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VITOR OLIVEIRA

PAULO PINHO

LUISA MENDES BATISTA

TIAGO PATATAS

CLÁUDIA MONTEIRO



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Editors: Vítor Oliveira, Paulo Pinho, Luisa Mendes Batista, Tiago Patatas, Cláudia Monteiro

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Towards a flexible definition of limits in urban planning: controlling urban form under uncertainty

Bruno Moreira

Centro de Estudos de Arquitectura e Urbanismo, Faculdade de Arquitectura da Universidade do Porto. E-mail: bmoreira@arq.up.pt

Abstract. *Portuguese formal planning system was born in the thirties and has since then promoting the development of an opaque, centralized, hierarchical and ineffective planning system. In the seventies modern concepts of planning began to be applied, still limited to consolidated urban areas and surroundings. Reality was that the territory beyond those limits was growing without control, pushed by industrialization, increased mobility and people's expectations towards better conditions. When the first systematic plans that considered the municipality as a whole were born in 1982 and the shift towards a strategic planning approach gained importance in the nineties, the territory was complex and disordered. Plans and regulations created to limit and control the individual's increased capability to transform the territory became part of a reactive and prohibitive planning system instead of one based on pro-activity and responsibility: the inflexible nature of these plans led to delays in their definition and approval as a response to uncertainty. (Portas 1995). The concept of limit is structural and deeply embedded in plans and regulations, as it influences and controls urban form, which is gaining significant relevance within urban planning since the eighties (Oliveira 2006). Our goal, as part of a research focused on the flexibility of planning instruments and their efficacy on regulating contemporary urban space, is to identify how these limits have been understood in key moments of society and expressed in their plans and regulations.*

Key Words: Flexibility, limits, municipal planning, uncertainty, urban form

Introduction

Contemporary territories are changing at a fast pace. Concepts and methods to understand and regulate it are being questioned as they do not efficiently respond to these territories' needs, such as, precisely, the concept of *limit* – morphological, administrative, symbolic and disciplinary.

A flexible limit is, apparently, a paradox: by *limit* we use to think of a boundary that clearly separates one entity from another, a boundary that is stable and unchangeable, of entities that have their own autonomous logics and that don't overlap. This was clearly noticeable during the Modern Movement, when the *limit* was used as a rational tool to bring clarity and order to planning, mankind overcoming Nature throughout an unlimited rationality. Nature itself always had, however, its kinds of flexible limits.

With this article we intend to address one specific question: *How has the concept of limit been understood in key moments of the twentieth century in science, society and urban planning theory?*

With this article we intend to introduce how the concept of *limit*, applied to those topics, is changing towards openness, multidimensionality and flexibility, and why we must adopt it to be able to effectively control urban form under uncertainty and achieve better plans and regulations, providing an important theoretical framework for the broad research which is currently undergoing and that has as case study the municipality of Santo Tirso in Vale do Ave, Portugal.

The three topics that will be discussed in this article – “*Towards a limited rationality*”, “*Unlimited citizens and territories*” and “*The limit in controlling urban form*” – have their own autonomy, but they can also be read as a (simplified) macro-narrative, introducing how the shift towards a limited rationality and the increased ability for the citizens and cities to break their

own limits have brought uncertainty to the ability (and purpose) of controlling urban form in contemporary societies.

Towards a limited rationality

Contemporary urban planning is shifting from a rational-comprehensive approach towards a strategic approach. It is common to consider, on the one hand, the rational-comprehensive approach as a centralistic “top-down” approach where science and technical knowledge are used to determine the best solution for all planning issues, attending to a well defined public interest, and following a precise and linear process, while, on the other hand, strategic planning is considered a decentralized, multi-level and multi-directional approach where the discussion and the learning process between planners, policy makers and the citizens is as important as the scientific and technical knowledge, the planner assuming a mediating role between numerous public and private interests, and where the process is non-linear and subject to changes and uncertainties.

The seek for unlimited rationality in planning was evident on the “voluntaristic” and “planifying” urbanism of the sixties and seventies (Ascher 1991) but it was already present in several scientific fields and production modes which have influenced it – such as *Positivism*, *Taylorism* and *Fordism*.

The theory of *Positivism*, introduced by Comte and further refined by Durkheim in the late nineteenth century, argued that the natural science’s rationalism should also be adopted by social sciences. Reality was something that existed independently from the knowledge of those who were living it. The world should be objectively defined independently from our representation of it and social reality was conceived as divided between “normal” and “abnormal” states which needed to be “cured” (Durkheim 1982).

