ENVIRONMENTAL DEGRADATION AND FEAR OF CRIME

THE RESEARCH EVIDENCE IN THE CENTRE OF ATHENS

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ABSTRACT

Environmental factors are of crucial importance for the study of the criminal phenomenon. Within the scientific field of Environmental Criminology the criminological interest is not limited in the study of victimisation and criminality but it is also extended to fear of crime and insecurity in the urban environment. In such a context the significant social changes that took place in Greece during the recent years have affected at a great extent the Greek capital. The physiognomy of many areas in the city of Athens, especially in its centre, were affected and visible signs of environmental and social degradation emerged. The present study focuses on the relationship between, on the one hand, the environmental and social degradation and, on the other hand, the victimisation and insecurity of the residents and workers in the centre of the Greek capital with an emphasis being placed on the examination of the type and quantity of graffiti observed in the city centre. Furthermore, possible correlations with other characteristics of environmental and social deterioration in the area, such as abandoned houses, closed shops, garbage in the streets, public drug use, illegal sex working and illegal trade were taken into consideration.

Keywords: Environmental degradation, social degradation, graffiti, fear of crime, insecurity

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I.   Introduction

The study of the relationship between environmental factors and crime dates to the 19th century when the French-Belgian Cartographic School studied for the first time the geographical distribution of crime (Quételet, 1835; Guerry, 1833). However, it is the Chicago School through its classic research based on the ecological approach of crime, which focused on the correlation between crime and the city context (Park, Burgess, McKenzie, 1925; Shaw, McKay, 1942). The theory of human ecology attempts to explain the social mechanisms as a result of competition and survival between nature, humans and other living. The starting point for the Chicago School was R. E Park's, E. Burgess's and R. Mackenzie's thoughts, presented in a collection of articles titled "The City". According to their approach within human societies there are "natural areas", like the natural areas in plant and animal communities (Burgess, 1984; Zarafonitou, 2004:138). Within such a theoretical framework, the city could be thought of as a product of human nature and as an "organic unit" or a "natural habitat" of humans. Park, Burgess and McKenzie expanded their theoretical approach ("zonal hypothesis") by formulating the so-called model of concentric cycles which could be applied to other American cities too (Burgess, 1984; Zarafonitou, Chrysochoou, 2015:14). The empirical study of Shaw and McKay entitled "Juvenile Delinquency in Urban Areas" (Shaw, McKay, 1942) according to which the various socialisation processes in areas within big cities were based on a value system that contradicted mainstream values was based on the aforementioned theoretical framework. These areas consisted of industrial or commercial zones with run-down housing, high population density, low rates of family income and owner-occupancy and high rates of foreign and national minorities (Shaw, McKay, 2010). Such a finding was considered to be a reflection of the failure of community socialisation. The above characteristics were indicative of "social disorganisation" (Sutherland, 1934; Wirth, 1938; Kubrin, Weitzer, 2003) which impeded the juveniles from being normally socialised and effectively controlled (Hughes, 1998:45).

The corpus of theory and research that followed and which focused on the environmental dimension falls within the contemporary approaches of Environmental Criminology (Brantingham, 1981; Wortley, Mazerolle, 2008; Andresen, 2010: 5-28). The key characteristic of Environmental Criminology is that according to its theoretical framework the *"criminal events must be understood as confluences of offenders, victims or criminal targets, and laws in specific settings at particular times and places"* (Wortley, Mazerolle, 2008:1). The relative studies when combined with the appropriate techniques of crime mapping are considered as

being particularly useful not only for the understanding of crime but also for its prevention through environmental design (Crowe, 2000:46)[3].

In this context, the interest is extended to other aspects of social life related to crime, like the fear of crime (Zarafonitou, 2011a; Wikström et al., 2012) and its association with areas that display characteristics of physical and social disorder (Zarafonitou, 2002,2011a).

The nature of the urban context is considered to be a significant parameter of fear of crime. The particular characteristics of urban areas, the concentrated severe social problems and the environmental and social degradation observed in such a context partly explain the extent and intensity of fear of crime in the urban environment (Hale, 1996; Zarafonitou, 2002, 2009). The environmental and structural features of an urban area constitute visible signs indicating the ineffectiveness of the social control mechanisms and the weak feelings of collective efficacy and seem to affect fear of crime (Brunton-Smith, Sturgis, 2011). Research on inner-city distribution of fear of crime highlights the important role of the absence of informal social control (Boggs, 1971: 319-327) as a consequence of the weakening of social ties and social cohesion. These components add to insecurity, which is the result of the perception of crime as a serious social threat. Insecurity coincides with personal circumstances such as victimisation thus, contributing to the intensification of fear of crime (Box, Hale, Andrews, 1988: 352).

According to the research experience, severe signs of environmental degradation and high levels of "neighbourhood disorder" in urban areas are linked with crime and fear of crime (Skogan, 1990; Markowitz et al., 2001; Hideg, Manchin, 2005; Brunton-Smith, Sturgis, 2011). The examination of factors relevant to what is described as "physical disorder" or "signs of incivility" (Skogan, Maxfield, 1981; Lewis, Salem, 1986; Reiss, 1986:1-33; Jackson, Gray, Brunton-Smith, 2010), was included very early on in American and British empirical studies concerning fear of crime. As far as the concept of disorder is concerned it "*refers to a visible deterioration in the physical state of an area and the social behaviour of those within it*" (Wikström et al., 2012:186). More specifically, *physical disorder* refers to markers such as broken windows, graffiti, litter on the streets, dilapidated buildings, poor lighting in public spaces while *social disorder* refers to aggressive behaviour, young people loitering, public intoxication, open solicitation for prostitution etc. (Sampson, Raudenbush, 1999:604; Sampson, 2009; Van Dijk et al., 2007). Thus, behaviours indicative of "social disorder", which create the impression of a lack of public order and the incapacity for social control (Wilson, Kelling, 1982), are added to the various forms of environmental deterioration (Taylor, Hale, 1986:154).

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[3] It is the well-known and so-called *Crime Prevention Through Environmental Design* (CPTED), according to which "*the proper design and effective use of the built environment can lead to a reduction in the fear and incidence of crime and an improvement in the quality of life*".

The visible signs of disorder are considered as being signifiers of the decay of an area as well as of the absence of formal and informal social control since *"fear in the urban environment is above all a fear of social disorder that may come to threaten the individual (…) incivility may still produce greater variation in fear than does crime because of its relative frequency in daily experience of urban residents"* (Hunter, 1978:9). The association between neighbourhood disorder and fear of crime is related to the widespread impression of the absence of social control in the area and reflects the lack of confidence in the mechanisms of social control which in turn results in community cohesion being eroded. The study of the aforementioned correlation has been a field of research interest for quite a long time (Doran, Lees, 2005; Brunton-Smith, Sturgis, 2011). In this context an aspect of the relationship between neighbourhood disorder and fear of crime has been advanced in the form of the *broken-windows'* approach with a notable impact on the subsequent research experience and criminal policy making (Wilson, Kelling, 1982).

The link between *disorder* and *decay* (Ross, Mirowski, 1999:412-432) is empirically examined and the research evidence has led to a profound reflection concerning the meanings which people attribute to the notions of crime, disorder and anti-social behaviour. Such an approach focuses on the "social meaning" of the concepts of "anti-social behaviour" and "social cohesion" (Jackson, 2004:960; MacKenzie et al., 2010) without, however, questioning the impact of these on social cohesion.

