# Scale, Governance, Urban Form and Landscape: Exploring the Scope for an Integrated Approach to Metropolitan Spatial Planning

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## ARTICLE

# Scale, Governance, Urban Form and Landscape: Exploring the Scope for an Integrated Approach to Metropolitan Spatial Planning

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**Abstract**

*Based on the example of Metropolitan Cork, this paper looks at strands of planning thinking as they apply to the city-region: economic and political arguments about the scale of a city; landscape arguments about identity and place; spatial arguments about urban form and environmentally grounded arguments about nature, ecology and the city. Bringing together the different theoretical contexts and disciplinary frameworks of these interrelated approaches and relating them both to the often contradictory principles of sustainable development and to the challenge of achieving appropriate systems of governance at this scale, it explores an initial argument for how holistic and mutually reinforcing approaches to the spatial resilience of a city region might re-emerge.*

## Introduction

With increasing complexity and specialization in the way that environmental and economic issues are addressed at various territorial scales (Storper, 1997; Brenner, 1999) and with distinctive shifts towards looser and more sector-based approaches to spatial planning (Haughton *et al.*, 2010; Galland, 2012;), it becomes increasingly difficult to promote genuinely holistic thinking about the future of places particularly at the regional or sub-regional scale. Significant changes have

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occurred within the decision-making environments of cities in the past 20 years which relate to the need for urban areas to foster an economic dynamism to guarantee future success within an increasingly competitive global economy. Greater international competition and the hypermobility of capital and investment have meant that the fortunes of urban areas have become increasingly dependent on inward investment and on decisions made beyond the local and national context (Harding, 1997; John & Cole, 1998).

Conventional bureaucratic styles of government focussed on welfare distribution, traditional land use planning and managerial politics have been replaced increasingly by horizontal patterns of governance, multiple sites of decision-making and an emphasis on the principle of partnership and collaboration. As a result, a proliferation of institutions has emerged at local and regional levels (Kearns & Paddison, 2000) and has introduced challenges of complexity and compatibility due to the multitude of decision-making structures, interests and the emergence of multi-level governing environments (Benz & Eberlein, 1999). The complexity of these institutional arrangements and the density of agencies and actors operating in the urban arena have also encouraged sectoralization in the way urban issues are being addressed. Whereas traditional urban and regional planning models usually attempted to integrate a variety of policy strands, increased specialization has encouraged the segregation of policy activity into discrete silos. As a result, economic, environmental, social and physical issues around urban areas tended to emerge within highly complex and often incoherent policy settings, with incongruous spatial and temporal frames and scales of operation.

In response to this complexity, Roberts (1997) re-states the need for a regional scale of planning as a way to effect the coordination and integration of sectoral activities and argues for a spatial integration of those typically fragmented policy areas. In addition, Carley (2000, p. 275) suggests that policy approaches in urban areas have also become increasingly compartmentalized and have led to a ' . . . failure to integrate physical regeneration with social and economic development; failure to link policy streams, such as industrial location, transport and training; failure to link regional, city and neighbourhood initiatives in a coherent framework'.

## 'Place-Folk-Work' and 'Sustainable Urban Form': Contradictions or Challenges?

When it comes to the spatial characteristics of actual cities and city-regions, the phenomena described above—which are largely aspatial in nature—pose very particular challenges for planning: they tend to be more concerned with economy, governance and decision-making than with the communities, places and physical ecosystems or environments within which they are situated. Whilst this is consistent with postmodern interpretations of planning as seen from the social sciences and the noticeable scepticism within contemporary literature about the role of physical planning (Allmendinger, 2001, 2009), it fails to address day-to-day questions for planning such as: what is the appropriate scale and form of a particular city in order for it to be sustainable? What shape does the natural hinterland of this city take? What are the appropriate relationships between settlements of different sizes and functions within the city region? What determines the efficiency of a transportation

infrastructure that would best meet the needs of both the business sector and a commuting workforce? How do we balance real estate interests against the need to manage open space and environmental assets in our city-region?

