

## THE CODING TURN IN URBAN AND REGIONAL PLANNING: THE ROLE OF PLANNING INSTITUTIONS

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Keywords (maximum 3): Planning Codes, Complexity, planning and democracy

### Abstract

The paper deals with the growing tendency to articulate planning policies in principles and codes discussed in recent planning theory and reflected in planning practices. While this tool arouses interest and enthusiasm, very little attention is given to the way it affects planning thought and impacts – or should impact – the act of planning and the institutions involved. After discussing historical decision-making frameworks that applied planning codes, the paper turns to the decision-making frameworks designed to operate comprehensive land-use plans in regulatory planning systems, and to the problematics of zoning and outline plans as a regulatory device. It then discusses the meaning of the transition to planning codes and elaborates on the conditions to turn it into the dawn of a new, liberal and democratic planning framework for planning legislation.

### 1. Introduction: the long history of planning codes

Throughout the history of mankind, the development of the built environment was subjected to abstract principles and codes deduced from religious, cultural and political conducts. Alongside the construction of mega-sites by rulers and religious leaders, the development of cities and settlements was the mutual product of groups and individuals operating for their best interest subjected to social and environmental stipulations. For most of the time people shared and obeyed unwritten principles regarding the characteristics of built elements and the relations between them. Occasionally, codes and rules were explicitly articulated, specifying spatial demands.

This was the case, for example, with respect to the history of Mediterranean urbanism, described by Hakim (2001, 2008, 2014). In an early research, Hakim (2001) analyzes a treatise written in Ascalon, Palestine, in the years 531-533, delineating spatial relations between elements of the built environment. This treatise was later included in books of law published in the Balkans, Greece and in Slavic areas and has affected planning and building there until the first decades of the twentieth century. His later research (Hakim, 2014) related to Greece, Italy and Spain and covers more than two millennia of urban development according to codes and abstract principles. Akbar's (1988) research reveals similar conditions with respect to Middle Eastern, mostly Muslim cities, exposing un-written principles arranging the relation between the three basic associations to urban elements: ownership, control and use. These principles stemmed from Muslim point of view, according to Akbar (ibid.), and created a powerful set of rules directing the creation and management of the built environment. To his claim, these principles operated for centuries, until the late nineteenth century and the intervention of modern states in issues of planning.

Abstract principles directed the production of the built environment in other parts of the world as well. Ashmore's (1981, 1991) researches reveal what she terms as "spatial patterning" governing the development of Mayan cities. While these archeological researches (see also: Willey and Bullard, 1965; Hutson, Magnoni, Mazeau & Stanton, 2006) do not present documented rules that relate to planning and building, the patterning is reflected from the spatial analysis of sites. Ashmore and Sabloff (2002, 202) deduce that the patterns express Maya beliefs regarding the positioning of elements and their directions, as well as "political affiliation through emulation of civic architecture at more revered or powerful places".

Needless to say, abstract principles and codes were responsible for most of the historical development of European cities. Logan (1976) describes building and planning codes that developed in German cities from the medieval period till the dawn of the twentieth century. Talen (2009) lists a long tradition of none-mapped (none-specific) regulations that affected the development of cities in Britain, France, The Netherlands, Germany, and throughout the Prussian empire. And so on.

## 2. Modern planning and the dissipation of coding

This long tradition of following abstract, formal and informal guidelines between elements of the built environment has abruptly changed with the spread of modern planning ideas. Particularly since the 1950s, urban planning is conducted by national and municipal institutions generating organized, top-to-bottom planning regulations meaning to plan the details of the built environment and to oversee the implementation. A plan-led regulatory planning (as opposed to the code- or principle-led planning of the past) is operating in most EU countries as well as the US, Japan and Australia. It is centered on zoning and statutory land-use plans both as the means to set an official visionary image of urban districts and as a major regulatory device. Against the qualitative and abstract rules that directed the slow-pace development of cultural spaces, Land-use plans were – and in many cases still are – meant to dictate *what* to build and *where* to build. As observed by Moroni (2010), the prevalent plan-led machinery is an end-state control-device aiming at *ordering* the actions of private people—as opposed to simply *regulating* them.

