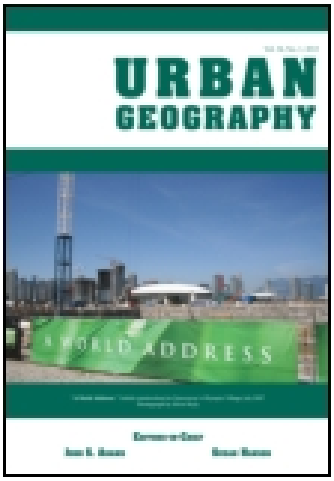

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Research in Ethnic Segregation II: Measurements, Categories and Meanings

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PROGRESS REPORT

RESEARCH IN ETHNIC SEGREGATION II: MEASUREMENTS, CATEGORIES AND MEANINGS

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The issue of spatial segregation, especially inasmuch as it involves ethnic and racial groups, has generated a tremendous amount of controversy. It has also spurred numerous studies across many social science disciplines. Geographers have long been involved in both measuring and explaining segregation. This makes sense considering that segregation is a primarily spatial phenomenon that often examines how specifically defined groups come to occupy distinct places. Non-geographers have also examined segregation, with many of them asking essentially geographic questions.

For these reasons, we feel that it is appropriate to survey the status of current research in the field of segregation. This progress report is the second of three dealing with segregation research in geography and related disciplines. We separate our overview into three broad sectors: (1) the factors that produce segregation, discussed in Kaplan and Woodhouse (2004); (2) the measurement, categorization, and meanings of segregation, outlined in this current progress report; (3) and the consequences of segregation, which will be discussed in the third and last report next year. While these themes can and do overlap, we feel this is the best way to organize the current literature.

What emerges most out of the current set of readings is the extent to which segregation is a contingent phenomenon. The meaning of segregation is dictated by the types of individuals, the political and social milieu, and the history of the region. Each country carries its own freight in regard to race, ethnicity, nationalism, and social status. All of these define how segregation is categorized, measured, and evaluated.

We attempt to accomplish a few things in structuring this progress report. Our first goal is to observe how segregation is measured. Many years ago, Duncan and Duncan (1955) derived an index of dissimilarity as a way to empirically measure segregation, rather than relying on naive conceptions. Since then, the tools of measurement have become more sophisticated and many segregation studies now report on a variety of measures. Geographic Information Systems have furthered our ability to understand segregation patterns and render possible analyses that would have been extraordinarily labor intensive just a few years ago. Our second goal is to examine how segregation can be categorized, according to the groups involved as well as the patterns and processes of

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segregation itself. Broadly speaking (and in full awareness of how these categories are constructed), groups may be defined as "racial," "ethnic," "national," or based on their socioeconomic situation. The patterns that they create, and the underlying processes that go into these patterns, may also be categorized. Our third goal has to do with understanding the meaning of segregation and how this relates to the values—both negative and positive—placed on the experience of segregation itself.

MEASURING SEGREGATION

The traditional measures of segregation have been outlined by White (1986; see also Kaplan and Holloway, 1998) and utilized by several students of segregation. These measures tend to identify segregation along several dimensions: unevenness, exposure, centralization, and concentration. The unit of analysis is most often a ward, an urban district, or a census tract, block group, or block. A recent U.S. Census Bureau report by Iceland et al. (2002) reports on the residential segregation experiences for different groups in the largest metropolitan areas utilizing these common indices and reports on changes between 1980 and 2000. Selected information from this publication finds that African Americans continue to be the most segregated population within the United States, although levels of segregation are slowly declining. Latinos show less consistency; overall they are the second most segregated group, but are more segregated where the Latino population is either high or increasing. The various Asian populations and American Indians tend to be less segregated overall.

Commonly used segregation measures can be deficient in a number of respects. One problem is that they may be insensitive to group proportions within specific neighborhoods. To that end, a team of scholars has introduced the concept of threshold analysis, where groups are profiled in regard to what percentage of the group lives in areas where they exceed a particular threshold (Forrest and Johnston, 2001; Johnston et al., 2002; Poulsen et al., 2002; Johnston and Voas, 2003; Johnston et al., 2004). A related problem is that most measurements do not account for multiple groups, an issue of increasing importance as cities throughout the world become more diversified. Maly (2000) has proposed a neighborhood diversity index that calculates the proportion of each group within a spatial unit (like a census tract) compared to the proportion of the group within the city as a whole. Highly segregated tracts exhibit high values, compared to low values for integrated tracts.

