Tools for Interaction in Urban Planning

Introducing approaches towards sustainable urban development

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A dominant theme when sustainable urban development is discussed in theory and practice concerns urban structures and forms. A main question within this theme concerns the integration of urban growth/densification issues and issues related to multifunctional urban green structures in urban planning. The question of growth and green relates the spatial dimension to the environmental, social, economic and institutional dimensions of sustainable development and requires integrated planning approaches across sectors and disciplines in order to be properly managed.

Another dominant theme is drawing on planning theory and the requirements, as well as the problems, of communication in urban planning and change processes. From a point of departure in current planning theoretical discourses on communicative planning this article briefly introduces different approaches to planning practice and argues for the need of interaction. Tools for interaction are required in planning practice as well as in interdisciplinary research. In coming issues of the journal the different approaches will be more thoroughly presented and discussed. This discussion is a point of departure for an on-going EU research project called "Communicating Urban Growth and Green" (GREENSCOM), within the 5th Framework Programme, key action 4: City of Tomorrow and the Cultural Heritage. The conference on 'Communication in Urban Planning' in Gothenburg, October 1999, was an inspiring kick off for the Greenscom project and a forum where the original papers introduced here were presented and discussed. Some of these unpublished papers form the basis for coming articles in this journal.

Introduction

The political vision of sustainable development according to the Brundtland Commission (WCED, 1987) is a complex challenge to urban planning. It includes the planning, design and management of buildings, land

and infrastructure of the urban areas to reduce the use of resources and limit bad impacts on the environment. It also includes initiatives and change processes for economic, social and cultural development, within the limits of global carrying capacity and according the principles of democracy and fair distribution of resources. This complex vision on how to manage global problems of environmental degradation and poverty have to be interpreted and transformed into strategies and initiatives based on specific local situations. Each local situation is framed by multidimensional time and space related conditions that decide which strategies, initiatives and measures that are motivated and possible to implement.

One dominant theme when sustainable urban development is discussed in theory and practice concerns urban structures and forms (e.g. Koskiaho 1994, Rådberg 1995, Jenks, Burton & Williams 1996, Breheny 1996, Lapintie & Aspegren 1996, Næss, Lyssand Sandberg & Halvorsen Thorén 1996, Tjallingii 1996, Næss 1997; Steen et al. 1997, Frey 1999). One main question within this theme concerns urban growth and densification vs. multifunctional urban green structures. This question relates the spatial dimension to the environmental, social, economic and institutional dimensions of sustainable development and requires integrated planning approaches across sectors and disciplines in order to be properly managed. It is also important to the quality of urban everyday life and, thus, of great public interest. Furthermore, it contains potential conflicts between different goals and aspects within the vision of sustainable development.

A recent literature survey on the topic of urban structures and sustainable development (Falkheden and Malbert 2000) shows that conclusions and recommendations are different and sometimes contradictory depending on the aspects of sustainable development and the questions of fact chosen for the studies. This is mirrored in planning practice where the interests and issues of different sectors are confronted, often resulting in fruitless argumentation and deadlocks. The requirement of integrative and communicative planning approaches is obvious in order to co-ordinate decisions and actions towards sustainable development.

Useful policy instruments and tools for communication are asked for, not least at the European level.

Communication, power and rationality

The discourse of planning theory during the end of the 20th century contained approaches that in different ways questioned the rationales, methods and results of planning practice. Urban planning practice has its roots in technical and spatial traditions developed to solve the sanitary and hygienic problems of the growing industrial cities of the late 19th century. From that point urban planning has developed into a complex and sector divided policy area rooted in several different scientific disciplines and social practices (e.g. Friedmann 1987, Faludi 1987, Pakarinen 1992, Sager 1994, Healey 1997).

