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SUMMARY

- 1 Segregation is essentially a socio-spatial phenomenon.
- 2 The study of spatial segregation requires an interdisciplinary approach.
- 3 Analysis should take account of the physical, social and policy context.
- 4 Ethnic segregation is frequently bound up with social inequality.
- 5 Social/spatial mobility is key to overcoming segregation.
- 6 Design of the public realm can influence cross-cultural interaction.

Beyond the Ghetto

An interdisciplinary perspective on patterns of ethnicity in the built environment

Aims

Despite a century of research into residential settlement patterns, not enough is understood about the patterns of immigrant settlement.

This topical issue requires radical thinking, particularly as it is currently dealt with by a range of disciplines, each of which tends to rely on its own research paradigms. There is an underlying problem surrounding research into the relationship between society and space. Whilst the social sciences tend to lack an understanding of the independent contribution of the built environment to the way in which communities change over time, the spatial sciences lack an understanding of the political and cultural dynamics underpinning statistical measures of segregation. There is, therefore, a need for an interdisciplinary approach to take account of both the quantitative and qualitative aspects of cities and migration.

The aim of the UCL Cities & Migration Working Group is to challenge the orthodox view of the relation between social structures and the urban environment over time and to cross traditional research boundaries with a combination of architectural, geographical, sociological, anthropological and historical approaches to the topic of segregation.

This report summarises the discussions which took place in May 2010 at the invitation of the UCL Grand Challenge of Sustainable Cities. A gathering of 30 academics and other interested parties came together to hear presentations by scholars from the UCL Bartlett School of Planning (Dr Sonia Arbaci), UCL Geography (Dr Pablo Mateos), UCL Civil, Environmental & Geomatic

Engineering (Dr Muki Haklay) and UCL Epidemiology & Public Health (Ilaria Geddes). These were followed by responses from three invited experts: Professor Pnina Werbner (Social Anthropology, Keele), Professor Ceri Peach (Social Geography, Oxford) and Professor Ludi Simpson (Population Studies, Manchester).

The following report is a distillation by the UCL academics of the workshop discussions by the event's chair, Dr Laura Vaughan (UCL Bartlett School of Graduate Studies), and does not necessarily replicate the views of the participants.

Background



Figure 1: The Latin inscription *Umbra Sumus* (We are Shadows) on this building on the corner of Brick Lane and Fournier Street symbolises the East End as place of transition. Built as Le Neuve Eglise by the Huguenots in 1743, the building became an orthodox synagogue Machzike Hadath at the end of the 19th century, and since the early 1970s it has served as the Jamme Masjid mosque

Recent economic and political trends have brought the subject of segregation to the foreground of policy debate. In particular this is due to large population movements, which have brought about an influx of migrants to UK cities, typically settling in large clusters in urban locations. This has led to a variety of problems: housing supply and other demands on the physical infrastructure and social problems, such as areas with a large proportion of low-skilled workers or disproportionate demands on education facilities. Together, these problems are commonly associated with a lack of social integration.

There is a paradox in the perceived problem of immigrant and minority clustering. Historical analysis has shown that clustering of immigrants during the initial stages of settlement – and sometimes beyond the first generation – is part of a natural process of acculturation and integration. Segregation is a complex concept and it can be argued that not only is the ‘ghetto’ a simplistic stereotype, but it does not reflect the reality of European life today. Supposed ‘ghettos’ are frequently simply clusters, whose stigma of a lack of social cohesion stems from a notion that dispersal of residential ‘segregation’ is the only solution to the apparent problem. Indeed, historic research into minority ethnic ‘ghettos’ has shown that clustering close to the economic centre of the city can enable the

intensification of communal activity, socialisation, networking and self support¹. Even the historical ghetto of Venice has been shown to not have been as cut off from society as previously thought. High rates of cultural interchange took place between the Jewish ghetto inhabitants and Venetian society. The historical ghetto was not hermetically sealed².