In many ways, these questions are among the enduring tasks of planning and echo the synthesizing concerns of pioneering writers in the field, particularly Patrick Geddes who is credited with the first attempts to address the planning of the city within its region (Hall, 2002). In developing a framework for trying to reconcile these wide-ranging planning questions with the (apparently opposite) trends towards sectoralization and specialization referred earlier, two established sets of ideas are employed here to frame our approach. These were considered to be useful in this discussion as they provide a context for allowing us to consider both the *forms* and *processes* of this particular planning challenge.

The first, which was explored in a collection of papers entitled 'Achieving sustainable urban form' (Williams *et al.*, 2000), is the idea that the physical form of a city or city-region (including shape, size, density and configuration of land uses) can affect its long term sustainability. This suggests that even though the compact city remains a dominant concept in sustainability terms, there appears to be no single ideal urban form. Instead, the sustainable city—which is generally characterized by strong settlement networks, robust environmental controls and high standards of urban management—can be a flexible concept achieved through many different forms in different places. This suggests that,

> . . . it is the job of urban managers and policy makers to decide which pathways the city should take and what the desired outcomes should be . . . making decisions about the most sustainable urban form *in any given circumstance* (italics added), and seeing it through to completion . . . (Williams *et al.*, 2000, p. 353)

This places very clear emphasis not only on physical form but also on the importance of place, character and local factors at work in different places. Also, with a growing understanding of the role of culture in urban development, concepts such 'place-values' can be taken on board (Hague, 2004). These include the character of the wider landscape which can contribute to the identity of a city or city-region (as it might be understood either locally or further afield) and which, in turn, can be significant in an investment climate where high quality environments and quality of life can offer competitive advantage.

The second set of ideas framing our approach is concerned with the way that the sustainable development discourse poses particular challenges for spatial planning and for the planning profession generally. In spite of some devaluation of its principles due to over-use and an increasing ascendency of the economic over the social and environmental in political terms (Campbell, 1996; Baker, 2006), the sustainable development paradigm remains a powerfully integrating one. This is especially the case in the planning domain where, since the time of Patrick Geddes, a long tradition of assimilating diverse epistemological and disciplinary approaches can be found. The scope for an integration of genuinely convergent ideas about the sustainability of cities and city-regions therefore may be worthy of re-examination.

The 'contradictions of sustainable development' as found in the planning sphere have been conceptualized by Campbell (1996) into what he calls 'the triangle of conflicting goals for planning'. In representing the ways that competing sustainability demands of social justice, economic growth and environmental protection give rise to different sets of inherent tensions (the so-called 'property conflict', 'development conflict' and 'resource conflict'), he provides a useful model for planners and others to analyse the current dominance of economic arguments over environmental ones or questions of equity when addressing the city-region. Given that the task of managing development and change in a city and its hinterland is concerned with timeframes that extend well beyond current economic cycles, the model also allows us to address how the tensions and balances between sustainable development goals may shift significantly (if for example, concerns about environmental effects become more dominant). The remainder of this paper then sets out a preliminary argument for how, taken together, the sustainable development challenge and the question of sustainable urban form may set up a mutually reinforcing argument for integrated spatial planning at the city-region scale.

## Different Strands of Planning Thinking

In this research, ideas about planning for the metropolitan sub-region are drawn together from some distinct perspectives. The first is concerned with the ways in which cities and their hinterlands are seen as economic spaces driven by investment decisions, political and administrative governance and drivers of growth such as demographic change, labour markets and the mobile requirements of capital. Another strand is concerned with the natural environment and the ways in which biodiversity, ecological considerations and networks of open space are expressed at this scale. This is closely related to questions about the spatial relationships—including urban form—that are found within the city-region and to questions of scale, density and physical land use arrangements The final strand of our investigation is the landscape scale of the city and its surroundings (Selman, 2006) which also has some scope for seeing the city-region as a unified whole.