The critique of the dominant synoptic tradition developed in urban planning based upon instrumental rationality has resulted in various discourses in order to better understand and influence planning practice (e.g. Lindblom 1959, Hudson 1979, Friedmann 1987, Faludi 1987, Sager 1994, Healey 1997). During the 1990th a communicative approach emerged in planning theory inspired by Habermas' ideas on communicative action and the ideal dialogue (e.g. Forester 1989, Sager 1994, Healey 1997). It had great relevance to the actual requirements of planning practice to manage new forms of co-operations across sectors, negotiations and partnerships with private actors and demands on broader citizen participation in planning and decision-making processes. Simultaneously, it was criticised for being naive and misleading facing actual power relations in society or to be too much framed by the impossible conditions of the ideal dialogue situation.

A competing approach in planning theory referring to Foucault's concepts on power in the society can be exemplified on the one hand by Flyvbjerg (1998). Flyvbjerg visualises the more or less visible power relations that influence the processes and results of planning in his study of Aalborg in Denmark. On the other hand, Lapintie (2000) criticises Flyvbjerg's strong conclusion – 'rationality yielding to power' – when claiming that a better result could have been achieved if the planners were listened to. According to Lapintie, who is also

referring to Foucault, there is always some kind of rationality behind power and what Flyvbjerg seems to refer to as 'pure' rationality is also a form of power. However, one conclusion is that both perspectives that focus on power analysis respectively communicative approaches have been necessary to better understand planning. While the planning theoretical debate of the late 1990th was characterised by the struggle between proponents of these different approaches, the current discourses contain attempts to integrate them.

Lapintie (1999) argues for communicative approaches supported by argumentative theory that can guide planning practice and set the rules for dialogues between actors with typically competing interests, values and worldviews in a way that avoids the impossibility of the undistorted dialogue situation. In a critique of both rational and communicative planning Orrskog (2001) promotes discourse analysis as a possible approach for post-social planning practice. Both Lapintie and Orrskog draw on Foucaultian thoughts of power. Although they have different focus, their ideas are complementary. Argumentative theory, according to Lapintie, can be used to establish rules for the framing of social settings and fair debates among stakeholders. Discourse analysis, according to Orrskog, moves the focus from the actors, and their different ability and power to make themselves heard, to the varying discourses and their strength, legitimacy and implications in a specific planning situation. This leads to different roles of professionals involved in planning processes as facilitators/mediators and interpreters/synthesisers respectively. Both types of roles can be discussed from a power perspective. It is also possible to see them as complementary. Discourses are both results of and frames of argumentation.

Another approach can be exemplified by the work of Bruno Latour (1998) and José Ramirez (1995). Latour criticises the view that society is a subject that human beings can grasp by knowledge. According to Latour, society is constructed and reconstructed by all its actors – including the researchers. To understand expressions of power one has to focus on the practical work that keeps society stable. He points at the importance of artefacts in this practice. Power is reproduced in the definition and redefinition of the artefacts that keep society together. José Ramirez enlightens the mediating act that creates a relation between distant and diffuse phenomena (like nature) and representations at hand (like woods, parks etc) that can be given definitions and are thus possible to be recognised and grasped by the acting human being. For instance, writing is a mediating act for the creation of images that can be studied and communicated to others, in different times and spaces. This possibility can also cause problems. We tend to see the signs at hand as artefacts with fixed relations to the phenomena that we try to understand and express. We might forget how these relations are embedded in time and space. Accordingly, both Ramirez and Latour show that such building boxes for knowledge can easily become 'black boxes', with contents we can forget and take-for-granted. They also mean that empowerment is dependent on the possibility to understand the act of mediation of artefacts and judge their range in time and space.

The proponents of 'the reflexive conception of planning' have similar views, for instance as described by Lapintie (2000). In this approach communication is a social practice that constructs its meaning and the object of discourse as well as power. The question is what possibilities of reflection exist in a 'reflexive society' where more control no longer seems to lead to increased security (Beck, Giddens & Lash 1994). In a reflexive perspective to planning the substantive issues are inevitable parts of any political process and planning procedure. The substantive approach and the procedural approach in urban planning are thus not seen as dichotomies. Substantive issues are easily identified as tangible artefacts, for instance like new flowerbeds in a park. Furthermore, the institutional constructions that governs communication situations, like the relations between government and citizens that enable the users to maintain these gardens, that can change their everyday practice and support new shared actions, are also such issues or artefacts. This is discussed in the ongoing debate on institutional capacity and governance.

