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Fluid Planning: A Meaningless Concept or a Rational Response to Uncertainty in Urban Planning?

Torill Nyseth
Department of Sociology, Political Science and Community Planning
University of Tromsø
Norway

1. Introduction

Many contemporary writers have developed and elaborated upon various fluid metaphors to capture aspects of contemporary social life (Urry, 2000). Flows and fluidity are some of the catchwords in social, cultural, and urban thinking that is used as building blocks in theorizing contemporary trends with a focus on process, connectivity, and mobility at the expense of the previous focus on boundedness, hierarchy, and form (Simonsen, 2004: 1333). Fluidity and flows could even be seen as a whole new paradigm (Shield,1997). In the social science literature these consepts are primarily used as metaphors to describe turbulence and instability. Also in the planning field, fluidity is a concept that first of all is used as a metaphor to describe conditions of uncertainty. Today's turbulent conditions represent particular challenges for planning and policy making, including new spaces of politics, radical uncertainty, awareness of interdependence, the importance of "difference," and dynamics of trust and identity (Hajer and Wagenaar, 2003). Strategic spatial planners are faced with a world of potentialities, possibilities and uncertainties that are mostly beyond their control (Hillier et al., 2011). Traditional strategic spatial planning practices are failing to cope with contingency and uncertainty. In the planning literature, fluidity is however, more than a metaphor. The conditions of radical uncertainty also call for new forms of planning that in a sense are fluid too. Situations of uncertainty require a form of planning that is more exploratory and open to change; planning could be more equivalent to a "voyage of discovery" rather than a "road map" (Balducci, 2011: 2).

The collaborative planning tradition is the most straightforward form of planning that addresses some of these challenges. Among the main characteristics of this tradition are openness, transparency, dialog and consensus building (Innes and Booher, 2003; Healey, 1997; Forester, 1999). Collaborative practices may represent a new sort of institution emerging that can take many shapes and forms but also have shared characteristics: they are fluid, evolving, networked and involves dialogs and distributed intelligence (Healey et al., 2000). A more radical answer, very distinct from collaborative planning theory can be found within the emerging post-structural, multi-planar theory of planning, developed by Jean Hillier (2007). In her book "Stretching beyond the horizon", Hillier argues that planning has to be open to what

may come: "We need to re-invent planning as a strategic future-oriented activity, taking into account the unknown, open up for new possibilities, towards a planning as becoming instead of planning as fixing" (Hillier, 2007: 17). Hillier suggest that spatial planning practice requires redefinition and a new theoretical foundation if it is to be relevant to the dynamic complexities and contingencies of the modern world (Hillier, 2008:259). According to Hillier, the task is to move from "what is" to "what if" (Hillier, 2007: 17). A momentum of experimentation could then be seen as a kind of "virtual planning" that focuses especially on "the unknown" (Hillier, 2007: 232) in a time of "contingent openness" (Hillier, 2007: 224). This kind of planning is largely concerned with "possibilities" and "what ought to be" (Albrechts, 2005: 265–266), and may be seen as an argument for a more fluid form of planning.

What is the basis for these ideas about fluid planning? Can fluid planning be anything more than a vague idea or, at best, influence architectural projects by bringing new and exciting ideas about urban design towards realization? Is it possible to identify the borders between mainstream planning and forms of fluid, experimental planning? In what planning situations is a fluid "approach" relevant and is it possible to imagine fluid planning as a practice? These questions are tricky, with an ambition that is far from mainstream planning rationalities. There will be tensions between the experimental and the regular, the fluid and the fixed. The idea in this chapter is to address the above questions through a review of the literature on fluid, open, and contingent planning. The aim is to elaborate further on the concept of fluidity in a planning context, asking whether it is useful and where it takes us. The chapter will search for forms of evidence of fluid practices in the planning field. The chapter is divided into six sections. The next section addresses the concept of fluidity in the social sciences, seeking to identify its roots and how it has been conceptualized. The third section attempts to distinguish between different dimensions of fluidity, as can be extracted from the planning literature. Four different forms of fluidity are discussed: fluidity as a particular form of uncontrolled space; fluidity as a planning condition of radical uncertainty; fluidity as a norm; and fluidity as potentiality and chance, as momentum from which planning can be re-invented. The fourth section addresses fluidity in urban planning. The fifth section illustrates aspects of fluid planning through a case study of an urban planning project that has been called "The Tromsø Experiment." The final section sums up and discusses some critical aspects of the concept of fluidity in planning.

