

Title of case study:

**“Historic Cities in the grip of Tourist Development –
Lessons from a cross-temporal study in Mykonos”**

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The preservation of a land's cultural heritage includes the preservation of its architectural heritage. Architectural heritage can range from items of a solely memorial nature to monuments and settlements, which are still inhabited and "living", and which are the object of orders of preservation by the State (preservable).

The nature of the latter is dual: the preservable settlements belong both to the category of "cultural monuments" and to the category of "living shells". Their treatment, therefore, as objects of preservation must be reconciled with their urban existence and whatever this implies, that is, all the needs of contemporary urban communities including employment, housing, health care, education, traffic, communication, social life, protection of the environment and the right to socio-economic development; plus one more problem: the requirement of preserving the shell or certain elements within it.

The preservation policy of the Ministry for the Environment, Regional Planning and Public Works for historic settlements follows three axes:

- (a) preservation of the historic street pattern, typical of the structure of the particular city or town,
- (b) control of the form of buildings through compliance of new structures, additions, rehabilitations etc. with specially designed building bye-laws (I am not referring to buildings designated as monuments requiring restoration),
- (c) zoning regulations as to the use of buildings.

The success of implementing this policy depends on a number of variables, such as the quality of design and construction work, proper supervision and the degree of success of development control mechanisms. According to the authorities success is measured by the degree to which the products of the preservation process (i.e. the form of the preserved or new buildings) are actually considered authentic and valid compared to the models of the past (*which* past is of course another issue). It has been accepted, therefore, that a successfully preserved settlement is one in which the measures taken have led to the preservation of its traditional form as a shell of culture in which however contemporary life can go on.

Taking the main town of the island of Mykonos (the "Chora") as an example, we attempted to evaluate this policy, answering - even indirectly - certain questions that arise such as: What are the aims of the policy of preservation? What is the significance of the achievements for the preservation of settlements? How does this policy connect to the issue of carrying capacity concerning a historic place under pressure from intense tourist development?

Based on the hypothesis that to produce answers to these questions and to be able to take a constructive stand on the issue, systematic observation and quantification of certain phenomena is needed, we carried out in 1972 a research project in the Chora of Mykonos, which was repeated in 1981 and 1996.

Though the research was open-ended, one of its aims was, through an analysis of the changing function of public space in the life of the town, to evaluate the efficiency and the scope of the present policy for the preservation of historic cities in Greece.

In this project we documented the evolution and changes of certain phenomena in the form and the use of seven public spaces in the Chora of Mykonos in a span of 25 years. These changes are mainly due to the growing impact of the tourist industry on the island. The phenomena measured were: the movement of pedestrians - separately of locals and of visitors -, the occupation of public space by parked

vehicles, by tavernas, cafés etc. for out-door eating, the densities of people seated and circulating, the uses of ground floors, the noise levels and finally all changes in the external appearance of buildings, of their fittings and fixtures and of the elements that give form to the public space.



The public spaces surveyed in Chora

Land uses, 1972

The seven public areas are: Panagia Pryani (#2), the Kousegiaries (#3), Aleukantra (#5), the Leuko Steno [= the White Strait] (#6), Aghia Kyriaki (#7), Goumenio (#9), and south Matogianni (#10). These areas were selected in 1972 because each presented a distinctive structural feature. The selection was made so that some were located on the Commercial Ring and others in more remote and quieter residential areas; some areas are suitable for open-air gatherings (cafes and restaurants) and others have the form of a “corridor” space; others are more remote; some are in the part of Chora with the irregular road pattern and others in the gridiron part; some are on the water front and others located in the contemporary linear extension of Chora, Niochori.

The emphasis of the 1972 research was on surveying the architectural features and photographing the buildings which define the areas, while in 1983 the emphasis was on quantifying the traffic of the crowds, the occupation of the public areas and the noise levels as well as on photographing the areas. The 1996 research moved along similar lines to the work done in 1983.

a. Pedestrian traffic

The seven areas were considered enclosed areas with “gates” through which visitors entered or exited. Crews of two or three researchers counted the incoming or outgoing visitors at each gate point. The incoming visitors are signified by the letter “b” and outgoing visitors by the letter “a”.

At least three counts were made at each point:

- one during the morning hours (7:00 - 9:00 am)
- one during the noonday period (1:00 - 2:30 p.m.)
- one during the evening hours (7:00 - 9:30 p.m.)

The crews counted separately the tourists and the local inhabitants of Mykonos, making this distinction at their discretion based on the manner of dress, speech and general behaviour.

The aim of these counts was to measure pedestrian traffic in each area, the differences in traffic according to the time of day and the density of traffic. In addition, by the relative weight of each gate point's traffic, preferred routes of circulation were traced.