Segregation measures do not necessarily consider the spatial relationships between units, i.e., considering whether a group is concentrated in one area or dispersed among several clusters. One method of accounting for spatial relationships is by incorporating a measure of adjacency—the dissimilarity index can then be modified by the degree to which the proportions of groups interact across adjacent tracts. This measure, introduced by Morrill (1991), was more recently extended by Wong (2003), who adjusted a simple binary adjacency measure to account for the length of shared boundaries between tracts and, in a further refinement, to account for the compactness of areal units. Wong (2003) also explores dissimilarity indices that account for multiple groups. Throughout, the use of geographic information systems has been of remarkable benefit in allowing for more sophisticated measures that can take spatial distributions and multiple groups into account.

Scale also plays an important role. Segregation may be found in the housing estates of one neighborhood, between neighborhoods, or even between cities and their environs (Firman, 2004). A study of segregation in Delhi, India (Dupont, 2004) shows that while the larger districts are more or less integrated, at a finer mesh—blocks, groups of buildings, slum pockets—segregation is quite sharp. Similar results are found in Rome, where the segregation of immigrant groups is masked by the larger urban districts but is apparent at the smaller scale of the urban zone (Cristaldi, 2002). Even within relatively homogeneous Japanese cities, segregation manifests itself at finer spatial scales (Fielding, 2004).

CATEGORIZING SEGREGATION

Segregation is a single term used to encompass a range of particular instances. Common discussions of segregation may imply the separation of groups based on race or ethnicity. But segregation commonly is found between groups that are categorized by socioeconomic status, national status, gender, or any number of other items. The type of group involved will likely help to understand the scale of segregation—for example, gender segregation can occur at a very small scale, whereas ethnonational segregation is apparent at very large scales. Likewise, in studying segregation around the world, the nature of groups varies. In many parts of the world, there are clear separations based on religious affiliation. This is far different from the United States, where so-called "racial" segregation, based largely on a mixture of ancestry and skin color, prevails.

Segregation is defined in racial terms in several contexts. Within many colonial societies, rigid lines separating the native population from the colonial overseers overlaid existing divisions of cities into ethnic quarters, and thus segregation was racial in its character. The literature on American race segregation is well known and can be said to be the touchstone of most other segregation research. Current sources detailing U.S. racial segregation include Nelson et al. (2004), who discuss the importance of urban form and containment to the degree of segregation, and Darden and Kamel (2000), who demonstrate a separation between Whites and Blacks that exists independently of class. The explicit government policy of apartheid, abandoned in South Africa in the 1990s, was echoed by sociologists in the United States who spoke of an American apartheid. South Africa itself has experienced segregation declines since the end of official separation policies in 1991, with the White population standing as the most segregated group and Africans constrained in their housing choices by stubbornly high levels of poverty (Christopher, 2001). The racial divide can also influence locational patterns of new immigrant groups. Canada makes an official categorization of "visible minority" defined as nonaboriginal people "non-Caucasian in race or non-White in colour" (Bauder and Sharpe, 2002, p. 205). The use of such a terminology is problematic, as it conceals enormous variations between quite different populations and their experiences in particular cities (Bauder, 2001). At the same time, studies indicate that there are some common residential experiences among these groups, as so-called visible minorities are more segregated than non-visible minorities.

In several European countries, immigration has become a greater feature of urban life. In the case of Italy, immigrants arrive from other European Union countries, where open borders have made the free flow of peoples extraordinarily easy. These other European countries include immigrants from Southeastern Europe, and more often—African,

Asian, and Latin American countries. In Rome, this emerging ethnic tapestry is reflected in significant levels of segregation. Using a standard index of dissimilarity, Cristaldi (2002) finds that immigrants in general tend to be located within certain zones—particularly toward the center—but that different groups display different residential profiles. Many smaller groups are more segregated, whereas two relatively large groups—Peruvians and Poles—show higher segregation indices. The locational decisions vary among groups as well, as immigrants from economically developed countries often locate in the more prestigious historical core and immigrants from poorer countries are often found in low-income communities near the center. Immigration has also had an impact in Israel, where the arrival of Russian "Ashkenazi" Jews in the 1990s decreased the overall levels of segregation between the Sepahardic (Oriental) Jews and the Ashkenazi (European) Jews (Law-Yone and Kallus, 2001).