## 3. The effect on the built environment: Between *an ordered* and *an organized* city

Urbanists, planners and theoreticians relate to the differences between the *order* of built environments developing under pre-modern (i.e. code-led) and modern (i.e. plan-led) regulations. Resembling Jane Jacobs' (1961) understanding of the complexity and emergent order typifying free development of the built environment, Christopher Alexander (1965, 58) stated: "I want to call those cities which have arisen more or less spontaneously over many, many years *natural cities*. And I shall call those cities and parts of cities which have been deliberately created by designers and planners *artificial cities*". In fact, Alexander (1965, 1975, 1977, 1979) invested his career dealing with the question of order in planned – as opposed to "natural" – cities. He named the order of natural cities as "the quality without a name" (Alexander, 1979, xi) and claimed that "this quality [...] cannot be made, but only generated, indirectly, by the actions of the people". In Alexander's work, the abstract codes and principles that regulate the emergence of this quality were named "patterns", and he defined the shared knowledge of the people engaged in creating the city "a pattern language". Very much like Jane Jacobs (1961), Alexander (ibid.) also spoke of places that are alive, and of living patters.

The idea of abstract codes – as opposed to specific land-use statutory plans – for enabling the emergence of *spontaneous order* in the built environment and the creation of living places was further elaborated by Portugali (1999, 2011), Alfasi and Portugali (2004, 2007, 2009), and Moroni (2007, 2010, 2014). The main claim of these writers is that for the planning machinery to acknowledge the complexity of the built environment, it should base on qualitative guidelines, codes, or rules, and that "such rules should equally apply to all the elements planned to be built in the city, including dwellings, businesses, industry, public buildings, and infrastructures" (Alfasi and Portugali, 2007, 170).

## 4. Some problematic aspects of statutory land-use plans

Today, the dis-functioning of top-to-bottom, organized, comprehensive planning is a shared knowledge among scholars. This is mainly due to the vast disappointment from land-use plans as the means of controlling the qualities of the built environment. Recent researches relate to the changing image of *flexibility* in planning: resulting from the expectation to sheer top-down development,

flexibility was considered as a problematic quality of land-use plan. In time, however, it became clear that comprehensive planning is incompatible with the actual dynamics of the built environment, and flexibility was interpreted as a positive and necessary quality (Tasan-Kok, 2008). In practice, flexibility was often achieved by circumventing, coercing, and amending land-use plans according to local and ad-hoc circumstances (Cullingworth, 1994; Berry, 2001; Alfasi, 2006; Buitelaar & Sorel, 2010; Buitelaar, Galle & Sorel, 2011; Charney, 2013). Recent researches show that land-use and zoning maps are ineffective when it comes to achieving the basic purposes they were intended to achieve, as preventing sprawl and safeguarding open spaces from new development (Bramley & Kirk, 2005; Tian & Shen, 2011; Alfasi, Almagor & Benenson, 2012; Zhong, Mitchell, & Huang, 2014; York, Tuccillo, Boone, Bolin, Gentile, Schoon & Kane, 2014; Wang, Han & Lai, 2014Y; unos, Johar, & Sabri, 2015).

Another bothering fact stemming from the application of top-to-bottom statutory planning relates to the idea of *the rule of law*. In line with the poor performance of comprehensive land use plans, research reveals that in many places, the dominance of the statutory land use plan remains in the law books, while local amendments and spot-planning shape the actual development of the built environment (for example: Cullingworth, 1994; Alfasi, 2006; Buitelaar, Galle & Sorel, 2011). The authorization to perform such local amendments to the comprehensive plan usually remains in the hands of the same planning authority that fixed the initial land-use plan. This means that in many places, planning is conducted in a case-by-case manner without the leading power of an accepted, publicly articulated, and equal set of rules. Clearly, this conduct is also diverting the emergence of a spontaneous spatial order.