The hypothesis was made that the morning traffic is what approximates the traffic of the Chora's "traditional" past.

b. The occupation of public space

The second phenomenon that was measured was the occupation of public space by tables and chairs belonging to restaurants and tavernas that serve in the open as well as space occupation by parked vehicles. These two types of space occupation occur in three of the areas within whose boundaries entertainment and commercial activity of this nature takes place.

The measurements of the occupation of public areas by tables and chairs indicate both the maximum area that these take up (a constant for each tourist season) as well as the degree to which this area is filled by customers (a number which changes radically according to the time of day.)

c. The use of ground floors

The uses of the ground floors of buildings were also recorded. The uses were divided into four categories: residential, commercial, temples of worship and public buildings. The term "commercial" includes both retail shops and places of entertainment such as bars, restaurants, cafés and clubs.



d. The form of buildings and of public space

The total perimeter of the areas as defined by the building facades was photographed as extensively as possible, giving a fairly clear picture of a) additions to the structure of buildings (both horizontal and vertical extensions); b) renewal or rehabilitation of structures; c) additions to facades (shop windows, signs, awnings, light fixtures etc.); and d) changes in the form of public space and street furniture (ownings, flower pots, light fixtures etc.).

Most photographs of the areas in 1972, 1981 and 1996 were taken from the same viewpoints for comparison.



e. Noise levels in public areas

The noise level of public spaces in Chora was already high in 1981 and had little room for any considerable increase. (No noise measurements were taken in 1972.) Both, the general level of background noise and peak noise with its sources were recorded.

All urban phenomena recorded in the cross-temporal surveys show a growth trend: the number of people, mainly visitors, using the public spaces, particularly in the evening hours, the number of people seated in outdoor cafés, restaurants etc. (and the corresponding public space taken up by such activity), the public space occupied by parked vehicles, the ground floors of buildings converted from houses to shops or entertainment uses, the detrimental to the aesthetics of the historic centre alterations of the external appearance of buildings through additions (tents, lighting fixtures, furniture) in total disharmony with the character of the place.

A reference to specific findings follows:

a. Occupation of public space and crowd density.

The tables below show the key findings in areas n^{os}. 5, 7 and 9, i.e. the areas established as important gathering spaces for outdoor eating.

a1. Crowd density

Areas	5		7		9	
Years	1981	1996	1981	1996	1981	1996
Max. density (seated)	3,30	1,65	5,00	2,00	5,00	3,30
Max. density (moving)	3,45	2,00	2,27	2,08	9,10	3,70
Max. density (total)	3,12	1,65	2,50	2,05	16,65	2,55

[density: m² per person max. density in evening count]

a2. Occupation of public space with tables/chairs.

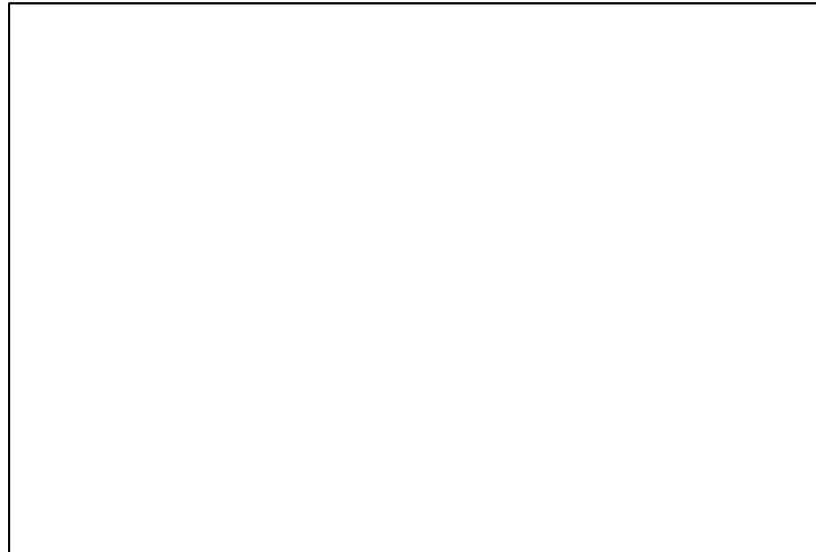
Areas	5	7	9
Rate of growth between 1981-1996	+ 17%	- 17% (*)	+ 460%

(*) Due to change of use from restaurant/taverna to night club type of entertainment.

a3. Numbers of tourists moving in surveyed areas.

