

EVOLVING CITIES

Exploring the relations between urban form 'resilience' and the governance of urban form

EXECUTIVE SUMMARY

This project was initiated in 2011 at LSE Cities, and this summary and accompanying report represent the outcomes of a first phase of funded research. The project is an exploration of the interplay between the designed and built qualities of urban form and urban governance over time in creating 'resilience'. Its focus is on neighbourhood-scaled pieces of major cities and urbanised regions which exemplify long-term processes of land management through ownership, planning, investment and development. It examines the role of these processes in informing the patterns and timeframes of infrastructure provision, build-out, adaptation, renewal and redevelopment that characterise how such areas evolve from their inception. The project's aims in doing so are two-fold. First, it aims to evaluate the 'resilience' of different sorts of urban form to the varied contexts of change and uncertainty which shape the evolution of the built city. Second, it aims to explore the roles of 'city builders' over the long-term in influencing the resilience which different sorts of urban form and infrastructure are able to acquire over time.

Our interest in 'resilience' emerges from the desire to understand the conditions of both urban form and its management over time that enable localities to persist in attracting and generating use and value and/or to adapt in order to remain viable and productive. In these terms, we move away from the common emphasis of resilience studies on analysing responses to the impacts of specific crisis events (for example, Vale and Campenella, 2005). We develop the idea of 'resilience building' as an on-going process developed in places in response to diverse experiences of change – from the minor, every day and incremental to the more major and sudden. We do so by analysing and comparing the development histories of eight case study neighbourhoods, each of which reflects both inherited and ongoing forms of urban planning, design, building and investment (including heritage strategies). The case studies encompass a rich array of urban forms – from the terraced urban form of Mayfair to the courtyard blocks of Berlin, and from the tall towers of Hong Kong to low-rise 'planned communities' of Orange County. They, similarly, reflect a number of international models of long term urban planning, investment, development and management – from the 'stewardship' of the Grosvenor Estate in London to the Irvine Company in California to the Urban Renewal Authority of Singapore. In different ways, these models are examples of long term 'vision-setting' and provide scope for learning about the relationship between institutional and physical adaptability in urban settings.

The project involves two principal lines of investigation. First, it develops ways of conceptualising and evaluating the resilience of urban form. An innovative set of 'measures of resilience' has been crafted in order to provide a frame for comparing uses and values associated with highly contrasting case studies. Second, it examines how the varying degrees of resilience found to typify these examples can be seen to have been shaped by actions, decisions and strategic approaches embedded in urban development and management processes over time.

Developing these measures of resilience involves endeavouring to move beyond normative understandings of sustainable and resilient urban form and engaging with the notion of resilience as a process – of resistance, adjustment and/or adaptation. We argue that the resilience of urban form can only be apprehended by conceptualising urban form in the context of wider dynamics – spatial, environmental, social and economic – and as a dynamic process in itself, rather than as static, standalone morphology. The resilience of urban form is thus understood as a continually emergent quality rather than as a fixed or fixable attribute of urban fabric. With this in mind, our measures of resilience endeavour to encompass not only ways of describing urban form, but also ways of accounting for its liveliness, and its 'constructed' value.

Resilient Urban Form

- **Physical:**
 - a) Density of population: a measure of the intensity of residential occupancy and efficient use/ management of urban land as a resource.
 - b) Density of built form: a measure of the intensity of development in relation to available ground level open space.
 - c) Evidence of the adaptability of street layouts and building types over time: a measure of the capacity of urban form to be adjusted in response to change.

- **Environmental:**
 - a) Public transport accessibility: a measure of environmental sustainability benefits associated with public transport and of scope for integration and connectivity.
 - b) Green space area and accessibility, and open land preservation: a measure of the scope for protecting biodiversity as well as for securing long term public assets (natural, cultural, social, economic).

- **Social:**
 - a) Land use diversity: a measure of the multiplicity of interests in using and being collocated within urban areas, and consequently in generating the social, economic and environmental benefits known to be associated with mixed use development.
 - b) Tenure diversity: a measure of socio-economic heterogeneity.

- **Economic:** property values in relation to the wider city, and over time.