### Political and Economic Approaches

In response to the changing dynamics associated with global economic restructuring and the associated fragmentation of traditional forms of urban government, cities and regions have become active in promoting regional economic development through the development of strategies aimed at enhancing competitiveness and comparative advantage. In particular, the work of Porter (1990) on clusters and agglomeration economies has been influential in encouraging cities and regions to articulate economic development policies within a clear geographical setting. Economic development policies regularly promote specialized employment clusters and accompanying institutional structures and capacities to foster competitiveness at the city and region level. This has reinforced the belief that in order to successfully compete in an international economic domain—characterized by mobility and flexibility of goods, labour, capital and knowledge—cities and

regions need to produce development strategies that are spatially and economically coherent (Jonas & Ward, 2007; Cox, 2010).

In the context of increasingly globalized, fragmented and diversified economies, traditionally-bounded municipalities are considered too small in scale to manage strategic urban challenges, while the nation–state is judged to be too large to appropriately address place-specific physical, environmental, economic and social relations. This has created new geographies of governance (MacLeod & Goodwin, 1999) whereby the city/metropolitan region emerges as a spatial unit that can integrate the various spatial and sectoral policy streams, address institutional and organizational complexity and encompass the real territorial needs associated with ecological and environmental pressures (Scott, 2001; Segbers, 2007; Harrison, 2010).

Consequently, the concept of the city/urban region has been conceptualized as an alternative governing space. According to Healey (2007, p. 7) the city/urban region has been put forward as a way to address the increased fragmentation and sectoralization of policy and which

> . . . seem[s] to promise integration of different policy sectors as they interrelate in places and affect the daily life experience of place quality . . . the urban region seems to offer a functional area within which the interactions of economic relations, environmental systems and daily life time–space patterns can be better understood than at a higher or lower level of government

For Rodriguez-Pose (2008, p. 1033), the rise of policy-making at the city region level has served to 'accelerate the shift from sectoral to territorial policies' where social, environmental and economic issues can be considered.

In addition, the city region may present a more appropriate scale in which to address the environmental and ecological challenges that emerge in the context of dispersed settlement patterns, complex commuting and the suburbanization of housing, employment and commercial activity. This governance space also provides a context in which the issue of increasingly obsolescent, yet stubbornly permanent, administrative boundaries can be overcome. In this way, the city region can in theory provide a means of addressing the mismatch between the effective functional extent of an urban area and the often incongruous historical governing arrangements deeply embedded in political and institutional norms.

Furthermore, Roberts (1997, p. 881) claims that the traditional regional scale of planning is fully compatible with contemporary concerns around sustainable development, and suggests that

> . . . much early regional planning considered economic, social and environmental matters equally, and attempted to express the relationships between these elements in the form of a territorial strategy which emphasized the needs of a particular region rather than those of sectors of production'

Thus, it is suggested that the city region provides a useful conceptual and governance space that is appropriate for integrating the various elements of the sustainable development paradigm. In this way, planning and development policies have a wide scope for representing the city region, (consisting of an urban core, connected to an expansive suburban and rural hinterland through economic and functional ties) with horizontal and vertical coordination of numerous institutional public and private actors as well as spatial integration of various social, environmental and economic concerns.

## Natural Environment Approaches and Spatial Form

These questions of scale can also be expressed in physical–spatial terms, especially when seen in the context of urban form and the natural environment. Almost 100 years ago, Patrick Geddes described his synoptic view of the city region, which encompassed both the design of the city and the conservation of the natural environment surrounding it (Geddes, 1915). Even though the terms 'urban compaction' and 'sustainable urban form' came much later (Williams *et al.*, 2000), there is a particular resonance with these early ideas about the relationship between the town and the surrounding countryside. Indeed one of the most enduring urban containment tools of the twentieth century worldwide was the metropolitan green belt (or other strategic open space devices like green 'wedges', 'fingers', 'greenways') a concept which in contemporary times has a certain resilience in terms of ecological resources, open space networks and urban settlement patterns. Though in its original, inflexible and legalistic form the green belt idea is a contested one (Amati, 2008), it can offer a physical or spatial context for examining the sustainability of a city in its region.