Moroni's (2007) claim is that zoning ordinances and master planning as means of regulation violate the liberal ideal of the rule of law. Specifically, to his claim, this practice contradicts principles as *impartiality* (i.e., that the law should apply equally to all), *stability* (i.e., that rules should enables citizens to have reliable expectations with regard to the actions of others, including the state itself), *Publicity* (i.e.. that laws are known and adequately publicised), and *non-retroactivity* (i.e., that laws are prospective and never retrospective). He further (Moroni, 2010) links planning regulation by means of abstract codes to the notion of *nomocracy*, while *teleocracy* is linked to authoritative regulation stemming from specific, end-purpose plan. Although both ways may be lawful and democratic, *nomocracy* is linked by Moroni (ibid.) to an indirect way of regulation that enables free action and complex result, subjected to clear yet abstract rules. At the same time, *teleocracy* is described as a direct approach, in which purpose-dependent directives are operated and simple end-solutions are created.

## 5. Indications to a recent change

In the last decade, the modern top-to-bottom planning practice is facing a gradual change. Inspired by principles of New Urbanism, there is an increasing interest in the role of codes and qualitative principles in urban planning. This interest is now affecting both planning theory and practice. Thus, in line with the ongoing entrenchment of American Form-Based Codes (Talen, 2009), and the recent consolidation of British Planning Policy Statements and Planning Policy Guidelines into the National Planning Policy Framework, there is evidence to planning in other countries gradually adopting a code- or principle-based approach to planning regulation. In addition, scholars show greater interest in past experiences with planning codes (Talen, 2011; Ben Joseph, 2005; Carmona, Marshall & Stevens, 2006). And, additional thought is given to the possibility of advancing the codes to general and abstract rules in a way that fits with the complexity of the built environment and the evolution of a spontaneous spatial order (Moroni, 2014).

## 6. A new look on past coding traditions and the way they were implemented

Still, if we want to see planning machineries that acknowledges the quality of complexity of the built environment, and if we want to provide the terms for spontaneous urban orders to emerge and enhance the development of cities, renewal of codes as means of regulation is not enough. We have to look at the way codes are used, how they are developed and determined and pay attention to the way they guide decision-making with respect to transitions in the built environment. In the past, the emergence of spatial spontaneous order in cities and places leaned on the fact that all parties involved – private people, craftsmen, salesmen, institutions etc. – shared the same "pattern language" and followed a collective set of codes. Alexander (1979, xiv), for example, expects that sharing of rules would lead people to act within their framework hence create a sufficient mechanism of planning and building, saying: "within the framework of a common language, millions of individual acts on buildings will together generate a town which is a live, and whole, and unpredictable, without control" (my underline). And, "it is a process which brings order out of nothing but ourselves; it cannot be attained, but it will happen of its own accord, if we only let it" (ibid.).

In line with Alexander's views, researchers relate to Middle Eastern urbanism as emerging without the precedence of comprehensive plans and the stemming control devices. Writers as Costello (1977), Grabar (1979) and Bianca (2000) enlarge on the effect of the socio-cultural code of Middle Eastern societies on the built environment. Their analysis refers mainly to the demand to preserve the privacy of dwellings and the integrity of the family but also to values like allowing accessibility to water resources and granting mutual rights of pre-emption for neighbors.

A clear reference to the decision-making procedure preceding planning and building is provided by Akbar (1988) who describes the habit of reaching an (often implicit) agreement between the owners, the adjacent neighbors and those controlling the land or building regarding the amendment or construction of urban elements. With the spatial code at the backdrop, the involved parties shared a safe ground for negotiating the development of the built environment and for understanding the consequences of their agreements. Similar terms – i.e. mutual agreements between neighbors who share the same set of abstract rules – were responsible to the magnificent urban order that developed in Paris, during and after Haussmann's massive transformation of the city's form and structure, in 1850-1870 (see: Hall, 1998; Pinon, 1999). Jordan (2004) claims that "The architects of the day shared a common vocabulary and needed no additional coercion to produce a homogeneous cityscape". He cites Pinon (1999, 218-9) regarding Boulevard Saint-Germain, where "owners and their neighbors should arrange between themselves to have, in each construction *îlot*, the same height for each floor in order to continue the principal lines of the façades and to make the entire *îlot* a single architectural ensemble".

