of it.
• Recycle as many material as possible such as paper, plastic, aluminium cans.
• Develop with current energy constraints.
• Take advantage of Mediterranean sun for solar energy purposes.
• Apply energy conserving building design and materials.
• Provide efficient public transportation to reduce traffic congestion and air pollution.
• Promote cluster development to preserve open places.
• Reassess and improve the existing development standards such as set back margins, heights.
• Prevent strip development along coast, especially on the primary dune.
• Develop environmentally landscape for wildlife by selection and plantation of proper plants.
• Develop clean up program for harbour, including fishing cleaning operations and other garbage's, control on ship bilge dumping.
• Improve habitat for marine life through controls on pollution.
• Avoid erosion by installing proper construction for boat piers, marinas, and coastal structures.
• Promote tourism in harmony with its resources.
• Establish exceed environmental carrying capacities.
• Phase the development
• Control growth rate to allow establishment of sufficient services and facilities.
• Control growth rate of tourism in order to control its environmental effects.

Table 5-4
Proposed socio-cultural objectives and policies for tourism in Yumurtalik.

Objectives: Minimise severe social and cultural effects.
Policies: • Promote socially sensitive and respectful planning. • Preserve and protect local culture and customs. • Create facilities and activities that equally welcomes both tourist and locals. • Provide opportunities for interaction between host and guest • Provide facilities of equal quality for residents and tourist. • Allow tourist to directly experience the host culture in non-expletive ways. • Educate the locals about the tourist business. • Provide opportunities along waterfront for residents to recreate with their family. • Develop a housing program which will provide facilities for temporary migrant workers. • Phase the development and control growth rate. • Encourage community participation into planning process • Initiate annual festivals to introduce host culture, and to raise the pride of locals in their culture. • Preserve tourism against conflicting activities and their adverse effects. • Maintain authenticity of local music, dance and customs. • Develop tourist facilities that are convenient by Yumurtalik residents. • Incorporate dual fee system for the facilities which is not affordable for most of the locals. • Employ visitor use limits when it is essential. • Obtain broad-based community participation • Do not alienate the locals from their own areas' amenities. • Shape a tourism development complementing local attributes. • Adopt or refine themes and events that reflect the history, lifestyle and geographic setting.

Table 5- 5
Proposed aesthetic objectives and policies for tourism in Yumurtalik.

Objectives: Promote classic Mediterranean architecture. Preserve local images, sizes and identity. Integrate tourism development into the natural, historical, and cultural landscapes. Respect the architectural integrity
Policies • Asses the cultural, architectural and historic forms. • Provide sensitive to a unique heritage and improvement o the quality of major tourist attractions. • Preserve and protect natural landmarks • Protect scenic vistas. • Use traditional colours and figures • Develop sign and billboard ordinance. • Provide recreational facilities, and design the area with very elegant and authentic architectural taste. • Encourage tourist development that respects historical architectural styles. • Elaborate continual maintenance for landscaped areas. • Pass all utility lines underground location. • Preserve natural open spaces for planned developments in the future. • Develop visitor services that enhance the local heritage and motives.

5.3 SPECIFIC PLANNING RECOMMENDATIONS

5. 3a Old Town:

The area including harbour and Ayas District is the historic heart of the Yumurtalik. In this study, this area is called as "Old Town" (Figure 5- 1). Old town features typical small Mediterranean, undeveloped town except the areas along the Ataturk avenue and new coastal development sites. Figure 5- 3 demonstrates main planning and design considerations graphically. Old town is important both in terms of tourism and in terms of cultural identity of the town. Currently the area contains most of the tourism amenities with beach, parks, restaurants, stores (Figure 5- 2) and harbour area which is not attractive to tourist yet (Figure 5-4).

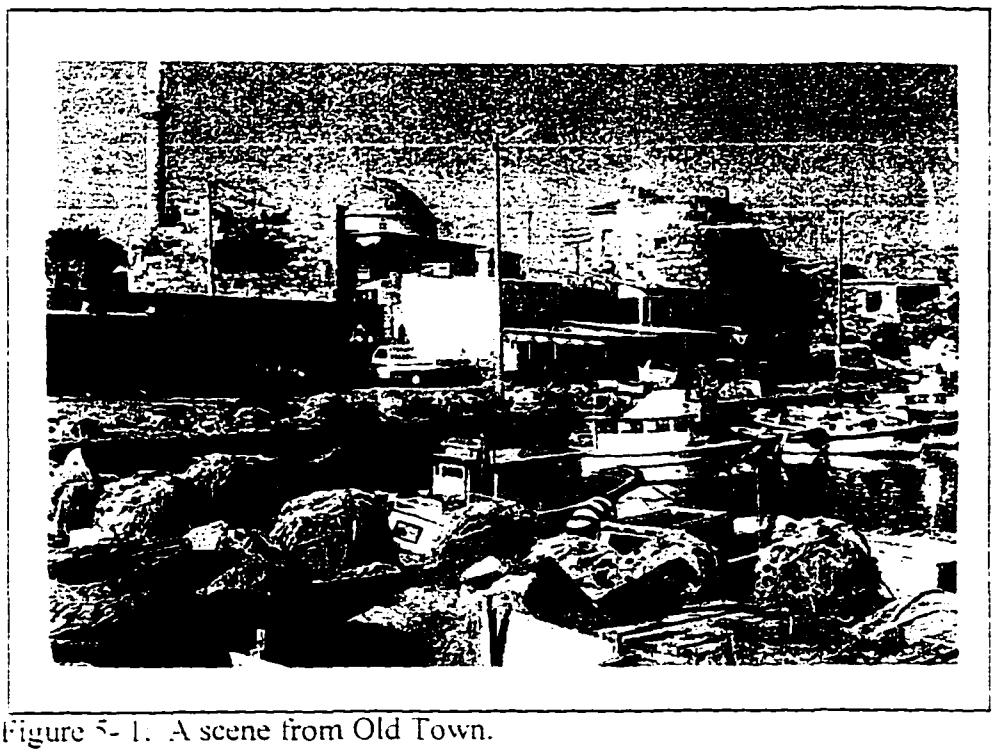


Figure 5- 1. A scene from Old Town.

As the tourism development occurs in fast manner, this area might loose its importance and potentially face future economic decline because of the fast degradation of environment and lack of good quality facilities. In order to prevent this from happening, it is imperative to concentrate initial efforts on revitalising Old Town, and proposing new type of tourism for this particular area. The revitalisation of Old Town should maintain the indigenous charm and authenticity and reflects its historic historical significance. Revitalisation does not mean that Old Town should be turned over to tourism exclusively.

Old Town possesses many historic remains which should be preserved and protected in first step. The observations indicate that this historic area has potential for

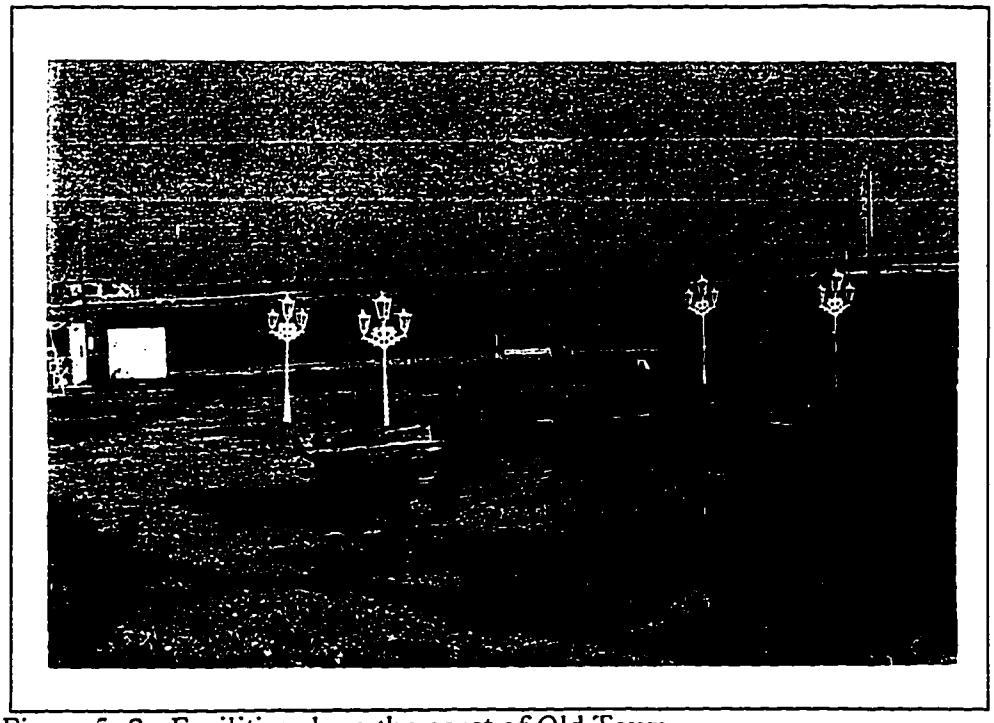


Figure 5- 2: Facilities along the coast of Old Town.

tourism. As it is mentioned before, England (1980) emphasises that by re-using of historic areas tourism can present a form of environmental protection. Serious attempts are to be taken in restoring original structures if physically possible. Restoration that strives for historic accuracy in style and material would preserve a bit of the town's history and reinforce its cultural identity. The selection of appropriate construction materials is important to maintain aesthetic appeal and historic authenticity. The well-restored remains of the castle located very close to harbour area can become a welcome sign of an art and historic district (Figure 5- 5).

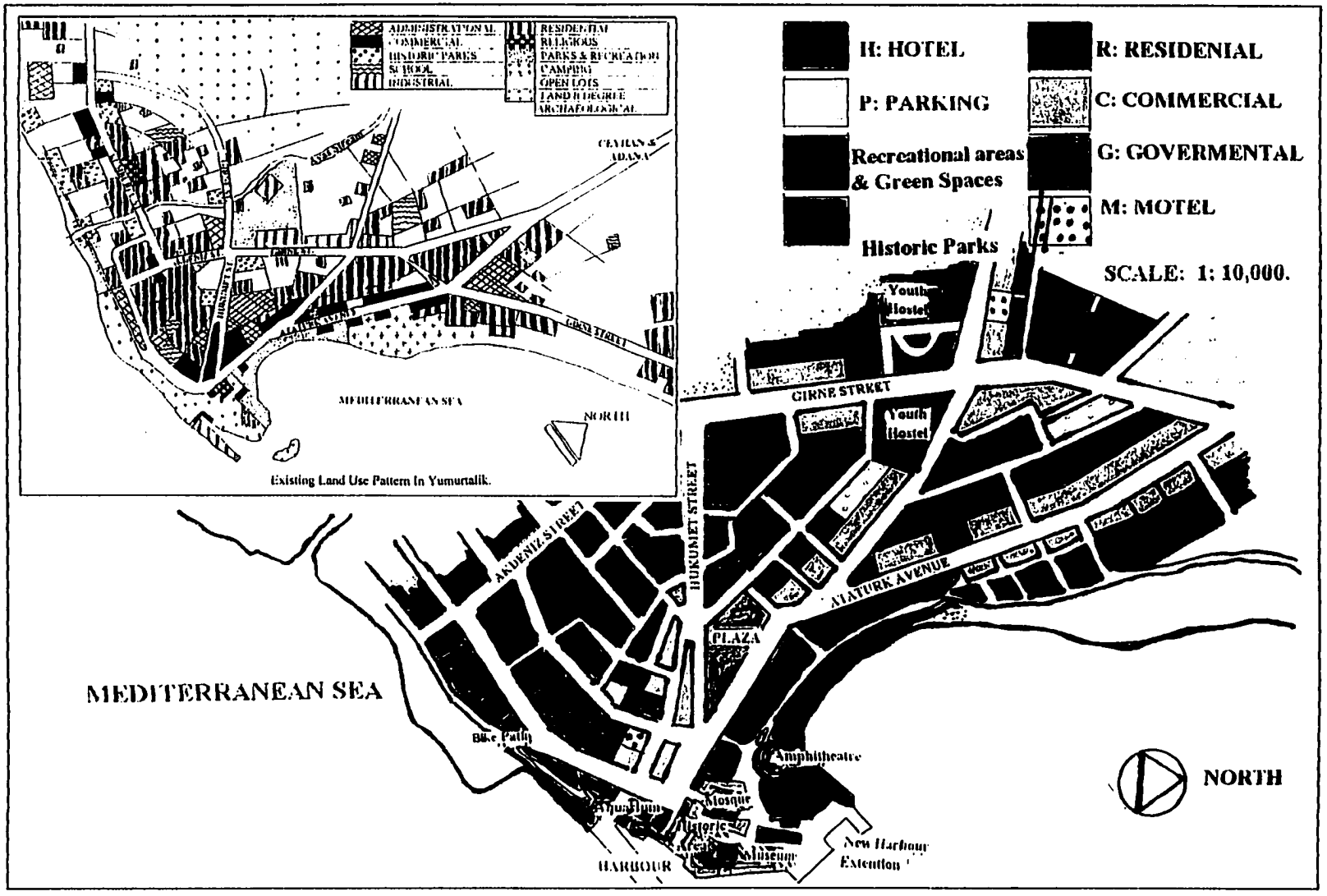


Figure 5- 3: Planning And Design Considerations For Old Town And Harbour Area.

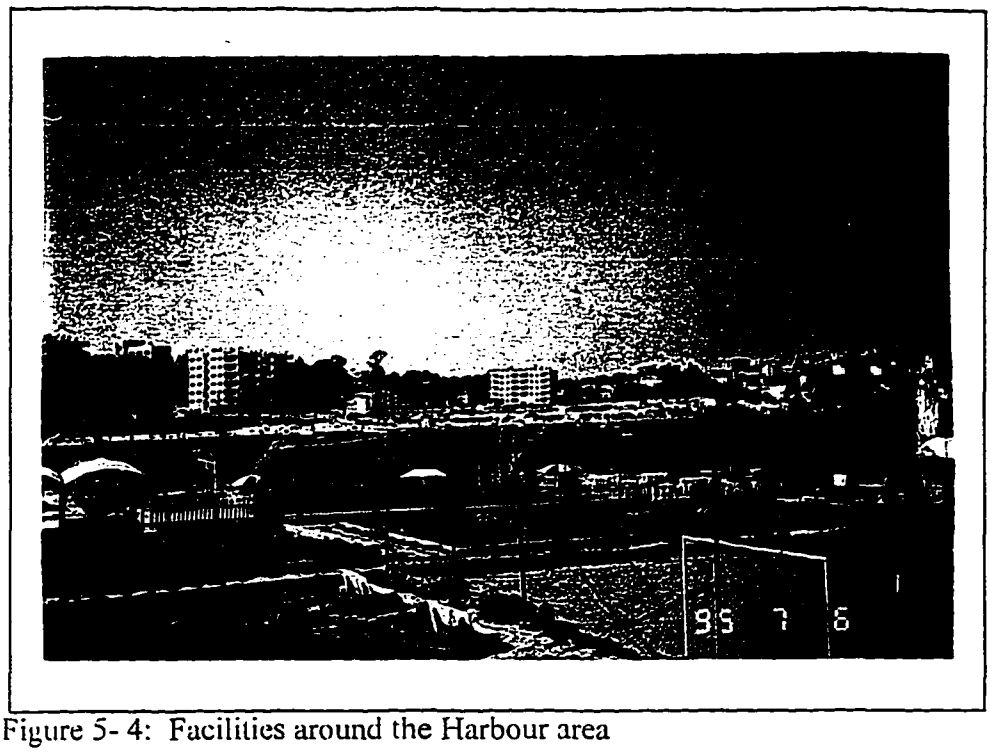


Figure 5- 4: Facilities around the Harbour area

One suggestion is to convert the existing two buildings to museum (Figure 5- 6) which express the traditional crafts and arts of the region, or presents themes from historic background of Yumurtalik. The location of these buildings are shown in Figure 5- 3. An amphitheatre can be another attraction for tourists and locals by hosting variety of festivals, concerts or plays (Figure 5- 3). An activity committee or office might be established in Yumurtalik, to schedule and promote a variety of events such as musical groups, traditional folk dance troops, festivals and so on centred in the plaza. The main idea here is to create an art and history district and to decrease the damage caused by intense tourism use on beach area.

Currently, there is a camping ground for 200-250 tents, on the waterfront where there are also a variety of urban and commercial and traffic uses. Due to insufficient infrastructure and unplanned development this camping site creates a very bad view and serious sea pollution (Figure 5- 7). Instead, it is proposed in this thesis that the campers should be accommodated on a new well planned camping site on West Beach and this coastal strip should be used as waterfront parks to give better quality recreational facilities and to match with a new concept of area which offers expansive views, light, air and history. People have a chance to experience dramatically different environment associated with nature and art. To be successful people places should be thoroughly integrated with the existing place (Inskeep, 1995). Still, lively and diverse environments can be ensured by controlled amount of retail, hotel and recreational facilities.

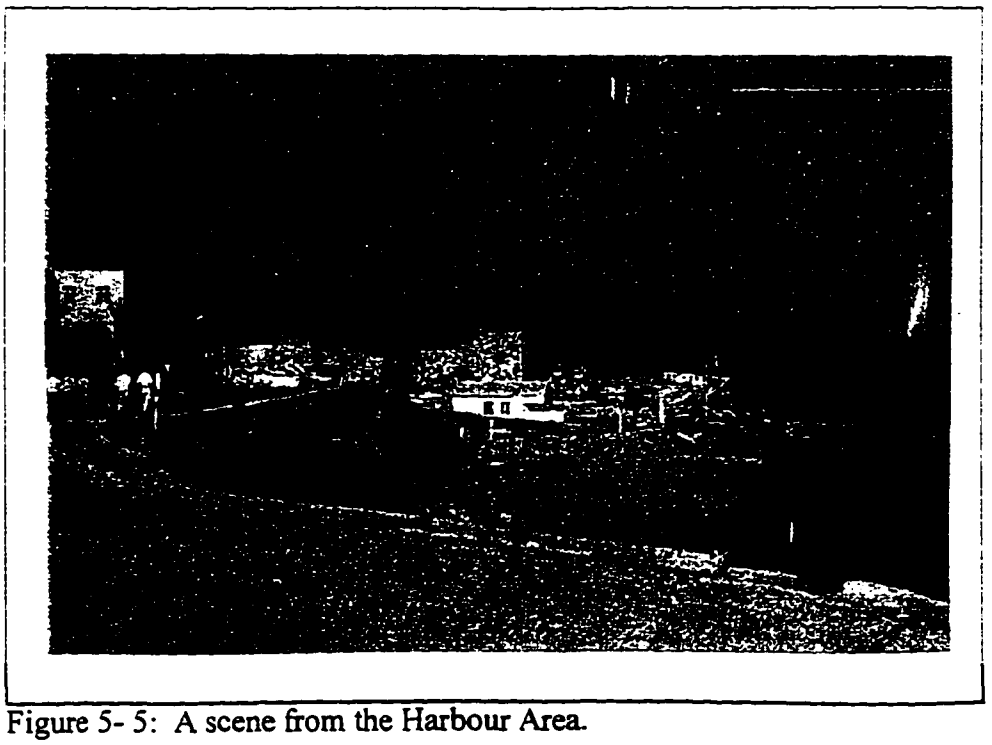


Figure 5- 5: A scene from the Harbour Area.

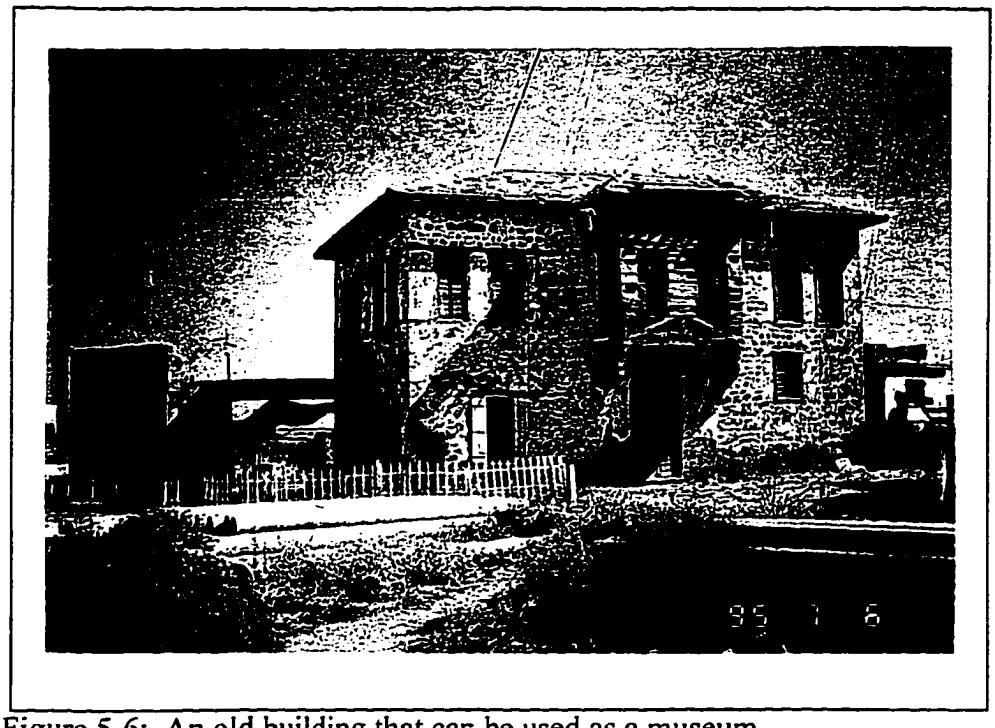


Figure 5-6: An old building that can be used as a museum.

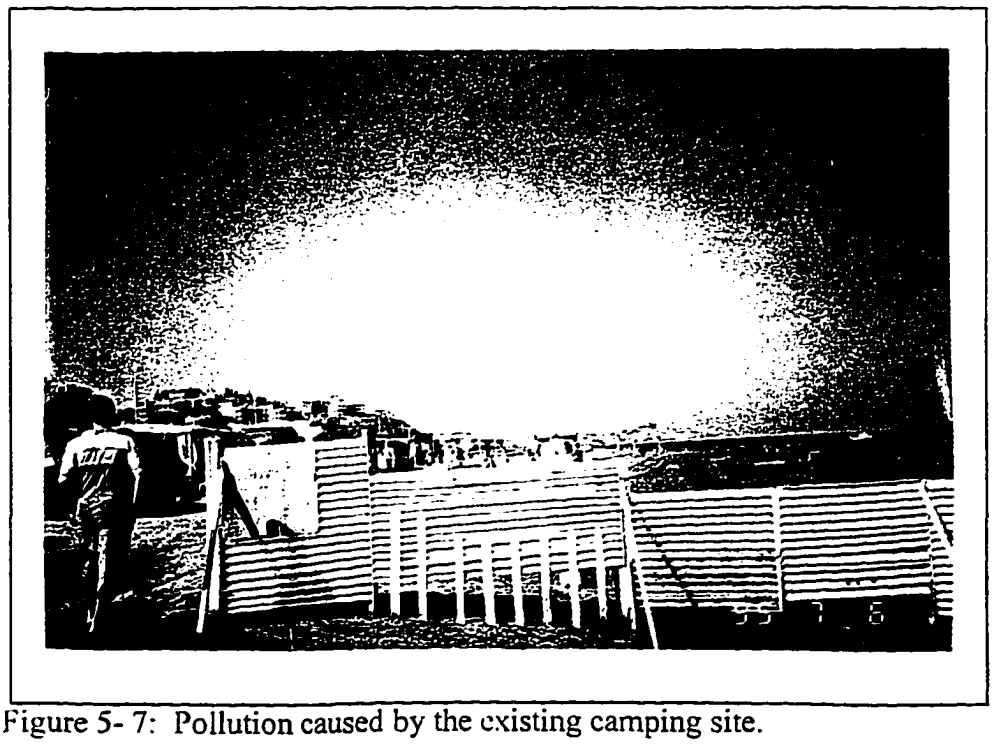


Figure 5- 7: Pollution caused by the existing camping site.

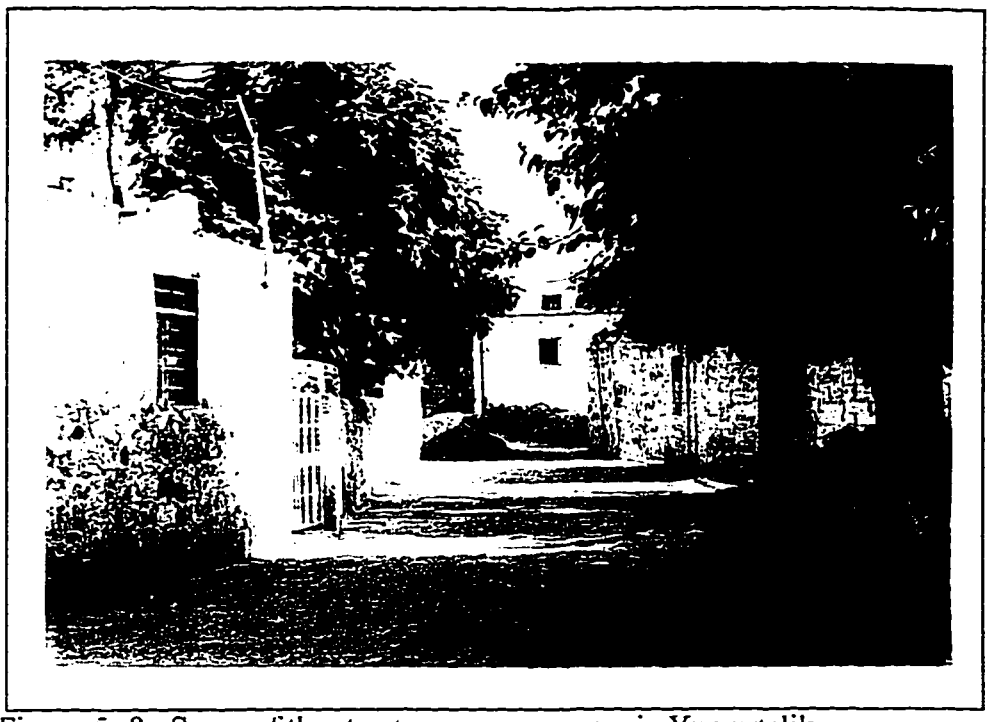


Figure 5- 8: Some of the streets are very narrow in Yumurtalik.

Baset (1986) emphasises the importance of pedestrian circulation which minimises conflicts with the automobile and linked buildings, parking and transit with a network of weather protected pedestrian walks. In Figure 5- 3, it is shown that Ataturk Avenue is closed to vehicular traffic on either end of road. This approach requires effective vehicular traffic management and enough parking facilities to make visits to Old Town enjoyable and easy. For this area, one goal should be decrease of the number of private cars on the local streets in order to avoid air pollution, and traffic congestion. This, of course, brings a big demand of necessary parking spaces. By establishing enough parking lots tourist could be encouraged to park their cars near the entry to Old

Town. These lots would charge hourly or daily fees and would be staffed by parking attendants. This concept could also bring additional income to the area. Most of the streets in Old Town are very narrow (Figure 5- 8), but as Samperi (1989) states, the size, shape and character of streets

Figure 5- 9: A scene from a shopping district.

can be altered. Streets by their very nature guarantee public access and use. Hukumet street as a second degree busy street, could have big potential in terms of providing commercial use. By developing landscape and new sidewalk arrangements and revitalising some of the buildings, this area can be turned into an attractive tourist place with its small shops, restaurants and galleries. A large plaza with food stands, shops,

sculpture and landscaping is suggested between Ataturk Avenue and Hukument Street (Figure 5- 3).

The two streets located both side of the plaza is designed to create a series of strong visual and physical axes from the downtown to the waterfront. Inskeep (1995) evaluates the many opportunities created along waterfronts, for instance the large stretches of water edge offer long uninterrupted walks in the city, free of many urban nuisances and conflicts with cars. Based on Inskeep's concept, the waterfront site of Ataturk Avenue is arranged as a park including walking paths, bike routes and sitting areas along with beach facilities (Figure 5- 3).

The present shopping situation in the town, in general, is extremely disappointing. There are very limited art and craft shops that unique to the region (Figure 5- 9). As part of the revitalisation, Yumurtalik should encourage the development of new products for the tourist market, produced by local artists. The presentation of this products could occur along the Ataturk Avenue, as a continuing part of museums, amphitheatre. Through these efforts, Yumurtalik should strive to create a new identity as an art and history colony that complements its history and gradually begins to attract a new clientele.

Old Town, contains 1 hotel and couple of Boarding houses. However, in the future additional lodging accommodation for tourist can be required. Our research methods suggests small scale development to establish sustainable tourism for Yumurtalik. Therefore, new facilities should be a small scale guest houses, or small

hotels with 10 units or less. Interested residents could support themselves or supplement incomes by converting existing residences adding small cottages on their properties or by adding a second story.

The infrastructure should be improved, especially in waterfront areas to prevent the sea pollution, and to present better quality facilities. Existing Tourism Bureau should be more active in conduct marketing research and monitor the local tourism industry.

