

PART II

ARTICLES

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TOP-DOWN AND BOTTOM-UP URBAN AND REGIONAL PLANNING: TOWARDS A FRAMEWORK FOR THE USE OF PLANNING STANDARDS

Abstract. The purpose of this paper is to discuss the ways that the top-down and the bottom-up approaches to planning can be combined in the practice of planning standards. In the first part, the paper examines the utilization of planning standards through time, while in the second part it aims to unravel the relationship between the use of planning standards and the top-down as well as the bottom-up planning approach. In the third part, the paper focuses on the limitations of bottom-up approaches, in order to demonstrate that they can only be used in a certain planning scale, leaving all other scales to top-down approaches. Last but not least, the paper proposes a framework for the use of planning standards in a combined top-down and bottom-up planning approach.

Key words: top-down, bottom-up, planning theory, planning standards.

1. INTRODUCTION: FROM TOP-DOWN TO BOTTOM-UP PLANNING THEORIES

It is a fact that urban planning is not a science, i.e. an analytical field, but a technique, i.e. an applied field, that is inextricably linked to the political sphere (Lagopoulos, 2009, p.135). However, the political aspect of planning and the political role of planners have not been emphasized by the theories of the 1960s and the early 1970s, with particular regard to the systems view and the rational process of

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planning, in which planning was approached mainly as a technocratic procedure of urban intervention. In response to these procedural perspectives, since the mid 1970s, planning theory has viewed urban planning mainly as a political discourse. The launch of the communicative approach in the 1990s took this perspective to its extreme, tending to equate urban planning to politics and planning theory to political theory. Parallel to and highly correlated with the above transition in planning theory's interest, was the shift from a top-down to a bottom-up approach in urban planning. As Patchy Healey indicates (1996), two main tendencies have marked the history of town and country planning over the past 50 years. On the one hand there has been a tendency towards centralism and de-politicizing decision-making as well as increasing the role and power of technical experts. On the other hand there have been demands for more participation in decision-making, a call for more accountability on the part of local politicians and officials and increasing criticism of technical expertise. These two tendencies, which are very much at odds with one another, have been labeled as the *top-down* and *bottom-up* approaches to planning (Murray *et al.*, 2009, p. 444).

Among bottom-up approaches, the postmodern and the communicative approaches have provoked the interest of the academic community during the last three decades, although their impact on planning practice ranges from nil to very limited. Concerning the postmodern approach, Philip Allmendinger (2002, p. 157) and Nigel Taylor (1998, p. 166) argue that transferring, or even to interpreting, the postmodern positions into the field of urban planning is highly problematic, if not unfeasible. Communicative theory cannot take pride for its applicability, which has been exhausted in small scale practices, like the *Planning for Real* movement, that enhance citizen awareness and mobilize their participation in planning procedures. In addition, the communicative approach that derives from the Habermasian philosophy remains highly abstract (Allmendinger, 2002, pp. 201, 206) and therefore it is difficult either to guide planning practice or to point to it as an alternative planning theory.

One of the foremost implications of the highly political character of communicative planning is its focus on theoretical issues pertinent to the normative part of a decision-making, as these issues relate to and support this highly political approach. As a result, it lacks the crucial components of a typical planning theory, equally as much concerning the analysis of urban space as the procedure and the methodology of urban intervention (cf. Murray *et al.*, 2009, p. 444). Characteristic of this situation is the fact that it cannot be linked to well-established urban planning practices. The elaboration, the criticism, or even the commenting on issues like the classification of urban uses, the practice of zoning and the utilization of planning standards, which constitute basic features of urban analysis and planning diachronically, are totally absent. This situation reinforces the urban planning theory-practice gap that has been cited and discussed by various scholars during

the last two decades (cf. Alexander, 1997, 1999, 2010; Harris, 1997; Allmendinger and Tewdwr-Jones, 1997; Watson, 2008; March 2010; Moroni, 2010; Lauria, 2010, Pissourios, 2013) and leaves the top-down systems and rational planning theories as the main guides of the current planning practice.