David Sibley has suggested that clustering is also sometimes a benefit beyond maintenance of home culture: there may be an advantage to minority clusters “to remain hidden, out of sight of the dominant society”, since they are less likely to be rejected if the majority population is unaware of them³. Clustering is viewed in this case as a protective device for oppressed minorities. The ‘ghetto’ must be viewed as multi-layered, related to different spatialised, overlaid, coterminous types of community.

The association between segregation and self-exclusion was brought to a head in 2005 when the Chairman of the Campaign for Racial Equality, Trevor Phillips, stated that Britain was “sleepwalking” to segregation. Despite his later withdrawal of this contentious statement, its resonance has continued to sound. Ironically, this statement has spurred academics to increased productivity in researching segregation. Finney and Simpson have found through their demographic analysis that “racial self-segregation and increased racial segregation are myths for Britain” – stating that researchers need to “understand and describe the process rather than simply the current pattern of residential settlement patterns”⁴.

Academic research can now demonstrate that segregation is more complex than previously thought and that it requires the measuring of “cross-cutting variables” in relation to race and ethnicity⁵. Segregation research has also shown that in complex societies containing many and various communities, space has a different role to play than simply reflecting the society which it contains. The spatial dimensions of ‘community’ vary and overlap. Instead of the obsessive search for a complete definition of community and rather than the use of a volatile concepts such as ‘community cohesion’, it is culture itself and its means of spatial and social manifestation that need to be properly understood⁶. Any attempts to enforce cohesion on supposedly ghettoised communities is likely to do harm in that by definition it ignores the permeability of the spatial form as well as the fluidity of the social structure of immigrant groups.

Immigration needs by its very nature to be considered in a variety of dimensions. There are disciplines which do not regularly work together, but have a similar concern with understanding the social dimension of space. There is an evident need for the spatial sciences to understand the impact of legal and public policy decisions on the migration process. Similarly, the medical and epidemiological sciences have for a long time been exploring the relationship between population movements, patterns of settlement and health, but would benefit from knowledge of the spatial dimension of this problem as well as a more nuanced understanding of the geography of socio-economic exclusion⁷.

Despite numerous studies of immigration and exclusion being made today, there is a lack of good quality data to enable analysis of the effect of the design of the built environment on social outcomes such as exclusion and, in turn, the effect of social structures on patterns of use of the built environment⁸.

1 Vaughan and Penn 2006

2 Ruderman 1992

3 Sibley 1995

4 Finney and Simpson 2009

5 Peach 2006

6 Werbner 2005

7 See, for example, Panico et al 2007

8 Vaughan 2007

There is also a lack of integration across disciplines concerned with this research area. Whilst sociological studies tend to concentrate on the political and social aspects of community formation in the urban context and anthropologists are primarily interested in the patterns and trajectories of individuals and families, spatial sciences such as human geography and urban design concentrate on identifying and mapping change at the areal scale.

Whilst all these methods are valid, if the aim is to achieve a better understanding of the patterns and processes of residential settlement patterns in general, and residential segregation in particular, taken collectively, studies of this topic lack an integrated approach of methods, scales and indices⁹. Indeed, it has been suggested that a “proper resolution” of these questions requires “more elaborate research design, in which the macroscopic approach of aggregate statistical analysis [is] married with special microscopic studies designed to elucidate behavioural motivations and effects”¹⁰.

The policy agenda is now shifting away from ‘community cohesion’ and ‘multiculturalism’ towards notions of racial and economic equality. However, a lack of agreement on what these terms mean in reality, as well as a lack of understanding of the ultimate aims of such policies, continues to hamper debate. For example, if spatial segregation is bad, where is the evidence that integration – or residential mixing – is good? The notion that face-to-face contact necessarily leads to the formation of community, to the sharing of a common tradition and a common destiny, has been repeatedly discredited.