A transition of urban planning from a formal bureaucracy to more open and self-organising forms of go-

vernance means that the boundary between organisations from public and private sectors has become permeable (Lapintie 2000). Lapintie, with reference to Stoker (1997) sees the possibilities of two different approaches to this change. One, called the managerial, is related to the adoption of new tools by the formal authorities and the emergence of new, but less radical, processes. The other, called the systemic, refers to new practices, new co-operative ensembles, and the emergence of self-governing networks. At least the latter means that some 'black-boxes' in urban planning and research have to be opened, probably with the help of a more reflexive standpoint to human action. In both approaches institutional capacity will be a key factor for consideration. The institutional capacity focuses on the web of relations involved in urban governance in order to promote shared actions and better understand how these relations and actions are shaped. Place, territory and locality are concepts that support this focus (Healey, de Magalhaes & Madanipour 1999). A key question is who are included and who are excluded in the building and rebuilding of institutional capacity.

The communicative turn in planning theory and practice includes, as shown here, several different approaches that all are based on severe critique on established instrumental approaches and their defective abilities of controlling and guiding social change for common good. Even the idea of a 'common good' is challenged in the late 20th century debate. The communicative approach to urban planning recognises planning as a continuing political process of argumentation and learning in a pluralistic and multicultural society in order to support co-existence in shared places. Limitations in time, space and resources enforce common rules and regulation not only concerning spatial land-use, but also for the management of urban flows and everyday actions of urban actors and citizens. Taken together, this constitutes a real challenge to planners as well as planning organisations in order to adapt and improve their practice accordingly. In a coming article architect and philosopher Kimmo Lapintie, Helsinki University of Technology, will elaborate the aspects of rationality related to this challenge.

Communicating urban growth and green issues

The on-going Greenscom project within the EU 5th Framework Programme aims at the identification and development of policy instruments and communication strategies for the management of urban growth and green issues in urban planning. It involves research teams from five European countries (Denmark, Finland, France, Sweden and the Netherlands) and contains case studies in seven European cities (Aarhus, Cergy Pontoise, Gothenburg, Helsinki, Houten, Tampere and Utrecht). The first year has been directed at the shaping of a theoretical framework for the currently on-going case studies. The project will be concluded in 2003 with recommendations on useful policy instruments and tools based on case study evaluations and comparison.
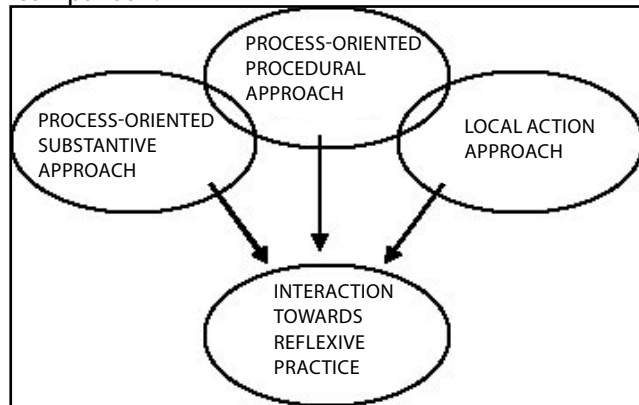
munication and learning is in common.

Not all papers delivered at the conference are referred here (see http://www.arbeer.demon.co.uk/MAPweb/Goteb/index. htm). We have chosen the examples of development work that give a good illustration of each of the three approaches. The authors are not just part of different approaches regarding communicative planning, but do also belong to different national planning and research traditions. Further, they have in many cases tried out innovative practices within their approaches.

Figure 1: Three approaches identified at the Gothenburg Conference.