Even if planning practice is dominated by top-down planning theories, the quest of a planning system that considers the local needs more studiously and allows greater citizen participation comprises an acceptable objective, as such a system tackles some of the weaknesses of the top-down approaches. According to Paul Sabatier (1986, p. 30),

[...] the fundamental flaw in top-down models, is that they start from the perspective of (central) decision-makers and thus tend to neglect other actors. [...] A second, and related, criticism of top-down models is that they are difficult to use in situations where there is no dominant policy (statute) or agency, but rather a multitude of governmental directives and actors, none of them preminent. [...] A third criticism of top-down models is that they are likely to ignore, or at least underestimate, the strategies used by street level bureaucrats and target groups to get around (central) policy and/or to divert it to their own purposes.

In this landscape of planning theory, where top-down approaches, despite their weaknesses, rule planning practice and bottom-up approaches are unable to construct an alternative methodology of urban intervention, the purpose of this paper is to discuss the ways that these two opposite approaches can be combined in planning practice and specifically in the practice of planning standards. The paper is divided into four parts. In the first part, it examines the utilization of planning standards through time in order to demonstrate that their use is still widely accepted as a crucial part of planning practice. In the second part, the paper aims to unravel the relationship between the utilization of planning standards and top-down theories, i.e. the systems and the rational approach of planning, as well as the bottom-up theory of communicative planning. In the third part, the paper focuses on the limitations of bottom-up approaches, in order to demonstrate that this approach can only be utilized in a certain planning scale, leaving all others scales to top-down approaches. Lastly, in the fourth part, this paper proposes a certain framework for the use of planning standards in a combined top-down and bottom-up planning approach.

2. THE UTILIZATION OF PLANNING STANDARDS THROUGH TIME AND SPACE

Planning standards portray a desirable as well as attainable state of affairs at a specific future time, i.e. a desirable state of affairs within the limitations of certain socio-economic conditions. Usually, planning standards are given in a quantitative

form that connects the requirement of a certain number, type or size of urban uses to the population size or other features of a settlement (e.g. 5 square metres of open green spaces per inhabitant). Planning standards exist for all urban uses, although the majority of them refer to public community facilities (e.g. education, health, sport, law enforcement, judicial and welfare public facilities). In the case of urban uses that are closely associated with the function of the free market (e.g. retail and wholesale trade, offices and manufacture/industries), planning standards can either portray a projection of their growth at a specific future time (for example, in ten years there will be 3 square metres of retail trade per inhabitant), or set certain limitations for their growth (e.g. no more than 1 shopping centre per district) or their location (e.g. heavy industries must be 1 mile in distance from residential areas).

Planning standards are interwoven with planning practice, as their use is traced back to the beginning of the 20th century. The 'golden' era of planning standards is identified as having occurred after World War II, when planners had unfortunately overestimated the importance of standards to urban planning and had formed the erroneous impression that their main task was to identify and implement the 'right' standards. This impression was established just before World War II in Germany, where the concept for 'order' (offspring of the totalitarian regime) was translated into urban planning as a meticulous standardization of all the required facilities of a settlement (Aravantinos, 1997, p. 324) and continued after World War II in socialist countries, mainly in the Soviet Union (cf. Feder, 1939; USSR, 1962).

Nowadays, the use of planning standards has been significantly altered compared to their use in the middle of the last century. They have evolved from a tool of definitive determination of the necessary facilities of a settlement, to a more flexible tool that provides general guidance to land-use planning. The consequence of this shift is their reduction in number and the elastic definition of their value range (minimum – maximum values). However, their use has been expanded internationally and they now comprise part of the planning practice in most developed countries.

