## Y reviewed paper

# What kind of society are we planning for? The formation of urban social areas in a postmodern society – the example of Vienna and the Vienna Metropolitan Region

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#### 1 PREFACE

Post-modern restructuring of society, as attributed to globalization and restructuring of labor, has led to a growth in intra-urban social disparity and even polarization. In US-American cities Neo-liberal policies have led to hyper-segregation of social classes by a concentration of low-income groups and minorities in derelict ghettos on the one hand and by a gating of the upper class in communities of their own, isolating themselves from the rest of urban society and its related problems on the other hand. In European Welfare States, this process has been associated with cutting back interventions in planning by urban authorities. Planning has shifted from active comprehensive planning to reactive fragmented planning. Studies from Western European Countries as well as from Northern America reveal that the new form of postmodern urban planning, even though guided by ideas of social sustainability, contributes to the polarization of urban society. The increasing polarization of urban society is argued to be represented in the socio-spatial patterns of the city. The identification of socio-spatial polarization, accompanied by a spatially fragmented society, is the common cause of research issues on the postmodern restructuring of urban society. An analysis of the socio-spatial patterns in the City of Vienna and the Vienna Metropolitan Region is aimed at illustrating how postmodern restructuring has affected the structure of urban society and the related socio-spatial patterns. Extracting the driving forces of the formation of socio-spatial patterns is the main purpose of the study in order to provide insights into chances and limits of planning social sustainability in a postmodern urban society.

### 2 THEORIES AND CONCEPTS ON THE FORMATION OF SOCIO-SPATIAL AREAS

Analyses of the formation of socio-spatial patterns in urban areas were guided by concepts developed and applied by social area analysis. The theory of social area analysis is based on the assumption of socially homogeneous neighborhoods within the city. The formation, shaping and the related socio-spatial patterns of these neighborhoods in urban areas can be reduced to and explained by three dimensions: A socio-economic dimension, a demographic dimension and an ethnic dimension, each of them corresponding to specific shapes. Sectoral structures were considered as typical of the socio-economic dimension, zonal structures of the demographic dimension and clustered patterns of the ethnic dimension. MURDIE (1969) integrated the feature of the urban fabric into this theoretical framework. Various analyses in the 1970s and 1980s proved that this model more or less applies to a majority of cities in the industrialized countries of the "western hemisphere", characterized by modern societies (see HATZ, 1998 and FASSMANN, HATZ, 2006). With the restructuring processes in economy, the concept of social area analysis became more and more criticized.

Based on the tradition of how urban societies developed in the welfare states of the 1970s and 1980s, concepts called for an increasing fragmentation of social space, distinguished rather by different lifestyles than by social classes. Theories and concepts referring to the restructuring of urban society due to globalized economies, focus on an increasing polarization within the city, marked by highly skilled employees working for international companies on the one hand and a growing proportion of unskilled workers in the service industries providing the services for the highly skilled work force on the other hand. This polarization of society was intensified by the process of de-industrialization – the relocation of manufacturing either to the outskirts or to countries providing cheap labor force, while the control and command functions as well as the related executive jobs increasingly concentrated in the "global cities" (see SASSEN, 1991). Economic restructuring and fiercer competition made even European political strategies shift from emphasizing "welfare" to policies guided by Neo-Liberal ideas. Even if the rise of the service sector could compensate for part of the dramatic loss of work places in manufacturing, it could not replace all jobs that had become redundant. Consequently, unemployment rates increased and participation in labor not only in terms of employment and unemployment but also in working hours have become the typical features of post-modern society. Economic restructuring has not only resulted in a polarization of society, this process has also been accompanied by a loss of the middle classes, forced out of the city by a booming real estate market. In US-



American cities the loss of middle class and the issue of affordable housing have become a top agenda of urban planners and policy-makers (see MLLENNIUM HOUSING COMMISSION, 2002).

This transformation of society is reflected in the urban socio-spatial patterns, in terms of a polarized "Dual City" as stated by CASTELLS (1989) and MOLLENKOPF, CASTELLS (1992). Other authors have developed concepts of a city split into at least three social subdivisions – an "International City", a "Marginalized City" and a "Middle Class City" (HÄUSSERMANN, SIEBEL, 1987) – or in a "quartered" city (MARCUSE, 1989). The common cause of recent theories on the restructuring of urban society and its related social patterns is the re-evaluation of the theoretical framework of social area analysis, becoming obsolete in a postmodern urban society and eventually being replaced by either polarization or social fragmentation of urban spaces. The given theoretical concepts on the transformation of socio-spatial structures do not only provide the cause for an analysis of the dynamics of socio spatial patterns itself, but also are building the theoretical framework of the questions of research guiding the analysis:

- How and to what extent has postmodern restructuring affected the social structure of the Vienna Metropolitan Region and what indicators are relevant to identify these changes?
- What effects on the socio-spatial patterns in the Vienna Metropolitan Region can be determined?
- Have features of polarization, fragmentation and the exodus of the middle class already affected the socio-spatial patterns in the Vienna Metropolitan Region?

