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**Title: Urban Form as a Reflection of Governance Practices**

Category: Resilient Societies

**Abstract**

The United Nations *State of the World Population 2007* argues there is an increasing need and desire to improve the governance and form of cities because of their direct influence on living standards and global sustainability (Martine, 2007). While the UN report identifies some direct relationships between governance and the physical form of cities, little work has been done directly examining the cause and effect relationship between these two areas. As the fields of urban governance and urban design have a common interest in improving the way cities are developed and managed, it is important to articulate the relationships between the two fields of research. Through a critical review of related literature, this paper identifies parallels between urban governance and urban form. These preliminary findings offer insight into how different governance approaches may affect urban environments.

**Introduction**

It has been suggested that cities are the physical manifestations of the collective actions, values, and institutions of its residents (Anderson, 1978; Lynch & Rodwin, 1958; Ramirez-Lovering, 2008). Our daily activities and interactions, therefore, shape urban form in a variety of ways causing cultural beliefs and practices to become embedded in the organization of the city (Anderson, 1978). How cities are governed, both through formal bureaucratic processes and through informal interaction, then make a significant impact on the shape, liveability and sustainability of cities.

An illustration of this relationship can be seen in the example of the American air base in Misawa, Japan (see Figure 1). As militaries express their unique cultures and practices consistently across their installations, due to their management structures and codified practices (Gillem, 2007), they provide a useful contrast to the governance and form of neighboring civilian environments.



Figure 1. Misawa American Air Base, Misawa City, Japan (source: Google Earth, accessed June 6, 2010)

Figure 1 shows the contrast of different governance approaches reflected in the urban form. The edge of the base is emphasized by the change in land use, density, road patterns, and building form. On either side of the border different cultural values, social systems, government policy, building practices, and daily activities have influenced the built environment. Each governance style is directed by its own values system, communication structure, system for stakeholder involvement, and tools for managing planning and growth. This difference results in extremely different urban forms and patterns.

Such variation of contrasting urban form and governance practices can also be seen in many developing nations where slums are erected on the edges of established cities (Martine, 2007). With over half the world's population now residing in cities (Martine, 2007), an understanding of how governance can support and enhance the physical environment may inform the design and evolution of local governance systems. Applying such knowledge may enable communities to recognize the benefits of adopting certain urban forms and governance practices that contribute to healthier, more productive, and more liveable urban environments.

The United Nations, through its United Nations Population Fund, UN-HABITAT, and the Global Campaign on Urban Governance, has argued for an increasing need and desire to improve the governance and form of cities (Engelman, 2009; UN-HABITAT, 2002). They, and other independent research, identify cities as the best opportunity for advancing sustainability practices, liveability, and urban health (Burris, Hancock, Lin, & Herzog, 2007; Martine, 2007; Priemus, 2004). However, while it is well recognized that certain urban forms (i.e. compact development and mixed use) reduce resource consumption and the environmental impacts of residents (Kelbaugh, 1997), the role governance plays in shaping the urban form is less clear. If urban form is directly influenced by governance systems, perhaps these systems can be designed and influenced to support preferred outcomes.

This paper will review the different approaches that have been used to analyze urban form and governance to identify areas of convergence between these two fields of study. The first

section will define and discuss urban form and the second will address urban governance. The concluding portion will summarize the findings and outline areas for future research.

### **Definition and analysis methods of urban form**

Urban form refers to the organization and distribution of three dimensional buildings and spaces within the city (Lynch & Rodwin, 1958; Marshall, 1998). For comparison, Stephen Marshall defines urban structure as the movement network and urban fabric as our cognitive image of urban environments (1998). In doing so, he differentiates urban form from social activities and interaction that are responses to urban form. Kevin Lynch and Lloyd Rodwin also argue related activities should be considered separately, but acknowledge that urban form is a result of collective social action, primarily expressed at a scale between the region and the neighborhood (Lynch & Rodwin, 1958).

In urban design literature, much of the work focuses on understanding how society interacts with existing urban form or patterns, or how form influences certain behaviors. Although the relationship between design, social behavior, and sense of place has been well articulated by the works of these authors and others, the connection to policy and civil society has not.

