

**Inequality, vertical differentiation, and choice of residents in Athens:
A comparative study**



Bachelor thesis

Vadim Hefel / s2920107

Human Geography and Regional and City Planning

Coordinator: prof. Dr. Dimitris Ballas

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Abstract

Vertical class differentiation describes the stratification of social classes over residential floors in multi-story apartment buildings. While lower income households occupy the lower levels, with reduced quality

of living conditions, higher income households reside in bigger apartments on the top floors. Although vertically segregated residential areas can be found throughout cities in South Europe, Athens is special as it is to high degree composed of a building stock that facilitates this process. The question this research tries to shed light on is to what extent there is vertical class differentiation present in Athens. By using the method of content analysis an insight into the built environment is given. Although municipalities around the center of Athens show a relatively low degree of vertical class differentiation, the inner city neighborhoods experience higher intensities.

Introduction

Background

Increasing inequalities in Europe as an outcome of intensified processes of economic globalization in addition of capital and labor flexibility and welfare restructuring is widely acknowledged (Cassiers & Kesteloot, 2011). Some European cities are under even more pressure since the financial crisis has been identified to be responsible for even stronger rising rates in poverty and income, especially in Ireland, Spain, and Greece (Cuadrado-Roura et al., 2016).

Main focus of this research lies therefore on Athens as it is under political and social pressure and its special ramifications of inequality that reveals itself in multi-story apartment buildings, the so called Polykatoikies. Levels of spatial inequality in European cities are not that excessive than one can observe in the U.S but spatial unevenness and its direct effect on social inequality and spatial seclusion is recognized as a threat to the social cohesion, social stability, the sustainability of urban communities and to the competitiveness of major European cities (Cassiers & Kesteloot, 2011; Maloutas, 2015; Musterd et al., 2016; Ballas et al., 2017).

A main interest in inequality for geographers lies in its consequences for urban spaces where one can find spatially separated concentrations of different races or spatially secluded income classes (Musterd et al., 2016). In the case of Athens one finds spatial inequality in form of vertical class differentiation in multi-story apartment buildings, the Polykatoikies. It manifests itself in distancing of social classes over different floors where inhabitants are locked in their current living arrangement, while when we speak of segregation we can find the connotation of choice as

in sub-urbanization (Maloutas & Karadimitriou, 2001). This research will thus use the term vertical class differentiation. Scholars found out that vertical class differentiation appears in those areas of Athens where a large number of intermediate professionals, who are not able to relocate to e.g. the suburbs, share the dwelling space with the working class and foreign low-wage workers, thus creating living space of coexistence nobody chooses (Maloutas & Karadimitriou, 2001).

Although some research concluded a moderate increase in spatial inequality in Athens other scholars endorse that increasing spatial inequality takes time to unveil itself in unevenness, while at the same time detailed local contextual knowledge is missing (Maloutas et al., 2015; Musterd et al., 2017). This is where this research tries to identify to what extent there is vertical social differentiation in Athens nowadays and if there are differences between different areas of Athens as a fifth of the population of metropolitan Athens, and much more in the center, is affected by vertical class differentiation (Maloutas & Spyrellis, 2016).

Research problem

The aim of this research is to investigate to what extent vertical class differentiation is nowadays present in the city center of Athens. Through comparing the findings between different neighborhoods, it is then possible to identify possible differences in the extent of vertical class differentiation within Athens. Of additional interest is to observe how Athenian neighborhoods differ regarding vertical class differentiation between inner city neighborhoods and neighborhoods belonging to the metropolitan area of Athens. Further, this research wants to explore what reasons lie behind the choice to live in a multi-story apartment building. The research questions are therefore:

“To what extent is vertical class differentiation present nowadays in the center of Athens?”

“To what extent does class differentiation differ between neighborhoods in the center of Athens?”

“To what extent does class differentiation differ between neighborhoods in the metropolitan area of Athens?”

“What characteristics indicate on which floor of a vertically differentiated apartment building one may reside?”

“What are reasons for inhabitants to stay in a vertically class differentiated multi-story apartment building?”

Thesis structure

After the introductory part of this thesis the reader finds the theoretical framework where concepts regarding spatial inequality and vertical class differentiation that are vital to this work. The following description of the methodology shows up the methods in use to answer the research questions. That chapter also includes the problems which have been encountered and how they have been solved. Following up one can find the analysis of the data gathered and its results, both qualitative and quantitative. This thesis ends with a conclusion and reflection on this study.