The aforementioned positions are based on the review of the urban planning practice within six western states, which is explored in greater detail below. Specifically, four European countries were selected as case studies: England, Germany, Italy and Greece, which comprise representative examples of the various legal and administrative systems in Europe (Neuman and Thornley, 1996, pp. 28–38). Outside of Europe two more regions were studied: the Special Administrative Region of Hong Kong in China and the State of California in the United States. In three of these cases, namely Greece, Italy and Hong Kong, the use of planning standards is binding, according to their planning legislation in force (see respectively: GGG, 2004; OGRI, 1968; HKPD, 2010). In Germany and the United States, the use of standards is not binding, as the federal administrative structure of these countries does not allow the development of central planning legislation. However, a study of the urban plans of certain cities in Germany and the United States (Ernicke and

Partner, 2002; Ötischesheim and VVM, 2006; SPFS, 2009; City of Sacramento, 1988, 2005, 2008a, b; SFPD, 1990, 1997a, b, c, 2004, 2007) highlighted the extensive use of standards that derive from various sources. In England, an intermediate situation was detected. Specifically, the use of standards is not binding, although the standards used by planners were provided by Ministries and other governmental departments (e.g., The Department for Education and Employment, Sport England, London Healthy Urban Development Unit). This suggests substantial involvement of the central government in standards identification. As it is obvious from the above analysis, planning standards belong to the backbone of planning practice in western states. We should also not forget that indicators by and large, as well as standards in specific, form a substantial part both of the everyday practice and of the current theoretical pursuits in an extensive set of different scientific fields that relate to the socio-economic and the environmental sphere (Pissourios, 2013a, b).

3. TOP-DOWN AND BOTTOM-UP APPROACHES TO PLANNING AND THEIR RELATION TO PLANNING STANDARDS

As is demonstrated in the brief historical presentation above, planning standards preceded the theories of the 1960s and onwards. Therefore, it is crucial to delve into the relationship between the use of standards and the planning theories, in order to ascertain the degree of the embodiment of planning standards in these theories. Specifically, the attention will be focused on the systems view and the rational approach to planning, as these two theories are characteristic top-down approaches and have also set the foundations of the current planning practice. Moreover, the study will examine if planning standards are embodied in communicative planning theory, as this theory comprises the more representative recent example of a bottom-up approach. Paul Davidoff's advocacy planning (1996, originally published in 1965) and postmodern planning are also bottom-up approaches, they will not however be examined further, as the former dates over 50 years and is not in the current theoretical foreground and the latter because of the difficulty in ascribing any coherent meaning to what the postmodern is – by definition it involves no agreement (Allmendinger, 2002, p. 172).

3.1. The Systems View of Planning

The systems view of planning arose in the UK in the late 1960s through the work of Brian McLoughlin (1969) and George Chadwick (1971, 1978) contributing to the break from the long-standing tradition of physical planning that perceived

urban intervention as a design practice. The core of this new approach was the acceptance of the settlement as a system, i.e. as a complex set of parts interacting with each other. If settlements are perceived as urban systems, then urban planning may be seen as a form of systemic control and thus planners can utilize all tools provided by cybernetics.

To understand the relationship between the use of planning standards and the systems planning theory, it is useful to refer to the operational level of the latter. Systems planning theory is based on the principle of *error-controlled regulation*, which means that ‘the system is actuated by a control device which is supplied with information about its *actual state* compared with the *intended state*’ (italics are part of the original text) (McLoughlin, 1969, p. 85). On urban planning, ‘the city of course is the system we wish to control, the desired states are expressed in the plan, we measure the actual state at any time by all forms of survey and can thus compare the actual conditions with those intended by the plan’ (McLoughlin, 1969, p. 85).

The desired state of a settlement is defined in the planning program. The planning program organizes the policies and actions into *goals*, which have a general character, into *objectives* which are more precise and into *sub-objectives*, which comprise detailed instructions for specific actions (McLoughlin, 1969; Chadwick, 1971, 1978). Although goals are too general and therefore can not be quantified, objectives and sub-objectives are expressed quantitatively and entail the use of standards. According to McLoughlin (1969, p. 106), working with objectives and sub-objectives in quantitative terms is necessary, because on the one hand, planners need to accurately describe the intended state and, on the other hand, it allows them to measure the deviation between the actual and the intended state at any time. In relation to the above, McLoughlin (1969, p. 106) considers the goal of providing the most convenient pattern of major shopping centres for the people in an area:

This statement [i.e. goal] is not capable of providing a clear basis for the design of a plan nor an operational basis for its implementation. It lacks the more precise statements of objectives and standards which are needed. These might take the form of ‘minimizing the total amount of personal travel involved in reaching major shopping centres’ (planning design objective) [i.e. objective] and ‘containing the average distance of households from major shopping centres at no more than 4.3 miles’ (implementation/control objective) [i.e. sub-objective].