2. Setting the scene: The notion of fluidness

The metaphors of "flow" and "liquidity" have recently captured the attention of social theorists concerned with emergent social processes in a world perceived as being increasingly disorganized and complex (Sheller, 2004; Bauman, 2000; Castells, 1996). Castells speak of "space of flows," and Urry of "global fluids." Zygmunt Bauman talk about liquid modernity and suggests that there are reasons to consider "fluidity" or "liquidity" as fitting metaphors when attempting to grasp the nature of the present phase of the history of modernity (Bauman, 2000: 2). The quotes below are examples of the elaboration of these concepts from some of the most widely profiled social scientists.

> "The 'spatial concepts' – networks, flows, and fluids – are used as building blocks of a new orthodoxy of the theorization of social life, a theorization that is argued to favor a focus on process, connectivity, and mobility at the expense of an alleged former focus on boundedness, hierarchy, and form." (Simonsen, 2004: 1333)

"Flows have direction but no purpose. They are intentional but not purposeful or teleological. Similarly, flow is related to its own sense; it has no transcendental meaning or direction. It is not flowing to any specific place. Analytically, the differential of flow is a temporary, mathematical reduction. For example, a curve, mathematically differentiated yields a degree of change of direction. The flow metaphor is used to signal the qualities of motion, materiality, and viscosity." (Shields, 1997: 3)

"... The new lightness and fluidity of the increasingly, mobile, slippery, shifty, evasive and fugitive power." (Bauman, 2000:3)

"The network concept involves flows of people, information, and money within and across national borders. Flows and networks – defined as 'sets of interconnected nodes' are then conceived of as universal organizational principles, be it of infrastructure, companies, finance, information, or media." (Castells, 1996)

"Governance is no longer only about government but now involves fluid action and power distributed widely in society." (Innes and Booher, 2004:11)

"Places can be loosely understood as multiplex, as a set of spaces where ranges of relational networks and flows coalesce, interconnect and fragment. Any such place can be viewed as the particular nexus between, on the one hand, propinquity characterized by intensely thick co-present interaction, and on the other hand, fast flowing webs and networks stretched corporeally, virtually and imaginatively across distances." (Urry, 2000, p.140)

"Relational networks of connected elements are inherently unstable and fluid. Society performs by recording, channelling and regulating the flow of energies through such networks." (Thrift, 1996: 285)

"The idea of a gel of vicious liquid implies fluidity, slipperiness, instability, movement and transformation a form which nevertheless has the capacity for momentary stabilisation." (Hillier, 2007: 58)

"… smooth space is the fluid space of light and becoming, and striated space is controlled." (Hillier, 2007:65)

Fluidity and flows in the social science literature are primarily used as metaphors. John Urry, for instance, argue that in order to understand the new mobilities, we need metaphors that "view social and material life as being like the waves of a river." Such fluid notions are necessary to capture the multiple transformations of collective representations in which "collective relations are no longer societal and structural" (Urry, 2003: 59). Another body of literature is that of Appadurai and others who argue for the metaphors of flow, uncertainty, and chaos (1996). Deleuxe and Guattari use the term "bodies in a vortex" (1986). White characterize the social world as being constituted of disorderly and sticky "gels and goos" (1992). Mol and Law, representing Actor-Network theory, generally elaborate a fluid spatiality (1994). Social movements can be described with similar metaphors; "they flow along various channels but may overflow or ebb away or transformed into powerful waves" (Urry, 2003: 71). This is illustrated in a contemporary setting on the Internet, for instance through the Arabic Revolution in Cairo in January 2011. Fluids are subject to mixtures and gradients with no necessarily clear boundaries (Urry, 2003: 43), always moving and changing as they go. Fluids are not solid or stable and relates to turbulence and rupture.

Particularly influential is the network metaphor about society. Fluidity is often associated with the concept of network. The "rise of the network society," by Manuel Castells (1996), grasps some of the transformations that have taken place in society with consequences for planning and policy making. Castells write about spaces of flows when describing the network society; the increasingly mobile, technologically mediated spatial form that dominates contemporary capitalist societies. Networks are not stable structures; instability is one of their basic characteristics. "The network society should be conceived of as made up of open or unstable structures that expand, readjust, shift and evaporate" (Hajer and Wagenaar 2003: 5). Therefore, the shift in language from institutions to networks implies a change from stability (institutions) to fluidity (networks). Networks are seen as synonymous with flows. Another link can be made to the theories of network governance, where the blurring of borders between organizations is increasing, a consequence of which is increased interdependence (Rhodes, 1996; Sørensen and Torfing, 2007). Stein and Harper (2005) claim that complex, contested, and somewhat fluid boundaries between public and private allow for creativity and innovation in the public realm.