 On such a basis and under a critical perspective of the generalisation of the research results regarding the aforementioned associations a discussion emerges about the meaning of these concepts as well as the meaning of their related issues. In order to effectively and comprehensively understand the complex phenomenon of fear of crime and the relative concepts, cultural representations as well as various levels of symbolism contributing to the shaping of fear of crime are examined (Lupton, Tulloch, 1999; Vanderveen, 2006). Hence, the meaning of fear of crime and its related issues vary according to the historical, cultural and social framework of reference (Vanderveen, 2011:41) while the specific experiences, attitudes, values and beliefs on an individual level shape people's way of understanding and perceiving the social and physical elements of their environment (Jackson, Gray, Brunton-Smith, 2010:4).

Within such a framework the semantic boundaries of fear of crime remain unclear and the pursuit of its definition results in a skepticism concerning its appropriate conceptualisation and the criteria which lead to this (Vanderveen, 2006:29). Literally, 'fear of crime' is defined as "a rational or irrational state of alarm or anxiety engendered by the belief that one is in danger of criminal victimisation" (McLaughlin, 2006:164). On this basis, the feeling of unsafety is provoked by the perception of crime as "*a real and serious enough threat in order to be taken*

into account in the arrangement of everyday life" (Killias, 2001:399). Furthermore, a classic distinction between direct fear of victimisation concerning the subject and their family, and the perception of crime as a serious social problem causing anxiety even when it does not concern the subject directly was developed (Furstenberg, 1971; Lagrange, 1993; Robert, Pottier, 2004). This distinction partially allows for the association of fear of crime with indicators of an area's criminality and victimisation levels without ignoring the fact that the subjective perception of threats is based on 'vulnerability' (Killias, 2001; Killias, Clerici, 2000; Box, Hale, Andrews, 1988; Taylor, Hale, 1986) which people attribute to themselves or to those close to them.

In this context, the combination of quantitative and qualitative approaches for the examination of the phenomenon of fear of crime have led to the conclusion that a series of subjective and objective parameters shape the concern about crime. These parameters include *the psychological perception of being "vulnerable"* (Killias, Aebi, Kuhn, 2012:401), the general social attitudes (Zarafonitou, 2011b:269-294), the perception of everyday risk, the reputation of the area of residence, the amount of crimes committed there, as well as police efficacy as far as crime control is concerned.

Vulnerability is considered as being a significant explanatory factor of fear of crime (Killias, 1990; Taylor, Hale 1986; Box, Hale, Andrews, 1988). Therefore, the subjective perception of threats of victimisation depends on the vulnerability attributed by the individuals to themselves or to those who are close to them. More specifically, Killias (1990, 2001) argues that fear of crime emerges when: (a) there is a high risk for an unpleasant event to take place; (b) the potential measures for the protection or the defense are perceived to be insufficient; and (c) the anticipated consequences are perceived to be traumatic or inevitable. These necessary conditions have at the same time a *physical*, a *social* and a *situational* dimension, in order for the nine dimensions of vulnerability to be represented (e.g. gender, age, region of residence, signs of environmental and social degradation and disorder etc.).

Within such a framework the environmental and socio-economic features of an area partly define the content of the quality of the residents' everyday life (Zarafonitou, 2011,2014:123-124). Based on that premise in the context of the European Victimisation Survey the residents of the European capitals assessed their cities on the basis of specific characteristics which constitute the concept of a *"deprived area"* or, in other words, the *"adverse neighbourhood"*: *youth on the streets, homeless persons, beggars, littering, graffiti, vandalism, and public intoxication* (Hideg, Manchin, 2005). It must be noted that, the assessment of the environment is considered to be relevant to the "physical disorder" approach and when the respondents reported such characteristics in their area, this attitude was related to their insecurity.

The image of an "unsafe environment" is mainly correlated with *unsupervised youth*, *littering* and *graffiti*. In the most recent sweep of the survey, negative assessments of the local area tend to be higher amongst the residents of Athens and Brussels and, to a lesser extent, of Budapest and London. More specifically, the inhabitants of Athens and Brussels are consistently dissatisfied with the frequency with which they confront criminality and the characteristics of a deprived area (Hideg, Manchin, 2005). The perception of personal safety of the citizens of European capitals depends primarily on neighbourhood characteristics. With a special regard to drugs, Greeks occupy the first place amongst all the Europeans answering that "*over the last 12 months very often or from time to time they were personally in contact with drug-related problems in the area where they lived. For example, they saw people on drugs, taking or using drugs in public places or they found syringes left by drug addicts*" (Van Dijk et al., 2007a, 2007b). This picture is confirmed by the empirical studies on fear of crime according to which drugs rank as the first 'important threat', followed by robberies and burglaries (Hideg, Manchin, 2005). In this context environmental factors and social and economic parameters affect the subjective and objective vulnerability and relate to fear of crime and insecurity.

According to surveys on fear of crime carried out in the Greek capital, fear is not equally distributed on a spatial level (Zarafonitou, 2002, 2004, 2006). A noteworthy differentiation is observed on the basis of socio-economic and environmental components. Thus, the highest levels of fear are invariably recorded in the socio-economically deprived areas of the city centre (76% in 1998, 65.3% in 2004, 75.7% in 2006) and the lowest in its upper socioeconomic areas (40.4% in 1998 and 23.3% in 2006) (Zarafonitou, 2011a:56). Moreover, an analysis of the 2004 research data revealed that living in the area of the city-centre increased the odds of perceiving likelihood of victimisation by as much as 56 per cent (Tseloni, Zarafonitou, 2008: 399).

In the context of the empirical study entitled "*Are there ghettos in the centre of Athens? Criminological research of social attitudes and representations*" (Zarafonitou, Chrysochoou, 2015) conducted in five areas in the centre of Athens in 2011 and repeated in 2013, the data showed the widespread feeling of the residents of the centre of Athens regarding the degradation of their quality of life. The dissatisfaction of the residents is also reflected in their intention to move away from their neighbourhood (Zarafonitou & Chrysochoou, 2015).

As already mentioned there is a strong correlation between fear of crime and the characteristics of a "deprived area" (Hideg, Manchin, 2005). On this basis the areas of cities which have visible signs of marginalisation and abandonment are considered to be 'dangerous' by their residents regardless of whether or not they are characterised by high crime rates. In this context, perceived crime and disorder reduces residents' satisfaction and attachment to the

neighbourhood increasing the likelihood of relocating out of the neighbourhood. This process results in the long-range dynamics of an area being significantly affected (Hipp, 2010:476).

According to the research data the centre of the Greek capital displays consistently the highest rates of fear of crime and insecurity (Zarafonitou, 2011a). The fear of crime and insecurity relates to a series of parameters that define the quality of everyday life such as: the environmental degradation; the intense drug-related problems; the criminality; the great population heterogeneity; the decline of commercial activity; the significant number of immigrants etc. The mapping of these problems shows that they are located in enclaves of the centre of Athens and occur cumulatively. Consequently, these areas are characterised by the relocation of the long-term residents; the appearance of a heterogeneous and unstable population; unifunctional social activities; the emergence of illegal informal control in some areas; signs of poverty and criminality (Zarafonitou, Chrysochoou, 2015:22).

The present study explores the relationship between the signs of deterioration and incivility that characterise the centre of Athens and the residents' insecurity. Graffiti, which has increased considerably during the last years in the areas of the city centre, is considered to be one of those signs (Vanderveen & van Eijk, 2016).

II.　　Research methodology

i. The research physiognomy

The study explores the social and environmental characteristics in the centre of Athens and their impact on fear of crime[4]. These features are examined both by area and as a whole, while special emphasis is placed on the study of the type of graffiti observed in this context. Within this framework, the social and environmental characteristics are also explored in relation to victimisation and fear of crime as well as to the views and perceptions of the respondents about the police and the municipal authorities' capacity regarding their duties towards citizens. Finally, their perceptions about quality of life in the research areas were investigated in this context.