The spatial expansion of cities, new worries about security, and of course the creation of more substantial middle and upper middle classes have spurred an increase in segregation by class, income, or occupation. This is true in both the developed and less developed world. A study of Canadian cities (Ross et al., 2004) demonstrated moderate levels of segregation among poor households with significant increases in measures of evenness, concentration, and centralization between 1991 and 1996. They speculate that the segregation of affluent households may be even more extreme—a finding of Massey and Fischer (2003) in a study based on the U.S. as well as Higley's (1995) examination of affluent communities. Canada is, of course, a wealthy country, where transfer payments have helped to mitigate some of the income inequality of the labor market (Ross et al., 2004). Socioeconomic segregation in cities in the less-developed world may be exacerbated by concerns over physical well-being. A study of Jakarta, Indonesia shows how class segregation has come to rival ethnic segregation (Firman, 2004). Whereas the indigenous Javanese population was previously separated from the European and wealthier Chinese residents, middle and upper income Javanese families are now moving into gated communities. These new developments are found on Jakarta's periphery or in places of urban renewal and are marked by high-level security. Even within these communities there is clear segregation between the wealthy and the middle class.

Socioeconomic segregation has also become more apparent in societies shifting over from socialist economies and land markets. In Beijing, China, several neighborhoods have emerged within the last decades that are marked by increased affluence (Hu and Kaplan, 2001). The socialist principal of *hukou*, or household registration, continues to split the population into "urban" and "rural" segments and allows those with permanent, urban status to receive higher quality public housing (Huang, 2005). And current government policies tend to reward higher level workers with better housing. To this an increasingly robust private sector has added luxury estates affordable only to the most elite. The type of large-scale socioeconomic segregation more commonly found in the West does not necessarily exist. Instead wealthy and poor residences are mixed throughout urban and suburban areas.

In many societies, separations on the basis of national (or ethnonational) groups are revealed on a larger scale, between subnational regions. But these same groups may coexist within a city, resulting quite often in particular forms of segregation. In which case, the question is how does one scale affect the other? Evidence from Belfast, Northern Ireland indicates that the national struggles played out at the larger scale have a major impact of

intraurban location and attitudes. The classic study by Boal (1969), showing patterns of activity segregation between Protestants and Catholics, has been supplemented with more recent findings. A study by Doherty and Poole (2000) indicates fairly high segregation indices throughout the Belfast urban area, a process the authors believe perpetuates itself. The highest levels of segregation here are in the public housing and in the newly built housing estates. Research on a smaller town in Northern Ireland—Craigavon—indicated that dual housing markets existed within public and private sectors (Adair et al., 2000).

During the 1990s, struggles in Yugoslavia fractured the country and created several new states. Bosnia-Herzegovina, where much of the conflict was based, has settled into an uneasy peace and continues to divide along the lines of national identity. The situation was complicated by the fact that national groups lived together in cities. Kunovich and Hodson (2002) looked at research from before the conflict (1989 and 1990) to see the extent to which ethnic diversity at a smaller scale (that of the county) affected levels of prejudice. They found that greater intra-county diversity actually decreased prejudice and that ethnic residential segregation had no effect. The greatest indicator was that of income inequality.

IN SEARCH OF SEGREGATION TYPES

Variations in groups, contexts, experiences, and even scale can provide a means to create separate typologies of segregation. We know that segregation as experienced by someone living in an impoverished ghetto is different from the segregation of someone in a sequestered luxury community. But the problem is that any typology depends on what is emphasized. In the 1970s, Boal (1976) came up with a functional typology, examining segregation in regard to its defensive, attack, preservation, and avoidance modes. In the late 1990s, three articles were published, each examining types of segregation from different aspects.

Marcuse (1997) distinguished between segregation types in light of power relations: the *classic ghetto*, where segregation was involuntary and the residents were exploited; a newer *outcaste ghetto*, within which residents were excluded from the mainstream of urban life; an *enclave*, a spatially concentrated area within which ethnic or other groups could congregate to improve their own development; and a *citadel*, reserved for society's elite as a means to retain their positions and exclusivity.

Zelinsky and Lee (1998) examine segregation in light of the incorporation processes that create it. Traditionally, social *assimilation* of ethnic groups led eventually to spatial integration, whereas a *pluralist* model could create more persistent ethnic enclaves. Their new model, that of *heterolocalism*, posited a spatial dispersion of members of an ethnic community, but the continued maintenance of community ties. In such an instance, the flows across space and between ethnic groups become more significant than the patterns created by the residential concentration of these groups.