The lack of clarity regarding the relationship between immigrant settlement patterns and social outcomes in the contemporary city demonstrates the urgent need for innovative thinking in this area.

Workshop

The UCL Cities & Migration workshop, held in May 2010, aimed to answer some of these questions through discussion of the following three themes.

Theme 1 – Modelling and representation can shed light on the complexity of segregation

The integration of spatially related social data and the ability to scale up and down from the particular to the general and back again are essential parts of modelling the complexity of cities that until now have been primarily a theoretical and technical possibility rather than one applied in a real-life context.

It is important to point out that uncertainty is inherent in the conception and measurement of ethnicity and segregation, both by individuals themselves and those that seek to gather evidence of inequalities across space. Yet little research has been carried out into how a fresh look at ethnicity classifications might influence the analysis of residential segregation¹¹. Ethnicity classifications are inherently unstable: in their upward aggregation and in their downward granulation: for example, ‘South Asian’ encompasses a wide range of religions, economic situations and lifestyles. As such,



Figure 2: Names in Kreuzberg, Berlin: Clustering of surnames at building level represents the finest granularity of residential concentration
Credit: Pablo Mateos

residential segregation analysis may be highly distorted by being dependent on data that uses such classifications.

In recent years, the study of residential segregation has gained prominence in the social science literature across the world, amidst a growing interest in the impact of globalisation on the socio-spatial composition of cities. Public debate in Europe focuses on the stark spatial differentiation of socio-economic groups which has resulted from two decades of neoliberal policies.

This new thrust in policy and public debate reflects deeper societal anxieties about the implications of the geographic concentration of disadvantage for the governance of cities. Particular concerns focus on the risk of perceived segregation on urban security and social unrest, or even simple electoral trends. In western Europe and North America these debates have coincided with a supposed ‘end of multiculturalism’, with spatial separation seen to be allowing citizens to live parallel lives within the same cities and neighbourhoods¹². However, such apparent neighbourhood effects do not derive from detailed empirical analysis and frequently ignore the uncertainty inherent in their measurement.

Many scholars and media commentators have tended to produce simplified readings of ethnic segregation in contemporary cities and have been accused of “manufacturing ghettos” or creating “ghettos of the mind”¹³. In fact, standard ethnic group classifications are almost taken for granted in segregation research, where most studies focus on measuring spatial differences between ‘Blacks’, ‘Asians’, ‘Hispanics’ and ‘Whites’, following an outdated 19th century racial classification of ‘the peoples of the world’.

This is in part understandable because of the reliance of most studies upon census data. However, outside the segregation literature, many authors have argued for better definitions, labels and groupings, than these. Yet, whilst improving ethnicity classifications, there is the need to achieve a balance between validity and utility: to make groups large enough to be analysable, but not so large as to group together disparate individuals¹⁴.

Surnames are an alternative way to define ethnic groups. They have been shown to reflect ethnic origins to a considerable degree¹⁵, and have the advantage of allowing a more detailed analysis of ethnic groups. Statistical analysis reveals, for example, significant

9 Burgess, Wilson, and Lupton 2005

10 Carling 2006

11 Mateos, Singleton, and Longley 2009

12 This has been robustly refuted by Finney and Simpson 2009

13 Peach 2009; Simpson 2007

14 Aspinall 2005, 2009

15 Mateos, Singleton, and Longley 2009

differences in the level of segregation of 'Black African' groups despite deeply rooted stereotypes about their patterns of settlement. Such differences demonstrate the way in which ethnic groups are patterned in space and the number, size and type of aggregation can have profound impact on how the clustering of ethnic groups is viewed (Figure 3).

