Immigration, inequality and diversity: socio-ethnic hierarchy and spatial organization in Athens, Greece

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Abstract
This paper draws attention to the socio-spatial diversity of immigrant groups in Athens by investigating their changing hierarchical position in both society and space. The varying demographic and socio-economic characteristics of the immigrant population generate hierarchies of immigrant groups, which are reflected in intricate ways in the residential distribution of immigrants in the metropolitan area. Diversity seems to be interconnected with hierarchically unequal social positions, and these positions are in turn interconnected with the transformation of the spatial hierarchy in the Greek capital. This hierarchical diversity is expressed by a spatial typology of immigrants' locations in Athens. The paper ultimately explores how this typology tends to alter the urban social ecology (in terms of socio-ethnic composition of distinct spatial clusters) and the urban structural dynamics (in terms of interactions between different ethnic and social groups) in an increasingly unequal city.

Introduction

This paper draws attention to the socio-spatial diversity of immigrant groups in Athens by investigating their changing hierarchical position in both society and space. As in other national and sub-national socio-spatial contexts, the immigrant population in the metropolitan area of the Greek capital is sometimes conceived as an undifferentiated group of people of foreign origin. This holds true in the field of common representations, where certain ethno-racial classifications (e.g. 'Albanians', 'Balkanians',

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'Asians', 'Africans', 'blacks', etc.) are occasionally used with different connotations. Such representations are influenced by shifting migratory flows or by incidences that find their way to media attention. However, they are included in generalized abstractions such as those of 'foreigners' and 'immigrants', the latter quite often being described as 'illegal' or 'economic' (Lazaridis and Koumandraki, 2001; Lewis, 1997: 128; Pavlou, 2009; Taylor, 1994: 25–70; Triantafyllidou, 2000). At the same time, generalizations also appear in migration policies, where the quasi-liberal model of non-regulation hardly differentiates among groups of different demographic characteristics, social positions and places of origin. With this work we want to draw attention to the great diversity within the immigrant population, which should affect our ways of seeing and understanding the 'other' within our societies and should also inform more effective immigration policies.

As in the rest of southern Europe, massive immigration is relatively recent in Greece, beginning in the early 1990s, after the arrival of early birds in the 1970s and 1980s (King, 2000). Albanians are by far the most significant immigrant group, representing about 60% of the immigrant population. People from Balkan and eastern European countries represent as a whole no less than 80%. During the last decade, immigration from Balkan countries has been regressing, while a new wave of immigrants has appeared, originating from war, oppression or poverty zones in the Middle East and Africa, escaping through dangerous and sometimes fatal routes.

The data that will be presented henceforth originate from the full dataset of the 2001 Greek census (EKKE-ESYE, 2005). Although this dataset is rather old, it is useful in examining diversity in a period when common perceptions about homogeneity appeared even stronger. On the other hand, it is clear that census data are not sufficient to capture an all-inclusive picture of diversity, owing to their design or operational limitations. For example, they do not allow us to go beyond the conventional division of ethnic groups or to estimate the magnitude of irregular migration.

Diversity itself refers to multiple dimensions of differentiation and has to be regarded as the intersection of a wide range of variables (Vertovec, 2006).

We treat multiple demographic and socio-economic differences as aspects of hierarchically unequal positions of immigrant groups. The assumption behind this perspective is that in class societies differences are more or less inevitably transformed into unequal social positions. 'More or less' refers to the wide variety of factors that condition the transformation of diverse individual and group characteristics into group positions. As a consequence, the hierarchy of multiple differences helps to illuminate the unequal social integration perspectives of different groups, in a process of differential integration.

According to Di Tomaso et al. (2007), if the connection between diversity and inequalities is of substantial importance, it is equally significant to define the differences that are influential. Our way to grasp the linkage between diversity and hierarchy of immigrant groups in the Greek capital is through the structure of their spatial distribution, in line with Harvey's (1996: 263) assertion that 'place is defined as the site of relations between attributes' and that 'the assignment of place within some socio-spatial structure indicates distinctive roles, capacities for action and access to power' (1996: 265). Moreover, we want to see how the structure of this distribution, as both a spatial and a social issue, is inscribed in the contextually specific Athenian cityspace and to focus on specific aspects of the context-dependent character of inequality and diversity (see in this volume the contributions of Syrett and Sepulveda (2012), Arapoglou (2012) and Kalandides and Vaiou (2012), for other problematizations of contextuality).

Residential segregation between immigrants as a whole and native Greeks in Athens remains relatively low by international standards, mainly because of the spatial structure of the housing market. Affordable housing in the private rented sector was available in vast areas in and around the densely built urban core, especially on the lower floors of apartment buildings, as well as in the low-rise housing stock in the periphery (Arapoglou, 2006; Maloutas, 2007a). Different immigrant groups followed, however, very diverse location patterns. This process of spatial differentiation is not explained solely by cultural differences and community ties that tend to shape different preferences and priorities for members of different

groups, thus leading to different outcomes in terms of group congregation. Unequal positions in the occupational hierarchy also lead to unequal possibilities to exploit existing housing opportunities, owing to both inequalities in economic capacity and the way in which the place of residence depends upon the place of work. Different parts of the city comprise dissimilar housing sub-markets, and thus provide unequal housing opportunities and living conditions. Consequently, social hierarchy can be detected in spatial hierarchy and vice versa. Moreover, the hierarchically ordered residential spaces that immigrant groups occupy become factors in the process of integration, either facilitating or constraining social mobility prospects.

Different aspects of immigrant diversity and hierarchy in the metropolitan region of Athens are explored in the following section. This leads to identifying six major hierarchically differentiated immigrant groups using a multivariate technique (binary correspondence analysis). The spatial distribution of these hierarchical groups is examined in the third section. The city's census tracts are clustered with respect to the relative presence of immigrants belonging to these hierarchical groups, which leads to mapping immigrant spatial hierarchy and diversity. Concluding remarks about the shifting character of ethnic inequalities, based on the most recent data about ethnic diversity in Athens, are formulated in the last section, with a focus on the structures and processes that transform differences into inequalities.

Diverse and unequal: differentiation of immigrant groups in Athens

Foreign people from 212 countries lived in the metropolitan region of Athens in 2001. They represented about 10% of the total population and almost 13% of the economically active population. That was definitely a significant increase, compared with less than 2% of the economically active population of foreign citizens 10 years earlier. Leaving aside those originating from developed countries, there were 24 ethnic groups – comprising more than 900 individuals
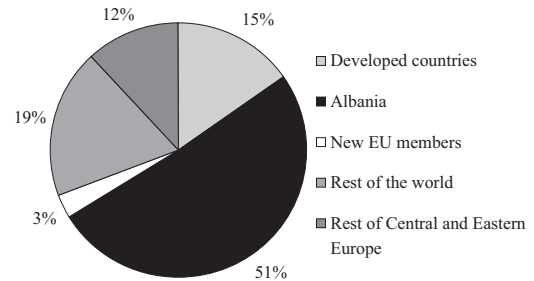
Figure 1. Composition of the foreign population in Athens by group of origin, 2001
Data: 2001 Population Census, EKKE-ESYE (2005)

– forming substantial immigrant communities. The ethnic composition of the immigrant population is quite unbalanced with the single largest group (Albanians) representing almost 51% (Figure 1). The other important groups from the Balkans and eastern Europe represented more than 15%, including immigrants from Poland (3.4%), Russia (3.3%), Bulgaria (3.1%), Romania (2.9%), Ukraine (2.8%) and Moldavia (1.1%). Groups from the Indian Peninsula represented over 4% and included Pakistanis (2.5%), Bangladeshis (1.1%) and fewer Indians (0.7%). The most important African groups were from Nigeria (0.5%) and Ethiopia (0.3%). Minor groups represented 2.8%, including people from Afghanistan, Somalia, Sudan and China, who are at the moment considerably more numerous than in 2001 (EKKE-ESYE, 2005).