In this context, it is argued that the concept of considering open spaces as part of a network which is wider than the city itself remains a particularly relevant one in terms of the current sustainable development paradigm. Geddes' approach saw the city-region as the appropriate scale for survey, analysis and planning of the city and understood the importance of containing the spread of cities by considering the city in the context of its surroundings, while also recognizing the importance of conserving the 'city-in-the-region' in terms of natural resources while allowing access to these natural areas for mental and physical health (Geddes, 1915). This holistic view of cities and their surroundings also included the provision of urban open spaces within the cities, based on the survey-analysis-plan method. This approach can be seen in regional plans such as the Greater London Plan proposed by Abercrombie and in a variety of texts of influential figures in regional planning, ecological design and landscape ecology such as Mumford (1979), McHarg (1992) and Forman (2008).

In the intervening years, however, the view of open spaces and their relationship with urban areas was not always considered as a whole. The persistence of quantitative open space standards in areas of new urban development in urban areas is still evident today (Maruani & Amit-Cohen, 2007, Stahle, 2010), although there is an increasing awareness of the importance of the qualitative aspects of how open space is provided in urban areas.

However, the dichotomy between balancing open space and the density of built form in urban areas are not, it is contended, new challenges. Indeed, the pursuit of various methods to achieve a balance between open and green space and built form can be traced through late nineteenth- and twentieth-century urban planning history. While Fishman (1982, p. 192) refers to open space and density (of built form), as 'the seeming opposites of urban design', more recently, the re-emergence of a holistic approach to open space planning on a city region scale is seen in concepts and movements such as such as Green Infrastructure, and landscape ecology, as well as those such as outlined by Erikson (2006) where planning approaches are advocating connecting open space on a metropolitan level. In terms of urban eco-systems, among the more important concepts, are those of interconnectedness and size (of natural patches) rather than the quality of individual sites (Alberti, 2000). All of these ideas point towards the importance of networks and layers of interconnected environmental and cultural assets when considering the landscape scale of a city.

## Landscape: A Unifying Framework for Identity and Place

The emergence of the concept of a metropolitan landscape as discussed by Van Den Brink *et al.* (2007) encompasses both the city and surrounding open space areas instead of considering these as opposites and is therefore significant for spatial planning at this scale. In terms of concepts such as landscape quality, aesthetic values, sensitivity and change, the coherency of geographical and cultural identity of place presents further challenges. This is particularly so in relation to issues such as a lack of trans-boundary co-operation (Healey, 2007) and problems of informal blending of urban and rural development at the urban fringe (Qviström, 2012).

Support for a more holistic approach to landscape however has steadily been building momentum in the last decade, largely propelled by the establishment of the European Landscape Convention (Council of Europe, 2000), with recognition of the importance of all areas, whether they be outstanding, ordinary or even degraded. For planning, which in the recent past has tended to focus on preserving areas of beauty or high aesthetic quality, this provides scope for broadening out a landscape argument for the city-region. This includes interconnectivity between landscape elements and the particular reciprocal relationship between culture and nature (Aalen, 2011). For questions of identity and the importance of place among communities this approach draws on layers of meaning such as 'physical and cultural memories' (O'Sullivan, 2009, p. 406). For Crowley (2006, p. 131), the landscape is 'an archive that reflects the collective memory of people and nature, past and present', and how 'uncovering its secrets allows us to interpret history and to decide upon the best means of interacting with the land for the benefit of future generations'. It is these layers and the relationships they embody that define landscape interpretations today, with the added context of sustainable development—heightening the significance of landscape considerations in contemporary place-making. Planning at this landscape scale may involve 'the redrawing of political and economic boundaries on the basis of bioregionally oriented relationships' (Selman, 2006, p. 102). Whilst in instrumental terms, the European Landscape Convention is not as powerful a planning device as the

directives on habitats and strategic environmental assessment (Ray, 2013), its broad, integrated and collaborative principles offer another important layer for metropolitan scale planning. Furthermore, this formulation of ideas about landscape undoubtedly resonates with the importance—in spatial planning terms—of responding to 'place identity' in regional planning (Hague, 2004).