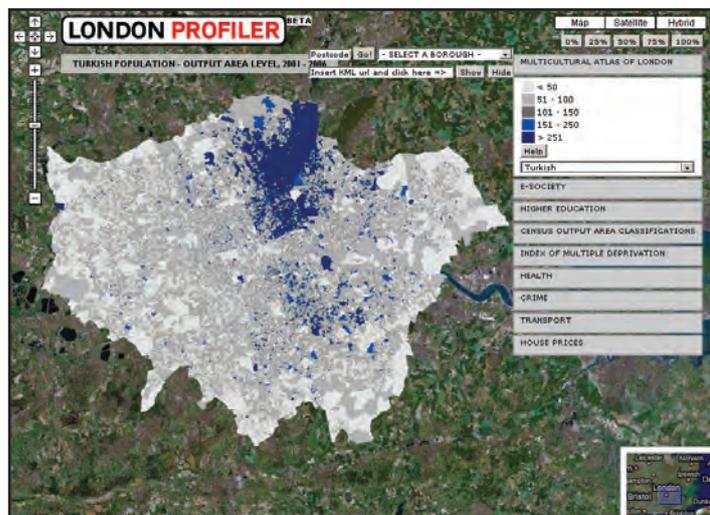


Figure 3: Turkish surnames according to the *Multicultural Atlas of London*. The map shows the large cluster of people of Turkish origin in north London, but also reveals smaller clusters in other locations to the south. Source: Google Maps, UCL London Profiler

Whilst the debate around segregation has been slowly moving away from a 'Black'/'White' distinction, the shift to a discussion of diversity continues the lack of clarity on whether a population that is diverse is actually more likely to be socially mixed, or whether people are simply 'hunkering down' into their own neighbourhoods. We need analysis that takes us a step beyond simply identifying 'Muslims' in the population census; we need, rather, one that highlights characteristics of different groups (for example, Middle Eastern Muslim people are apparently more spread out in London than are other Muslim individuals).

Theme 2 – Segregation and inequality

Cities have long provided the scene for social differences between different inhabitants (Figure 4). They are the place of wealth and poverty, where the two are often found near each other. While these inequalities might be viewed as part of the natural social operation of cities, they clearly have an important impact that has been receiving much attention in recent times: from the publication of *The Spirit Level*, to the recent *Injustice: Why social inequality persists*¹⁶. Notably both books make the point that in societies that are more unequal, ethnicity is seen to be a bigger problem.

Health and environmental inequalities in cities are inexorably linked: environmental inequalities happen in cities where environmental burdens are not equally distributed across society. It is very often the case that poor, marginalised and powerless populations will find themselves living in the vicinity of polluting factories, airports, motorways or other nuisances. In some cases the nuisances precede the development of a deprived area due to the reduction in land value and thus the attractiveness to build cheap housing in such areas, while in other cases political decisions that are tilted against weak populations lead to the

location of problematic activity in the midst of marginalised communities. Whichever the case, some immigrant groups are especially weakened in global cities due to their lack of knowledge of language, legislation, culture or human and financial capital. Because of these aspects, the distribution of migrants in cities, in particular new migrant communities, concentrates in such areas of environmental deprivation.

Evidence for this linkage is provided by a range of studies. For example, the Marmot Review analysed the current evidence base around how socio-economic inequalities affect health and proposed policy interventions aimed at reducing the health gap between lower and higher socio-economic groups¹⁷. The review showed that socio-economic inequalities and factors such as the built environment have a stark effect on the health outcomes of different population groups. So, the way migrants are spatially distributed within cities, and their consequent ability to access labour markets, transport, services and facilities, has an impact on their health. However, the health outcomes of migrants result from complex relations between the different determinants of health, the migrants' ethnic background, their eligibility to the benefits system and their economic status, as well as the quality of the built environment they occupy within cities.

In a city like London, a global centre which attracts migration across the social scale, interesting contrasts can be found. In terms of environmental inequalities, it is expected that immigrants will find themselves across the spectrum of proximity to environmental burdens and benefits. This diversity is raising many fascinating questions about migration and cities – can we distinguish groups that are susceptible to living near environmental burdens? Do socio-economic characteristics dominate the location of immigrant groups regarding environmental benefits, or is there interplay between the wishes of the immigrant group to live in certain areas and their relative tolerance towards environmental burdens?