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[4] The research was conducted under the scientific direction of the author Professor Ch. Zarafonitou in the context of the Master of Criminology of Panteion University. The research team consisted of the following postgraduate students: E. Anitsi, A. Georga, E.Flerianos, P.Papadopoulos, A.Peponi, Ch.Spiliotopoulou and Dr. Eleni Kontopoulou as coordinator. See Zarafonitou et al. (2016), Elements of environmental degradation and fear of crime. The case of graffiti in the centre of Athens, *Eglimatologia/Criminology, 8-20, (in Greek).*

The study areas consisted of five squares and their surrounding streets: *Omonia Square, Vathis Square, St. Pavlos Square, Victoria Square and the National Polytechnic University Area*. The choice of these squares was based on their location in the central district of Athens along with their specific environmental and social features. The research was conducted by two research teams during the period from March to May 2016 and the main methodological tools were:

- The on-spot observation and recording of the indicators (signs) of social and physical disorder in each research area
- The completion of 30 questionnaires in each area (150 in total)
- The mapping of the recorded data and their classification and analysis

By using field observation in combination with personal interviews, we aimed to record both the points of view of the researchers and those of the residents/employees of the study area. The research was carried out at different times of the day in order to be able to achieve a more rounded and complete view of the environmental and social characteristics of the areas. Furthermore, on-spot observation combined with the recording and mapping of graffiti (type and frequency by region) and of the probable signs of environmental and social degradation was conducted by the second research group[5]. Finally, as mentioned previously the present research emphasizes on graffiti as an environmental element of the urban context. Hence, in order to be able to form a more rounded picture regarding the perceptions about graffiti, in the context of our research design we also recorded the graffiti creators' attitudes towards the phenomenon. By using snowball sampling 6 creators were selected according to their availability in order to participate in a semi-structured interview. The interview questionnaire included open-ended questions and for the analysis of the interview transcripts we employed the thematic content analysis.
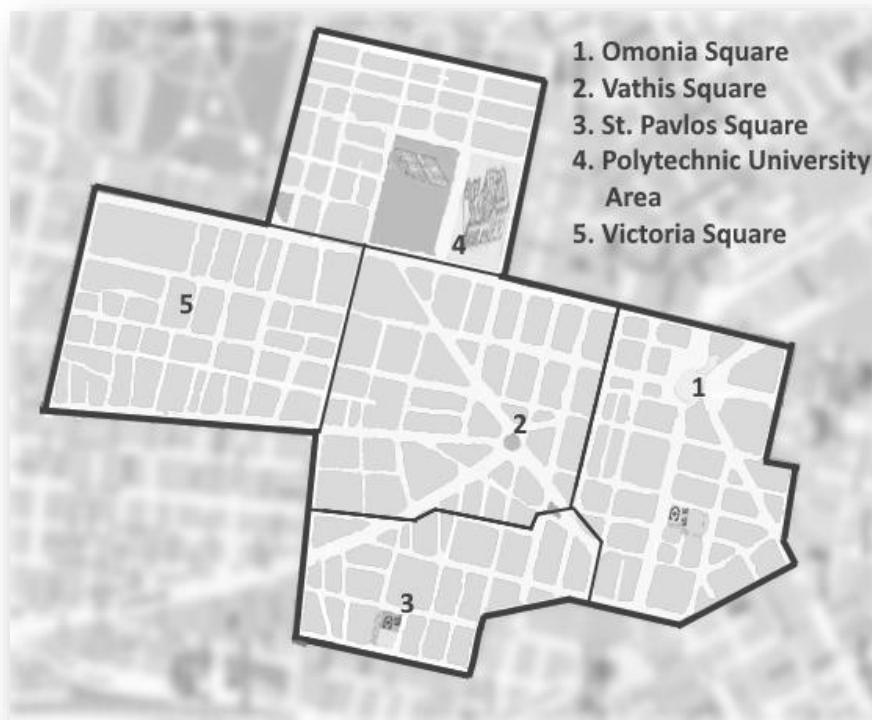
ii. The research areas

The selection of the spatial units corresponded to previous research in order to permit for a comparable study and a research "continuum". Moreover, this selection reflected the areas of the centre of Athens where the aspects of social deprivation and of environmental deterioration were the most prominent. From this perspective, on spot observation was the most appropriate as a first methodological step combined, at a second stage, with the study of the population of these areas by using questionnaires through personal interviews. The selection of the respondents in these small spatial units was achieved in accordance with the previous research

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[5] The statistical analysis of the quantitative data was performed with the use of SPSS statistics software 21.0 (Statistical Package for Social Sciences). The variables were examined either alone or in pairs through the use of double-entry or contingency tables (crosstabs).

methodology which was valid in similar research studies (Wikström et al. 2012, 2013:91). According to this, "*fewer respondents per area may be sufficiently reliable for the study of area social conditions in which respondents serve as general social observers, as has been shown using ecometric analytical techniques*" (Wikström et al. 2012:118). The small number of respondents, as was the case in previous research which was carried out in almost similar spatial units in the centre of Athens, has been proven as being "representative". This "representativeness" is achieved because "*respondents are reliable social observers, (so) they need not be fully representative of the general population*" (Ibid.). In addition, the sample was representative since its selection was based on the technique of (non-probability sampling) stratified analysis in order for spatial representation to be achieved (Newburn, 2007:912).

More specifically, the research areas have the following characteristics (Zarafonitou et al. 2016):

Omonia Square is one of the two most central districts of Athens along with Syntagma Square. Omonia Square is a transportation node and an area characterised by commercial, administrative and other economic activities, with many stores run by Greeks and foreigners, many low-budget hotels and with a limited number of residential houses, mostly inhabited temporarily by foreigners.

Vathis Square is one of the representative districts of "Old Athens" which changed its character dramatically, especially after 1970, since the area has been degraded significantly in terms of area activities and property values. Consequently, environmental degradation was followed by social degradation when illegal sex working and drugs appeared in the area. Nowadays, Vathis Square, which has lost its commercial, economic and administrative character, is inhabited mostly by foreigners while the same applies to the shops' owners of the area. In general, Vathis Square could be described as a very deprived area with many old downgraded apartment buildings and deserted neoclassical buildings, a great number of immigrants, many homeless people and a great number of drug addicts using drugs in public spaces even during the day.

Saint Pavlos Square was named after the homonymous church which was built at around 1954 and which is located in the centre of the square. During the on-spot observation it was recorded that even though the area was usually crowded, with a fair amount of motor and pedestrian traffic, the square retained its neighbourhood character. In addition, there was a noticeable presence of children around the square, due to the existence of a school close to it. It is worth noting that in the square and the surrounding streets there was enough public lighting and there was no litter or other signs of environmental and social degradation such as drugs or illegal sex working. The majority of the area's residents and shop owners were foreigners.

Victoria Square (named after Queen Victoria of England) lies on the axis between the centre of the capital and the densely populated middle-class neighbourhoods of north and north-southern Athens. It is worth mentioning that the oldest train line is located on the square, while the University of Economics and the Greek Telecommunication Organisation are located nearby. The National Polytechnic University and the National Archaeological Museum are situated a bit further, towards Omonia Square. The area began to change around 1980 when middle/upper-class residents started moving to the Athenian suburbs while, from 1990 onwards, there was a mass influx of foreigners, according to the above cited Chicago School theory, that contributed to the further abandonment of the area.