Fluid conditions could then be related to society, to social relationships, and to governance relations. Fluidity is used to illustrate instability, movement, uncertainty, complexity, and something uncontrollable; this is, in contrast to stability, which is static, fixed, ordered, and controlled.

From the planning field, fluidity characterizes what Miraftab (2009), for example, called "insurgent citizenship" practices – those radical planning practices that respond to neoliberalism: "through the entanglement of inclusion and resistance they move across the invited and the invented spaces of citizenship" (p. 35) (see also Sandercock, 1998). Graham Houghton and Philip Allmenninger also elaborate on fluidity in their discussion of "soft spaces" in planning. They make a distinction between hard and soft spaces representing two different approaches in planning; "Hard spaces are the formal, visible arenas and processes, often statutory and open to democratic processes and local political influence. Soft spaces are the fluid areas between such formal processes where implementation through bargaining, flexibility, discretion and interpretation dominate" (2007: 306).

In the tradition of pragmatism, Patsy Healey (2009) and John Forester (1989) developed planning ideas based on a focus on concrete problems in specific situations, joint development of shared understanding of problems across multiple rationalities, and of actions or policies upon which there is agreement. People learn by experience and by interacting with each other, experimenting with ideas in real cases. Healey stress the power of agency and the "unique situatedness of particular instances of practice" (Healey, 2009: 444), as well as how agents and institutionalised structural forces interrelate in complex networks. Pragmatists celebrated the experimental, encouraging creative exploration and discovery (Healey, 2008). Forester saw planners as "reflective practitioners" who, in their practice, "learn about the fluid and conflictual, deeply political and always surprising world they are in" (Forester, 1999: 26).

Post-structuralist approaches to planning theory and practice, which Jean Hillier deal with in particular, open up considerations of profoundly important questions about strategic spatial planning in the uncertainty that has increasingly been identified over the last decade or so in scholarly publications. Hillier see planning and planners as experiments that are "enmeshed in a series of modulated networked relationships"(Hillier quotes Charles Laundry who suggests, "we need to look into the sun, think at the edge, and cross

boundaries."(Landry 2006, cited in Hillier, 2008:25). Hillier explores the potential of the concept of "becoming" as creative experimentation, "where problems are not 'solved' once and for all but which, over the 'lifetime' of a strategic plan, are constantly recast by changing actors, situations and preferences, to be reformulated in new perspectives" (Hillier, 2008a: 26). In a special issue of *Town Planning Review* (Vol. 82/5 2011) on "Strategic Spatial Planning In Uncertainty," Hillier et al. raise questions such as "how might spatial planners seek to affect and "manage" environments in undecidable situations? Can we develop theories and practices which rely less on closure and more on openness to possibilities and opportunities? How might we plan in situations of fluidity and complexity?" (Hillier et al., 2011: 4). To Hillier, plans are moments of stability, a temporary fixity, and spatial planning an experimental practice. Hillier argue for foresighting, speculation, and experiments because these methods entail thinking about futures that we may not be able to recognize directly, futures that do not simply extend our current needs and wants but may actively transform them in ways we may not understand or control (Grosz, 2008: 260, cited in Hillier, 2008: 34). These futures recognize the possibilities and potentials of a particular space. Planners are understood as navigators positioned as "helmsman steering the city" (McLoughlin, 1969: 86, in Wilkinson, 2011: 10). Such ideas have a lot in common with post-structural theories of planning and geography, where the internationalization of flux and instability is identified as a key navigational strategy available to negotiate the "in-between" spaces (Murdoch, 2006: 97). The main notion of relational geography is the performance of social practices, and the performance of space goes hand in hand; they are both entangled in the heterogeneous spatial processes of becoming (Murdoch, 2006: 18).

The table below summarizes and lists some of these theoretical inspirations to the concept of fluidity.