## Metropolitan Cork: Complementary Approaches to a City and its Hinterland

In this preliminary presentation of our ideas, we begin to draw out some pointers for how these different strands of planning thinking might play out in a typical mid-sized European city-region. Cork is a useful study for a number of reasons. With a very tightly drawn city council boundary (with limited scope for expansion), spatial planning initiatives have had to rely on a co-operative approach from adjoining planning authorities. This has meant that many planning approaches (such as the establishment of the metropolitan green belt) have been voluntary ones rather than centrally imposed ones and, as a result, objective arguments may be made that go beyond simple critiques of government policy or central/local relationships. It is also timely in that the Irish government has begun a period of reflection about what the appropriate scale of city government for Cork might be.

With a metropolitan population of nearly 290,000 people, Cork is the second largest urban area in the Republic of Ireland. The city region contains an attractive and vibrant compact urban settlement, sitting near the mouth of a large natural harbour, surrounded by a planned network of satellite towns and employment hubs, all within a high quality landscape and coastal setting (Figure 1). There is a diverse and dynamic economy in the area with a strong presence of global pharmaceutical, technological and service-based industries, a strong network of third level research and education institutes, as well as a robust traditional employment base in agriculture, fishing and food production/processing. The city and wider region has performed strongly in economic terms over the past 20 years at both national and European levels, consistently achieving above average in GVA, productivity and employment (ESPON, 2012).

Cork has a strong pedigree in sub-regional and metropolitan planning that is quite uncommon in an Irish context, where a centralized state structure as well as a territorially constrained system of local government tends to dissuade spatially integrated planning activities across fixed administrative boundaries. Despite these constraints, the urban region [comprising a legally defined city with a population of 119,230, a metropolitan area of 289,522 persons and a wider city region of 408,157 persons (Central Statistics Office, 2011)] has been subject to a fairly continuous non-statutory planning programme since the late 1960s. The origins of strategic thinking around metropolitan issues in Cork can in fact be traced to the 1941 Advisory Plan prepared by Manning Roberston, which established an agenda for planning at this scale for the following 70 years.

*A Long Pedigree of Economic and Environmental Thinking About the City-Region*

The first Land-Use and Transportation Study, LUTS1, was published in 1978 (Skidmore Owings Merrill, 1978) and updated as LUTS2 in 1992 (Skidmore
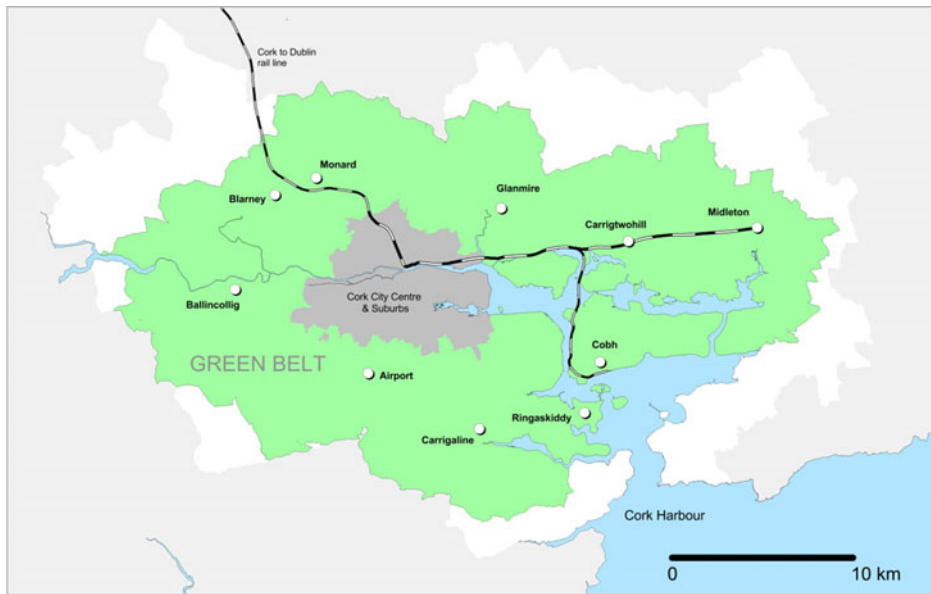
FigUre 1. Diagrammatic representation of current metropolitan planning ideas in the Cork area. It shows the contained growth of the city and suburbs surrounded by a necklace of satellite towns (e.g. Carrigaline and Ballincollig), some strategic employment locations (e.g. Ringaskiddy), planned growth along the re-opened rail line (Carrigtwohill, Midleton and the proposed new town at Monard) all defined by a strong green belt. *Source:* CASP proposals (Atkins, 2001).