The findings of the Marmot Review on the relationship between the built environment and health inequalities can provide a basis for

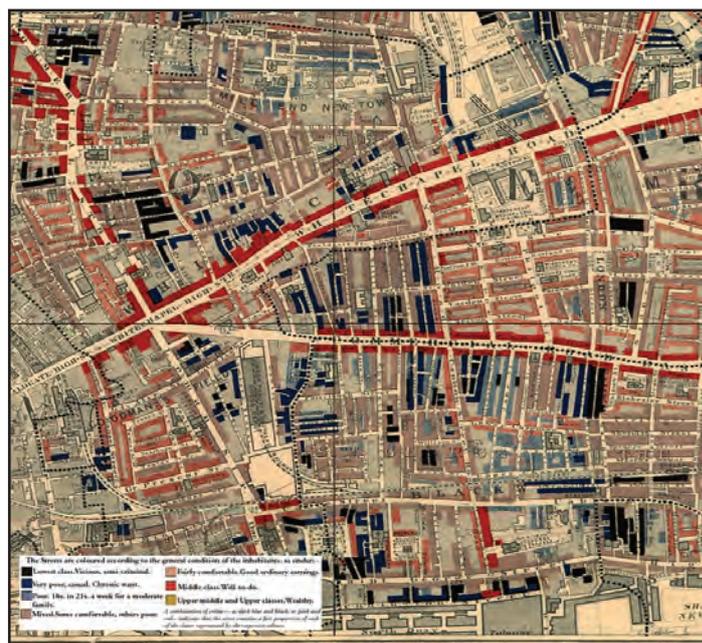


Figure 4: Charles Booth map of poverty in 1889, showing a section of the East End, with its wide variation of poverty and prosperity. Courtesy of Sabiha Ahmad; see <http://tinyurl.com/7553os>

understanding migrant health and environmental inequalities. This would highlight how different environmental burdens and benefits are experienced by migrant groups and provide a framework to evaluate interventions on the environment aimed at reducing health inequalities experienced by specific population groups. Such analysis would improve the characterisation of people who live in particularly disadvantaged positions: is this the outcome of

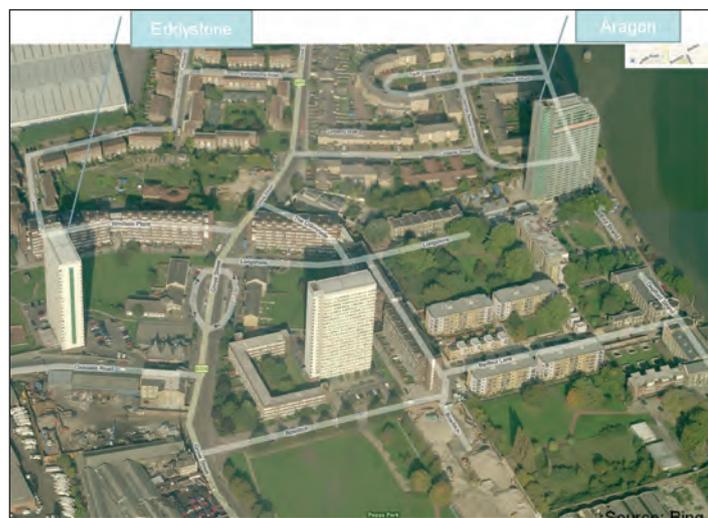


Figure 5: The Aragon Tower in the Pepys Estate, Deptford, is a riverfront tower that was part of the social housing estate from 1962 to 2006, when it was sold to Berkeley Homes and redeveloped as a luxury apartment block by Aragon. It provides a reminder of the two extremes of London's migrant communities, who are from both ends of the socio-economic spectrum, but sometimes live cheek by jowl
Source: Bing Maps

language barriers or a lack of support networks, or the reliance on weak social networks or particular welfare regimes?