% changes are shown in following diagram:

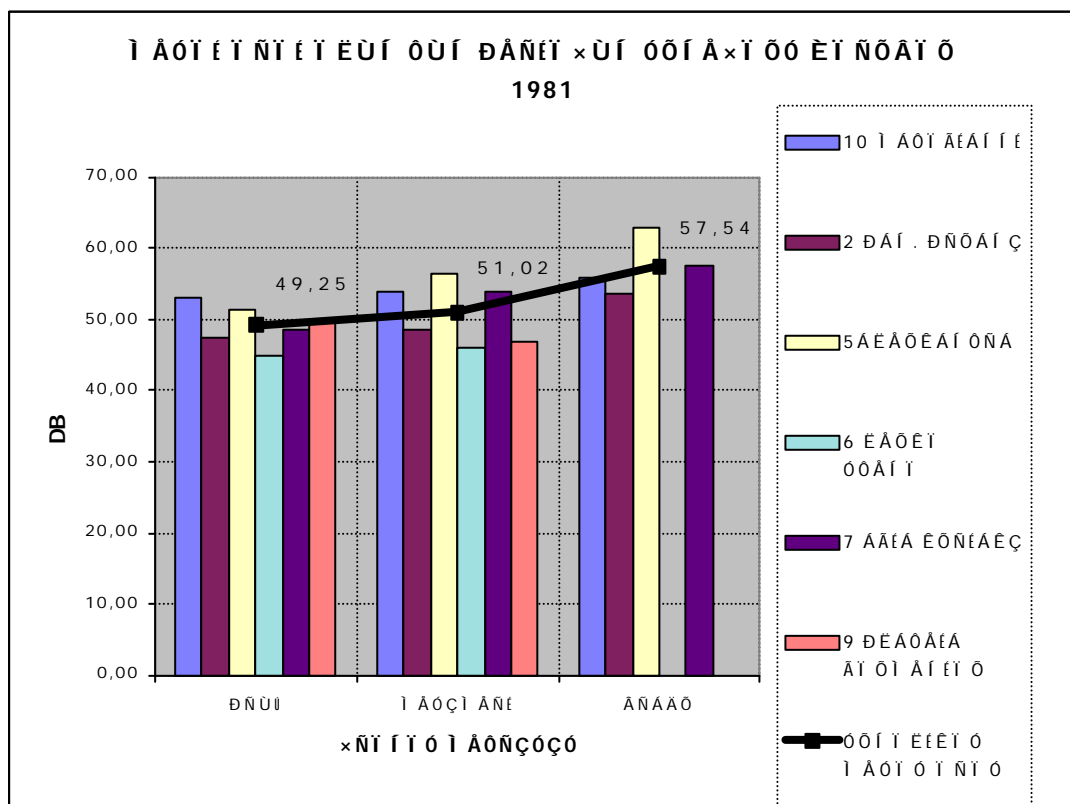
PERCENTAGE INCREASE OF TOURIST TRAFFIC (1981-1996)