In several examples, McLoughlin (1969, pp. 114, 97) presents the use of other planning standards, such as ‘area of green space per inhabitant’ and ‘area of urban uses per certain distance of the city centre’.

In conclusion, the above presentation reveals that systems planning has embodied planning standards in its approach, using them as a tool for translating the general goals into specific planning actions.

3.2. The Rational Approach to Planning

Just as McLoughlin and Chadwick are synonymous with a systems view of planning, so is Andreas Faludi's name closely associated with rational process theories of planning (Allmendinger, 2002, p. 53). In urban planning, this approach became coherent in 1973 when Faludi published the books *Planning Theory* and *A Reader in Planning Theory*, the first as an author, the second as an editor. The essence of the rational approach of planning is well illustrated by Patsy Healey, Glen McDougall and Michael Thomas (1982, p. 8). According to these scholars, the process of rational action involves the systematic analysis and definition of the problems, the identification of goals, the logical production of alternative plans/policies, the evaluation of the latter and the implementation and monitoring of the chosen plan. The same five steps of this procedural planning theory is also described by Nigel Taylor (1998, p. 68), who also marks the feedback loops, emanating from the monitoring stage (fifth step) and directed to each of the remaining stages.

Rational planning process is mainly based on program formulation. Program formulation means to devise a set of intentions concerning the type and intensity and the timing of actions aimed at manipulating the control variables of a problem situation so as to achieve a set of objectives (Faludi, 1973, p. 89). However, on some planning occasions, the planner is unable to formulate a clear set of objectives, even on the basis of agreed goals. Even in this situation, the rational planning process provides the best approach to formulating a rational program (Faludi, 1973, p. 95). Specifically, Faludi (1973, p. 95, italics are part of the original text) states that 'instead of objectives precisely describing a world in which one source of tension has been removed, one must accept the idea of proceeding on the basis of statements concerning the *direction* into which one ought to move to reduce that tension'. For instance, if the planner recognizes the need for more urban green spaces, but is unable to accurately determine their required overall size, it suffices to move towards the direction of planning as many green spaces as possible. Although the replacement of objectives by directions, as presented above, is a good choice in terms of the rational planning process, it may be subject to criticism in terms of the amount of resources spent on the attainment of fixed objectives. Faludi (1973, p. 96, italics are part of the original text), realizing the impact of his proposed methodology, suggests that the planner should seek 'the most favourable ratio between the extent to which one moves towards that ideal (measured in terms of some *standard* like number of houses, or jobs, or acreage of open land), and the amount of resources spent'. As it is seen, Faludi highlights the use of planning standards in the core of the rational planning process.

In the above, the discussion was focused on Faludi's rational planning process towards finding the optimal solution. However, the controlled suspension of the rational planning process is also rational when finding the optimal solution is

impossible or undesirable (Faludi, 1973, pp. 113–114). One of Faludi's proposed strategies for the controlled suspension of rational judgement is the *satisficing strategy*. This strategy is very common among engineers who tackle problems of high complexity, like the design of a beam. Specifically, engineers use standards that set minimum requirements on the beam's dimensions given the stress and the pressure applied. Having used these minimum requirements the engineers are then satisfied, not that they have optimized the design of the beam, but that the beam will not collapse (Faludi, 1973, p. 114). In relation to the above, Faludi (1973, pp. 114–115) states that: 'in physical planning a wide range of standards exists. Standards such as residential density, sunlight, provision of open space and so on are minimum requirements which any solution to a physical planning problem must meet'. These minimum requirements do not differ from planning standards discussed earlier, apart from the fact that they comprise the bottom end of the planning standards' value range, i.e. are minimum standards (Faludi does not make this distinction).

