

THE MEDIEVAL CITY OF RHODES THROUGH THE EYES OF ITS RESIDENTS: AN EVALUATION OF THE PERCEIVED RESIDENTIAL ENVIRONMENTAL QUALITY

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Abstract

If we accept that the improvement and subsequent maintenance of the quality of the urban residential environment can be used as indexes of high or low level of quality of the resident's life, an evaluation of the quality of the urban environment is then rendered necessary and constitutes an object of study of outstanding significance for Environmental Psychology.

This paper aims to study the answers of residents (N=162) of the Medieval City of Rhodes, Greece, which constitutes a monumental space recognised by UNSECO as a World Heritage Site, nowadays consisting of the remnants of the Hippodamian urban tissue of the Hellenistic Era, the Roman, Early Christian and Early Byzantine Eras and the Medieval City.

For the obtainment of the data, the certified and valid tool "Perceived Residential Environmental Quality (PREQ & NA)" was used. It comprises a list of 44 questions separated into 14 indexes. Each question was evaluated by the participants according to the subjective extent of disturbance on a 7-point Likert scale (from 1 for strongly disagree to 7 for strongly agree).

The statistical criteria Mann-Whitney U and Kruskal-Wallis were used for the study of the answers inputs according to gender and age group respectively, which demonstrated that a significant number of the indexes under examination can potentially be experienced as, up to a compelling extent, disturbing residential environmental features.

The averages of the answer inputs demonstrate that the dimensions of buildings ($p=.004$), constitute a disturbing feature for women, whereas men are disturbed more by the lack of public sports services ($p=.020$) and green spaces. At the same time, all participants agree that environmental health, the established way of living, the public transport network, the existence of commercial and financial services and the existence of maintenance services can potentially be experienced as stressful environmental features.

The examination of averages reveals that the age group 50-59 feel, in comparison to other age groups and on the grounds of the current situation, less safe ($p=.001$), are disturbed more by the pollution and noise levels ($p=.001$), the lack of green spaces and social care ($p=.001$), the insufficiency of the public transport network and the lack of accessibility ($p=.026$), thus raising the aforementioned indexes to rather stressful factors.

The age group 40-49 rather express their disturbance in the tendency of isolation of residents ($p=.005$), the increased difficulty in forming interpersonal relationships with other residents ($p=.006$), and the possibility of coming across dangerous people at night ($p=.003$) in comparison to younger age groups.

It is our firm belief that the current paper offers the opportunity and the stimulus for further comparative studies (both on a national and an international level), at the same time providing the research field of the quality of residential environments with valuable information, which could, consequently, significantly benefit the fields of health, sustainability and Environmental Education as well.

Keywords: disturbing environmental features, urban quality indexes

1 INTRODUCTION, PROBLEMATICS, NECESSITY OF RESEARCH

The interest in life-quality in residential environments is not merely an issue of contemporary social reality, but it has been part of the dialogue amongst several scientific fields for decades both at an institutional and at an international level (Lawrence, 2002; Fornara et al. 2010). Yet, the escalation of interest in such issues as time goes by is attributed to the “paradox of prosperity” (Pacione, 2003) in modern societies, according to which the distress for the life-quality ascends in proportion to the technological advancements and the over-gathering of population in cities (Marans, 2015).

Urbanisation may contribute to the rapid economic and social development (Fang et al., 2005); it is, however, accompanied by a number of challenges at the local, regional, national and international level, while city residents are confronted daily with issues of social, political, environmental and economic inequalities (such as pollution, congestion, lack of health services and welfare, criminality, lack of housing etc.). Such issues seem to challenge social cohesion and environmental sustainability (European Commission, 2009) and raise critical questions in regard to the quality of urban life.

Therefore, the ones responsible for city management and policy-making, but also scientists of several fields (social scientists, behaviourists, medical scientists, economic scientists, architects, environmental psychologists etc.) pay particular attention to the social conditions in major cities, focusing on the mitigation or elimination of the aforementioned problems (Jenny & Ericson, 2006) and aiming at the improvement of the residents' life-quality.

Although a mutually agreed-upon definition is lacking (Costanza et al., 2008), it could be argued that life-quality in an urban environment relates to the (material, spiritual, or mental) satisfaction received by individuals or groups based on the way they experience such space and which depends on essential factors of human wellbeing on an individual and collective level (Crisp, 2008).