Owings Merrill, 1992). This was subsequently replaced in 2001 by the Cork Area Strategic Plan, CASP1, (Atkins, 2001) and its update (CASP2) in 2008 (Indecon International, 2008). The LUTS strategy in 1978 identified a study area, corresponding to a defined metropolitan district that has been retained and re-defined as a contemporary spatial planning and statistical unit known as the Cork Metropolitan Area. The LUTS and CASP strategies proposed integrated planning and development strategies based on targeted public investment towards infrastructure-led development, economic specialization and diversification, a controlled settlement pattern based on a compact city and satellite centre network, and environmental and conservation strategies aimed at protecting and enhancing the city region's physical and natural assets. This produced a continuous 35-year strategic planning framework and is especially notable because of its inter-institutional and collaborative approach in providing a jointly agreed framework for future development between two separate local authorities (Brady & O'Neill, 2013; Counsell *et al.*, 2014). However, it is equally significant for the ways in which it attempted to integrate economic, environmental and physical planning concerns in a spatially coherent way.

This was quite a fundamental departure from previous sector-based plans prepared within established local authority boundaries which tended to generally address individual themes such as traffic and transport, ecology and environment, economy and employment, land use zoning, conservation and heritage social and

community, without any meaningful integration or vertical and horizontal coordination. There is clear scope then for the environmental and economic disadvantages of uncontrolled urban sprawl (Williams *et al.*, 2000) to be minimized in coherent strategies such as these. In strategic planning terms, an argument can be made that these different sectors (which would otherwise have been subject to the tendency for separation and specialization described earlier in this paper) can have a reasonably clear, integrated and geographical manifestation at the city-region scale (Figure 2). It is interesting to explore the extent to which the resulting integrated network of city and suburbs, satellite towns and strategic employment locations, all enveloped in a high quality green belt setting and improving transportation connectivity can allow the city to perform at a more competitive metropolitan scale (O'Sullivan & Ray, 2012). It also has relevance for ongoing discussions about reform of local government boundaries in the area.

### Urban Containment, Landscape and Open Space

In the greater Cork area, the green belt has been a strong urban containment tool for planning. Its effectiveness (or otherwise) should be seen in the light of the fact that, unlike in Britain for example where green belt policy is determined by statute, it is a policy that has been determined by successive locally agreed development plans for more than two decades.



FIGURE 2. Map showing variation of population density in the sub-region of Cork city and its hinterland. Based on the small area census areas from the 2011 national census, the map shows how growth and development is focused at discrete locations in a polycentric metropolitan pattern rather than a sprawling one. This appears to show how the spatial configuration of development envisaged in the LUTS and CASP strategies are reflected in real growth patterns.
*Source:* Central Statistics Office (2011).

The most sensitive green belt land in the area (strategic undeveloped gaps preventing built up areas merging or the prominent ridges and valley sides that give the city its distinctive landscape setting) remains largely intact. When analysed along with planned open space policies in both the city and the county area that deal with parks, recreation areas, ecological sites and other areas to remain free from built development (see Figure 3), a strong framework for promoting networks of urban diversity, habitats and high landscape quality begins to emerge at this same metropolitan scale. When areas of landscape character (based on an analysis of land form, land cover and aspects of landscape values) are identified on a 'whole landscape' basis (see Figure 4), following the principles of the European Landscape Convention, the case for examining all of these strands together at the sub-regional scale becomes more compelling.