In the rational-comprehensive approach, the planner had indeed the role of defining urban development with maximum objectivity and independence from city life, deciding what was right and what “needed to be cured” on behalf of a well determined public interest, paying little attention to those who were living the reality (and thus were unable to see what was best for them). The design of the city was therefore scientifically based in zones, parameters, ratios and indexes (Busquets 1995).

In the beginning of the twentieth century, Taylor aimed to promote efficiency in scientific management, arguing that despite the extent of material inefficiency (such as natural resources depletion), human inefficiency was far a greater problem in need to be addressed. He then proposed *systematic management* as a rational system able to reduce every single action of the workmen to a science, replacing individual judgement with universal and systematic laws (Taylor 1919).

Traditional and empirical knowledge, passed from one generation of workers to another, was to be replaced by scientific knowledge gathered, filtered and disseminated by a new class of men – the *managers* – who should develop a science for each step of the productive process and train the workmen. This meant separating *planning* from *execution* in the belief that the subdivision of labor would increase productivity but also well-being of both workers and managers by balancing responsibilities, and that better management was the way to make workmen do their work better.

Planning ahead was a key component of Taylor’s theory and the specialty of these *managers*, who should anticipate *tasks*, means to achieve them and time to be spent, an effort to avoid the discretionary present in old management systems which allowed a great part of the learning and decisions to be led by the workmen. In the end, Taylor’s vision was of an organizational machine comprised by well defined and organized groups of individuals interacting with each other with clearly defined roles.

Taylor’s principles can be found in the rational-comprehensive approach in urban planning, namely in the planners’ position as *managers* of urbanity in the sole possession of scientific

laws, correct principles and adequate ratios and parameters. Planning believed and intended to anticipate all tasks of urban development, as if there was only one (scientifically) truth, only reachable by planners with their technical expertise, thus reducing any sort of judgement from those who executed – and lived with – the plans.

As of *Fordism*, it emerged as a paradigm for the innovations in the work processes, capital accumulation and social regulation established in the capitalist society around 1920 (Jessop 1992). Mass production of standardized goods was achieved through the division of labour in the assembly line (and in the territory), increasing their affordability and profitability by means of an economy of scale, producing standard goods for an anonymous and homogeneous public and making them available through mass retailing and desirable through mass media; accumulation was possible throughout a repeating cycle of mass production and mass consumption, driven by the continuously rising cycle of productivity, demand, profits and re-investment; but Fordism was also to be found in the social regulation present in the set of norms, institutions, networks and patterns of conduct that guided the capitalist society (Jessop 1992). Planning focused in the production of plans, rather than on the production of urbanity, through hierarchical and institutional assembly lines that produced plans for an anonymous and homogeneous society and on behalf of a centrally defined public interest.

The post-war economic boom was driven by these paradigms, which were reflected in the new practices on work management, mass production and consumerism as allowed by technological assembly lines and economies of scale (Moreira 2004). Rationality was the answer to the city problems as a whole, aiming to replace the old and degraded (or destroyed) cities by rational, homogeneous and functional new ones (Busquets 1995). The Modern Movement played an important role on bringing rationality to the planning system: the plan as a technical document designed by specialists and enforced by a strong central state (Soares 2000) finding in it the instrument of its own legitimacy (Venezia 1998). Fordist cities were created, combining modern architecture and urbanism with *neo-keynesian* urban policies (Ascher 1991).

Keynes' vision was of an economy that should incorporate the concept of uncertainty, instead of being obsessed with predicting the future – therefore distancing itself for the seek of ultimate rationality as Positivism, Taylorism and Fordism did. For Keynes, the economic theory should be a method and not a doctrine (Olivares 2009) and its models should be used as instruments of thought and not as quantitative formulas (Hodgson 2011). Keynes attacked the traditional concepts of economy who believed that unemployment was a self-regulated system, stating that it depended (as well a consumerism) on the amount of investment – which, in turn, was extremely volatile due to the uncertainties towards the future (Hodgson 2011). The way was open for centralistic and (still) powerful national states to legitimately enforce extensive public interventions on behalf of a supposedly public's interest, reflecting the rational distributive nature of the public welfare state policies that tried to balance the access to goods and services (Ascher 1991; Moreira 2004), distributing public investment to more recessed areas (Marques 1995) and leading to a decentralization of equipments and production activities in an attempt to balance urbanity.

