Culture Counts – How Cultural Differences impact Strategic Planning Processes towards Urban Resilience

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Abstract

Against the background of global change and transformation processes and an increase in international and interdisciplinary cooperation, the need to better understand cultural differences in strategic planning processes towards urban resilience becomes apparent. In particular, with regard to climate adaptation, cities and regions around the globe are looking for alternative approaches and new strategies in order to strengthen their resilience and their capability for innovation.
Based on the definitions of the key concepts "culture" and "resilience" as well as on the planning model of the "third generation" (Schönwandt, 2002) and the "cultural values model" (Stephenson, 2008), this paper discusses the impact of cultural differences on strategic planning processes towards urban resilience.
Examples from regional workshops on climate mitigation and adaptation in South-West Germany illustrate how these concepts are actually lived in strategic planning processes and how diverse planning cultures and approaches influence the different planning steps, starting from the definition of the initial problem up to the development of solutions. Appropriate tools and approaches that can help to overcome cultural misunderstandings and barriers are presented. Finally, the cultural determinants of strategic planning processes are analyzed and recommendations are deduced in order to raise cultural awareness in international and interdisciplinary planning projects as well as in political decision-making.

1. Introduction

Strategic planning processes have gained new popularity against the background of climate change adaptation and resilience of urban areas. Since these challenges can be no longer solved on regional (or national) level or by a single discipline only, international and interdisciplinary cooperation has increased significantly. This goes along with multiple cultures and approaches which are characterized by manifold mental models, values, attitudes and interests.

In order to cope with the complexity of transformation towards a resilient and climate friendly society the German Advisory Council on Global Change ("Wissenschaftlicher Beirat der Bundesregierung Globale Umweltveränderungen") has recently called for a knowledge-based process on transformation, inter- and

trans-disciplinary cooperation, a systemic perspective, social and technical innovations, and more research and education on transformation processes (cf. WBGU 2012). The need to further consider cultural issues in political governance and decision-making has been lately emphasized for example by a policy statement of the United Cities and Local Governments on "Culture as the Fourth Pillar of Sustainable Development" (UCLG 2011). Both documents underline the need for an intensified cooperation between science and society, including diverse disciplines and manifold stakeholders. Hence, the need to understand cultural differences and to find a common language will further increase.

This paper aims at analyzing the interrelation of culture and resilience in strategic planning processes based on the definition of the key concepts "culture" and "resilience" and theoretical foundations. Examples from regional workshops on climate mitigation and adaptation illustrate the diversity of planning cultures. Suitable tools and thinking approaches how to overcome cultural misunderstandings and barriers are presented. Finally, the results are reflected and used for recommendations on cultural awareness in planning and decision-making.

2. The Interrelation between Culture and Resilience – Core Concepts and Theoretical Foundations

The concept of culture has diverse meanings in different countries ranging from achievements in science, technology and art, via social boundaries due to different interests, attitudes and values, to "culture as the fourth pillar of sustainable development" (UDLG 2011). In our context we use the concept in the sense of "planning culture" which can be considered as a discipline-specific sub-culture within the overall concept of culture. In this sense, "planning culture" is associated to those occupational groups who deal with the design and future development of space and environment, e.g. spatial planners, urban and regional planners, architects, landscape planners, and neighbouring professions such as geographers, civil engineers, sociologists etc. They are characterised by a more or less common framework on how to deal with planning issues. Knieling & Othengrafen (2009a) explicate that these members of the planning profession "[...] are producing and sharing cognitive frames, practices, knowledge, beliefs, norms and rules, values and codes. […], all actors involved in planning processes are conditioned by the system of planning they act in, including the acceptance of rites and power structures etc. [...], planning is embedded in a specific cultural framework, which is composed of interactive processes among involved actors, their cultural cognitive frames and the particular planning procedures and instruments. In this sense, planners and planning systems need to be responsive to their cultural contexts." (Knieling & Othengrafen, 2009a, pp. 42-43) These professional biases of planners, i.e. certain planning approaches they use, narrow the perspectives and quite often hinder them to develop alternative solutions. Because these "glasses" through which a planner sees a given situation determine the way he/she constructs the problem, analyses the causes of a problem and deduces strategies and measures to solve the problem (Kuhn, 1981; Bunge, 1996; Schönwandt & Voigt, 2005).