5. 3a Harbour Area:

The harbour of the Yumurtalik lies where coastal change in direction from north to west (Figure 5- 4). Mainly used by fishermen, the harbour area does not attract tourists. Our surveys indicate the reason as lack of facilities and attractions. However, the harbour area has potential as a tourism draw. Our concept for harbour area development anticipates the expansion of the total harbour area by adding new boat parking places for pleasure boats. Also, there must be a designated area for water taxi arrivals. Figure 5- 10 illustrates water taxi services connecting tourist areas in Yumurtalik. A general clean up of the harbour area is in order to benefit tourist and residents alike. Convenient facilities must be made available to handle waste products from fishing boats and pleasure boats, to prevent dumping in the Harbour or just outside the harbour entrance. The fuel storage and distribution systems should be located along with necessary equipment to protect the public, the marine environment, and the local workers. Presently, the harbour area is used by fishermen. With the exception of four

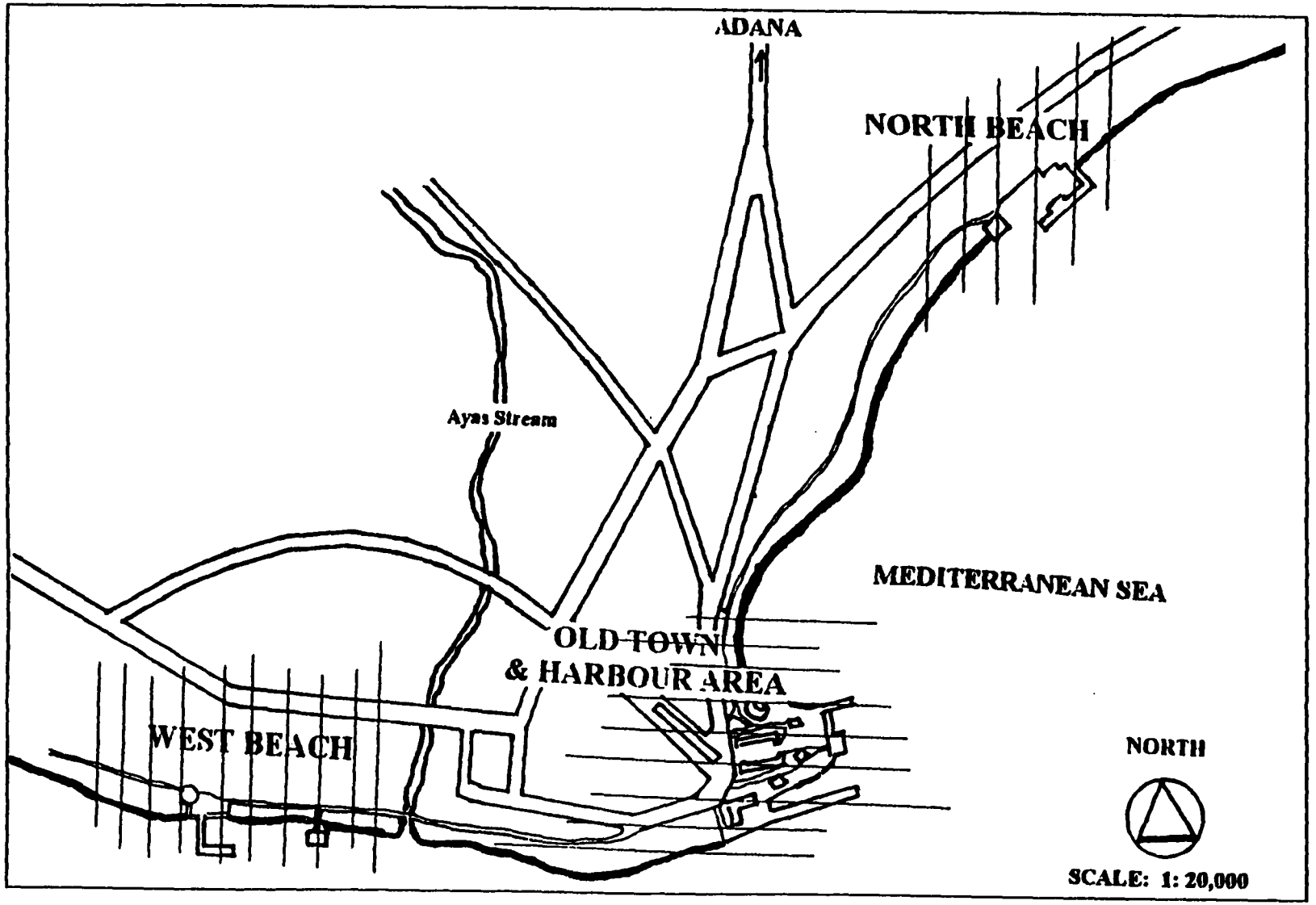


Figure 5- 10: Water-Taxi Service Connecting Tourist Areas.

stores focused on socialising by fishermen, and a small fish market, the rest of the area is vacant. Our concept respects the space, fishermen require, however it proposes a major tourist attraction-such as an Aquarium that provides tourists and residents close view of marine life of the Mediterranean Sea (Figure 5- 3). The aquarium also serves marine research of regional universities and attracts eco-tourists. Currently, the harbour area looks is mostly concrete (Figure 5- 5). By maintaining landscaping using native species belonging to Mediterranean flora, and restoring existing buildings such as repainting of walls and repair of broken glasses, is essential. Different types of lighting could create a different atmosphere, light shows on certain times of the month can be another activity to make the harbour area memorable and attractive.

5. 3c West Beach:

The underdeveloped west beach area covers Akevler and some part of Dervisiye district and offers an opportunity for planners to create tourist and urban development. Since there will be new development, preservation of natural open spaces is important. Therefore, this suggests a boardwalk along the coast, camping area and parks which include different recreational use which benefit everyone- tourists and locals (Figure 5- 11). Stansfield (1970) recommends the boardwalk concept as an attraction and an activity for tourists and residents alike. The attractions are beautiful sea view and related activities, and the activities consist leisurely strolling, people watching, site-seeing, shopping, socialising and eating. The boardwalk would extend from west beach through harbour area on east side. New summer housing development along the west connected with easy pedestrian and bicycle access to the west beach area by this boardwalk. This segment of the promenade would have no commercial facilities.

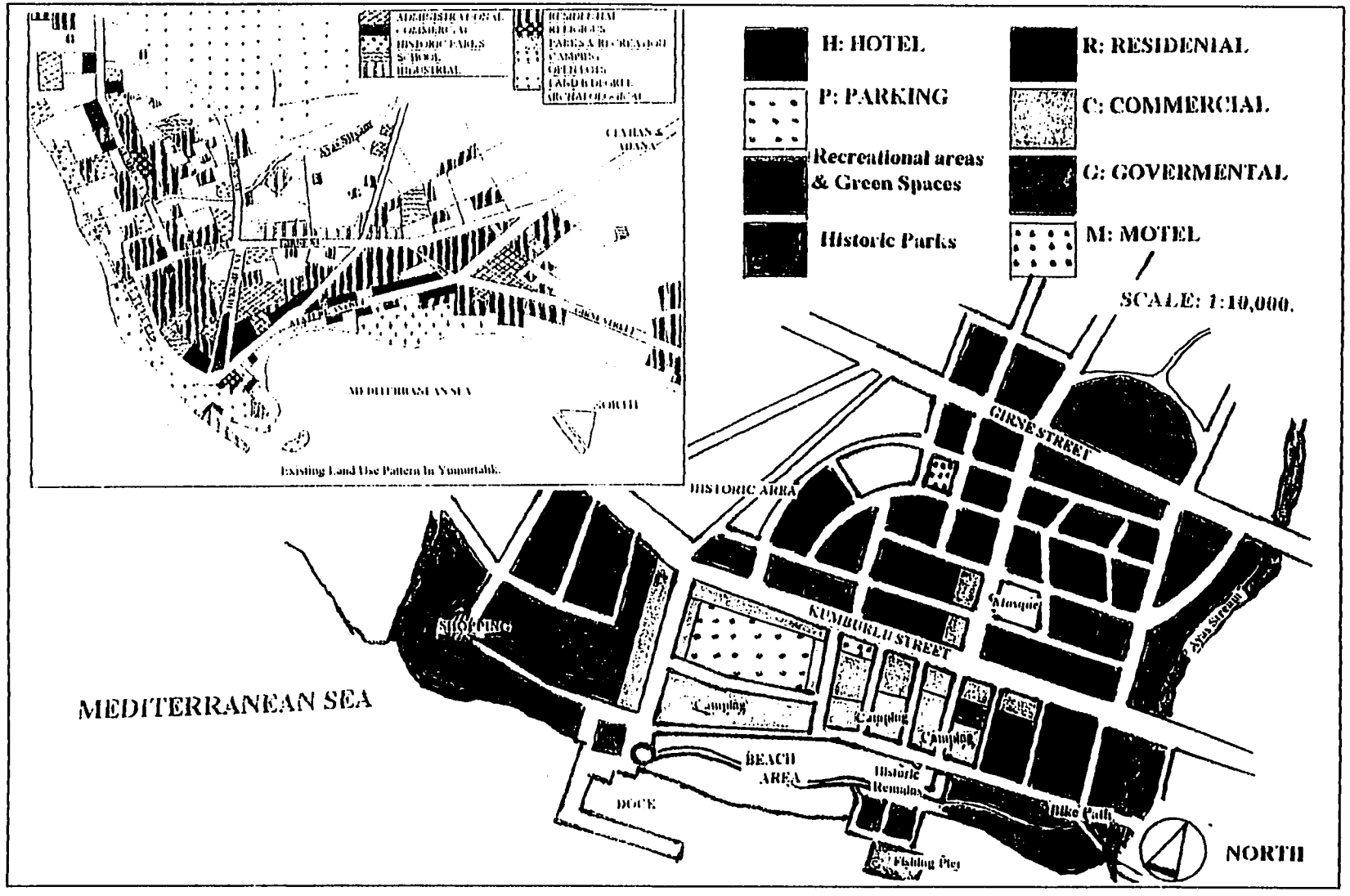


Figure 5- 11: Development Of West Beach For Tourism.

The broadwalk will present only the natural beauty of the seaside. Broadwalk should respect existing dune and tidal ecosystems and not interrupt critical wildlife migration features. A waterfront park will provide sport activities, bike path running along the coast, environmental education centre focusing on the natural history of the area could also emphasise the archaeology of the region. A fishing pier provides entertainment for tourists and locals along the coast. Ice and facilities for cleaning fish should be provided to prevent the accumulation of fish remains in the water along the boardwalk. A small dock could be the beginning of water taxi service which stops at Old Town, and North Beach.

Water taxi service will decrease transportation and traffic problem in the town, creating an opportunity to see the overall silhouette of the town and coastal strip. Depending on what future development requires, these tours could be extended throughout new development. Another facility on the dock is shopping, several small stores selling camping supplies, souvenirs and crafts could branch the pedestrian traffic and create different experiences for the users. Especially with adequate lighting at night times, the dock area would draw along the boardwalk. A plaza area could be useful for live entertainment and dancing both day and night (Figure 5-11).

A well maintained, 500 tents capacity camping ground, could shelter most of the tourist in this areas, however, 2 motels could serve daily or short term visitors as well (Figure 5- 11). Additionally, locals could rearrange their houses to a bed and breakfast. On the north side of the Kumburlu street , residential sites and commercial facilities offered. Development along perpendicular roads can support a variety of tourist facilities. A series of pedestrian paths could provide easy access to the beach front, minimising the use of personnel automobiles (Bodenchuk, 1993). Scale is a critical issue to consider for future development in West Beach.

In order to be integrated with surrounding settlements of the town, new construction should be low rise buildings. With the exception of new development along Ataturk Avenue buildings are one or two stories in Yumurtalik, and this should prevail along West Beach. New architecture and renovation should reflect existing styles and scales, and/or evoke historically significant Mediterranean architectural styles and scale. The selection of appropriate construction materials also contribute to the aesthetic appeal and historic authenticity. Block, fortified adobe and aggravate are found in structures throughout the town. West Beach is planned to gather all camping grounds currently located in Old Town area. Also, this area will offer affordable by locals and low income level tourists. One thing for successful development is to build new codes and regulations controlling the new development. A review board of expert consisting of engineers, architects, planners and landscape architects could work on setting this odes and the application of it.

It is essential to establish effective infrastructure before development occurs in this area. Sewer lines should have enough capacity to handle future development boom. Sufficient water supply and the system should be build up not only for residential areas but also for camping sites as well as electric service. Garbage collection must be well organised by Municipality Sanitary Department.

If it is well planned and managed, West Beach would attract not only campers but also tourists who own summer houses on the west side of the west beach area. It is expected that most of the restaurants could be used by both types of tourist and locals.

5. 3d North Beach:

(See Figure 5- 14 for details). An area between Akyuva and Oren district can be used for slightly upscale tourism developments compared with other parts of the town. The location of

north beach is adjacent to a wealthy neighbourhood (Figure 5- 12). Since Yumurtalik can not answer the upscale needs of this population, tourists living in this area do not interact with the town and the locals. Figure 5- 13 presents the proposed site for North Beach development. In North Beach's case, the approach of balancing economic, environmental and social objectives within the framework of maintaining sustainable development is a most appropriate one.

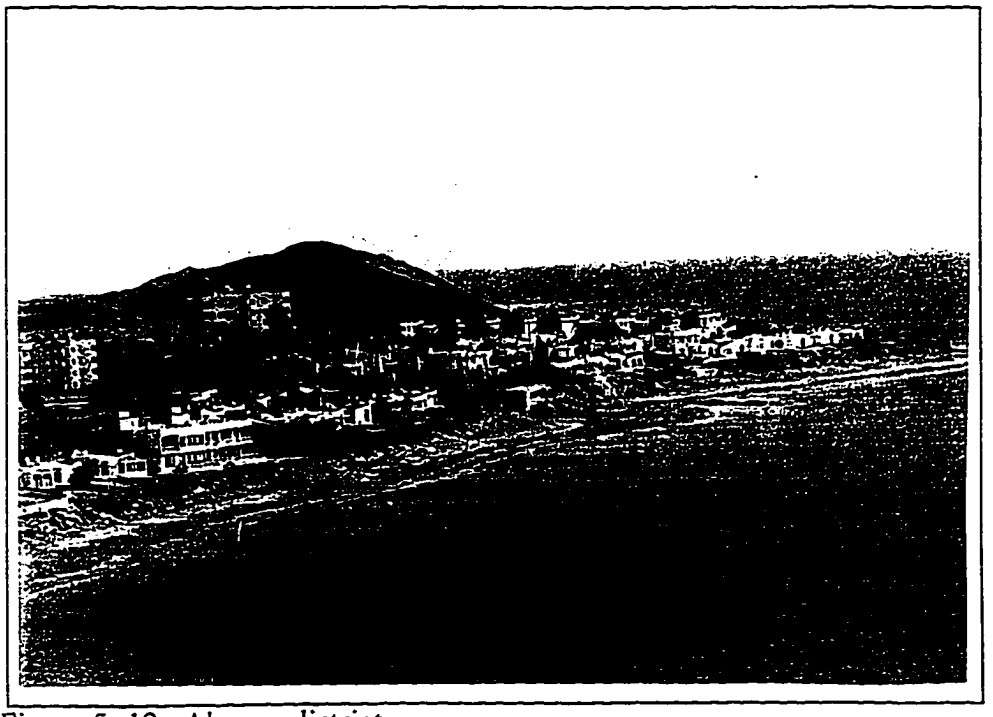


Figure 5- 12: Akyuva district.

Because as Inskeep(1995) states, a completely market-led approach to tourism development that provides whatever attractions, facilities, and services the tourist market may demand could result in environmental degradation and loss of socio-cultural integrity of the tourism area, even though it brings short term economic benefits. To avoid this situation, some places such as Bhutan and Oman have adopted a product-led

approach. This approach implies that only those types of attractions, facilities, and services that the area believes can best be integrated with minimum impacts into the local development patterns and society are provided, and marketing is done to attract only those tourist who find this product of interest to them. In this framework, to create attractions that invite increased visitation, maintains sustainable development and not generate serious

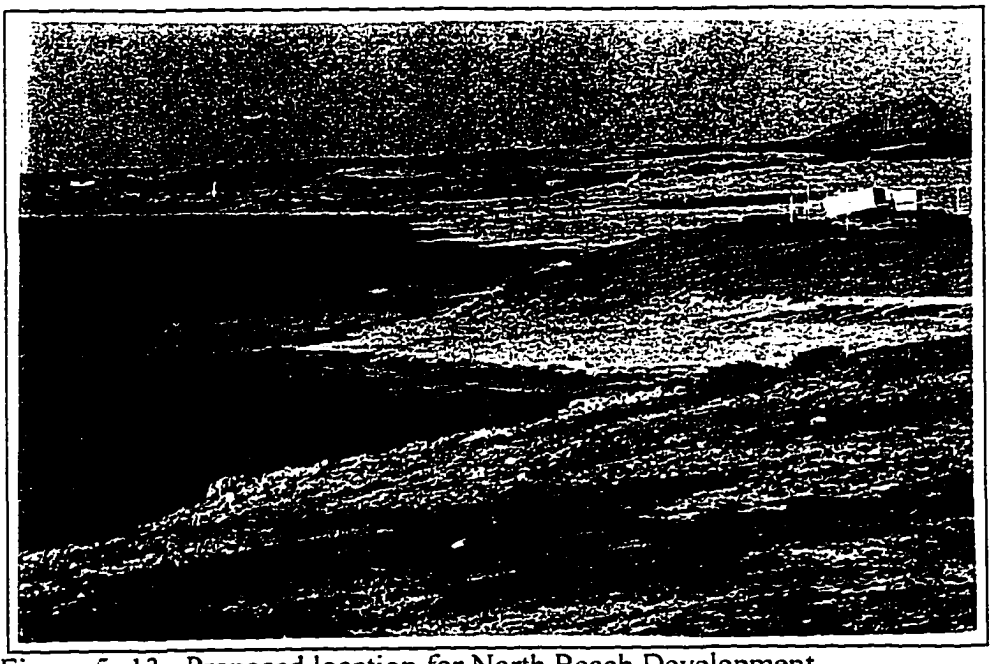


Figure 5- 13: Proposed location for North Beach Development

environmental or socio-cultural problems, is the key for a successful development. The attractions can be entertainment, educational or some combination of functions. Figure 5-14 presents the facilities and their location in North Beach.

Marina and surrounding areas is designed for entertainment purposes. Our surveys yield the fact that the lack of entertainment facilities and the hours of the existing ones were the

general complaint. Therefore, North Beach with the new arrangements could answer the need with its marina area, hotels, and mall areas.

The marina areas will comprise an entertainment centre including disco, movie theatre and variety of cafes and restaurants. A small shopping area along the coast can be used for selling souvenirs and maps for the boats anchoring at the marina. Another feature of the marina could be a hotel with approximately 30 units serving tourist that sail and visit the town for only couple of days. North Beach is a built on hill overlooking the Mediterranean and the town. The hill could be sensitively developed as an observation area with nature trails, photographic opportunities, and viewing outlooks. There could be daily tours to the existing light house. This idea brings the restoration of the existing lighthouse and the expansion of the facilities in here. Another suggestion is to locate an attractive upscale

village including hotels, restaurant, night-club, and other recreational facilities, to take an advantage of the magnificent views in all directions. The building itself must be well designed and aesthetically pleasing because it may well become a landmark in the area. As it is the fact for all types of developments, the success of the development depends on sufficient and effective infrastructure.

In North Beach area, an art school teaching traditional arts and tourism school could be established. These schools will help establish another identity and a source of pride for local people, providing educational and career opportunities.

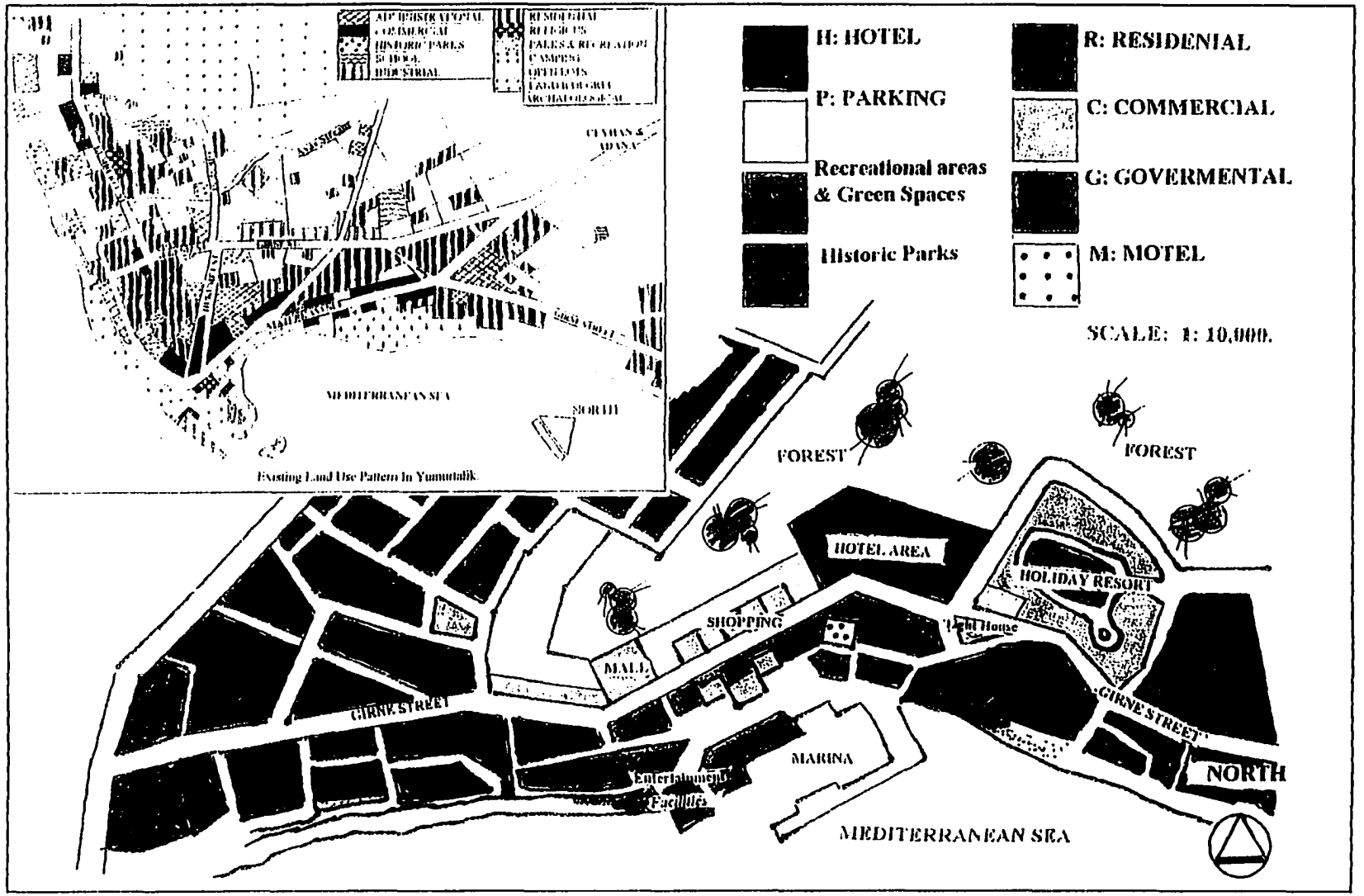


Figure 5- 14: Proposed Tourism Facilities And Their Locations In North Beach.

A shopping Mall including stores owned by the locals could be another attraction on North Beach complementing the other shopping facilities in the area. As a whole concept North Beach will be a trial area to see the future type of the tourism development. It should be established after the generated concept Old Town and West Beach accomplished, because the gradual development is the key to successful transition.

5- 3e Riparian Areas Along Ayas Stream:

The Ayas stream runs through the west side of Yumurtalik settlement and reaches to the Mediterranean Sea from the West Beach. Currently there is no protection measures for riparian areas, however my concept suggests using this area for recreation along with protection of the fragile stream ecosystems (Figure 5- 15). The recreational opportunities given in this area will reduce the pressure on coastal areas, and offer different experiences. Designing riparian areas requires special consideration of wildlife and plant species. For this reason , both sides of the Ayas stream is designed as a wildlife preservation park with limited construction and pedestrian use. The part from the coast until Girne street presents clustered uses. The area where the river reaches the sea offers opportunities for cafe shop, bird watching, site seeing opportunities, and boat tours. However the rest of the riparian area is traversed by a narrow walking path in a very lush landscaped park. A botanical garden and an environmental education centre will present facilities in terms of teaching, and protection of the ecosystem. Visitors will get a chance to be close to presented flora and fauna. This opportunity will also raise the sense of environment protection.

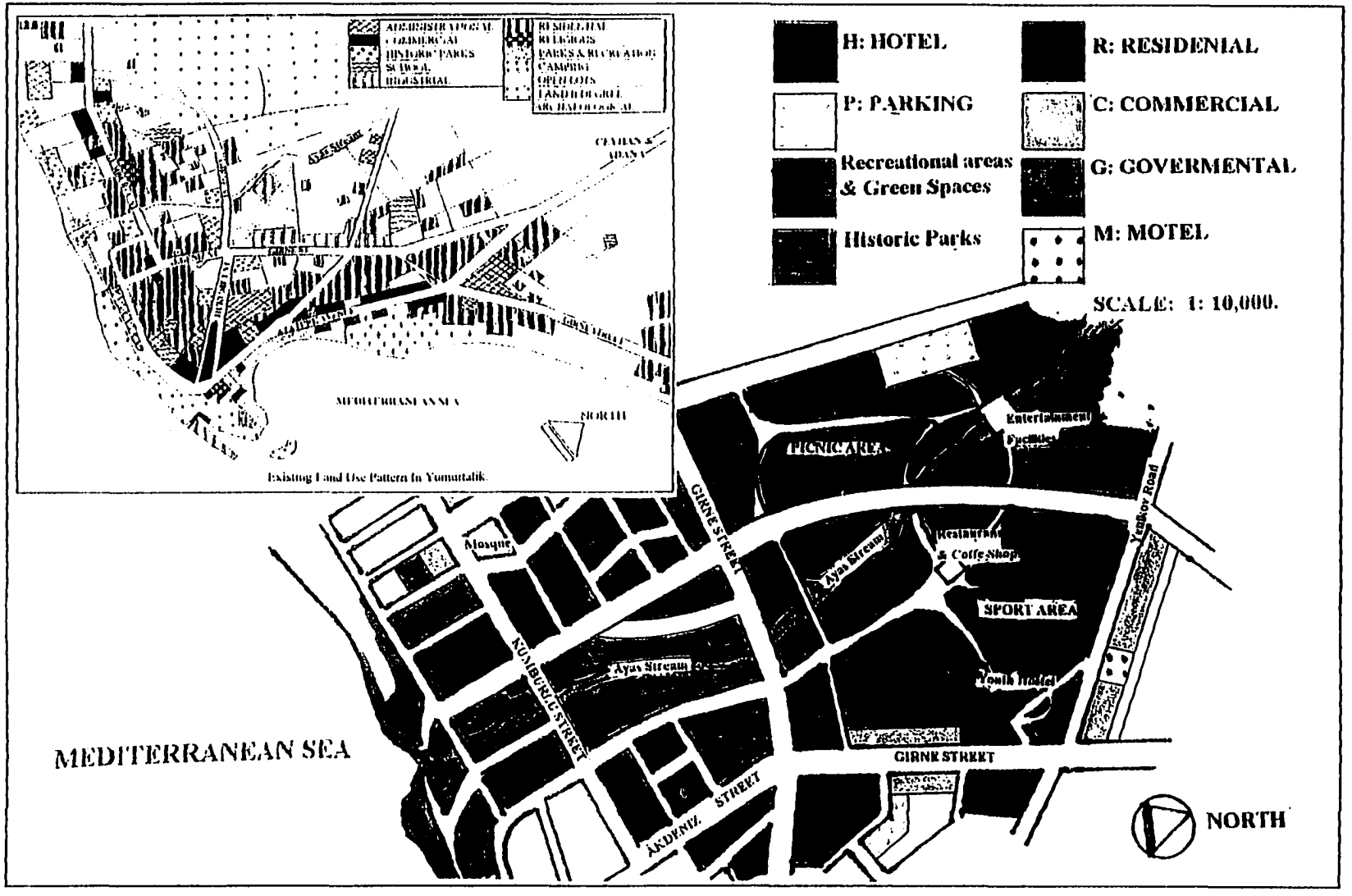


Figure 5- 15: Planning For Riparian Areas Along Ayas Stream

The north part of the Girne Street developed with an idea that this area can be a green hearth of the town and because of good quality different type of experiences, this area could be the future direction of urban development. In my concept, a continued park system is proposed, and the area covered by park expands until the beginning of the agricultural fields. Since this park system is close to agricultural areas, farmer can bring the crops to a designated bazaar area. Also a special crop can be promoted as a symbol of the town. Tourist could come to the town to but the products made of this crop.

A newly planted forest area would be a base for picnic area, bird watching and hiking and other types of recreational uses. Currently the main sport area of the town exists in this area, to keep this area for the same use is suggested. However, the improvement of the facilities and the variety of the facilities should be achieved. Miniature soccer is very popular lately, and basketball and volleyball facilities are always in demand. The facilities for miniature soccer would charge rates per game. This is another way to create jobs and income for locals. Swimming lessons taught in this area will attract many teenagers and some adults. One thing suggested for this area is to build youth hostels. Recently, youth hostels are popular areas for young people who want to spend their summer in a area offering educational and recreational experiences, where they can build new friendships and learn.

Although intense development along the areas of Ayas stream is not encouraged, controlled amounts could be enough to enjoy nature. The foundation of a kind of environment council that investigates potential flora and fauna of this riparian area and

controls the activities and uses there, is strongly suggested. Plant selection of the landscaped should be carefully initiated. A plant list including native plants of the region will reduce the maintenance cost and guarantee better natural look. Flood protection measures should be taken. Sewer lines opening onto the stream in some areas should be relocated and repaired. In the future, there must be more research conducted in this area to assess the opportunities , this area could offer.

5- 3f Future Research:

In our study we tried to develop integrated coastal zone planning guidelines for future tourism development in Yumurtalik. However, there are a number of additional areas of research needed in Yumurtalik.

During our data gathering, it was felt that more precise marketing information on existing tourism would be of great use. In order to answer questions regarding why tourists come to Yumurtalik, how much money they spend, what they would like to be able to see in Yumurtalik, a professional market analysis is essential.

Another survey study can be conducted to observe changes in numbers and spending patterns of these tourist user groups, in order to evaluate the effectiveness of tourism planning, design and development.

Locals should also be surveyed with more detailed techniques to understand their reaction to tourism, expectations and attitudes. The results of this survey would help to design educational, cultural programs and clear understanding between tourist and residents.

In future, by the successful application of the planning guidelines initiated in this study, Yumurtalik would attract an increasing number of tourists. In order to decide future development type and direction, a new study should be initiated on recreational capacities analysis which has been mentioned in Chapter 3. The recreation capacity analysis does provide a more solid foundation upon which to build a recreation strategy for the study area.

If Yumurtalik decides to use its historic and archaeological assets to attract different type of tourists who are interested in history of the region more than beach activities, it would be highly advisable to study what these tourists look for in terms of amenities, facilities and accommodations. Also, conducting research on preservation, protection and restoration of archaeological remains is essential to prevent the degradation of these resources. This type of research will also help to determine the style of the facilities and the intensity of tourism which a site could handle.

Yumurtalik also possesses very unique marine ecology. In the future, this area could be the focus of research in terms of marine ecology carrying capacity. This may attract eco-tourists. Because of the addition of new types of tourism, local economy can benefit from it. Because eco-tourism has been envisioned by some as a way of providing alternative work opportunities for out-of-work fishermen, nature tourism or eco-tourism are also worth considering as types of future tourism in Yumurtalik. Eco-tourism is very appealing to the thinking of this thesis- a tourism destination that offers not luxurious, but affordable and good quality amenities. Boo (1990) corroborates this idea, concluding that

nature tourists are less demanding in terms of lodging than other types of tourists, and they do not need accommodations, food or night-life that meet luxurious standards. The nature traveller seems more willing to accept and appreciate local conditions, customs, and foods. However, basic services and infrastructure are still required to make eco-tourism a significant economic force and bring development to locals as well. For this reason, a study could be developed to find out what kind of services will be required.