These questions can be regarded even more as central issues, as the "global trends" restructuring urban societies and spaces are juxtaposed by the welfare policy of urban planning in Vienna. Within Europe and maybe even worldwide with about one quarter of the housing stock Vienna holds the highest share of social housing apartments. The soft urban renewal program, supported by grants of the city to avoid "gentrification" – the replacement of low income groups by the affluent in inner city neighborhoods – and to provide affordable housing units in renovated apartment complexes, has become another central focus of planning social sustainability in Vienna. Opposed by "fragmented" urban planning in the suburban region, effectiveness and limits of planning the social sustainability in the City of Vienna and the Vienna Metropolitan Region is another major concern of the analysis.

# 3 FEATURES OF THE SOCIO-DEMOGRAPHIC STRUCTURE AND THE HOUSING MARKET IN THE VIENNA METROPOLITAN REGION

The selection of variables integrated in the analysis of postmodern restructuring is crucial as they are supposed to indicate the relevant features of a post-modern society. On the other hand, the selection of indicators is limited due to the availability of data and the requirements of the selected method of analysis. All in all 32 variables have been selected for the analysis, covering the social, demographic and ethnic structure of the population as well as features on housing in the Vienna Metropolitan Region. In the City of Vienna, the analysis was guided at the level of census tracts, in the suburban region at the level of municipalities and communities.

# 3.1 Socio-economic features

An analysis that refers to polarization and the emerging "Middle Class City" requires a refined data set, not only focusing on the top and the bottom of the social ladder, but also the social groups "in between".

	University degree		High school		Vocational school		Apprenticeship		9 <sup>th</sup> grade	
	1971	2001	1971	2001	1971	2001	1971	2001	1971	2001
City of Vienna	3.9	10.4	9.5	15.0	10.1	10.6	29.9	28.6	46.5	33.2
Austrian Citizens	3.7	8.9	9.0	13.3	7.5	9.9	29.4	26.1	44.1	24.3
Suburban Region	1.9	6.7	5.7	13.3	7.6	13.3	25.1	33.6	59.7	30.2
Austrian Citizens	1.8	6.0	5.4	12.4	7.5	12.9	24.7	32.0	56.6	25.9
Vienna Metropolitan Region	3.5	9.4	8.7	14.5	9.5	11.3	28.9	30.0	49.7	32.4
Austrian Citizens	3.3	8.1	8.2	13.0	9.4	10.7	28.4	27.7	46.9	24.8

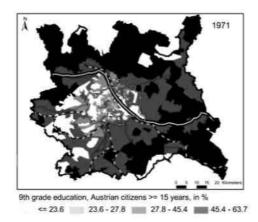
Table 1: Residents by educational skills and citizenship, Vienna Metropolitan Region (Statistik Austria, author's calculation)

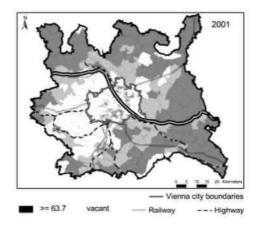
Indicators for the social structure have been chosen by the educational skills of the residents, as these data can be differentiated by citizenship. This differentiation enables the analysis to identify not only features of

the ethnic dimension but also effects that have resulted from the internationalization of the post-modern urban society.

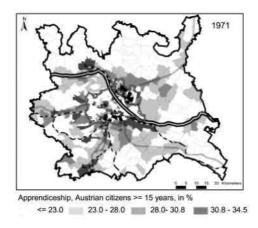
# 3.1.1 The dynamics of social-spatial patterns and the emergence of the "Marginalized City and the "Middle Class City"

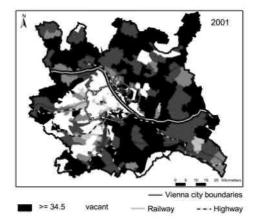
The dynamics of the socio-spatial patterns seem to support the hypothesis of the exodus of the middle classes out of the city proper, and it becomes obvious that these dynamics are regulated by qualifications and professional skills as an indicator of social stratification. Because of higher educational levels, the share of residents with 9<sup>th</sup> grade or compulsory education has decreased nearly in all areas of the Vienna Metropolitan Region. Considering citizenship, it becomes obvious that unskilled immigrants have in part replaced low-skilled Austrian citizens. In 2001, more than one quarter of residents with 9th grade education did not hold an Austrian citizenship; in 1971, the respective share only amounted to about 5%.