These cultural issues also affect strategic planning processes that aim at enhancing urban resilience. Originally, the concept of resilience stems from the science of ecology and describes the ability of ecosystems to absorb shocks and other disturbances and to further exist preferably without prejudice (Holling, 1973 and Folke, 2006; in: Birkmann et al. 2011, p. 17). In recent years, the concept has been further developed and applied to socio-economic and socio-ecological systems (cf. Birkmann 2008). In the context of climate change the concept is often understood as "robustness" or "resistance", i.e. the ability of a system to sustain its central functions even after the occurrence of natural hazards. Moreover, a second essential feature of resilient systems is the ability to restore the initial state after external disturbances or shocks. The concept of "engineering resilience" emphasizes the "coping capacity" (Hollnagel et al., 2006) that measures the time period until then the initial state is recovered. The more resilient a system is, the faster it recovers from the impact of a crisis. Previously focusing on robustness and coping capacity, the term has been recently extended to the learning capacity of a system (among others Folke, 2006), i.e. that the system is able to learn and to adapt itself to changing environmental conditions. Hence, a resilient system or a resilient society possesses a high capacity for adaptation and has the ability to adapt itself reactively and proactively to changing environmental conditions. Therefore, a resilient spatial planning aims not only at the development of robust and resistant structures, but should - in the sense of reorganisation - support changes towards an adjustable spatial structure (Birkmann et al., 2011, p. 17). Finally, the debate on the notion of urban resilience is still ongoing. Generally, the concept is understood "as the degree to which cities are able to tolerate alteration before reorganising around a new set of structures and processes" (Seventh Framework Programme, 2011).

In order to capture the influence of culture on strategic planning processes towards urban resilience, the planning model of the "third generation" is used which was elaborated by Claus Heidemann (Heidemann, 1992) and further developed by Walter Schönwandt (Schönwandt, 2002). This model is based on systems theories and helps to analyze the determinants of strategic planning processes by mapping the planning cycle and its steps of procedure. Thereby, it is essential to note that the several components that together make up the "third generation" planning model never exist in isolation but always interact with one another (see figure 1): Based on their individual and discipline-specific mind-set (methods, concepts, theories, world-views etc.) planners build a "planning world" that is composed of specific approaches and operates within the environment of a "life world". This "life world" is where particular agendas, i.e. several points of political discussion or dispute, are worked out by actors in an arena. This interaction of "planning world" and "life world" forms the basis of a planning cycle that we can deconstruct into the following interconnected steps of procedure: "comprehension of the situation", "elaboration of instructions", "communication about behavior", "interventions", "spatial, social, ecological, economic, and political-administrative settings", as well as "outcomes". The outcomes can give rise to a new comprehension of the situation, which, in turn, can initiate a new planning process (for further details see Schönwandt, 2002, pp. 30ff; Schönwandt, 2008, pp.19ff). Since the understanding of these steps and the specification of the related attributes usually differ in diverse cultures, there is the

need for an overall theoretical framework that can integrate these. Due to its systemic approach, the planning model of the "third generation" provides an appropriate analytical tool to map the manifold aspects related to the concepts of resilience and culture. Further details on this issue and illustrating examples will be outlined in the following chapters.