Theoretical framework

Different from horizontal community segregation, vertical class differentiation is distinguishable through the contrasting direction the urban space is socially stratified by. In the case of Athens social classes are stratified by the floor of residence in the Polykatoikia, especially in the wider city center (Maloutas & Spyrellis, 2016). In the early 90s, scholars blamed globalization for increasing levels of inequality in the built environment and argued that the economy of global cities creates not only opportunities for high-level specialized employment, but also a large number of low-wage jobs that induces migration to the global city and leads to social inequalities (Sassen, 1991). While this is true for many urban centers, Athens is in itself a special case. Some scholars in the early 90s even regarded vertical class differentiation a special status in South European cities and present it as an antithesis and alternative to the patterns of urban growth in other European cities. Older research in Naples and Montpellier shows that vertical class

differentiation has different causes throughout Southern Europe (Leonitidou, 1990; Leonitidou, 1996; Döpp, 1968; Laquerbe, 1967).

The main cause for vertical class differentiation in Athens lies in its unique building stock, with five to eight story apartment buildings built between 1950 and 1980 under the same building regulation and fostered by tax reductions at that time. This led to similar internal building structures for the apartments in these houses. While landowners would keep higher-level apartments or sell them to affluent purchasers, the lower level apartments were designated for rental. This resulted in an unequal distribution of positive apartment attributes supporting the development of vertical class differentiation (Maloutas & Spyrellis, 2016).

Tammaru et al. (2015) investigate residential segregation of population groups based on occupation. Musterd et al. (2017) uses a similar approach to compare levels of socioeconomic inequalities between European capital cities. Both studies utilize census data of 2001 and 2011 and conclude moderate levels of segregation for the case of Athens (Tammaru et al., 2015; Musterd et al., 2017). In contrast to that, another important paper researching vertical social differentiation in Athens and comes to the conclusion that income and occupation, and therefore social class of a person, strongly correlates with the floor of the multi-story apartment building that this person lives on, showing a spatial ramification of social and income inequality (Maloutas & Karadimitriou, 2001). Over a decade later Maloutas & Spyrellis (2016) are able to map vertical segregation on the basis of the Greece census of 2011 that for the first time introduced a question about the floor of residence.

Methodology

Issues in the field

While it was the first aim of this research to gather a sufficient number of cases through surveying to conduct a multiple regression analysis, finding respondents for this research turned out to be the biggest problem. People that were engaged on the street wished rather not to be bothered by answering a questionnaire. The general turndown was surprising and to some extent

due to context. In the field, it came clear that the assumption about to what dimension inhabitants are able to speak English and feel free to communicate within an inquiry was underestimated, especially of the older population. Besides the lacking possibility to communicate on the same level about the content of the questionnaires it was apparent that most people who denied participation showed reluctance towards research itself and were critical about taking part in the questionnaire. At the end of all the Athenians approached 26 of them filled in the inquiry.

Most of the data was gathered on a fieldtrip to Athens. The fieldwork was limited to one week and included a tight schedule with everyday activities to find out about the spatial structure of Athens and its features. Therefore, also time to gather questionnaires for the statistical analysis was limited to the evening. Though it was anticipated that people would be more responsive at that time of the day and weekday the experience proved this wrong. On a visit of the National and Kapodistrian University during the fieldwork it was possible to gather additional 20 respondents from the students of the class visited.

Instruments

On the field trip in Athens, it became helpful to document different forms of vertical class differentiation with the camera. This helped also to keep track which neighborhood was visited and to what extent there was apparent proof of vertical class differentiation. While the quantitative part of this research seemed to fail because of the low response rate, it was obvious that a different method had to be chosen to answer the research questions. To answer these a content analysis and interpretation of photography will be conducted, that also will be able to depict differences in the use of multi-story apartment buildings throughout five different areas of Athens.

Due to the low response rate it was also chosen to change the statistical method of the data analysis. Concerning the number of respondents and the mainly ordinal data, as floor level, apartment size, and income, a non-parametric test was selected to test if variables show a certain correlation with the floor level of a multi-story apartment building. This method will help to answer the research question about what characteristics residents of a certain floor level share. A non-parametric test is in its meaningfulness less strong than a parametric one, but is still a

method that can give proof what characteristics of respondents make up the floor someone lives on in a multi-story apartment building. This test on correlation will further support answering the research questions. The test chosen is the Spearman's Rho to measure the strength of association between two variables, where value $r = 1$ means positive correlation and the value $r = -1$ means a perfect negative correlation.