Graph 1: 9th grade (compulsory) education, Austrian citizens in the Vienna Metropolitan Region 1971 and 2001

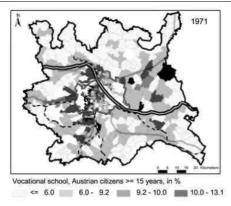


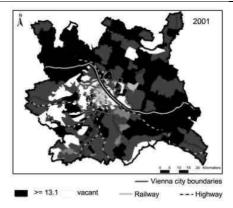


Graph 2: Apprendiceship, Austrian citizens in the Vienna Metropolitan Region 1971 and 2001

What is observed for 9<sup>th</sup> grade residents does not hold true for residents who have learned a trade and those who have a diploma of Vocational Schools. The share of Non-Austrian citizens is the lowest compared to other educational levels. The dynamics of residents with respective qualifications show the highest significant shift between the City of Vienna and the Suburban Region. In the City of Vienna, the share was constantly around 10 % for Vocational Schools and 28 % for apprenticeship, showing a slight increase of around 1 percentage point. The respective shares in the Suburban Region increased by nearly 6 percentage points for graduates of Vocational schools and by more than 8 percentage points for residents with qualifications based on apprenticeship. These dynamics at a first glance seem to support the emergence of a middle-class city in the Suburban Region. The dynamics of the spatial distribution at the level of census tracts and municipalities in the suburban region provide a more detailed insight. In 1971 residents with apprenticeship or Vocational School as their highest educational level, were concentrated in the city proper or in the Suburban Region bordering the City of Vienna. These patterns have changed dramatically over the past decades. Compared to 1971, in 2001 these residents, considered as "middle classes", had more or less disappeared in the inner city and now are dominating most parts of the suburban region.

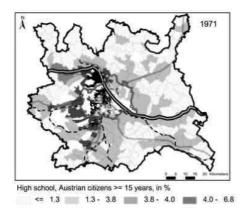
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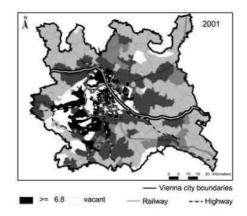




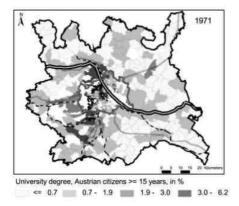
Graph 3: Vocational school, Austrian citizens in the Vienna Metropolitan Region 1971 and 2001

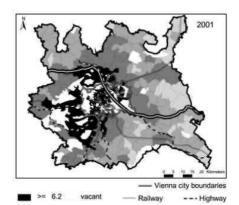
The dynamics of high school graduates and residents holding a university degree provide further evidence of the selective socio-spatial dynamics creating the "Middle Class City". Even though they have spread out into the suburban areas as well, they are still highly concentrated in the city proper. What is more, in contrast to residents with lower qualifications, the share of well-educated residents has increased within the city proper and the "upper class neighborhoods" have spread out into the neighboring districts. The dynamics of the spatial patterns within the city proper suggest that the middle class gets displaced by an increasing concentration and sprawl of upper class neighborhoods. In the Suburban Region, the "sprawl" of highly skilled residents seems to be sensitive to distance. The closer to the city proper, the higher are the shares and the respective increase of high school and university graduates.





Graph 4: High school, Austrian citizens in the Vienna Metropolitan Region 1971 and 2001

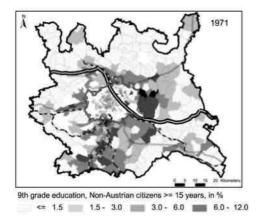


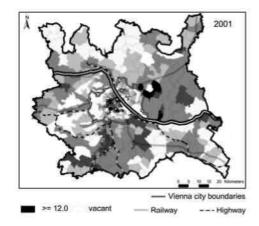


Graph 5: University degree, Austrian citizens in the Vienna Metropolitan Region 1971 and 2001

The increase of low-skilled work force, mainly provided by immigrants, reinforces polarization of postmodern social areas. Since the 1970's the share of non-Austrian citizens in the city proper increased from 3.8 % in 1971 to 16 % in 2001, most of them unskilled immigrants from the successor states of former Yugoslavia and Turkey. Not only on the labor market but also on the housing market, these immigrants have taken over positions left by the low-skilled Austrians who had gained additional qualifications as well as

improved their living conditions as far as the standard of housing is concerned. Apart from highly skilled residents, immigrants show the highest rates of increase within the city proper. In accordance to their increase by number, a "Migration City" has emerged in the inner districts of the city, spreading out to the areas occupied by the better-off residents. In the western part of the city proper a polarization of the urban society seems to transform the socio-spatial patterns. By extending the area of observation to the suburban region, the model of a postmodern restructuring of the city into three socio-spatially homogenous subdivisions seems verified.