Building on resilience, urban form and related literatures, we begin our case study analysis by suggesting the following as key indicators of urban form resilience:

- Able to sustain residential populations sufficiently high to make adequate use of available infrastructure and space and to help support a diversity of other collocated uses.
- Able to provide levels of land cover that realise density without inhibiting the economic, social and cultural potentialities of the public realm.
- Able to integrate different transport options/ needs within its streetscapes and create opportunities for a variety of street-based activities.
- Able to be used differently, to be converted, adjusted, extended or retrofitted in ways that continue to facilitate and enhance use in economically sustainable ways.
- Permeable and accessible from near and far places.
- Able to incorporate publically accessible green open space for recreation and the promotion of urban biodiversity.
- Able to concentrate diverse land uses, including social and public amenities and resources.
- Able to accommodate diverse tenure types, given the scope this provides for sharing resources and amenities across socio-economic categories.
- Reflective of property values which show relative stability over time.

The measures of resilience have been applied to the analysis of the eight case studies, using a combination of qualitative and quantitative research methods. The case studies, which are of roughly equivalent urban scale are as follows:

1. London: Mayfair and Belgravia
2. Berlin – Chamisso

3. Paris – Opéra
4. New York – Hudson Square
5. Irvine, CA – Woodbury
6. Reston, VA – Town Centre and Lake Anne
7. Singapore – Chinatown
8. Hong Kong – Island East

Each of these represents a definable spatial entity – a land-holding, particular portion of a larger land-holding, development tract and/or an administrative unit.

The broader report highlights the detailed findings of this research, which test our assumptions about resilience in the context of each case. In general, we find that the eight case studies reflect quite varying levels of resilience across different areas, and thus that assessing the relative overall resilience of different urban typologies is not a straightforward process. The different wider urban contexts in which the cases are located have clearly had a powerful bearing on their particular outcomes, creating a challenge for cross-comparative assessment. There appear to be not only levels of resilience but kinds of urban form resilience. In some cases, there also appear to be as yet unrealised potentials for acquiring greater resilience. However, we recognise that those resilience measures that from the outset appear to favour some urban typologies over others make it difficult to escape casting normative assumptions about what resilience is in the context of urban form.

The Governance of Resilient Urban Form

The second part of the project involves examining how the levels and kinds of resilience found to typify the case studies' urban forms have been shaped by actions, decisions and strategic approaches embedded in urban development and land management processes. Our hypothesis is that the forms of learning and building on experience that characterise long-term processes of development and management are key to 'building resilience'. We have explored this by investigating the following in relation to each case study:

- Relations of ownership, planning and finance in the context of the development of each case from its inception, focussing on how these were instrumental to the production and of the 'original' urban form and its ongoing durability.
- Relations of ownership, planning and finance in the context of the development of each case today. We are interested in discovering how attributes of resilience relate to governance strategies, and how long-term strategists such as Grosvenor actively seek to make urban form more economically resilient in particular.

At the end of a first phase of research, we conclude by outlining what we learnt from applying the resilience measures, and of the contribution of the different governance models reflected by the case studies to building the levels and kinds of resilience we have encountered.

Outcomes A: Resilient Urban Form

The research highlighted the following features of urban form that respond to and build on the measures and definitions of resilience outlined above. The resilience of urban form:

- Is usually dependent on location, as a favourable urban location for investment and use creates considerable advantage. Locational advantage can be enhanced by improving accessibility across a range of scales.
- Cannot be defined in terms of an 'optimal' population density applied uncritically across cultural contexts, urban locations and through time. Resilience reflects a 'sufficient' density of living and working occupants to sustain local amenities, plus to help support a mix and concentration of mobility infrastructures, uses and tenures.
- Depends on the presence of adaptable open and public as well as built up spaces.
- Appears to relate to porous street layouts incorporating loosely determined hierarchies of major (higher capacity) and minor (perhaps more intimately scaled) routes. As the capacity of streets appears to be a

potential inhibitor of development and the intensification of use over time, generosity in the scaling of streets as places for pedestrian movement as well as transport would appear to create higher levels of resilience, so long as this is created in the context of public transport and a walkable public realm.