Additional research is needed for the development of appropriate building and design standards in Yumurtalik. Height restrictions and building codes should be reviewed and set to establish healthy development. Development of review board comprised of local experts can establish environmental, aesthetic and economic standards.

We believed that existing laws and legislation are not enough to maintain logical and attractive developments primarily due to overlaps and conflicts among them. This situation promotes negative environmental impacts on natural resources. To strengthen existing regulations, review and revision of the Coast Law, Tourism Law, and Environment Law, and reconciliation of various existing legislation is necessary.

CLOSING COMMENT

This thesis has tried to develop planning suggestions for tourism development in Yumurtalik through given objectives, policies and recommendations.

Yumurtalik, like many other small seaside towns in Turkey, is struggling with a lack of integration on its resources use and in trying to find ways to establish economic stability and environmental and cultural integrity by searching different economic activities such as tourism, thermal plant, and Iraqi pipe-line.

Yumurtalik has a big potential for tourism. If tourism is developed in a sustainable manner respecting natural and cultural values, and economic benefits of locals, there is no need to build other industry to nourish Yumurtalik's economy.

The research methods in this study leaded us to alternative forms of tourism as a remedy to revitalise the local economy and environment, and to initiate a new cycle of health and wealth in Yumurtalik.

It is hoped that the lessons learned from Yumurtalik's experience could be used to develop guidelines for assessing and protecting historic, environmental and cultural resources in other coastal tourism areas of Turkey through sustainable tourism planning..

APPENDICES

APPENDIX I: A SAMPLE OF QUESTIONNAIRE

This questionnaire is a part of the thesis work which will help to propose solutions for Yumurtalik's current and future tourism needs and problems.

Prepared By: HAYRIYE ESBAH
UNIVERSITY OF ARIZONA
TUCSON / USA

Please describe your overall experience during your holiday in the town. (Please circle one scalar value in each category).

1) Frequency of your visit to Yumurtalik

Every Chance						Very Rare
1	2	3	4	5	6	7

2) The importance of historic value, when you pick this place as your travel destination,

Very important						Unimportant
1	2	3	4	5	6	7

3) How would you feel about the prices in the town compared to other tourism areas of Turkey.

Very Cheap						Expensive
1	2	3	4	5	6	7

4) How are the quality and cleanliness of the beach and water,

Totally Clean and Convenient						Dirty/inconvenient
1	2	3	4	5	6	7

5) How often do you use harbour area and facilities?

Everyday						Rare
1	2	3	4	5	6	7

6) The number of parking lots and spaces,

Very Sufficient						Insufficient
1	2	3	4	5	6	7

7) Good quality facilities serving for tourism (Hotel, motel, camping, entertainment)

Adequate						Inadequate
1	2	3	4	5	6	7

8) How was the overall attitude of the locals?

Very Friendly						Unfriendly
1	2	3	4	5	6	7

9) How would you describe your holiday in Yumurtalik?.

Enjoyable						Boring
1	2	3	4	5	6	7

10) Have you ever faced with the insufficient infrastructure problem during your visit to Yumurtalik?

Yes No

Comments:.....

APPENDIX II: DOCUMENT OF STATISTICS

RMRATE 09-23-95 15:08:26

RMRATE is described in GTR RM-xxx, "Analysis of Ratings: Concepts, Methods and a Guide to RMRATE," by Thomas C. Brown,
Terry C. Daniel, Herbert W. Schroeder and Glen E. Brink. The Guide is available from Rocky Mountain Forest and Range
Experiment Station Publications, 240 W. Prospect St., Fort Collins, CO. 80526.

This version of RMRATE requires 560K available bytes of RAM (memory), plus a math coprocessor.

NUMBER OF OBSERVERS: 70, NUMBER OF STIMULI: 10
(RESULTING MEMORY ENVIRONMENT: MAXOBS = 70, MAXFAC = 70)

INPUT IS BY OBSERVER

RATINGS WILL BE READ FROM hydria.txt

INPUT FORMAT: (10i1)

NUMBER OF RATING VALUES IN THE RATING SCALE: 7

RATING VALUES (NOT RATED, LEAST PREFERRED, ..., MOST PREFERRED): 0 1 2 3 4 5 6 7
CORRESPONDING INPUT VALUES -1 1 2 3 4 5 6 7

NUMBER OF CONDITIONS (INCLUDING BASELINE): 1

CONDITION 0: BASELINE 1 2 3 4 5 6 7 8 9 10

STIMULI NAMES: NO NAMES

NUMBER OF BLANKS TO CAUSE REMOVAL OF AN OBSERVER: 1

NUMBER OF BLANKS TO CAUSE REMOVAL OF A STIMULUS: 5

CORRELATION COEFFICIENT CUTOFF FOR REMOVAL OF AN OBSERVER: -.500

MINIMUM RANGE IN RATINGS FOR INCLUSION OF AN OBSERVER: 1

NO OBSERVERS EXCLUDED

NO STIMULI EXCLUDED

PRINCIPAL COMPONENT ANALYSIS: NO SPECIFIED NUMBER OF COMPONENTS TO PRINT

PRINCIPAL COMPONENT ANALYSIS: DEFAULT MINIMUM EIGENVALUE FOR PRINTING OF COMPONENT SELECTED (1.0)

PRINCIPAL COMPONENT ANALYSIS: ALL OBSERVERS WILL BE INCLUDED

OUTPUT DISPLAYS: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19
OPTIONS: 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

PLOT OUTPUT MEASURES WITH CORR. LESS THAN .950

REQUESTED OUTPUT WILL BE SAVED ON hydria1.OUT 1-80

Hydria's data from Turkey Hydria 09-23-95 15:08:26

DISPLAY 1. RAW RATINGS AND ASSOCIATED STATISTICS PAGE 1

STIMULUS	CONDITION	MEAN	STD. DEV.	MED.	RANGE	1	2	3	4	5	6	7	8	9	10	11	12	13
MEAN		3.80	6.40	5.40	4.80	5.40	3.00	3.80	4.70	3.70	3.90	2.90	3.10	2.60				
MEDIAN		3.50	7.00	6.00	5.00	6.50	1.00	3.50	5.50	4.50	3.00	1.50	1.50	1.50				
STANDARD DEVIATION		2.53	1.90	1.65	2.04	2.12	2.58	2.30	2.26	2.26	2.13	2.64	2.51	2.27				
RANGE		6.0	6.0	5.0	6.0	6.0	5.0	6.0	6.0	6.0	5.0	6.0	5.0	6.0				
SKEWNESS		.090	-2.277	-.715	-.391	-.853	.349	.071	-.649	-.080	.240	.714	.314	.908				
CORRELATION W/ GROUP							.648	.622	.752	.659	.823	.438	.850	.755	.693	.474	.686	.561
SIGNIFICANCE OF R		.021	.027	.006	.019	.002	.103	.001	.006	.013	.083	.014	.046	.026				
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3	BASELINE	3.19	3.0	2.07	6.0	1	7	6	4	7	6	3	3	5	2	1	1	1
4	BASELINE	2.96	3.0	1.98	6.0	4	7	5	3	4	1	1	6	1	2	1	1	1
5	BASELINE	5.79	6.0	1.85	6.0	7	7	6	7	7	1	6	7	6	7	6	1	2
6	BASELINE	5.10	6.0	1.79	6.0	2	7	7	5	7	6	6	5	5	2	7	6	6
7	BASELINE	6.13	7.0	1.15	4.0	7	7	7	6	7	6	7	7	5	4	7	6	7
8	BASELINE	2.99	2.0	2.03	6.0	1	7	4	5	5	1	2	5	1	6	1	1	1
9	BASELINE	4.74	5.5	2.06	6.0	6	7	7	7	7	6	4	6	7	6	1	6	4
10	BASELINE	1.27	1.0	.45	1.0	1	1	2	1	1	1	2	1	1	2	2	2	2

! = EXCLUDED BY USER # = REMOVED BECAUSE OF EXCESSIVE BLANK RATINGS
& = REMOVED BECAUSE OF POOR CORRELATION WITH GROUP * = REMOVED BECAUSE OF POOR RANGE OF RATINGS

Hydria's data from Turkey Hydria 09-23-95 15:08:26

DISPLAY 1. RAW RATINGS AND ASSOCIATED STATISTICS PAGE 2

STIMULUS OBSERVERS:	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
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MEDIAN	3.50	3.00	2.50	4.00	7.00	5.50	7.00	2.00	7.00	1.00	3.50	3.00	2.50	2.50	2.00	3.00	3.00	6.50	3.50
STD DEV	1.96	2.16	2.41	2.56	2.55	2.38	2.60	1.52	2.53	2.39	2.28	2.55	1.91	2.98	2.49	2.23	1.94	2.70	2.28
RANGE	5.0	6.0	5.0	6.0	6.0	6.0	6.0	5.0	6.0	5.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
SKEWNESS	.000	.229	.200	-.008	-.978	-.608	-.609	1.546	-1.281	.474	.110	.322	.646	.171	.381	.803	.654	-.420	.110
CORR W/GROUP	.496	.776	.821	.610	.707	.787	.780	.504	.587	.841	.610	.592	.720	.791	.224	.329	-.082	.727	.736
SIGNIFICANCE	.072	.004	.002	.030	.011	.003	.004	.069	.037	.001	.031	.036	.009	.003	.267	.177	-.411	.009	.008

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10	1	1	1	1	1	1	1	2	1	1	1	2	1	1	2	1	1	1	1

! = EXCLUDED BY USER # = REMOVED BECAUSE OF EXCESSIVE BLANK RATINGS
& = REMOVED BECAUSE OF POOR CORRELATION WITH GROUP * = REMOVED BECAUSE OF POOR RANGE OF RATINGS

Hydria's data from Turkey Hydria 09-23-95 15:08:26

DISPLAY 1. RAW RATINGS AND ASSOCIATED STATISTICS PAGE 3

STIMULUS	OBSERVERS: 33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51
MEAN	2.60	5.60	4.40	3.80	4.10	5.50	4.70	4.40	3.60	3.70	4.20	5.20	2.20	4.00	5.30	3.60	3.70	3.70	2.90
MEDIAN	1.50	7.00	5.00	3.00	4.00	6.50	5.00	4.50	3.00	3.00	5.50	7.00	1.00	3.00	6.00	3.00	4.00	3.00	2.00
STD DEV	2.41	2.07	2.12	2.20	2.08	2.42	2.00	1.58	2.22	1.95	2.82	2.90	2.15	1.83	1.57	2.01	1.89	2.54	2.02
RANGE	6.0	6.0	6.0	6.0	5.0	6.0	6.0	5.0	6.0	6.0	6.0	6.0	6.0	5.0	5.0	5.0	5.0	6.0	5.0
SKEWNESS	1.064	-1.013	-.538	.227	.081	-1.171	-.376	-.752	.565	.298	-.236	-.745	1.217	.000	-.758	.053	-.235	.192	.555
CORR W/GROUP	.522	.684	.808	.663	.838	.699	.922	.942	.038	.761	.606	.674	.706	.726	.790	.749	.676	.743	.584
SIGNIFICANCE	.061	.015	.002	.018	.001	.012	.000	.000	.459	.005	.032	.016	.011	.009	.003	.006	.016	.007	.038

1	1	7	4	6	2	6	3	3	1	5	5	7	1	3	6	5	6	1	1
2	7	7	6	3	7	7	6	5	2	3	6	7	1	3	4	3	4	6	6
3	1	4	1	2	2	7	3	4	2	2	7	1	1	6	6	1	1	2	1
4	1	7	5	3	3	6	4	4	7	1	1	7	1	3	4	3	3	3	1
5	1	7	5	6	6	7	7	6	6	6	7	7	3	6	7	6	5	6	2
6	3	5	6	2	6	7	7	6	3	5	6	7	5	6	6	3	4	7	3
7	7	7	7	7	6	7	6	6	3	7	7	7	7	6	7	6	5	7	6
8	2	4	3	2	2	1	4	4	7	3	1	1	1	3	5	2	2	3	2
9	2	7	6	6	5	6	6	5	3	3	1	7	1	3	6	6	6	1	5
10	1	1	1	1	2	1	1	1	2	2	1	1	1	1	2	1	1	1	2

! = EXCLUDED BY USER # = REMOVED BECAUSE OF EXCESSIVE BLANK RATINGS
& = REMOVED BECAUSE OF POOR CORRELATION WITH GROUP * = REMOVED BECAUSE OF POOR RANGE OF RATINGS

Hydria's data from Turkey Hydria 09-23-95 15:08:26

DISPLAY 1. RAW RATINGS AND ASSOCIATED STATISTICS PAGE 4

STIMULUS OBSERVERS:

	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70
MEAN	5.40	4.10	4.10	6.00	5.60	4.00	4.20	3.50	3.90	3.70	3.60	3.10	3.00	3.20	3.10	3.20	3.90	3.90	4.20
MEDIAN	7.00	5.50	4.50	6.50	6.00	4.50	5.00	3.50	4.50	3.50	3.50	2.00	2.00	2.50	2.00	3.00	3.50	3.00	4.00
STD DEV	2.50	2.28	2.47	1.56	1.78	2.00	2.20	2.32	2.18	2.11	2.22	2.13	2.26	1.99	2.47	1.99	2.08	2.60	1.93
RANGE	6.0	5.0	6.0	5.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
SKEWNESS	-.945	-.362	-.023	-1.570	-1.593	-.225	-.227	.120	-.289	.163	.127	.689	.467	.516	.574	.668	-.015	.166	.163
CORR W/GROUP	.687	.750	.738	.689	.759	.643	.423	.592	.768	.816	.697	.681	.807	.892	.717	.572	.780	.905	.596
SIGNIFICANCE	.014	.006	.007	.014	.005	.023	.111	.036	.005	.002	.013	.015	.002	.000	.010	.042	.004	.000	.034

1	7	2	5	6	5	6	2	1	1	2	3	1	1	2	1	1	3	1	7
2	7	6	2	6	6	3	5	1	5	6	6	5	1	4	1	4	5	6	3
3	4	1	1	7	7	5	7	6	4	4	4	2	2	2	2	3	1	2	3
4	1	2	4	5	5	3	2	1	1	1	1	3	2	2	1	1	3	2	4
5	7	6	7	7	7	7	2	7	6	7	7	6	7	7	7	2	6	7	4
6	6	5	7	6	6	4	6	5	5	4	4	2	5	5	5	7	7	7	6
7	7	6	7	7	7	5	6	5	5	6	6	7	5	5	4	6	4	7	7
8	7	6	1	7	6	1	5	2	4	3	3	1	1	1	2	3	3	2	3
9	7	6	5	7	6	5	6	5	7	3	1	2	5	3	7	3	6	4	4
10	1	1	2	2	1	1	1	2	1	1	1	2	1	1	1	2	1	1	1

! = EXCLUDED BY USER # = REMOVED BECAUSE OF EXCESSIVE BLANK RATINGS
& = REMOVED BECAUSE OF POOR CORRELATION WITH GROUP * = REMOVED BECAUSE OF POOR RANGE OF RATINGS

Hydria's data from Turkey Hydria 09-23-95 15:08:26

DISPLAY 3. CORRESPONDENCE AMONG OBSERVERS PAGE 1

1. REMOVALS

	NUMBER IN RAW DATA	EXCLUDED BY USER	REMOVED, TOO MANY BLANKS	REMOVED, POOR CORR. WITH GROUP	REMOVED, POOR RANGE OF RATINGS	REMAINDER INCLUDED
OBSERVERS	70	0	0	0	0	70
STIMULI	10	0	0			10

2. CORRELATION OF INDIVIDUAL OBSERVERS WITH GROUP (RAW RATINGS)

	LOW	MEAN	HIGH
ALL OBSERVERS AND STIMULI:	-.082	.668	.942
ONLY INCLUDED OBSERVERS AND STIMULI:	-.082	.668	.942

3. ANALYSIS OF VARIANCE (RAW RATINGS)

GRAND MEAN: 4.0

SOURCE OF VARIATION	DF	SS	MS	F	SIGNIFICANCE LEVEL
MEAN 1		11128.1			
OBSERVERS	69	626.184	9.07513	3.24234	.782901E-14
STIMULI	9	1432.56	159.173	56.8689	.000000
OBS. X STIM.	621	1738.14	2.79894		
TOTAL	700	14925.0			

RELIABILITY	
OBSERVER TO OBSERVER	.444
GROUP TO GROUP	.982

4. ANALYSIS OF VARIANCE (Z-TRANSFORMED RATINGS)

GRAND MEAN: .0

SOURCE OF VARIATION	DF	SS	MS	F	SIGNIFICANCE LEVEL
MEAN 1		.125899E-14			
OBSERVERS	69	.162138E-11	.234982E-13	.430325E-13	1.00000
STIMULI	9	290.898	32.3220	59.1916	.000000
OBS. X STIM.	621	339.102	.546058		
TOTAL	700	630.000			

RELIABILITY	
OBSERVER TO OBSERVER	.454
GROUP TO GROUP	.983

Hydria's data from Turkey Hydria 09-23-95 15:08:26

DISPLAY 4. ANALYSIS BY STIMULI. PAGE 1

	TRANSFORMS BASED ON OBSERVERS' RESPONSES TO						- - INDICATION OF NORMALITY - -					
	- - - RATING - - - -			ALL INCLUDED STIMULI			- BASELINE STIMULI -			SKEWNESS	KURTOSIS	MOD. A-D
STIMULUS	MEAN	MEDIAN	STD DEV	OAR	Z	LSR	OAR	Z	LSR	SBE	SBE*	RATING Z RATING RATING
ALL STIM.	3.99	4.2	1.77	.00	.00	3.99	.00	.00	3.99	.00	.00	-.114 .019 -.555 5.925
BASELINE	3.99	4.2	1.77	.00	.00	3.99	.00	.00	3.99	.00	.00	-.114 .019 -.555 5.92
1	3.26	3.0	2.24	-.73	-.31	3.62	-.73	-.31	3.62	-31.76	-32.15	.416 .533 -1.387 4.257
2	4.46	5.0	2.12	.47	.20	4.22	.47	.20	4.22	25.45	25.76	-.375 -.067 -1.334 3.234
3	3.19	3.0	2.07	-.80	-.35	3.62	-.80	-.35	3.62	-35.14	-35.56	.650 .512 -.906 3.476
4	2.96	3.0	1.98	-1.03	-.46	3.46	-1.03	-.46	3.46	-49.26	-49.85	.643 .512 -.794 3.575
5	5.79	6.0	1.85	1.80	.80	4.87	1.80	.80	4.87	95.32	96.48	-1.657 -1.113 1.392 10.180
6	5.10	6.0	1.79	1.11	.50	4.55	1.11	.50	4.55	63.87	64.64	-.770 -.571 -.558 3.360

7	6.13	7.0	1.15	2.14	.97	5.02	2.14	.97	5.02	146.47	148.25	-1.308	.213	.872	6.947
8	2.99	2.0	2.03	-1.00	-.43	3.47	-1.00	-.43	3.47	-45.47	-46.02	.785	1.040	-.679	3.947
9	4.74	5.5	2.06	.76	.34	4.37	.76	.34	4.37	40.74	41.23	-.529	-.411	-1.158	3.482
10	1.27	1.0	.45	-2.72	-1.25	2.66	-2.72	-1.25	2.66	-210.22	-212.77	1.006	-.454	-1.002	16.796

Hydria's data from Turkey Hydria 09-23-95 15:08:26

DISPLAY 5. DISTRIBUTION OF RATINGS PAGE 1

PROPORTIONS OF OBSERVERS USING RANGE OF RATINGS

RANGE:	6	5	4	3	2	1	0
PROPORTION:	.757	.243	.000	.000	.000	.000	.000

PROPORTIONS OF RESPONSES IN EACH OF THE FOLLOWING RATING CATEGORIES:

	1	2	3	4	5	6	7
ALL STIM.	.241	.123	.097	.076	.084	.166	.213
BASELINE	.241	.123	.097	.076	.084	.166	.213
1	.371	.100	.114	.086	.086	.129	.114
2	.143	.086	.143	.071	.100	.271	.186
3	.271	.214	.129	.157	.029	.071	.129
4	.371	.100	.171	.129	.100	.043	.086
5	.071	.057	.014	.014	.043	.314	.486
6	.043	.086	.086	.086	.171	.271	.257
7	.000	.000	.057	.043	.129	.257	.514
8	.314	.214	.143	.100	.071	.043	.114
9	.100	.100	.114	.071	.114	.257	.243
10	.729	.271	.000	.000	.000	.000	.000

Hydria's data from Turkey Hydria 09-23-95 15:08:26

DISPLAY 6. STIMULUS LEVEL CORRELATION DISPLAY PAGE 1

		TRANSFORMS BASED ON OBSERVERS' RESPONSES TO 1) ALL INCLUDED STIMULI 2) BASELINE STIMULI		
STIMULUS	RATING	Z LEAST SQUARES	Z LEAST SQUARES	SBE
ALL STIM. Z-TRANS.	1.000			
ALL STIM. L.S. TRAN	1.000	.999		
BL STIMULI				

Z-TRANS. 1.000 1.000 .999

BL STIMULI
L.S. TRAN 1.000 .999 1.000 .999
SBE .983 .986 .980 .986 .980

Hydria's data from Turkey Hydria 09-23-95 15:08:26

DISPLAY 9. Z-TRANSFORMED RATINGS AND ASSOCIATED STATISTICS
PAGE 1

STIMULUS	CONDITION	MEAN	MED.	STD. DEV.	RANGE	OBSERVERS: 1	2	3	4	5	6	7	8	9	10	11	12	13
EAN		.00				.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
MEDIAN																		
STANDARD DEVIATION				1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
RANGE					2.4	3.2	3.0	2.9	2.8	1.9	2.6	2.7	2.7	2.3	2.3	2.0	2.6	
SKEWNESS					.090	-2.277	-.715	-.391	-.853	.349	.071	-.649	-.080	.240	.714	.314	.908	
CORRELATION W/ GROUP					.649	.634	.758	.667	.827	.443	.842	.754	.693	.472	.683	.555	.625	
SIGNIFICANCE OF R					.021	.025	.006	.018	.002	.100	.001	.006	.013	.084	.015	.048	.027	
1	BASELINE	-.31	.84	3.6	.87	.32	.36	1.08	-1.13	-.77	-1.22	-1.63	.13	-.89	-.34	-.84	-.70	
2	BASELINE	.20	.76	2.9	-.32	.32	-.85	-.88	.28	-.77	.96	.57	-.75	.99	-.72	1.15	-.70	
3	BASELINE	-.35	.73	2.9	-1.11	.32	.36	-.39	.76	1.16	-.35	-.75	.57	-.89	-.72	-.84	-.70	
4	BASELINE	-.46	.70	3.3	.08	.32	-.24	-.88	-.66	-.77	-1.22	.57	-1.19	-.89	-.72	-.84	-.70	
5	BASELINE	.80	.70	2.9	1.26	.32	.36	1.08	.76	-.77	.96	1.02	1.02	1.45	1.17	-.84	-.26	
6	BASELINE	.50	.70	3.0	-.71	.32	.97	.10	.76	1.16	.96	.13	.57	-.89	1.55	1.15	1.50	
7	BASELINE	.97	.55	2.8	1.26	.32	.97	.59	.76	1.16	1.39	1.02	.57	.05	1.55	1.15	1.94	
8	BASELINE	-.43	.71	3.9	-1.11	.32	-.85	.10	-.19	-.77	-.78	.13	-1.19	.99	-.72	-.84	-.70	
9	BASELINE	.34	.71	2.7	.87	.32	.97	1.08	.76	1.16	.09	.57	1.46	.99	-.72	1.15	.62	
10	BASELINE	-1.25	.58	2.8	-1.11	-2.85	-2.06	-1.86	-2.08	-.77	-.78	-1.63	-1.19	-.89	-.34	-.44	-.26	

Hydria's data from Turkey Hydria 09-23-95 15:08:26

DISPLAY 9. Z-TRANSFORMED RATINGS AND ASSOCIATED STATISTICS
PAGE 2

STIMULUS	OBSERVERS: 14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
MEAN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
MEDIAN																			
STD DEV	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
RANGE	2.6	2.8	2.1	2.3	2.4	2.5	2.3	3.3	2.4	2.1	2.6	2.4	3.1	2.0	2.4	2.7	3.1	2.2	2.6
SKEWNESS	.000	.229	.200	-.008	-.978	-.608	-.609	1.546	-1.281	.474	.110	.322	.646	.171	.381	.803	.654	-.420	.110
CORR W/GROUP	.492	.772	.815	.607	.716	.791	.784	.496	.593	.836	.607	.590	.719	.790	.226	.333	-.070	.724	.736

SIGNIFICANCE .074 .004 .002 .031 .010 .003 .004 .072 .035 .001 .031 .036 .010 .003 .265 .173 -.424 .009 .008

1	-1.28	.14	-.96	-.35	.59	-.38	-.42	-.72	-1.90	-.75	-.39	-.94	-1.10	-.91	1.13	1.75	1.03	-1.41	.04
2	.77	1.06	1.12	1.21	.59	.46	.73	-.07	.47	-.75	1.36	-.94	-.58	-.91	-.48	-.04	.00	.81	.48
3	-.77	-.79	-.96	-.74	-.59	.88	-.81	-.07	.47	-.75	.04	.24	-.05	.10	-.89	-.04	-1.03	-.67	-1.27
4	.77	-.79	-.96	.43	-1.77	-1.64	-1.58	-.72	.47	-.75	.48	.24	.47	-.91	1.13	-.94	.00	.81	-.39
5	1.28	1.53	1.12	1.21	.59	.88	.73	-.72	.47	1.34	.92	1.41	.99	1.11	1.53	1.75	-1.03	.44	.92
6	1.28	1.06	-.12	-1.13	.59	.88	.73	.59	.47	1.34	-.83	1.02	.47	1.11	-.89	-.94	.51	.81	-.83
7	-.26	.60	1.12	.82	.59	.88	.73	2.56	.47	1.34	1.36	1.41	2.04	1.11	.72	-.04	.00	.81	1.36
8	.26	-.79	-.54	-1.13	.59	-.38	.73	-.72	.47	-.75	-1.27	-.94	-.58	-.91	-.89	-.49	2.06	-1.04	-.39
9	-.77	-.79	1.12	.82	.59	.04	.73	-.07	.47	.50	-.39	-.94	-.58	1.11	-.89	-.04	-.51	.81	1.36
10	-1.28	-1.25	-.96	-1.13	-1.77	-1.64	-1.58	-.07	-1.90	-.75	-1.27	-.55	-1.10	-.91	-.48	-.94	-1.03	-1.41	-1.27

Hydria's data from Turkey Hydria 09-23-95 15:08:26

DISPLAY 9. Z-TRANSFORMED RATINGS AND ASSOCIATED STATISTICS PAGE 3

STIMULUS OBSERVERS:	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51
MEAN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
MEDIAN																			
STD DEV	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1.00																			
RANGE	2.5	2.9	2.8	2.7	2.4	2.5	3.0	3.2	2.7	3.1	2.1	2.1	2.8	2.7	3.2	2.5	2.6	2.4	2.5
SKEWNESS	1.064	-1.013	-.538	.227	.081	-1.171	-.376	-.752	.565	.298	-.236	-.745	1.217	.000	-.758	.053	-.235		
.192 .555																			
CORR W/GROUP	.521	.689	.806	.666	.828	.701	.920	.944	.043	.761	.610	.675	.704	.729	.798	.748	.675		
.741 .576																			
SIGNIFICANCE	.061	.014	.002	.018	.002	.012	.000	.000	.454	.005	.031	.016	.012	.008	.003	.006	.016	.007	
.041																			

1	-.66	.68	-.19	1.00	-1.01	.21	-.85	-.89	-1.17	.67	.28	.62	-.56	-.55	.45	.70	1.22	-1.06	-.94	
2	1.82	.68	.76	-.36	1.39	.62	.65	.38	-.72	-.36	.64	.62	-.56	-.55	-.83	-.30	.16	.91	1.53	
3	-.66	-.77	-1.60	-.82	-1.01	.62	-.85	-.25	-.72	-.87	.99	-1.45	-.56	1.10	.45	-1.29	-1.43	-.67	-.94	
4	-.66	.68	.28	-.36	-.53	.21	-.35	-.25	1.53	-1.39	-1.13	.62	-.56	-.55	-.83	-.30	-.37	-.28	-.94	
5	-.66	.68	.28	1.00	.91	.62	1.15	1.01	1.08	1.18	.99	.62	.37	1.10	1.08	1.19	.69	.91	-.44	
6	.17	-.29	.76	-.82	.91	.62	1.15	1.01	-.27	.67	.64	.62	1.30	1.10	.45	-.30	.16	1.30	.05	
7	1.82	.68	1.23	1.45	.91	.62	.65	1.01	-.27	1.70	.99	.62	2.23	1.10	1.08	1.19	.69	1.30	1.53	
8	-.25	-.77	-.66	-.82	-1.01	-1.86	-.35	-.25	1.53	-.36	-1.13	-1.45	-.56	-.55	-.19	-.80	-.90	-.28	-.44	
9	-.25	.68	.76	1.00	.43	.21	.65	.38	-.27	-.36	-1.13	.62	-.56	-.55	.45	1.19	1.22	-1.06	1.04	
10	-.66	-2.23	-1.60	-1.27	-1.01	-1.86	-1.85	-2.16	-.72	-.87	-1.13	-1.45	-.56	-1.64	-2.11	-1.29	-1.43	-1.06	-.44	

Hydria's data from Turkey Hydria 09-23-95 15:08:26

DISPLAY 9. Z-TRANSFORMED RATINGS AND ASSOCIATED STATISTICS PAGE 4

STIMULUS OBSERVERS:

	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70
MEAN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
MEDIAN																			
STD DEV	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
RANGE	2.4	2.2	2.4	3.2	3.4	3.0	2.7	2.6	2.7	2.8	2.7	2.8	2.7	3.0	2.4	3.0	2.9	2.3	3.1
SKEWNESS	-.945	-.362	-.023	-1.570	-1.593	-.225	-.227	.120	-.289	.163	.127	.689	.467	.516	.574	.668	-.015	.166	.163
CORR W/GROUP	.696	.750	.735	.699	.769	.644	.431	.591	.767	.813	.696	.673	.802	.884	.714	.569	.775	.899	.603
SIGNIFICANCE	.013	.006	.008	.012	.005	.022	.107	.036	.005	.002	.013	.017	.003	.000	.010	.043	.004	.000	.032
1	.64	-.92	.36	.00	-.34	1.00	-1.00	-1.08	-1.33	-.81	-.27	-.99	-.88	-.60	-.85	-1.11	-.43	-1.11	1.45
2	.64	.83	-.85	.00	.23	-.50	.36	-1.08	.50	1.09	1.08	.89	-.88	.40	-.85	.40	.53	.81	-.62
3	-.56	-1.36	-1.26	.64	.79	.50	1.27	1.08	.05	.14	.18	-.52	-.44	-.60	-.45	-.10	-1.39	-.73	-.62
4	-1.76	-.92	-.04	-.64	-.34	-.50	-1.00	-1.08	-1.33	-1.28	-1.17	-.05	-.44	-.60	-.85	-1.11	-.43	-.73	-.10
5	.64	.83	1.17	.64	.79	1.50	-1.00	1.51	.96	1.56	1.53	1.36	1.77	1.91	1.58	-.60	1.01	1.19	-.10
6	.24	.39	1.17	.00	.23	.00	.82	.65	.50	.14	.18	-.52	.88	.91	.77	1.91	1.49	1.19	.93
7	.64	.83	1.17	.64	.79	.50	.82	.65	.50	1.09	1.08	1.83	.88	.91	.36	1.41	.05	1.19	1.45
8	.64	.83	-1.26	.64	.23	-1.50	.36	-.65	.05	-.33	-.27	-.99	-.88	-1.11	-.45	-.10	-.43	-.73	-.62
9	.64	.83	.36	.64	.23	.50	.82	.65	1.42	-.33	-1.17	-.52	.88	-.10	1.58	-.10	1.01	.04	-.10
10	-1.76	-1.36	-.85	-2.56	-2.59	-1.50	-1.45	-.65	-1.33	-1.28	-1.17	-.52	-.88	-1.11	-.85	-.60	-1.39	-1.11	-1.66

Hydria's data from Turkey Hydria 09-23-95 15:08:26

DISPLAY 10. LEAST SQUARES TRANSFORMED RATINGS AND ASSOCIATED STATISTICS
PAGE 1

STIMULUS	CONDITION	MEAN	STD. DEV.	RANGE	OBSERVERS: 1	2	3	4	5	6	7	8	9	10	11	12	13
MEAN		3.99			3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99
MEDIAN																	
STANDARD DEVIATION			1.00		.95	1.14	1.01	1.25	.69	1.29	1.15	1.06	.74	1.05	.87	.97	
RANGE			2.4		3.0	3.5	3.0	3.5	1.3	3.4	3.1	2.8	1.7	2.4	1.7	2.6	
SKEWNESS			.090		-2.277	-.715	-.391	-.853	.349	.071	-.649	-.080	.240	.714	.314	.908	
CORRELATION W/ GROUP			.643		.617	.753	.657	.828	.459	.854	.747	.706	.476	.688	.571	.632	
SIGNIFICANCE OF R			.022		.029	.006	.020	.002	.091	.001	.006	.011	.082	.014	.043	.025	
1	BASELINE	3.62	.83	3.2	4.86	4.29	4.40	5.07	2.57	3.45	2.42	2.10	4.13	3.33	3.63	3.26	3.31
2	BASELINE	4.22	.79	2.9	3.67	4.29	3.01	3.10	4.34	3.45	5.22	4.65	3.19	4.71	3.23	4.99	3.31
3	BASELINE	3.62	.77	3.2	2.88	4.29	4.40	3.59	4.93	4.79	3.54	3.12	4.60	3.33	3.23	3.26	3.31
4	BASELINE	3.46	.69	2.9	4.07	4.29	3.71	3.10	3.16	3.45	2.42	4.65	2.72	3.33	3.23	3.26	3.31
5	BASELINE	4.87	.70	3.3	5.25	4.29	4.40	5.07	4.93	3.45	5.22	5.16	5.07	5.06	5.22	3.26	3.73
6	BASELINE	4.55	.72	2.8	3.28	4.29	5.10	4.09	4.93	4.79	5.22	4.14	4.60	3.33	5.62	4.99	5.44
7	BASELINE	5.02	.56	2.6	5.25	4.29	5.10	4.58	4.93	4.79	5.78	5.16	4.60	4.02	5.62	4.99	5.86
8	BASELINE	3.47	.63	3.0	2.88	4.29	3.01	4.09	3.75	3.45	2.98	4.14	2.72	4.71	3.23	3.26	3.31

9	BASELINE	4.37	.73	3.0	4.86	4.29	5.10	5.07	4.93	4.79	4.10	4.65	5.53	4.71	3.23	4.99	4.58
10	BASELINE	2.66	.73	3.2	2.88	1.27	1.62	2.11	1.39	3.45	2.98	2.10	2.72	3.33	3.63	3.61	3.73

Hydria's data from Turkey Hydria 09-23-95 15:08:26

DISPLAY 10. LEAST SQUARES TRANSFORMED RATINGS AND ASSOCIATED STATISTICS
PAGE 2

STIMULUS	OBSERVERS: 14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
MEAN	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99
MEDIAN																			
STD DEV	.77	1.18	1.25	.94	1.08	1.20	1.19	.78	.91	1.28	.94	.92	1.10	1.21	.37	.52	.10	1.11	1.13
RANGE	2.0	3.3	2.6	2.2	2.6	3.0	2.7	2.5	2.2	2.7	2.5	2.2	3.4	2.4	.9	1.4	.3	2.5	3.0
SKEWNESS	.000	.229	.200	-.008	-.978	-.608	-.609	1.546	-1.281	.474	.110	.322	.646	.171	.381	.803	-.654	-.420	.110
CORR W/GROUP	.495	.775	.822	.609	.709	.797	.781	.502	.591	.843	.606	.596	.712	.802	.226	.338	.076	.728	.729
SIGNIFICANCE	.073	.004	.002	.031	.011	.003	.004	.070	.036	.001	.032	.035	.010	.003	.266	.170	.417	.008	.008

1	3.01	4.15	2.79	3.66	4.63	3.53	3.48	3.43	2.26	3.03	3.62	3.12	2.78	2.89	4.41	4.90	3.89	2.42	4.04
2	4.58	5.24	5.39	5.13	4.63	4.54	4.86	3.94	4.42	3.03	5.26	3.12	3.35	2.89	3.81	3.96	3.99	4.90	4.53
3	3.40	3.06	2.79	3.29	3.35	5.05	3.03	3.94	4.42	3.03	4.03	4.20	3.93	4.11	3.66	3.96	4.09	3.24	2.56
4	4.58	3.06	2.79	4.39	2.07	2.02	2.11	3.43	4.42	3.03	4.44	4.20	4.50	2.89	4.41	3.49	3.99	4.90	3.54
5	4.97	5.79	5.39	5.13	4.63	5.05	4.86	3.43	4.42	5.69	4.85	5.28	5.08	5.32	4.56	4.90	4.09	4.48	5.02
6	4.97	5.24	3.83	2.92	4.63	5.05	4.86	4.45	4.42	5.69	3.21	4.92	4.50	5.32	3.66	3.49	3.94	4.90	3.05
7	3.79	4.70	5.39	4.76	4.63	5.05	4.86	5.97	4.42	5.69	5.26	5.28	6.23	5.32	4.26	3.96	3.99	4.90	5.52
8	4.18	3.06	3.31	2.92	4.63	3.53	4.86	3.43	4.42	3.03	2.79	3.12	3.35	2.89	3.66	3.73	3.79	2.83	3.54
9	3.40	3.06	5.39	4.76	4.63	4.04	4.86	3.94	4.42	4.63	3.62	3.12	3.35	5.32	3.66	3.96	4.04	4.90	5.52
10	3.01	2.51	2.79	2.92	2.07	2.02	2.11	3.94	2.26	3.03	2.79	3.48	2.78	2.89	3.81	3.49	4.09	2.42	2.56

Hydria's data from Turkey Hydria 09-23-95 15:08:26

DISPLAY 10. LEAST SQUARES TRANSFORMED RATINGS AND ASSOCIATED STATISTICS
PAGE 3

STIMULUS	OBSERVERS: 33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51
MEAN	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99
MEDIAN																			
STD DEV	.81	1.05	1.23	1.02	1.27	1.07	1.40	1.42	.09	1.16	.94	1.04	1.08	1.11	1.20	1.14	1.03	1.14	.90
RANGE	2.0	3.0	3.5	2.8	3.1	2.7	4.2	4.5	.2	3.6	2.0	2.2	3.0	3.0	3.8	2.8	2.7	2.7	2.2
SKEWNESS	1.064	-1.013	-.538	.227	.081	-1.171	-.376	-.752	.565	.298	-.236	-.745	1.217	.000	-.758	.053	-.235	.192	.555
CORR W/GROUP	.522	.675	.798	.657	.838	.706	.922	.940	.044	.755	.618	.673	.702	.729	.788	.741	.670	.741	.585

SIGNIFICANCE .061 .016 .003 .020 .001 .011 .000 .000 .452 .006 .028 .017 .012 .008 .003 .007 .017 .007 .038

1	3.45	4.70	3.76	5.00	2.70	4.21	2.80	2.72	3.88	4.76	4.25	4.63	3.38	3.38	4.52	4.78	5.25	2.78	3.14
2	5.47	4.70	4.91	3.62	5.76	4.65	4.89	4.53	3.92	3.57	4.59	4.63	3.38	3.38	2.99	3.65	4.15	5.02	5.36
3	3.45	3.18	2.02	3.15	2.70	4.65	2.80	3.63	3.92	2.97	4.92	2.48	3.38	5.20	4.52	2.51	2.51	3.23	3.14
4	3.45	4.70	4.34	3.62	3.31	4.21	3.50	3.63	4.12	2.38	2.92	4.63	3.38	3.38	2.99	3.65	3.60	3.67	3.14
5	3.45	4.70	4.34	5.00	5.15	4.65	5.59	5.43	4.08	5.36	4.92	4.63	4.39	5.20	5.29	5.35	4.70	5.02	3.59
6	4.12	3.68	4.91	3.15	5.15	4.65	5.59	5.43	3.96	4.76	4.59	4.63	5.39	5.20	4.52	3.65	4.15	5.46	4.03
7	5.47	4.70	5.49	5.47	5.15	4.65	4.89	5.43	3.96	5.95	4.92	4.63	6.40	5.20	5.29	5.35	4.70	5.46	5.36
8	3.79	3.18	3.18	3.15	2.70	1.99	3.50	3.63	4.12	3.57	2.92	2.48	3.38	3.38	3.76	3.08	3.06	3.67	3.59
9	3.79	4.70	4.91	5.00	4.54	4.21	4.89	4.53	3.96	3.57	2.92	4.63	3.38	3.38	4.52	5.35	5.25	2.78	4.92
10	3.45	1.65	2.02	2.69	2.70	1.99	1.41	.92	3.92	2.97	2.92	2.48	3.38	2.17	1.46	2.51	2.51	2.78	3.59

Hydria's data from Turkey Hydria 09-23-95 15:08:26

DISPLAY 10. LEAST SQUARES TRANSFORMED RATINGS AND ASSOCIATED STATISTICS PAGE 4

STIMULUS OBSERVERS:

52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70

MEAN 3.99 3.99 3.99 3.99 3.99 3.99 3.99 3.99 3.99 3.99 3.99 3.99 3.99 3.99 3.99 3.99 3.99 3.99 3.99

MEDIAN

STD DEV 1.05 1.14 1.13 1.05 1.16 .99 .66 .91 1.17 1.24 1.07 1.04 1.23 1.35 1.10 .88 1.19 1.37 .92

RANGE 2.5 2.5 2.7 3.4 3.9 3.0 1.8 2.4 3.2 3.5 2.9 2.9 3.3 4.1 2.7 2.7 3.4 3.2 2.8

SKEWNESS -.945 -.362 -.023-1.570-1.593 -.225 -.227 .120 -.289 .163 .127 .689 .467 .516 .574 .668 -.015 .166 .163

CORR W/GROUP .688 .745 .736 .686 .757 .648 .439 .608 .777 .818 .697 .675 .811 .893 .726 .578 .781 .907 .589

SIGNIFICANCE .014 .007 .008 .014 .006 .021 .102 .031 .004 .002 .013 .016 .002 .000 .009 .040 .004 .000 .037

1	4.66	2.93	4.40	3.99	3.60	4.97	3.32	3.00	2.43	2.99	3.70	2.96	2.90	3.17	3.05	3.01	3.47	2.46	5.32
2	4.66	4.94	3.03	3.99	4.25	3.49	4.23	3.00	4.58	5.34	5.14	4.92	2.90	4.53	3.05	4.34	4.62	5.09	3.42
3	3.40	2.43	2.57	4.66	4.90	4.48	4.83	4.97	4.04	4.16	4.18	3.45	3.44	3.17	3.50	3.90	2.33	2.99	3.42
4	2.13	2.93	3.94	3.32	3.60	3.49	3.32	3.00	2.43	2.40	2.74	3.94	3.44	3.17	3.05	3.01	3.47	2.99	3.89
5	4.66	4.94	5.31	4.66	4.90	5.47	3.32	5.37	5.11	5.93	5.62	5.41	6.16	6.57	5.72	3.46	5.19	5.62	3.89
6	4.24	4.44	5.31	3.99	4.25	3.99	4.53	4.58	4.58	4.16	4.18	3.45	5.07	5.21	4.83	5.67	5.76	5.62	4.84
7	4.66	4.94	5.31	4.66	4.90	4.48	4.53	4.58	4.58	5.34	5.14	5.90	5.07	5.21	4.39	5.23	4.04	5.62	5.32
8	4.66	4.94	2.57	4.66	4.25	2.51	4.23	3.40	4.04	3.58	3.70	2.96	2.90	2.49	3.50	3.90	3.47	2.99	3.42
9	4.66	4.94	4.40	4.66	4.25	4.48	4.53	4.58	5.65	3.58	2.74	3.45	5.07	3.85	5.72	3.90	5.19	4.04	3.89
10	2.13	2.43	3.03	1.30	.99	2.51	3.02	3.40	2.43	2.40	2.74	3.45	2.90	2.49	3.05	3.46	2.33	2.46	2.47

Hydria's data from Turkey Hydria 09-23-95 15:08:26

DISPLAY 11. BASELINE ADJUSTED Z-TRANSFORMED RATINGS AND ASSOCIATED STATISTICS PAGE 1

STD. OBSERVERS:

STIMULUS	CONDITION	MEAN	MED.	DEV.	RANGE	1	2	3	4	5	6	7	8	9	10	11	12	13
MEAN		.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00				
MEDIAN																		
STANDARD DEVIATION						1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
RANGE		2.4	3.2	3.0	2.9	2.8	1.9	2.6	2.7	2.7	2.3	2.3	2.0	2.6				
SKEWNESS		.090	-2.277	-.715	-.391	-.853	.349	.071	-.649	-.080	.240	.714	.314	.908				
CORRELATION W/ GROUP						.649	.634	.758	.667	.827	.443	.842	.754	.693	.472	.683	.555	.625
SIGNIFICANCE OF R						.021	.025	.006	.018	.002	.100	.001	.006	.013	.084	.015	.048	.027
1	BASELINE	-.31	.84	3.6	.87	.32	.36	1.08	-1.13	-.77	-1.22	-1.63	.13	-.89	-.34	-.84	-.70	
2	BASELINE	.20	.76	2.9	-.32	.32	-.85	-.88	.28	-.77	.96	.57	-.75	.99	-.72	1.15	-.70	
3	BASELINE	-.35	.73	2.9	-1.11	.32	.36	-.39	.76	1.16	-.35	-.75	.57	-.89	-.72	-.84	-.70	
4	BASELINE	-.46	.70	3.3	.08	.32	-.24	-.88	-.66	-.77	-1.22	.57	-1.19	-.89	-.72	-.84	-.70	
5	BASELINE	.80	.70	2.9	1.26	.32	.36	1.08	.76	-.77	.96	1.02	1.02	1.45	1.17	-.84	-.26	
6	BASELINE	.50	.70	3.0	-.71	.32	.97	.10	.76	1.16	.96	.13	.57	-.89	1.55	1.15	1.50	
7	BASELINE	.97	.55	2.8	1.26	.32	.97	.59	.76	1.16	1.39	1.02	.57	.05	1.55	1.15	1.94	
8	BASELINE	-.43	.71	3.9	-1.11	.32	-.85	.10	-.19	-.77	-.78	.13	-1.19	.99	-.72	-.84	-.70	
9	BASELINE	.34	.71	2.7	.87	.32	.97	1.08	.76	1.16	.09	.57	1.46	.99	-.72	1.15	.62	
10	BASELINE	-1.25	.58	2.8	-1.11	-2.85	-2.06	-1.86	-2.08	-.77	-.78	-1.63	-1.19	-.89	-.34	-.44	-.26	

DISPLAY 11. BASELINE ADJUSTED Z-TRANSFORMED RATINGS AND ASSOCIATED STATISTICS
PAGE 2

STIMULUS	OBSERVERS: 14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
MEAN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
MEDIAN																			
STD DEV	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
RANGE	2.6	2.8	2.1	2.3	2.4	2.5	2.3	3.3	2.4	2.1	2.6	2.4	3.1	2.0	2.4	2.7	3.1	2.2	2.6
SKEWNESS	.000	.229	.200	-.008	-.978	-.608	-.609	1.546	-1.281	.474	.110	.322	.646	.171	.381	.803	.654	-.420	.110
CORR W/GROUP	.492	.772	.815	.607	.716	.791	.784	.496	.593	.836	.607	.590	.719	.790	.226	.333	-.070	.724	.736
SIGNIFICANCE	.074	.004	.002	.031	.010	.003	.004	.072	.035	.001	.031	.036	.010	.003	.265	.173	-.424	.009	.008
1	-1.28	.14	-.96	-.35	.59	-.38	-.42	-.72	-1.90	-.75	-.39	-.94	-1.10	-.91	1.13	1.75	1.03	-1.41	.04
2	.77	1.06	1.12	1.21	.59	.46	.73	-.07	.47	-.75	1.36	-.94	-.58	-.91	-.48	-.04	.00	.81	.48
3	-.77	-.79	-.96	-.74	-.59	.88	-.81	-.07	.47	-.75	.04	.24	-.05	.10	-.89	-.04	-1.03	-.67	-1.27
4	.77	-.79	-.96	.43	-1.77	-1.64	-1.58	-.72	.47	-.75	.48	.24	.47	-.91	1.13	-.94	.00	.81	-.39
5	1.28	1.53	1.12	1.21	.59	.88	.73	-.72	.47	1.34	.92	1.41	.99	1.11	1.53	1.75	-1.03	.44	.92
6	1.28	1.06	-.12	-1.13	.59	.88	.73	.59	.47	1.34	-.83	1.02	.47	1.11	-.89	-.94	.51	.81	-.83
7	-.26	.60	1.12	.82	.59	.88	.73	2.56	.47	1.34	1.36	1.41	2.04	1.11	.72	-.04	.00	.81	1.36

8	.26	-.79	-.54	-1.13	.59	-.38	.73	-.72	.47	-.75	-1.27	-.94	-.58	-.91	-.89	-.49	2.06	-1.04	-.39
9	-.77	-.79	1.12	.82	.59	.04	.73	-.07	.47	.50	-.39	-.94	-.58	1.11	-.89	-.04	-.51	.81	1.36
10	-1.28	-1.25	-.96	-1.13	-1.77	-1.64	-1.58	-.07	-1.90	-.75	-1.27	-.55	-1.10	-.91	-.48	-.94	-1.03	-1.41	-1.27

Hydria's data from Turkey Hydria 09-23-95 15:08:26

DISPLAY 11. BASELINE ADJUSTED Z-TRANSFORMED RATINGS AND ASSOCIATED STATISTICS
PAGE 3

STIMULUS	OBSERVERS:																		
	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51
MEAN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
MEDIAN																			
STD DEV	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
RANGE	2.5	2.9	2.8	2.7	2.4	2.5	3.0	3.2	2.7	3.1	2.1	2.1	2.8	2.7	3.2	2.5	2.6	2.4	2.5
SKEWNESS	1.064	-1.013	-.538	.227	.081	-1.171	-.376	-.752	.565	.298	-.236	-.745	1.217	.000	-.758	.053	-.235	.192	.555
CORR W/GROUP	.521	.689	.806	.666	.828	.701	.920	.944	.043	.761	.610	.675	.704	.729	.798	.748	.675	.741	.576
SIGNIFICANCE	.061	.014	.002	.018	.002	.012	.000	.000	.454	.005	.031	.016	.012	.008	.003	.006	.016	.007	.041

1	-.66	.68	-.19	1.00	-1.01	.21	-.85	-.89	-1.17	.67	.28	.62	-.56	-.55	.45	.70	1.22	-1.06	-.94
2	1.82	.68	.76	-.36	1.39	.62	.65	.38	-.72	-.36	.64	.62	-.56	-.55	-.83	-.30	.16	.91	1.53
3	-.66	-.77	-1.60	-.82	-1.01	.62	-.85	-.25	-.72	-.87	.99	-1.45	-.56	1.10	.45	-1.29	-1.43	-.67	-.94
4	-.66	.68	.28	-.36	-.53	.21	-.35	-.25	1.53	-1.39	-1.13	.62	-.56	-.55	-.83	-.30	-.37	-.28	-.94
5	-.66	.68	.28	1.00	.91	.62	1.15	1.01	1.08	1.18	.99	.62	.37	1.10	1.08	1.19	.69	.91	-.44
6	.17	-.29	.76	-.82	.91	.62	1.15	1.01	-.27	.67	.64	.62	1.30	1.10	.45	-.30	.16	1.30	.05
7	1.82	.68	1.23	1.45	.91	.62	.65	1.01	-.27	1.70	.99	.62	2.23	1.10	1.08	1.19	.69	1.30	1.53
8	-.25	-.77	-.66	-.82	-1.01	-1.86	-.35	-.25	1.53	-.36	-1.13	-1.45	-.56	-.55	-.19	-.80	-.90	-.28	-.44
9	-.25	.68	.76	1.00	.43	.21	.65	.38	-.27	-.36	-1.13	.62	-.56	-.55	.45	1.19	1.22	-1.06	1.04
10	-.66	-2.23	-1.60	-1.27	-1.01	-1.86	-1.85	-2.16	-.72	-.87	-1.13	-1.45	-.56	-1.64	-2.11	-1.29	-1.43	-1.06	-.44

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DISPLAY 11. BASELINE ADJUSTED Z-TRANSFORMED RATINGS AND ASSOCIATED STATISTICS
PAGE 4

STIMULUS	OBSERVERS:																		
	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70
MEAN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
MEDIAN																			
STD DEV	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
RANGE	2.4	2.2	2.4	3.2	3.4	3.0	2.7	2.6	2.7	2.8	2.7	2.8	2.7	3.0	2.4	3.0	2.9	2.3	3.1
SKEWNESS	-.945	-.362	-.023	-1.570	-1.593	-.225	-.227	.120	-.289	.163	.127	.689	.467	.516	.574	.668	-.015	.166	.163

CORR W/GROUP	.696	.750	.735	.699	.769	.644	.431	.591	.767	.813	.696	.673	.802	.884	.714	.569	.775	.899	.603
SIGNIFICANCE	.013	.006	.008	.012	.005	.022	.107	.036	.005	.002	.013	.017	.003	.000	.010	.043	.004	.000	.032

1	.64	-.92	.36	.00	-.34	1.00	-1.00	-1.08	-1.33	-.81	-.27	-.99	-.88	-.60	-.85	-1.11	-.43	-1.11	1.45
2	.64	.83	-.85	.00	.23	-.50	.36	-1.08	.50	1.09	1.08	.89	-.88	.40	-.85	.40	.53	.81	-.62
3	-.56	-1.36	-1.26	.64	.79	.50	1.27	1.08	.05	.14	.18	-.52	-.44	-.60	-.45	-.10	-1.39	-.73	-.62
4	-1.76	-.92	-.04	-.64	-.34	-.50	-1.00	-1.08	-1.33	-1.28	-1.17	-.05	-.44	-.60	-.85	-1.11	-.43	-.73	-.10
5	.64	.83	1.17	.64	.79	1.50	-1.00	1.51	.96	1.56	1.53	1.36	1.77	1.91	1.58	-.60	1.01	1.19	-.10
6	.24	.39	1.17	.00	.23	.00	.82	.65	.50	.14	.18	-.52	.88	.91	.77	1.91	1.49	1.19	.93
7	.64	.83	1.17	.64	.79	.50	.82	.65	.50	1.09	1.08	1.83	.88	.91	.36	1.41	.05	1.19	1.45
8	.64	.83	-1.26	.64	.23	-1.50	.36	-.65	.05	-.33	-.27	-.99	-.88	-1.11	-.45	-.10	-.43	-.73	-.62
9	.64	.83	.36	.64	.23	.50	.82	.65	1.42	-.33	-1.17	-.52	.88	-.10	1.58	-.10	1.01	.04	-.10
10	-1.76	-1.36	-.85	-2.56	-2.59	-1.50	-1.45	-.65	-1.33	-1.28	-1.17	-.52	-.88	-1.11	-.85	-.60	-1.39	-1.11	-1.66

DISPLAY 12. BASELINE ADJUSTED LEAST SQUARES TRANSFORMED RATINGS AND ASSOCIATED STATISTICS PAGE 1

STIMULUS	CONDITION	MEAN	STD. MED.	DEV.	RANGE	OBSERVERS: 1	2	3	4	5	6	7	8	9	10	11	12	13
MEAN		3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99				
MEDIAN																		
STANDARD DEVIATION				1.00	.95	1.14	1.01	1.25	.69	1.29	1.15	1.06	.74	1.05	.87	.97		
RANGE				2.4	3.0	3.5	3.0	3.5	1.3	3.4	3.1	2.8	1.7	2.4	1.7	2.6		
SKEWNESS				.090	-2.277	-.715	-.391	-.853	.349	.071	-.649	-.080	.240	.714	.314	.908		
CORRELATION W/ GROUP				.643	.617	.753	.657	.828	.459	.854	.747	.706	.476	.688	.571	.632		
SIGNIFICANCE OF R				.022	.029	.006	.020	.002	.091	.001	.006	.011	.082	.014	.043	.025		
1	BASELINE	3.62	.83	3.2	4.86	4.29	4.40	5.07	2.57	3.45	2.42	2.10	4.13	3.33	3.63	3.26	3.31	
2	BASELINE	4.22	.79	2.9	3.67	4.29	3.01	3.10	4.34	3.45	5.22	4.65	3.19	4.71	3.23	4.99	3.31	
3	BASELINE	3.62	.77	3.2	2.88	4.29	4.40	3.59	4.93	4.79	3.54	3.12	4.60	3.33	3.23	3.26	3.31	
4	BASELINE	3.46	.69	2.9	4.07	4.29	3.71	3.10	3.16	3.45	2.42	4.65	2.72	3.33	3.23	3.26	3.31	
5	BASELINE	4.87	.70	3.3	5.25	4.29	4.40	5.07	4.93	3.45	5.22	5.16	5.07	5.06	5.22	3.26	3.73	
6	BASELINE	4.55	.72	2.8	3.28	4.29	5.10	4.09	4.93	4.79	5.22	4.14	4.60	3.33	5.62	4.99	5.44	
7	BASELINE	5.02	.56	2.6	5.25	4.29	5.10	4.58	4.93	4.79	5.78	5.16	4.60	4.02	5.62	4.99	5.86	
8	BASELINE	3.47	.63	3.0	2.88	4.29	3.01	4.09	3.75	3.45	2.98	4.14	2.72	4.71	3.23	3.26	3.31	
9	BASELINE	4.37	.73	3.0	4.86	4.29	5.10	5.07	4.93	4.79	4.10	4.65	5.53	4.71	3.23	4.99	4.58	
10	BASELINE	2.66	.73	3.2	2.88	1.27	1.62	2.11	1.39	3.45	2.98	2.10	2.72	3.33	3.63	3.61	3.73	

DISPLAY 12. BASELINE ADJUSTED LEAST SQUARES TRANSFORMED RATINGS AND ASSOCIATED STATISTICS PAGE 2

STIMULUS	OBSERVERS: 14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32

MEAN	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99
MEDIAN																			
STD DEV	.77	1.18	1.25	.94	1.08	1.20	1.19	.78	.91	1.28	.94	.92	1.10	1.21	.37	.52	.10	1.11	1.13
RANGE	2.0	3.3	2.6	2.2	2.6	3.0	2.7	2.5	2.2	2.7	2.5	2.2	3.4	2.4	.9	1.4	.3	2.5	3.0
SKEWNESS	.000	.229	.200	-.008	-.978	-.608	-.609	1.546	-1.281	.474	.110	.322	.646	.171	.381	.803	-.654	-.420	.110
CORR W/GROUP	.495	.775	.822	.609	.709	.797	.781	.502	.591	.843	.606	.596	.712	.802	.226	.338	.076	.728	.729
SIGNIFICANCE	.073	.004	.002	.031	.011	.003	.004	.070	.036	.001	.032	.035	.010	.003	.266	.170	.417	.008	.008

1	3.01	4.15	2.79	3.66	4.63	3.53	3.48	3.43	2.26	3.03	3.62	3.12	2.78	2.89	4.41	4.90	3.89	2.42	4.04
2	4.58	5.24	5.39	5.13	4.63	4.54	4.86	3.94	4.42	3.03	5.26	3.12	3.35	2.89	3.81	3.96	3.99	4.90	4.53
3	3.40	3.06	2.79	3.29	3.35	5.05	3.03	3.94	4.42	3.03	4.03	4.20	3.93	4.11	3.66	3.96	4.09	3.24	2.56
4	4.58	3.06	2.79	4.39	2.07	2.02	2.11	3.43	4.42	3.03	4.44	4.20	4.50	2.89	4.41	3.49	3.99	4.90	3.54
5	4.97	5.79	5.39	5.13	4.63	5.05	4.86	3.43	4.42	5.69	4.85	5.28	5.08	5.32	4.56	4.90	4.09	4.48	5.02
6	4.97	5.24	3.83	2.92	4.63	5.05	4.86	4.45	4.42	5.69	3.21	4.92	4.50	5.32	3.66	3.49	3.94	4.90	3.05
7	3.79	4.70	5.39	4.76	4.63	5.05	4.86	5.97	4.42	5.69	5.26	5.28	6.23	5.32	4.26	3.96	3.99	4.90	5.52
8	4.18	3.06	3.31	2.92	4.63	3.53	4.86	3.43	4.42	3.03	2.79	3.12	3.35	2.89	3.66	3.73	3.79	2.83	3.54
9	3.40	3.06	5.39	4.76	4.63	4.04	4.86	3.94	4.42	4.63	3.62	3.12	3.35	5.32	3.66	3.96	4.04	4.90	5.52
10	3.01	2.51	2.79	2.92	2.07	2.02	2.11	3.94	2.26	3.03	2.79	3.48	2.78	2.89	3.81	3.49	4.09	2.42	2.56