Graph 6: 9th grade (compulsory) education, Non-Austrian citizens in the Vienna Metropolitan Region 1971 and 2001

Even if the analysis of socio-economic features and their dynamics over the time provides first hints on the restructuring of socio-spatial patterns in the Vienna Metropolitan Region, it cannot answer the questions of the driving forces behind these developments in a satisfactory way. Educational skills do not sufficiently represent the restructuring of the labor market by the globalized economy and deindustrialization in terms of sectorial dynamics. So self-employed in scientific and technical professions as well as in production and service industries were added to the set of socio-economic indicators, just as the share of unskilled workers. Unfortunately, the census does not offer any direct data on the income situation. For this reason the spatial income distribution was estimated by multiplying the occupational distribution by the average income for each of the occupational categories and gender (see FASSMANN, HATZ, 2007).

Suburbanization might be guided more by demographic features, like family with children, than by socio-economic features, even as features of the housing market might force or hinder certain social groups to settle in specific neighborhoods. For understanding the restructuring and formation of these socio-spatial patterns, respective indicators have to be included into the analysis.

# 3.2 Housing market

	Substandard	Social housing		
	apartments	apartments	Homeownership	Single family/semi-detached houses
City of Vienna	8.3	24.8	20.2	48.9
Suburban Region	3.2	4.5	67.2	83.1
Vienna Metropolitan Region	7.0	19.7	32.1	68.6

Table

2: Legend (Statistik Austria, author's calculation)

What is most important for "planning" issues related to social sustainability are features of the housing stock and housing market. The housing market of Vienna is primarily a rental market. About 80 % of the apartments in the City of Vienna are rented, owners occupy only 20 %. In the suburbs homeownership increases to two third out of the housing stock. Homeownership is one of the most decisive features dividing the City of Vienna and its Suburban Region. The same holds true of social housing apartments, just the other way round. With about one quarter of social housing apartments out of all apartments the City of Vienna does not only hold an outstanding position within the Vienna Metropolitan Region but also in Europe. What makes social housing so distinctive for explaining socio spatial segregation is the strict limitation of access to these apartments. Access is regulated by a maximum household income, but it is also limited to citizens of the EU.

Even though the soft urban renewal program the stock of substandard apartments has been remarkably reduced in the last decades, in 2001 still 8.3 % of the apartments in the City of Vienna were not equipped with running water and/or toilet inside. The opposite of the low quality and densily built-up areas in the inner fringe of the City is the Suburban Region, dominated by single family or semi-detached houses.

As the real estate and housing market is probably influenced most by urban policies, the respective indicators selected for representing the building fabric of the city do not only refer to quality and size of apartments but also to living standards indicated by the type of the building. Homeownership, rental housing and social housing do not only reflect the distribution of property and therefore are an indicator for the social differentiation as well, but also represent the interventions and the chances of interventions by urban planners and decision makers into the local housing market.

# 3.3 Demographic Features

Demographic features have been added in order to represent and analyze the restructuring of urban areas caused by the post-modern diversification of family types and household forms. It is argued that the diversification of family types results in a diversification of requirements on urban spaces, forming specific demographic milieus in the city. The model of the quartered city, as conceptualized by MARCUSE (1989), describes the social milieus of the quartered city not only as a result of the diversification represented by the socio-economic structure of society but also by specific forms of lifestyles and partnerships. With this in mind, it seemed necessary not only to consider the "classical" set of demographic data, but also data representing the diversification of forms of households and living together. Besides, the age structure of the residents, indicated by the share of residents younger than 15 and residents aged 60 and older, the share of married and unmarried couples and the number of children in the household have been included into the analysis. Assuming, that children are bound to the social milieu of their parents, the share of residents younger than 15 years has been calculated for Austrian citizens and non-Austrian citizens. "Added values" for the lifestyle analysis are provided by the variables "living space per capita", but also by the period when the apartments were built. Analyses on urban lifestyles attach the new emerging urban classes to the historic building fabric like "gentrifiers", "YUPPIES" (young urban professionals)", "BOBOs (Bourgeois Bohemiens) or "DINKS (Double Income, No Kids)". The variable "apartments built in the period between 1991 and 2001" provides information on the emergence of social milieus in new housing developments.