The **National Polytechnic University** was founded in 1836 and is located on Patission Street, one of the most central streets of the area and the axis between Omonia Square and the neighbourhoods of north/north-southern Athens. It is close to the National Archaeological Museum. The area maintains a historical and symbolic character due to the students' rebellion against the dictatorship in 1973. Even though academic activities in the area are limited, there are still many tourists that visit the area, due to the Museum. The area was characterised by increased motor and pedestrian traffic and the stores around the University were run mostly by Greeks. Nevertheless, in the pedestrian streets of the area there was a strong presence of drug

users while the adjacent park between the University and the Museum was abandoned and full of litter and used syringes.

iii. The features of the respondents

With the basic criterion being the spatial representation of each region, thirty residents or workers were selected within each area. Each had to be available to participate in an ongoing investigation. A prerequisite for the participation of the respondents in the survey was a minimum of a three-year residence within the area, in order to be able to evaluate the environmental and social characteristics of their area and how these have developed.

As far as the profile of the respondents is concerned, 58 per cent were male and 42 per cent were female. The higher representation of men is due to the commercial nature of the areas under investigation. Shopkeepers/employees amounted to 70 per cent of the participants as opposed to residents of the areas, who amounted to 30 per cent of the participants. The average age of the sample was 47.6 years and most of the participants were Greek (88 per cent)[6]. Their educational level was reported as being high with 43.3 per cent being higher education graduates. Only 6.7 per cent reported as having a low level of education (elementary school), and just 2 per cent reported having no formal education. Regarding the participants' economic situation, 12 per cent reported their economic situation as being good or very good, 45.3 per cent as being moderately well-off and 42.7 per cent as being poor or very poor.

III.   Research findings
i.   Insecurity

Levels of insecurity were predominantly measured based on the answers to the question "*How safe do you feel walking alone in your area after dark?*". As portrayed in *Figure 1*, 54.5 per cent of all respondents reported as being a bit unsafe or very unsafe. The answer "*a bit or very unsafe*" constituted the majority of the responses in every area, with the exception of the National Polytechnic University (Polytechnio) area, where the research sample consisted mainly of employees of the area, due to the small number of residents.

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[6] The percentage of non-nationals was represented by 12% of the respondents, and their proportion by ethnic origin was as follows: Albanian (2.7 per cent), Bulgarian (2 per cent), Romanian (0.7 per cent), Ukrainian (1.3 per cent), Russian (1.3 per cent), UK (0.7 per cent), Italian (0.7 per cent), Indian (0.7 per cent), Bangladeshi (0.7 per cent), Syrian (0.7 per cent) and Egyptian (0.7 per cent).

Figure 1: (In)security in the area of residence/employment
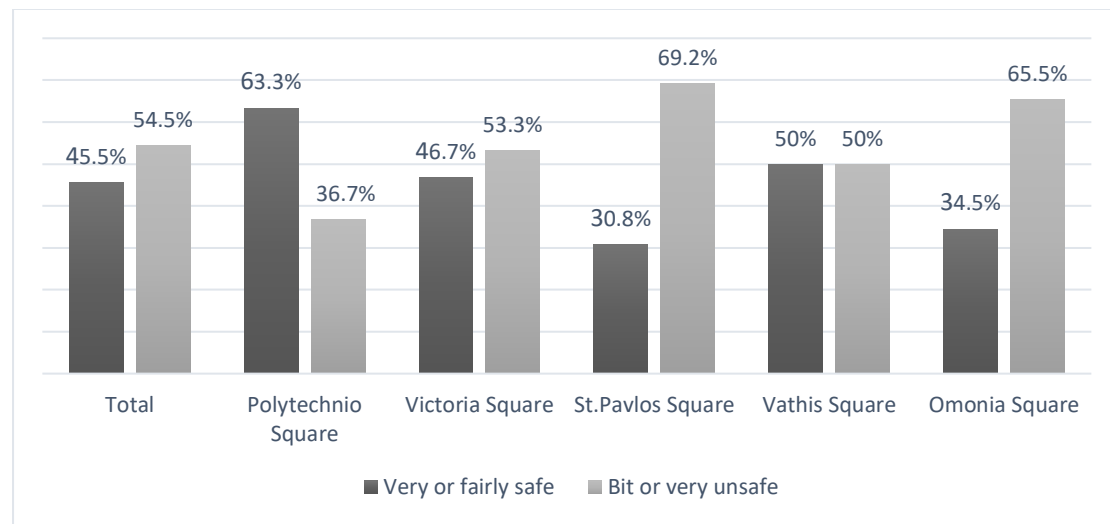
The recorded high levels of insecurity confirm the data which have been found so far in similar research (Zarafonitou, 2002, 2013; Zarafonitou et al. 2009; Zarafonitou, Chrysochoou, 2015; Tseloni, Zarafonitou, 2008; Van Dijk et al. 2007). The responses regarding the explanatory factors of insecurity derived from the question "*what causes your insecurity*". Those who do not feel safe in the area after dark mainly referred to the following:

• Drugs: 12.9 per cent

• Insufficient policing: 11.5 per cent

• Many foreigners: 11.2 per cent

• Indifference of passers-by in instances of assault: 10.5 per cent

• Deserted and poorly lit areas, the impression of abandonment of the area and refugees/immigrants: 8.8 per cent, respectively

• The area's reputation regarding crime: 8.6 per cent

The first three causes, referring to drugs, inadequate policing and the large number of foreigners, constitute the "triptych of insecurity" given that they steadily emerge as dominant in explaining the levels of insecurity of the residents of Athens (Tseloni, Zarafonitou, 2008; Zarafonitou 2009, 2011a).

A further component contributing to the insecurity of the citizens of the areas of central Athens is their perception of the "dangerousness" of the area.

Figure 2: Area reputation
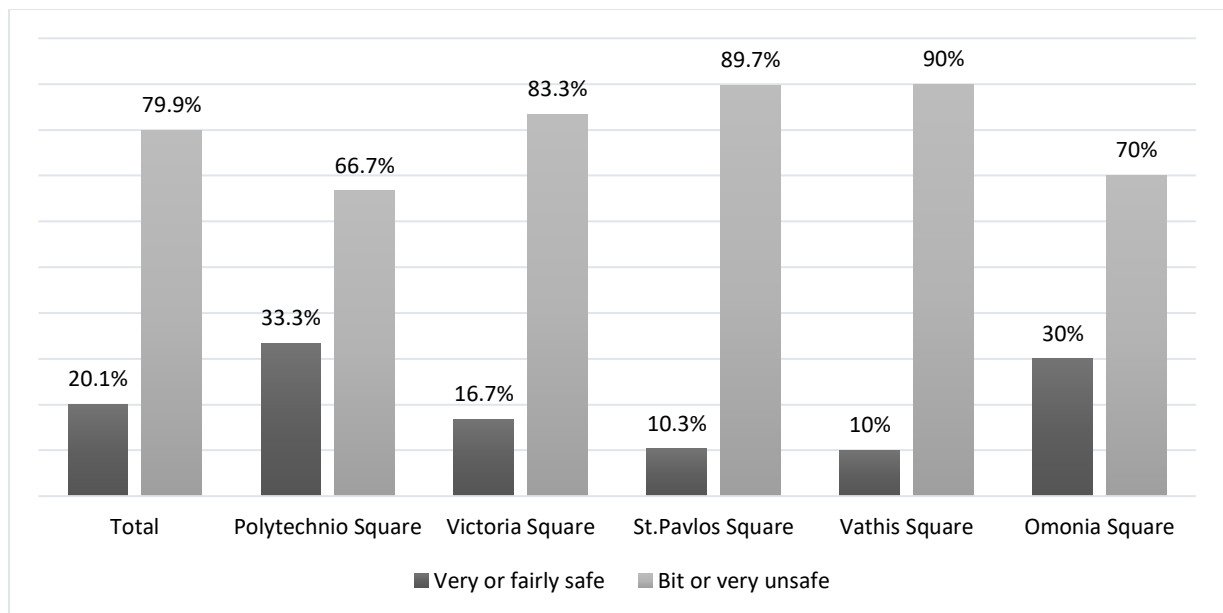
As depicted through their answers to the question "*How would you describe your area*", 80 per cent of the respondents replied that they would describe it as "*A bit unsafe or very unsafe*", as described in *Figure 2*. By comparing this figure to the above descriptions of causes of insecurity, we remark that the widespread belief of the "dangerousness" of the area is explained through the aforementioned elements, which function simultaneously and are therefore also taken into account.