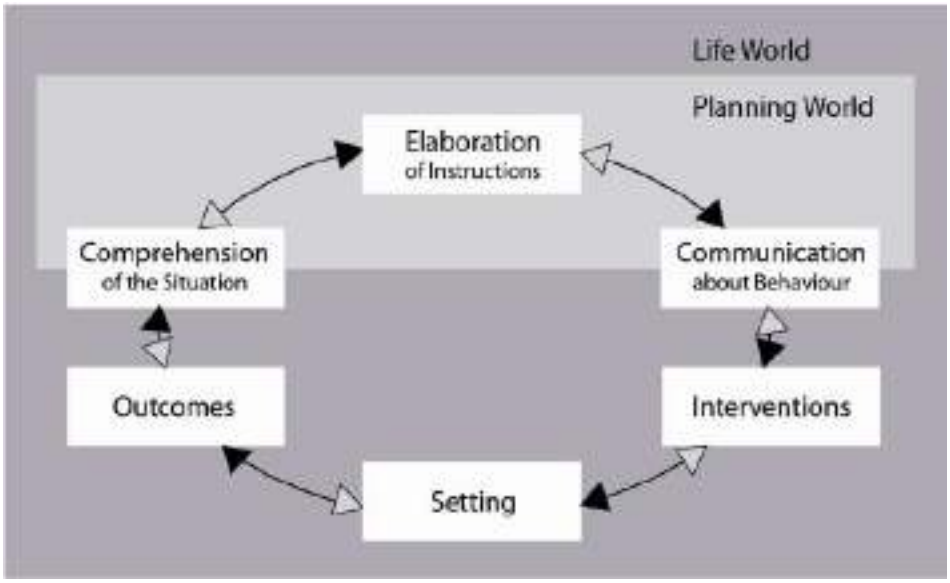

Fig. 1: A planning model of the "third generation" (Schönwandt, 2002, p. 47, modified)

With regard to cultural differences and their impact on the adaptation to environmental conditions, quite often non-European countries have more and longer experience, because they have faced the challenges of large-scale migration much earlier and those migrants have been exposed to extreme environments. For example, Stephenson (2008) studied how the Maoris and the European settlers in New Zealand perceive their environment and everyday landscape. She found out that the settlers mainly realigned to the "surface values" (perception of physical landscape elements, forms, relations and practices), whereas the natives oriented themselves more on "embedded values" (awareness of inclusive values, narratives, symbols, memories and emotions). Based on the results of her empirical study she developed the "cultural values model" (Stephenson, 2008, p. 136; see fig. 2) that incorporates three basic landscape constituents (forms, practices/processes and relationships) as well as temporal aspects (cultural dynamics and relationships). Such case-studies in non-European countries can serve as laboratories that can provide knowledge and lessons learnt with regard to cultural diversity.

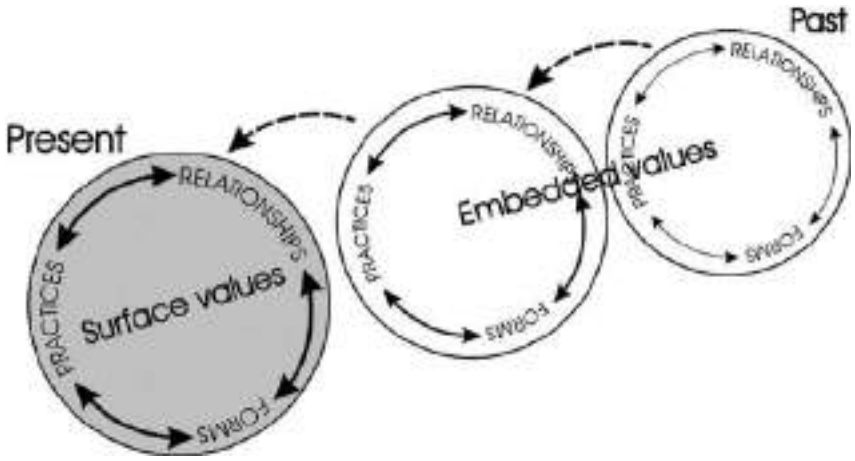

Fig. 2: "Cultural Values Model" (Stephenson, 2008, p. 136)