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DISPLAY 12. BASELINE ADJUSTED LEAST SQUARES TRANSFORMED RATINGS AND ASSOCIATED STATISTICS PAGE 3

STIMULUS OBSERVERS:	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51
MEAN	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99
MEDIAN																			
STD DEV	.81	1.05	1.23	1.02	1.27	1.07	1.40	1.42	.09	1.16	.94	1.04	1.08	1.11	1.20	1.14	1.03	1.14	.90
RANGE	2.0	3.0	3.5	2.8	3.1	2.7	4.2	4.5	.2	3.6	2.0	2.2	3.0	3.0	3.8	2.8	2.7	2.7	2.2
SKEWNESS	1.064	-1.013	-.538	.227	.081	-1.171	-.376	-.752	.565	.298	-.236	-.745	1.217	.000	-.758	.053	-.235	.192	.555
CORR W/GROUP	.522	.675	.798	.657	.838	.706	.922	.940	.044	.755	.618	.673	.702	.729	.788	.741	.670	.741	.585
SIGNIFICANCE	.061	.016	.003	.020	.001	.011	.000	.000	.452	.006	.028	.017	.012	.008	.003	.007	.017	.007	.038

1	3.45	4.70	3.76	5.00	2.70	4.21	2.80	2.72	3.88	4.76	4.25	4.63	3.38	3.38	4.52	4.78	5.25	2.78	3.14
2	5.47	4.70	4.91	3.62	5.76	4.65	4.89	4.53	3.92	3.57	4.59	4.63	3.38	3.38	2.99	3.65	4.15	5.02	5.36
3	3.45	3.18	2.02	3.15	2.70	4.65	2.80	3.63	3.92	2.97	4.92	2.48	3.38	5.20	4.52	2.51	2.51	3.23	3.14
4	3.45	4.70	4.34	3.62	3.31	4.21	3.50	3.63	4.12	2.38	2.92	4.63	3.38	3.38	2.99	3.65	3.60	3.67	3.14
5	3.45	4.70	4.34	5.00	5.15	4.65	5.59	5.43	4.08	5.36	4.92	4.63	4.39	5.20	5.29	5.35	4.70	5.02	3.59
6	4.12	3.68	4.91	3.15	5.15	4.65	5.59	5.43	3.96	4.76	4.59	4.63	5.39	5.20	4.52	3.65	4.15	5.46	4.03
7	5.47	4.70	5.49	5.47	5.15	4.65	4.89	5.43	3.96	5.95	4.92	4.63	6.40	5.20	5.29	5.35	4.70	5.46	5.36

8	3.79	3.18	3.18	3.15	2.70	1.99	3.50	3.63	4.12	3.57	2.92	2.48	3.38	3.38	3.76	3.08	3.06	3.67	3.59
9	3.79	4.70	4.91	5.00	4.54	4.21	4.89	4.53	3.96	3.57	2.92	4.63	3.38	3.38	4.52	5.35	5.25	2.78	4.92
10	3.45	1.65	2.02	2.69	2.70	1.99	1.41	.92	3.92	2.97	2.92	2.48	3.38	2.17	1.46	2.51	2.51	2.78	3.59

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DISPLAY 12. BASELINE ADJUSTED LEAST SQUARES TRANSFORMED RATINGS AND ASSOCIATED STATISTICS PAGE 4

STIMULUS OBSERVERS:	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70
MEAN	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99
MEDIAN																			
STD DEV	1.05	1.14	1.13	1.05	1.16	.99	.66	.91	1.17	1.24	1.07	1.04	1.23	1.35	1.10	.88	1.19	1.37	.92
RANGE	2.5	2.5	2.7	3.4	3.9	3.0	1.8	2.4	3.2	3.5	2.9	2.9	3.3	4.1	2.7	2.7	3.4	3.2	2.8
SKEWNESS	-.945	-.362	-.023	-1.570	-1.593	-.225	-.227	.120	-.289	.163	.127	.689	.467	.516	.574	.668	-.015	.166	.163
CORR W/GROUP	.688	.745	.736	.686	.757	.648	.439	.608	.777	.818	.697	.675	.811	.893	.726	.578	.781	.907	.589
SIGNIFICANCE	.014	.007	.008	.014	.006	.021	.102	.031	.004	.002	.013	.016	.002	.000	.009	.040	.004	.000	.037

1	4.66	2.93	4.40	3.99	3.60	4.97	3.32	3.00	2.43	2.99	3.70	2.96	2.90	3.17	3.05	3.01	3.47	2.46	5.32
2	4.66	4.94	3.03	3.99	4.25	3.49	4.23	3.00	4.58	5.34	5.14	4.92	2.90	4.53	3.05	4.34	4.62	5.09	3.42
3	3.40	2.43	2.57	4.66	4.90	4.48	4.83	4.97	4.04	4.16	4.18	3.45	3.44	3.17	3.50	3.90	2.33	2.99	3.42
4	2.13	2.93	3.94	3.32	3.60	3.49	3.32	3.00	2.43	2.40	2.74	3.94	3.44	3.17	3.05	3.01	3.47	2.99	3.89
5	4.66	4.94	5.31	4.66	4.90	5.47	3.32	5.37	5.11	5.93	5.62	5.41	6.16	6.57	5.72	3.46	5.19	5.62	3.89
6	4.24	4.44	5.31	3.99	4.25	3.99	4.53	4.58	4.58	4.16	4.18	3.45	5.07	5.21	4.83	5.67	5.76	5.62	4.84
7	4.66	4.94	5.31	4.66	4.90	4.48	4.53	4.58	4.58	5.34	5.14	5.90	5.07	5.21	4.39	5.23	4.04	5.62	5.32
8	4.66	4.94	2.57	4.66	4.25	2.51	4.23	3.40	4.04	3.58	3.70	2.96	2.90	2.49	3.50	3.90	3.47	2.99	3.42
9	4.66	4.94	4.40	4.66	4.25	4.48	4.53	4.58	5.65	3.58	2.74	3.45	5.07	3.85	5.72	3.90	5.19	4.04	3.89
10	2.13	2.43	3.03	1.30	.99	2.51	3.02	3.40	2.43	2.40	2.74	3.45	2.90	2.49	3.05	3.46	2.33	2.46	2.47

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DISPLAY 13. PRINCIPAL COMPONENT ANALYSIS: EIGENVALUES PAGE 1

EIGENVALUES:

34.42 7.398 6.019 5.486 4.497 3.732 3.290 3.150 2.004 .1611E-05

.7603E-06 .5663E-06 .4788E-06 .4434E-06 .3468E-06 .3444E-06 .3104E-06 .2801E-06 .2796E-06 .2453E-06

.2197E-06 .2100E-06 .2009E-06 .1738E-06 .1712E-06 .1566E-06 .1501E-06 .1355E-06 .1340E-06 .1218E-06

.7817E-07 .7601E-07 .7426E-07 .4919E-07 .4341E-07 .3399E-07 .3266E-07 .2942E-07 .1602E-08-.9795E-08

-.1889E-07-.3023E-07-.4318E-07-.4926E-07-.6355E-07-.7551E-07-.8290E-07-.9003E-07-.9285E-07-.1200E-06

-.1241E-06-.1281E-06-.1418E-06-.1442E-06-.1541E-06-.1789E-06-.1797E-06-.1901E-06-.2221E-06-.2536E-06

-.2682E-06-.2686E-06-.2932E-06-.3004E-06-.3429E-06-.3777E-06-.4986E-06-.5090E-06-.5783E-06-.1094E-05

PERCENT OF VARIANCE:

49.18 10.57 8.599 7.837 6.424 5.332 4.700 4.500 2.862 .2302E-05

.1086E-05 .8090E-06 .6840E-06 .6334E-06 .4955E-06 .4920E-06 .4434E-06 .4002E-06 .3994E-06 .3504E-06

.3139E-06 .3000E-06 .2870E-06 .2483E-06 .2445E-06 .2237E-06 .2145E-06 .1935E-06 .1915E-06 .1739E-06

.1117E-06 .1086E-06 .1061E-06 .7027E-07 .6201E-07 .4855E-07 .4666E-07 .4203E-07 .2289E-08-.1399E-07

-.2698E-07-.4319E-07-.6169E-07-.7037E-07-.9079E-07-.1079E-06-.1184E-06-.1286E-06-.1326E-06-.1714E-06

-.1774E-06-.1830E-06-.2026E-06-.2061E-06-.2201E-06-.2555E-06-.2568E-06-.2716E-06-.3173E-06-.3623E-06

-.3832E-06-.3838E-06-.4188E-06-.4292E-06-.4899E-06-.5396E-06-.7123E-06-.7271E-06-.8261E-06-.1563E-05

Hydria's data from Turkey Hydria 09-23-95 15:08:26

DISPLAY 14. PRINCIPAL COMPONENT ANALYSIS: COMPONENT LOADINGS
PAGE 1

OBSERVER	COMPONENT 1	COMPONENT 2	COMPONENT 3	COMPONENT 4	COMPONENT 5	COMPONENT 6	COMPONENT 7	COMPONENT 8	COMPONENT 9
1	.652	.663 *	.009	.225	.178	-.107	.071	.085	.171
2	.628 *	.228	.122	-.454	-.291	.082	-.407	.275	-.024
3	.763 *	.186	-.404	-.272	.078	-.136	-.224	.260	-.057
4	.667 *	.539	-.189	-.413	.112	-.062	-.077	-.161	.094
5	.837 *	-.241	-.047	-.371	-.237	-.077	.047	.191	-.010
6	.473	-.418	-.512 *	-.299	.281	-.168	.022	.374	.045
7	.862 *	-.386	.063	.164	.045	.137	.218	-.079	-.058
8	.756 *	-.149	.415	.064	-.261	-.323	-.103	.092	.195
9	.718 *	.181	-.451	-.284	.135	-.176	.302	.098	-.132
10	.486	.094	.615 *	-.269	-.135	-.121	.368	-.313	.195
11	.699 *	-.167	-.407	.394	.054	.043	-.151	-.368	.014

12	.582	-.436	.229	.035	.589 *	-.014	.025	.198	-.173
13	.644 *	-.363	-.316	.182	.498	-.169	-.160	-.037	.134
14	.505	-.240	.334	.177	-.530 *	-.152	-.337	-.217	-.282
15	.783 *	.055	.090	.233	-.151	.353	-.043	-.250	-.331
16	.829 *	-.040	.389	.045	.150	-.067	.355	-.025	.061
17	.619 *	.354	.463	.257	-.090	-.077	.292	.328	.065
18	.719 *	.124	.143	-.480	.198	.300	-.042	-.289	-.040
19	.807 *	-.205	-.221	-.315	-.140	.322	.165	-.005	-.086
20	.790 *	-.121	.278	-.385	.139	.106	.006	-.324	.020
21	.514 *	-.444	-.243	.277	.421	.186	-.044	.203	.386
22	.603 *	-.384	.251	-.262	-.441	-.273	-.141	.239	.111
23	.851 *	-.114	-.289	.177	.111	-.259	.004	-.263	.005
24	.616 *	.142	.265	.375	-.283	.264	.147	.452	.120
25	.608 *	-.185	-.482	.447	-.353	-.099	-.107	-.070	.116
26	.722 *	-.165	-.225	.374	-.264	-.093	-.195	.102	.366
27	.812 *	-.145	-.403	-.059	.089	-.338	.171	-.048	.001
28	.230	.716 *	-.060	.564	-.256	.056	-.141	-.024	.156
29	.346	.779 *	-.120	-.107	-.139	.334	.281	-.191	-.044
30	-.079	.079	.281	-.391	.163	.245	-.737 *	-.319	.152
31	.738 *	-.204	.291	.213	-.057	-.343	-.126	.347	-.161
32	.737 *	.383	.357	.015	.254	-.111	.170	.067	.269
33	.533 *	-.385	.423	.187	.292	.444	-.039	.204	.168
34	.684 *	.524	.295	-.003	-.039	.001	-.222	.340	-.063
35	.805 *	.089	.345	.171	.261	-.115	-.305	.121	-.079
36	.667 *	.633	-.036	.045	.246	-.008	.094	.097	.270
37	.845 *	-.212	.324	.237	.082	.004	.110	.010	-.247
38	.717 *	.160	-.165	.068	-.163	.133	-.028	.517	-.342
39	.925 *	-.088	.221	-.053	-.072	-.153	-.110	-.074	-.195
40	.944 *	-.125	.080	-.113	-.189	-.077	-.171	.049	-.041
41	.044	.040	.308	.020	-.573 *	-.515	-.356	-.270	.327
42	.764 *	.181	-.254	.139	.200	.300	-.054	-.380	.148
43	.630 *	-.054	-.342	.088	-.258	.602	.129	.078	-.157
44	.682 *	.398	.202	.292	.194	-.092	-.248	.197	-.323
45	.713 *	-.297	-.337	.344	.177	.093	-.245	-.132	.234

Hydria's data from Turkey Hydria 09-23-95 15:08:26

DISPLAY 14. PRINCIPAL COMPONENT ANALYSIS: COMPONENT LOADINGS
PAGE 2

OBSERVER	COMPONENT 1	COMPONENT 2	COMPONENT 3	COMPONENT 4	COMPONENT 5	COMPONENT 6	COMPONENT 7	COMPONENT 8	COMPONENT 9
46	.741 *	-.175	-.488	-.084	-.385	.124	-.091	.055	.023
47	.797 *	.262	-.371	-.338	-.110	.056	-.095	-.002	.139

48	.749 *	.562	.048	.074	.266	-.160	.039	-.024	.125
49	.680 *	.580	.118	-.016	.395	-.041	-.083	.011	-.148
50	.750 *	-.380	.129	.329	-.204	.220	-.220	-.164	-.052
51	.596 *	-.320	.452	.064	.486	.098	.205	.177	.120
52	.699 *	.184	.185	-.488	.185	.317	.015	-.264	.031
53	.754 *	-.128	.493	-.201	.104	-.087	-.018	-.310	.131
54	.745 *	.267	-.291	.344	.210	-.218	-.202	-.157	-.117
55	.696 *	.142	.011	-.606	-.241	.087	-.118	.117	.185
56	.767 *	.035	-.012	-.428	-.373	.118	-.138	.205	.119
57	.659 *	.544	-.407	-.055	-.118	.035	.181	.162	-.154
58	.451	-.541	-.088	-.593 *	.087	.096	-.044	.341	.092
59	.622 *	-.176	-.538	-.161	-.229	-.255	.375	-.082	.059
60	.787 *	-.251	.148	-.387	-.000	-.195	.323	-.062	-.014
61	.826 *	-.144	.117	.007	-.273	.324	.299	-.110	.048
62	.707 *	-.074	.042	.113	-.351	.545	.164	-.177	.034
63	.685 *	-.050	.189	.543	-.183	.151	.241	.092	.274
64	.820 *	.024	-.273	.112	-.059	-.429	.148	-.174	-.017
65	.898 *	.007	-.042	.280	-.176	.005	.129	-.174	-.188
66	.737 *	.037	-.178	-.163	.053	-.521	.251	-.240	-.058
67	.591	-.700 *	-.123	-.029	.275	.153	-.202	-.049	-.043
68	.790 *	.001	.235	-.055	.134	-.264	-.126	-.218	-.409
69	.912 *	-.279	.110	.207	-.033	.024	.040	-.125	-.132
70	.599 *	.347	-.312	.019	.288	.221	-.532	.084	.020

* OBSERVER'S STRONGEST LOADING

Hydria's data from Turkey Hydria 09-23-95 15:08:26

DISPLAY 15. PRINCIPAL COMPONENT ANALYSIS: COMPONENT SCORES
PAGE 1

STIMULUS	COMPONENT 1	COMPONENT 2	COMPONENT 3	COMPONENT 4	COMPONENT 5	COMPONENT 6	COMPONENT 7	COMPONENT 8	COMPONENT 9
1	-.980	1.907 H	-.494	-.235	.597 H	.817 H	-.378	-.074	-.231
2	.612	-.497	1.683 H	.158	-.031	.876 H	.343	.366	-.440 L
3	-.947	-.586	-1.168 L	-.852	-.873 L	.385	.475	.774 H	.034
4	-1.415 L	.451	.422	.848 H	-.686	-.783 L	-.841 L	.730 H	.024
5	2.337 H	.882 H	-.113	.453	-1.080 L	-.280	.640 H	-.771 L	-.080
6	1.497	-1.186 L	-.733 L	-.011	.273	-.165	-.778 L	-.413	-.767 L
7	2.719 H	-.370	-.363	.723	.581	.396	-.172	.281	.893 H
8	-1.357	-.394	.733 H	-1.147 L	-.311	.021	-.525	-.819 L	.598 H
9	1.027	.380	.318	-.947 L	.943 H	-1.119 L	.535	.387	-.062
10	-3.493 L	-.587 L	-.284	1.009 H	.586	-.150	.700 H	-.462	.032

H = HIGHEST TWO STIMULI ON COMPONENT
L = LOWEST TWO STIMULI ON COMPONENT

Hydria's data from Turkey Hydria 09-23-95 15:08:26

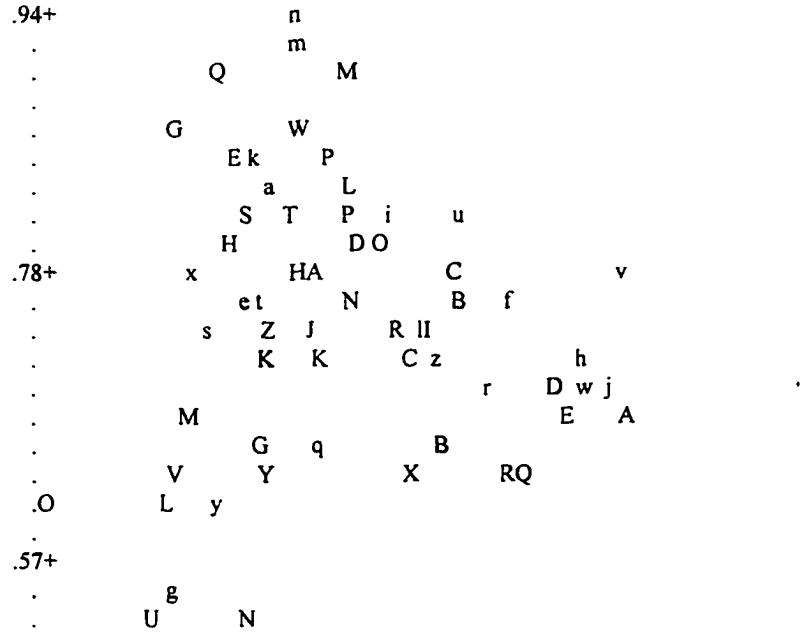
DISPLAY 16. PRINCIPAL COMPONENT ANALYSIS: LEGEND FOR SCATTERGRAM (NEXT PAGE) OF COMPONENT LOADINGS PAGE 1

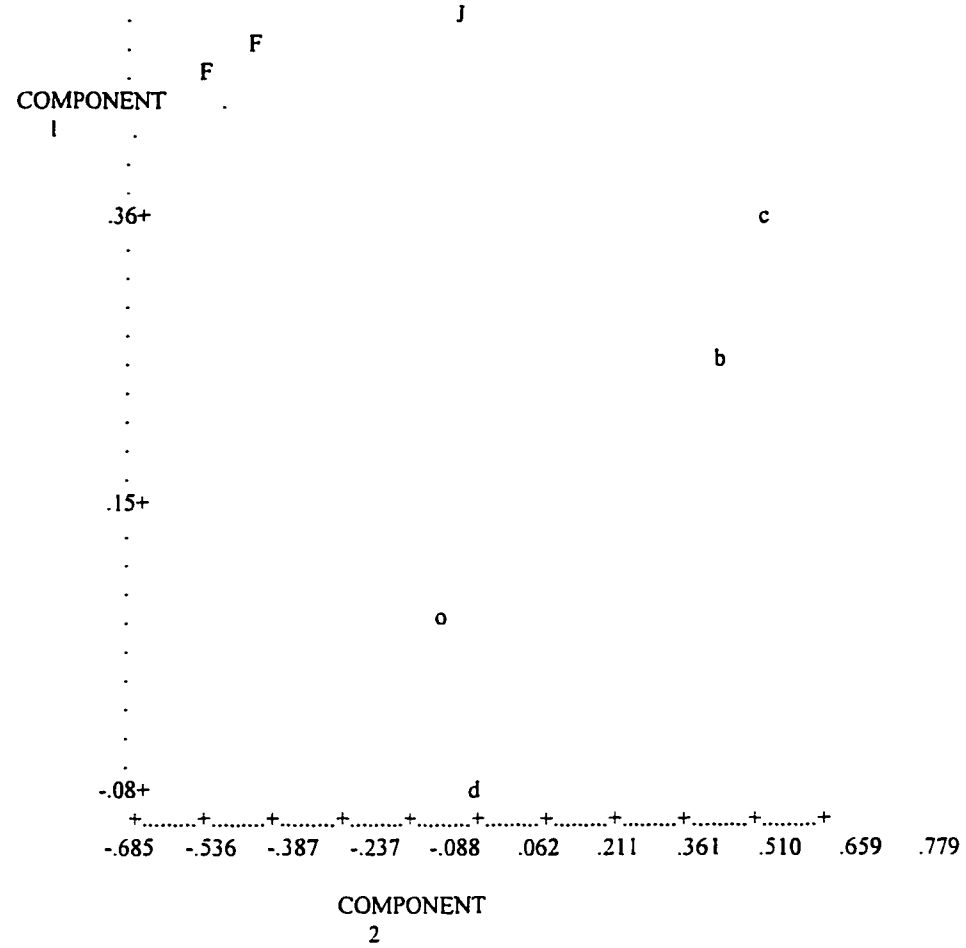
OBSERVER	SYMBOL	COMPONENT 1	COMPONENT 2
1	A	.652	.663
2	B	.628	.228
3	C	.763	.186
4	D	.667	.539
5	E	.837	-.241
6	F	.473	-.418
7	G	.862	-.386
8	H	.756	-.149
9	I	.718	.181
10	J	.486	.094
11	K	.699	-.167
12	L	.582	-.436
13	M	.644	-.363
14	N	.505	-.240
15	O	.783	.055
16	P	.829	-.040
17	Q	.619	.354
18	R	.719	.124
19	S	.807	-.205
20	T	.790	-.121
21	U	.514	-.444
22	V	.603	-.384
23	W	.851	-.114
24	X	.616	.142
25	Y	.608	-.185
26	Z	.722	-.165
27	a	.812	-.145
28	b	.230	.716
29	c	.346	.779
30	d	-.079	.079
31	e	.738	-.204
32	f	.737	.383
33	g	.533	-.385
34	h	.684	.524
35	i	.805	.089
36	j	.667	.633
37	k	.845	-.212
38	l	.717	.160
39	m	.925	-.088
40	n	.944	-.125
41	o	.044	.040
42	p	.764	.181
43	q	.630	-.054
44	r	.682	.398

45	s	.713	-.297
46	t	.741	-.175
47	u	.797	.262
48	v	.749	.562
49	w	.680	.580
50	x	.750	-.380
51	y	.596	-.320
52	z	.699	.184
53	A	.754	-.128
54	B	.745	.267
55	C	.696	.142
56	D	.767	.035
57	E	.659	.544
58	F	.451	-.541
59	G	.622	-.176
60	H	.787	-.251
61	I	.826	-.144
62	J	.707	-.074
63	K	.685	-.050
64	L	.820	.024
65	M	.898	.007
66	N	.737	.037
67	O	.591	-.700
68	P	.790	.001
69	Q	.912	-.279
70	R	.599	.347

Hydria's data from Turkey Hydria 09-23-95 15:08:26

DISPLAY 16. PRINCIPAL COMPONENT ANALYSIS: SCATTERGRAM (LEGEND ON PREVIOUS PAGE) OF COMPONENT LOADINGS PAGE 2





Hydria's data from Turkey Hydria 09-23-95 15:08:26

DISPLAY 16. PRINCIPAL COMPONENT ANALYSIS: LEGEND FOR SCATTERGRAM (NEXT PAGE) OF COMPONENT LOADINGS PAGE 3

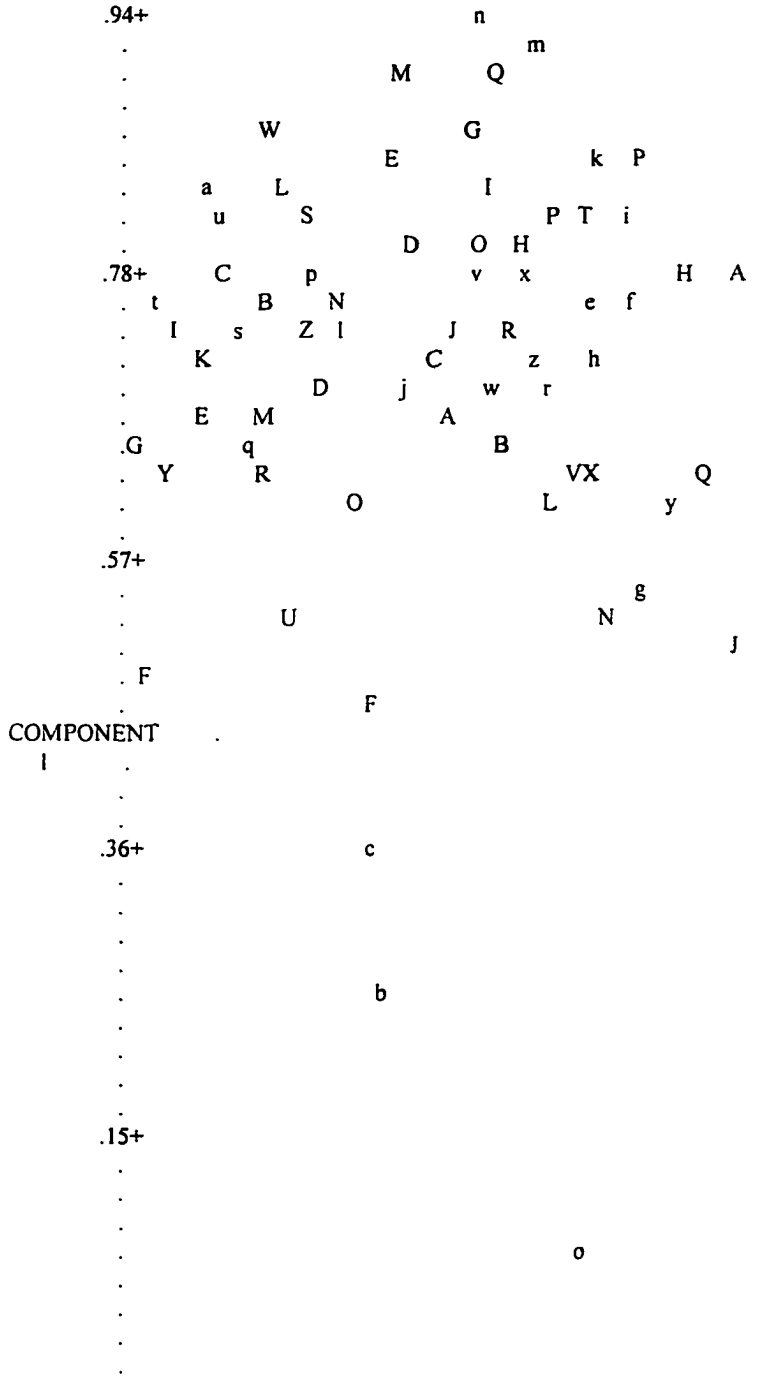
OBSERVER	SYMBOL	COMPONENT 1	COMPONENT 3
1	A	.652	.009
2	B	.628	.122
3	C	.763	-.404
4	D	.667	-.189
5	E	.837	-.047
6	F	.473	-.512
7	G	.862	.063
8	H	.756	.415
9	I	.718	-.451
10	J	.486	.615
11	K	.699	-.407
12	L	.582	.229
13	M	.644	-.316

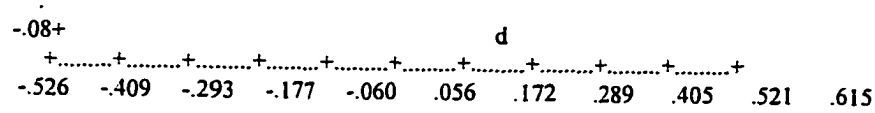
14	N	.505	.334
15	O	.783	.090
16	P	.829	.389
17	Q	.619	.463
18	R	.719	.143
19	S	.807	-.221
20	T	.790	.278
21	U	.514	-.243
22	V	.603	.251
23	W	.851	-.289
24	X	.616	.265
25	Y	.608	-.482
26	Z	.722	-.225
27	a	.812	-.403
28	b	.230	-.060
29	c	.346	-.120
30	d	-.079	.281
31	e	.738	.291
32	f	.737	.357
33	g	.533	.423
34	h	.684	.295
35	i	.805	.345
36	j	.667	-.036
37	k	.845	.324
38	l	.717	-.165
39	m	.925	.221
40	n	.944	.080
41	o	.044	.308
42	p	.764	-.254
43	q	.630	-.342
44	r	.682	.202
45	s	.713	-.337
46	t	.741	-.488
47	u	.797	-.371
48	v	.749	.048
49	w	.680	.118
50	x	.750	.129
51	y	.596	.452
52	z	.699	.185
53	A	.754	.493
54	B	.745	-.291
55	C	.696	.011
56	D	.767	-.012
57	E	.659	-.407
58	F	.451	-.088
59	G	.622	-.538
60	H	.787	.148
61	I	.826	.117
62	J	.707	.042
63	K	.685	.189
64	L	.820	-.273
65	M	.898	-.042
66	N	.737	-.178
67	O	.591	-.123
68	P	.790	.235
69	Q	.912	.110

70 R .599 -.312

Hydria's data from Turkey Hydria 09-23-95 15:08:26

DISPLAY 16. PRINCIPAL COMPONENT ANALYSIS: SCATTERGRAM (LEGEND ON PREVIOUS PAGE) OF COMPONENT LOADINGS PAGE 4





Hydria's data from Turkey Hydria 09-23-95 15:08:26

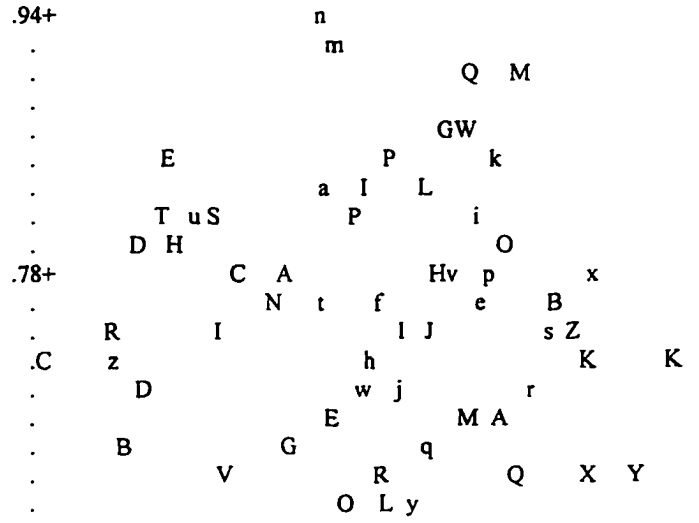
DISPLAY 16. PRINCIPAL COMPONENT ANALYSIS: LEGEND FOR SCATTERGRAM (NEXT PAGE) OF COMPONENT LOADINGS PAGE 5