To shed additional light on choices of inhabitants on the place of residents and personal reasons for staying at a multi-story apartment building the questionnaire included in-depth questions for those willing to participate in an interview. The three methods in total will help to answer the research questions at hand (see figure 1).

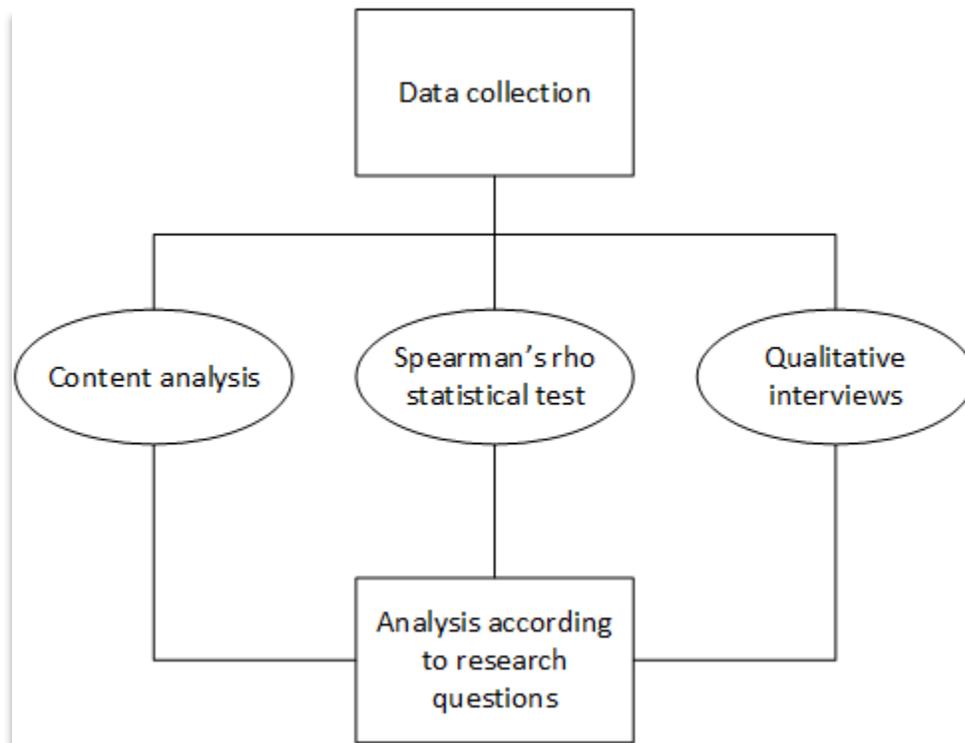


Figure 1: Data analysis scheme

Analytical framework for content analysis method

To analyze the photographs that were obtained during the fieldwork the summative content analysis is chosen. This method offers the possibility to present the data in words and themes,

allowing interpreting the results and thus concluding from them (Langmann & Pick, 2018). What is important at using visual material, as the photographs mentioned above, is to use coding categories that are transposable across all the qualitative data (Emmison & Smith, 2000). Using codes as generalizations help to get more insight into the built environment of Athens. Mainly will it help to answer the question to what extent vertical class differentiation is present in Athens and if there are differences between neighborhoods. Besides using codes to break down the photography the codes will be counted and statistically used.

The images from Athens are coded into, ‘Sub-level floor’, ‘Unequal distribution of balconies between floors’, ‘Air condition missing on a floor’, ‘Difference in balcony size between floors’, ‘Rooftop usage’ and describe negative or positive apartment features. Those codes give insight on different apartment features that facilitate vertical class differentiation. Every multi-story apartment building or case from the photographs scores on every code either ‘yes’ or ‘no’, indicating e.g. if there is sub-level floor or not and thus if social class differentiation is supported by an apartment feature. The result for every code is transposed into a ‘1’-value (=yes) and a ‘0’-value (=no) which allows it to compute an index value, the ‘index of vertical class differentiation’. A case scores between ‘0’ and ‘5’ for each code, where ‘0’ is *no vertical class differentiation* and ‘5’ is *complete vertical class differentiation* (see figure 2). If a case scores ‘yes’ (=1) on four of five codes the index value of this case is therefore ‘4’, indicating that the particular multi-story apartment shows a very high level of vertical class differentiation.