Theme 3 – The role of urban form and social context in shaping settlement patterns over time

How cities change over time is influenced by large-scale social forces, which are themselves intimately connected. Unravelling these forces is an important challenge, since it can reveal how nations, cities and regions, and perhaps even neighbourhoods, can best cope with macro-societal factors that are supposedly outside of their sphere.

European multiethnic cities have always provided a quite complex and differentiated panorama on segregation. There has recently been a growing interest in explaining the diversity and nature of segregation patterns – across ethnic groups and across European cities – through comparative lenses and moving away from the dominant North American school of thoughts and references. This has proved particularly fruitful every time the ethnic segregation debate has come back to the political and urban agenda, where it is repeatedly associated with deprivation, exclusion or social unrest (eg the French suburban riots and the London bombing).

The current increase in European cities of forms of ethnic spatial segregation as well as dispersal does not automatically represent, respectively, social exclusion or social integration. Dispersal and desegregation result from a wide array of processes, ranging from upward social mobility (eg Black Caribbean and Black minorities

in London) and changes in the housing tenure (eg Turkish housing patterns in German cities), processes of exclusion driven by gentrification and urban renewal programmes in inner city areas (eg Paris, Amsterdam, Barcelona and Milan) or by the nature of the housing provision (eg Paris, UK and southern European cities). Furthermore, ethnic clustering dynamics and local survival strategies often operate differently from traditional economic theory regarding ethnic entrepreneurship. This additionally emphasizes the advantages of ethnic residential concentration for socio-economic integration as well electoral power. Such advantages need to be weighed against the widespread negative perception of spatial segregation, so often unquestioningly equated with deprivation and exclusion.

Recent research has found that the arrangements of the housing systems, degrees of income redistribution, access to citizenship and to welfare services are central factors that affect and shape patterns of segregation in particular countries¹⁸. Analysis of 16 cities across Europe has four types of welfare and housing systems: socio-democratic, corporatist, liberal and familiarist¹⁹. Each of these leads to distinctive degrees of social and spatial segregation among low-income and vulnerable groups. These types support the contention that just as ethnic differences have a distinct spatial pattern, so do class differences.

These findings challenge the assumption that social segregation is primarily driven by forces such as market dynamics and globalization. The analysis of welfare and housing system shows, in contrast, that each type of system is the outcome of a combination of tenure policies and modes of housing provision as well as local state–market relationships (Figure 6).

In the light of this fact, it seems clear that differences in the patterns of ethnic residential segregation between American and European cities and across different European cities will depend considerably on the different types of welfare arrangements and redistributive mechanisms adopted at national, regional or municipal level. Indeed, groundbreaking studies have identified direct relationships between some dimensions of welfare and segregation²⁰. More recently, the debate regarding the need for 'mixed communities' is questioning the relevance of neighbourhood effects, instead shifting the attention to social mobility as a way to overcome segregation²¹.

Several reflections can be made on this analysis. Segregation studies need to take account of planning realms and welfare regimes and

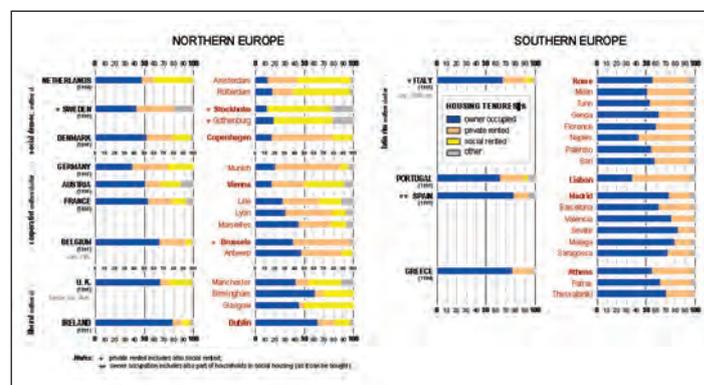


Figure 6: Proportion of housing tenure types (mid-'90s), showing how this changes according to welfare regime across Europe
Source: Arbaci, 2007