Census data tend to under-represent undocumented immigrants. The immigrant population includes individuals with several different legal statuses. 'Legalization' procedures for those who arrived informally in Greece (i.e. the majority for most groups) started in the late 1990s. Immigrants that arrived on a large scale following the last legalization operation in 2005 did not have access to any process that would legalize their presence. Applications for asylum are only sporadically accepted, and most individuals from these new migrant groups are relegated to a condition of shadow integration – to a *process* of shadow *negotiation*, paraphrasing Samers (1998) – constrained to seek precarious jobs and low-quality housing, and permanently exposed to the danger of being arrested and harassed. Members of older groups, having obtained legal status at some point, face problems in renewing their residence
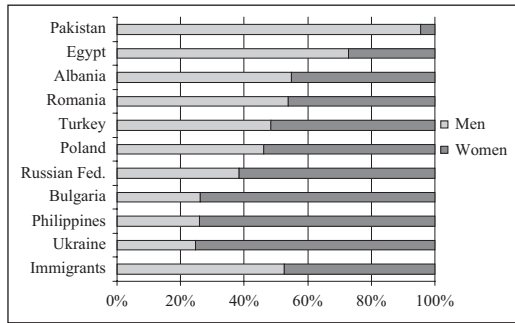
Figure 2. Gender composition of the 10 biggest immigrant groups in Athens, 2001
Data: 2001 population census, EKKE-ESYE (2005)

permits under the institutionalized precondition to prove a varying number of annual working days (Lawrence, 2005). On the other hand, some of the formerly established immigrants enjoy long-term residence permits, the right to family reunification and the possibility to obtain Greek citizenship. Completing the picture of what Kofman (2002) characterized as a 'complex system of civic stratification', immigrants of Greek origin who migrated since the early 1990s have been rewarded with full citizenship rights.

The age structure of immigrants is considerably younger than that of Greeks, but the age structures of different immigrant groups are not similar. Some groups (for example, Kazakhs, Iraqi and especially Albanians) include minor members at higher rates than Greeks, whereas others (particularly Bulgarians, Pakistanis and Bangladeshis) count very few. Some other groups already exhibit relatively important proportions of elderly people. In most immigrant groups, the majority belongs to the broad age category of between 20 and 49 years. However, the distribution in the sub-categories of 20–34 and 35–49 years is quite diverse, revealing, for example, a younger structure for Romanians and Egyptians than for Georgians and Filipinos.

Immigrant groups are very diverse in terms of gender composition. While some groups exhibit balanced composition, others are either male or female dominated. Albanians are predominantly male, but comparatively gender balanced, as women represent 43.6% of the group's population. The female-dominated groups, which originate mainly

from eastern Europe and East Asia, work in personal services; the male-dominated groups originate mainly from the Indian peninsula and the Middle East and their members are usually employed in industry, construction and agriculture.

Differences in gender composition are reflected in the household structures that prevail within different groups. Single-person households are mainly characteristic of male-dominated immigrant groups from the Middle East and Africa; collective households without a family nucleus are characteristic of male-dominated groups originating from the Indian peninsula (constituting the vast majority of households from Bangladesh and Pakistan). As expected, the gender-unbalanced immigrant groups are the ones with the lowest percentage of family-structured households.

The low level of residential segregation for immigrants is mainly due to the dispersal of Albanians who reside in various parts of the metropolitan area and consequently are not particularly different from Greeks in their spatial distribution. Smaller groups exhibit distinct residential patterns that do not add up to some distinctive general immigrant pattern. Some of them show high levels of centralization, occupying relatively small areas in the city centre, whereas others are characterized by a reduced presence in the city centre, concentrating in traditional working-class areas along the north–south highway. Female-dominated groups are concentrated in high-status suburbs and in certain parts of the east side of the city centre, near the areas where domestic work is in demand (Maloutas, 2007a).

Differences in gender composition and household structures, combined with differences in residential distribution, indicate a diversity that may be combined with inequalities among immigrant groups; the immigrant population is a mosaic of ethnicities with diverse demographic features and spatial organization, whereas the differences we now turn to are explicitly hierarchical.

The average education level (recorded by the National Statistical Authority on a 12-degree scale) for most immigrant groups in Athens does not differ noticeably from that of the Greek population. Immigrants from eastern Europe appear more educated (Albanians are slightly lagging behind,
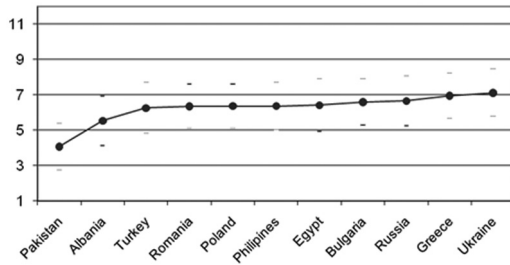
Figure 3. Average education level (± 1 standard deviation) for members of major ethnic groups aged 18–44 living in Athens measured on a 12-degree scale (1 = illiteracy, 12 = PhD) (2001)
Data: 2001 population census, EKKE-ESYE (2005)

however) than those originating from the Indian peninsula (Figure 3). This becomes clearer when we isolate those with an education up to elementary level. The groups from the Indian peninsula and the Middle East comprise 35–55% of such persons in the 18–44 years age cohort compared with 11% for the native population and 20% for Albanians. Participation in higher education, which is measured for the relevant age group (18–22 years), is a strong indicator of prospects for social mobility.

There are important differences between native Greeks and immigrants as well as amongst immigrant groups. Participation in higher education varies between 40% and 60% for Greeks and those originating from advanced economy countries; it decreases to 15% or less for most immigrant groups, and to less than 5% for groups from the Indian peninsula.

The rather small distance between immigrants and Greeks in terms of education credentials does not correspond to an equally small distance in terms of position in the labour market (Table 1).[1] Highly educated immigrants are systematically overqualified for the jobs they can find in the labour market, and to a much higher degree than native Greeks also suffering from the incapacity of the local economy to provide jobs adequate for their education and skill level (Labrianidis, 2011: 158–160).

The vast majority of immigrants hold lower technical and routine jobs at a rate of between 70% and 90%, compared with 24% for Greeks, and even lower rates for those originating from advanced-economy countries. Certain female-dominated groups (Filipinos, Sri Lankans, Ethiopians and Moldavians) record the highest

Table 1. Socio-economic composition of major ethnic groups in Athens (2001) (% of country of origin group)

Country of origin	European Socio-economic Classes (ESeC)								
	1	2	3	4	5	6	7	8	9
Greece	15.0	12.4	19.2	16.3	1.0	1.9	10.6	9.3	14.4
Turkey	11.8	7.1	10.5	22.4	0.5	1.5	13.8	13.5	19.0
Egypt	3.9	3.0	3.2	10.7	0.5	0.7	6.2	32.0	39.8
Romania	3.9	2.4	2.7	3.2	0.2	0.4	5.8	31.8	49.6
Poland	1.5	2.3	2.7	6.9	0.2	0.6	5.1	30.4	50.4
Russia	5.2	6.0	4.5	7.8	0.2	0.9	9.4	15.2	50.8
Albania	1.1	1.5	1.3	4.8	0.9	0.4	7.2	28.8	54.1
Pakistan	0.5	0.6	0.7	3.5	0.2	0.3	5.2	31.3	57.6
Ukraine	2.4	2.8	2.7	3.3	0.3	0.2	9.3	11.4	67.6
Bulgaria	1.9	2.7	2.1	3.1	0.2	0.4	9.6	11.7	68.3
All immigrants	2.9	2.6	2.6	5.9	0.6	0.5	7.3	25.5	52.1