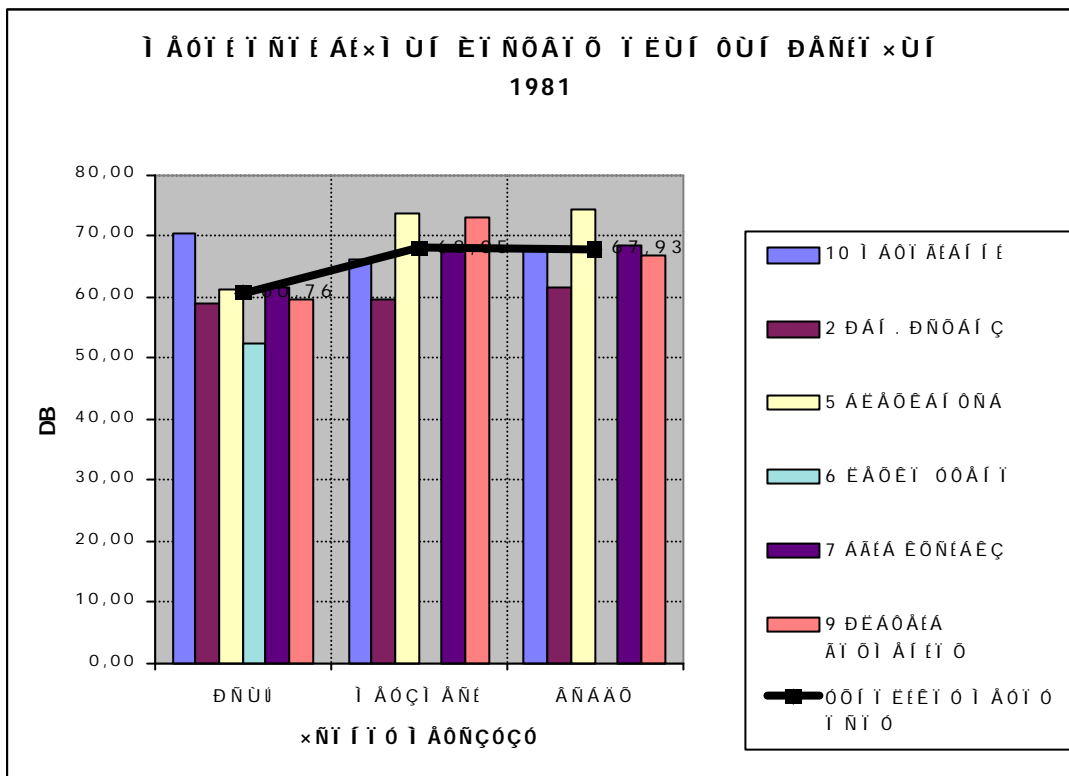
b. Noise

The following bar diagrams show the average noise levels in the areas surveyed for 1981 and 1996.

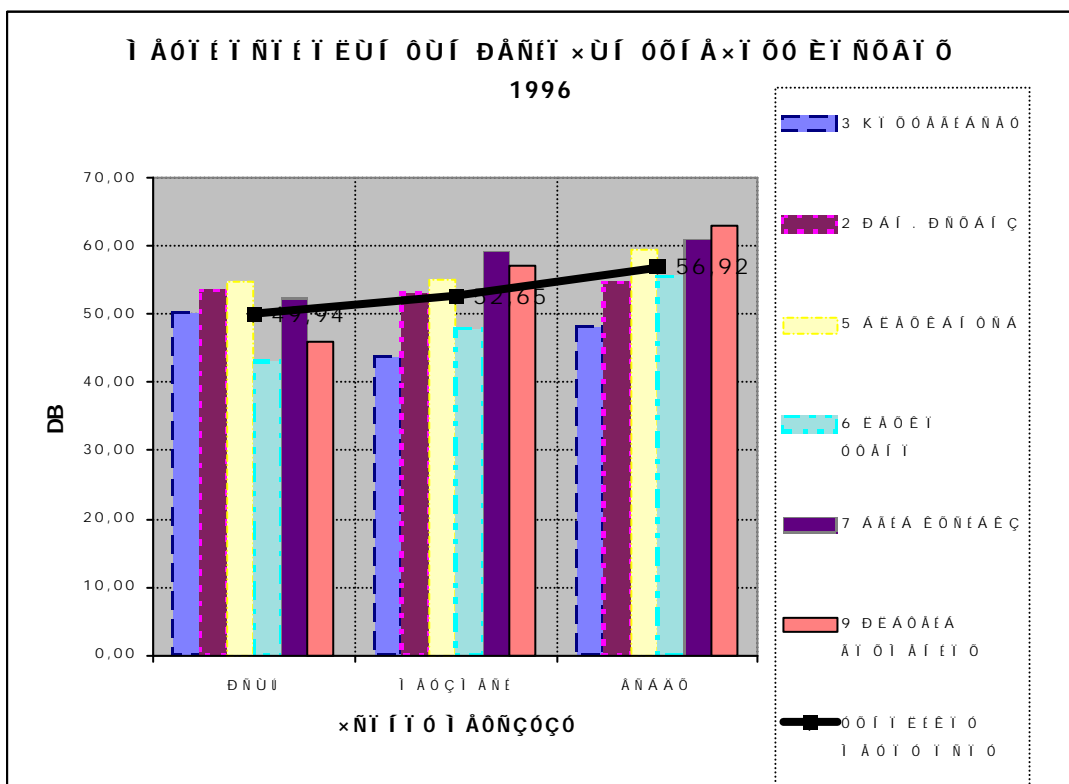
AVERAGE BACKGROUND NOISE LEVELS IN ALL AREAS, 1981