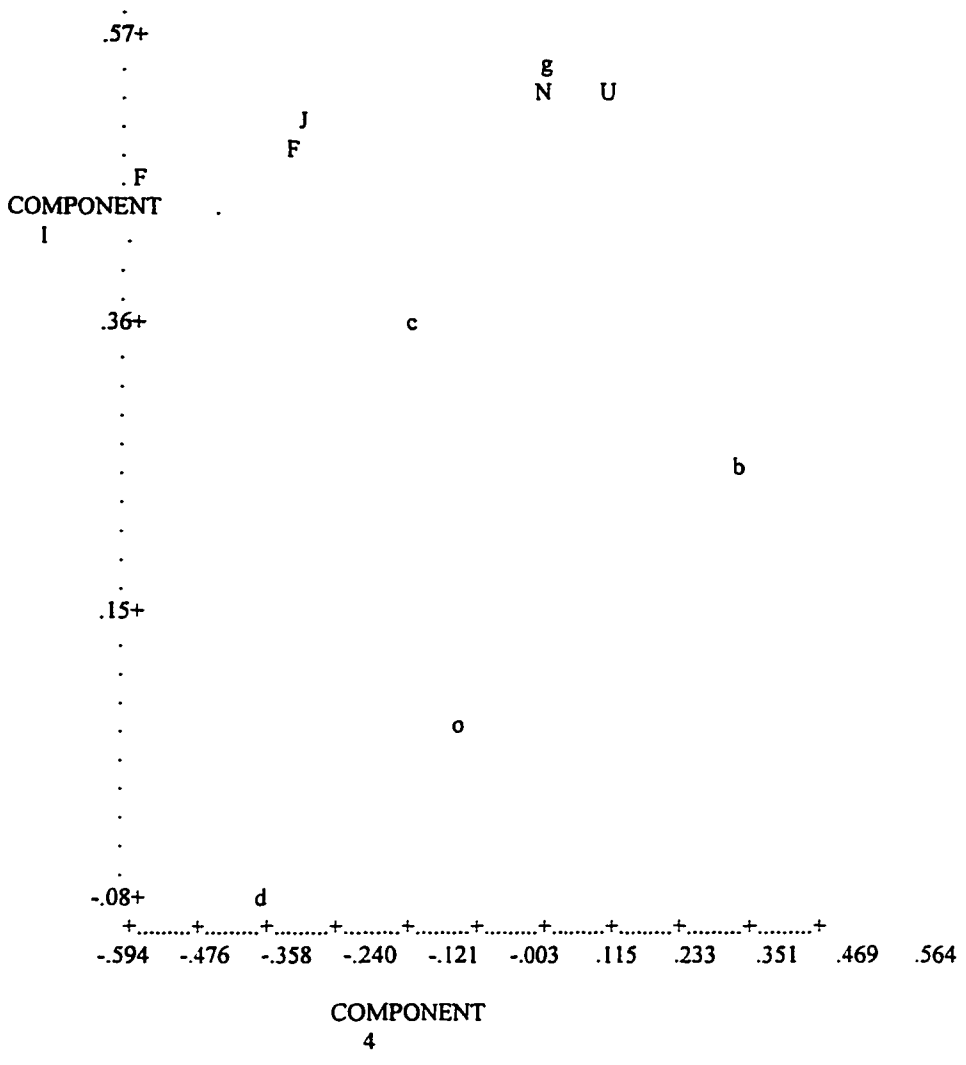
OBSERVER	SYMBOL	COMPONENT 1	COMPONENT 4
1	A	.652	.225
2	B	.628	-.454
3	C	.763	-.272
4	D	.667	-.413
5	E	.837	-.371
6	F	.473	-.299
7	G	.862	.164
8	H	.756	.064
9	I	.718	-.284
10	J	.486	-.269
11	K	.699	.394
12	L	.582	.035
13	M	.644	.182
14	N	.505	.177
15	O	.783	.233
16	P	.829	.045
17	Q	.619	.257
18	R	.719	-.480
19	S	.807	-.315
20	T	.790	-.385
21	U	.514	.277
22	V	.603	-.262
23	W	.851	.177
24	X	.616	.375
25	Y	.608	.447
26	Z	.722	.374
27	a	.812	-.059
28	b	.230	.564
29	c	.346	-.107
30	d	-.079	-.391
31	e	.738	.213
32	f	.737	.015
33	g	.533	.187
34	h	.684	-.003
35	i	.805	.171
36	j	.667	.045
37	k	.845	.237
38	l	.717	.068
39	m	.925	-.053

40	n	.944	-.113
41	o	.044	.020
42	p	.764	.139
43	q	.630	.088
44	r	.682	.292
45	s	.713	.344
46	t	.741	-.084
47	u	.797	-.338
48	v	.749	.074
49	w	.680	-.016
50	x	.750	.329
51	y	.596	.064
52	z	.699	-.488
53	A	.754	-.201
54	B	.745	.344
55	C	.696	-.606
56	D	.767	-.428
57	E	.659	-.055
58	F	.451	-.593
59	G	.622	-.161
60	H	.787	-.387
61	I	.826	.007
62	J	.707	.113
63	K	.685	.543
64	L	.820	.112
65	M	.898	.280
66	N	.737	-.163
67	O	.591	-.029
68	P	.790	-.055
69	Q	.912	.207
70	R	.599	.019

Hydria's data from Turkey Hydria 09-23-95 15:08:26

DISPLAY 16. PRINCIPAL COMPONENT ANALYSIS: SCATTERGRAM (LEGEND ON PREVIOUS PAGE) OF COMPONENT LOADINGS PAGE 6





Hydria's data from Turkey Hydria 09-23-95 15:08:26

DISPLAY 16. PRINCIPAL COMPONENT ANALYSIS: LEGEND FOR SCATTERGRAM (NEXT PAGE) OF COMPONENT LOADINGS PAGE 7

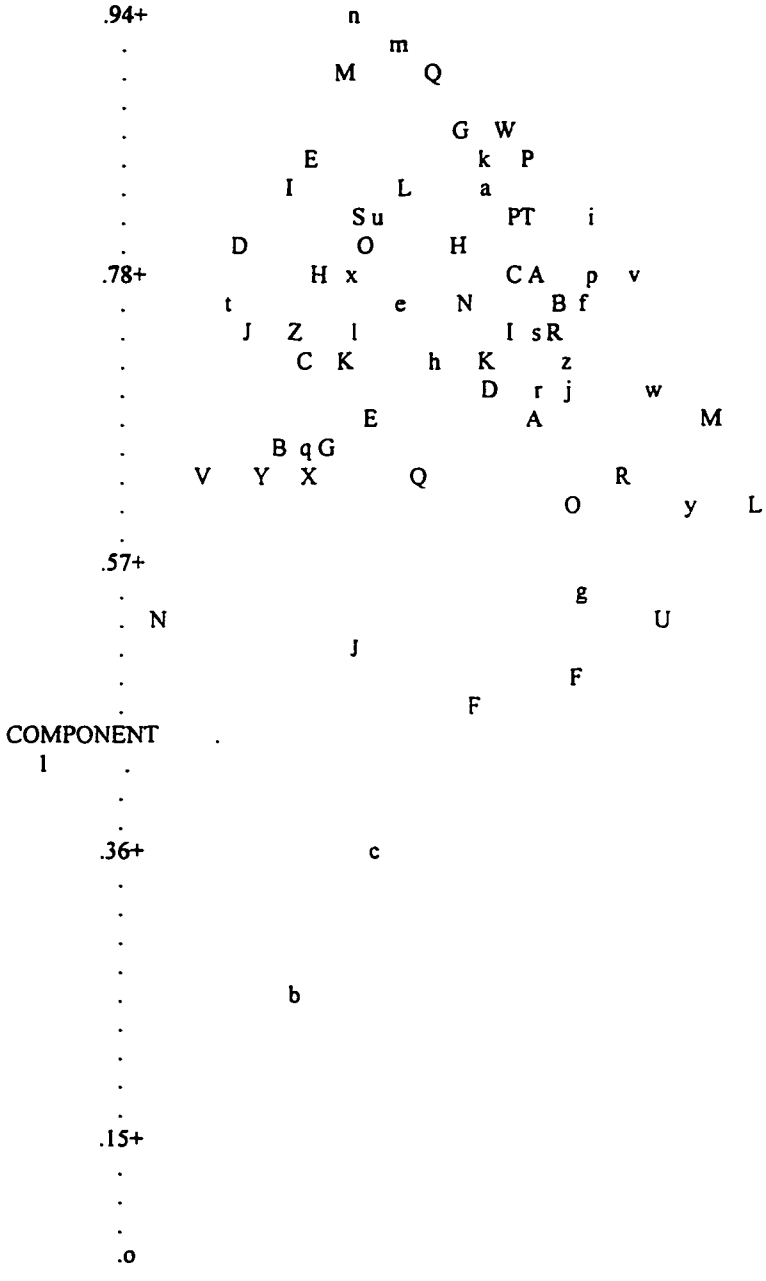
OBSERVER		COMPONENT SYMBOL	COMPONENT 1	5
1	A		.652	.178
2	B		.628	-.291
3	C		.763	.078
4	D		.667	.112
5	E		.837	-.237
6	F		.473	.281
7	G		.862	.045
8	H		.756	-.261
9	I		.718	.135

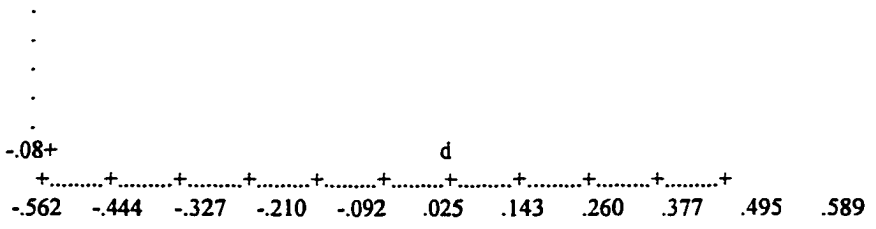
10	J	.486	-.135
11	K	.699	.054
12	L	.582	.589
13	M	.644	.498
14	N	.505	-.530
15	O	.783	-.151
16	P	.829	.150
17	Q	.619	-.090
18	R	.719	.198
19	S	.807	-.140
20	T	.790	.139
21	U	.514	.421
22	V	.603	-.441
23	W	.851	.111
24	X	.616	-.283
25	Y	.608	-.353
26	Z	.722	-.264
27	a	.812	.089
28	b	.230	-.256
29	c	.346	-.139
30	d	-.079	.163
31	e	.738	-.057
32	f	.737	.254
33	g	.533	.292
34	h	.684	-.039
35	i	.805	.261
36	j	.667	.246
37	k	.845	.082
38	l	.717	-.163
39	m	.925	-.072
40	n	.944	-.189
41	o	.044	-.573
42	p	.764	.200
43	q	.630	-.258
44	r	.682	.194
45	s	.713	.177
46	t	.741	-.385
47	u	.797	-.110
48	v	.749	.266
49	w	.680	.395
50	x	.750	-.204
51	y	.596	.486
52	z	.699	.185
53	A	.754	.104
54	B	.745	.210
55	C	.696	-.241
56	D	.767	-.373
57	E	.659	-.118
58	F	.451	.087
59	G	.622	-.229
60	H	.787	-.000
61	I	.826	-.273
62	J	.707	-.351
63	K	.685	-.183
64	L	.820	-.059
65	M	.898	-.176

66	N	.737	.053
67	O	.591	.275
68	P	.790	.134
69	Q	.912	-.033
70	R	.599	.288

Hydria's data from Turkey Hydria 09-23-95 15:08:26

DISPLAY 16. PRINCIPAL COMPONENT ANALYSIS: SCATTERGRAM (LEGEND ON PREVIOUS PAGE) OF COMPONENT LOADINGS PAGE 8





Hydria's data from Turkey Hydria 09-23-95 15:08:26

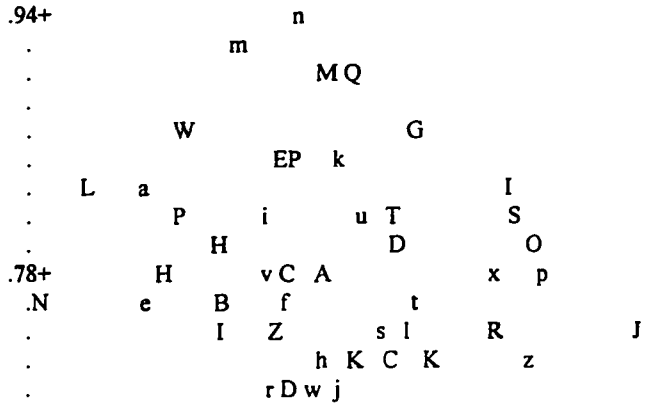
DISPLAY 16. PRINCIPAL COMPONENT ANALYSIS: LEGEND FOR SCATTERGRAM (NEXT PAGE) OF COMPONENT LOADINGS PAGE 9

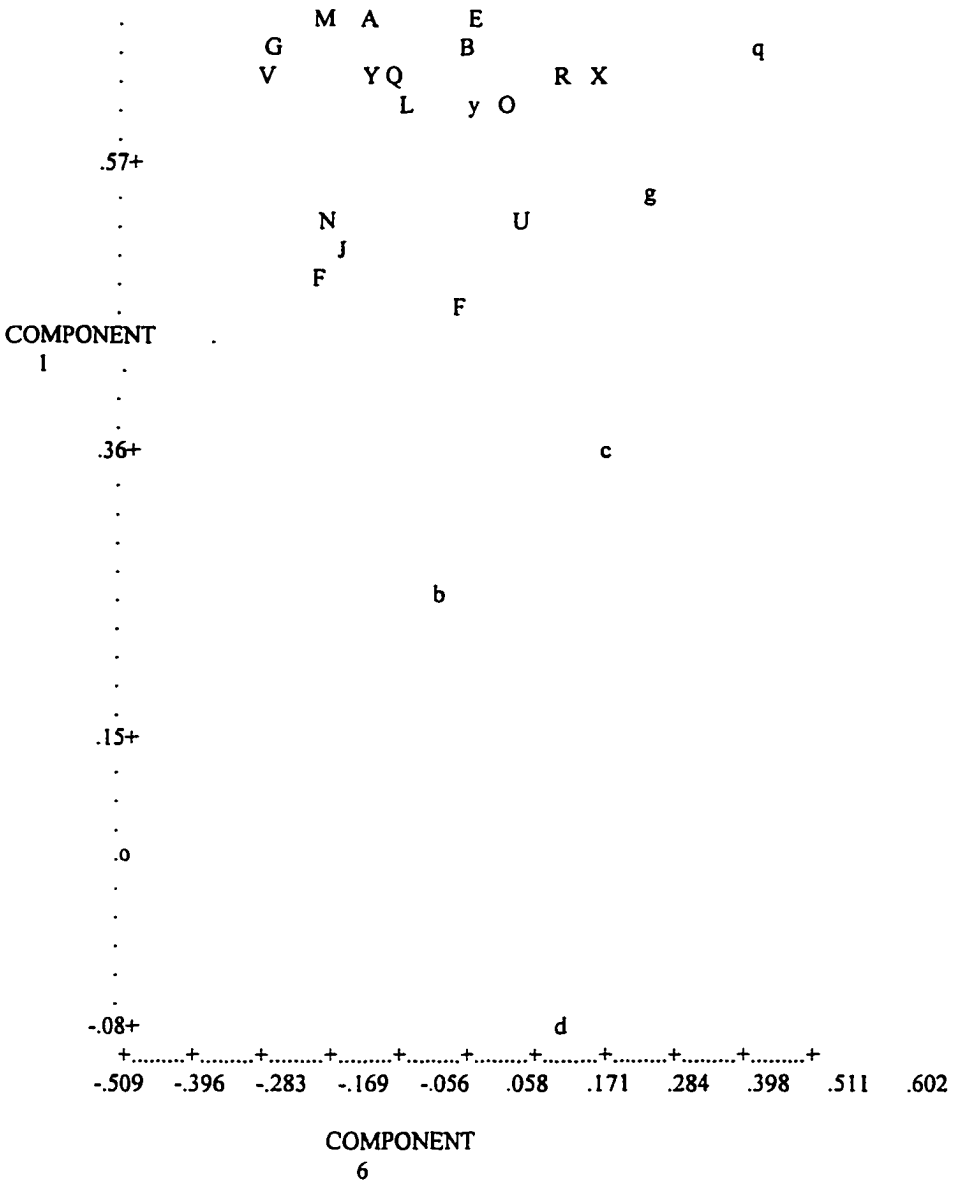
OBSERVER	SYMBOL	COMPONENT 1	COMPONENT 6
1	A	.652	-.107
2	B	.628	.082
3	C	.763	-.136
4	D	.667	-.062
5	E	.837	-.077
6	F	.473	-.168
7	G	.862	.137
8	H	.756	-.323
9	I	.718	-.176
10	J	.486	-.121
11	K	.699	.043
12	L	.582	-.014
13	M	.644	-.169
14	N	.505	-.152
15	O	.783	.353
16	P	.829	-.067
17	Q	.619	-.077
18	R	.719	.300
19	S	.807	.322
20	T	.790	.106
21	U	.514	.186
22	V	.603	-.273
23	W	.851	-.259
24	X	.616	.264
25	Y	.608	-.099
26	Z	.722	-.093
27	a	.812	-.338
28	b	.230	.056
29	c	.346	.334
30	d	-.079	.245
31	e	.738	-.343
32	f	.737	-.111
33	g	.533	.444
34	h	.684	.001
35	i	.805	-.115

36	j	.667	-.008
37	k	.845	.004
38	l	.717	.133
39	m	.925	-.153
40	n	.944	-.077
41	o	.044	-.515
42	p	.764	.300
43	q	.630	.602
44	r	.682	-.092
45	s	.713	.093
46	t	.741	.124
47	u	.797	.056
48	v	.749	-.160
49	w	.680	-.041
50	x	.750	.220
51	y	.596	.098
52	z	.699	.317
53	A	.754	-.087
54	B	.745	-.218
55	C	.696	.087
56	D	.767	.118
57	E	.659	.065
58	F	.451	.096
59	G	.622	-.255
60	H	.787	-.195
61	I	.826	.324
62	J	.707	.545
63	K	.685	.151
64	L	.820	-.429
65	M	.898	.005
66	N	.737	-.521
67	O	.591	.153
68	P	.790	-.264
69	Q	.912	.024
70	R	.599	.221

Hydria's data from Turkey Hydria 09-23-95 15:08:26

DISPLAY 16. PRINCIPAL COMPONENT ANALYSIS: SCATTERGRAM (LEGEND ON PREVIOUS PAGE) OF COMPONENT LOADINGS PAGE 10





Hydria's data from Turkey Hydria 09-23-95 15:08:26

DISPLAY 16. PRINCIPAL COMPONENT ANALYSIS: LEGEND FOR SCATTERGRAM (NEXT PAGE) OF COMPONENT LOADINGS PAGE 11

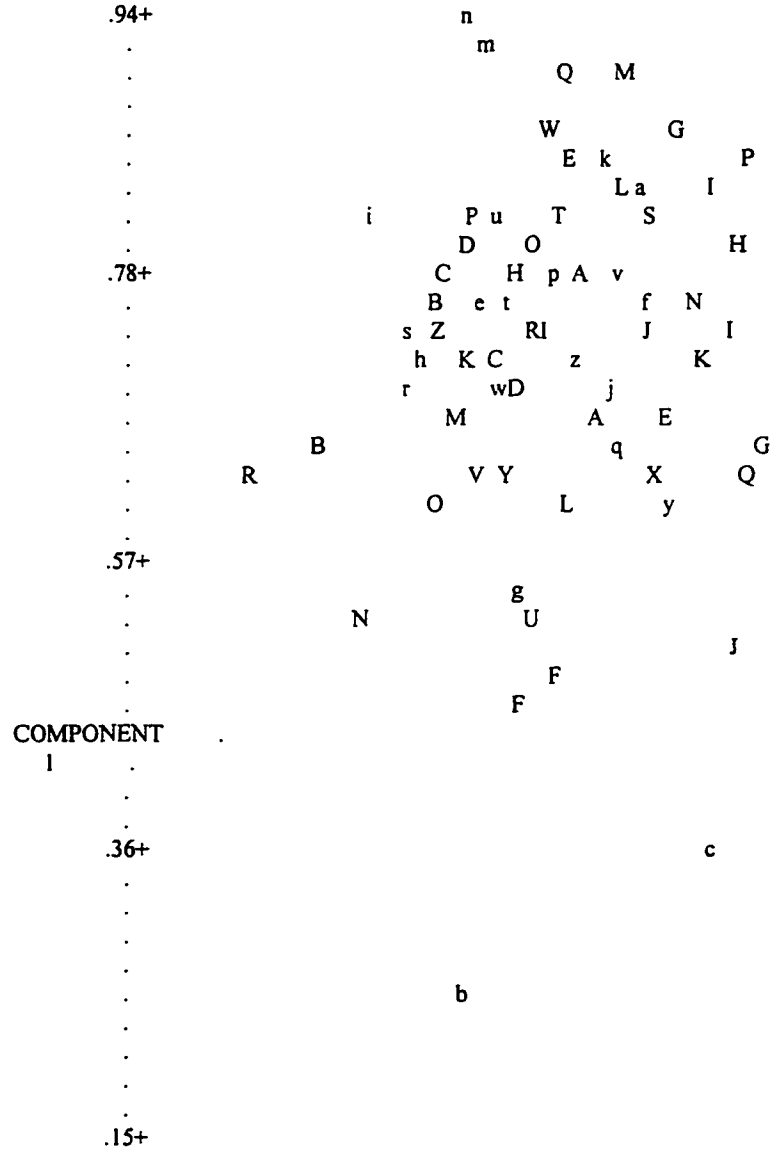
OBSERVER	SYMBOL	COMPONENT 1	COMPONENT 7
1	A	.652	.071
2	B	.628	-.407
3	C	.763	-.224
4	D	.667	-.077
5	E	.837	.047

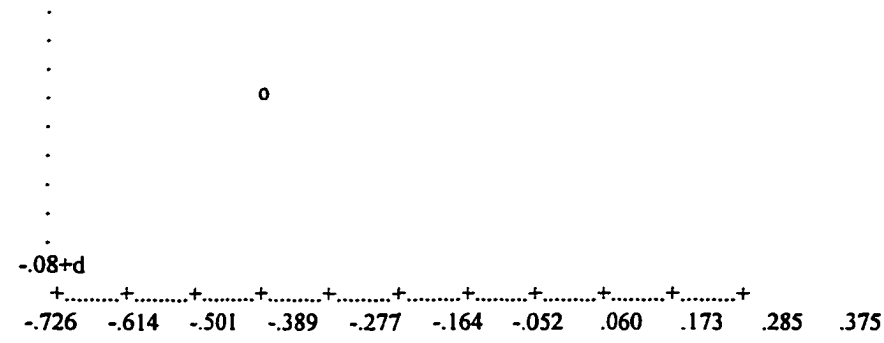
6	F	.473	.022
7	G	.862	.218
8	H	.756	-.103
9	I	.718	.302
10	J	.486	.368
11	K	.699	-.151
12	L	.582	.025
13	M	.644	-.160
14	N	.505	-.337
15	O	.783	-.043
16	P	.829	.355
17	Q	.619	.292
18	R	.719	-.042
19	S	.807	.165
20	T	.790	.006
21	U	.514	-.044
22	V	.603	-.141
23	W	.851	.004
24	X	.616	.147
25	Y	.608	-.107
26	Z	.722	-.195
27	a	.812	.171
28	b	.230	-.141
29	c	.346	.281
30	d	-.079	-.737
31	e	.738	-.126
32	f	.737	.170
33	g	.533	-.039
34	h	.684	-.222
35	i	.805	-.305
36	j	.667	.094
37	k	.845	.110
38	l	.717	-.028
39	m	.925	-.110
40	n	.944	-.171
41	o	.044	-.356
42	p	.764	-.054
43	q	.630	.129
44	r	.682	-.248
45	s	.713	-.245
46	t	.741	-.091
47	u	.797	-.095
48	v	.749	.039
49	w	.680	-.083
50	x	.750	-.220
51	y	.596	.205
52	z	.699	.015
53	A	.754	-.018
54	B	.745	-.202
55	C	.696	-.118
56	D	.767	-.138
57	E	.659	.181
58	F	.451	-.044
59	G	.622	.375
60	H	.787	.323
61	I	.826	.299

62	J	.707	.164
63	K	.685	.241
64	L	.820	.148
65	M	.898	.129
66	N	.737	.251
67	O	.591	-.202
68	P	.790	-.126
69	Q	.912	.040
70	R	.599	-.532

Hydria's data from Turkey Hydria 09-23-95 15:08:26

DISPLAY 16. PRINCIPAL COMPONENT ANALYSIS: SCATTERGRAM (LEGEND ON PREVIOUS PAGE) OF COMPONENT LOADINGS PAGE 12





Hydria's data from Turkey Hydria 09-23-95 15:08:26

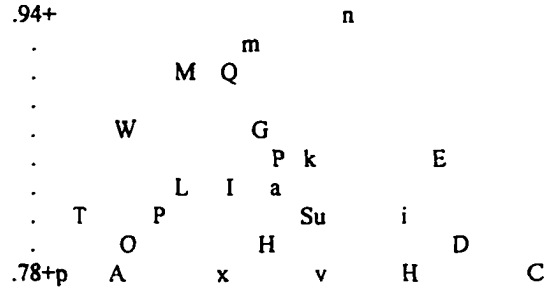
DISPLAY 16. PRINCIPAL COMPONENT ANALYSIS: LEGEND FOR SCATTERGRAM (NEXT PAGE) OF COMPONENT LOADINGS PAGE 13

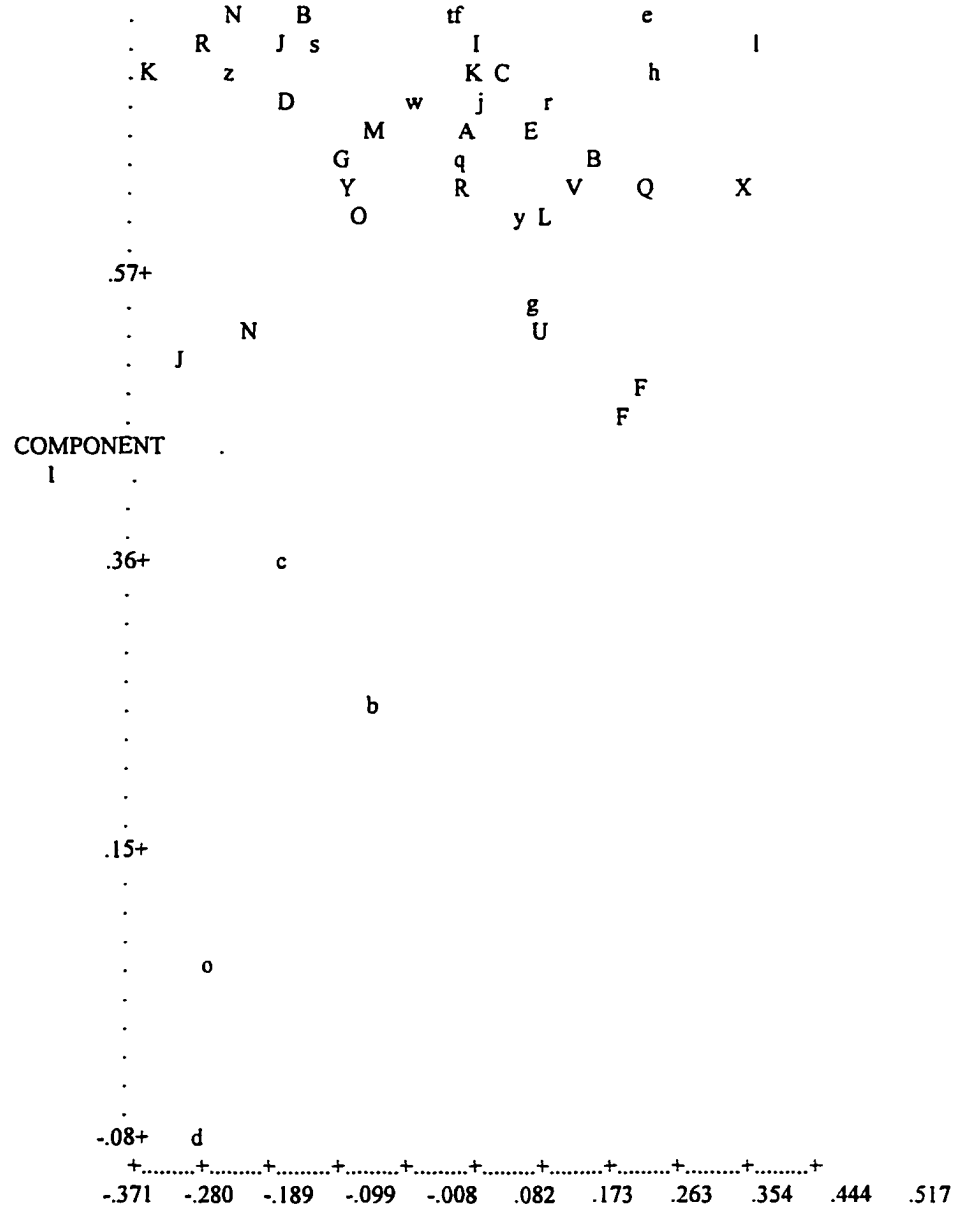
OBSERVER	SYMBOL	COMPONENT 1	COMPONENT 8
1	A	.652	.085
2	B	.628	.275
3	C	.763	.260
4	D	.667	-.161
5	E	.837	.191
6	F	.473	.374
7	G	.862	-.079
8	H	.756	.092
9	I	.718	.098
10	J	.486	-.313
11	K	.699	-.368
12	L	.582	.198
13	M	.644	-.037
14	N	.505	-.217
15	O	.783	-.250
16	P	.829	-.025
17	Q	.619	.328
18	R	.719	-.289
19	S	.807	-.005
20	T	.790	-.324
21	U	.514	.203
22	V	.603	.239
23	W	.851	-.263
24	X	.616	.452
25	Y	.608	-.070
26	Z	.722	.102
27	a	.812	-.048
28	b	.230	-.024
29	c	.346	-.191
30	d	-.079	-.319
31	e	.738	.347