As far as the victimisation is concerned, the reported victimisation rate by region ranged from 40 to 60 per cent, while the victimisation rate according to the responses of the total sample was 49 per cent. The most common forms of victimisation were thefts (54.3 per cent) and robberies (19.8 per cent). Half of the respondents reported as having been victimised more than once and the majority of them reported their victimisation to the police.

Regarding risk perception, the majority of the respondents (57.8 per cent) believed that they are very or fairly likely to be victimised in the future and that the most common forms of future victimisation to be reported were thefts, attacks and robberies.

In this context, the elements of social and physical environment were investigated. According to our on-spot observation and the answers given by the research sample, graffiti increased considerably in the recent years in the Greek capital constituting one of the most important components of physical disorder and for that reason it was examined more thoroughly.

ii. Elements of physical and social environment

The signs of the environmental or social degradation were presented according to the international research evidence and the questions were posed in a manner through which the respondents would indicate the frequency of observing similar characteristics in their area. There was a choice of responses between "*often, sometimes, rarely, never*".

The question "*Which of the following activities take place in your area and how often*?" posed to the participants is linked to social degradation indicators. These indicators include antisocial or criminal behaviours, as well as other behaviours or conditions associated with social disorder.

Table 1: Indicators correlated with social disorder

Reported indicators	OFFEN or SOMETIMES					
	Omonia Square	Vathis Square	St. Paul Square	Victoria Square	Polytechnio Square	Total
Homeless people	93.3%	83.3%	96.6%	86.6%	93.4%	90.6%
Begging	93.3%	96.6%	96.6%	90%	96.6%	94.6%
Vandalism	72.4%	50%	60%	53.3%	63.3%	59.7%
Car theft	46.2%	42.3%	70%	72.4%	51.7%	57.2%
Theft of personal items	79.3%	78.6%	80%	86.7%	80%	80.9%
Robberies	33.3%	39.3%	56.7%	58.6%	62.1%	50.4%
Attacks	48.1%	29.6%	40%	37%	34.5%	37.9%
Burglaries	50%	75.9%	80%	96.6%	73.4%	75.5%
Public use of illegal drugs	96.7%	100%	100%	93.3%	90%	96%
Drug trafficking	86.7%	96.3%	82.2%	89.6%	72.4%	85.3%
Public alcohol consumption	83.3%	76.7%	66.7%	78.6%	65.5%	74.2%
Black market trade	80%	96.6%	66.7%	85.7%	86.2%	82.9%
Sex working	73.3%	82.8%	60%	71.5%	28.5%	63.5%
Immigrants/refugees	90%	96.7%	93.3%	100%	90%	94%

According to research findings *(Table 1)*, the responses which pertained to behaviours or conditions associated with the "social degradation" of the area were distributed, by frequency, as follows:

1. Public drug use (96 per cent), begging (94.6 per cent), refugees / immigrants (94 per cent), homeless people (90.6 per cent)

2. Drug trafficking (85.3 per cent), black market trade (82.9 per cent), theft of personal items (80.9 per cent)

3. Burglaries (75.5 per cent), public alcohol consumption (74.2 per cent),

4. Sex working (63.5 per cent)

5. Vandalism (59.7 per cent), car theft (57.2 per cent), robberies (50.4 per cent)

6. Attacks (37.9 per cent)

It is evident that the elements associated with "antisocial" or illegal are very prominent, sometimes reaching the ultimate 100 per cent, as with public drug use and immigrants/refugees in some of the research areas.

Table 2 contains the answers to the question "*Please indicate which of the following describe your area and how frequently they occur?*" which refers to characteristics associated with physical disorder, of the research areas.

Table 2: Indicators correlated with physical disorder

Reported indicators	OFFEN or SOMETIMES					
	Omonia square	Vathis square	St. Paul square	Victoria square	Polytechnio square	Total
Poor lighting of public areas	75.9%	50%	46.2%	56.7%	50%	56%
Litter on the streets	90%	76.7%	80%	76.7%	80%	80.7%
Noise	83.3%	90%	73.4%	76.7%	90%	82.6%
Abandoned buildings	96.5%	92.8%	83.3%	93.3%	86.2%	90.4%
Neglected buildings/streets	85.2%	96.6%	80%	86.6%	83.3%	86.3%
Closed shops	83.4%	100%	96.6%	96.6%	100%	95.3%
Graffiti	86.7%	96.7%	70%	73.3%	100%	85.3%

These kinds of characteristics were distributed, by frequency, as follows:

1. Closed shops and abandoned buildings (95.3 per cent and 90.4 per cent respectively)

2. Neglected buildings / streets and graffiti (86.3 and 85.3 per cent respectively), noise and litter on the streets (82.6 per cent and 80.7 per cent respectively)

3. Poor lighting of public areas (56 per cent)

According to the research data there was a high response rate with reference to closed shops, as they reflect the existing reality for central Athens due to the economic crisis. The response rate was often close to 100 per cent. This is related to the high response rate concerning neglected buildings and the prominence of graffiti which often accompany closed shops in the city centre. In accordance with what will specifically be mentioned *infra*, graffiti is very widespread in all areas, with a higher response rate (100 per cent) in the National Polytechnic University area. It is also worth noting that the highest percentage of responses concerning litter, poor lighting and abandoned buildings was reported in Omonia Square, the main square of Athens and its' surrounding areas.

iii. Graffiti as a Component of Social Life

Graffiti is widespread in contemporary Greece and is especially related to political protests during the post dictatorship period in Greece. For this reason it is very prominent in university campuses. Even though graffiti expanded across other sectors of social "expression", in recent years it has greatly developed. Graffiti is more frequently observed in the central areas of Athens. Besides, according to the residents' reports and the on-spot observation that took place within the framework of the present study, those areas are the most socially deprived.

Graffiti was recorded and mapped by type and frequency and by area. However, the classification by graffiti type was not taken into consideration when correlated with the attitudes, perceptions and insecurity of the respondents of the sample. According to the results of the on-spot observation in the research areas, the most predominant types of graffiti were the so-called *tags* (creator's "signature") and *slogans* of political and ideological content. *Street art* (artistic creations), *lyrics/words/ phrases* of personal content as well as *stencils* (pre-designed graffiti) were also observed at a smaller percentage (Zarafonitou et al., 2016).

According to the results of the on-spot observation, the picture concerning graffiti in the research areas had the following characteristics (Zarafonitou et al., 2016):

In *Omonia Square* there was a wide range of all types of graffiti (mostly tags and slogans). Political content was also prevalent, as well as content relevant to drugs. Most of the graffiti was spotted on closed commercial establishments in small streets with litter and poor lighting. In fact, the broad dimensions of graffiti were connected with the equally broad phenomenon of closed stores during the economic crisis. In this context, incidents of illegal

trade were observed in the streets of central districts where the presence of immigrants was very frequent. Moreover, there was increased public drug use and illegal sex working.