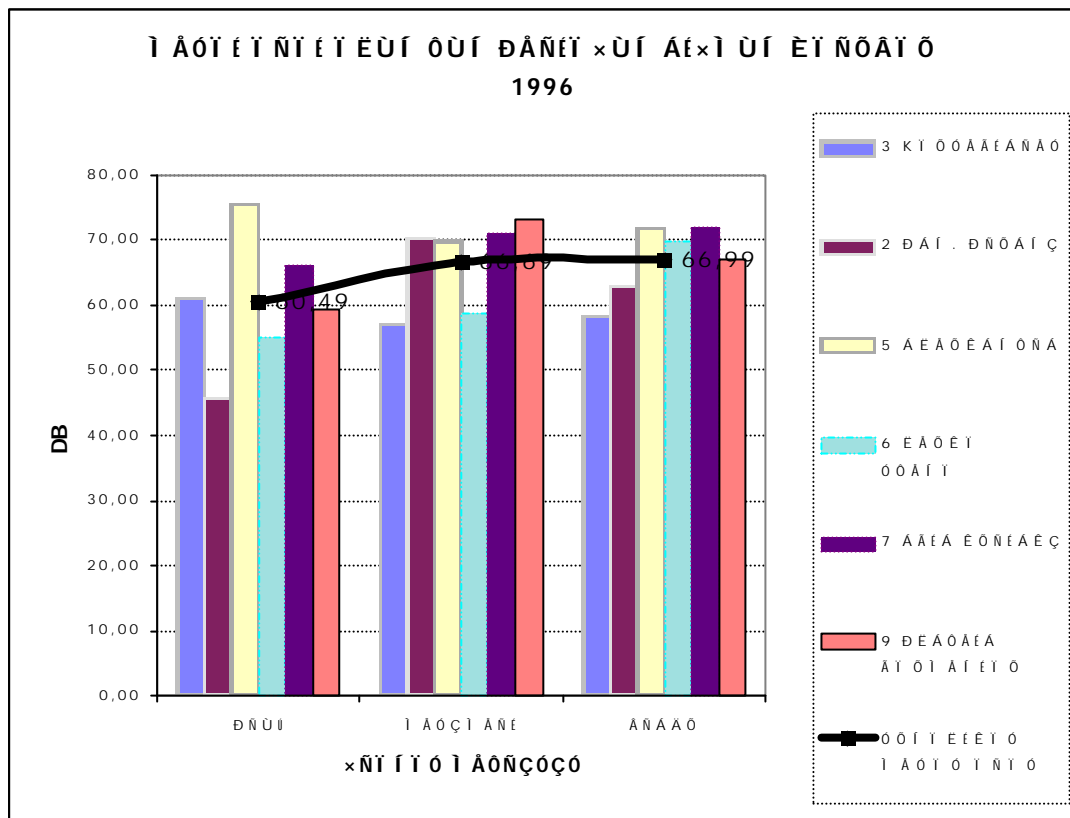
AVERAGE PEAK NOISE LEVELS IN ALL AREAS, 1981



AVERAGE BACKGROUND NOISE LEVELS IN ALL AREAS, 1996



AVERAGE PEAK NOISE LEVELS IN ALL AREAS, 1996



c. **Changes in the form of buildings and in the appearance of public space are discussed at the end of this paper.**

d. **Social problems.**

Demand for tourist accommodation and for commercial uses pushes land and building values up and creates a trend for the conversion of houses to hotels and rooms-to-let with shops at ground level -particularly in Chora. This in turn alienates residents from their homes. Besides, life conditions in Chora as a result of commercialization become more and more intolerable -due to noise pollution, odour pollution from restaurants and tavernas, disturbance from crowd and traffic densities and high rents- and many households who can afford the cost move outward to the periphery of Chora and the island's countryside, leaving poorer and older residents behind to cope with the noisy and fussy life conditions of Chora. These developments result in typical, but small scale, phenomena of deserted central areas during off-peak seasons.

A comment on the carrying capacity of Mykonos concerning tourist development.

The resident population of Mykonos: 6.200 (1991 survey).

The tourist population on a peak August night: 25.000–30.000 (1997).

From the various categories of factors affecting the carrying capacity (c.c.) that (capacity) of two categories has been already surpassed: the island's water resources can cater for the needs of about 25.000 population maximum, whereas the peak number of residents plus visitors exceeds 35.000. The whole of the island's

rocky countryside -agricultural and grazing land to be exact- is gradually covered with little -or larger- boxes, vacation homes or hotels. The landscape changes dramatically from decade to decade.



Similarly demand for space, both for the movement and outdoor living of visitors as well as for moving and parking vehicles in Chora exceeds the capacity of the network of roads and other public spaces.



Noise levels in parts of Chora exceed metropolitan downtown conditions. I would therefore maintain the view that the carrying capacity of the environmental factors and of the infrastructure are below reality and certainly below demand.

On the other hand the factors concerning the social and the cultural/aesthetic dimensions seem endlessly flexible: in 1972 (A. Kalligas, A. Papageorgiou, I. Politis, A. Romanos "*Preservation and Development Study of Mykonos, Delos, Rinia*") a standard of 5m^2 of beach surface per person was judged already a minimum. In 1996-1997 the actual figure in some beaches was near $2\text{-}3\text{m}^2$.



Similarly in 1972 the maximum crowd density found (in Area no. 6) was $2,5\text{m}^2$ per person and this was considered as "having already surpassed the level of desired vitality...and creating conditions of traffic jam". (A. Kalligas et al. 1972)

In 1996-1997 crowd densities of $2,0\text{ m}^2$ or $1,6\text{ m}^2$ per person were common. Surely this is an area where standards of carrying capacity are continuously surpassed. In our case study, the limit for the occupation of public space in the surveyed areas of Chora seems to be that of covering the totality of public space available with a composite standard of density (seated and moving crowd) of $1,5\text{ m}^2$ per person; and allowing "corridors" between outdoor eating areas with dimensions nearer those of private arrangements than of public spaces.