1: large employers, higher-grade professional and administrative occupations; 2: lower-grade professional, administrative and managerial occupations; 3: intermediate occupations; 4: small employer and self-employed occupations (excluding agriculture); 5: self-employed occupations (agriculture, etc.); 6: lower supervisory and lower technician occupations; 7: lower services, sales and clerical occupations; 8: lower technical occupations; 9: routine occupations.
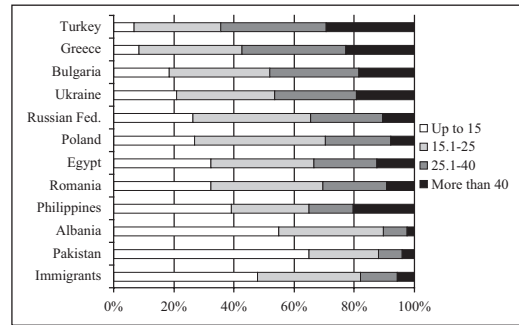Data: 2001 population census, EKKE-ESYE (2005).

degree of confinement to routine occupations resulting from their employment in domestic work. Among male-dominated groups, employment in routine jobs is comparatively high for Indians and Pakistanis, who are usually involved in unskilled work in industry and agriculture. Immigrants' access to higher socio-economic positions is thus very limited. Certain immigrant groups (not only the small group of Iranians but also Syrians and Egyptians) occupy positions in intermediate and small employers' occupations at a proportion that is more than twice that for most groups. However, a more detailed analysis would probably show that the positions effectively occupied by these groups (i.e. street vendors) are usually below the social status these intermediate occupational categories normally imply for the Greek population.

A similar important gap between the Greek and the immigrant population appears in terms of housing conditions. Available domestic space is noticeably smaller for most immigrant groups (Figure 4). Less than 10% of natives are confined to less than 15 square meters of domestic space per capita, compared with more than two or even three times this percentage for most immigrant groups; almost 50% of the largest group (Albanians) and even more for the groups from the Indian peninsula fall into this deprived category. A similar hierarchy of housing conditions appears when we consider heating systems: about 2% of natives lack any form of heating in their residence against more than two to five times for most immigrant groups; Albanians and groups from the Indian peninsula score even higher with 12% and 28%, respectively.

Tenure may also be considered as an indication of the integration process, especially in southern European countries where home ownership is the norm (Allen et al., 2004). Home ownership in Athens is very high for natives (65%), moderately high for groups from advanced-economy countries and (misleadingly) high for groups from some eastern European countries because of their live-in status as domestic workers; groups from the Middle East and the Indian Peninsula have the lowest home ownership rates. Albanians have the lowest rate of home

Figure 4. Domestic space (square metres per capita) for major ethnic groups in Athens (2001)
Data: 2001 population census, EKKE-ESYE (2005)

ownership, at less than 10%[AQ: please check edit to sentence beginning 'Albanians'].

Another way of looking at integration is measuring the 'exposure' of the different immigrant groups to different segments of the local occupational hierarchy. We have measured the social/occupational profile of residential areas where each immigrant group had a marked presence, i.e. at least 50% higher than its average presence in the city. Groups from advanced-economy countries, but also those specializing in domestic services, record the highest exposure to the higher occupational categories; groups from the Middle East, the Indian peninsula and some groups of Greek origin from eastern Europe have the lowest. Regarding the exposure to the occupational antipode, most immigrant groups live in areas where holders of routine occupations are between 25% and 30%, while groups originating from advanced-economy countries or specializing in domestic services locate in areas with lower percentages of routine job holders. However, even the groups with the highest exposure to the lowest occupational groups are not situated within some kind of social ghetto areas, mainly because such areas are almost non-existent.[2]

Although the vast majority of the immigrant population settled in Athens only in the last decade before the 2001 census, some temporal variation in the path to integration is already evident. For example, 61% of Albanians who settled after 1995 were living in less than 15 m^2 per capita, while this percentage was 50% for those who settled between 1990 and 1995. Also, the percentage of immigrants employed in routine occupations was 58% for those

who came after 1995, 53% for those who came between 1990 and 1995, and significantly lower for those who had settled in Athens during the 1980s or 1970s (45% and 30%, respectively).

Immigrant groups in Athens can therefore be considered to belong to multiple hierarchies in terms of:

– *their personal characteristics* (e.g. their level of education or their position in the labour market);
– *their living conditions* (e.g. the available housing space per capita or their housing amenities); and
– *their degree of integration and their social mobility prospects* (e.g. the percentage of young people in higher education, their access to home ownership, their exposure to different social groups and their degree of spatial mobility).

In order to identify immigrant group hierarchies in Athens we have clustered immigrant groups according to variables belonging to these three sets of hierarchies as well as to variables expressing demographic and other forms of diversity mentioned earlier. This clustering resulted in six immigrant hierarchical groups (HGs) that are, at the same time, different in terms of diversity variables and unequal in terms of hierarchical ones (see Box 1).

The socio-spatial characteristics of immigrant groups' residential location

In order to investigate the geographical structure of the residential location of the HGs identified in the previous section, we produced a table detailing the

Box 1: A clustered hierarchy of immigrant groups

HG1: Lebanese – Serbs and Montenegrins – Turkish (3.2%)

A small group of middle-class Lebanese and Serbs as well as Greek-origin Turks, distinguished from the rest of the immigrant population mainly in terms of personal characteristics (education level and position in the labour market) as well as living conditions. The members of this group show the highest integration potential to the local society; in fact, this group, formed by three completely distinct and unrelated ethnic groups, is not part of the collective perception of the immigrant; it is closer to that of migrants from developed-economy countries or to Greek nationals. It is located mainly in middle-class areas.

HG2: Iranian – Egyptian – Syrian – Nigerian (4.4%)

Mainly from the Middle East, this is the second most deprived group (after Group 6) in terms of education; seemingly better positioned in the labour market owing to independent commercial activity (often haphazard street vending); with average living conditions and integration prospects. The group is male dominated with distinct spatial patterns for each one of its ethnic components.

HG3 (73.7%)

HG3a: Romanian – Russian – Kazakh – Polish – Armenian (10.1%); HG3b: Albanian (63.6%)

The main immigrant group, consisting of groups from the Balkans and eastern Europe and dominated by the Albanians (85% of its members). It presents some discrepancy between average educational credentials and low positions in the labour market. It is relatively balanced in terms of gender ratio and household types and its members follow relatively successful low-profile strategies for integration via the labour market. Those of Greek origin (Russians and Kazakhs) are preferentially treated by the state, especially in terms of legal status and of access to home ownership. The group is spatially diffuse with a stronger presence in lower middle-class areas of the city centre; the Greek origin groups are relatively segregated. HG3 was divided into two sub-HGs to prevent the large number of Albanians, and their widespread spatial dispersion, obscuring the spatial specificity of the rest.

(Continued)

Box 1: (Continued)

HG4: Bulgarian – Georgian – Moldavian – Ukrainian (8.8%)

An important immigrant group from the Balkans and eastern Europe, female dominated, with educational credentials that do not create an advantage in the labour market. It is characterized by high percentages of employment in personal services for middle and lower middle-class native households. Its demographic imbalance and the dead-end position in the labour market impede integration. Stronger concentration is observed in lower middle-class areas around the city centre.