Again, an homogeneous vision of reality was present in the minds of politics and planners and in the mainstream economy and other fields of knowledge, obsessed with rationality and with the intention to predict the future with the help of technocratic, mathematical and formalist models, stepping back from the uncertainty concept that was fundamental in Keynes theory (Hodgson 2011) and that is gaining increased relevance in contemporary society.

Contemporary thought on urban planning is distancing itself from this kind of absolute rationality towards a more limited one due to several failures in previous paradigms. Fordism has failed as a virtuous cycle of permanent growth – making companies think on switching from stocking large quantities of standardized assets towards a “just-in-time” strategy (Ascher 1991) and from producing homogeneous standardized goods to producing good with some sort of customization – and as a rational approach to urban development, which has led to mono functionality, segregation, crime and dispersion of residential zones. Collective and public transport policies are challenged by the needs of contemporary society, which demands more

flexible means of transportation, especially in dispersed territories, leading to the rise of the private transport (Soares 2005). The welfare state is facing serious problems as well as the Keynesian politics which are suffering from the vicious cycle of “stagflation”, i.e. high unemployment and inflation and low growth (Jessop 1992).

The planning efforts that tried to accommodate and control reality as a whole are now inefficient due to their normative and rigid nature when faced with new, complex and fragmentary urban forms and political, social and economic dynamics (Veneza 1998), being now understood as obstacles to decisions that must be made quickly in order to grab opportunities (Marques 1995) *just in time*. Planning needs a broader project for the city, able to articulate several scales and actors in its development.

After this “rationalizing” and “voluntarist” phase, we are facing, since the eighties, a “liberal” and “concorrential” urbanism where rational models are losing ground to incrementalist and heuristic methods on urban development (Ascher 1991). Urban planning is shifting from the rational-comprehensive approach towards strategic planning, or from an absolute towards a limited rationality. The solution for the future cities is neither in chaos, nor in global solutions, and there’s no unique key to explain all current urban forms (Borja et al 2003).

The concept of strategy is now deeply present in urbanism: the city is no longer planned as a whole, but with precise interventions which try to grab or create opportunities. Instead of rationalized “truths” about the territory and its development, the focus is now on defining long-term objectives and ideas on the city, finding the available options to make them possible and creating urban management mechanisms able to make that strategies operational (Ascher 1991). Strategy, and its integration of deliberative, responsive and shared participation mechanisms, is also found to be a way to develop urban proposals with enough legitimacy and social support (Borja et al 2003) in a time where social life is fragmented and national political power diminished, thus making it difficult to determine and give unique answers to societies’ needs.

Unlimited citizens and territories

Contemporary citizens are increasingly complex in their needs and aspirations and in the tools they have to achieve them. The association between new, faster and more reliable ways of transport and communication has increased mobility and communication possibilities and the ability for these citizens to respond to needs and aspirations that would otherwise be harder to fulfill. This has been leading to new ways of interacting with others, giving rise to more heterogeneous social groups and family models and to more numerous and diverse – tough less stable – social relationships (Borja et al 2003).

Still, in an apparent paradox, these *unlimited citizens*, powered by all these means of transport and communication often isolate themselves. The increased mobility and access to information and communication technologies, although can play an important role in promoting citizenship by making easier the relations between citizens and administrations, and by connection global with local identities (Borja et al 2003), may also increase segregation for some sectors of society (Domingues, & Silva 2004) as economic capital and knowledge restricts the ability to move and connect. Gated communities, in suburban areas, linked to an “hiperspaced” mobility, show how some of these citizens do fear the “real city” (Muxí 2003). However, their spatial segregation is different from that of the Modern Movement, where rationality was involved in determining spatial distance between different social groups; in the contemporary city the space is fragmented and diverse, personal and work relationships have no fixed territory (Carreiras 2013): a gated community can coexist side by side with social housing and / or with a highway. Social cohesion and citizenship coexists with urban and social fragmentation (Borja et al 2003).

This complexity leads to the difficulty in representing the society as a whole and mediate or make compatible everyone’s interests. Political power still fails to recognize this plurality,

dedicating speeches to the *public* or the *people's* interests because they represent an ideal of *limited* society that is not accepted anymore but that is still the main target of the political power. Public interest is hard to be defined. Due to this increasing complexity, citizens in contemporary world are increasingly harder to be represented. There isn't a single territory of proximity but multiple belongings and identities, and citizenship should not be limited to the scope of an individual "state" (Borja et al 2003). Belonging is no longer founded in proximity or on densities, as transports and communication technologies made us part of numerous and diverse relationships (Choay 1999). Contemporary citizens have progressively more numerous and diverse interests and values, which translates into more complex and varied actions throughout the territory, giving way to new ways to explore and inhabit it (Domingues, & Silva 2004) and to a new kind of citizenship.