Finally, the question of aesthetics and architectural character is a negligible factor in the carrying capacity of Chora as it appears to have negligible influence on public tolerance to any perversion of architectural aesthetics.

Conclusions

The important message from the analysis of our case study is that the falsification of the historic aesthetic character of Chora today is less due to the evolution of its architectural and urban forms (i.e. to structural interventions on its buildings) than to the less permanent and “softer” elements: (i.e. to the super-structure, the decorations and fixtures of buildings such as signs, furniture, lighting, shop windows, exhibits, street furniture) as well as to the dense crowd itself moving through or seating in the public spaces, the vehicles and the general noise level. In fact the latter elements influence the aesthetic character in a more decisive way than the former; it is interesting that the only time when Mykonos retains its “historic” or “traditional” character – before tourist development began – is early in the morning, before about 8:00 a.m.



The commercial Ring at 7:30 a.m. reminds one of the Chora of the 60's



The same spot at 10:30 a.m.: a tiny shop emerges from the wall between the apses of two churches

Here is visual proof: Picture 1 shows a spot on the Commercial Ring at 7:30 a.m. The shops have not yet opened; the closed shutters conceal the goods; the architecture of the buildings is more apparent, free to a large degree of the wares hanging around and outside the shops; the comings and goings are few and limited to the locals who are on their way to work and the elderly women on their way to light a candle in church (which continues to be a place of worship); the noise levels are low. At this time one is almost reminded of the Chora of the '60s. Picture 2 shows the same spot at 10:30 a.m. Even a tiny and indistinguishable opening between the apses of the two churches becomes a shop.

What ultimately is the Chora of Mykonos (and any other noteworthy place with intense tourist activity for that matter)? The Chora has long ago ceased to be a ‘traditional settlement’ as it has been labelled by the law and the special building regulations that were legislated for it. Firstly, it is vastly apparent that the life of the inhabitants has changed radically, including their occupations and many of their values. The social fabric has been altered as well from the influx of a large number of summer residents and of a significant number of permanent residents. There is little that remains traditional in the society of the Chora - aside from certain customs (mostly religious) that are practised.

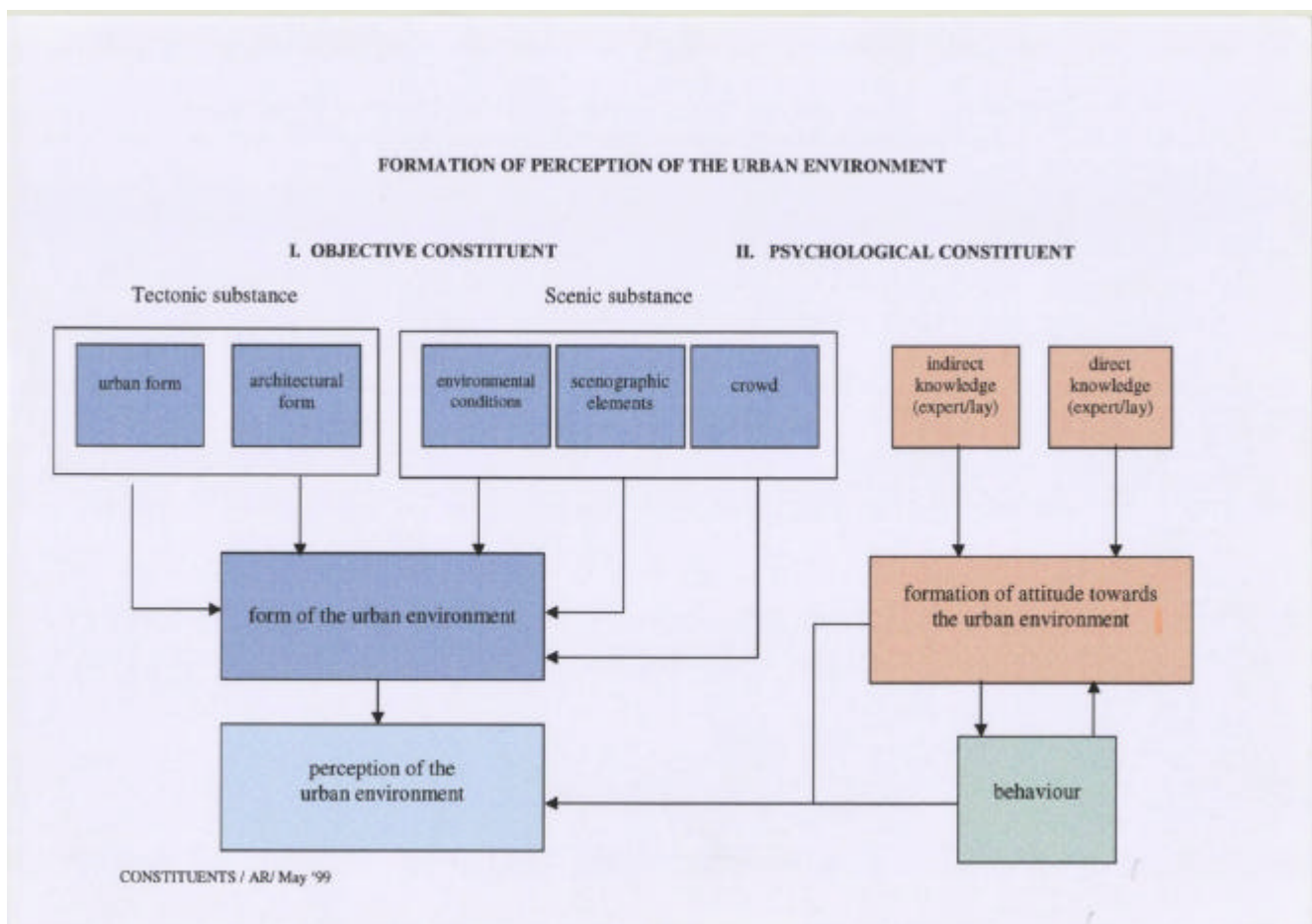
But what about the **shell** of the Chora that the established regulations are supposed to protect? This **shell** is of a dual nature. Its basic essence is **structural**, which over the years has not changed significantly either volumetrically or in terms of its spatial and street pattern. Despite the significant renovations of the structural element, the