Process-oriented Substantive Approach

The denomination indicates that the focus is on processes in the integration of ecological knowledge in urban planning. The research and development work within this field are interested in communication problems such as in connection to:

- Identification, description and analysis of urban green structure, its various elements and functions
- Translation and communication of green structure issues into urban planning strategies and recommendations

The interest here is to find tools for communication that can integrate green issues in urban development planning. The assumptions behind this approach are that urban planning will be improved if the planners of different categories can better understand the local conditions. This requires communication tools that can translate complex local situations into concepts and strategies usable in a planning situation. The planners are supposed to use the knowledge on green functions and integrate it with other perspectives on urban development in order to make urban planning strategies and recommendations.

From a point of departure in urban ecology Sybrand Tjallingii introduces the Strategy of the Two Networks (S2N) and the Forum – Pilot Project Strategy that together form a theoretical framework of a process-oriented approach to urban ecology. The strategy of the two networks deals with areas, flows and actors and has a focus on water and transport systems that shape basic technical and spatial conditions for urban life. The process-oriented approach, that is used in se-

veral recent Dutch's plans and projects, is developed as a critique to the traditional object-oriented approach to ecology (see Tjallingii, 2000). While the object-oriented approach normally ends up in strategies for the protection of certain species and areas, the process-oriented approach opens up for integrated urban planning strategies. The traditional object-oriented approach managed by specialised sector agencies results in restrictions on planning. The process-oriented approach requires communication between different experts and stakeholders in order to influence planning. Tjallingii concludes that while the object-oriented approach is deeply rooted in institutional structures, the institutional base for the process-oriented approach is still weak.

The forum – pilot project strategy is a framework for "planning as learning" as a basis for ecological modernisation in town and country. It is a strategy for social learning, following the idea of learning by doing, and it includes a scheme of pilot projects, initiated and evaluated by a specific forum comprising municipal experts of various disciplines, planners, designers, researchers, politicians, citizen and business groups. The ambition is also to use workshops in order to enhance shared understanding among all stakeholders concerned.

Experience from practice indicates: while the S2N is a promising approach, in terms of shaping the decision fields and of shaping the design of the districts as a base for an interactive planning process, it does not guarantee the commitment of the stakeholders. In a coming article Paul van Eijk, Delft University, Marleen van den Top and Sybrand Tjallingii, Alterra Research Institute, will discuss different relationships between the basic tools of S2N and the actors in order to add more options to the strategy.

Process-oriented Procedural Approach

The focus of the research and development work within this approach is:

- Translation and communication of urban issues into integrated urban planning strategies and recommendations
- Implementation of such strategies and recommendations into the urban development process

The perspective is derived from the point of view of the public planning system. The assumption behind this approach is that implementation requires co-ordinated decisions and actions among diverse public and private actors and users of the urban environment. Planning is then seen as a learning process that can support and inform formal decision-making and agreement as well as everyday decisions and choices among urban actors and citizens. Tools of interest, for the first stages, have the ability to relate substantive issues, problems and their possible solutions, to the decision-domains where they belong, and thus support the identification of actors to be involved in the planning process. Actors include both those with the power to change a situation and those who benefit, or loose, from such changes. Tools of interest for the following stages are those that can mobilise the actors involved and support common learning and commitment building for co-ordinated decisions and actions following strategies and intentions agreed upon in the process. The awareness of different types of power and power relations and how to deal with them is essential for an inclusive and democratic process.

From a point of departure in urban planning theory and practice architect and urban planner Knut Strömberg makes a distinction between forums for learning and knowledge building and arenas for decision-making referring to Bryson and Crosby (1996). In a period of time, when different forms of participation and partnerships are called for, almost as a mantra, to solve complex social problems it is important to analyse such initiatives in the perspective of democracy. Also from a practical point of view, broad participation must be used only when it is relevant and necessary according to the planning situation. Important questions are when and how such initiatives for broader participation can be useful and, if so, how the relevant stakeholders can be identified and get involved. The challenge could be finding strategies and forms for direct participation that can support, complement and develop representative democracy. It is about the shaping of intellectual, social and political capacity that can inform the formal institutions of planning as well

as the everyday practices of citizens, businesses and public administrations. In a coming article Knut Strömberg, Chalmers University of Technology, will further discuss this approach.