Index of vertical class differentiation					
0	1	2	3	4	5
No vertical class differentiation	Slight vertical class differentiation	Moderate vertical class differentiation	High vertical class differentiation	Very high vertical class differentiation	Only vertical class differentiation is present

Figure 2: Index of vertical class differentiation

Considerations

A difficulty in using photography as a research method is the equivocation that lies within photographs. While most people would state that a photo shows the reality the truth is that every photography is constructed. They are made, as the photographer decides on what to photograph

and how to process it. It is important to keep in mind that the researcher had a reason for taking a specific picture and forms the researchers reading of reality (Holm, 2014)

Coding

Sub-level floor

This code describes the presence of sub-level apartments, that are apartments half a floor below street level with a small window facing the street. The following photography (see figure 3) shows a multi-story apartment building sited at the Vasileos Konstantinou Avenue in Athens within the neighborhood of Pangrati. One can notice windows that show an apartment half a floor below street level. This photography scores a '1' on the code 'sub-level', describing that there is a sub-level apartment in this particular multi-story apartment building. Regarding Maloutas & Karadimitriou (2001) mostly single-person households are situated on basement or ground floors in vertically differentiated apartment buildings. The lower floors show concentrations of residents less affluent like young, foreign, skilled and unskilled workers in small apartments. A sub-level apartment as the depicted multi-story apartment building scores positive (value = 1) in this category it supports the index of vertical class differentiation of this case by one.



*Figure 3:
sub-level
apartment
Source: V.
Hefel*

Unequal distribution of balconies over floors

The following code will be explained through a photography made on Therianou street between the neighborhoods of Kypseli and Exarcheia (see figure 4). It shows multi-story apartment

buildings that share a few apartment features. Especially one feature shows that there are no balconies on the first floor, above the sub-level apartments. While a balcony on the first floor is rather common in more affluent areas of Athens the distribution of apartment features in the photography indicates a rather affordable apartment. The first floor is generally occupied by less affluent tenants, while the dispersion of positive apartment attributes between floors appear to be related with the social rank and thus the income of the tenant (Maloutas et al., 2001). The apartment buildings depicted scores positive on this code (value = 1) and thus supports the index of vertical class differentiation.



*Figure 4:
Unequal
distribution
of balconies
Source: V.
Hefel*

Unequal distribution of air conditioning systems over floors

While the use of this code is only justified by the fact, that while on fieldwork an assignment included to assess whether a neighborhood is affluent or not by looking for air conditioning systems. Nevertheless, this is indeed a good indicator for affluence. Like the other positive apartment features this one helps to suggest over the income class of an inhabitant. One can also assume if tenants, who would not invest in an AC, change rapidly due to affordability and small size of apartment. The following photography shows a multi-story apartment building in the neighborhood of Pangrati (see figure 5). The apartment attribute of an air conditioning system is

unequally distributed, as the apartment of the first floor is missing this feature. Therefore this building scores positively (value = 1) on this code and thus supporting the index of vertical class differentiation.



Figure 5: Unequal distribution of AC's
Source: V.Hefel

Difference in balcony sizes between floors

As for all the apartment features shown, also the difference in the extent of a balcony is an indicator of vertical class differentiation.

Studies show that while higher floor apartments have either a bigger balcony than apartments on other floors, or even feature large verandas (Karadimitriou, 1999). The apartment building depicted on the following photograph is to be found in the Athanasiou Diakou street in the Plaka neighborhood, close to the Acropolis (see figure 6). It shows that, while the apartments up to the fourth

floor share the same sized balcony the apartment on the highest floor features a veranda. This multi-story apartment building scores positively regarding this code (value = 1) and therefore supports the index of vertical class differentiation.



Figure 6: Difference in balcony size

Source: V. Hefel

Rooftop usage

The use of the rooftop can be used as an extended feature of an apartment or as a placement for a large apartment with a big veranda itself. It lets one presume over the difference in the affluence between inhabitants on different floors. For an apartment to be counted in for 'rooftop usage' one limitation is in order. The usage may not overtopping the rooftop edge, as balconies would do.

Those apartments are generally larger, offering a better view and possess a large veranda (Maloutas & Spyrellis, 2016). Additionally the observation of this category on fieldwork left an impression on how vertical class differentiation can manifest itself. The following photography shows this manifestation in its most extreme form observed (see figure 7). The image has been taken from the Lycabettus hill overseeing the east side of the Athenian city center. The buildings with a pool on the top floor obviously score positive on this code and thus support the index of vertical class differentiation.



Figure 7: Rooftop usage Source: V. Hefel

Neighborhoods

As this research is a comparative study, five different districts of the metropolitan area of Athens are chosen. If they differ in the extent of vertical class differentiation will be clarified in the analysis. Three neighborhoods from central Athens, Kypseli, Exarcheia, and Pangrati, are compared with one another in pursuit of the research question. Those three neighborhoods are located around the CBD of Athens. Kypseli lies in the northern part of central Athens, Exarcheia in downtown Athens just south of Kypseli, while Pangrati lies in the south of the city center. Together those neighborhoods describe a cross section through the city center of Athens and give a representative view on the extent of vertical class differentiation of Athens, as a municipality, in total.