HG5: Sri Lankan – Filipino – Ethiopian (2.5%)

A female-dominated group, with poor educational credentials, employed in personal services for middle and upper middle-class native households. Despite the advantage of contact with upper middle-class employers, its demographic imbalance and the dead-end position in the labour market impede integration. Significant concentration is observed in upper middle-class areas because of live-in employment.

HG6: Bangladeshi – Indian – Pakistani – Iraqi (7.4%)

Mainly from the Indian peninsula, this is the most deprived group, in terms of education, position in the labour market, living conditions and integration prospects. It is male dominated and residentially located out of the centre, along the main highway axis in the industrial warehousing area and the city's outskirts.

number of persons belonging to each HG and residing in each of the 3566 census tracts that contain immigrants who belong to the 24 ethnic groups, counting more than 900 individuals in the wider Athens metropolitan area. By means of a binary correspondence analysis applied to this data table, a set of composite factors was extracted, 'explaining' the overall distribution of the HGs in the census tracts. A hierarchical clustering of the resulting factor coordinates[3] was performed, yielding six discrete spatial clusters (SCs) of census tracts. We used this technique to 'transform' the HGs into SCs, a process that was dependent, of course, on the spatial distribution of the HGs. The SCs[4] are, in fact, the synthetic spatial expression of the combined spatial patterns of the HGs. As such, they can be used to identify relations with the city's prevailing social ecology and inequalities related to residential location and amenities. But, first of all, they convey the ways that the hierarchical grouping of immigrants is spatially expressed.

The resulting geographical distribution of the above tracts by SC is presented in Figures 6 to 8 and their composition in terms of HGs is recorded in Table 2.

Ethnic diversity and urban structure

The most important socio-spatial aspect in the residential distribution of the HGs is the high degree of

their co-existence in the majority of census tracts and their geographical dispersal, both in and near the city centre, as well as in several suburban and periurban areas. This co-existence and dispersal have brought about considerable socio-ethnic diversity in the Athenian cityspace and is one of the reasons for the decline in socio-spatial segregation in Athens in the 1990s (Arapoglou and Sayas, 2009; Maloutas, 2007a).

Consequently, the geographical distribution of most clusters (Figures 6 to 8) is equally characterized by considerable spatial dispersion. However, these clusters also exhibit a high degree of distinctive patterning. More specifically, SC1 is the most centralized, whereas SC2 is the least. SC3 and SC5 exhibit a bipolar distribution, with the respective poles emerging near and at a considerable distance from the central city, in the periurban areas. The remaining SCs follow a location pattern characterized by concentration in areas neighbouring the city centre. These geographical patterns are by and large related to the availability of housing stock and to the spatial structure of the labour market (Sayas, 2004, 2006) in which the different immigrant groups are active.