Citizenship is deeply related and embedded in the concepts of city and public space, which tend to confuse themselves and have multiple meanings (Borja et al 2003). Dispersion, fragmentation and privatization are considered to be the three key processes which are making public space disappear as a citizenship space (Borja et al 2003). In the "Third City", there is (often) a lack of an "urban landscape of citizenship" (Borja et al 2003). The Generic City produces dispersed pieces throughout the territory in a "functional urbanism" for private business among politics and architects, but it does not produce citizenship (Borja et al 2003). These unlimited citizens are making the territory harder to be limited as well.

Increased mobility has deeply changed and reduced the *limits* of the territory for those who were able to pay the price of mobility. Cities have expanded their well defined and fixed limits towards suburban growth, invading rural land. A new reality has emerged where those expanded city limits have clashed, confused and mixed themselves, ultimately making their limits disappear – such as the limits between those two main containers where we still insist on fitting all reality: urban and rural land.

Urbanity has ceased to be an exclusive feature of the city (Domingues 2013) and its limits are increasingly hard to trace if we intend to do it against a "rurality" that no longer matches its archetype and has no substantial social and cultural difference from the city (Soares 2005); the construction of urbanity has also ceased to be the exclusive competence of the public sector, weakened in its ability to intervene, to be opened to partnerships with the private sector, to the international capital and to a strategic and entrepreneurial management (Moreira 2004) considered more effective for its flexibility, adaptability to opportunities and to uncertainties, but still in need of democratic control and transparency (Borja et al 2003).

Both territory's and citizens' limits are becoming hard to define: there are multiple types of limits at a given time, overlapped and diffuse. Multiple limits coexist on our cities: traditional limits, industrial limits, relational limits, symbolic limits, all present at the same time in our imaginary. Delimiting this territory is an task requiring innovation – these *real* limits do not correspond and are questioning *administrative* and *political* ones, which do not correspond anymore to the complex dynamics of economy and society (Ferrão 2014).

This leads us to the last topic of this article: after stating that an absolute rationality is no longer an answer for the knowledge of the city, and that its knowledge is increasingly harder to gather due to the fragmentary nature of the citizens and their ways of living – how can urban form be controlled under this context of uncertainty?

The limit in controlling urban form

The changes in the strategies of urban planning and management can't be understood unless in relation with the changes in its social and economic contexts. The major transformations on the european societies of the twentieth century have generated, besides multiple distinct urban forms, different positions on how to plan and manage the territory.

Urban planning was legitimized by means of the Athens Charter, place where the CIAM Congress of 1933 was organized, as a rationalizing instrument used by a welfare state in its full

capacity, able to promote large urban operations integrating, simultaneously, “networks”, built “volumes” and “green” or “free” spaces (Portas 2005). From the post-war to the seventies, society grew in a fast pace motivated by the Fordist machine of mass production and consume, at the same time that the welfare state reinforced its rational and distributive planning actions on the territory.

This state, true to technique and to its notion of public interest, distributed public equipments and productive and industrial activities into *zones* according to technical and scientific criteria, assuming itself as the main agent of the territory’s transformation – but the Fordist model started to decay, the mass production and consumption cycle started to wear out, and this state’s capability to transform and control urban form became weak. Influenced by neo-liberal politics, it had no choice but to share its power with the private sector throughout partnerships, and to bet on more targeted interventions – losing its monopoly on controlling the territory, abandoning its role on designing urban form except for the infra-structures, unable to cope with the increased number and power of agents able to act on the territory (Portas 2005).

From the eighties, we are witnessing the globalization and internationalization of economy and the reticular recomposition of the territory. The tertiary is gaining more relevance and the rigid Fordist production models more flexibility, betting on innovation in order to adapt to the needs of a complex and differentiated society demanding, simultaneously, mass production and customization. It’s in this context that strategic planning is gaining importance, trying to make more operational the actions on the territory, seeking complementarity relations between cities and the engagement of all actors with enough power to intervene in the territory, reviewing and integrating alternatives in the planning process, and progressively paying more attention to context and contextual solutions (Domingues, & Silva 2004). Regions are inherently different in their built environment, population, lifestyles – not “blank sheets” (Ferrão 2014).