Theoretical inspirations	Relational geography	Post-structural philosoph	Social theory	Actor-network theory	Multi-Planner theory	Neo-pragmatism
References	Massey, Amin and Thrift, Murdoc	Deleuze and Guattari.	Beck, Castells, Urry	Law, Mol, Latour	Hillier	Healey, Forester
Concepts	Spaces of flow, the in-between spaces	Rhizome, Trajec-tories, Lines of flight	Liquid moder-nity, Network Society	Hetero-geneous networks	Fluid planning, planning as experi-mental practices	Creating explo-ration and discovery

Table 1. Some theoretical inspirations to the concept of fluidity in urban planning.

Fluidity then is more than a metaphor. In summing up the conceptualization of fluidity in the social sciences it might be useful to distinguish between fluidity as, 1) an ontology, 2), as epistemology, and 3) as a certain form of practice. Fluidity in its ontological status is related to a post-structural view of a world of flows, where the reality is fluid, temporary and always in the making. In this fluid ontology the world (and the city) is conceived through an ontology of process and potential, through the work of networks of enrolment, fluid-like

flows, and multiple encounters (Amin and Thrift, 2002). As an epistemology, fluidity refers to the radical uncertainty of a world that has become too complex, but still something that can be and has to be managed. Planning means in this setting to control uncertainties and fluidities (Abbott, 2005). Fluidity as a form of practice could in a planning context be understood as a more experimental planning practice that is more open and transparent towards future possibilities (Hillier, 2007). In the next section, these aspects of fluidity will be elaborated. Fluidity is also much related to what has been labeled "fuzzy planning" in some of the literature on urban and regional planning (De Roo and Porter, 2007).

3. Forms of fluidity

What does fluidity actually mean in a planning context? Planning may become fluid when there are no solutions to a problem, when the problem itself is complex, fuzzy or "wicked". In this section, we will distinguish between four forms of fluidity. Fluidity may be understood first, as a particular form of *space,* second, as a planning *condition*. A third understanding is when fluidity becomes a *norm*, something that might be encouraged. The most common understanding of fluidity, however, is when it is related to planning experiments, as a potentiality, a chance, a *momentum* from which planning can be re-invented.

3.1 Fluidity as a particular space

The most obvious form of fluid spaces in a planning context is exemplified by Kim Dovey in his book "The Fluid City" (2005). The fluid space is here represented by the Melbourne Docklands Waterfront, which focused on the transformation of this industrial space into "fun-space"; the waterfront constructions, perhaps the most commodified spaces in any modern city. The Dockland case is also an example of a fixed, limited place with a clear identity that becomes something else through the re-facing of the city to the water (Dovey, 2005:2). More interesting, however, is fluid space understood as non-regulated space, free-zones, liminal space, and border-zones. Border-zones (the area on both sides of a national border) are spaces in which cultural identities are blurred. Some borders are fluid, multiple, intersecting, and not fixed (Aure, 2011: 174), while others are highly controlled and regulated. In contrast to regional space, which is defined by drawing boundaries around clusters of objects, practices, or people; and networked space, which is defined by the form of relation between entities; fluid space is defined by boundaries that come and go, allow leakage, or disappear altogether, while relations transform themselves without practice (Mol and Law, 1994: 643). Fluid space is defined by a lack of clear boundaries, being defined by liquid continuity and gradients rather that binary identities.

Another form of fluid space are 'temporary urban spaces', spaces that for different reasons have avoided regulation and not given a particular function and therefore open to more creative use, open spaces for political action, leisure, or other purposes, for instance cultural expressions (Haydn et al., 2006). Temporary spaces provide an experimental opportunity for an urban platform for democratic action and human expression. Haydn encourages planners to look beyond the city's fixed boundaries so that citizens can participate in the creation of temporary spaces, rather than being automatons in fixed spaces that planners negotiate with private development (Mayo, 2007). Temporary spaces cannot be planned, which lead the authors to conclude that these spaces are politically freer than interim uses, which are easily appropriated uses that sustain the political economy.