Writers such as Lewis Mumford, AEJ Morris and Spiro Kostof, have discussed the underlying historical causes of how cities developed and identified some of the cultural roots that continue to help shape cities today. However, while they note the origins of different urban patterns, their work largely focuses on understanding how these were a result of individual decisions and specific influences. These authors do not push further to investigate the systemic influences of society that contributed to the generation of these forms.

The work of Ebenezer Howard, Le Corbusier, and Andres Duany are examples which focus on urban form and community. Their work could be described as being primarily interested socio-cultural interaction as it is influenced, or shaped, by the built environment. While their ideas are articulated at the city scale and refer to a link between governance structure and built form, proponents of such approaches have not articulated the connection, nor investigated potential relationships. Jan Gehl, Allan Jacobs, William Whyte, and others have taken a comparable approach, examining the social and behavioral effects of urban form. However, while their research is useful for understanding and creating form at the intimate scale of the street, it does not address the scale of the city and the underlying cultural and political processes that helped shape those spaces.

Jane Jacobs went a step further in her book *The Death and Life of Great American Cities* (1961). Through her observations of how urban spaces are used, and their effect on urban vitality, she links urban design and social behavior at a range of scales. Her conclusions begin to illuminate the interaction between governance, policy, and urban form; however, her analysis of urban development hinged mainly on form, rather than comparing the various policy-based tools that were employed in creating urban spaces. Later work by Kevin Lynch, on how we perceive urban form, complements Jacobs' work by articulating how cities affect our socio-cultural systems and identifying design approaches that may be more desirable for enabling positive social practices. However, he too focuses mainly on form as it relates to social activity, rather than the social tools and processes involved in its creation.

To understand urban form, Lynch and Rodwin suggest identifying basic units and types including their quantity, density, grain, focal organization, and generalized distribution, in order to relate urban patterns to specific social goals (1958). In their analysis of the

relationship between goals (i.e. providing sufficient open space or promoting pedestrian priority) and urban form, they conclude that it is possible to determine some patterns relating to specific goals; however, the complexity of multiple goals makes it difficult to identify clear relationships in real-world case studies. While others have gone on to look at urban patterns and typologies, few have continued to look at this connection with societal goals and build upon Lynch and Rodwin's approach.

More recently, a few designers have begun to explore this connection between the mechanisms we use to shape cities and the social processes and behaviors that influence them. In his book *America Town*, Mark Gillem (2007) employs a review of military policy in combination with interviews and surveys of base planners to explore the social, economic, and environmental effects overseas American military bases have on their host countries and American military personnel. His work articulates the relationship between base management, daily activities and the resulting urban form. As he is dealing with a very rigid hierarchical governance model, his methods would have to be expanded upon and formalized to generate rigorous case studies of non-military communities.

Another urban researcher, Diego Ramirez-Lovering, conducted a field school for Royal Melbourne Institute of Technology (RMIT) where the class looked at 'opportunistic urbanism' in Mexico (2008). Their work analyzed the processes involved in shaping urban form of several Mexican cities, linking formal and informal governance styles to distinct urban forms (Ramirez-Lovering, 2008). The authors described the urban form in terms of the organization and arrangement of three dimensional form combined with the activities within; reinforcing the idea that the physical urban form cannot be fully understood without articulating the processes involved in shaping it.

The work of these authors suggests a relationship between urban form and urban governance exists and, through exploring it, we may find a new way of looking at urbanism.

### **Definition and methods of understanding governance**

Governance is defined as: a set of formal and informal organizations, processes, and institutions used by society to manage events and interaction within a social system (Burriss et al., 2007; Pierre, 1999; UN-HABITAT, 2002). In this context, 'institutions' are the values, norms and practices that shape behavior and interactions between actors or organizations (DiGaetano & Strom, 2003; Pierre, 1999). As a subset of a larger social system, governance could be described as an adaptive system for coordination and addressing change that is directed by an (often implicitly) agreed upon set of values and practices.