Local Action Approach

This approach discusses the planning process from the point of view of the users, people that live, work or in other ways use the area studied, and focuses on:

- Identification, description and analysis of a local area, its various elements and functions
- Integration of local knowledge and experience in urban planning and change processes

From this standpoint many decision-making processes are involved. Some of these processes contain a cognitive view of communication others do not. The intentions about the urban issues are seen from the point of view of how they effect the use of the urban area, and planning tools are regarded as relative. In this way, not just the planning and the decision-making tools are in focus, but also the policy instruments that frames them.

The basic assumption of the approach is that it is possible to develop planning tools that can empower the users to act and thus take active part of the development process. This will focus on communication situations that are not just framed by one actors view of what is rational to do, but can manage communication as a social process. Urban development is not just a planning problem, but a management problem that includes the planning situation.

What is rational to do at a specific place is difficult to calculate from a cognitive view of rationality. This was clearly illustrated in one contribution to the Gothenburg conference on user participation in Public Park management. Landscape architect Tim Delshammar (1999) shows that people engage themselves in parks because they find the work meaningful and it gives them a feeling of belonging as well as it is an easy way to be together. If increased relations between people and between people and nature are the reasons, that make people involved in shared actions, it is understandable that it is difficult to direct the interest of

users into the production of written documents in planning procedures. Such text is abstracted from the social practice from which it arises. Delshammar means that we have to regard participation from the view that it has different meaning in different contexts. He also indicates that people want to develop local assets, like parks, but they don't want to execute the order of an authority. They want power to work. This can be an asset – e.g. cutting costs and gaining legitimacy – but also a threat to the culture of the professional management. Delshammar stresses that user participation demands more co-operative ability on the behalf of the management rather than a capacity to produce professional solutions and neat park spaces.

From a pilot case study on how children's needs of outdoor place(s) are reflected in municipal planning landscape architect Maria Kylin (1999) discussed different perceptions of green space among planners, teachers and children. The paper has been further elaborated together with landscape architect Mats Lieberg and is already published in this journal (Kylin & Lieberg, 2001). They show that adults (planners and teachers) and children do not use the same language when describing places preferred by children. While the adults use descriptive terms such as "varied, wild and not maintained" the children usually refer to the same places in terms of what you can do there. The teachers were sometimes closer to the children when talking about certain features of a place such as a big tree or a hut. In the case study focus group discussions and walk interviews were used as tools to capture the language and perceptions of the informants. These methods could also be recognised as possible tools for communication between different stakeholders in actual planning situations using existing physical artefacts of an area as tools for interaction.

Towards reflexive practice

The different research and development approaches briefly reviewed above are all aiming at the improvement of planning practice. They represent different positions and perspectives of relevance. They focus on different parts of a planning situation and the communication problems related. From their different points of departure they search for improved tools and procedures that can grasp and manage the planning situation as a whole. Experience from applications in practice demonstrates limitations connected to each approach. They all want to develop a more communicative approach to urban planning. An interesting question for further elaboration is to see how these approaches can meet and support each other.

In common is a move towards a more reflexive practice aiming at the use and the improvement of perspectives and tools of different approaches. Reflexive practice can be characterised by the view that learning and knowledge building is relational and based not just on cognitive reflection but also on shared and situated practice. No single actor, or his/her practice, can control the whole process – for instance, in order to balance urban growth and green – and thus the communication situations involved have to find modes of exchange, or interfaces, that can support and co-ordinate shared actions. The basic assumption is that tools are an integrated part of practice. Practice can be improved or changed through learning in meetings with other practices. However, such change of practice is a slow and complex process for any person as well as for the tradition or culture of the community he/she belongs to. This means also that the reflexive planner is part of communication processes and political contexts and as such a reproducer of power.

Experience from practice shows that differences in rationality and understanding can result in disturbed communication situations when one approach, or rationality, becomes dominant overruling other legitimate approaches, or when the communication ends up in deadlocks that delay, or prevent, further steps in any possible direction. Currently, many actors within the planning and research professions try to increase their specific range of rational reasoning and thus find themselves involved in 'dialogues of the deaf' (Van Eeten, 1999).