Socio-ethnic composition of the spatial groups

Despite the dominance of Albanians in most SCs, their ethnic composition displays considerable
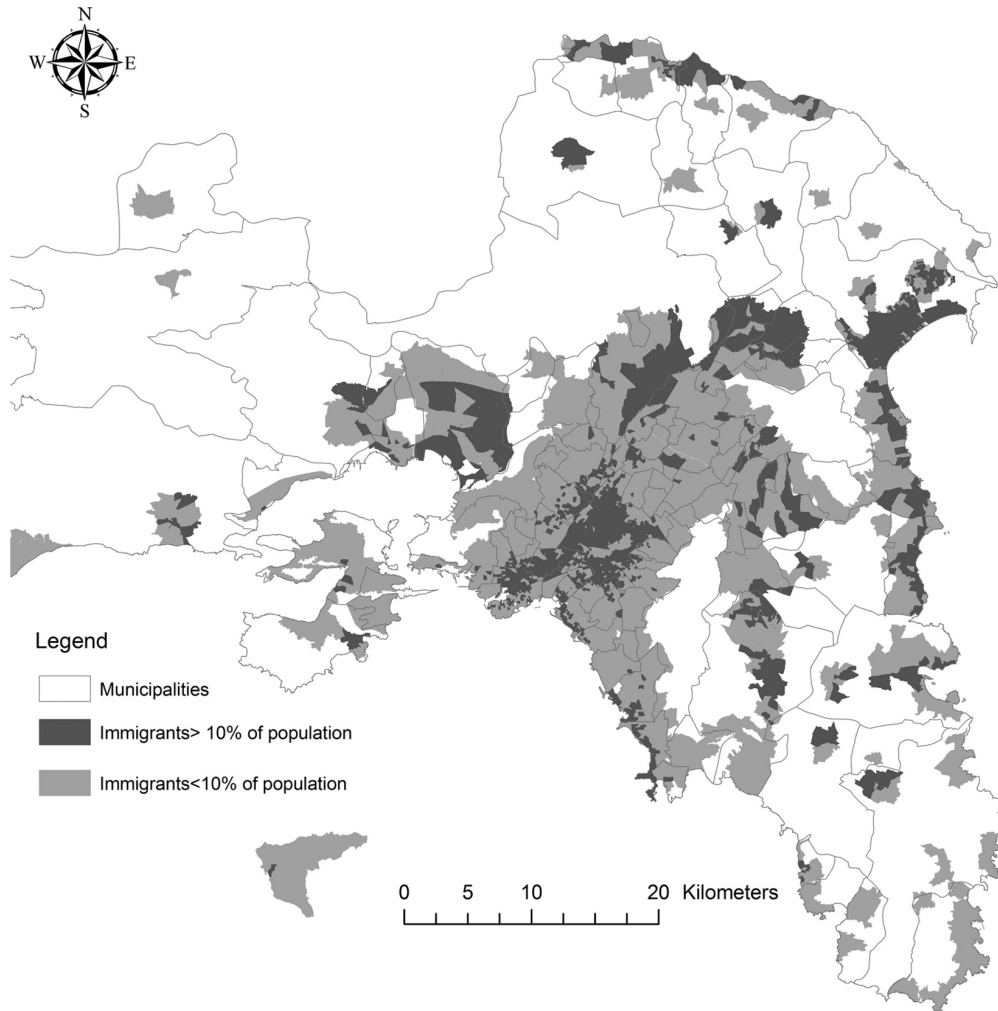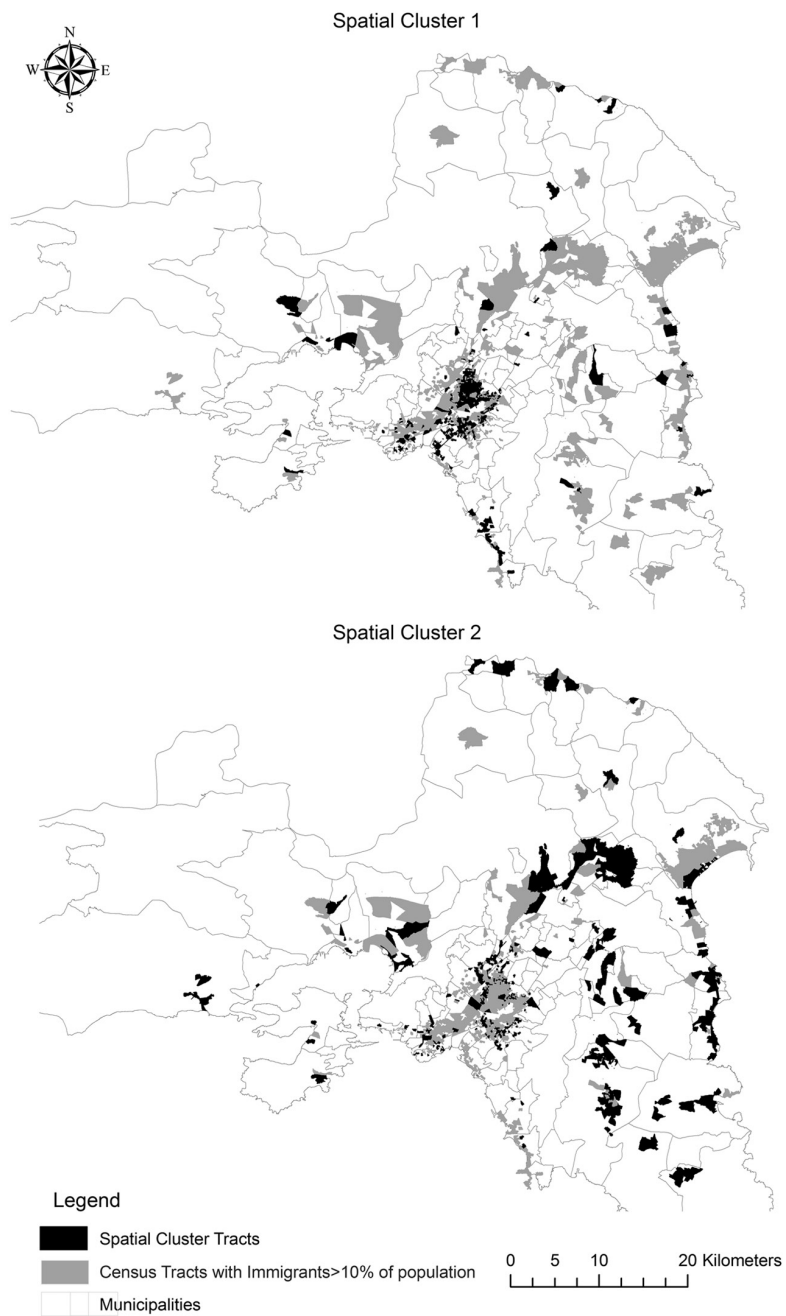
Figure 5. Residential pattern of immigrants in the wider Athens area. Census tracts with more or less than 10% of immigrant population (2001)
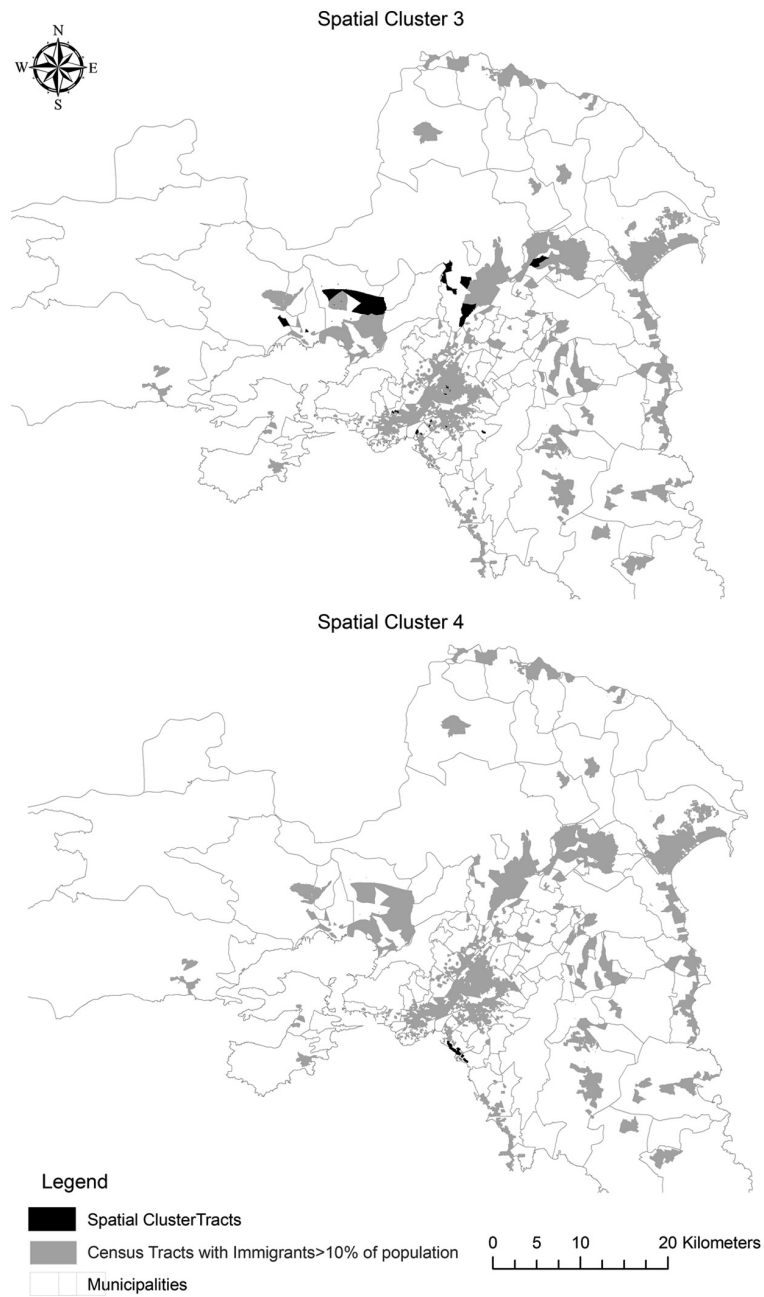
variation in terms of immigrants belonging to different HGs. Thus, the co-existence within clusters is not only ethnic in character but also hierarchical, as it involves groups in the upper and lower levels of the immigrant population hierarchy. SC2 is the only cluster with an almost mono-ethnic (Albanian) composition; it covers 37% of census tracts where immigrants have a marked presence and is quite dispersed geographically. Its geography and composition stress further the contribution of the

Albanian population to the low level of segregation in Athens.

SC4 and SC5 are ethnically less diverse than the other SCs and, at the same time, they are socially more homogeneous. In SC4 the majority of the population belongs to HG1, i.e. the group in the upper level of the migrant population hierarchy. The location in a small number of adjacent census tracts on the waterfront of the southern suburbs is a clear further indication of their distinction from the rest of

Spatial Cluster 1

Spatial Cluster 2

Legend

■ Spatial Cluster Tracts

� Census Tracts with Immigrants>10% of population

□ Municipalities

0   5   10   20 Kilometers

Figure 6. Residential pattern of immigrants in the wider Athens area, spatial clusters 1 and 2 (2001)

Spatial Cluster 3

Spatial Cluster 4

Legend

■ Spatial ClusterTracts

▨ Census Tracts with Immigrants>10% of population

□ Municipalities

0 5 10   20 Kilometers

Figure 7. Residential pattern of immigrants in the wider Athens area, spatial clusters 3 and 4 (2001)