Therefore, urban governance is the social system that manages and regulates the common affairs of the city. This system responds and adapts to: increasing socio-cultural complexity, multi-level and multi-sectoral interactions, conflicting interests, social change, and the blending of resources, skills and purposes to achieve collective goals (Kearns & Paddison, 2000; Pierre, 2005). As urban form is of common interest, either directly or indirectly, the urban governance system influences it in pursuit of common goals through the organization and distribution of the urban form and associated activities. Different governance systems will have different approaches to addressing issues and these may result in identifiable physical patterns.

Different classification methods have been used to compare governance models, usually only using one criterion for comparison (DiGaetano & Strom, 2003; Pierre, 2005); however, this

paper draws together four criteria from the literature that address different aspects of governance systems:

- Cultural origins / agency – The original value system and current priorities, goals, and principles.
- Structure – The organization of social, economic, and political processes.
- Functional types – The basic patterns of interaction and operation.
- Modifying variables – Those aspects that influence the other three criteria and their expression in the urban form.

Each of these addresses a different aspect of urban governance and its physical expression.

‘Cultural origins’ refers to the founding institutions and established traditions that give character to governance systems (DiGaetano, 2006; Di Gaetano & Strom, 2003; Pierre, 1999). ‘Agency’ is the values, principles, goals, and priorities that continue to guide decision-making (Ashton, 2007). Collectively they form a “social memory” that informs the creation of solutions to present issues, based on past experiences (DiGaetano & Strom, 2003), including issues related to the physical form of cities. Additionally, these value systems are the “basis of legitimacy” of governance systems – the foundational value system upon which the local culture functions and decisions are made (DiGaetano & Strom, 2003; Pierre, 1999). For these reasons, the cultural origins and agency remain deeply rooted in urban governance, change very slowly, and persist in influencing urban form.

DiGaetano and Strom, in their comparison of UK and US governance, identify social responsibility and economic development as the two main agency drivers since the Industrial Revolution (2003). Further work by DiGaetano, however, builds on this, suggesting other principles and priorities influence their expression at a more local level (2006). Principles affect the modes of governance; such as: openness and transparency, participation, security, sustainability, equity, efficiency, and cooperation (Ashton, 2007; Martine, 2007). Priorities are the goals of governance systems and may include (UN-HABITAT, 2002):

- Welfare approach – provision of sufficient resources to participate in society
- Human Development approach – build ability and willingness of groups and individuals to participate in society
- Environmental approach – careful management to protect future generations
- Institutional approach – establishing formal and informal frameworks for inclusion of, and interactions between, actors and institutions
- Rights-based approach – underlies all the other approaches – ensures equity in terms of civil, cultural, economic, political, and social rights

In his research, Gillem identified a link between cultural priorities, principles and the resulting urban form (2007). Some of these patterns persisted in redeveloped areas, despite cultural change. In the Misawa example above, Gillem identified a desire of both base residents and neighboring Misawa residents to reflect the neighboring culture in the built form. However, planners, and developers on both sides have been slow to adopt any changes, preferring to stick to proven forms from their respective cultures (Gillem, 2007). This suggests cultural origins and agency play a significant, and slowly changing, role in shaping urban environments.

The second aspect of local governance, structure, is the degree and strength of the system's economic, social, and political organization (DiGaetano & Strom, 2003; Engelman, 2009; Pierre, 1999). Similar to Marshall's definition of urban structure, this concept refers to the connectivity of a network, but rather than physical movement, it addresses interaction and cooperation between network elements. The organization of the governance system, in regards to the economic, social, and political organization, offers insight into the system's complexity and the types of connections and processes at work (DiGaetano & Strom, 2003); including whether they are complimentary or contradictory.

The following classes of organizational structure are derived from the United Nations' *State of the World Population 2009* report (Engelman, 2009):

- Fragmented – different organizations acting independently (or mostly independently) with separate responsibilities and/or territories
- Mixed – independent organizations working collaboratively with some regional organization of some services
  - Relies in the ability of higher levels of government to organize and build consensus
  - Processes and institutions are often developed to facilitate delivery of shared services
  - Most common of the four classes
- Centralized – urban functions and governance are organized by a central government and specific agencies
  - These systems often have strong state-centered traditions (DiGaetano & Strom, 2003)
- Comprehensive – local authorities have nearly complete control of all aspects of local services and development.