The above can be interpreted as a concern over the extent to which existing residential environmental features satisfy the preferences, needs, expectations, the feeling of content and fulfilment, and the systems of values, on an individual or collective level (Diener and Suh, 1997). When this concern is perceived as negative, it is experienced as (environmental) stress and impacts the individual or group's total health and, by extension, their life-quality (Chen et al., 2009).

In this light, research for the life-quality and satisfaction offered by a residential urban environment explores the relations and interactions developed among the existing spatial (referring to architecture and urban design), functional (referring to services and facilities) and social (referring to social relationships) features on different levels on the environmental scale, of people experiencing the urban space, and of the fashion in which individuals perceive such features (Amérigo, 2002; Marans, 2003). Consequently, life-quality in an urban space is not a feature relating exclusively to space, but it is rather the product of the interaction of environmental and personal-collective features.

If we can accept that the improvement and maintenance of the quality of the urban residential environment can be used as indexes of life-quality for residents (Lawrence, 2002), the evaluation of the urban environment is necessary and a field of particular significance for Environmental Psychology.

The lack of a *communis opinio* for the definition of life-quality in an urban environment, although not necessary discouraging researchers from attempting to evaluate it, leads necessarily to different approaches to the issue of measurements (Evans, 1994; Mugenda et al., 1990). Researches focusing on the evaluation of urban environments mainly use two approaches (Marans, 2015): objective and subjective evaluation.

The first entails objectively countable indexes describing the conditions in which individuals live, work and entertain themselves (Bonaiuto et al., 2015), such as: criminality, poverty, efficiency of health systems, education and entertainment, types of housing, spatial density, facilities maintenance, etc. The second entails the use of sample research, in which the way individuals perceive and evaluate the conditions around them is evaluated. The perceived and evaluated conditions are shaped by the experiences, perceptions, estimations, preferences and the value-systems of the individuals (Robin et al., 2007).

Although both approaches aim at the evaluation of life-quality in urban environments, it has been proved that

there is a distinctive divergence between the two approaches and the correlation of the results of subjective and objective indexes has been the subject of several papers (Cummins, 2000; Diener and Suh, 1997; Frey et al. 2004; Mc Crea et al., 2006).

An ever-increasing volume of scholarship (Dębek & Janda-Dębek, 2015; Marans & Stimson, 2011; van Kamp, et al., 2003; Angur et al., 2012; Bell et al., 2004; Gifford, 2007) asserts that objective evaluation does not sufficiently relate to neither the individual's lived experience regarding their life-quality, nor the psychological dispositions associated with the environment which individuals experience. Such scholarship concludes that subjective evaluation investigates more efficiently the relationships developed between individual and environment.

This paper records the lived experiences of residents and can be numbered amongst the studies preferring subjective evaluation due to the above-mentioned reason, but also due to our belief that recording the subjective well-being is capable of reflecting the views of individuals, thus opening up a channel of communication between the latter and those in charge of city management and policy-making, through which demands, impressions, and views on imminent projects, funding and policies concerning the residents can be efficiently communicated.

However, it must be made clear that, although life-quality is one over-arching term, the subjectively perceived life-quality and the statistically assessed life-quality are measured in an entirely different manner. This has led researchers to the utilisation of own conceptual constructions, different indexes and different measuring tools; consequently, the findings of such studies are not comparable to the findings of others, and the above creates significant methodological issues (Psatha, 2014; Van Kamp et al., 2003).

Nearly all tools utilised in studies of subjective evaluation focus on the evaluation of certain negative features in different geographical scales, such as residences (Marans, 2003), condominiums (Fornara et al., 2010), neighbourhoods and the city (Rantanen & Kahila, 2009), and they include natural-spatial, social, personal and functional indexes of evaluating urban quality (Bonaiuto et al., 2003; Dębek & Janda-Dębek, 2015).

Studies (Taylor et al., 1997; Bonaiuto et al., 2003), have demonstrated that variables such as age, sex, level of education, nationality, social and financial situation diversify both the way of living in the city and the developing of different activities, resulting in the constant change of residential environmental features (such as over-crowding, pollution, housing, criminality), and their perception as potential sources of vulnerability.