conclusion of this cross-temporal research is that the basic geometry of the Chora has remained the same and we may rightly call it “traditional”.

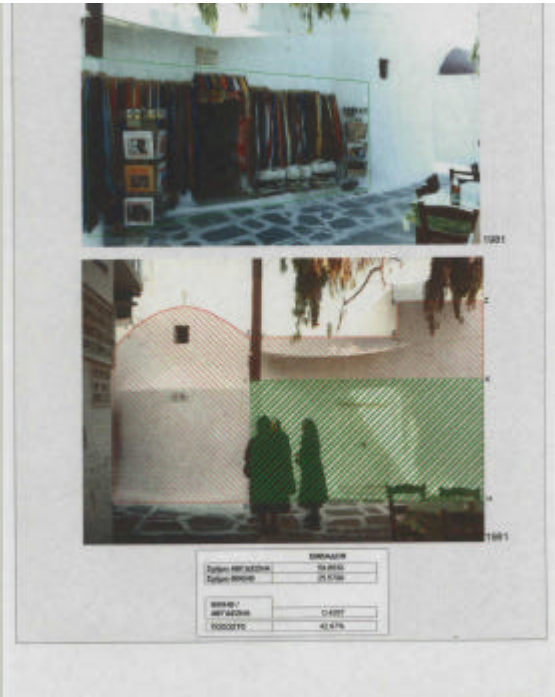
The second element of the Chora is its **theatrical** essence, which is made up from a stage set and from the actors/spectators. A varied and loud **décor** has spread all over the Chora, constructed of signs, shop windows, displayed goods, light fixtures, awnings, tables and chairs. The dense and diverse crowds of tourists and locals who use the stage set together with the locals who serve and observe the tourists are also part of this theatrical experience.

Perhaps up until the early 1970s the shell of the Chora could be conceived as a traditional urban form; visitors and locals perceived it as a historical urban space. Today, the traditional shell is not manifested in the form of the urban space, or rather, only a very small part of it is. The urban form of the Chora is influenced to a much larger degree by the **décor** which conceals the **shell**.

The theatrical essence of the Chora has been created by tourist development and is identified with the image of Mykonos as a tourist “product”. Image, however, is a more complex concept than form and takes us to the way in which the environment is perceived.



There are objective and psychological factors contained in the concept of image, which means that it is not only the object that counts, but who is beholding it as well. In terms of image, the traditional environment is almost invisible, especially for the common visitor.



Architects and other experts look at the modern set, but see a traditional space instead, because they know what was concealed underneath. The traditional Chora is not within their field of vision; it is in their memories. Architects insist upon form, while it is the image that dominates today. They are interested in the structural, when this has in fact been supplanted by the ornamental.