Spatial Cluster 5

Spatial Cluster 6

Legend

■ Spatial Cluster Tracts

■ Census Tracts with Immigrants>10% of population

□ Municipalities

0   5   10   20 Kilometers
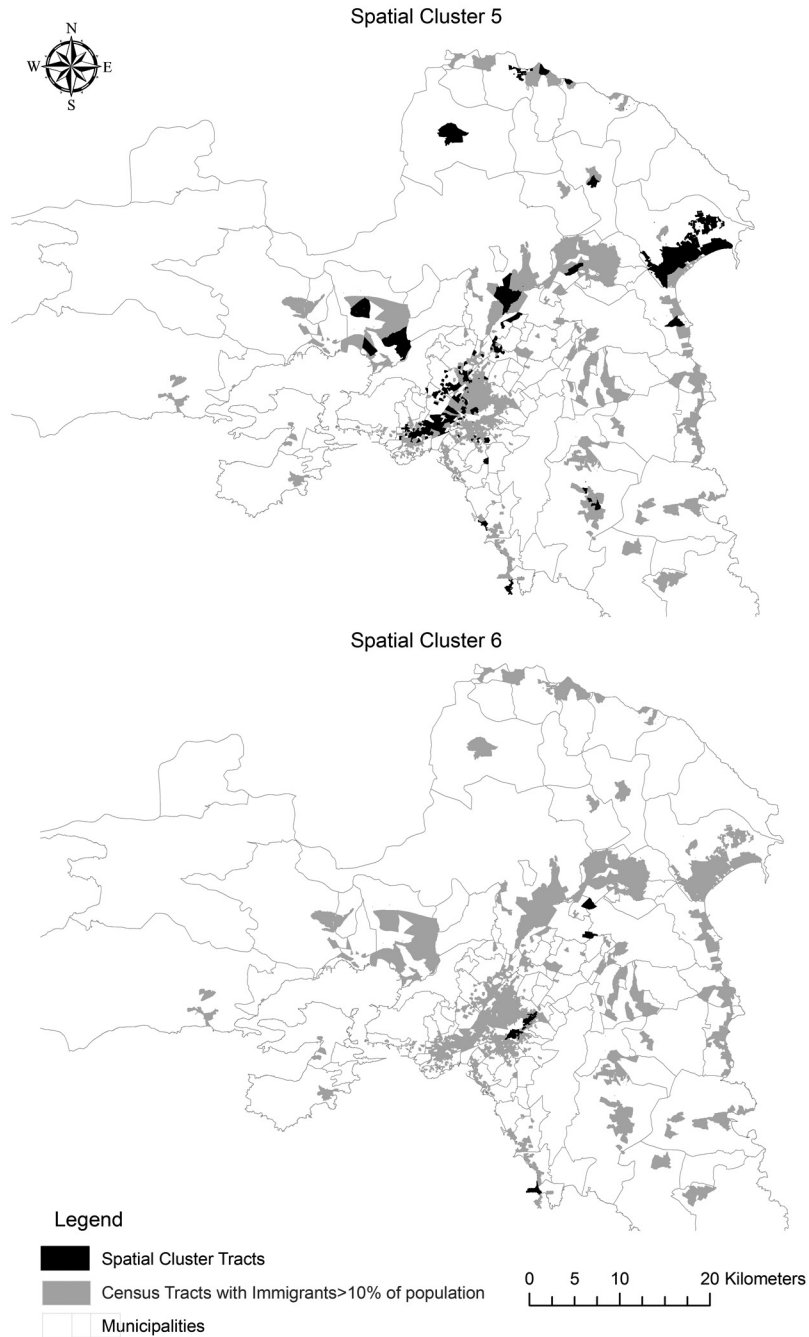
Figure 8. Residential pattern of immigrants in the wider Athens area, spatial clusters 5 and 6 (2001)

Table 2. Composition of spatial clusters (SCs) in terms of immigrant hierarchical groups (HGs). Census tracts with immigrants > 10% of total population (2001)

	SC1 (%)	SC2 (%)	SC3 (%)	SC4 (%)	SC5 (%)	SC6 (%)	Total (%)
HG1	2.4	1.1	1.1	57.3	1.0	2.4	2.4
HG2	6.6	2.6	3.4	3.4	3.8	5.8	5.0
HG3a	14.4	5.1	51.3	7.3	6.7	5.6	11.4
HG3b	57.4	83.8	26.5	20.0	54.4	41.1	62.6
HG4	11.5	4.4	11.2	9.7	3.7	9.7	8.4
HG5	3.3	0.4	0.3	2.1	0.4	33.0	3.1
HG6	4.5	2.7	6.2	0.4	29.9	2.4	7.1
	100	100	100	100	100	100	100
Total immigrant population	86.694	47.509	4.826	1.668	21.252	6.198	168.147
Greek	80.7	85.7	80.9	86.9	85.5	82.6	83.2
Total population	448,994	331,328	25,290	12,710	146,206	35,635	1,000,163

*Group 1: Lebanese – Serbs and Montenegrans – Turkish; Group 2: Iranian – Egyptian – Syrian – Nigerian; Group 3a: Romanian – Russian – Kazakh – Polish – Armenian; Group 3b: Albanian; Group 4: Bulgarian – Georgian – Moldavian – Ukrainian; Group 5: Sri Lankan – Filipino – Ethiopian; Group 6: Bangladeshi – Indian – Pakistani – Iraqi.
Data: 2001 population census, EKKE-ESYE (2005).

the SCs (see Arapoglou and Sayas, 2009). A detailed examination of its ethnic composition shows that it is dominated by middle-class Turks of Greek origin, constrained to leave Turkey after the relations between the two countries deteriorated in the 1950s.

SC5 comprises 13% of the analysed census tracts and is mainly constituted by the HG related to immigrants from the Indian peninsula, which is placed at the bottom of the immigrant group hierarchy. Its geography is bipolar, with a strong presence in low-standing areas near the centre and considerable dispersal in the industrial and agricultural areas of the Athenian periphery; this is an indication that the residential pattern of this group is highly dependent on its employment pattern, as the majority of its members occupy lower technical and routine jobs in industry and agriculture. The concentration in and near the western part of the city centre is strongly related to the pattern of diffused industrialization prevalent in Athens (Vaiou and Hadjimichalis, 1997) and to the availability of very cheap, usually substandard, accommodation.

The remaining three SCs are the most ethnically and socially diversified. SC3 presents a very high percentage of immigrants from eastern Europe (HG3A), while it is also characterized by

a considerable ethnic mix with a significant coexistence of Albanians and 'Asian' immigrants. Its bipolar geographical pattern results from the deliberate state policy to provide housing to expatriate Greeks from former Soviet republics in the north-western edge of the Athenian conurbation as well as from the availability of low-cost accommodation in the areas around the city centre.

SC6 is characterized by the very significant presence of Filipinos and Sri Lankan women (HG5) and also by a considerable geographical concentration in upper middle-class suburbs in the north and south of the city. This pattern is the outcome of the live-in status of the members of this immigrant group, who are almost exclusively employed in domestic services, in the residences of their employers. This SC is also present in central neighbourhoods that, apart from the availability of affordable housing, are near the transport axes connecting the centre with the main employment areas for this group in the northern and southern suburbs.

Finally, SC1 is the most centrally located in the densely built housing areas of the municipality of Athens. It is the largest SC in terms of population and the most ethnically and socially diverse. Its location reflects mainly the large number of

Table 3. Interaction index of immigrants residing in different spatial clusters with Greeks as a whole and with Greeks in different socio-economic categories (2001)

Spatial cluster	Interaction with Greek residents as a whole	Interaction with Greeks in ESeC 1 and ESeC 2	Interaction with Greeks in ESeC 3 and EseC 4	Interaction with Greeks in ESeC 8 and ESeC 9
SC1	0.771	0.123	0.143	0.085
SC2	0.840	0.098	0.147	0.096
SC3	0.760	0.076	0.119	0.142
SC4	0.866	0.172	0.160	0.028
SC5	0.836	0.068	0.144	0.137
SC6	0.816	0.180	0.129	0.050

Data: 2001 population census, EKKE-ESYE (2005).

available and affordable housing units in this part of the conurbation, which offered the only effective housing solution for the incoming immigrant population irrespective of national origin. Moreover, some important nuclei of ethnically mixed census tracts, belonging to this SC, are located in periurban areas and contribute both to their population increase and to their less segregated social milieu (see Arapoglou and Sayas, 2009).