# 4 DIMENSIONS OF URBAN SOCIAL AREAS

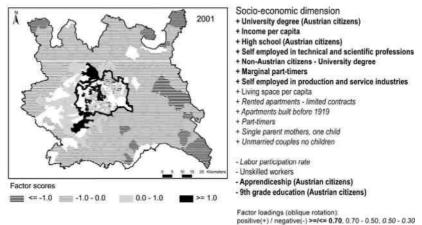
It becomes clear that certain sets of variables are mutually dependent and a uni-variate analysis of the selected indicators will not answer the question on the formation and features of social areas. The formation of socio-spatial patterns has to be considered as result of a complex interplay of various variables resulting in specific dimensions that shape specific social areas. To identify these dimensions a method that pools those variables and extracts the dimensions resulting from this interplay is required. In socio-area analysis, factorial ecology has proven as an adequate method for identifying those dimensions. Factor analysis provides the required technique and has been chosen for analyzing these indictors with regard to their interdependence. Factor analysis is a multivariate statistical technique that extracts the underlying factors from a large set of variables. It is assumed that there are only a few central dimensions (= factors) determining the individual variables and their bivariate correlations, which can be identified by Factor Analysis (see BAHRENBERG, GIESE and NIPPER 1992). The dimensions extracted by factor analysis are represented by their "loadings", indicating the positive or negative association of the single variables with the extracted dimension. Factor scores represent the extracted dimension in the single entities the analysis is based on, in that case the spatial units. The higher (positive) or lower (negative) the factor scores have been calculated for a single unit, the more the unit is characterized by the respective positive or negative loadings of the respective dimension.

Factor Analysis for the Vienna Metropolitan Region extracted four dimensions, forming respective social areas. The extracted dimensions support the findings of the social area analysis and can be labeled as socioeconomic, ethnic and demographic dimensions that still form the social areas in the Vienna Metropolitan Region and explain 77,7% of the variance of the indicators included in the analysis. What is most remarkable at a first glance is the subdivision of the socio-economic dimension that indicates a fragmentation of social classes in the Vienna Metropolitan Region on the one hand and a polarization of social areas within

the city proper on the other hand. The detailed analysis of the structure of the dimensions and their related spatial patterns provides an understanding of the underlying forces.

## 4.1 Socio-economic Dimension

The socio-economic dimension explains 26.9 % of the variance of the analyzed indicators. According to the concepts of social area analysis, the socio-economic dimension shows a sector-shaped pattern of high status neighborhoods extending from the city center to the west and south of the suburban region. In these neighborhoods, professionals with high personal income per capita are concentrated. Long-term studies show that the pattern indicating neighborhoods inhabited by well-educated residents with high social status has prevailed at least over the last 30 years, slightly expanding at its fringes (see HATZ, 1998). Opposite to lowor unskilled Austrian citizens, high status groups expand and intensify within the city proper or close to it. Consequently, it is not the high social status groups who are responsible for the expansion of the Suburban Region. The positive correlation of apartments built before 1919 with the variables indicating a high social status supports this statement. The internal structure of this factor reveals its transformation to an "International City", resulting from globalization. Highly skilled non-Austrian citizens can be found in these neighborhoods as well as self-employed in professions attached to "New Economy", including fields like science, technology and research. One of the most remarkable findings is the high concentration of marginal part-timers in areas of high social status. This might indicate that females are employed in companies, offices or surgeries of their husbands for a few hours per week. But it could also be concluded that students earning some extra money and still living in their parents' households contribute to the high share of marginal parttimers in these areas. These assumptions are supported by the fact that marginal part-timers show the highest shares in the age groups of 20 to 30 years (one third of all marginal part-timers in the city and one quarter in the sourrounding province of Lower Austria). In the age groups of 30 to 60 years in the City of Vienna nearly 50 % of marginal part-timers are married females, in Lower Austria this share goes up to 70-80 percent of the respective age groups.