The traditional (historic) urban space – whose protection is the object of a purported national strategy – has been diminished to a theatrical set which stands as the new urban reality. But although we have proved unable to protect the historic urban space either in its form or in its content, yet certain elements of the space survive on their own and become perceivable as self-sustained values:

FACTORS AFFECTING THE PRESERVATION OF AESTHETIC CHARACTER OF HISTORIC CITIES UNDER PRESSURE FROM TOURIST DEVELOPMENT

Relative influence of positive and negative factors		Demand for business development accommodation	Reversibility of action	Size of investment required	Efficiency of public control
Types of activities/ interventions affecting the historic character	Real influence of activities/interventions as surveyed	(Negative factor)	(Positive factor)	(Negative factor)	(Positive factor)
A. Building development	very small	****	*	**	****
B. Change of use of buildings	critical	**	***	***	***
C. Decorations and fixtures of buildings	very important	**	***	****	**
D. Occupation of public open spaces by tavernas, cafés etc.	very important	**	****	*****	**
E. Movement of Visitors	critical	**	****	*****	*
F. Movement and parking of vehicles	very small	**	****	*****	***
G. Street furniture	very important	****	**	****	*****
H. Noise	critical	**	****	*****	**

KEY : relative factors' weight

Positive factors

very small

small

important

very important

critical

*

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Negative factors

critical

very important

important

small

very small

There is not a visitor to the Chora of Mykonos who does not taste a sense of freedom, and at the same time a sense of security, when s/he wanders through its narrow streets; besides the town inspires a sense of the unexpected and surprise.

Perhaps the time has come to leave aside the illusion that we can protect in its entirety something whose existence is anyway doubtful, i.e. the traditional (historic) urban space, and to focus, instead, on the isolated and fragmented values incorporated in it. Perhaps we need to realise what these values are, examine their significance in the present day, highlight them, teach them and re-create them in the building of contemporary urban space.

Then we may be able to abandon the dogmatic and formalistic relationship with our architectural and urbanistic past and develop a creative relationship with it.

ABSTRACT

The case study of Mykonos concerns a research in the changing form and use of the public urban space of Chora, the main township of the island, deemed worthy of preservation.

The aim of the research was, through an analysis of the changing function of public space in the life of the town, to evaluate the efficiency and the scope of the present policy for the preservation of historic cities in Greece and, indirectly, to comment on the notion of “carrying capacity”.

In this research project we documented the evolution of certain phenomena in the form and the use of **seven public spaces in Mykonos**; the first survey was carried out in 1972, the second in 1983 and the third in 1996. The phenomena measured were: the movement of pedestrians - separately for locals and for visitors, the occupation of public space by parked vehicles, tavernas and cafes for outdoor eating, the densities of people seated and circulating, the uses of ground floors, the noise levels and naturally all changes in the external form of buildings, of their fittings and fixtures and of the elements that give form to the public space.

The preservation of historic centres with a high tourist activity and intensity of urban life can imply a contradiction in terms and poses difficult issues of democratic control. In these cases, the preservation of **particular qualities of historic space**, embodied in the historic centres – qualities that are being perceived as values per se – may be a more sensible alternative to the holistic preservation approach, an approach whose implementation is clearly failing.

SHORT LEAD

A documentation of the evolution and changes of certain phenomena in the form and the use of seven public spaces in the Chora of Mykonos in the span of 25 years. These changes are mainly due to the growing impact of the tourist industry on the island. The phenomena measured were: the movement of pedestrians –separately of locals and of visitors–, the occupation of public space by parked vehicles, by tavernas, cafés etc. for out-door eating, the densities of people seated and circulating, the uses of ground floors, the noise levels and finally all changes in the external appearance of buildings, of their fittings and fixtures and of the elements that give form to the public space.

Conclusions as to the relative influence of these phenomena on the preservation measures are drawn.

LIST OF ATTACHED SLIDES

- Slide No 4: Aghia Kyriaki 1981, Occupation of public space
- Slide No 5: Aghia Kyriaki 1996, Occupation of public space
- Slide No 6: Alefkandra 1981, Occupation of public space
- Slide No 7: Alefkandra 1996, Occupation of public space
- Slide No 8: Goumenio 1981, Occupation of public space
- Slide No 9: Goumenio 1996, Occupation of public space

- Slide No 10: Alefkandra 1972, The transformation of public space
- Slide No 11: Alefkandra 1972, The transformation of public space
- Slide No 12: Alefkandra 1981, The transformation of public space
- Slide No 13: Alefkandra 1981, The transformation of public space
- Slide No 14: Alefkandra 1996, The transformation of public space
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- Slide No 24: Space occupation in Chora, 1996
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- Slide No 26: Beaches, 1996

- Slide No 29: Formation of perception of the urban environment

- Slide No 30: The quantification of the traditional element in the image of Chora
- Slide No 31: The quantification of the traditional element in the image of Chora
- Slide No 32: The quantification of the traditional element in the image of Chora