## Conclusion

The purpose of this paper was to consider the possibilities for combining those sustainable-city approaches concerned with physical form, scale and place with the integrative styles of the sustainable development paradigm within a broader framework that draws upon the holistic Geddesian tradition of planning for sub-regional and metropolitan spaces. It is suggested that despite significant structural, political and economic obstacles, as well as evidence of some discordant spatial and economic development patterns in the Cork case, a relatively coherent and
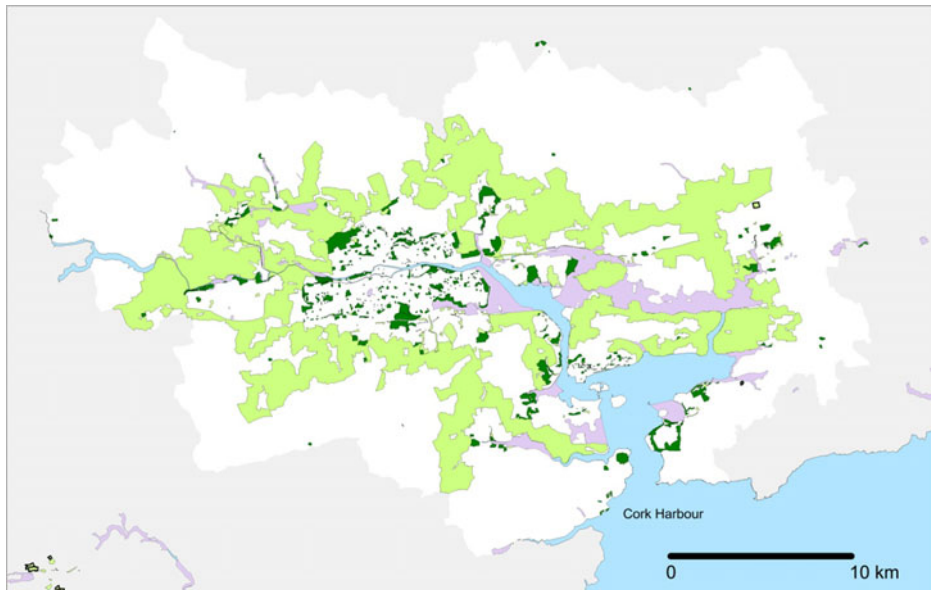


FIGURE 3. Map showing the combined natural environment and open space planning policies (including high quality green belt) that apply in the city council and county council areas surrounding the city. *Sources:* Cork City Development Plan (2009), Cork County Development Plan (2009).
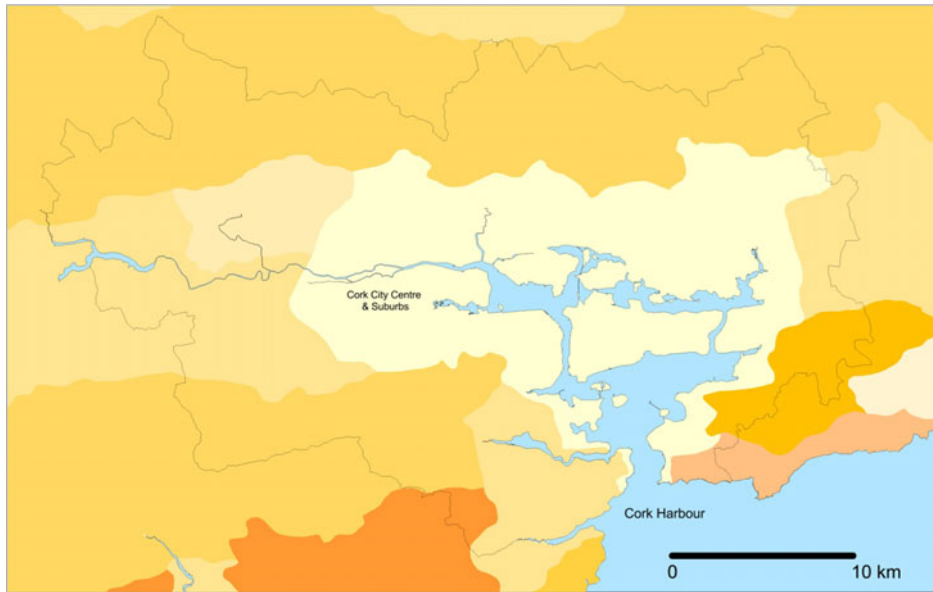
FIGURE 4. Map showing the variations of landscape character to be found in the around Cork city and its hinterland. This shows how landscape arguments can complement other integrated metropolitan approaches to spatial planning. *Source:* Cork County Development Plan (2009).