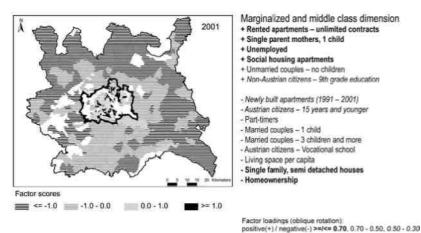
Graph 7: Socio-economic dimension, Vienna Metropolitan Region (factor loadings and factor scores)

The opposite is true of low social status residents. Austrian citizens working in trade or having completed only 9<sup>th</sup> grade (compulsory) education are structurally and spatially clearly separated from neighborhoods attached to high socio-economic features. Social areas characterized by residents with low educational skills correlate with higher labor participation rates but also to a certain degree with single or semi-detached houses. Concerning access to work and labor market, the results suggest the hypothesis that marginal-part time work in high-income neighborhoods can be regarded as an "additional benefit". In low-income areas high participation in the labor market seems to be rather a "must" than an option, which means integration in the labor market, even though it is just the low-salary segment, is an absolute necessity in order to achieve a more or less comfortable standard of living and a certain amount of security.

## 4.2 Marginalized and middle class dimension

If polarization and the exodus of the middle classes are considered as crucial for the post-modern restructuring of urban society and space, the dimension extracted from features of the marginalized and the middle class is the most decisive one. This dimension explains 22.4 % of the variance of the variables included in the analysis. In Vienna, the neighborhoods dominated by social housing complexes are becoming

the new Marginalized City. In social housing schemes, providing unlimited rental contracts, unemployment is high and families in need like single mothers are the norm. This fact also reflects the policies of allocation of social housing apartments, preferring those most in need. In this context the contribution of social housing policy in Vienna by providing affordable and adequate housing for those most in need has to be underlined. On the other hand it has to be considered that by an increasing polarization of urban society resulting in increasing risks for those negatively affected by this polarization, features of marginalization are becoming even more predominant in areas where the disadvantaged are concentrated any way. As a result, socio spatial inequalities might increase even if the related socio-spatial patterns remain unchanged. Despite the restrictions the share of Non-Austrian citizens in social housing apartments is slightly increasing, as those foreigners who do hold an Austrian citizenship and therefore are eligible for social housing apartments are now able to provide family members, relatives or colleagues accommodation in these apartments. But this does not hold true for the majority of unskilled immigrants who has to find other free and affordable niches in the housing market.



Graph 8: Marginalized and middle class dimension, Vienna Metropolitan Region (factor loadings and factor scores)

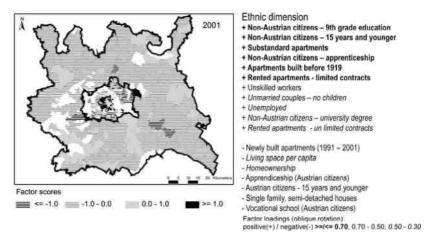
With regard to the chances of planning strategies and political measures, their limited influence is revealed if the upper income levels for social housing apartments are taken into account. These maximum limits are at a comparably high level and would even make middle class households eligible. Even if they can afford it, they prefer to pursue different life-styles, distancing themselves from the "Marginalized City". Features of marginalization have become features of the city proper. In contrast to the "Marginalized City", the "Middle Class City" is becoming more and more a feature of the suburban region. The suburban region has become home for traditional family units – nuclear families of married couples with one ore more children – living in municipalities and communities characterized by individually owned single family or semidetached houses, providing comfortable living space per capita. It is not the affluent who live in these areas, as income per capita is not a decisive feature there. It is the absence of typical working class residents, together with the correlation of Austrian citizens holding a diploma of a Vocational school, indicating this dimension as a middle class dimension.

The spatial patterns of this dimension reveal that its features are becoming more prominent with growing distance from the city proper. As neither homeownership nor single and semi-detached houses seem to be related to the dimension of high status neighborhoods, these features and the respective demographic regimes can be considered as a specific life style of the middle classes. Beyond the city limits and the affluent suburban region these life-styles are clearly obvious. These are the fringes of the suburban areas, where land values are comparably low and space for new construction is available. Homeownership is supported by generous subsidies for the construction of new homes or the remodeling of older buildings by the province of Lower Austria, legally responsible for most of the suburban region. Additionally, DIY and support from relatives and neighbors in building large-scale single family houses contribute a great deal to making the dream of homeownership come true. Unfortunately, no data on loans, debits or interest rates for these areas and the households living there are available.

The correlation of newly built apartments in this dimension is not only another additional feature of the "Middle Class City", it also supports the assumptions that suburban sprawl is guided by the sprawl of the middle-classes who can only afford a lifestyle they aspire far away from the city. On the one hand, the high status groups who occupy the attractive locations in the city proper and in the suburban areas, close to the city center, force middle-classes out to the edge of the Vienna Metropolitan Region. On the other hand, the middle classes are leaving behind the marginalized who cannot afford moving out of the city at all.