In conclusion, it is evident that rational planning procedure embraces the use of planning standards. Specifically, there are clear references of their use, equally as much at the core of the rational process, as when controlled suspension of rational judgement occurs. Albeit, this suspension does not cease to be a rational choice; it continues to be part of the rational planning procedure by and large.

3.3. The Communicative Approach to Planning

The communicative approach to planning was developed in the 1980s and 1990s by John Forester and Patsy Healey, who have been focused on the rather abstract philosophical work of the German philosopher Jürgen Habermas (Taylor, 1998, p. 123). Central to the communicative approach is *communicative rationality*, which breaks down the dominance of scientific objectivism and builds, instead, a different kind of objectivity based on agreement between individuals, reached through free and open discourse (Allmendinger, 2002, p. 184).

According to Healey (1997, pp. 29–30), the key emphasis of communicative planning theory is the recognition that knowledge has many forms and all of these forms are socially constructed, and that power relations and the social context affect the preferences of individuals, as well as the view that planning is based on consensus-building practices. In this way, planning work is embedded in the context of social relations through its day-to-day practices and has the capacity to challenge and change these relations. That which is apparent from this epigrammatic presentation of communicative planning principles has been successfully pointed out by Allmendinger, who states that communicative planning theorists, in seeking to translate the ideas of Habermas, have simply moved from the highly abstract to the abstract. Therefore, it is difficult to point to communicative plan-

ning as an alternative planning theory as it remains abstract (Allmendinger, 2002, pp. 201, 206).

Concerning the case study of the current paper, the question emerges of whether we are able to infer from the above abstract ideas what the relationship might be between planning standards and the communicative approach to planning. As expected, it is highly risky to affirm the possibility of a positive answer, however it is possible to highlight some aspects of this relationship and make certain observations that may not comprise a comprehensive assessment of their relationship, but are sufficient to draw a general conclusion.

The communicative approach criticizes any given and well-established planning system, in order to promote a sort of mental 'unhooking' from previous assumptions and practices and to trace new ways of doing things (Healey, 1997, p. 272). In addition, local communities must challenge existing routines of strategic planning and generate new conceptions, ways of thinking and strategy-making processes (Healey, 1997, pp. 268–269). These new ways will be found through inclusionary, open-style forms of discussions among the various stakeholders of any given local community (Healey, 1997, pp. 268–269). Even if the aforementioned positions could be saluted for promoting innovation and leading to new ideas in planning, they could also be criticized for deconstructing any well-established planning system without replacing it with a better or, at least, any other method of urban intervention. In any case, the communicative approach to planning questions any fixed planning process and in this context the utilization of planning standards seems to be questioned too. Planning standards have been used for more than a century and nowadays constitute one of the backbones of planning practice. In other words, they are a well-established tool of planning practice and thus contestable in terms of the communicative approach. For most planners the tenaciousness of planning standards over time would be an adequate reason to keep them in use. However, for the communicative approach, this is an adequate reason for questioning their usefulness, in the hope of the emergence of new and better tools or methods of planning practice (cf. Healey, 1997, p. 272).

Besides the criticism of planning standards as a part of a fixed planning process, the communicative approach also seems to not welcome their use. This is due to the belief that planning standards underestimate the preferences of local communities, thereby dealing with different settlements as having uniform needs and expectations, and also replacing public participation and judgement with experts' knowledge. Regarding the first position, manifestly standards ought, by their very nature, to apply to a wide range of different urban spaces (not just locally), otherwise the characteristic studied does not have the expected regularity and therefore cannot and should not be standardized. Even if planning standards propose a value range to which the characteristic studied should be conformed and this elasticity allows a freedom of choice in planning, from the perspective to which the communicative approach adheres, this value range sets certain limits, thus reducing the

planning possibilities of any given community. On the second position, planning standards have certainly been developed by experts and not through public participation processes. Standards comprise pre-formulated knowledge about the preferences of the 'typical'/'optimum' settlement that has been constructed by the study group that produced the standards. In any case, the way that planning standards are formulated is a far cry from the communicative approach to knowledge production as, according to Healey (1996, p. 246), 'knowledge is not preformulated but is specifically created anew in our communication through exchanging perceptions and understanding and through drawing on the stock of life experience and previously consolidated cultural and moral knowledge available to participants'.