consistent approach to strategic spatial planning at the sub-regional and metropolitan scale has persisted within the city region. Although it is not suggested that this is necessarily the manifestation of an explicit *programme* that deliberately espoused the combination of different disciplinary traditions, it can be interpreted as a continuous, tacit *project* consisting of a set of overlapping and coordinated initiatives. This overlapping set of spatially-comparable initiatives and policies reveals a governance space with a particular shape, scale and character (see Figure 5).

The paper is a contribution to discussions about the holistic nature of planning at the city-region level. It has used the spatial planning narrative of a relatively
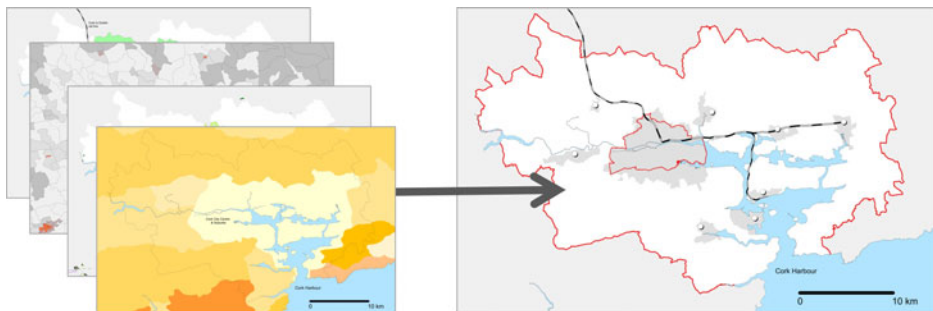


FIGURE 5. Schematic showing how a holistic approach to the city and its hinterland can bring about genuinely convergent ideas about spatial planning that address the challenges of sustainability and urban competitiveness in a resilient way.

compact city-region in Ireland to explore, in a preliminary way, the case for a return to broader and more synthesized place-focused approaches to questions of sustainable cities. Campbell's idealized concept of three sets of interrelated tensions in sustainable development presents planning and planners with on-going challenges to seek the 'elusive centre of the triangle' (Campbell, 1996, p. 301) especially in the face of powerful forces for change (such as the current dominance of investment, mobility and competitiveness issues). This has particular resonance for city regions, especially at the present time where, as explained in this paper, issues of governance, economic growth and institutional change are often presented in highly complex, non-spatial and often incoherent policy settings, each with different scales, political imperatives and time horizons.

Whilst the planning story of Metropolitan Cork underscores the centrality of the property, development and resource conflicts highlighted by Campbell's model, we have also begun to find a surprising *convergence* of influences especially in the way that economic issues, environmental quality of life, local government structures and landscape can be mutually reinforcing drivers in terms of urban form, spatial development patterns and about how sustainable development priorities can be articulated in coherent ways. The longevity and relevance of Cork's on-going sub-regional and metropolitan case study can certainly be explained—in part—by the manner in which diverse planning strands have been combined and layered to articulate a strong physical and representational space in which the planning and governance of the city region has managed to prevail. This provides an interesting context within which metropolitan areas can be governed and planned in more assimilative ways, and begins to hint—tentatively perhaps—that more formalized approaches for bringing forward sustainable development principles at the scale of the city region might be considered.

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