## 4.3 Ethnic Dimension

The features forming the ethnic dimension, explaining 20.7 % of the variance of the analyzed indicators, meet the assumptions formulated in the theoretical approach. Immigrant families with low educational skills concentrate in areas dominated by substandard-apartments dating back to the second half of the 19<sup>th</sup> century. In contrast to other Metropolitan Areas, the formation of this "Migration City" is not associated with social housing apartments due to the strict limitations regulating eligibility. Households of low-skilled immigrants are forced to cluster in poorly-equipped apartments, holding just limited rental contracts. As the housing situation of these immigrants can be considered as precarious, the same holds true of their access to the labor market. The neighborhoods of the "Migration City" are associated with unemployment and together with low-quality housing features the "Migration City" seems to meet the criteria of a "Marginalized City". The segmentation of the Viennese housing market divides the "Marginalized City" into a city of the "welfare class" and a "Migration City". Nevertheless, neither income per capita nor precarious employments seem to be typical features of the Migration City.



Graph 9: Ethnic dimension, Vienna Metropolitan Region (factor loadings and factor scores)

The formation of the "Migration City" itself is clearly a feature of the inner city neighborhoods that is in stark contrast to the emerging "Middle Class" City of Austrian citizens and single families or semi-detached houses in the Suburban Region. Even though focusing on the historic building fabric, the soft urban renewal program could obviously not contribute to improving the housing conditions of low skilled immigrants. With respect to the soft urban renewal program of the City of Vienna, what was revealed by analysis at the level of renovated houses (see HATZ, 2004) becomes evident at the level of census tracts as well. Even the soft urban renewal program aims at the social sustainability of renovating and improving substandard apartments and to create affordable living space, at the long term, this program has neither reached the low skilled immigrants nor the middle-classes. Even though huge amounts of public money were invested in the program (between 1984 and 2003 about 4 billion €, see FASSMANN, HATZ, 2006), on the long-term, those renovated units have been taken over by the groups of high social status, who "infiltrate" into the neighborhoods of the "Migration City". "Soft urban renewal" has succeded in reducing the substandard housing stock in Vienna, starting by about 30 % in 1971 and ending up by 8 % in 2001. However, by upgrading these dwellings and not providing options for low-income immigrants, the problems of the "Migration City" have become even more concentrated.

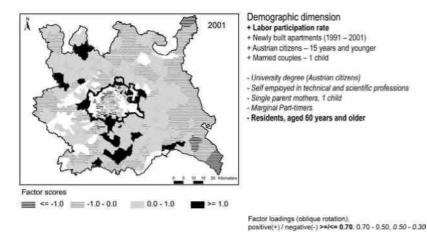
# 4.4 Demographic dimension

The "weakest link" in the formation of social areas seems to be the demographic features extracted in the demographic dimension. Demographic regimes explain just 7.8 % of the variance of the indicators integrated in the analysis. This appears to be particularly remarkable, as in the "golden era" of the welfare state it was argued that diversification of society would be encouraged rather by lifestyles than by socio-economic features. Demographic regimes like unmarried couples, labeled as "YUPPIES", "DINKS" or "BOBOs" have



been considered as such lifestyles (see for example HELBRECHT, POHL, 1995). In the Vienna Metropolitan Region these specific lifestyles are relevant indicators but "spread" across all dimensions formed by ethnicity or socio-economic features. Even if single parent mothers concentrate in areas where social housing is available, they can be found "across the dimensions" in high status neighborhoods as well as in the "Migration City" and the same holds true of unmarried couples with no children. In contrast, the analysis reveals that specific demographic regimes like single parent mothers are exposed to a greater risk of dropping below the poverty line on the one hand and the traditional family model is rather a lifestyle typical of a specific class – in that case the middle classes. Specific lifestyles appear to be more likely features of specific social classes that primarily contribute to the formation of social areas.

The variables forming the demographic dimension indicate that families with children have different requirements and expectations, like an abundance of green space, from the elderly residents who rather prefer aspects associated with urbanity. Young couples deciding to cohabitate and have children, usually look for a new apartment where they can live together. Due to the low mobility of households in Austria, the availability of empty apartments is considerably low and young families have to look for newly built apartments as indicated by the respective variable. It is hardly surprising that in those neighborhoods the labor participation rate is high, compared to the neighborhoods of senior residents. According to the model developed by social area analysis, the demographic dimension shows a concentric pattern, but the pattern is highly dynamic, as residents that settle in a neighborhood at a given time, stay until they are getting older and never move away.