Besides finding differences between neighborhoods of inner Athens it is of interest to examine to what extent inner Athens differ in comparison with parts of the metropolitan area of Athens, in terms of vertical class differentiation. The town of Kallithea, situated south-west of the Athens, shows a population density of 21,188/km² in the year 2011 while the municipality of Athens features a comparable dense built environment of 17,044 inhabitants per km² in 2011. Another mean of comparison is the Athenian suburb of Marousi in the North-East of the municipality of Athens. It is less densely populated than the other areas with 5,590 inhabitants per km². In combination, Kallithea, the center Athens, and Marousi give a solid cross section of the metropolitan area of Athens (City Population, 2018).

Completion of data for the content analysis

Many photographs were made in the particular areas on the fieldwork in Athens, but many rendered themselves useless for a content analysis. GoogleMaps street view has been used to fill the data to get a representative comparison with 30 cases per area each. Another benefit of using the street view function of Google is that the evaluation of the code of 'rooftop usage' is possible through the 3D representation. The degree of the use of images from GoogleMaps depends on the amount of usable photographs from the fieldwork. An equal distribution of the cases throughout the perceived area was accounted for. The examined buildings are chosen by picking cases from all cornering areas and its middle.

Results

Content analysis outcome

In the begin of the analysis every building from the photographs, or images provided by GoogleMaps street view, were evaluated based on if they score positive or negative on each code. Followed by that an index value was computed for every building, resulting in a calculated mean index value of all 30 cases of an examined area.

The neighborhood of Kypseli, in the north of Athens downtown, shows a mean index of vertical class differentiation of 3,73 (see figure 8). This indicates a very high degree of vertical class differentiation. The neighborhood of Exercheia, situated in Athens' downtown, features a mean index of 3,1. This is a low result for inner Athens, compared to the other areas, but nonetheless a high degree of vertical class differentiation in this neighborhood. The third neighborhood

Descriptives					
Mean index Marousi					
	N	Minimum	Maximum	Mean	Std. Deviation
index	30	0	4	,67	,959
Valid N (listwise)	30				
Mean index Kipseli					
	N	Minimum	Maximum	Mean	Std. Deviation
index	30	2	5	3,73	1,048
Valid N (listwise)	30				
Mean index Kallithea					
	N	Minimum	Maximum	Mean	Std. Deviation
index	30	0	5	2,37	1,426
Valid N (listwise)	30				
Mean index Exarcheia					
	N	Minimum	Maximum	Mean	Std. Deviation
index	30	1	5	3,10	1,155
Valid N (listwise)	30				
Mean index Pangrati					
	N	Minimum	Maximum	Mean	Std. Deviation
index	30	2	5	3,80	,925
Valid N (listwise)	30				

Figure 8: Mean index values

Discussion of outcome

The results of the mean index of vertical class differentiation for the neighborhoods within the municipality of Athens are interestingly alike, with Exarcheia having a slightly lower mean index. This outcome seems to be in harmony with Maloutas & Spyrellis (2016) as their analysis

examined within the municipality of Athens is Pangrati, in the South. With a calculated mean index of 3,8 throughout the 30 cases it indicates a very high degree of vertical class differentiation, presenting the highest value within the observed neighborhoods in central Athens. The neighborhoods combined show a mean index of 3,54.

The results of the areas neighboring the municipality of Athens paint a different picture. The mean index calculated out of 30 cases from the town of Kallithea shows a value of 2,37 leaning towards a moderate degree of vertical class differentiation. The suburb of Marousi presents a mean index of 0,67 indicating a degree between slight and no vertical class differentiation.

of census data from 2011 shows comparable degrees of vertical class differentiation, they speak of ‘vertical segregation’. One can find that their data analysis shows a strong to very strong presence of vertical class differentiation in the neighborhood of Kypseli, as does the data of this research. The same is true for the neighborhood of Pangrati. While the data from the content analysis features a very high degree of vertical class differentiation literature concludes a mainly very strong vertical segregation. Exarcheia is a little bit different case, as it shows a slightly lower mean index of vertical class differentiation than the other neighborhoods in this research , while it showing primarily very strong vertical ‘segregation’ in the literature (Maloutas & Spyrellis, 2016).