Therefore, it is of particular significance to define the sources of alteration of the urban environmental features in a manner which includes all situations which individuals in urban environments may face. Such sources of alteration are potentially perceived as disturbing and stressful. It is in this light that the current study has been produced.

In this paper, the spatial unit analysed was that of the Medieval City of Rhodes, which constitutes a monumental space, surrounded by medieval walls, recognised by UNSECO as a World Heritage Site. The space under examination consists of the remnants of the Hippodamian urban tissue of the Hellenistic Era, the Roman, Early Christian and Early Byzantine Eras and the Medieval City. The architectural and urban design, the use of the earth, the functionality of public services and the social systems place this neighbourhood on an entirely different level, whose spatial, social and functional features reflect the way of living of the residents. For the evaluation of the perceived residential environmental features of the residents of the Medieval City of Rhodes, the reliable and trustworthy tool called Perceived Residential Environment Quality & Neighbourhood Attachment (PREQ & NA) was used, one developed by researchers Fornara, Bonaiuto & Bonnes (2010).

The study of relevant scholarship, in particular focusing on subjective evaluation, reveals a rather limited number of contiguous studies conducted in the Greek space which could be of help in providing our discussion with research data. Consequently, the evaluation of the Medieval City of Rhodes is conducted based on views not sufficiently established. Hence, the current situation neither contributes to the development of a fruitful concern nor effectively supports the decision-making in regard to the significant yet sensitive issue of the evaluation of Greek cities.

The views of residents regarding the goals, the implementation procedure, the way of function, the priorities and the potential weakness of the provided services constitute valuable information which could substantially contribute to a fuller planning and a more efficient deployment of the design system.

Therefore, the study of the views of residents experiencing the space of the Medieval City of Rhodes regarding the planned municipal interventions is not only interesting, but also necessary and helpful; it may contribute to tracing the level of acceptance of the planned services, showcase the expectations or highlight

the concerns and potential fears of the residents regarding those features experienced as disturbing or stressful. It may also strengthen, symbolically, the perception that residents feel active parts of an existing structure, which is willing to support and encourage their sense of belonging to the community, which can thus be rendered co-responsible of all that materialises within the space in which the community lives. Eventually, a sense of cooperation, mutual trust and respect can be solidified. It may also establish a mutually agreed-upon system of urban indexes for the evaluation of life-quality, which can highlight and compare the views experiencing urban communities which share common value-systems and ways of living. It is particularly helpful in monitoring the progress of the conditions of living in time and space. Finally, the conclusions arising from this study may contribute to the further development of the relative concern.

2 METHODOLOGY OF RESEARCH

This study follows a previous study which aimed at the adaptation and validation of the new tool for the evaluation of the quality of an urban environment (PREQ & NA, Bonaiuto, Fornara & Bonnes, 2015) into Greek reality (Tsakiris & Kaila, 2017), according to situations unfolding on a daily basis, which could be considered as potentially stressful for the residents of the cities.

The Greek version of the questionnaire (PREQ & NA) entails a list of 44 questions divided into 14 indexes, which represent in reality 14 aspects of life-quality in an urban environment: Architectural Space, Accessibility, Green Spaces, Environmental Health, Relaxing/Stressful Way of Living, Active/Idle Way of Living, Means of Transportation, Social Care, Sports Services, Commercial and Financial Services, Maintenance, Safety, Social Interactions, "Connection" with Neighbourhood. Each question was evaluated by the participants according to the subjective extent of disturbance on a 7-point Likert scale (from 1 for 'strongly disagree', to 7 for 'strongly agree').

We assume that the varying aspects of the environmental features have been perceived by participants in the given urban space according to the latter's social and demographic features. The essential goal of the paper is the study and analysis of the answers of 162 residents of the Medieval City of Rhodes regarding perceived environmental features, according to gender and age.

3 PARTICIPANTS

The circumstances under which the study was conducted and the factoring of aspects relating to the reality and economy have significantly defined the sampling (Kyriazi, 1998, p.119). In this paper, no specific type of sampling has been selected; instead, the sampling was empirical (Vamvoukas, 2002, p.165).

The 162 residents of the broader space of the Medieval City of Rhodes have constituted the sample of the study. 69 were men, 42,6%, and 93 women, 57,4%. 22 of the sample's residents were younger than 22 years old (13,6%), 11 were between 20 and 29 years old (6,8%), 34 were between 30 and 39 years old (21,0%), 43 were between 40 and 49 years old (26,5%), 35 were between 50 and 59 years old (21,6%), and 17 were older than 59 years old (10,5%).