In *Vathis Square* and the surrounding area most of the graffiti consisted of slogans of political content and some of it related to drugs. A large amount of graffiti was written in Arabic and reflected the strong presence of immigrants in the area. As far as the rest of the characteristics are concerned the picture of Vathis Square was the same as that in Omonia.

As far as *Saint Pavlos Square is concerned*, only a small amount of graffiti (mostly tags and slogans) appears on the mantels around the church. Moreover, in the surrounding less busy streets away from the square there is a sparse presence of litter and graffiti on closed store rolls and houses' walls in spots which are not easily visible by passers-by. In the area at a greater distance from the square one can observe badly lit streets, many deserted or downgraded buildings, graffiti and a fair amount of litter. The overall picture reflects a poor but not degraded area compared to the rest of the research areas.

All types of graffiti were very common at *Victoria Square* combined with a great number of posters in the central streets close to the square. The strong presence of graffiti (mostly tags and slogans) could be seen not only in the central streets around the square but also in alleys, on walls and buildings. In the same central streets, black market trading flourished along with illegal sex working in some streets of the wider area.

A fair amount of litter, a very high concentration of posters and graffiti of all types (mostly tags, street art and graffiti of political content) on the walls of the university building was observed in the *Polytechnic University* courtyard and the surrounding streets while the building infrastructure had been vandalised in specific spots (broken doors, burnt trees etc). In addition, when the present study was being conducted, there were many squatters in buildings not only in the wider area but also in the University. Furthermore, in the surrounding streets, besides the litter, the graffiti and the posters, there was a noticeable presence of homeless people, beggars, immigrants and illegal trade activities.

In view of exploring whether graffiti is considered as being one of the contributing factors of the degradation of an area, our research focused on the dimensions of graffiti through the residents' responses. These perceptions are depicted in the following figure (*Figure 3*). The portrayal of graffiti is indicative of its expansion in all areas of the centre of the Greek capital. Areas with a predominantly residential character, such as Victoria Square and St. Pavlos Square, had a relatively lower reporting rate which, nevertheless, remains significant. However, according to the on-spot observation at Victoria Square a strong presence of graffiti was recorded.

Figure 3: Frequency of graffiti reporting
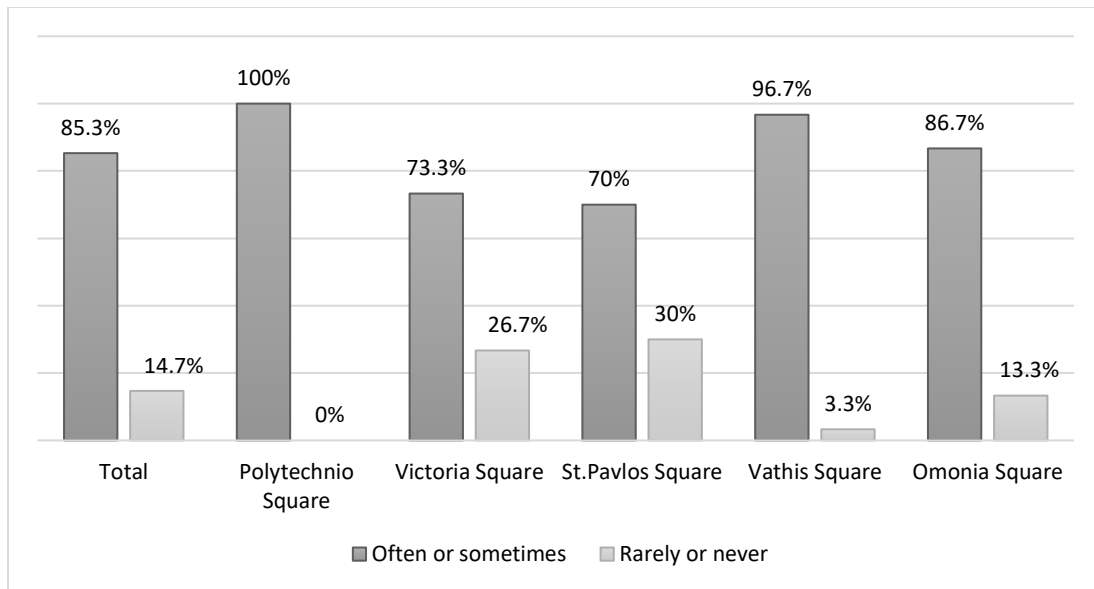
Those who answered "*often or sometimes*" were asked to express their opinion on the existence of graffiti in their area. According to *Figure 4*, negative opinions on graffiti comprise the majority of responses, followed by neutral, with the sole exception of the Polytechnic University area (where graffiti was reported as being the most prevalent) where the neutral opinion prevailed.

Figure 4: Opinion about graffiti
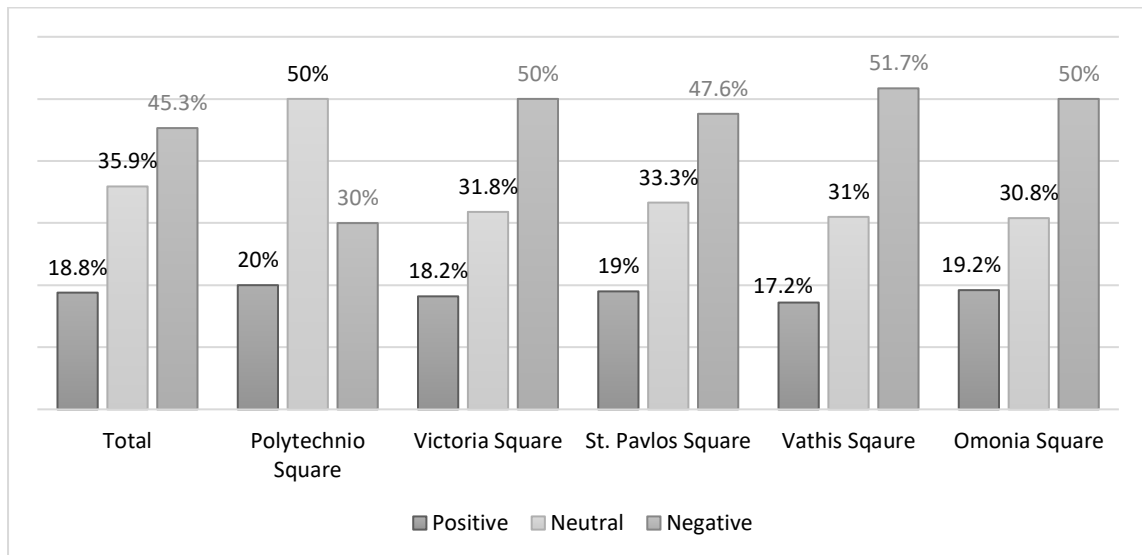
As far as the relationship of insecurity with the attitude of the respondents towards graffiti is concerned the research data showed that:

o   58.5 per cent of those who responded as being insecure had a negative opinion on graffiti vs. 28.1 per cent of those who felt safe.

o Those who had a negative opinion about graffiti were more insecure (70,4%) compared to those who had a neutral (38,6%) or positive (41,7%) opinion. The correlation between negative attitudes towards graffiti and insecurity was recorded as being statistically significant (p= 0.003 <0.05).

This attitude also affects the perception on the reputation of the area and, more specifically:

o Amongst those who considered their area of residence or work as being unsafe, those who expressed a negative opinion regarding graffiti (50.5 per cent) outnumbered those who expressed a neutral (35.6 per cent) or positive (13.9 per cent) opinion respectively.

o Those who had a negative opinion about graffiti considered their area of residence or work as being unsafe at a greater percentage (89,5%) compared to those who had a neutral (78,3%) or positive (58,3%) opinion. This correlation was statistically significant (p= 0.006 <0.05).