Taking recourse to the planning model of the "third generation" (Schönwandt, 2002) and the "cultural values model"(Stephenson, 2008), the interlinkage between the concept of culture and the concept of resilience can be explained in more detail: Firstly, there are cultural differences in the way planners think and act, i.e. there are diverse planning approaches depending on the knowledge and professional background of a planner. Secondly, the "life world" consists of manifold stakeholders with diverse interests, attitudes, and values that act within different arenas and incorporate diverse agendas. Thirdly, within the planning cycle itself there are cultural differences with regard to the comprehension of a situation and its assessment (problem definition), the communication of the behavior, and the implementation, i.e. the interventions (for further details see Jung, 2008). Fourthly, planning never takes place in a vacuum, but is situated in certain cultural contexts that can change offer time, especially when new individuals or group of individuals enter the scene; thus planning issues are treated in different ways in diverse cultures and over time.

Keeping this in mind, it can be concluded that tension arises between the aim of finding common or transferable solutions for resilient urban areas and of considering cultural differences. For the development and implementation of strategies and measures towards urban resilience that respects cultural features, we have to be aware of the common characteristics of the two concepts of culture and resilience; they:

- are multilayered, i.e. a high number of aspects are to be considered;
- focus on the process;
- are temporal dynamic (not static);
- comprise interrelated components that depend on each other;
- involve a high number of stakeholders with competing interests.

Restrictively, it has to be mentioned that the interrelation between (planning) culture and resilience needs to be further explored. Can resilience really be attained by (formal) planning? Or is it more or less the result of a sum of determining factors,

among others the culture of a region/country or a specific discipline? So far it can be concluded that the characteristics listed above underline the high complexity of strategic planning processes. This aspect can be regarded as one of the main reasons why the concepts of planning culture and resilience are less incorporated in planning practice until today. In the following chapter we will exemplify this intermediate result by providing practical examples from the workshops conducted within in a project on climate mitigation and adaptation.

3. Initial Tools and Approaches in Strategic Planning Processes and their Practice within the Project ClimateMORO "Spatial Development Strategies for Climate Change"

The impact of cultural differences on strategic planning processes towards urban resilience can be exemplified by three initial tools that determine these processes and can be a source of misunderstanding between diverse stakeholders involved; these are:

a) the problem definition and the problem shifting (part of the planning step "comprehension of the situation in the planning model of the ´third generation´"),
b) the use of key terms / language that plays an important role at all planning steps and
c) the planning approaches which are the core element of the "planning world" in the model.

Some cognitive tools or thinking approaches can help to overcome difficulties evoked by cultural differences. These tools were taught to the participants of three workshops on climate change adaptation with relevant stakeholders in the region of "North Black Forest / Middle Upper Rhine", South West Germany. Those workshops were part of the project "ClimateMORO" (2009-2011) which was commissioned by the German Ministry of Traffic, Construction and Urban Development. Examples from the discussion are given below (cf. Hemberger, forthcoming; see also RV NSW/MO, 2011).

Ad a) In the beginning of a planning process it is necessary to clearly define the problem to be solved. Otherwise we cannot develop a coherent argumentation from the problem to its solution. In our understanding a problem is the description of situation (A) plus the negative assessment by an individual resp. group of individuals – in short: A(-). Thus, the assessment of a problem is a subjective interpretation, i.e. it is "socially constructed" and depends on the perception and the background of the stakeholders involved (profession, ethnic group, etc.). At this point the cultural differences regarding values, attitudes, interests etc. become apparent (see above chapter 2).

If someone does not consider the components of this simple thinking approach, A and (-), it will certainly result in difficulties: For example, during one of the three workshops on climate change adaptation mentioned above the topic was discussed

that the arboreal range of species will change due to climate change. But what is the definite problem thereby? After a long discussion it turned out that different reasons were relevant for the stakeholders in order to assess this fact as problematic/negative; these were:

i. the existing technology of the wood-working industry cannot cope with the type of wood that is produced by new tree species (economic reason);
ii. the loss of the traditional landscape scenery (cultural reason);
iii. the decrease of tourist numbers due to the loss of the landscape scenery they are used to (economic reason);
iv. the changing arboreal range of species itself is seen as a problem (ecological resp. ethical reason).