The moderate degree of vertical class differentiation for the town of Kallithea regarded by this research shows resemblance to the data of Maloutas & Spyrellis (2016). They concluded that this neighborhood features a partly strong presence of middle income groups on all floor, hence a weak vertical class differentiation, a strong vertical ‘segregation’ in a few parts of Kallithea and remaining parts of this town that are atypical, in terms that they do not fall under the definition of vertical segregation. This supports the result of a moderate degree of vertical class differentiation for Kallithea from this research. The Athenian suburb of Marousi seems to be almost free of vertical class differentiation as the built environment contains mainly single family house and multi-story apartment buildings that do not exceed the fourth floor, do not feature sub-surface or a first floor, and do not differ in apartment features as balconies.

Comparison between areas

Between 77 and 100% of the inhabitants in the examined neighborhoods within the municipality of Athens live in buildings built between 1960 and 1981 that were not designed to show class differentiation. As this housing stock was built and its under equal building regulations, higher level apartments were in ownership of the landowner and lower level apartments meant for the rental market, this just facilitated the unequal distribution of positive apartment features in multi-story apartment buildings (Maloutas & Karadimitriou, 2001; Maloutas & Spyrellis, 2016). This explains the degree of vertical class differentiation examined and the similarity regarding the mean index between Kypseli, Exarcheia, and Pangrati.

When comparing Athenian neighborhoods with the Athenian suburb of Marousi one can definitely see the difference in mean index of vertical class differentiation related to the building stock and demographics (see figure 9). Buildings in this suburb are, first of all, mainly younger than the Polykatoikies in the municipality of Athens and thus do not contain apartment features that support vertical class differentiation. Additionally data from the literature presents that buildings in Marousi are 35% to 67% occupied by upper professionals who are able to afford to live in the suburbs (Maloutas & Spyrellis, 2016)

While the inhabitants of the assessed neighborhoods within the municipality of Athens do predominantly live in an apartment building built before 1981, this is different for the city of Kallithea. In comparison, 57% to 77% of Kallitheas inhabitants live in multi-story apartment buildings built before 1981 (Maloutas & Spyrellis, 2016). This results in a building stock that is not entirely unequally distributed with positive apartment features, what would support vertical class differentiation. This can explain the difference of the mean indexes between Kallithea and the Athenian neighborhoods.