In regard to the length of living in the Medieval City of Rhodes, the majority of the participants (42%), lived in the Medieval City between 10 and 19 consecutive years, 30,2% lived between 20 and 29 consecutive years, 19,1% lived up to 10 consecutive years, whereas 8,9% lived in the Medieval City for longer than 30 consecutive years. The vast majority of the participants were Greek (94,2%).

4 RESULTS AND DISCUSSION

During the first phase of the study, an exhaustive control of the distributed data was performed. Firstly, the regularity of the distributions of the values/answers (Fabrigar et al., 1999) given by the participants in the sub-parts of the scale was checked; the regularity of the total value was also checked. The asymmetry coefficients ranged from -.76 to +.25. The kurtosis coefficient ranged from -1.04 to +.38, clearly within the coefficient range, from +2 to -2 and from +3 to -3 respectively (Hutcheson & Sofroniou, 1999).

The Cronbach alpha coefficient demonstrated an acceptable reliability between .70 and .79 in three indexes (Architectural Space, Safety, and Environmental Health), a reliability between .60 & .68 for two indexes (Social Interactions and Relaxing/Stressful Way of Living), which have been highlighted as the scale's problematic indexes, and a reliability between .80 and .97 for the remaining seven indexes, thus highlighting the internal cohesion of the scale.

4.1 Gender and Perceived Residential Environmental Features

The question arising in regard to the perceived residential features is whether the views of men were

different to the views of women and, if so, to what extent.

For the investigation of the parity of the averages between the categoric variable GENDER (with two categories, Man 1 and Woman 2) and a qualitative variable (on a seven-point Likert scale, with an odd number of categories), and taking into consideration that the values of the answers did not follow a standard distribution according to the Kolmogorov-Smirnov ($p > .05$) test, the non-parametric Mann-Whitney U test was applied.

The total value of averages in women was higher than that of men in eight of the 14 indexes under examination, an element which demonstrates that women are more sensitive to most of the scale's environmental features than men (Table 1).

Table 1: Averages and standard deviation per gender, p=statistical significance

Mann-Whitney U	MAN (N=69)	WOMAN (N=91)	p
Variable GENDER	Means (standard deviations)		
1.ARCHITECTURE	4,62 (1,105)	4,92 (1,113)	.300
2.ACCESSIBILITY	5,58 (1,190)	5,48 (1,105)	.531
3.GREEN SPACES	2,92 (1,466)	3,30 (1,347)	.093
4.ENVIRONMENTAL HEALTH	4,25 (1,244)	4,22 (1,507)	.567
5.RELAXING WAY OF LIVING	4,86 (1,299)	4,80 (1,272)	.616
6.ACTIVE WAY OF LIVING	4,23 (1,487)	4,01 (1,295)	.233
7.MEANS OF TRANSPORTATION	3,20 (1,483)	3,37 (1,498)	.472
8.SOCIAL CARE	3,54 (1,392)	3,49 (1,440)	.952
9.SPORTS SERVICES	2,93 (1,450)	3,40 (1,308)	.020
10.COMMERICAL SERVICES	3,52 (1,488)	3,65 (1,769)	.751
11.MAINTENANCE	3,17 (1,248)	3,41 (1,385)	.166
12.SAFETY	4,07 (1,234)	4,20 (1,314)	.220
13.SOCIAL INTERACTIONS	3,71 (1,068)	4,04 (1,106)	.021
14.CONNECTION WITH NEIGHBOURHOOD	4,92 (1,370)	4,39 (1,593)	.063

In the first index (Architectural Space), the Mann-Whitney U test (2325.000, $Z = -2,864$, $p = .004$) showed that a statistically significant difference is recorded in the last statement of the index of the Greek version of the PREQ & NA tool: 'The dimensions of buildings in this neighbourhood are oppressing', with the average of women's answers agreeing more with the corresponding statement, thus highlighting the dimensions of buildings as a disturbing feature. On the contrary, the aesthetic evaluation of the buildings is positive both in men's ($M=4,84$, $S.D.=1,78$) and in women's views ($M=5,11$, $S.D.=1,58$). Overall in this index, the difference of views between men and women is statistically insignificant ($p=.300$).