Each of these problem definitions (respectively negative assessments) depend on different planning cultures and will lead to different action and specific measures in order to solve the problem. Planning cultures that are determined by the conception that nature is an economic resource for business (see above point (i)), will lead to measures that adapt the equipment and machines of the wood-working industry to the new conditions. In contrast, those who judge nature as a value on its own (see above point (iv)), will develop measures for the protection of the existing arboreal range of species. Hence, within interdisciplinary planning processes it is important to precisely define the problem to be solved and to attend the respective cultural imprint of the stakeholders involved. Only to examine the same state (arboreal range of species) is – as shown above ! – not sufficient, in order to clarify the problem and to introduce appropriate measures.

In addition, it might be helpful not only to define a problem, but to shift it by analysing the possible outcomes of this particular problem. For example, with regard to climate change the strategies and measures will firstly focus on avoiding or decelerating this phenomenon, e.g.:

i. avoiding climate change by reducing CO2 emissions;

However, if we consider the complex interrelations of this problem and its causal effects, for instance the heat island effect in urban areas and its effects on the health of elderly people, we will certainly come to further and more specified strategies and measures, e.g.:

ii. technical and other planning solutions such as air condition, white coloring of the buildings and facilities, tree planting to increase the coldness by evaporation;
iii. physical training, especially of elderly people, to make them more resistant against heat effects.

The first strategy (i) includes an approach of avoiding negative impacts of climate change, the second strategy (ii) focuses on technical solutions, and the third strategy (iii) ask for the capability of the people to adapt to the changing environmental conditions. Each of these approaches is determined among others by the diverse

cultural expressions of the stakeholders involved which make its implementation a challenging task.

Ad b) Another essential task is the appropriate handling of the language and the definition of key concepts. Since in international and interdisciplinary projects planners will meet a great variety of stakeholders from diverse backgrounds, it is necessary to define key concepts and terms. In doing so, the communication on the contents and the procedure of the project is facilitated. Such definitions must be beneficial to the key question or the problem examined because they determine the planning actions by opening or closing search areas for solutions. Today, planners too often suppose that the professional concepts they use are well-defined and understood in the same way by all parties involved. Moreover, planners have to be aware that concepts are not "true" or "false", but rely on agreements and on the backgrounds of the people who use them (for further details see Schönwandt, 2002).

An example from the workshops mentioned above is the definition of "age" regarding sensitivity against heat. During the discussion it turned out, that not the age counted by years is meant, but an umbrella term that cumulates certain attributes related to the heat sensitivity, i.e. lack of fitness, being bed-ridden, poor living situation, dehydration, lack of air condition in retirement homes, social isolation etc. Because the data collection is less costly for only a single indicator these attributes are summarised and ascribed to all people at the age of >75 years (PIK, 2005). In this way, the relevant data can be easily collected from the statistical offices and forecasted by demographic scenarios. However, for architects and planners this low level of granularity is a disadvantage because it hinders the development of suitable measures aligned to the more detailed attributes mentioned above, for example installation of air condition, physical training of elderly people etc. Often certain disciplines, in this case architects and planners, borrow broad definitions from other disciplines without being aware of the potential for further solutions if a more detailed level of definition would be used.

Hence, it is important to find the appropriate level of granularity for each discipline, in order to sharpen up communication in international and interdisciplinary projects and to reach successful cooperation and results in planning processes. With increasing complexity, this is even more important for strategic planning processes towards urban resilience.

Ad c) A planning approach comprises a set of four bonded and interdependent components: the problem(s), the objective(s), the method(s) and the specific background of a planner, particularly his/her ethical positions, values etc. (Kuhn, 1981; Bunge, 1996). Planning is never based on objective world views, as these depend on the observer and his/her point of view – the "glasses" through which planners see a given situation. According to the paradigmatic approaches of their discipline, planners construct the problem, the factors that cause a problem and the deduced strategies and measures in a discipline-specific way. This professional bias leads to the narrowing of perspectives since each planning approach only allows for a limited range of problem definitions, objective settings and problem solutions (Schönwandt & Voigt, 2005). Moreover, planning approaches can transform over

time, when the underlying philosophical and ethic positions change. For example, Davy (1997) discussed the controversial viewpoints of "social justice" and "liberalistic justice" (Davy, 1997) that affect many planning topics regarding the living conditions in regions and municipalities. Such paradigm change often modifies the understanding of planning and the development of strategies and measures.