In sum, the emerging landscape of immigrant residential location is one of socio-ethnic diversity and of a bipolar geography. The immediate effects of these two characteristics on the urban socio-demographic structure of Athens have been three-fold: increased population and diversity in periurban locations, attenuation of centrifugal tendencies generated by the suburbanization of Greek residents, and emergence of a multi-ethnic landscape in the centre. Moreover, the strong linkage between employment and residential location, especially for groups at the lower end of the social hierarchy, plays a major role in forming the location pattern of migrants. The groups at the bottom of the immigrant hierarchy residing in mixed housing–industrial areas near the centre and in the periphery as well as in agricultural niches in the periurban zones in SC3 and SC5, constitute the most deprived migrant groups combining the poorest housing conditions with the shortest commuting between residence and workplace. Thus, despite the overall diversity in terms of ethnic and socio-economic co-existence, a

socio-spatial hierarchy also emerges, even though it is mitigated to a large extent by the spatial diffusion of deprivation in a context of relatively moderate segregation (see also Arbaci, 2007, 2008).

Ethnic diversity and urban social ecology

In order to relate the residential pattern of immigrant groups to the Athenian urban social ecology we chose to use measures of exposure/interaction. Exposure measures the degree of potential co-habitation between minority and majority group members in urban areas (Massey and Denton, 1988: 287). The interaction used here quantifies the probability of one (usually minority) group member of the population to live in the same census tract with members of another (usually the majority) group.[5] In particular, we calculated exposure/interaction indices of the immigrant population in the census tracts of each SC in respect to: (a) the native Greek population as a whole, (b) to Greeks in socio-economic occupational categories (ESeC) at the top (ESeC1–2), (c) the middle (ESeC 3–4) and (d) the bottom (ESeC 8–9) of the social hierarchy (Table 3).

It should be stressed that in all spatial clusters the majority of the population is native Greek. In all cases there is a very high probability of interaction of the migrant population with the Greek majority, testified by the values of the two-group exposure index (Table 3). Of particular interest, however, are the variations recorded amongst the

Table 4. Interaction index of immigrants residing in different spatial clusters with Greeks in deprived housing conditions* and with Greeks in rented accommodation (2001)

Spatial cluster	Interaction with Greeks in deprived housing conditions*	Interaction with Greeks in rented accommodation
SC1	0.021	0.270
SC2	0.056	0.320
SC3	0.079	0.310
SC4	0.097	0.226
SC5	0.132	0.191
SC6	0.137	0.211

* To persons with 15 m² or less of living space per capita.
Data: 2001 population census, EKKE-ESYE (2005).

six SCs. The lowest interaction is recorded for SC3 (dominated by immigrants of Greek origin and persons from eastern European countries). This relative separation from the Greek population is because of their location in peripheral areas of the city (in owner-occupied houses), as well as in the most ethnically diversified central areas of the city.

The low value of the index of interaction recorded for SC1, the largest SC in terms of population, is a result of both the significant concentration of migrants and the suburbanization of the Greek population, who have vacated a considerable proportion of housing in the relevant census tracts. However, this value is relatively high, in comparative terms (see Telles, 1995, Table 2: 399), illustrating further the multi-ethnic diversity characterizing the main housing area of the Athenian metropolitan area. The value of the index implies also that ethnic mix is prevailing in the periurban zone, especially in the areas which are part of SC1.

The high values for the remaining SCs also show a very high minority–majority mix in most census tracts where migrants are residing. In the case of SC5, however, located mainly in mixed industrial/housing areas and argicultural niches of the metropolitan area, where the disadvantaged HG6 of the migrant population is particularly present, the high interaction index signifies that there is an increased ethnic mix in the less privileged areas of the city as well. Finally, the very high interaction in the case of SC2 is because its mainly Albanian inhabitants follow very similar residential patterns with the Greek majority, both in the central areas and in the urban periphery.

Turning to the interaction of the migrant population with the different socio-economic native groups in their respective residential areas, we should be reminded first of all that there is a high overall spatial mix of occupational categories in Greek cities (Arapoglou, 2006; Leontidou, 1990; Maloutas, 2004; Tsoulouvis, 1996). In Athens this social mix is localized mostly in the main housing area of the city centre, where the most diverse spatial cluster of migrants has been identified (SC1). The working-class areas are located in the western part of the conurbation, while areas of relative separation of the upper middle class are found in some northern and southern suburbs. The periurban Athenian exopolis remains, by and large, a sparsely populated area, which is also characterized by mixed uses and social diversity (Sayas, 2006).

The low values of the interaction index, with respect to the exposure of immigrants to Greeks in upper-middle occupational strata (ESeC 1 and ESeC 2) reveal the relative separation of this stratum from the incoming migrant population, in the majority of spatial clusters. The relatively higher values recorded for SC1 and SC6 reflect, respectively, the increased social mix of the central areas and the composition of the particular spatial cluster, where domestic workers live with their upper middle-class employers. The very low values of the interaction index for SC3 and SC5, combined with the mixed (housing/industrial) character of these areas and the relatively high values of interaction with the lower native strata (ESeC 8 and ESeC 9) are further evidence of their position at the lower part of the city's socio-spatial hierarchy. The very low values of the interaction index of the remaining SCs with the lower working strata indicate the important absence of immigrant concentration in working-class areas. Finally, the almost equal values amongst all SCs for the interaction index of the immigrant population with members of the native intermediate occupational strata (ESeC 3 & 4) is a result of the latter's almost uniform geographical distribution in the metropolitan area.

Ethnic diversity and housing inequalities

The emerging ethnically and socially diversified urban space is not associated with a pluralistic, egalitarian, idyllic urban milieu in terms of everyday living conditions.[6] The absence of a widespread, spatially marginalized and ghettoized immigrant population in Athens does not mean that all immigrants in all locations have equal access to the housing market or that their residences are appropriate in terms of living space.

We examine here if, and in which cases, the inequalities among immigrant groups identified earlier – and expressed by HGs and SCs – are related to an overall deprived residential milieu, or if only some migrant groups are at more of a disadvantage than others. In order to reveal the exposure of different HGs to deprivation, we calculated the interaction index of immigrants to deprived Greeks residing in distinct spatial clusters. As a proxy for housing deprivation we used the number of individuals in housing conditions of less than 15 m[2] of living space per capita (Table 4).

Taking into account the prevailing housing market conditions that characterize Greek urban areas, the presence of individuals in rented accommodation[7] is a proxy for a major type of less favoured housing areas by the native Greek majority, i.e. densely built central areas around the centre with a low demand for home ownership, old and poorly maintained stock, problematic infrastructure and adverse environmental conditions.

The marginalization of immigrants in the areas of SC5 (mainly persons from the Indian peninsula employed as skilled and unskilled workers) is once again evident from the relatively high values of their interaction index with Greeks in deprived housing conditions. Despite the quite low index, in absolute terms, even in these deprived areas, the index for SC5 is 140% higher than for SC2 (the almost exclusively Albanian spatial group) and six times higher than SC1 (the central housing area where the majority of the immigrant population resides), indicating that immigrants in this spatial cluster are at a substantially more disadvantaged position in the Athenian housing market.

Filipino and African women in domestic services residing in SC6 are exposed to deprived housing conditions to a similarly high degree owing to their concentration in lower-storey apartments in densely built central areas and in below-par housing in suburban areas, where they are usually employed. Thus, the articulation of the immigrants residing in these areas (SC5 and SC6) with the overall employment–housing–environmental landscape of Athens is more problematic than with the other immigrant groups and with the Greek majority.

Of greater significance, however, are the values of the interaction indices for immigrants in the largest, diversified and more centralized SC1. The immigrant residents of these areas record a very low degree of exposure to Greeks in deprived housing conditions. In conjunction with the relatively high interaction with Greeks in privately rented apartments, this finding is evidence of increased 'vertical segregation' – i.e. vertical social and ethno-racial stratification of apartment buildings in densely built areas around the centre following the depreciation of their lower floors since the 1970s (see Maloutas and Karadimitriou, 2001) – and an important feature of the latter. The ethnically diversified and densely populated main housing area of the Greek capital is increasingly becoming a place of important social inequalities with a scarce presence, however, of Greeks in deprived housing conditions.