A similar concept is what Groth and Corijn (2005: 503) call "indeteriminate spaces," that is "spaces left out of 'time and place' with regard to their urban surroundings, mainly as a consequence of rampant deindustrialization processes." Interminate spaces have an unclear status, representing a sort of "no-man's-land, which may allow for the emergence of a non-planned, spontaneous urbanity. Groth and Corijn relate indeterminate space to Lefebre's concept of "differential space," which is "created and dominated by its users from the basis of its given conditions. It remains largely unspecified as to its functional and economic rationality, allowing for a wide spectrum of use which is capable of integrating a high degree of diversity, and stays open for change" (Groth and Corijn ,2005: 521). The qualities of the "indeterminate" spaces (Groth and Corijn, 2005), which Sandercock saw as a form of "insurgent urbanism", "embraces uncertainty as potential space of radical openness which nourishes the vision of a more experimental culture, a more tolerant and multifocal one" (Sandercock, 1998: 120).

According to Groth and Corijn, in such places that are not coded by marked-led urban development, distinct possibilities for practices of innovation and playful intervention arise. Such indeterminate spaces cannot be completely planned, because if they are, they lose their fluid status, and thereby also their creative potential. To survive they depend on the investment of informal actors that occupy these spaces.

A more metaphoric use of space is the concept of "smooth space" elaborated by Deleuze and Guattari (1987), who distinguish it from "striated" space. Striated space is strict and stringent space, stable points of order, while smooth spaces are spaces without boundaries, the spaces of "becoming." Smoothness implies slipperiness and movement, where one slides seamlessly from one site to another. These are not to be understood as real spaces, but tools for thinking about space; every real space will be a combination of smooth and striated space. The urban waterfront in transition is an example of a smooth space, a boundary between the stable and striated space of the city, and the smooth flows of the water (Dovey, 2005: 24).

3.2 Fluidity as a condition

The issue here is how to plan in situations of fluidity and complexity, when planning is like "walking in the mist." Today's planning problems are often quite open-ended, which raises the question of what kind of knowledge is relevant in a society that is in "a state of flux". Several planning theorists have grappled with new ways of thinking about strategic spatial planning in connection with coping with issues such as the unknown (Abbott, 2005), fluidity, and dynamic diversity (Healey, 2007). The fluid is related to the unexpected, uncertainty, contingencies. Fluidity and uncertainty go hand in hand, and uncertainty is seen as a "danger" to planning (Sandercock, 2003) as well as to planning politics (Flyvbjerg, 1991). While flexibility may be an advantage, it also means a lack of certainty, such as for investors, changing the rules of the game through the process, etc. Uncertainty may lead to manipulation, holding back vital information, and distrust; this situation characterizes many contemporary urban development processes.

However, planning has always been related to handling and reducing uncertainty (Abbott, 2005). Fluidness, on the other hand, is more than just handling uncertainty in the sense of a lack of knowledge about the future or not being able to control the tools needed to manage the

situation. Radical changes in the way humans interact with their social, financial, and natural environments have led planning theorists and practitioners to increasingly discussing spatial planning in conditions of radical uncertainty (Christensen, 1985, 1999; Hillier, 2005).

The world in which strategic spatial planners attempt to plan is littered with potentialities, possibilities, and uncertainties, most of which are beyond their control. It is this "radical uncertainty" that paves the way for discussions about fluid planning. Such planning work involves "taking risks, the consequences of which can be thought about, but cannot be known" (Healey, 2008: 28). Traditional ideas of an orderly and hierarchical planning system that mobilizes resources according to planned or projected events hold little conviction in an age of simultaneity and juxtaposition, the contiguous and the fragmented, the anticipated and the unpredictable. Many problems are simply too complicated, too contested, and too unstable for schematic, centralized regulation (Forester 1999). Politics and policymaking are made in new spaces, which operate in an institutional void; there are no pre-given rules that determine who is responsible, who has authority over whom, or what sort of accountability is to be expected (Hajer and Wagenaar, 2003: 9).

3.3 Fluidity as a norm

In planning, fluidity is also treated as a norm that is related to open-ended processes, continuous transformation, and planning as speculation and becoming. A situation of fluidity may destabilize established discursive frames and routines and open up new connectivities and opportunities. Destabilizing releases energy and focuses on the dynamic forces present in every urban planning context, rather that the stable, fixed aspects. According to Dovey, planning should include "a proactive context," whereas "flexibility is built into the planning schemes" (Dovey, 2005: 134). Dynamics and fluidities are emphasized in contrast to the static geography of modernist strategic plans. Dovey also call for more fluidity. Proposals and decisions are expected to be "accompanied by affect-laden discourses" because cities "produce new desires and identities through the planning process itself" (Dovey, 2005: 211). According to Louis Albrechts (2006), the need for strategic plans to produce a competitive city necessitates a more fluid, generalized spatial structure to allow for the insertion of major private sector initiatives.