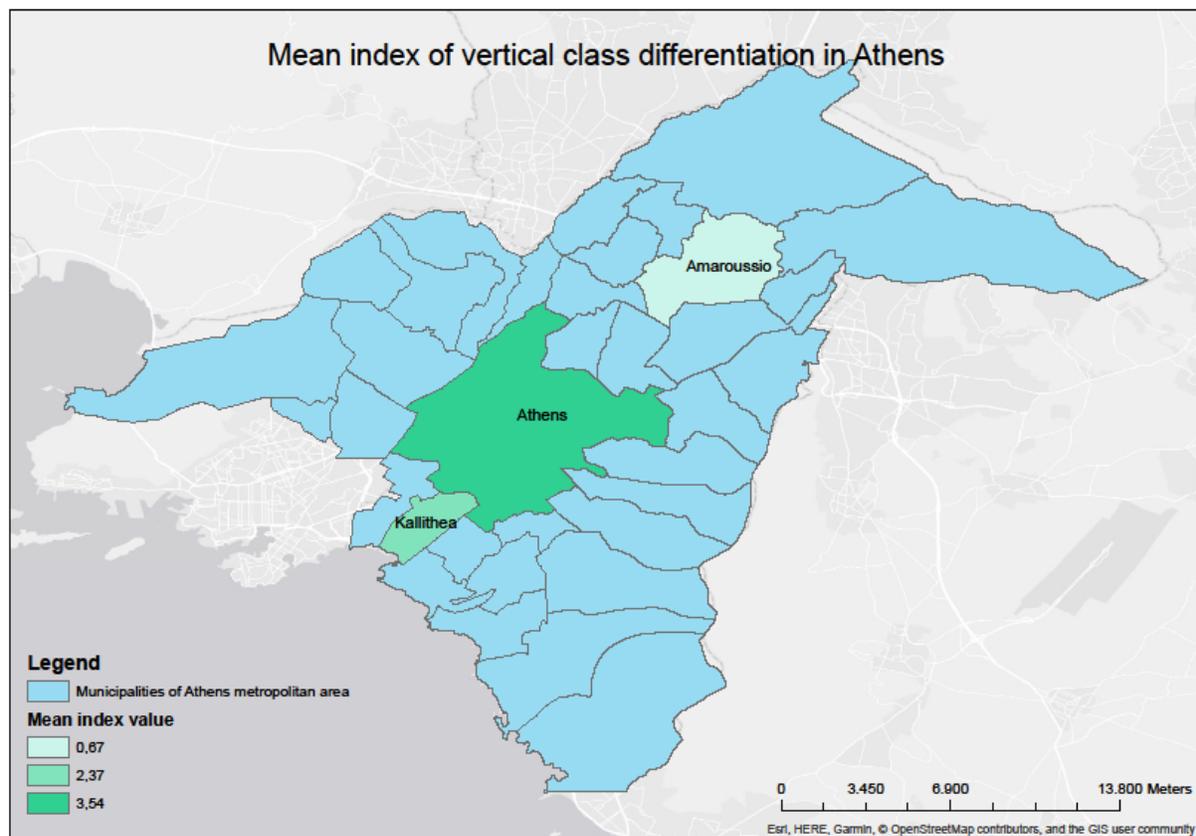


Figure 9: Mean index of vertical class differentiation in Athens

Quantitative analysis and discussion

Before moving on with the quantitative analysis, it is important to know that the number of respondents in this statistical analysis is 46, while 78.3% of those respondents live in a Polykatoikia, a multi-story apartment building in Athens. This percentage alone helps to assume to what extent there is vertical class differentiation in Athens.

When looking at the results of the Spearman's Rho test it seems clear what socio-economic characteristic has the most influence on level of residence in a multi-story apartment building, which is income. Income shows a positive correlation of $r = .368$ with a significance of $.015$ (see figure 10). This states that the more income a household has available, the higher up in the apartment building the household is situated. Although the number of respondents is relatively low, it is not surprising to see that income is a determination of residence. This is partly in harmony with literature as Maloutas & Karadimitriou (2001) point out that the social rank, highly correlated with income, is the most important determination for the floor of residence. What further seems to be a determination of residential choice is age. From the results of the Spearman test it is observable that age has a low positive correlation of $r = .432$ with a significance of $.003$ (see figure 10). The older the respondents are in this research the higher up they live in the Polykatoikies. Also this determination for residential choice is not a surprise as people grow older they usually also improve their income through time and are able to choose a more costly apartment.

Another determination of residential choice within multi-story apartment buildings seems to be the variable of how many years the respondent already lives in Athens. This variable correlates with a positive moderate correlation of $r = .491$ and a significance of $.001$ (see figure 10). The longer someone would have lived in Athens, the higher up the household would be situated in a multi-story apartment building. This can be in relation to the fact that people who are living in Athens all their lives are better connected and would have less problems to find a spacious, affordable apartment on a higher floor. A relation between the number of years a respondent has lived in Athens and his/her floor of residence in multi-story apartment buildings is proved by literature (Maloutas & Karadimitriou, 2001).

What also emerged from the data is that the variable apartment size in m² correlates positively with the floor level. With a significance of .05 and an $r = .294$ it shows a weak correlation, but nevertheless a correlation (see figure 10). This indicates that the higher the apartment is situated in a Polykatoikies the more spacious it is. This is in accordance with the data from Maloutas & Karadimitriou (2001), which states that the higher up an apartment is located in a multi-story apartment the larger the apartment and the more features it has, for example two balconies. What relates to that is the circumstance that household composition is correlating with the variable apartment size in m². The weak correlation shows an $r = .360$ with a significance of .016. This indicates that the bigger the household, the bigger the apartment (see figure 10). When linked to the correlation above - the bigger the apartment the higher up it is situated - one can extract from that, that the bigger the household the higher up in the multi-story apartment building it is located. From that one can assume that the bigger the household the higher the income of that particular household, and therefore the higher this household is situated in the apartment building. Scholars proved that while one-person household are located on the lower levels of apartment buildings, two person-household are overrepresented on the higher floors (Maloutas & Karadimitriou, 2001)