18 Burgess, Wilson, and Lupton 2005
19 Arbaci 2007

20 Domburg-De Rooij and Musterd 2002; Arbaci 2007
21 Musterd, Ostendorf, and De Vos 2003

it is clear that housing systems and land supply have an impact on the socio-spatial hierarchy of the city. In fact, in some cases, low ethnic spatial segregation and dispersal conceal a real problem of social residential marginalisation – for example, in cases where the only affordable housing for minorities is in small pockets on the outskirts of cities.

Such situations put social-ethnic exclusion below the political radar. They also, arguably, place socially disadvantaged groups in locations where they cannot overcome their economic disadvantage through engaging with economic activity at the city centre. It seems evident that not just patterns, but processes and mechanisms of differentiation tell us more about the nature of segregation, particularly in relation to the future population and urban growth in places such as London.

For example, poverty and prosperity in London have been located cheek-by-jowl for hundreds of years. These patterns persist in some places, whilst in others housing built for social renting has now been sold on the open market, so there are changes, both in the physical structure and in the social patterns. The outcome of this is that one can be living in an identical spatial context to one's neighbour, but one's ability to overcome disadvantage will vary, depending on factors such as level of education and social network connections.

Conclusions

There are three issues within the current discourse around cities and communities:

- the drive for dispersal for its own sake
- the problem with defining class and ethnicity
- the failure of the multiculturalism debate, which has led to the current drive to measure community cohesion.

These have resulted in a new perceived pathology: a lack of community cohesion. This criticism is aimed not just at the Pakistanis or Bangladeshis but also at other groups. Without any evidence to support its existence, an artificial social unit called 'community' has been created – and is now being accused of being uncohesive.

We must understand that settlement patterns are naturally fluid. Individuals are simultaneously members of two different kinds of social grouping: spatial groups, which occur "by virtue of proximity", and transpatial groupings, which "unite people independently of space" (such as members of a church or club)²². People's social group membership can also shift throughout time and space. Rather than being territorially circumscribed, social spaces contain the networks and pathways which facilitate the exchange of material things and information.

The independent networks and pathways intertwine and overlap, attaining real existence that is shaped according to the needs of the group they serve.

One group might choose to dwell in quite high concentrations, but when it comes to their economic activities they might be relatively dispersed – for example, as market traders – or concentrated enough to form specialist areas for wholesale or manufacturing. In a different example we find groups such as Filipino migrants to be

very dispersed across the UK, due to their large numbers working in social care. However, both in the UK and elsewhere in the world, they have a strong tradition of coming together periodically. They have festivals that draw together very large numbers. They have banners, they dress up and they have parades. So we have both the concentrations and the dispersals – and the concentrations can be events that occur once a year, but they are very significant. Such spatial groupings are in no sense a failure of multiculturalism.

Indeed, many migrant and ethnic communities contribute to their local communities more than any other group. What this shows is the need for politicians to recognise that immigrants today are very different from those who came to the UK 30 years ago and, indeed, before that.

There is a tendency towards an almost atavistic use of the term 'ghetto', one that is defined by the localised high density of a particular group, irrespective of what percentage of the populations is actually living in those areas. Although the quality of such analysis is slowly being improved, this has not transpired yet in studies of segregation. Part of the problem is the policy focus on pockets of apparently increasing high segregation, which overlooks the natural tendency for first generation migrants to be younger, and therefore more prolific.

Household structure is another factor that is not taken account of enough in analysing immigrant families. For example extended generation households among Muslim-Indian, Indian Sikh or Hindu families continue significantly beyond initial stages of migration. Evidently, a shift in focus – from pure measurement of residential location to analysis of the complexity of social context – is an urgent imperative if we are to get beyond simplistic black/white comparisons.