Finally, the interaction indices values for the remaining SCs (SC2, SC3 and SC4) reflect, on the one hand, the dominance of home ownership and, on the other, the relatively spacious living conditions prevailing in the majority of Greek cities.

Discussion of results

The hierarchical differentiation of the immigrant groups in Athens is a result of multiple socio-spatial processes that contribute to a transformation of diversities into inequalities. Multiple differences and unequal positions described in the first section of this paper – demographic diversity, differential integration in the labour and housing markets, unequal integration prospects – help to illuminate the multifaceted mosaic of immigration in the metropolitan area. The proposed scheme of HGs characterized by unequal positions is useful in

contradicting widespread representations about the uniformity of the immigrant population, and allows seeing beyond the stereotypic distinction among ethnic groups.

This scheme should be considered, however, as an indicator of the diversity/hierarchy patterns that emerged in Athens in the beginning of the last decade, and by no means as some kind of permanent outcome. If we compare the living and working conditions of Albanian immigrants between 1991 and 2001, it becomes clear that there are rapid and important changes, which modify their position with respect to native Greeks, and could deeply affect the hierarchy of immigrant groups as changes are not necessarily similar across immigrant groups. However, the mapping of current inequalities can help to elaborate future prospects, and taking their spatialities into account can provide further insight.

The main contextual characteristics of the housing market in the urbanization process in Athens have created both problems and opportunities for the hosting of a significant number of immigrants. In this process, a major contributing structural factor has been the large number of the multi-storey buildings constructed in the 1960s and 1970s with a quid pro quo method called *antiparochi*, whereby a plot of land is exchanged for apartment(s) built by small construction companies. This building scheme enabled small construction companies and petty landowners to engage in mutually beneficial operations, but also to provide affordable housing solutions in the form of a large stock of small and medium-sized apartments (Leontidou, 1990; Maloutas, 2007a; Tsoulouvis, 1996; Vaiou, 2002). These served as the major source of affordable housing supply in central locations, after they started being vacated by many Greek citizens following the mid-1970s, after a strong suburbanization trend. Another effect enabled by the features of the housing stock was the emergence of 'vertical segregation' (Maloutas and Karadimitriou, 2001).

Immigrants found in the 'tenement city' of the city centre a large number of empty dwellings, vacated by the native middle and upper middle strata who had started to move to the suburbs (Maloutas, 2007a). The continuous suburbanization of the Greek population, as well as the opportunity to gain rental income, increased the amount of housing stock made available to subsequent immigration waves. The resulting ethnically diverse composition of these areas is nowadays the most prominent socio-spatial characteristic of central city areas.

The period of the first migratory flows to Greece – and to Athens in particular– coincided with major changes in international economic and political conditions in the post Cold War era, as well as, with a booming economy, the preparations to host the 2004 Olympic Games (Vaiou, 2002: 220–223). The incoming population has been ethnically and socially diverse. The labour and housing markets to which these migrants gained access have structured their relative position in space and affected their living conditions. The outcome for the Athenian cityspace has been an increase in ethnic and social diversity, in both central and peripheral areas. As in the case of previous migratory waves, there has been no widespread marginalization–ghettoization of the different ethnic and social groups (see also Vaiou, 2002: 222–223).

However, the integration process of some immigrant groups in the socio-spatial landscape of Athens goes hand in hand with the emergence of important inequalities. The clearest ones refer to specific ethnic groups at the lower end of the immigrant social structure, namely from the Indian peninsula. These groups are in precarious employment and are located in deprived areas, in terms of both housing and environmental conditions. The phenomenon of vertically segregated migrants (in terms of both ethnic and class characteristics) is also of great significance, as it seems to be prevalent in the majority of densely built residential areas around the city centre.

The ongoing increase of immigrants from less developed areas of the globe and their disadvantageous integration in the housing and labour markets of Athens, at a time of fiscal crisis and severe deflationary economic policies, is a factor putting severe stress on ameliorating the characteristics of these markets.

The macroscopic approach in this paper was used to map inequality and diversity among the first wave of immigrant groups in Athens during the 1990s and explore some of their structural features, with a particular focus on their spatiality. These features and the processes through which they are reproduced

are, partly at least, embedded in the path of Greek urbanization, and therefore are context dependent to a large extent. Qualitative research would be in order to increase our knowledge about the experience of inequalities and about practices adopted to deal with inequalities and deprivation in everyday life. The need for more microscopic, case study, research on the socio-spatial mechanisms of 'settlement' and 'integration' (Vaiou and Stratigaki, 2008) becomes even more acute following our results.[8] Such research is especially important under current economic conditions in European societies, and in view of the tensions arising in periods of crisis among social groups, and between native and immigrant populations. Its contribution should challenge stereotypical views on uniform immigrant identity, contribute to redress 'moral panics' and inform policy measures against deepening inequality based on local context and experience.

Notes

1. European Socio-economic Classes (ESeC) are a socio-economic classification model that has been elaborated as the successor of EGP (Erikson–Goldthorpe–Portocarero) classes (see Rose and Harrison, 2007). For a critical assessment of its application in southern Europe, see Maloutas (2007b).
2. High rates of social mobility in post-war Athens were not accompanied by high rates of residential mobility. A process of intergenerational social mobility without massive relocations (owing to the material and symbolic importance of the family networks and home ownership) produced socially mixed (albeit fragmented at the micro scale) areas, especially for the broad lower and lower-middle social strata. Immigrants since the early 1990s arrived in a city that had few areas of massive social deprivation, which could provide the ground for ghettoization (see Maloutas, 2004).
3. We chose the first four factors accounting for 86.5% of the total variation of the distribution of the different immigrant groups in the Athenian census tracts.
4. For a thorough analysis of the socio-spatial characteristics of the resulting SCs, presented in the sections below, we chose to focus on those census tracts where immigrant population accounts for more than 10% of the total population, i.e. we focus on those geographical units that constitute either 'host communities' or 'ethnic diversity communities', i.e a total of 1234 census tracts in the wider Athens area (Arapoglou et al., 2009, cf. Johnston et al., 2002).

5. This probability is given by the product of the persons of a minority group in each census tract as a proportion of the total minority population in the wider area (Athens) and of the persons belonging to the majority group, as a proportion of the total population in each census tract (see formula in Appendix 1). These indices 'take explicit account of the relative size of minority and majority groups in determining the degree of residential segregation between them' (Massey and Denton, 1988: 287). In all cases a value of 1 indicates maximum interaction while a value of 0 indicates no interaction.
6. See Arbaci (2007, 2008) for a similar line of arguments for the broader south European urban context.
7. In Greece this accommodation is private and rented as social housing is negligible and social rented housing is non-existent (Maloutas, 2004; Tsoulouvis, 1996).
8. Some recent examples of such research in Athens can be found in Vaiou and Lykogianni (2006); Vaiou and Stratigaki (2008); Dagkouli-Kyriakoglou (2011).

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Appendix I

Formula

Interaction Index (Massey and Denton, 1988)

$$\sum_{i=1}^{n}\left[\left(\frac{x_i}{x}\right)\left(\frac{y_i}{t_i}\right)\right]$$

Where x_i is the population of Group X in each geographical unit of analysis i (Census Tract), $\mathbf{X}$ is the total population of Group X in the study area (wider Athens area), y_i is the population of Group Y in each geographical unit of analysis i (census tract) and t_i is the total population in each geographical unit of analysis i (census tract).