The values of the averages of the index referring to the accessibility of residents to the city-centre or other areas in the broader city show that men and women appear to agree – Men=5.58 (1,19), Women=5,48 (1,10) –, as the difference is statistically insignificant ($U=2959,000$, $p=.531$).

In regard to the Green Spaces, the two genders agree – with men being more disturbed by the lack thereof, $M=2,91$ (1,50) – that the quantitative and qualitative lack of green constitutes a disturbing environmental feature. The averages of the values of the participants' answers in the index of Environmental Health demonstrate that women $M=4,87$ (1,72) are concerned more than men $M=5,0$ (1,54) about the level of pollution, both on earth and in air. Noise pollution, regardless of its source (cars, night-clubs) is perceived as a rather stressful factor by both genders.

Regarding the way of living, both genders agree that living in this particular urban space is perceived as a rather frustrating process, $M=4,63$ (1,73), but they agree that this neighbourhood is still acceptable when compared against other neighbourhoods of the city of Rhodes. Although the Medieval City of Rhodes constitutes a point of interest in the broader city of Rhodes, the participants believe that activities of various kinds (social, financial, educational, cultural) within the Medieval City are rather limited, with women being more concerned, $M=4,01$ (1,29). In the indexes under examination, although some differences are recorded, they are statistically insignificant.

The averages of the values of both men, $M=3,20$ (1,48), and women, $M=3,37$ (1,49), which fall under the index Means of Transportation, and specifically refer to the efficiency of the network of public transport, demonstrate that the organisation, structure and function of the public transport network does not meet the needs of the residents, with men expressing a higher degree of disturbance. Correspondingly, the satisfaction stemming from the efficiency of the Health Care, Social Services and Help for the Elderly is recorded as low. The averages of men, $M=3,54$ (1,40), and women, $M=3,49$ (1,44), do not differentiate substantially, while no statistically significant difference is traced regarding the perceived provision of Social Care (Evans et al., 2002).

In regard to the index named Sports Services, which explores the existence of outdoors spaces for exercise, their equipment and the possibility to choose from a variety of sports, the general average (and standard deviation) is 2,93 (1,45) for men and 3,4 (1,30) for women. The difference noted is statistically significant ($p=.020$).

The averages of values of the answers in the indexes regarding the Commercial and Financial Services (commercial and financial stores) and Maintenance (roads and road signs) are low and similar in men and women, thus projecting the low level of efficiency of the provided services – men are more disturbed than women – and highlighting these issues as rather disturbing environmental features.

The sense of Safety in the broader space of the neighbourhood of the Medieval City of Rhodes seems rather low. Men and women agree that during night there is a chance of coming across dangerous people, while a sense of stalking from neighbours has also been noted. The general average is higher in women, 4,20 (1,31), than in men, 4,07 (1,23). Judging from the above, it appears that the issue of safety is perceived as a real one and evaluated by women as rather disturbing (Evans & Stecker, 2004).

According to the results of the analysis, there is a broadly agreed-upon view that discretion is an issue which rather concerns the residents of the Medieval City of Rhodes, who also estimate that it is difficult to develop friendships in this neighbourhood, with women, 4,04 (1,10), supporting this statement more than men, 3,71 (1,08). The Mann-Whitney test has demonstrated that the difference noted in the average of men and of women is statistically significant ($p=.021$). Men and women in the sample agree on what is perceived as a low discretion of neighbours, while the development and strengthening of human relationships is not favoured. Women agree more to this statement ($p=.021$).

The Mann-Whitney U test has showed that the average of men's answers, 4,92 (1,37) and of women's answers (4,39 (1,59), in regard to the index referring to the extent to which the individual connects with the broader community, present a noticeable difference ($U=2602,000$, $p=.063$). The men of the sample feel part of a valid and firm structure, namely their neighbourhood, which they support, and which, in return, recognises them as members; as members of this community, they would find it difficult to desert it ($p=.017$).