All three approaches mentioned are looking for tools with a capacity in the long run to shape mutual respect and support learning in specific communication situations. These situations are characterised by the meeting between actors of different backgrounds

and culture who have different relations to the issues as well as the urban area involved in the planning situation. We are talking about a broad range of tools contained in the design and use of social settings where each actor is given reasonable time and place for the improvement of his/her own practice in communication with others. Interaction between different practices may be established in the rules and modes of working, in agenda setting, in the use of metaphors or other illustrations, or by individuals acting as facilitators or intermediaries etc. Tools for interaction are not just required in planning practice but also in research practice. It is a demanding challenge in any research and development project of today to find such tools.

As an example of this challenge architect Lisbeth Birgersson, Chalmers University of Technology, will show in a coming article how experience from local action approaches in urban business areas, can be used to discuss the possibilities of a more reflexive planning and research practice. She argues for design theory as a tool for analysing and developing multicultural dialogues in planning processes. Design theory draws attention to a dialogue that includes all human senses, and which not only involves the human actors, but also those phenomena and objects that they create and that become their tools in action.

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Tools for interaction in Greenscom

The theoretical framework developed so far in work packages 1 and 2 of the Greenscom project is meant as a tool for interaction between the different researchers and research teams involved. Some key concepts are developed in order to support the identification, evaluation and comparison of tools in use in the cases of the cities involved. These concepts will be briefly introduced here. A more thorough discussion will be presented later when they are properly tested in the ongoing case studies.

Work packages 1 on Governance and Communication (Birgersson, Malbert and Strömberg, 2001) discusses various communication situations involved in urban planning with focus on tools in use. The concept tools in action is used in order to emphasise the fact that all tools are situated and developed in practice. Tools in action are for instance professional tools such as maps and sketches used by planners, but also tools of everyday life, for instance mental maps and supporting routines for orientation and action used by people at home, at work or moving in the city. In common for tools in action are that they seldom are consciously reflected as parts of the practices they belong to. Once developed they soon become habitual and taken-for-granted and function as 'black-boxes' within their practice. When used for interaction this may cause unnecessary confusion and misunderstandings, or even offer no meaning at all for some people. This happens in the communication between researchers of different disciplines, between professional planners of different sectors as well as between professionals and laymen.

Tools in interaction have the ability to shape mutual respect and learning that enables shared actions, at least in the short run in order manage the problems on the agenda of the specific case. At a higher level of interaction and in the long run tools in transition are based on mutual trust and learning that support reflection, reframing and changed practice (and tools), i.e. the opening of 'black-boxes' and the strengthening of institutional capacity. Key questions for the case studies are accordingly: what makes tools in action become tools in interaction, and what makes tools in

interaction become tools in transition?

Work package 2 on Governance and Policy Instruments (Rajanti, Lapintie, Maijala, 2001) discusses the wider social context that frames communication situations in specific planning cases. Policy instruments are tools at this level. Important concepts are actors, actants and agency. Actors are here defined as individuals, groups or organisations that take active part in urban planning and change processes. An actant is someone or something that is represented by one or more spokespersons. For instance, when a new housing area is designed, urban planners often are spokespersons for the future inhabitants (not present). The future inhabitants are then actants. In our case focusing growth and green issues, urban green is an actant that can have many different spokespersons, e.g. green sector experts, environmentalists and users of local green areas. These spokespersons may very well have opposite opinions and arguments concerning urban green functions and qualities. Finally, agency is a property of the policy instrument or communication tool that contains a possibility for an actor to realise. In other words, agency defines the frames of action that is created for an actor by a specific tool. Key questions for the case studies are accordingly: Which are the possible actors and actants in the cases studied? Which kind of agency for actors and spokespersons are contained in the tools in use? Which innovations are made in order to widen the group of actors and to provide relevant agency?

These are core questions for the Greenscom project that will be concluded at first in 2003. The result will then be presented in reports and journal articles. In coming issues of the journal the approaches briefly presented above, that served as important in-put for the research project, will be further presented and discussed. In this issue Gunilla Lindholm starts with a discussion on the concept of urban green structure.

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