Based on the above findings, it is crystal clear that the communicative approach refrains from the use of standards. In particular, standards are part of a fixed planning process, which restrains the elaboration on new conceptions, ways of thinking and strategy-making processes; underestimate the preferences of local communities; and replace public participation and judgement with experts' knowledge.

4. THE WEAKNESSES OF BOTTOM-UP APPROACHES AND THE APPROPRIATE PLANNING SCALE FOR THEIR IMPLEMENTATION

As presented in the above analysis, the systems and the rational planning theory have embodied planning standards in their approach, while the communicative planning theory refrains from their utilization. This statement should not lead to the early conclusion that planning standards have no role to play in a possible bottom-up approach. In order to ascertain the role of standards in bottom-up approaches, it is crucial to understand the weaknesses of such approaches and also explore the appropriate planning scales for their utilization.

The fundamental precondition for the implementation of a bottom-up approach is the existence of a 'bottom level', which for urban planning corresponds to the existence of a community that has certain needs, problems and expectations, that are different from other communities, and is also willing to participate in planning procedures in order to influence them. However, on certain planning occasions there is no 'bottom level'. This may be the case in the planning of a new settlement or a large city plan expansion. On such planning occasions, there are not any residents yet, so the utilization of a bottom-up approach is unattainable and planners can only turn to top-down approaches.

In the case that there is a local community which is willing to participate in planning processes, an assumption that is quite challenging, the implementation of a bottom-up approach meets certain other obstacles. One of them is the relative

difficulty in translating a bottom-up procedure of urban intervention into legislation. The existence of some sort of legislation is crucial, as it provides formalized rules and procedures that can maintain the agreement reached through the participative processes (cf. Healey, 1997, p. 279). If any community is going to develop its own bottom-up planning process – that is, a perspective to which the communicative approach adheres (Healey, 1997, pp. 268–269) – then inevitably the legislation should also be subject to the local community. However, this perspective on local lawmaking power is a far cry from the current administrative and constitutional organization of modern western states, even for those states with a federal structure. In the event that local legislation cannot be made, then there is no hope that central legislation can deal with the various planning systems that each local community will produce and exercise. As a result, the desire for unlimited freedom in choosing or constructing individual planning processes on behalf of each local community is restrained due to the lack of local lawmaking power.

Concerning the implementation of bottom-up approaches, their efficiency in planning is inversely proportional to the size of the community that is planned. Participatory processes become cumbersome when the population size increases, slowing down the process of urban intervention, which is already a time-consuming process. In particular, the gathering of the various stakeholders of the community, the arrangement of the procedure in which the open-ended forms of discussions will be held, the arrival at agreement on conflicted and interrelated issues and the translation of these agreements into planning objectives require the amplexity of time. Thus, in large communities, either the bottom-up processes will be inefficient, due to the slow progress of participatory processes, or techniques of representative participation will be adopted, which degenerate the nature of the bottom-up approach.

A third weakness of a bottom-up approach that further limits its scope is that such an approach can be implemented when planning deals with spatial issues as related to local interests and consequences only. Petter Næss (2001, pp. 514–517) has argued on the weakness of bottom-up approaches in the field of sustainable development, where a higher level of coordination is necessary. The same also applies for objectives that have consequences far beyond the local borders or their planning is affected by the preferences and needs of the residents outside these local borders. Such objectives are related to the location of supralocal facilities, like hospitals, universities and industries, which serve the population of more than one local community, to the planning of the transportation systems and their terminals, like airports and railway stations and to economic and environmental planning by and large. Thus, as Næss (2001, p. 516) concludes,

[...] the local level should not have full sovereignty over such dispositions. Local planning should therefore take place within frames ensuring that consequences primarily manifesting themselves at other scales than the local are also taken into consideration.