32	f	.737	.067
33	g	.533	.204
34	h	.684	.340
35	i	.805	.121
36	j	.667	.097
37	k	.845	.010
38	l	.717	.517
39	m	.925	-.074
40	n	.944	.049
41	o	.044	-.270
42	p	.764	-.380
43	q	.630	.078
44	r	.682	.197
45	s	.713	-.132
46	t	.741	.055
47	u	.797	-.002
48	v	.749	-.024
49	w	.680	.011
50	x	.750	-.164
51	y	.596	.177
52	z	.699	-.264
53	A	.754	-.310
54	B	.745	-.157
55	C	.696	.117
56	D	.767	.205
57	E	.659	.162
58	F	.451	.341
59	G	.622	-.082
60	H	.787	-.062
61	I	.826	-.110
62	J	.707	-.177
63	K	.685	.092
64	L	.820	-.174
65	M	.898	-.174
66	N	.737	-.240
67	O	.591	-.049
68	P	.790	-.218
69	Q	.912	-.125
70	R	.599	.084

Hydria's data from Turkey Hydria 09-23-95 15:08:26

DISPLAY 16. PRINCIPAL COMPONENT ANALYSIS: SCATTERGRAM (LEGEND ON PREVIOUS PAGE) OF COMPONENT LOADINGS PAGE 14





Hydria's data from Turkey Hydria 09-23-95 15:08:26

DISPLAY 16. PRINCIPAL COMPONENT ANALYSIS: LEGEND FOR SCATTERGRAM (NEXT PAGE) OF COMPONENT LOADINGS PAGE 15

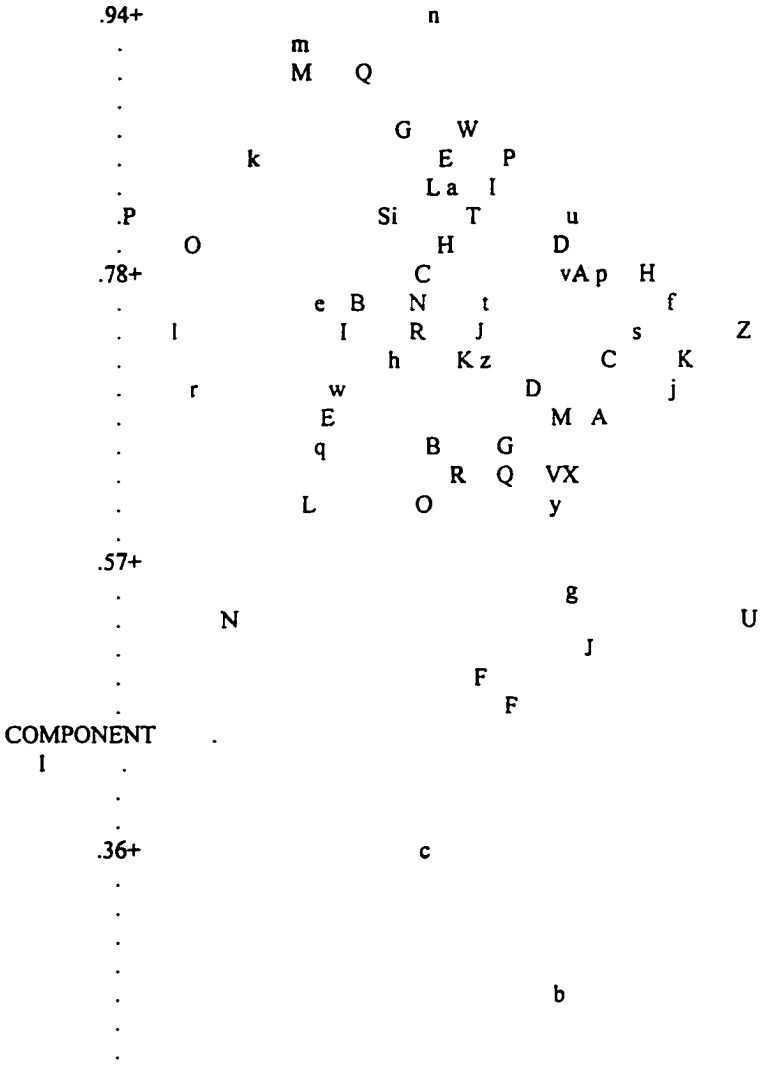
OBSERVER	SYMBOL	COMPONENT 1	COMPONENT 9
1	A	.652	.171
2	B	.628	-.024

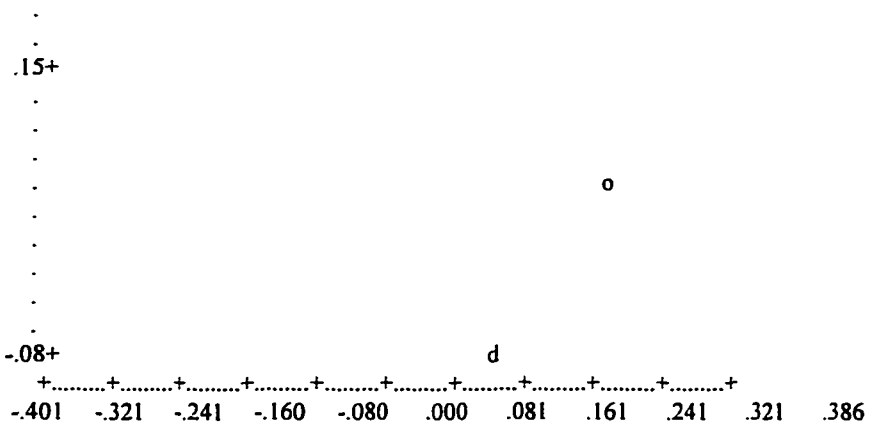
3	C	.763	-.057
4	D	.667	.094
5	E	.837	-.010
6	F	.473	.045
7	G	.862	-.058
8	H	.756	.195
9	I	.718	-.132
10	J	.486	.195
11	K	.699	.014
12	L	.582	-.173
13	M	.644	.134
14	N	.505	-.282
15	O	.783	-.331
16	P	.829	.061
17	Q	.619	.065
18	R	.719	-.040
19	S	.807	-.086
20	T	.790	.020
21	U	.514	.386
22	V	.603	.111
23	W	.851	.005
24	X	.616	.120
25	Y	.608	.116
26	Z	.722	.366
27	a	.812	.001
28	b	.230	.156
29	c	.346	-.044
30	d	-.079	.152
31	e	.738	-.161
32	f	.737	.269
33	g	.533	.168
34	h	.684	-.063
35	i	.805	-.079
36	j	.667	.270
37	k	.845	-.247
38	l	.717	-.342
39	m	.925	-.195
40	n	.944	-.041
41	o	.044	.327
42	p	.764	.148
43	q	.630	-.157
44	r	.682	-.323
45	s	.713	.234
46	t	.741	.023
47	u	.797	.139
48	v	.749	.125
49	w	.680	-.148
50	x	.750	-.052
51	y	.596	.120
52	z	.699	.031
53	A	.754	.131
54	B	.745	-.117
55	C	.696	.185
56	D	.767	.119
57	E	.659	-.154
58	F	.451	.092

59	G	.622	.059
60	H	.787	-.014
61	I	.826	.048
62	J	.707	.034
63	K	.685	.274
64	L	.820	-.017
65	M	.898	-.188
66	N	.737	-.058
67	O	.591	-.043
68	P	.790	-.409
69	Q	.912	-.132
70	R	.599	.020

Hydria's data from Turkey Hydria 09-23-95 15:08:26

DISPLAY 16. PRINCIPAL COMPONENT ANALYSIS: SCATTERGRAM (LEGEND ON PREVIOUS PAGE) OF COMPONENT LOADINGS PAGE 16





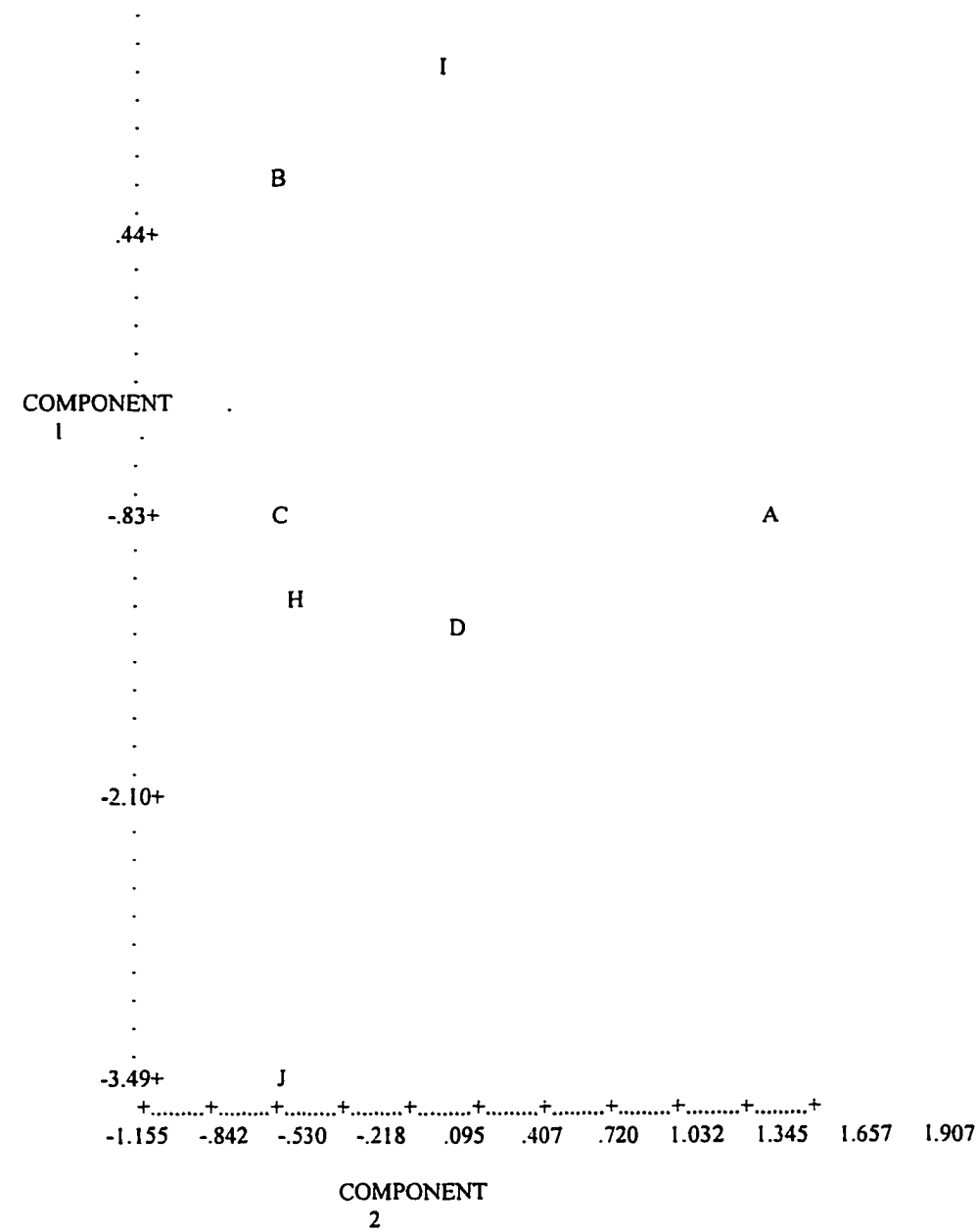
Hydria's data from Turkey Hydria 09-23-95 15:08:26

DISPLAY 17. PRINCIPAL COMPONENT ANALYSIS: LEGEND FOR SCATTERGRAM (NEXT PAGE) OF COMPONENT SCORES PAGE 1

STIMULUS	SYMBOL	COMPONENT 1	COMPONENT 2
1	A	-.980	1.907
2	B	.612	-.497
3	C	-.947	-.586
4	D	-1.415	.451
5	E	2.337	.882
6	F	1.497	-1.186
7	G	2.719	-.370
8	H	-1.357	-.394
9	I	1.027	.380
10	J	-3.493	-.587

Hydria's data from Turkey Hydria 09-23-95 15:08:26

DISPLAY 17. PRINCIPAL COMPONENT ANALYSIS: SCATTERGRAM (LEGEND ON PREVIOUS PAGE) OF COMPONENT SCORES PAGE 2



Hydria's data from Turkey Hydria 09-23-95 15:08:26

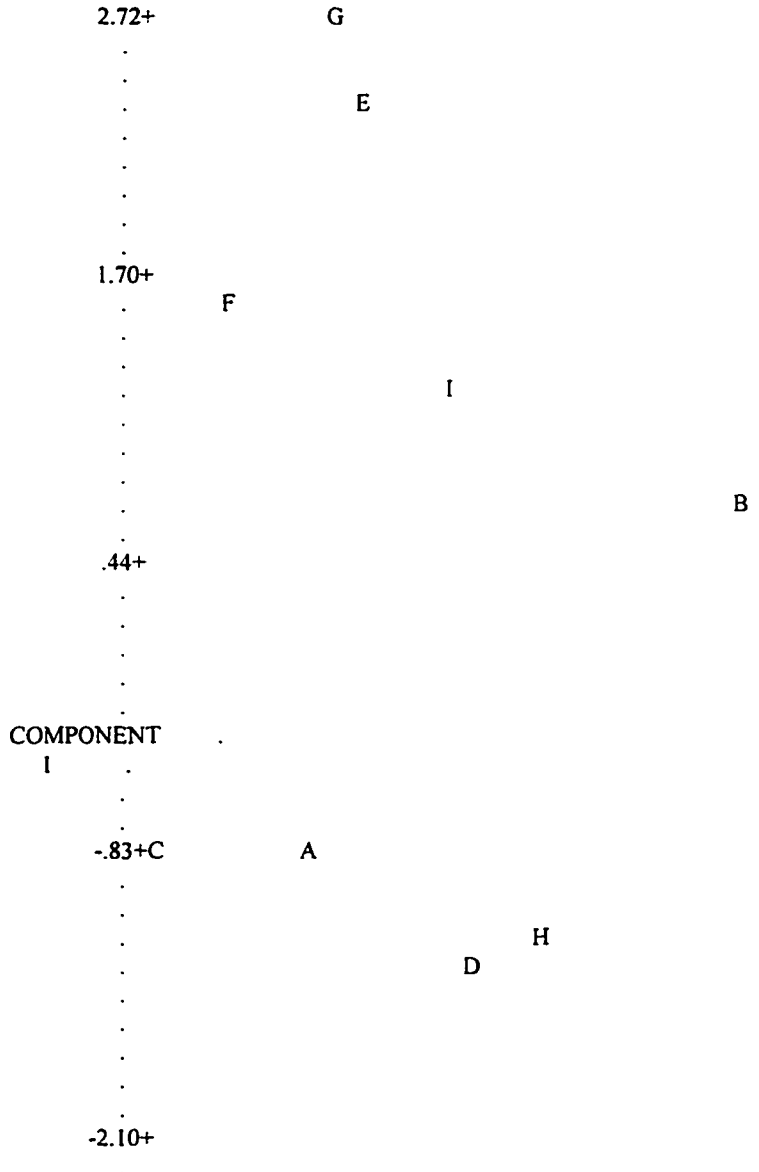
DISPLAY 17. PRINCIPAL COMPONENT ANALYSIS: LEGEND FOR SCATTERGRAM (NEXT PAGE) OF COMPONENT SCORES PAGE 3

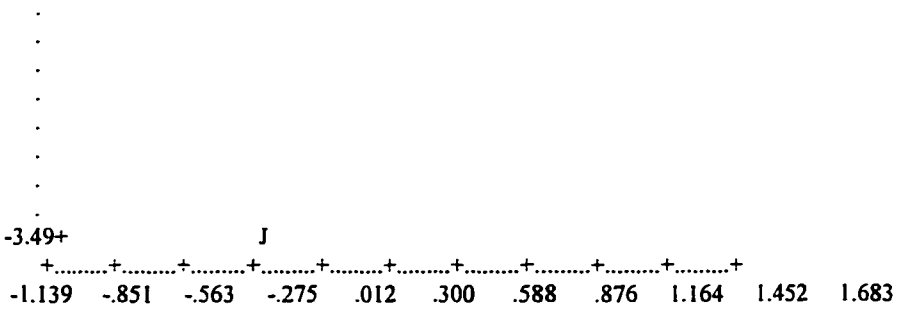
STIMULUS	SYMBOL	COMPONENT 1	COMPONENT 3
1	A	-.980	-.494
2	B	.612	1.683

3	C	-.947	-1.168
4	D	-1.415	.422
5	E	2.337	-.113
6	F	1.497	-.733
7	G	2.719	-.363
8	H	-1.357	.733
9	I	1.027	.318
10	J	-3.493	-.284

Hydria's data from Turkey Hydria 09-23-95 15:08:26

DISPLAY 17. PRINCIPAL COMPONENT ANALYSIS: SCATTERGRAM (LEGEND ON PREVIOUS PAGE) OF COMPONENT SCORES PAGE 4





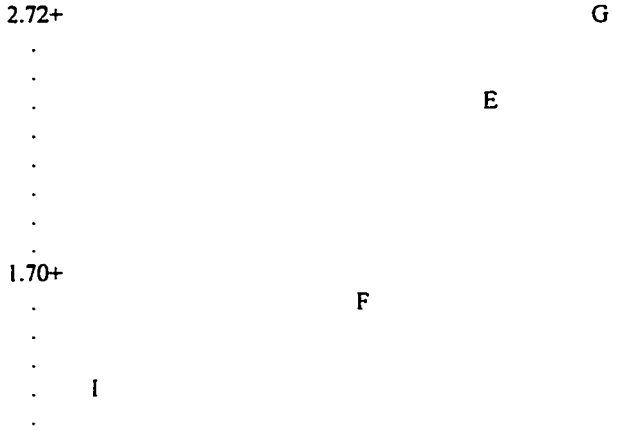
Hydria's data from Turkey Hydria 09-23-95 15:08:26

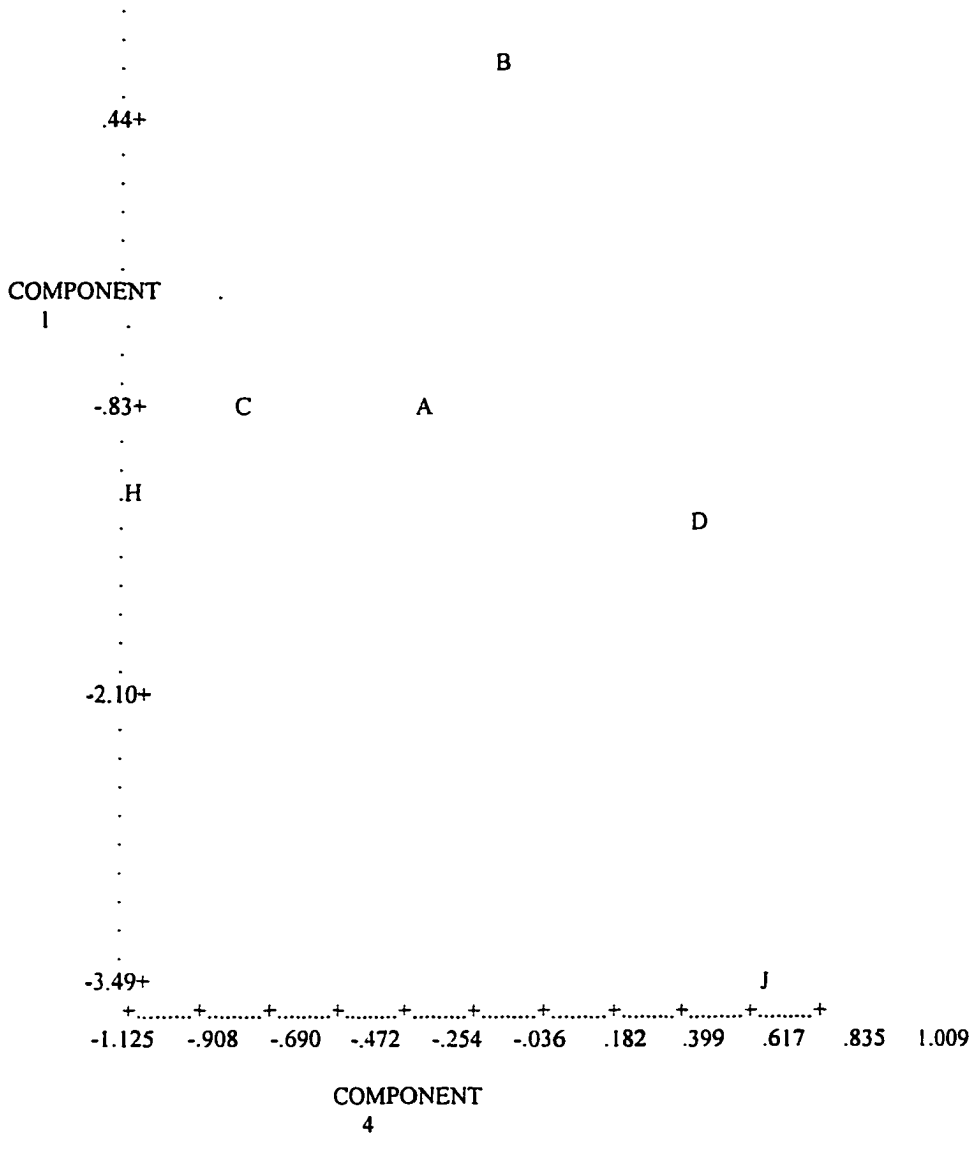
DISPLAY 17. PRINCIPAL COMPONENT ANALYSIS: LEGEND FOR SCATTERGRAM (NEXT PAGE) OF COMPONENT SCORES PAGE 5

STIMULUS	SYMBOL	COMPONENT 1	COMPONENT 4
1	A	-.980	-.235
2	B	.612	.158
3	C	-.947	-.852
4	D	-1.415	.848
5	E	2.337	.453
6	F	1.497	-.011
7	G	2.719	.723
8	H	-1.357	-1.147
9	I	1.027	-.947
10	J	-3.493	1.009

Hydria's data from Turkey Hydria 09-23-95 15:08:26

DISPLAY 17. PRINCIPAL COMPONENT ANALYSIS: SCATTERGRAM (LEGEND ON PREVIOUS PAGE) OF COMPONENT SCORES PAGE 6





Hydria's data from Turkey Hydria 09-23-95 15:08:26

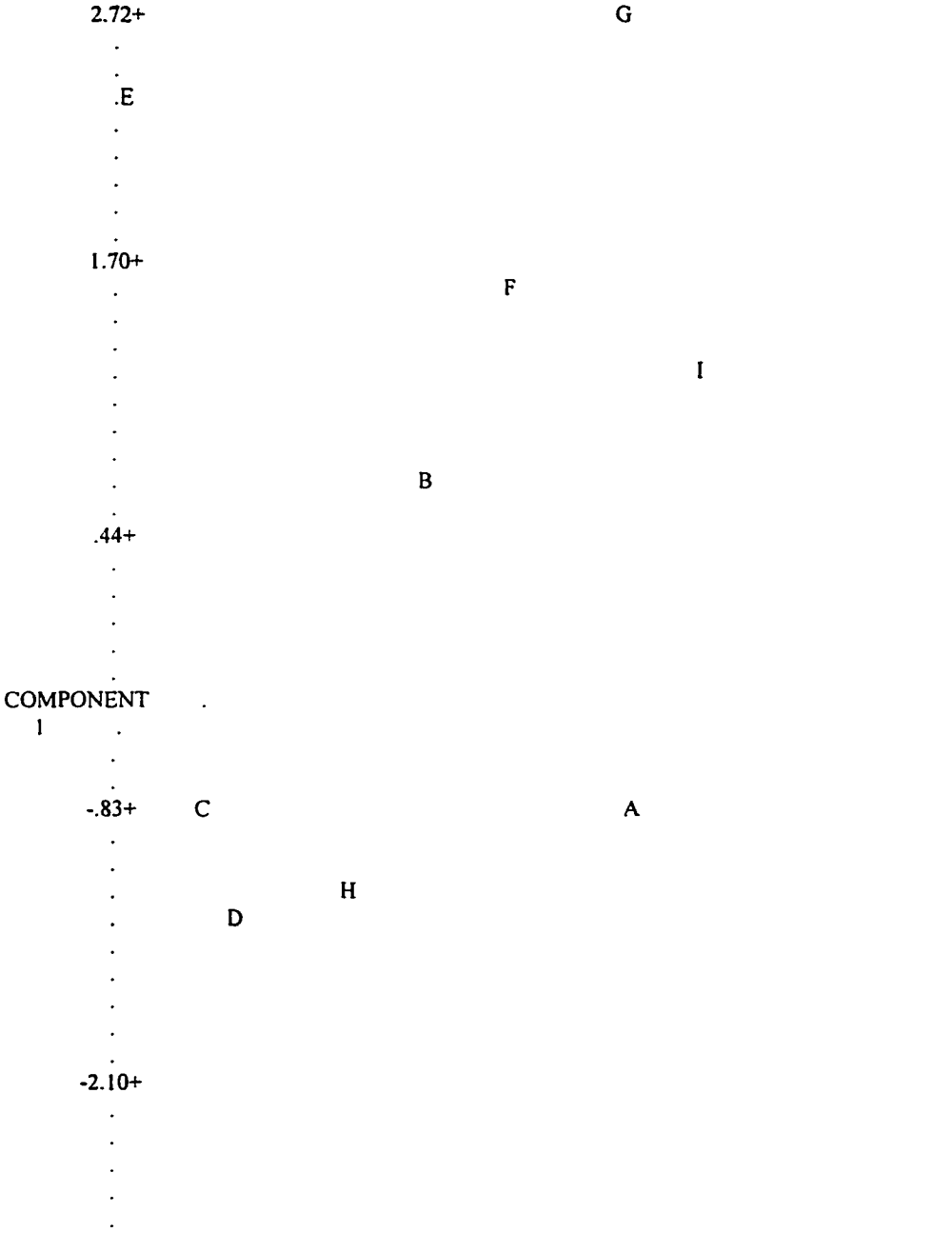
DISPLAY 17. PRINCIPAL COMPONENT ANALYSIS: LEGEND FOR SCATTERGRAM (NEXT PAGE) OF COMPONENT SCORES PAGE 7

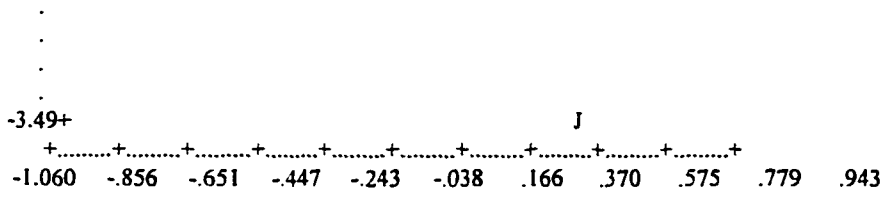
STIMULUS	SYMBOL	COMPONENT 1	COMPONENT 5
1	A	-.980	.597
2	B	.612	-.031
3	C	-.947	-.873
4	D	-1.415	-.686
5	E	2.337	-1.080
6	F	1.497	.273

7	G	2.719	.581
8	H	-1.357	-.311
9	I	1.027	.943
10	J	-3.493	.586

Hydria's data from Turkey Hydria 09-23-95 15:08:26

DISPLAY 17. PRINCIPAL COMPONENT ANALYSIS: SCATTERGRAM (LEGEND ON PREVIOUS PAGE) OF COMPONENT SCORES PAGE 8





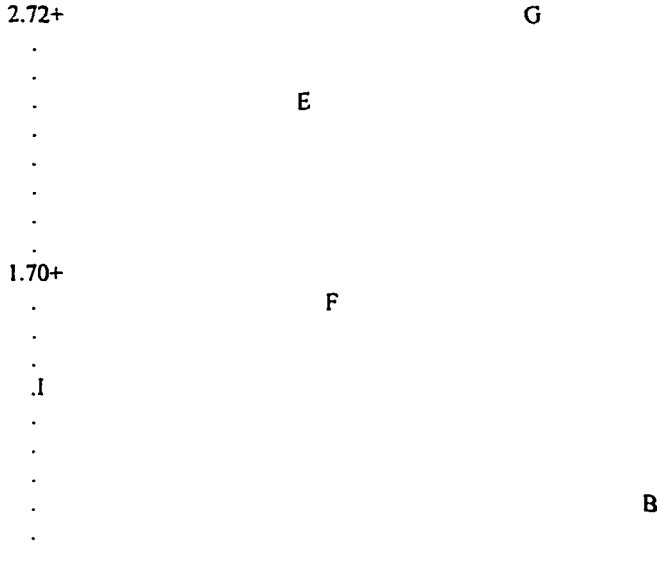
Hydria's data from Turkey Hydria 09-23-95 15:08:26