Finally, Dreidger (1999) examined segregation from the aspect of the metropolitan context. His work stems from the social area analysis pioneered by Shevky and others (Shevky and Williams, 1949; Shevky and Bell, 1955) and then further refined through techniques of factorial ecology (Murdie, 1969). Dreidger too uses factor analysis to characterize Canadian cities. Montreal exhibits segregation patterns based on language group and immigrant status. Toronto is marked by the segregation of "visible minority"

immigrants. Vancouver shows the divide between immigrants and non-immigrant northern European Canadians. The smaller cities in the Canadian prairies tended to follow either the Vancouver or Toronto type of segregation.

VALUES AND MEANING OF SEGREGATION

Given the existence and variations on segregation, what can one say about its meaning and the values placed on it? In many respects the two are interlinked. Segregation may be an attempt by groups, whether those of the majority or the minority, to spatially maintain a social distance. If promoted by the dominant group, very often segregation is meant, whether intended or not, to isolate a particular group hindering their ability to integrate fully within the society. In an earlier work, Peach (1996) classified these simply as a "good" segregation that is voluntary, promotes group cohesiveness, and strengthens networks and a "bad" segregation that is imposed and places the affected groups at a distinct disadvantage. Musterd (2003) examines the proposition that high levels of segregation negatively affect upward social mobility, hindering the ethnic group's participation in education, the labor market, social interaction, and the housing market. Such has been the findings of a range of American scholars examining African American segregation. On the other hand, segregation may be more a product of choice, whereby the ethnic group desires some form of concentration. Musterd's findings in the Netherlands—a society with fairly low levels of segregation overall—shows that many Turkish, Moroccan, and Surinamese immigrants do not appear to suffer too much from their moderate levels of segregation. Musterd (2003, p. 635) concludes that "the relationship between segregation and integration does not seem to be very straightforward."

Different meanings given to segregation patterns are also significant in Singapore, where an analysis of segregation indices (Sin, 2002) cautions against any general interpretation of what determines, "high," "medium," or "low" segregation. What may be considered low segregation in some instances can be quite socially significant in a densely packed island nation like Singapore. In this example, both Malays and Indians manifest isolation indices in excess of what would be expected given their share of the population. For the Malay population, this may represent a desire to maintain a particular family structure and so have the positive meaning of fostering closer ties with relatives. For Indians, it may be a desire to live with other co-ethnics as a shield against loneliness, especially among those who are more impoverished.

Hiebert and Ley (2003) caution against assigning either good or bad values. In surveying the segregation and socioeconomic experiences of several groups in Vancouver, they find that spatial separation does not necessarily correspond with social deprivation, but this is true primarily for European immigrants, who still maintain strong ethnic ties. Among the visible minorities, there may be a penalty to residential segregation—particularly in light of the fact that the most successful groups are less concentrated. Canadian policies that embrace multiculturalism, the maintenance of cultural distinctiveness, and even segregated residential patterns do not have to lead to pessimistic outcomes.

It follows from the different meanings attached to segregation experience that the very concept of segregation is suffused with values. Since most of the discussion of segregation has taken place under the shadow of White racism toward Blacks in the United States, the term is laden with negative connotations. Indeed, Sundstrom (2004, p. 69)

argues that the indices that have been developed to measure segregation are rooted in a particular set of values. They affirm "that a just and good society ought not to be segregated residentially, economically, politically, and socially!" (p. 70). According to Sundstrom (2004), studies that purport to show a decline in discrimination-induced segregation also are framed from a standpoint that seeks to ignore the pervasive structures of racism.

CONCLUSION

Taking into account the various ways of categorizing, defining, and measuring spatial segregation, how can the different cases be compared? In many respects, research from around the world continues to measure segregation in comparison to Black-White segregation in United States. While indices and other methods of analysis most often do demonstrate a lower level of segregation in other societies, this should not be taken as a yardstick of social harmony. For one thing, segregation can be considered as a positive or negative force depending on the processes behind it. And segregation measures—while possibly low when compared internationally—may carry a great deal of salience within their own context.

Part of what determines the *general* implications of segregation are its *particular* consequences. In other words, does spatial separation end up victimizing or benefiting certain groups? Does segregation aid a group's quest in preserving affective ties? How can ethnic groups make their spatial concentration into a kind of resource, or does isolation magnify preexisting disadvantages? It is through these consequences, discussed in our third and final progress report, that the meaning and value of segregation is determined.

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