			Correlations					
			income	apartment size in m ²	floor level	age	in athens since (years)	household composition
Spearman's rho	income	Correlation Coefficient	1,000	,148	,388*	,160	,262	-,065
		Sig. (2-tailed)	.	,374	,015	,329	,107	,699
		N	39	38	39	39	39	38
	apartment size in m ²	Correlation Coefficient	,148	1,000	,294*	,221	,334*	,360*
		Sig. (2-tailed)	,374	.	,050	,145	,025	,016
		N	38	45	45	45	45	44
	floor level	Correlation Coefficient	,388*	,294*	1,000	,432**	,491**	-,209
		Sig. (2-tailed)	,015	,050	.	,003	,001	,167
		N	39	45	46	46	46	45
	age	Correlation Coefficient	,160	,221	,432**	1,000	,458**	-,271
		Sig. (2-tailed)	,329	,145	,003	.	,001	,071
		N	39	45	46	46	46	45
	in athens since (years)	Correlation Coefficient	,262	,334*	,491**	,458**	1,000	-,060
		Sig. (2-tailed)	,107	,025	,001	,001	.	,695
		N	39	45	46	46	46	45
	household composition	Correlation Coefficient	-,065	,360*	-,209	-,271	-,060	1,000
		Sig. (2-tailed)	,699	,016	,167	,071	,695	.
		N	38	44	45	45	45	45

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Figure 10: Correlation results

Qualitative analysis

The in-depth questions provided a decent view on why people would move from or stay at their current apartment. While the big share of students who participated would give reasons for moving like ‘emancipation from the parents’, ‘moving closer to the city center’, and ‘move to see other places’, the share of non-student under the respondents communicated other views on their choice of residence. A 30-year-old respondent living with her boyfriend in a multi-story apartment building has been asked if she would like to move to a different apartment at some point and she said:

“I wouldn’t move, I live in a beautiful area and the apartment is close to the bus station and the park.”

It seems that the overall charm of a neighborhood in Athens makes up for any inconvenience one could have with the apartment currently residing in. The connectivity in a city like Athens is also a trait a respondent would trade in for a more convenient space of living. The same counts for having amenities in the vicinity. A close-by park is a good trade-off for possibly flawed apartment. A female respondent, working as a receptionist and living in a multi-story apartment building with her husband and child answered:

“We wouldn’t move at the moment. The apartment is big enough, the area is good for the family and kid and it has a nice view.”

While this respondent seems to be satisfied with the apartment, traits are named that correspond with what other respondents named important. The sphere of a neighborhood is important and if it meets the needs of a household. A respondent working as a shop keeper answered similar:

“I live in a nice neighborhood. I have no interest in moving at the moment. I also live close to a park.”

It seems that the overall appeal of the neighborhood and green space in the vicinity is also here a good indicator for a satisfied household. A different angle was to hear from another female respondent, as she and her family are Syrian refugees living in Athens since two years:

“We live here since two years and the apartment is good but we want to move for shopping, the market and better amenities.”

On the contrary to what respondents beforehand answered it seems that this household has not yet found a fitting apartment to stay and it can be assumed that this is due to the short time the family are residents of Athens. Also here one can see what is important in choosing residency, which is to have a sufficient amount of amenities and opportunities to buy goods for the everyday need.

Asked if the respondent, who works at a bank and lives alone on sixth level of an apartment building, thinks it is nowadays more difficult to move he said:

“Yes because of the financial risk and the high rates of unemployment”

A respondent working in a Street food shop with a tight budget just answered:

“Yes! No comment, but it’s hard.”

It can be assumed that the choice of the dwelling place is a tough decision a household makes when it is actually moving as the shock of the economic crisis is still to be felt.

Conclusion

Concluding it is to say that the degree, and thus extent, to which there is vertical class differentiation present in Athens is very high. This applies for the municipal area of Athens and is in accordance with findings of Maloutas & Spyrellis (2016). While there is not much difference between the assessed neighborhoods within the municipality of Athens, there is a significant disparity in the vertical class differentiation between Athens and its surrounding municipalities. What unites inner Athens and the examined areas regarding the index of class differentiation, and what distinguishes inner Athens with its surrounding is its special stock of housing built in the last century which is still influencing Athenian housing policy. While the physical reality of the housing market shapes how and where people live also socio-economic traits, like income, years lived in Athens, and age have a significant effect on residence in a Polykatoikies, as former research was able to prove. The reasons people would move out from or stay at an apartment are basically the same as they are universally important. The overall sphere of the neighborhood, closeness to parks, shops, market and amenities are valued the most, while the aftermath of the financial crisis is perceived as a hindrance for residential mobility. While it has been possible to make use of a decent method to explore vertical class differentiation in Athens, this research lacks the significance it would have had with a quantitative analysis based on a sufficient amount of cases. Since the Greek national census of 2011 a question regarding the floor of residence was included the research of vertical class differentiation in Athens will be an increasingly debated topic by scholars. For future research a more intensive qualitative investigation of opinions of inhabitants of multi-story apartment buildings in Athens can be interesting as it add information to this topic.

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