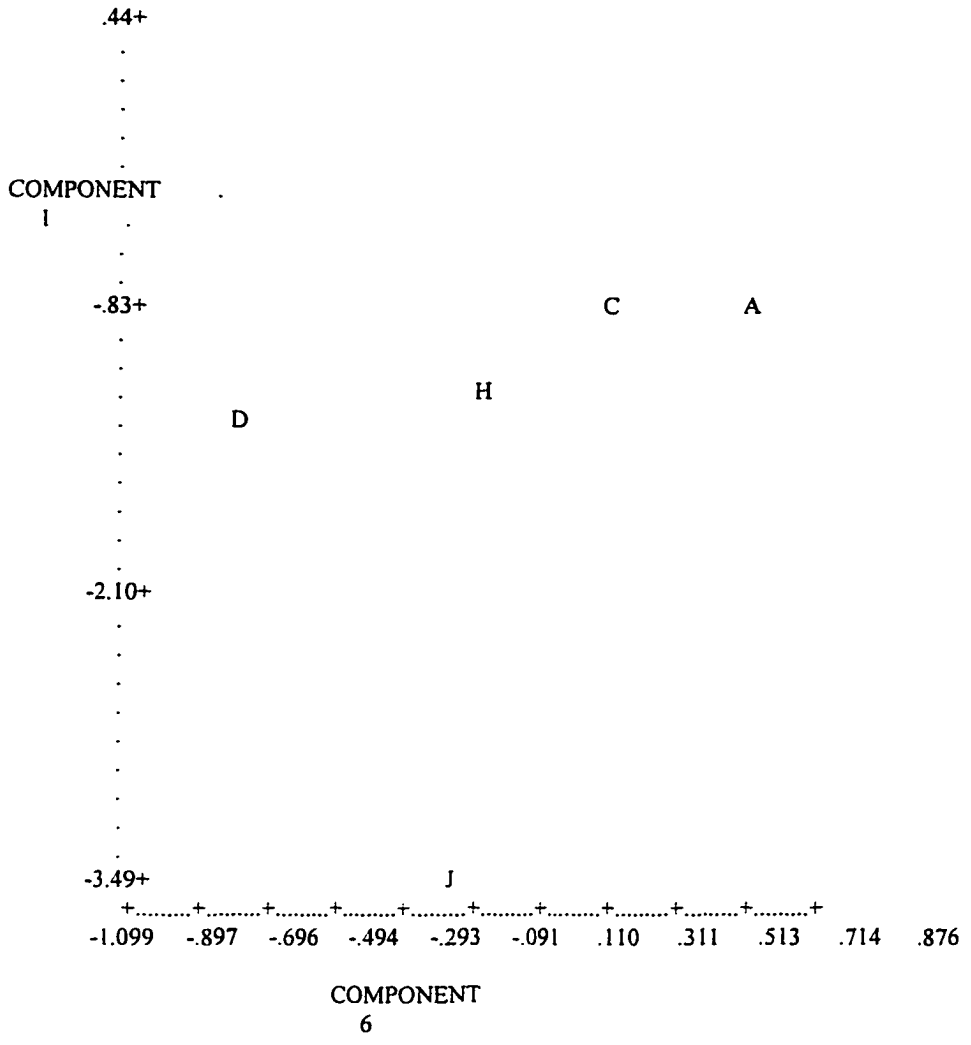
DISPLAY 17. PRINCIPAL COMPONENT ANALYSIS: LEGEND FOR SCATTERGRAM (NEXT PAGE) OF COMPONENT SCORES PAGE 9

STIMULUS	SYMBOL	COMPONENT 1	COMPONENT 6
1	A	-.980	.817
2	B	.612	.876
3	C	-.947	.385
4	D	-1.415	-.783
5	E	2.337	-.280
6	F	1.497	-.165
7	G	2.719	.396
8	H	-1.357	.021
9	I	1.027	-1.119
10	J	-3.493	-.150

Hydria's data from Turkey Hydria 09-23-95 15:08:26

DISPLAY 17. PRINCIPAL COMPONENT ANALYSIS: SCATTERGRAM (LEGEND ON PREVIOUS PAGE) OF COMPONENT SCORES PAGE 10





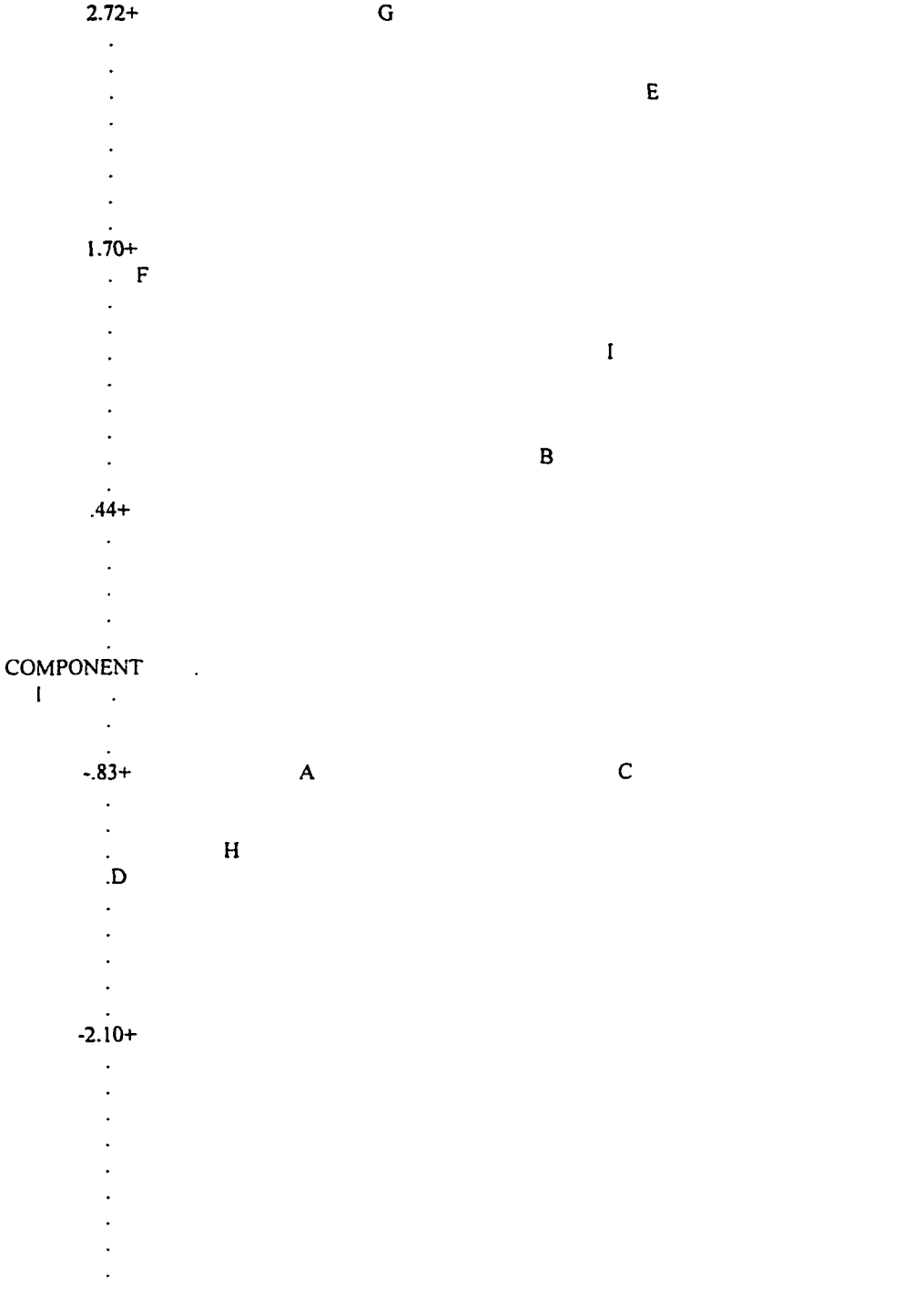
Hydria's data from Turkey Hydria 09-23-95 15:08:26

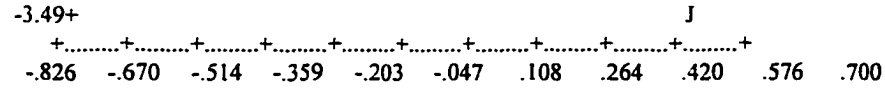
DISPLAY 17. PRINCIPAL COMPONENT ANALYSIS: LEGEND FOR SCATTERGRAM (NEXT PAGE) OF COMPONENT SCORES PAGE 11

STIMULUS	SYMBOL	COMPONENT 1	COMPONENT 7
1	A	-.980	-.378
2	B	.612	.343
3	C	-.947	.475
4	D	-1.415	-.841
5	E	2.337	.640
6	F	1.497	-.778
7	G	2.719	-.172
8	H	-1.357	-.525
9	I	1.027	.535
10	J	-3.493	.700

Hydria's data from Turkey Hydria 09-23-95 15:08:26

DISPLAY 17. PRINCIPAL COMPONENT ANALYSIS: SCATTERGRAM (LEGEND ON PREVIOUS PAGE) OF COMPONENT SCORES PAGE 12





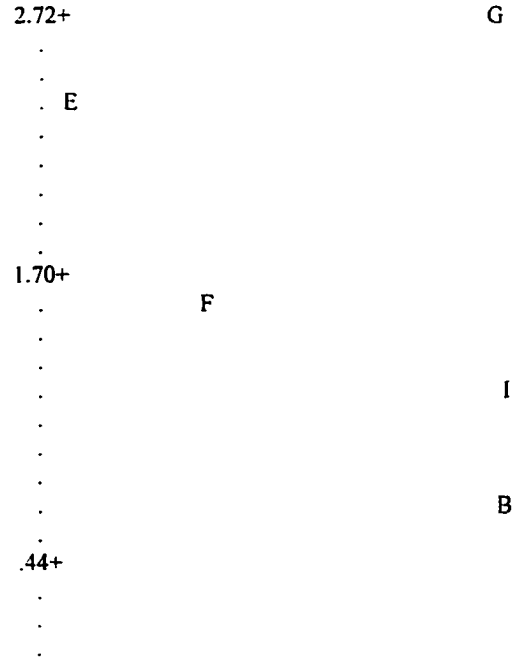
Hydria's data from Turkey Hydria 09-23-95 15:08:26

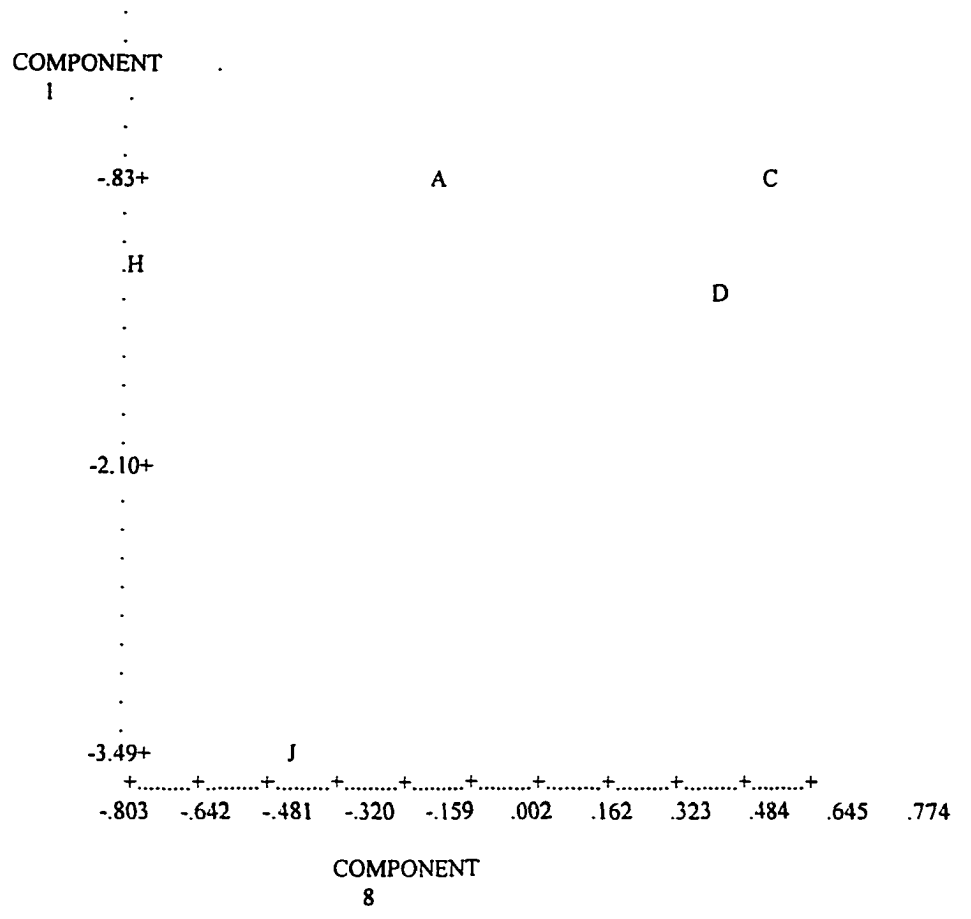
DISPLAY 17. PRINCIPAL COMPONENT ANALYSIS: LEGEND FOR SCATTERGRAM (NEXT PAGE) OF COMPONENT SCORES PAGE 13

STIMULUS		COMPONENT SYMBOL	COMPONENT 1	8
1	A		-.980	-.074
2	B		.612	.366
3	C		-.947	.774
4	D		-1.415	.730
5	E		2.337	-.771
6	F		1.497	-.413
7	G		2.719	.281
8	H		-1.357	-.819
9	I		1.027	.387
10	J		-3.493	-.462

Hydria's data from Turkey Hydria 09-23-95 15:08:26

DISPLAY 17. PRINCIPAL COMPONENT ANALYSIS: SCATTERGRAM (LEGEND ON PREVIOUS PAGE) OF COMPONENT SCORES PAGE 14





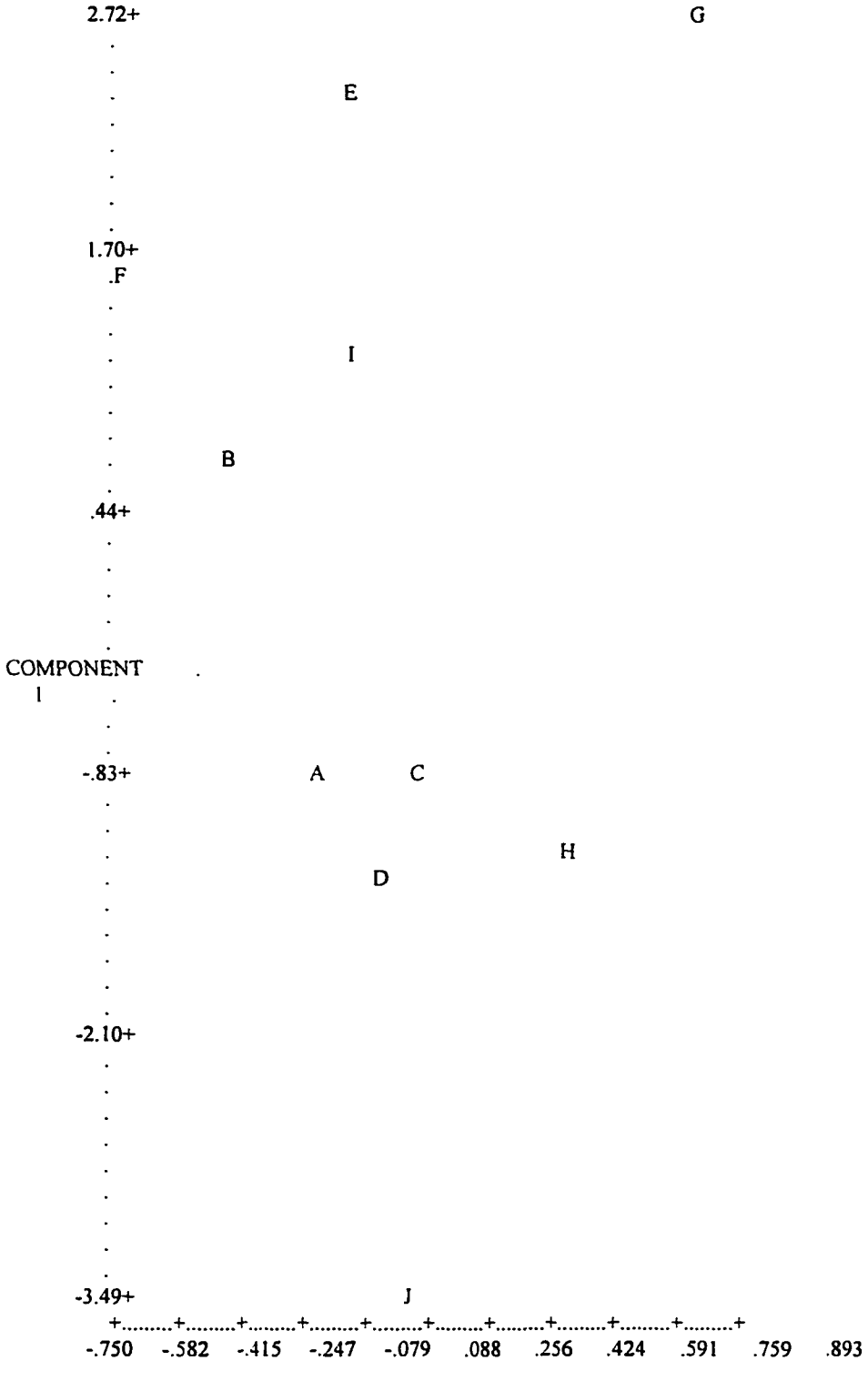
Hydria's data from Turkey Hydria 09-23-95 15:08:26

DISPLAY 17. PRINCIPAL COMPONENT ANALYSIS: LEGEND FOR SCATTERGRAM (NEXT PAGE) OF COMPONENT SCORES PAGE 15

STIMULUS	SYMBOL	COMPONENT 1	COMPONENT 9
1	A	-.980	-.231
2	B	.612	-.440
3	C	-.947	.034
4	D	-1.415	.024
5	E	2.337	-.080
6	F	1.497	-.767
7	G	2.719	.893
8	H	-1.357	.598
9	I	1.027	-.062
10	J	-3.493	.032

Hydria's data from Turkey Hydria 09-23-95 15:08:26

DISPLAY 17. PRINCIPAL COMPONENT ANALYSIS: SCATTERGRAM (LEGEND ON PREVIOUS PAGE) OF COMPONENT SCORES PAGE 16



COMPONENT
9

Hydria's data from Turkey Hydria 09-23-95 15:08:26

DISPLAY 18. PRINCIPAL COMPONENT ANALYSIS: CORR. OF COMPONENT SCORES WITH OTHER MEASURES OF INTEREST PAGE 1

	COMPONENT 1	COMPONENT 2	COMPONENT 3	COMPONENT 4	COMPONENT 5	COMPONENT 6	COMPONENT 7	COMPONENT 8	COMPONENT 9
RATING	1.000	.010	.012	.009	-.001	.002	-.016	-.003	.015
MEDIAN	.980	-.053	.000	.092	.105	-.044	.004	.096	-.078
STD. DEV. RAT.	.233	.373	.232	-.631	-.329	.076	-.286	.253	-.308
ORIGIN ADJ RAT.	1.000	.010	.012	.009	-.001	.002	-.016	-.003	.015
SBE	.980	.045	.010	-.073	-.042	.047	-.130	.076	.075
ALL STIM. Z-TRANS.	.999	.016	.009	-.005	-.005	.007	-.027	-.000	.022
ALL STIM. L.S. TRAN	1.000	.002	.002	.001	-.000	.000	-.002	-.000	.001
BL STIMULI Z-TRANS.	.999	.016	.009	-.005	-.005	.007	-.027	-.000	.022

Hydria's data from Turkey Hydria 09-23-95 15:08:26

DISPLAY 19. ANALYSIS BY OBSERVERS. PAGE 1

CONDITION/ OBSERVER	RATING	MEDIAN	STD. DEV. OF RATINGS	SBE	- INDICATIONS OF NORMALITY - SKEWNESS RATING	KURTOSIS RATING	MOD. A-D RATING
ALL STIM.	3.99	3.9	2.22	.00	-.05	-1.245	1.025

OBS. 1	3.80	3.5	2.53	.00	.09	-1.897	.637
OBS. 2	6.40	7.0	1.90	.00	-2.28	3.570	3.692
OBS. 3	5.40	6.0	1.65	.00	-.72	-.804	.596
OBS. 4	4.80	5.0	2.04	.00	-.39	-1.268	.399
OBS. 5	5.40	6.5	2.12	.00	-.85	-.793	.976
OBS. 6	3.00	1.0	2.58	.00	.35	-2.055	1.997
OBS. 7	3.80	3.5	2.30	.00	.07	-1.858	.595
OBS. 8	4.70	5.5	2.26	.00	-.65	-1.294	.790
OBS. 9	3.70	4.5	2.26	.00	-.08	-1.769	.642
OBS. 10	3.90	3.0	2.13	.00	.24	-1.955	1.214
OBS. 11	2.90	1.5	2.64	.00	.71	-1.518	1.570
OBS. 12	3.10	1.5	2.51	.00	.31	-2.045	1.673
OBS. 13	2.60	1.5	2.27	.00	.91	-.948	1.295
OBS. 14	3.50	3.5	1.96	.00	.00	-1.798	.452
OBS. 15	3.70	3.0	2.16	.00	.23	-1.794	.719
OBS. 16	3.30	2.5	2.41	.00	.20	-2.023	1.241
OBS. 17	3.90	4.0	2.56	.00	-.01	-1.947	.698
OBS. 18	5.50	7.0	2.55	.00	-.98	-.963	2.079
OBS. 19	4.90	5.5	2.38	.00	-.61	-1.302	.802
OBS. 20	5.10	7.0	2.60	.00	-.61	-1.549	1.449
OBS. 21	2.10	2.0	1.52	.00	1.55	1.411	1.316
OBS. 22	5.80	7.0	2.53	.00	-1.28	-.367	2.912
OBS. 23	2.80	1.0	2.39	.00	.47	-1.845	1.672
OBS. 24	3.90	3.5	2.28	.00	.11	-1.669	.341
OBS. 25	3.40	3.0	2.55	.00	.32	-1.769	.808
OBS. 26	3.10	2.5	1.91	.00	.65	-.837	.449
OBS. 27	3.70	2.5	2.98	.00	.17	-2.066	1.465
OBS. 28	3.20	2.0	2.49	.00	.38	-1.848	1.054
OBS. 29	3.10	3.0	2.23	.00	.80	-.901	1.022
OBS. 30	3.00	3.0	1.94	.00	.65	-.744	.477
OBS. 31	4.80	6.5	2.70	.00	-.42	-1.855	1.270
OBS. 32	3.90	3.5	2.28	.00	.11	-1.669	.341
OBS. 33	2.60	1.5	2.41	.00	1.06	-.691	1.589
OBS. 34	5.60	7.0	2.07	.00	-1.01	-.341	1.353
OBS. 35	4.40	5.0	2.12	.00	-.54	-1.329	.588
OBS. 36	3.80	3.0	2.20	.00	.23	-1.854	.832
OBS. 37	4.10	4.0	2.08	.00	.08	-1.984	.974
OBS. 38	5.50	6.5	2.42	.00	-1.17	-.515	1.920
OBS. 39	4.70	5.0	2.00	.00	-.38	-1.327	.497
OBS. 40	4.40	4.5	1.58	.00	-.75	-.458	.536
OBS. 41	3.60	3.0	2.22	.00	.57	-1.495	.933
OBS. 42	3.70	3.0	1.95	.00	.30	-1.448	.422
OBS. 43	4.20	5.5	2.82	.00	-.24	-2.012	1.218
OBS. 44	5.20	7.0	2.90	.00	-.75	-1.573	2.340
OBS. 45	2.20	1.0	2.15	.00	1.22	-.158	1.954
OBS. 46	4.00	3.0	1.83	.00	.00	-1.650	1.236

CONDITION/ OBSERVER	RATING	MEDIAN	STD. DEV. OF RATINGS	- INDICATIONS OF NORMALITY - SKEWNESS SBE	KURTOSIS RATING	MOD. A-D RATING

OBS. 47	5.30	6.0	1.57	.00	-.76	-.645	.646
OBS. 48	3.60	3.0	2.01	.00	.05	-1.767	.618
OBS. 49	3.70	4.0	1.89	.00	-.24	-1.612	.394
OBS. 50	3.70	3.0	2.54	.00	.19	-1.893	.752
OBS. 51	2.90	2.0	2.02	.00	.56	-1.541	.883
OBS. 52	5.40	7.0	2.50	.00	-.95	-.981	1.706
OBS. 53	4.10	5.5	2.28	.00	-.36	-1.934	1.333
OBS. 54	4.10	4.5	2.47	.00	-.02	-1.825	.588
OBS. 55	6.00	6.5	1.56	.00	-1.57	1.385	1.424
OBS. 56	5.60	6.0	1.78	.00	-1.59	1.616	1.270
OBS. 57	4.00	4.5	2.00	.00	-.22	-1.350	.366
OBS. 58	4.20	5.0	2.20	.00	-.23	-1.854	.832
OBS. 59	3.50	3.5	2.32	.00	.12	-1.858	.773
OBS. 60	3.90	4.5	2.18	.00	-.29	-1.555	.703
OBS. 61	3.70	3.5	2.11	.00	.16	-1.541	.344
OBS. 62	3.60	3.5	2.22	.00	.13	-1.614	.466
OBS. 63	3.10	2.0	2.13	.00	.69	-1.258	.886
OBS. 64	3.00	2.0	2.26	.00	.47	-1.584	1.003
OBS. 65	3.20	2.5	1.99	.00	.52	-1.191	.475
OBS. 66	3.10	2.0	2.47	.00	.57	-1.503	.931
OBS. 67	3.20	3.0	1.99	.00	.67	-.946	.548
OBS. 68	3.90	3.5	2.08	.00	-.01	-1.522	.364
OBS. 69	3.90	3.0	2.60	.00	.17	-1.958	.876
OBS. 70	4.20	4.0	1.93	.00	.16	-1.246	.555

BASELINE	3.99	3.9	2.22	.00	-.05	-1.245	1.025

OBS. 1	3.80	3.5	2.53	.00	.09	-1.897	.637
OBS. 2	6.40	7.0	1.90	.00	-2.28	3.570	3.692
OBS. 3	5.40	6.0	1.65	.00	-.72	-.804	.596
OBS. 4	4.80	5.0	2.04	.00	-.39	-1.268	.399
OBS. 5	5.40	6.5	2.12	.00	-.85	-.793	.976
OBS. 6	3.00	1.0	2.58	.00	.35	-2.055	1.997
OBS. 7	3.80	3.5	2.30	.00	.07	-1.858	.595
OBS. 8	4.70	5.5	2.26	.00	-.65	-1.294	.790
OBS. 9	3.70	4.5	2.26	.00	-.08	-1.769	.642
OBS. 10	3.90	3.0	2.13	.00	.24	-1.955	1.214
OBS. 11	2.90	1.5	2.64	.00	.71	-1.518	1.570
OBS. 12	3.10	1.5	2.51	.00	.31	-2.045	1.673
OBS. 13	2.60	1.5	2.27	.00	.91	-.948	1.295
OBS. 14	3.50	3.5	1.96	.00	.00	-1.798	.452
OBS. 15	3.70	3.0	2.16	.00	.23	-1.794	.719
OBS. 16	3.30	2.5	2.41	.00	.20	-2.023	1.241
OBS. 17	3.90	4.0	2.56	.00	-.01	-1.947	.698
OBS. 18	5.50	7.0	2.55	.00	-.98	-.963	2.079
OBS. 19	4.90	5.5	2.38	.00	-.61	-1.302	.802
OBS. 20	5.10	7.0	2.60	.00	-.61	-1.549	1.449
OBS. 21	2.10	2.0	1.52	.00	1.55	1.411	1.316
OBS. 22	5.80	7.0	2.53	.00	-1.28	-.367	2.912

CONDITION/ OBSERVER	RATING	MEDIAN	STD. DEV. OF RATINGS	- INDICATIONS OF NORMALITY - SKEWNESS	KURTOSIS SBE	MOD. A-D RATING	RATING
OBS. 23	2.80	1.0	2.39	.00	.47	-1.845	1.672
OBS. 24	3.90	3.5	2.28	.00	.11	-1.669	.341
OBS. 25	3.40	3.0	2.55	.00	.32	-1.769	.808
OBS. 26	3.10	2.5	1.91	.00	.65	-.837	.449
OBS. 27	3.70	2.5	2.98	.00	.17	-2.066	1.465
OBS. 28	3.20	2.0	2.49	.00	.38	-1.848	1.054
OBS. 29	3.10	3.0	2.23	.00	.80	-.901	1.022
OBS. 30	3.00	3.0	1.94	.00	.65	-.744	.477
OBS. 31	4.80	6.5	2.70	.00	-.42	-1.855	1.270
OBS. 32	3.90	3.5	2.28	.00	.11	-1.669	.341
OBS. 33	2.60	1.5	2.41	.00	1.06	-.691	1.589
OBS. 34	5.60	7.0	2.07	.00	-1.01	-.341	1.353
OBS. 35	4.40	5.0	2.12	.00	-.54	-1.329	.588
OBS. 36	3.80	3.0	2.20	.00	.23	-1.854	.832
OBS. 37	4.10	4.0	2.08	.00	.08	-1.984	.974
OBS. 38	5.50	6.5	2.42	.00	-1.17	-.515	1.920
OBS. 39	4.70	5.0	2.00	.00	-.38	-1.327	.497
OBS. 40	4.40	4.5	1.58	.00	-.75	-.458	.536
OBS. 41	3.60	3.0	2.22	.00	.57	-1.495	.933
OBS. 42	3.70	3.0	1.95	.00	.30	-1.448	.422
OBS. 43	4.20	5.5	2.82	.00	-.24	-2.012	1.218
OBS. 44	5.20	7.0	2.90	.00	-.75	-1.573	2.340
OBS. 45	2.20	1.0	2.15	.00	1.22	-.158	1.954
OBS. 46	4.00	3.0	1.83	.00	.00	-1.650	1.236
OBS. 47	5.30	6.0	1.57	.00	-.76	-.645	.646
OBS. 48	3.60	3.0	2.01	.00	.05	-1.767	.618
OBS. 49	3.70	4.0	1.89	.00	-.24	-1.612	.394
OBS. 50	3.70	3.0	2.54	.00	.19	-1.893	.752
OBS. 51	2.90	2.0	2.02	.00	.56	-1.541	.883
OBS. 52	5.40	7.0	2.50	.00	-.95	-.981	1.706
OBS. 53	4.10	5.5	2.28	.00	-.36	-1.934	1.333
OBS. 54	4.10	4.5	2.47	.00	-.02	-1.825	.588
OBS. 55	6.00	6.5	1.56	.00	-1.57	1.385	1.424
OBS. 56	5.60	6.0	1.78	.00	-1.59	1.616	1.270
OBS. 57	4.00	4.5	2.00	.00	-.22	-1.350	.366
OBS. 58	4.20	5.0	2.20	.00	-.23	-1.854	.832
OBS. 59	3.50	3.5	2.32	.00	.12	-1.858	.773
OBS. 60	3.90	4.5	2.18	.00	-.29	-1.555	.703
OBS. 61	3.70	3.5	2.11	.00	.16	-1.541	.344
OBS. 62	3.60	3.5	2.22	.00	.13	-1.614	.466
OBS. 63	3.10	2.0	2.13	.00	.69	-1.258	.886
OBS. 64	3.00	2.0	2.26	.00	.47	-1.584	1.003
OBS. 65	3.20	2.5	1.99	.00	.52	-1.191	.475
OBS. 66	3.10	2.0	2.47	.00	.57	-1.503	.931
OBS. 67	3.20	3.0	1.99	.00	.67	-.946	.548
OBS. 68	3.90	3.5	2.08	.00	-.01	-1.522	.364
OBS. 69	3.90	3.0	2.60	.00	.17	-1.958	.876
OBS. 70	4.20	4.0	1.93	.00	.16	-1.246	.555

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Stop                          -                    Program                    terminated.
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