In understanding the structure of decision-making and cooperation, one may be able to observe the physical scales in which the governance system will be most strongly articulated. For example, in Misawa, Gillem identified the air base as falling under a centralized organization and the neighboring Misawa city as a mixed organizational structure with national, regional, and local levels of involvement (Gillem, 2007). In the built form, this is evident by coarse land use zoning on the base separating housing, commercial, administrative, and industrial-type forms, while Misawa city is more mixed in its land uses and building types.

The third facet of governance is functional types. These are basic models of how the urban governance system operates, identifying characteristic methods of interaction between formal and informal organizations (DiGaetano & Strom, 2003; Pierre, 1999). Each is different regarding stakeholder engagement, objectives, organization, processes and outcomes (Pierre, 1999). These models are drawn from comparative studies of local urban governance, which found they are often hybridized as cities and local bodies shift between them over time (DiGaetano & Strom, 2003; Pierre, 1999):

- Clientelistic / progrowth – characterized by political favoritism towards interests or clients
- Corporatist – a collaborative approach between governmental and civic leaders; very inclusive with delegation of authority to special interest organizations

- Managerial – Formal, bureaucratic, or contractual; top-down approach; focus on effectiveness and efficiency
- Pluralist – government serves as a power-broker for private interests; decision-making through negotiation; power centers on key actors
- Populist – grassroots mobilization influences policy; inclusive, but power rests with community engagement organizers
- Welfare – passive state policy style combined with stagnant local economy; economically and politically reliant on central government

As these rarely exist in a 'pure' form in the real world (DiGaetano & Strom, 2003), their expression in urban form is likely best understood through analysis of individual, large-scale urban projects that predominantly use one of the approaches above. This approach may expose the types of urban development associated with each model.

Again, using the Misawa air base as an example, the base likely employs a managerial model as it is governed and populated by a military hierarchy. The edge of the base, however, would likely be subject to more of a corporatist approach, with civic and community leaders from Misawa city and the air base working collaboratively to address conflicting uses and expectations (Gillem, 2007). These different approaches would affect the rate of change in the urban form and the types of solutions that are implemented in the urban form.

The fourth facet, modifying variables, influences the functioning of the governance system without changing the structure, drivers, connections or processes of the system. These are drawn from case studies that illustrate their effects on governance systems and impact on the other facets described above. The key modifying variables are political actors, size of the public domain, modes of economic and social production, and formal / informal structures of cooperation.

- Political actors are either agents or resisters of institutional change (strong versus weak leadership) (DiGaetano & Strom, 2003). They can affect the expression of value systems by emphasizing some more than others and their interaction with other actors and organizations may modify the governance structure and functional types.
- Size of the public domain affects scale of governance system and possible physical outcomes (Gillem, 2007; Pierre, 2005). The number of actors in the systems, the scale of the urban fabric, the scale of the economic, social, and political contexts all affect what is possible.
- Modes of economic and social production, whether they are declining, stagnant, or growing, illustrate the relative health of the governance system (Pierre, 1999, 2005). These provide the resources necessary for urban development and redevelopment, thus affecting the rate of change of the urban form.
- Formal versus informal structures of cooperation influence the expression of structure and functional types. Informal structures are more flexible, while formal structures are often more inclusive (Ramirez-Lovering, 2008).

These four variables of governance provide a means of comparing different systems and articulating the role they play in urban development. In understanding and being able to

articulate this relationship, it may be possible to derive a classification method and typology to evaluate approaches to urban issues.

### **Conclusion**

In reviewing the literature on both topics, this paper highlights the influence urban governance has on the physical form and development of cities. These relationships offer insight into how different governance approaches may impact the physical urban form through the institutions, processes and organizations that control the day-to-day planning and design decisions.

In reviewing the literature on urban form, it appears most research and analysis approaches are largely concerned with the societal response to form. A few researchers, however, are beginning to look at the systemic influence society has on the creation and evolution of urban form. To expand upon their approaches, four criteria (Cultural Origin and Agency, Structure, Functional Types, and Modifying Variables) are presented that articulate different aspects of urban governance. These are drawn from comparative case studies of local governance and are discussed in relation to their potential influence on urban form. Further research will be required to test the appropriateness of these criteria and whether they consistently influence city development in specific ways.

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