- May be reflected in structural layouts, the relationship between structure and spatial division, floor plate sizes and depths, floor to ceiling heights, floor loading capacities, ground floor permeability and street frontages which are all contributors to adaptability. Many different building typologies emerge as inherently adaptable in contexts of demand for space, location and sometimes, more complexly, for the symbolic values that come to be associated with historical urban fabric. In addition, the adaptability of urban form may depend on capacities for partial redevelopment, and thus on the recognition of varying degrees of adaptability and value across the building typologies included in an urban area as a whole.
- Appears to correspond to the openness of (distinctive) local areas and ‘ecologies’ to access to and from the widest array of other places, both near and far.
- Depends on the creation of places, usually at the outset of development, which stand a chance of holding their economic and use values over the long-term as a result of their lasting urban, structural and/or architectural qualities. Grosvenor Square is an example of this, as is Woodbury’s ‘Commons’ (though this is less of a truly public resource).
- Is reflected in mixed and collocated land-uses – which may be structured horizontally, vertically, or both. As different land uses often reflect variably timed markets and different sorts of vulnerability, a mix of land uses is well placed to preserve both the economic viability and the vitality of places over the long term.
- Is reflected in a wide mix of tenures, in terms residential and commercial land uses, for similar reasons to the point immediately above.
- Is reflected in areas which show trends of value recovery, stability or growth which outperform their urban contexts over given time periods. However, the research suggests the need to consider further the effectiveness of price as a measure of resilience. It also suggests the need to appreciate in a more qualitative sense the dynamics which inform value resilience – the ‘brand’ of London and of Mayfair for example.

Outcomes B: The Governance of Resilient Urban Form:

Our findings suggest that the resilience of urban form is highly path-dependent, relying on its governance or management contexts over time. We argue that across the different types of relationships between land ownership, planning and financing which the eight case studies reflect, there are three aspects of governance which are particularly relevant for resilience, and which connect to the project’s larger aim of exploring the roles of ‘city builders’ over the long-term. These are as follows:

1. Long-term perspectives:

- a) Long term landowners can use the stability of their role and position to develop strategies for investing directly in urban and architectural quality and becoming able to derive benefits and returns over time. Grosvenor’s management illustrates this point in particular.
- b) The ability of planning authorities to lead long-term development and management strategies depends on the ability to sustain vision and governance principles in the context of changing leadership as well as to control areas of fragmented ownership. Our Berlin case illustrates this in particular.
- c) Long-term ‘visions’ are difficult to initiate given future uncertainties, and difficult to sustain given ongoing challenges of anticipating change. Reston’s Lake Anne development highlights this point in particular, suggesting the value of conceptualising more flexible or ‘open’ forms of long-termism.

- d) As the pay-backs for investment in infrastructure, urban design and quality may be in the relatively distant future, ‘patient capital’ emerges as key for building resilience as well as a significant challenge. Irvine’s Woodbury highlights this point, even though the urban form of the Irvine Ranch is not particularly resilient on a number of measures.

2. Urban-scaled planning:

- a) Piecemeal building-by building development has a tendency to result in profit-maximisation unless strongly regulated, whereas urban-scaled development has the capacity to realise value through optimisation – balancing areas of greater intensity and revenue generating opportunity with the provision of other types of resource for the future of urban places. Grosvenor’s Mayfair is in particular an example of piecemeal development that has been strongly regulated – both by an underlying plan and through a system of agreements.
- b) Urban scaled development and management can be important for being able to maintain a ‘dynamic stability’ of diverse land uses and tenures over time. At the same time, as the Irvine case illustrates, urban development control on the part of a long-term landowner can serve to arrest change in the built environment in ways that can be detrimental to adaptation and evolution.

3. Stewardship

We argue that the management of land requires an additional ethical orientation which can be defined in terms of ‘stewardship’. The concept of stewardship encompasses understandings of ‘sound’ management of land with appreciations of what is ‘good’ for human development long term (Lucy and Mitchell, 1996; Nelson, 2011). The following are key emerging ideas about the relationship between stewardship and our ideas about ‘building resilience’. Stewardship implies:

- a) Taking strategic decisions in the interests of the long term – conceived in physical (building quality for example), environmental, social and economic terms.
- b) Taking responsibility for maintenance and upkeep beyond initial development and first sale in order to cultivate opportunities for enhancement, adaptation and adaptability.
- c) Learning from the past – from management modes, roles and traditions developed over time - and acting for the present and future in the light of these historically informed understandings, as the management of Grosvenor’s London Estate highlights.

Most importantly, stewardship implies an attitude of ‘care’ for the future, which suggests the need for further research to engage with literatures highlighting the importance of understanding the role of conceptions of time and temporality situated within existing sustainability and resilience discourses for building resilience for the future (see Adam and Groves, 2007).

From 2014, this project is to be funded for a further stage of research and write-up. The ambition is to refine and focus this preliminary work in theoretical, empirical and applied terms.

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