To exemplify this, we revert to the example given above with regard to problem definition (ad a)), where the diverse viewpoints on the value of nature play an important role. On the one hand, there is the position that nature possesses an intrinsic value and men should protect nature (see above the protection of a certain arboreal range of species). On the other hand, there is the position that men are superior and nature presents a useful resource to him (forestry and wood-working industry). These opposed positions illustrate the diversity of values and how they influence planning (see also fig. 3).

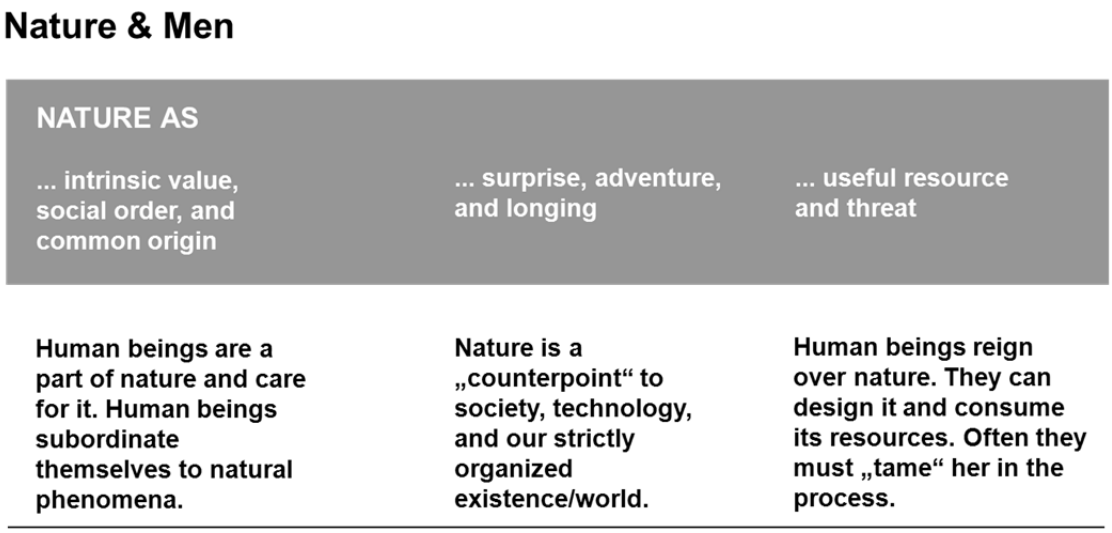

Fig. 3: „Nature and Men" (Gill, 2003, p. 54; modified)

With these three initial planning tools – problem definition (comprehension of the situation in the "planning model" above), key concepts, and planning approaches – cultural differences go along. As shown above, they can be a source of misunderstandings between different stakeholders in planning processes.

4. Cultural Determinants of Strategic Planning Processes towards Urban Resilience

There are several links where cultural issues interact with the pursuit of resilient urban areas and societies. Facing the challenges of climate change adaptation and urban resilience, innovative strategies and measures are necessary. With the

increasing number of stakeholders and interests included the complexity of strategic planning processes increases significantly. The cultural factors that determine these strategic planning processes can be summarized as follows:

a) the background of the individual resp. group of individuals involved (education and profession, mental models, values, attitudes, interests) - see workshop examples above;
b) the interaction of the personal and social identity, the belonging of an individual to a certain group, and the "collective memory" of a society influenced by historical experiences and traditions – these issues and their influence on spatial planning processes has been studied for example by Hasselsberger (2010) who analyzed two regions at the Austrian-Slovenian and the Austrian-Italien border (cf. Hasselsberger, 2010).