Lastly, it is clear that the spatial structure of the built environment affects the lives of people who live in it. Charles Booth wrote 100 years ago about how poverty areas tended to be literally walled off from the rest of the city by barrier-like boundaries that isolated their inhabitants from the mainstream of urban life and activities²³. He showed how site, situation, population type and institutions all determined the character of any particular area of the city. The potential impact of decisions by town planners and urban designers in affecting social outcomes has to be recognised and brought into the inequality debate: we need to consider the likelihood of spatial decisions to give rise to social change. Moreover, such decisions would do well to focus on the totality of social situation, rather than a disproportionate focus on ethnicity as a problem in its own right.

Equally, a larger-scale understanding of spatial structure is vital: the dispersal of immigrant concentrations to city outskirts can result in them being located in highly isolated parts of the city, where it is more difficult for them to become integrated into society.

An understanding of how the public realm, shaped by urban form, can create the potential for encounters and co-presence between different types of social group is essential to achieve a more nuanced understanding of cities, migration and settlement patterns, since only thus will we get beyond the simplistic assumption that clustering equates with ghettoisation.

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We have set ourselves the ambitious goal of developing wise and timely counsel to address significant intellectual, cultural, scientific, economic, environmental and medical problems. We are also intent on making that counsel compelling to policymakers and practitioners.

The Grand Challenges – of Global Health, Sustainable Cities, Intercultural Interaction and Human Wellbeing – inspire collaboration across our disciplines in order to apply our collective knowledge and expertise to major social problems.

Public-policy engagement is a key component of the Grand Challenges programme; through the new UCL Public Policy initiative we aim to respond to the pressing questions faced by government and policymakers.

Rationale

In universities, specialist knowledge tends to be generated within disciplines, through problem- and curiosity-driven scholarship by individuals and small groups.

Yet solutions to complex global problems evade the grasp of any single discipline. While individual excellence and subject expertise are essential, even more significant outcomes can result when experts from different disciplines act in concert. Greater understanding and novel insights arise when the breadth of specialist knowledge is considered collectively.

Wisdom – here defined as the judicious application of knowledge for the good of humanity – is the key to providing sustainable and equitable solutions. Wise responses to major problems emerge through synthesising and contrasting the knowledge, perspectives and methodologies of different disciplines.

Developing a culture of wisdom

UCL has 4,000 leading researchers making exciting discoveries and generating advances in specialist knowledge. Their collective expertise can be made even greater than the sum of its parts.

UCL Grand Challenges is a different way of organising research activity, bringing together varied disciplines to exploit fully our breadth of expertise. Through UCL Grand Challenges we provide opportunities for researchers to interact across and beyond their conventional disciplinary boundaries: analysing profound and complex problems from multiple perspectives in order to develop wise and timely solutions.

Our commitment to establishing a culture of wisdom therefore requires transformative action:

- respecting specialist knowledge, while dismantling the barriers to its cross-fertilisation
- supporting the synthesis of new knowledge, both within and across fields and disciplines
- engaging with external partners, in order to understand and respond to their needs
- facilitating collaborative research in order to gain fresh perspectives and, ultimately, wisdom
- formulating and advocating policy and practice based upon the wise counsel so developed.

The Grand Challenge of Sustainable Cities

By the end of the 21st century, 80% of humans will live in cities. The rapid growth will further stress the urban environment, posing complex and systemic problems in areas such as food security, energy, water, waste, transport, economics, trade, manufacturing, wealth creation and – ultimately – quality of life.

UCL is concerned with contributing to urban sustainability in spheres including, for example, ecology, aesthetics, health, economics, culture, equity and intellect. Our great strengths are the variety of prisms through which we can examine the sustainability of cities and the range of methodologies with which we can bring about change. We seek to build on existing work, to enhance and integrate it, and to maximise its impact on policy and practice. Through working together, we seek to provide wise solutions to both urgent and long-term problems.