Modern planning, however, interfered with the simple, horizontal manner of regulation operating in Paris as it did with the one operating in Middle Eastern cities. Modern planning institutions were designed in a top-to-bottom structure. As a result of differences in juridical systems and the administrative structure of states, a great variety of planning administrations and planning tools actually exists. Despite the diverse forms and methods of regulation, according to Akbar (1988, 142) a shared trait is the essence of what he observes as the problematic result of this intervention: "Contemporary regulations have one thing in common: control of the built environment by a central authority". In fact, the "Crisis in the Built Environment", as the title of Akbar's (1988) book, relates to the dramatic change in what he terms as "the model of responsibility" (141). That is, replacing the method of mutual agreement with control by means of precise plans and prescriptive regulation. By putting the responsibility and authority in the hands of a supervised agency, the variety of modern methods eliminated, each in its unique way, the language, the code, the essence of order in the built environment.

## 7. Current planning institutions and the necessary terms for implementing codes: a model

Since codes are abstract, implementing them in the built environment necessitates a case-by-case interpretation of meaning and impact. In ancient societies, the habit of mutual agreement provided a mechanism for discrete decision-making which is highly sensitive to the code. As numerous actors were operating to interpret the code according to local and unique circumstances, the order of the built environment emerged spontaneously, without the control of a plan. Moreover, the code itself was alive and changing—again without control and supervision—along the lines of social and religious values, cultural changes and technological developments.

In the modern built environment, typified by multiculturalism and a huge hierarchy of powers and interests, the terms of mutual agreement no longer exist. A different method of case-by-case decision-making is needed, to ensure that interpretation of the code continues and that the code itself is free to evolve and adjust to cultural and environmental changes. The order of the built environment depends on this, and as discussed above, the loss of this order is burdening society and space. The very use of codes is therefore not enough, and designing the structure and performance of modern planning institutions is an important complementary task.

The essence of the framework highlighted here was presented in Alfasi and Portugali (2004, 2007, 2009) and Portugali (1999, 2008). It leans on the principles of liberal democracy, the central being the separation of powers. Consistent with the description of this principle by Hayek (1955/1978, 210), it suggest that "the laying-down of new general rules" must be separate from "their application to particular cases" also in the field of planning. Currently, planning is far from accepting this idea, since generally speaking – and despite the tremendous differences between planning institutions in various places – planning policy and planning decision-making is conducted under the auspice of a single entity/authority. As a result, the adoption of planning code as a the source of planning regulation often means that the interpretation of the planning code is done on case-by-case manner by the same body—sometimes the same people—that articulated the abstract rule at the first place. The necessary boundary between the abstract and the specific is thus being blurred. And, since every case is a unique mutation of the codes, we face the danger of the specific avoiding the abstract and circumventing it. In the model presented in figure 1 we suggest that these two functions – the articulation of abstract code and its specific interpretation are "performed separately by two coordinated bodies before it can be determined whether coercion is to be used in a particular case" (ibid.), to match with the principles of the libertarian ideal.

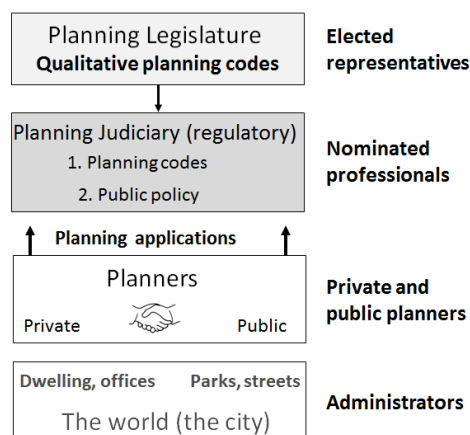


Figure 1: The decision-making process compatible with the coding turn in urban and regional planning

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