This increased localism seeks also the participation of a greater number and diversity of actors in planning (Alves 2008) and is a reflex of the globalization that reduced the power and functions of the central states, weakened their representativeness, and promoted a greater distribution of power throughout the territory and more noticeable actions from local and regional economic, social, cultural and administrative agents (Ferreira 2005). The national states are losing their power in controlling urban form towards both local or regional powers, but also to supra-national organizations such as the European Union.

This same role of events was present in Portugal, with the adoption of Duarte Pacheco’s detailed and rational urban plans in the forties, which intended to predict the city transformation in long term (Carvalho 2004) but quickly became misfit to reality; then, in the sixties, with the state seeking to involve privates in urban developments and replacing urban design by zoning and quantitative parameters.

The unpredictability of opportunities and execution capabilities, the need to opt for cooperative solutions over “rationalized” unilateral ones, and the need to more responsively involve the increasing number of agents with the power and will to transform the city would lead to the strategic model in urban planning (Carvalho 2004) and to substantial changes in understanding the city and the urbanized territory, particularly from the eighties (Domingues, & Silva 2004). This connection between planning, evaluation and reflexive management of the territory with a strong local component is essential to the uncertainties of a society where reaction is sometimes as important as planned action.

Planning and urban management must be intimately related and permanently informed by processes of self-evaluation in order to be able to change, if necessary, and to define new goals and objectives (Encarnação 2011). Only through a systematic evaluation can planning be assessed in terms of its efficacy and credibility (Oliveira 2011) and adequately respond to the specific problems of urbanity – hence the importance of the concept of reflexivity, in which every action needs a reflection for its adequate response (Ascher 2010). Planning systems must be flexible enough to adapt to these needs, both in their *formal* and *informal* instruments.

Portuguese planning system is formalized by a set of legal documents that establish power relations. These documents – plans, laws, decretes, regulations, etc. – create a network of

relationships that becomes an *apparatus* that act as a link between the state, its citizens and their multiple organizations.

The *formal apparatus* is an instrument of control of the urban form, understood not as an hostile device but as expected and legitimated by the society and democracy. However, due to the rising complexity and specialization of contemporary society, and of the entities of the state itself, these formal *apparatus* are often understood in contradictory ways, raising conflicts and deadlocks. The concept of state, as clarified by Bourdieu, is therefore fundamental to understand this logic of control: the state is a collective construct which derives from the historical accumulation of capitals of diverse nature – military, economic, cultural, symbolic – making it able to use its influence in all these fields in a way unsurpassed by any other group or social agent, having, in exclusive, the ability to create the laws and punish the offenders: the “monopoly of legitimate physical violence” (Bourdieu 2001).

The formal *apparatus* assumes itself as a particular expression of this “legitimate physical violence”, carried out by a state legitimized by its citizens, with the particular purpose of regulating the transformation of the physical and spatial environment of the city but also the social relations of the agents responsible for such transformations. Implicit here are the two dimensions of these formal *apparatus* that we consider fundamental to their understanding: the *apparatus as an object*, embodied in the writings and documents that give the its material support; and the *apparatus as a process*, reflected in the institutional relations between social agents whose power directly depends on their ability to interpret and manipulate those *apparatus*.

The complexity of these *apparatus* as objects is clear since they are many and relate to each other in complex ways. In the current framework of the Territorial Management Instruments, these *apparatus* are distributed by national, regional and municipal levels, according to a hierarchical logic; we find *apparatus* of strategic nature (such as the PNPT, the PROTs, and the PIOTs), of regulatory nature (such as the PDMs, PUs and PPs) and of special or sectorial nature, such as the specific plans for key areas of administration – such as transports, communications or energy.

All these types of plans establish between themselves complex networks of relations that influence behaviors and processes, affecting the ways to understand the logic of planning itself. Some authors point out the difficulties in understanding the role of these plans as defined in theory and consequentially their wrong use in practice, such as using the PDMs as rigid and normative plans instead of regulation tools (Encarnação 2011) or the excessive formalization and binding nature of the PPs and its misuse (by ignorance of the role of the PUs) as a way to change plans of a higher order (Sá 2002).

We thus realize that these *apparatus* as objects are not likely to be fully understood without their use and transmission by the agents and social groups that deal with them. However, their material transmission (which is becoming increasingly facilitated with ICT) must not be confused with their real understanding and incorporation, which requires time, as Bourdieu remembers us (Bourdieu 1979). To use them without interpretation or critique is to forget the complexity and uncertainty that defines contemporary society, rendering the *apparatus* useless.