From the experiences of collaborative dialogues, Innes and Booher (2003) claim that a new sort of institution is emerging that is fluid, networked, and involves dialogue and distributed intelligence. These institutions "are more like the standing wave that keeps its shape while millions of molecules flow through it" (Innes and Booher, 2003: 57). These institutional forms reward experimentation, risk-taking, and new ideas. Healey et al.'s concept of "institutional capacity," which also relates to the concept of fluidity, is better understood as a complex, fluid, and evolving infrastructure that flows at deeper levels. "New elements and relations coexist, combine, and shatter as they encounter older ideas and ways of going on" (Healey et al., 2003: 86).

3.4 Fluidity as momentum

A fourth conceptualization of fluidity is to see it as a momentum: a situation in which what has been taken for granted about "good" planning politically is destabilized, which unsettles the apparent fixity of formal planning processes and calls for alternative strategies.

In its place, ideas of planning as a deliberately open and fluid process may be introduced as a response to the complex and plural field of stakeholders and interests involved in public planning and urban development, and where a condition for mobilizing new energies and setting new directions into motion occur. A momentum can be understood as what Buitelaar et al (2007) refer to as rupture in an institutional path: "During rupture there is scope for path-breaking and path-creating forms of action, when there is sufficient pressure, whether internally or externally driven, a "critical moment" for change arrives (Buitelaar et al, 896). A critical moment may turn into a critical juncture encompassing a break with past patterns, inducing the overhaul of discursive hegemonies through which institutional transformations may occur" (Burch et al, 2003).

Here, spatial planning becomes a field of experimentation, where tools are frequently based on communication and the involvement of actors rather than the top-down imposition of goals and policies. Hillier's theory explores the potential of the concept of "becoming" as creative experimentation. Following Gilles Deleuze and Felix Guattari (Hillier, 2007: 76), Hillier claims that experiments do not seek solutions, but instead ask the question "what comes next?" after the "contingent encounter" of an experiment. To Hillier, an experiment is "a transgression of boundaries" that works with "doubt and uncertainty" and pays attention to "the aleatory and chance" (Hillier, 2007: 230). A momentum of experimentation could then be seen as a kind of "virtual planning" that pays special "attention to the unknown" (Hillier, 2007: 232) in a time of "contingent openness" (Hillier, 2007: 224). As a particular situated human action, experiments are performative practices, searching into an openness without knowing where it ends, but aware of the possibility of the openness and fluidity of the situation, experimenting with and experiencing "how it works" (Hillier, 2008: 4). According to Hillier, the task should be "to test out ... how different innovations may perform in different spatio-temporal circumstances" (Hillier, 2007: 250). This is not in order to "fix" things, but rather to "test out" how to work with uncertain, temporary and open circumstances, because there are "always too many unknowns to give certainty" (Hillier, 2007: 250). To Hillier, experimentation involves "connection, interaction and duration – lines of flight that might involve new experimental discourses and new understandings of place" (Hillier, 2007: 281). A momentum, then, is a situation of instability, of unstable forces that can be shattered by a lack of decisive and ruling power, a lack of hegemonic discourses,

Characteristics/ Dimensions of fluidity	**Particular space**	**Condition**	**Norm**	**Momentum**
Examples	Indetermined space, Free-zones, Border-zones, Soft spaces, In-between space, Smooth space, Temporary spaces	Contingencies, Complexities, Dynamic diversity, governance	New connectivities and energies	Critical moment, Windows of opportunity, Planning as experimentation,

Table 2. Four dimensions of fluidity.

because they intervene in what Dovey saw as a future vision. Or, as Laws and Rein put it, "These moments of doubt are precisely the moments when systems are open to new insights, ideas and behaviour" (Laws and Rein, 2003:175). Any floating situation and fluid planning process shapes experiments, and experiments have the potential to influence the direction of progress. The strategic incentives to use such openings as opportunities to gain control combined with the cognitive tendencies to remove the irritation of doubt to make scarce those moments in which doubt is available and something new is really possible. Such moments create a "liminal space" (Shields, 1991; Hetherington, 1997) which open the way for reflection and reframing.