Nevertheless, besides graffiti, similar correlations were observed between insecurity and other environmental characteristics, more specifically:

o Those who stated that they often or sometimes saw litter on the streets in the area in which they worked or resided were the most insecure (58.3 per cent) vs. those who reported that they rarely or never saw litter on the street (39.3 per cent).

o Those who stated that they often or sometimes saw abandoned buildings in the area in which they worked or resided reported as being the most insecure (56.3 per cent) vs. those who rarely or never saw abandoned buildings (46.2 per cent).

Similar correlations were recorded between insecurity and social features, the main of which were:

• Those who often or sometimes witnessed homelessness in the area in which they worked or resided (55.4 per cent) felt more insecure vs. those who saw homeless people rarely or not at all (46.2 per cent).

• Those who stated that they often or sometimes observed public drug use in their area of residence or work felt more insecure (57.4 per cent) vs. those who rarely or never witnessed this phenomenon (0 per cent). The correlation was recorded as being *statistically significant: p=0.007 <0.05*.

• Those who reported that they often or sometimes saw refugees or immigrants in their area of work or residence felt more insecure (55.2 per cent) vs. those who experienced this phenomenon rarely or not at all (44.4 per cent).

This was also noted with regard to the perception of the participants' area as being unsafe and other social features, the main of which were:

- Those who stated that they often or sometimes witnessed homelessness in their area of residence or work (83 per cent) characterised their area as being unsafe to a larger extent vs. those who saw homeless people rarely or never (50 per cent). *A statistically significant correlation was recorded: p= 0.01 <0.05*.

- Those who responded that they often or sometimes witnessed public drug use in their area of residence or work (81.7 per cent) characterised their area as being unsafe to a larger extent vs. those who observed the same phenomenon rarely or never (33.3 per cent). This *correlation was also statistically significant: p= 0.016 <0.05*.

- Those who stated that they often or sometimes saw refugees or immigrants in their area of residence or work (80 per cent) characterised their area as being unsafe to a larger extent vs. those who observed the same phenomenon rarely or never (77.8 per cent).

iv. Assessment of quality of life

The above constitute elements which determine the general level of quality of life, as assessed through the question *"How would you assess the development of the quality of life in your area, during the last three years?"*. The responses to this question display a widespread perception of a decline of quality of life *(Table 3)*.

Table 3: Evaluation of quality of life for the last three years

Quality of life	Omonia Square	Vathis Square	St. Pavlos Square	Victoria Square	Polytechnio square	Total
Improved	10%	6.7%	6.9%	6.7%	6.7%	7.4%
Remained the same	36.7%	16.7%	17.2%	26.7%	23.3%	24.2%
Declined	53.3%	76.7%	75.9%	66.7%	70%	68.5%

According to our research results (*Table 3),* 68,5 per cent reported that the quality of life in their area declined, 24,2 per cent reported that it remained the same and 7,4 per cent stated that the quality of life was improved.

The correlation between fear of crime and the assessment of quality of life has been established by previous empirical studies conducted in the centre of Athens (Tseloni, Zarafonitou, 2008; Zarafonitou, 2009; Zarafonitou, Chrysochoou, 2015).

According to our research data a similar correlation also appears, given that the perception of a decline in quality of life was much more prominent for those who felt insecure (78.2 per cent) as opposed to those who felt safe (55.4 per cent). Respectively, the percentage of those who felt insecure was much higher amongst those who believed that quality of life had deteriorated over the last three years (62.9 per cent) compared to those who believed that it had improved (27.3 per cent) or that it had remained unchanged (40 per cent). *A statistically significant correlation was recorded: p=* 0.01 <0.05.

The examination of the connection between quality of life and signs of environmental degradation resulted in similar correlations:

- o Those who stated that they often or sometimes saw litter on the streets of the area in which they lived or worked (70.8 per cent) considered, to a greater extent that quality of life in the area had declined, compared to those who rarely or never saw litter on the streets (58.6 per cent).

- o Those who responded that they often or sometimes witnessed abandoned buildings in their area of residence or work (70.2 per cent) considered, to a larger extent, that quality of life in the region had declined, compared to those who rarely or never saw this phenomenon (50 per cent).

- o Those who stated that they often or sometimes saw graffiti in their area of residence or work (69.3 per cent) believed, to a higher extent, that quality of life in the area had declined, compared to those who rarely or never saw graffiti (63.6 per cent).

- o Those who had a negative opinion about graffiti in their area of residence or work (77.2 per cent) considered, to a higher extent, that quality of life in the area had declined, compared to those who were neutral (67.4 per cent) or who had a positive (54.2 per cent) opinion.

Concerning the assessment of the components which relate to social problems and their connection to quality of life it was noted that:

- Those who stated that they often or sometimes witnessed homelessness in their area of residence or work declared, to a greater extent (69.6 per cent), that quality of life in their area had declined compared to those who said they saw homeless people rarely or never (57.1 per cent).

- Those who said that they often or sometimes saw public drug use in their area of residence or work stated, to a greater extent (69 per cent), that quality of life in their area had declined, compared to those who said that they rarely or never experienced this phenomenon (50 per cent).

- Those who said that they often or sometimes saw refugees or immigrants in the area in which they worked or resided stated, to a greater extent (69.3 per cent), that quality of life in the area had declined, compared to those who said that they experienced this phenomenon rarely or not at all (55.6 per cent).

In any case, the depiction of the decline in quality of life, as has been found through previous research in Athens, reflects a consolidated view regarding the lack of concern of the state for the residents of these areas. In this study, almost half of the respondents reported that the police were present in the area (48.3 per cent) and another half (51.7 per cent) reported their absence while the majority of the respondents (75.3 per cent) assessed negatively the efficiency of the police. The same applies to the competence of the municipality authorities, since the vast majority of the respondents (80.4 per cent) assessed their work as being insufficient.

v. The creators' perspective on the phenomenon of graffiti

Based on the above mentioned responses of the participants different opinions about graffiti were expressed. Similarly, according to the creators' opinions graffiti were considered as being multidimensional as far as their conceptual content is concerned. More specifically, graffiti was characterised as art (relative to painting), as a means of expression, as a form of reaction, as a deed of egoism or freedom or just a hobby which became a job. The graffiti creators argued that the perception about art is subjective ("*the way somebody perceives art is totally subjective*", "*what people call a scribble, this is graffiti*") and the majority of them stated that graffiti could be at the same time a form of art or revolution, a protest or vandalism ("*it is an amalgam of all these* and "*it depends on what do you want to express through graffiti*"). In this context, the creators' perception about graffiti diverges from that of the citizens since the citizens usually consider every type of writing on surfaces in public space as graffiti without taking into account the various types of it (e.g. tags, murals/street art, political slogans etc.) (Zarafonitou et al., 2016:19).

Regarding the legal or illegal character of graffiti, initially, it must be mentioned that most of the graffiti is considered to be illegal. However, there are cases in which the graffiti is made after the necessary license or permission is provided to the creator. This holds true for example in the case of "pieces" and "mural paintings" that constitute street art. In such cases the graffiti is considered as being a commissioned and paid artwork (Zarafonitou et al. 2016:11; Morgan, Louis 2009:2). However, some of the creators believed that the authentic graffiti is the illegal one because in that case graffiti "*has different validity*". One participant stated that "*the legal and illegal is a clear mechanism of values and rules, norms that we have made as a society in order to have the social contract (...) I believe that this is only a matter of social consensus and nothing more*". In addition, it was also stated that in certain cases graffiti should be considered as a form of vandalism. More specifically, one creator argued that: "*In Plaka, in the old town of Nafplio, in Eksarhia and in the centre of Athens in general, the signatures drawn with spray or markers, the slogans, are not graffiti, they are vandalism, they further degrade the quality of life and the environment in which they live and grow up*". It is worth mentioning that when the creators referred to the centre of the Greek capital they argued that in most of the cases what is drawn on public space cannot be considered as graffiti and according to their opinion that phenomenon was widespread. Finally, as far as the archaeological sites are concerned all the creators agreed that no graffiti should be made on such sites or monuments (Zarafonitou et al., 2016:19-20).