The limitations and lack of flexibility of these *formal apparatus* make for more *informal* actions to occur within urban planning processes, as a response to the inefficiency and inflexibility of the former, both as objects and as processes, although some authors accuse this inefficiency to be associated more with the latter – such as the mechanisms involved in planning revisions – than with the material content of those plans (Sá 2002). The difficulty comes from the fact that changing the formal object may also mean changing a previously established power relationship. The plan is therefore involved in a struggle between several entities that try to control it according to their skills and interests.

We may as well note that the struggles around the formal *apparatus* are not simply struggles between a state and its citizens: state and citizens are increasingly complex entities formed by agents and social groups of different natures, resistant to such broad simplification; the state multiplies itself by several entities, and the same happens with contemporary citizens, with their

multiple belongings, interests and aspirations, continuously adapting themselves to more and new challenges in the contemporary society. In the growing impossibility of predicting the future, it becomes increasingly important for formal plans to learn to act in a more strategic and less deterministic way on defining urban form. The formal plan, both as an object and as a process, must therefore seek to be the structure of human action and not the prediction of the action itself, assuming uncertainty as an integral part of human nature which gives the foundation to the “plurality of world views” (Bourdieu 1989).

It's in this context that the informal *apparatus* moves: as a flexible structure and not as a set of rigid rules. The use of these *apparatus* has become widespread due to the inability of the formal plans to solve, in due time, the problems of the territory, with the entities responsible for its control using other sorts of plans such as details, plans of city blocks, of heights and alignments, of axis, to name a few (Portas 1998). They assume themselves as plans of no legal validity, but they allow for more open negotiations with individuals, the creation of more and faster alternative scenarios with a strong visual component, therefore being more effective on reconciling the diverse interests and positions of the agents involved. Their content is not determined *a priori*, but according to a set of events and developments and according to the particular objectives of each situation. Informality is thus present both in the more diffuse power relation between those agents, and in the un(pre)defined nature of the informal *apparatus*, allowing for more flexibility and proximity during the discussions.

Conclusion and further work

This article intended to provide a theoretical framework on the concept of *limit*, discussed in the three topics that we've covered: “Towards a limited rationality”, “Unlimited citizens and territories” and “The limit in controlling urban form”.

In “Towards a limited rationality” we've focused on the limits of the racional-comprehensive approach in planning in relation to the unlimited conception of science and knowledge, expressed in several paradigm such as *Positivism*, *Taylorism*, *Fordism* and *Taylorism*. As those paradigms failed, a new way of planning has risen, adopting *uncertainty* and a *limited rationality* as a way to better address the new contemporary challenges of urbanity.

“Unlimited citizens and territories” showed us how both territory and citizens *limits* have changed, became more complex, diverse and multiple, influencing one another in the production of space and citizenship. Globalization, internationalization of economy, development of better transports and communication systems are enabling us to extend and dissolve *limits*, making them more complex.

Finally, “The limit in controlling urban form” intended to show us how these diffuse limits and their expressions in the territory are making it difficult for planning to understand and accommodate all urban forms and dynamics that they have created, forcing it to bet not on over-rationalized and homogeneous solutions – or racional intentions to balance urbanity – but on diverse, complementary and cooperative solutions to make urbanity and its unequal parts work better together, which sometimes means taking advantage of unpredicted – and unpredictable – opportunities.

Understanding the contemporary limits in controlling urban form requires, therefore, understanding the complex context of our unlimited society and territory and how they relate to a particular philosophical position concerning science and knowledge.

The concept of *limit* is also being questioned in other topics that extend or complement the topics that were brought to this article, such as the *limit* between *urban* and *rural land*, *center* and *periphery*, *public* and *private* developments, *formal* and *informal* planning, the *limits* on the representation and communication of the territory, of *Supra-National*, *National*, *Regional* and *Local* powers, the *limits* in the increasingly *multidisciplinary* knowledge on the city, etc.; all these *limits* are becoming diffuse and confused, questioning the role and efficiency of urban planning; but still we argue that understanding this new reality where pure black and white is

being replaced with multiple shades of gray is fundamental for urban planning to be more effective and able to deal with uncertainties and opportunities.

This article is part of an on-going research, and field work concerning the impact of these *limits* in the territory and in urban plans is currently under development on the municipality of Santo Tirso, in the Ave valley, Portugal.

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