In addition, with regard to strategic planning processes towards urban resilience other cultural factors become apparent:

c) the institutionalization of values in planning processes (legal framework, rites etc.);
d) the political will for adjustment and innovation; and
e) the cultural context in which a planning process takes place.

How diverse the latter is in different countries and how much this determines the basic pre-conditions for strategic planning can be imagined if we look for example at the different education systems that provide (or does not provide) knowhow and skills to the stakeholders (cf. OECD, without date). Another determinant is the sense and handling of time which differs to a large extent in diverse cultures as it has been studied for example by Levine (2004) who analyzed the speed of pedestrians in different cities around the world (cf. Levine, 2004). Summing up, both aspects – education and sense of time - will certainly influence the way, how the stakeholders involved can develop and implement strategies and measures towards urban resilience.

5. Conclusions and Outlook

Based on the planning model of the "third generation" (Heidemann, 1992; Schönwandt, 2002) and the "cultural values model" (Stephenson, 2008) as well as on the definitions of the core concepts (culture and resilience), this paper explicates how cultural differences, both in terms of ethnic and discipline, influence strategic planning processes towards urban resilience. Examples from workshops with practitioners illustrate this issue. Moreover, certain tools are introduced that show how international and interdisciplinary cooperation can be enhanced.

From the aspects outlined in this paper it can be concluded, that if spaces often form physical barriers for a certain behavior, multiple planning cultures add yet another barrier to planning processes, because they steer the thoughts and actions taken. Planning cultures always comprise a set of social perspectives of a problem, the

envisaged objectives, the methods used to solve a problem, and the ethical positions and moral concepts of the stakeholders involved. With cultural plurality these elements of planning cultures are going to increase.

Due to the cultural plurality as well as the multilayer structure, processing, dynamics, and interrelation of components, strategic planning processes towards urban resilience are getting more and more complex. This concerns both the tasks of spatial planning as well as the framework conditions. The latter includes the multiple planning cultures which vary according to ethnical, discipline-specific, value driven, historical and other factors. According to each planning culture the action a planner takes will differ. Particularly with regard to complex problems, such as the interdisciplinary planning of a resilient city, the high diversity of planning cultures needs to be paid more attention to. Because more and more disciplines and thereby planning cultures work on more complex and cross-linked planning problems.

In this process, certain cognitive tools and thinking approaches can help to put away or at least to diminish cultural barriers and further obstacles. For example, the professional bias regarding the value of nature certainly impacts the planning result. Finally, for planning processes, political decision making, as well as international and interdisciplinary cooperation this means that

- more effort should be spent on cultural awareness in planning and decision-making;
- planning processes must consider more intensively the diverse backgrounds and approaches of the stakeholders involved;
- possible misunderstandings and barriers must be traced right from the beginning of a planning process;
- beyond the tools and approaches mentioned above, further work techniques and ways of proceeding should be researched in order to avoid such misunderstandings and to initiate learning processes among stakeholders;
- a paradigm change in society needs to be fostered that assess cultural plurality as enriching and a potential basis for innovation.

However, open questions remain that need to be further explored:

- Can urban resilience really be attained by (formal) planning? Or is it the result of a sum of determining factors including culture that can hardly be influenced?
- Are there groups of stakeholders, e.g. certain professions or ethnic groups that present typical mental models, interests, attitudes, and values? And how do these components of diverse planning cultures affect the thoughts and action of these stakeholders?
- Which policies and best practices to achieve urban resilience are already used in different regions and countries and how are they evaluated?
- How probable is the development and implementation of an integrated transition strategy towards urban resilience against the background of diverse cultures and approaches?

These questions and other topics will be further studied in the ongoing research projects COST IS1007 "Investigating Cultural Sustainability" (www.culturalsustainability.eu/; cf. COST Secretariat 2010) and FP7 "TURaS – Transitioning towards Urban Resilience and Sustainabilty" (www.turas-cities.eu/; cf. Seventh Framework Programme 2011).

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