Based on the above mentioned it is obvious that whether graffiti constitute art or a sign of environmental degradation depends on who is the creator and how the creator perceives the conceptual content of graffiti. In this context, each case of graffiti is unique and this uniqueness is determined by the purpose of its creator. The creators' perspective on graffiti is an enlightening example through which it becomes apparent that the individual attitude towards graffiti is subjective and contingent on the conceptual content attributed to it. This attitude emerges quite clearly when related to elements of social and environmental degradation of the urban landscape.

IV.   Discussion

Significant social changes have occurred in Greece over the last two decades, the most important of which being the massive influx of immigrants as well as the economic crisis. During this period the dimensions and the characteristics of criminality reveal a general trend of displacement to "easy targets" or "low risk targets"[7,] such as purse snatchings, mobile phone

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[7] Press release by the Hellenic Police
http://www.astynomia.gr/index.php?option=ozo_content&lang=%27..%27&perform=view&id=62129&Itemid=1694&lang=

theft and petty theft in general, as well as home or small store burglaries, which have steadily increased during the past few years. Though the levels of criminality are lower compared to most European countries, they appear to be higher compared to the corresponding crime rates in Greece in the past. The rise of everyday criminality, especially of robberies and burglaries, has a direct impact on personal feelings of "unsafety". On the other hand, the official social control exerted through police agencies and the criminal justice system as a whole does not inspire trust in a large part of the population and informal social control also remains weak.

The problems of everyday crime affect the residents of urban centres to a greater extent and particularly affect those residing in the centre of Athens who are additionally confronted with several aspects of the social and physical environment in their everyday life which contribute to the perception of local life as being degraded. These problems are more intense in the central area of Athens, where, especially during the last years, environmental degradation is obviously combined with a considerable concentration of heterogeneous populations and drug-related problems as well as with the serious consequences of the financial crisis (e.g. shop closures, illegal markets etc.).

According to the present research data, the majority (54.5 per cent) of the respondents feel unsafe walking alone in their area after dark and the most prominent contributing factors for insecurity are reported to be drugs, inadequate policing and the large number of foreigners. This "triptych of insecurity" has steadily emerged as dominant in explaining the levels of insecurity of the residents of Athens, something which is deduced from our research. It was also found that the vast majority of the respondents perceive their area as being "dangerous", since almost 80 per cent described it as "a bit or very unsafe". Moreover, the majority of the respondents reported as having been victimised within the last three years, and often reported that this victimisation is repeated.

In this context, the most frequently reported signs of 'social disorder' are: public intoxication, begging, immigration and homelessness. On the other hand, the most frequently reported signs of 'physical disorder' are closed shops, deserted and downgraded buildings or streets and graffiti. Given that graffiti has constituted a very widespread phenomenon during the last years in Greece and in particular in the most degraded areas and that international research evidence has pointed out its perception as a 'sign of incivility', this paper has examined, in particular, the type and the quality of graffiti observed in the research area in relation to other characteristics of urban degradation and fear of crime.

According to the *in-situ* observation and the responses of the residents or workers in the research areas, graffiti is widespread. However, it is slightly less prominent in the St. Pavlos area, which has retained its residential area characteristics. The attitudes towards graffiti are

mostly negative and related to the aforementioned negative assessment of the area in general. This negative attitude is linked to the insecurity of respondents since 58.5 per cent of those who responded as being insecure had a negative opinion on graffiti vs. 28.1 per cent of those who felt safe. Similarly, those who had a negative opinion about graffiti were more insecure (70,4%) compared to those who had a neutral (38,6%) or positive (41,7%) opinion. Furthermore, the correlation between negative attitudes towards graffiti and insecurity was recorded as being statistically significant (p= 0.003 <0.05).

This attitude also affects the perception about the reputation of the area, since amongst those who felt that their area was "unsafe" the majority expressed a negative opinion on graffiti (50.5 per cent) compared to those who expressed a neutral (35.6 per cent) or positive (13.9 per cent) opinion. Similarly, those who had a negative opinion about graffiti considered their area of residence or work as being unsafe at a greater percentage (89,5%) compared to those who had a neutral (78,3%) or positive (58,3%) opinion. This correlation was also statistically significant (p= 0.006 <0.05).

In accordance to the aforementioned, besides graffiti, similar correlations were observed between insecurity and other signs of environmental degradation such as litter on the streets and abandoned buildings. Similar correlations were recorded between insecurity and signs of social degradation, the main of which were the high level of homelessness in the area, public intoxication as well as the large number of refugees or immigrants in their area. These correlations were also established between the aforementioned indicators and the perception of the participants' area as being unsafe, with homelessness and public intoxication being statistically significant (homelessness: p= 0.010 <0.05 and public intoxication: p= 0.016 <0.05).

The above constitute elements which determine the general level of quality of life which is assessed as having declined during the last three years in the area of the respondents' residence or work (68.5 per cent). As in previous research concerning the centre of Athens, a correlation between the negative evaluation of quality of life and fear of crime was also found in this study. In this case the perception of a decline in quality of life was much more prominent for those who felt insecure (78.2 per cent) vs. those who felt safe (55.4 per cent). Similarly, the percentage of those who felt insecure was much higher amongst those who believed that quality of life had deteriorated over the last three years (62.9 per cent) compared to those who believed that it had improved (27.3 per cent) or that it had remained unchanged (40 per cent) (p= 0.011 <0.05).

The examination of the correlation of quality of life with signs of physical deterioration resulted in similar findings concerning litter on the streets, abandoned buildings and graffiti. In particular, those who had a negative opinion about graffiti considered, to a greater extent, that

quality of life in the area had deteriorated compared to those who were neutral or who had a positive opinion, according to the aforementioned evidence. As far as concerns the assessment of the components which cause social degradation and how these components affect quality of life, a correlation was found with respect to the following indicators: homelessness, public intoxication and refugees or immigrants in the area in which the respondents worked or resided.

Finally, the conducted interviews with the graffiti creators were enlightening regarding the content of the perception on an individual level about graffiti. Thus, it became apparent that the conceptual framework of graffiti is subjective in its nature depending on who the creator is and what is the purpose of its creation. Accordingly, the perception about graffiti and whether it represents an act of vandalism or an artistic form of expression depends, in general, on the conceptual content attributed to it. This perception is quite clear when referred to elements of social and environmental degradation of the urban landscape.

The present empirical study can be the basis for further and more thorough future research in the field of study of the relationship between fear of crime, social and environmental degradation in the urban context.

V.   Conclusion

An accumulation of elements of social and environmental degradation in certain areas, which represent the most deprived parts of the centre of Athens, was observed. On the other hand, the relationship between these elements and fear of crime and the deterioration of quality of life was established. Furthermore, graffiti was often considered as an element indicative of the general deterioration of the area. In this case graffiti was negatively perceived and was correlated with crime related insecurity.

Above statements depict the perception of a decline in the quality of life, as has been found through previous research in Athens. The sense of dissatisfaction of the respondents both with respect to the municipality and to the police reflects the lack of concern of the state for the residents of these areas and is directly associated with their high levels of insecurity.

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