Based on the above analysis, it is obvious that bottom-up approaches are unable to guide either regional planning or strategic urban planning, as on the one hand such approaches cannot deal with the allocation and the location of supralocal facilities and, on the other hand, their implementation becomes cumbersome, due to the large population size of the planned communities. Thus, for regional and strategic urban planning, a top-down approach is inevitably the only available choice for planning practice. As a result, the scope of bottom-up approaches is limited to the local planning of small settlements, or to the planning of districts in larger settlements. On these occasions of planning, the higher level strategic planning has already indicated the long-term objectives, for which the contribution of local participation is debatable, and has also resolved the conflict of interests among neighbouring settlements or districts. In addition, because of the small study area, participants are likely to have a clear and comprehensive view of their communities' strengths, weaknesses and opportunities, so their participation in planning procedure can be beneficial to the understanding of local needs, while participatory processes can be quick and flexible.

5. THE USE OF PLANNING STANDARDS IN TOP-DOWN AND BOTTOM-UP APPROACHES AND IN THE DISCERNIBLE PLANNING SCALES

The assigning of top-down and bottom-up approaches to discernible scales of planning helps the role of planning standards in each planning approach to become clear. As we saw above, regional and strategic urban planning should be ascribed to top-down approaches, while local urban planning that encompasses physical planning to bottom-up approaches.

Central to regional planning is the axis of economic development, in which planning standards have limited contribution. Economic development is related to uses closely associated with the function of the free market, such as industrial uses. However, the appearance of such uses in regional space cannot be standardized, as this appearance does not exhibit any regularity. Thus, the description of McLoughlin's *intended state* is more a matter of political economy than a matter of standards application. However, regional planning also deals with the allocation of supralocal public facilities, such as health, higher education, sports, law enforcement, judiciary and administrative installations, for which certain standards can be identified and applied. For these uses the utilization of one type of standards, *locational standards*, which refer to the type or number of public facilities per type of settlement, is crucial. The type of settlement can be identified based on population criterion (small, medium, large settlement), its position in the administrative structure (capital of a state, of a region or of a municipality), or its position in the functional network (higher and lower order settlements).

In strategic urban planning, standards constitute a basic tool of the typical top-down planning practice and are used equally as much for the planning of the uses that are closely associated with the function of the free market as for the planning of the public facilities. For the description of the intended state of the former uses, the application of planning standards coincides with the projection of their growth at a specific future time. However, for the planning of these uses in non-built-up areas, where no projection can be made – for example, in the case of planning a new settlement or a great city plan expansion – planning standards portray the typical/average contribution of these uses in the total area of the settlement. This case corresponds with Faludi's *satisficing strategy*, in which the planners allocate the uses in such a way that suffice for the sound function of a typical/average settlement or city segment. For both planning occasions, either planning in a built-up area or in a non-built-up area, locational standards can be used, although the use of a second type of planning standards, *service standards*, is recommended. Service standards link the total built-up area of a specific urban use with a certain population size (for example: 3 square metres of retail trade per inhabitant). By adopting service standards for all urban uses, planners are able to estimate the overall built-up area that is needed for a specific population size and are successively able to calculate the necessary land area of a settlement for certain given *plot ratios* (that is, the gross built-up area of all floors divided by the land area). Locational standards can complement service standards, demonstrating certain limitations in the location of the uses, such as: heavy industries must retain 1 mile distance from residential areas.

For the strategic urban planning of public facilities in specific, locational and service standards are equally useful. In this scale of planning, locational standards link the type or the number of public facilities with certain divisions of residential areas (districts and local neighbourhoods) or certain hierarchical types of city centres (primary and secondary city centres). The detail of these standards used in strategic urban planning should be quite limited, in order to allow for a certain degree of flexibility in the above local planning scale. Thus, planning standards should describe the overall intended state of whole categories of urban uses and not the state of specific urban uses. This perspective leads to the substitution of locational standards for local uses – in which the specific type and number of uses is recommended – from service standards. For example, the various locational standards that specify the number and type of necessary local cultural facilities should be replaced with only one service standard that allows the specification of the overall necessary built-up area of local cultural facilities.