4.2 Age Group and Perceived Residential Environmental

In order to test the pertinence between the categoric variable AGE with six categories – 1st<20 years (N=22), 2nd=20-29 years (N=11), 3rd=30-39 years (N=34), 4th=40-49 years (N=43), 5th=50-59 years (N=35), 6th>60 years (N=17) and the 7-point Likert scale with non-standard distributions, the non-parametric Kruskal-Wallis test was utilised. In Table 2 there is a detailed presentation of the extent of agreement of the age groups to each of the statements, as well as a post-hoc analysis; for cases in which the hypothesis of the parity of the variances was satisfied ($p>.05$) the Bonferroni test was selected. For cases in which the hypothesis of homoscedasticity was not reasonable ($p<.05$) the Tamhane's T2 test was used (Maggopoulos, 2005).

The analysis of the results has showed that the sense of insecurity increases with age, with the age group 50-59 being the most sensitive to it (Fornara et al., 2007). The Tamhane's T2 correction confirms the statistically significant difference of the former between the first and the fifth age group, while the Bonferroni correction confirms the difference between the second and third. The same age group (50-59 years) demonstrates a higher sensitivity to issues of pollution and noise-pollution in the neighbourhood. For participants over 60 years old, a higher level of disturbance is noted due to both the lack of green spaces (df 5, $p=.001$) – the table of multiple comparisons has showed statistically significant differences between the age group below 20 years old and the group 50-59, $p=.000$ – and the inefficiency of the public transport network, with statistically significant differences between the fifth and first age group, highlighting the index as rather disturbing. The level of provision of social care is evaluated as low by all age groups (Robin et al., 2007). The lack of public spaces suitable for exercise/activities seems to disturb the first four age groups, and the participants below 20 years old in particular ($p=.026$). The reduced accessibility to various parts of the city has showed a high level of agreements, ascending as the age of the participants increases (Farrell, 2005).

In the Maintenance index, the participants evaluated both the efficiency of the efforts of the ones responsible of managing the city to maintain the roads, and the efficiency of the efforts of citizens to attend to their neighbourhood. The participants of all age groups demonstrated that they are rather disturbed (Dębek & Janda-Dębek, 2015) by insufficient maintenance, such as the cleanliness of roads, the condition of road signs, and the personal care and interest displayed by citizens for their neighbourhood, with the age group <20 agreeing the most to this statement. It is found that the difficulty in developing social relationships constitutes a disturbing environmental feature for the first four groups. The age group 40-49 express a higher disturbance over the tendency of the residents to isolate themselves, the increased difficulty in developing friendships with neighbours and the possibility of coming across dangerous people at night ($p=.005$, $p=.006$, and $p=.003$ respectively). Finally, five of the six groups consider their neighbourhood as part of themselves and an ideal place to live in, with age groups 40-49 and 50-59 agreeing more to this statement, thus highlighting it as a qualitative feature for all (the average of the values of the answers of participants below 20 years old disagree to this statement).

Table 2. Statistically significant differences with the Kruskal-Wallis Test and a post-hoc analysis. (*) Tamhane's T2 correction ($p<.05$). (**) Bonferroni correction ($p>.05$).

Variable AGE	< 20 (N=22)	20-29 (N=11)	30-39 (N=34)	40-49 (N=43)	50-59 (N=35)	>60 (N=17)
Means (standard deviations) and results of post hoc comparisons tests						
ARCHITECTURE (*)	4.65(.96)	4.85(.93)	5.06(.70)	4.37(1.32)	5.17(1.30)	4.71(.84)
30-39				.000		
ACCESSIBILITY (*)	5.53(1.01)	6.03(.80)	5.74(.93)	5.09(1.05)	5.86(1.15)	5.20(1.63)
30-39	.030	.021				
GREEN SPACES (*)	3.24(.67)	2.58(.80)	3.14(1.21)	2.78(1.64)	3.62(1.64)	3.29(1.41)
>60	.006	.007	.035			
ENVIRON. HEALTH (**)	3.55(1.41)	4.42(.94)	4.48(1.37)	4.19(1.23)	4.41(1.68)	4.20(1.13)
50-59	.03	.001	.000			
RELAXING LIVING (**)	4,27(1,04)	4,76(1,55)	5,01(1,52)	4.51(1.11)	5.23(1.17)	5.16(1.12)
< 20					.036	
ACTIVE LIVING (**)	4.02(.99)	4.39(1.40)	4.61(1.36)	3.60(1.23)	4.15(1.51)	4.20(1.61)