Graph 10: Demographic dimension, Vienna Metropolitan Region (factor loadings and factor scores)

In the City of Vienna, the residents of the high status neighborhoods in the western outskirts are now aging (see HATZ, 1998). In the Suburban Region, this explanation has to be extended. The more distant to the city proper the share of senior residents increases, but this will change in the near future as those areas are the edge of an expanding Suburban Region. In the Suburban Region the concentric structure of the demographic dimension is "disturbed" by the local policy of municipalities providing land for new developments. All in all, it can be stated that demographic features and the exodus of the middle classes are the driving forces – not of suburbanization in general, but of suburban sprawl. This suburban sprawl is characterized by new developments spreading out to the edge of the Vienna Metropolitan Region. As the planning of new developments is under the authority of the individual municipality, this sprawl is uncoordinated and the more distant from the city, the more the suburban region transforms in "a city without a city", characterized by a homogeneous social and demographic structure that is entirely different and distant from the "polarized" but socially diversified urban society.

### 5 "ACROSS THE DIMENSIONS" – CONCLUSIONS AND OUTLOOK

The detailed results of the study have to focus on statements referring to the questions of research. Considering the assumptions and results of social area analysis and concepts on the postmodern restructuring of urban social areas it can be stated that for the Vienna Metropolitan Region both approaches hold true. Even if the "classical" data set of social area analysis is extended by data referring to the features that characterize the post-modern urban society, it is still an ethnic dimension, a dimension of socio-economic status and a demographic dimension that form and shape the socio-spatial patterns in the Vienna

Metropolitan Region. If only the city proper is considered, an emerging polarization can be observed. If the analysis is extended to the suburban region, the concept of a city divided into three subdivisions is supported. The high status neighborhoods are increasingly transformed into an "International City", the City of those who are integrated into global economy. Due to the regulations of social housing, the "Marginalized City" is split into a "Migration City" and a "Welfare City". As result of the exodus of the middle class, the polarization between the "International City" and the "Marginalized City" - not so much of social groups and patterns but of social inequalities in the city proper – becomes the feature of the City of Vienna, while in the suburban region the emergence of a "Middle Class City" can be observed. It is those classes that leave the city, forced by pursuing their desire of a specific lifestyle including the traditional family living in a single family house of their own, but also forced by the expanding "International" City and the "Marginalized City". As the middle classes cannot afford their lifestyle within the city proper or close to the city boundaries, they are pushed to the edge of the suburban region. Fragmented planning of developers as well as by communities and municipalities in the suburban region ends up in an uncoordinated sprawl of the emerging Middle Class City. The more distant from the actual city, the more resulting in a city without a city as described by SIEVERTS (2003).

By looking "across" the dimensions not only these statements but also theories on the transformation of socio-spatial patterns in metropolitan regions have to be qualified. Even if segregation of social groups in European Cities is considerably low compared to US-American Cities, by an increase of social polarization in terms of income or employment, the polarization between social areas increases even if the patterns of social areas and segregation remain unchanged.

Even though employment and unemployment have become a feature of post-modern society, with regard to participation in labor in general and in terms of working hours it is remarkable that marginal part-time work seems to be a feature of the high status neighborhoods, part-time work for the middle classes and a high labor participation rate for young families with children but low educational skills. This might indicate that the lower the socio-economic status the more additional income is required for families. Not only to maintain the standard of living that has been achieved or chosen but also not to drop below the poverty line and be forced to the City of Marginalized, as it is indicated by single mothers, who are a decisive feature of the "Welfare City", as unemployment is.

Considerations that tie more diverse forms of family and household types to specific social areas, forming new specific urban neighborhoods of their own, cannot be supported by the analysis undertaken for the Vienna Metropolitan Region. Even if single parent mothers concentrate in social housing neighborhoods, they can just be found in areas of high social status and the same holds true for unmarried couples with no children. Married couples with children might be a distinctive feature between the city proper and the suburban region. Nevertheless, the analysis reveals that this traditional family model is more characteristic of the middle classes, as it cannot be attached to neighborhoods of high social status neither in the city proper nor in the suburban region, even though the children of low skilled immigrants are bound to the milieu of the Migration City.

As driving forces of changes in the socio-spatial patterns not only processes tied to the global economy, like the restructuring of the "International City" and the formation of the "Migration City" can be identified. Paradoxically it is also the welfare policy of the City of Vienna that contributes to this polarization. About one quarter of the housing market is "reserved" for those at the bottom of the social ladder and adequate and affordable housing within the city limits has become scarce for the middle classes. Their demands on quality of life and life style are met beyond the borders of the city, where they are "welcomed" by developers and supportive housing policies. Even the ambitious soft urban renwal program could maybe weaken but not avoid a polarization in the city proper and reveals the limits of planning social sustainability in a postmodern society.

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