As is obvious from the above, the allocation of the specific number and type of local uses is completed on the local planning scale, which may be approached bottom-up. Although bottom-up planning is mostly based on citizens' participative processes, the use of planning standards can be beneficial. Contrary to Hea-

ley's position (1997, p. 269), planning standards can and should form a starting point of citizens' discussion on the number and the type of the facilities that they will decide to allocate, as this allows participants to track the possible deviation of their proposal from a typical arrangement of urban uses. In this context, the existence of locational standards for specific local facilities is crucial. Moreover, the existence of a third type of planning standards, *occupancy standards*, can also be beneficial. Occupancy standards demonstrate the optimum ratio between the built-up area of a certain use and the number of its users or employees (for example, occupancy standards for elementary schools suggest that each student should possess 7 square metres of built-up school area). These standards can be utilized either at the phase of analysis and evaluation of the settlement's actual state (by comparing the actual with the optimum state that these standards indicate), or at the phase of planning, where they can be used for the estimation of the built-up area of the proposed facilities. The use of these standards supposes that the number of the users, or of the employees for each current or planned urban use is known, a fact that makes their utilization appropriate in the scale of local planning, as local communities have easy access to such information.

6. CONCLUSIONS

The use of planning standards is interwoven with the past and the current planning practices. The case study of the planning systems of six western states revealed that in all of these states, planning standards have been utilized for the preparation of the planning program. However, despite the significance of these standards to planning practice, planning theory has not elaborated a framework for standards utilization. Within planning theory, two main tendencies can be noted, which are very much at odds with one another: the top-down and the bottom-up approach to planning. The analysis of representative theories of these two tendencies revealed a clear relationship between each tendency and the use of standards. On the one hand, the top-down systemic and rational planning theories prompt the use of standards, even though they have not systematically considered a methodological framework of standards utilization. On the other hand, the communicative bottom-up approach lacks any methodological references as it stays at a highly abstract level and seems to refrain from the use of standards.

The paper has also demonstrated that both tendencies have advantages as well as weaknesses that make them appropriate for application in certain planning scales. If a three-tier structure of planning scales is to be adopted, then the regional and strategic urban planning scale should be ascribed to top-down approaches, while local urban planning scale to bottom-up approaches. Linking top-down and

bottom-up approaches of planning with discernible planning scales has been the key for an initial construction of a framework for planning standards utilization. In particular, it has been possible to discern that certain types of planning standards are more useful than others in certain scales of planning. In the scale of regional planning, locational standards are foremost in terms of usefulness, while in strategic urban planning, locational and service standards are equally useful. Last but not least, in the scale of local planning, occupancy standards are undoubtedly the most useful.

Apart from the aforementioned conclusions regarding the methodology of standards utilization, the foremost conclusion of the paper pertains to the fact that standards can be and should be part of any planning theory. The approach to planning, either top-down or bottom-up, the scales in which planning is exercised, from regional to local planning, and the types of standards that are used in each approach and scale, are all these interrelated issues that should be elaborated on in a coherent theoretical body. The same should also be applied for others issues that are central to planning practice, such as the classification of urban uses, the clarification of the components of the survey of the planned area, the construction of alternative scenarios and the methods for their assessment, or the construction of the planning zones. Unfortunately, most current planning theories, i.e., the postmodern and the communicative theory, either do not delve into such issues or delve into them in order to challenge them without submitting alternative options of practice and therefore abolish their link to practice. Even if in sciences methodology is second to theory, as it allows us to move from theory to application, in the applied fields, such as urban planning, the emphasis is on methodology, since these fields aim to be operational and achieve real-world efficiency (cf. Faludi, 1986, pp. 12, 23, 115). Thus, any planning theory that hopes to guide practice should elaborate on methodological issues, and, based on this position and the above analysis, we can conclude that there is still plenty of research that has to be performed in relation to the sound use of planning standards.

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