30-39				.019		
TRANSPORT (*)	3.64(1.12)	2.67(1.04)	2.92(1.52)	3.38(1.36)	3.80(1.61)	2.82(1.72)
>60	.00	.01	.01			
SOCIAL SERVICES (**)	3.38(1.32)	3.52(1.38)	3.55(1.59)	3.29(1.17)	3.90(1.37)	3.35(1.79)
>60	.00	.00	.02	.00	.035	
SPORTS SERVICES (*)	2.98(1.07)	2.61(.85)	3.29(1.26)	3.07(1.45)	3.70(1.63)	3.00(1.38)
< 20		.00	.02	.04		
COMMERCIAL SERV. (**)	4.30(1.60)	2.73(1.49)	3.56(1.44)	3.74(1.54)	3.38(1.91)	3.39(1.73)
40-49	.05	.03				
MAINTENANCE (**)	3.36(1.12)	3.24(1.23)	3.27(1.50)	3.22(1.20)	3.42(1.56)	3.35(1.12)
< 20			.00	.01	.01	.00
SAFETH (**)	4.18(1.71)	3.58(1.23)	4.09(1.170)	4.61(1.12)	3.83(1.07)	4.06(1.19)
50-59	.000	.000	.010			
SOCIAL INTERACTIONS (*)	4.33(1.320)	3.58(1.07)	3.58(1.17)	4.08(.88)	3.96(.71)	3.61(1.51)
30-39	.014			.006		
CONNECTION WITH NEIGHBOURHOOD. (**)	3.73(1.72)	4.70(1.80)	4.29(1.64)	4.47(1.31)	5.47(1.02)	5.10(1.30)
< 20			.051		.000	.002
30-39	.051				.001	
50-59	.000		.001	.005		
>60	.002					

5 CONCLUSIONS

The conclusions of this study shall be presented on three different levels. The first level refers to the process of selecting the 14 indexes and the 44 special urban features, which describe the subjective life-quality of individuals experiencing particular, urban, natural and social surroundings.

The second level refers to the suitability of the Greek version of the scale of Perceived Residential Environmental Features, which is hereby highlighted as an interesting research tool of indexes of urban space exploring the architectural, spatial, functional, social dimensions and the extent of the individual's connection to the neighbourhood, as perceived by participants. This tool points to possible inequalities in urban sectors. Our experience has showed that the questionnaire was user-friendly and comprehensible, yet the incorporation of 44 different urban features may render the filling in of the participants precarious. Moreover, the large number of statements investigating these 44 urban features incorporated does not

preclude the possibility of significant qualitative issue being overlooked.

For example, the existence of a school in the broader area of the Medieval City of Rhodes only indicates the existence of a building accommodating students, without, however, reflecting on the issue of the efficiency and suitability of the space (since any residential intervention is opposed by urban planning and architectural regulations), the issue of distance to/from the school, or the existence of a means of transportation to/from the school. Consequently, the utilitarian value and quality are not reflected.

This observation militates on the one hand in favour of the use of the highest number of variables possible; on the other hand, the inadequacy of qualitative indexes in regard to the adequate approach of issues is a compromise that the researcher is willing to accept in order to use these indexes.

The third and final level of results regards the research results from the application of the Greek version of the scale of Perceived Residential Environmental Features on the broader space of the Medieval City of Rhodes and entails the answers to the questions asked at the beginning of this study.

A significant finding of this study is the presence of noticeable differences between different age groups and between genders. Overall, the Medieval City of Rhodes is characterised by a distinct mixture of strong and weak sections. The highlighting of the former goes hand in hand with the effort to maintain and improve them, whereas the highlighting of the latter aims at the handling of the weaknesses, possibly through the adoption of successful practices from other cities in which such sections appear as strong.

Our study, however, entails a number of limitations, especially in regard to our methodology. It must be noted that our sample contains a limited number of participants (N=162) and, therefore, it is not representative of the Greek population.

The profound comprehension and the planning for the multifunctionality of urban environments in all scales of urban evaluation demands the investigation of several, and often contradicting, values, preferences and needs which residents seek from the spaces they reside in and experience. This knowledge is significant for dealing with the overcoming of problems created by the random or uncontrollable development and the deterioration of the quality of the environment (Chen et al., 2009) and it is this direction that this paper has attempted to follow.

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