The forms of fluidity could even be extended beyond these four. For instance, fluidity could be related to the context of planning. Philip Allmenninger and Graham Haughton (2007) pointed at the fluid scales and scope of UK spatial planning, referring to the contested and fluid nature of both regions and the scalar complexity of the roles of the planning authorities. Gerd De Roo and Geoff Porter discuss the fluidness and fuzziness in planning. Planning concepts and doctrines, such as sustainability, participation, urbanism, and the compact city, are essentially fuzzy, fluid, or illusive themselves, according to Roo and Porter (2007); they are concepts that have multiple meanings. Fluidity could also be understood in the form of dynamics: flows are spatial and temporal, but above all, material. They have tempo and rhythm as well as direction (Shields, 1997: 2–3).

4. Urban planning as a fluid planning field

Cities, in particular, are spaces of flows, dynamics, and multiple relations. They are increasingly structured around flows of people, images, information, and money moving within and across national borders (Amin and Thrift, 2003: 51). Amin and Thrift (2003) maintain that circulation is one of the main characteristics of a city, saying "cities exist as means of movement, as means to engineer encounters through collection, transport and collation" (p. 81). Of course, cities are also ordered, but according to Amin and Thrift, this ordering is "often exacted through the design of flows as a set of serial encounters which construct particular spaces over time" (p. 83). Amin and Thrift use fluid ontologies when practising an urban theory based on "the transhuman rather than the human, the distanciated rather that the reflexive" (2003: 5). The aim is to conceive of the world (and the city) through an ontology of "process" and "potential", through the work of networks and enrolment, fluid-like flows, and multiple encounters. Cities are seen as fields of movements and moments of encounter between spatially stretched and distant connections. Some even talk about "fluid cities" in the sense that they are dealing with "a confluence of flows of different forces" (Dovey, 2005: 2). In what Healey defined as "the multiplex city" (Healey, 2000), she emphasized the diversity of the relations that transect urban areas, and the complexity and unevenness of their inter-relations (Graham and Healey, 1999). The "networked" urbanism discussed by Graham and Marvin (2001) is one articulation of the fluid social dynamics of cities. Space itself, particularly urban space, is considered more complex, fluid, and fragmented. They describe this fragmentation by referring to the "liquefaction of the urban structure" and of the "splintered city" (p. 115) producing unstable fluid structures. Throgmorten see cities and their planning-related organizations as nodes in a global-scale web, "a web that consists of a highly fluid and constantly changing set of relationships" (Throgmorten, 2003: 130). Even the process of planning becomes fluid

(Dovey, 2005). Cities as such cannot be comprehensively understood and planned for, because their dynamics are too complex (Healey, 2007).

So how can one conceptualize the complexities of urban dynamics, their openness to chance and their potential to become otherwise? According to Boolens (2006), urban planning as a distinctive area that uses a cautious approach to come up with proposals for the use of urban space on the basis of well-defined and far-reaching view over time, is outmoded. Contemporary urban planning is situated within this challenge: seeking to control fluidity through either spatial plans and political decisions seeking to tame critical voices and discourses by binding them to binary hierarchies (for instance: reason-unreason, good-bad, real-unreal etc) as well as to the discourse of spatial "answers" to the political need for a 'comprehensible plan'. To Healey, the work of strategy formation becomes an effort to create a nodal force in the ongoing flow of relational complexity (Healey, 2007: 228).

To Dovey, the fluid city is both a metaphor and a material reality. The material meaning has to do with the city facing the water, as illustrated by the construction of the urban waterfront in Melbourne's Docklands. The metaphor of a fluid city is related to a city becoming "unsettled"; an understanding of urban change as a confluence of flows of different forces, both local and global. Dovey is inspired by Appadurai's ideas about the various global flows, which he term "scapes": the "ethnoscapes" (flows of tourists, refugees, and immigrants), "mediascapes" (flows of information and images), "technoscapes" (flows of technology), "finanscapes" (flows of capital) and "ideoscapes" (flows of ideas, values and ideologies) (Appadurai, 1996).

Situated within discursive spaces and the diverse forces of change cause planning to oscillate between fluidity and ground. In facing these challenges, cities can try to ignore change and tame criticism or, according to Hillier, they can try to make analytical grounded flexible strategies. Hillier argue for post-structural urban planning that focuses on "change, transgressions, contingency, temporality, fluidity, immanence and emergence," giving "an open-endedness of social contexts" (Hillier, 2008: 25) that makes urban space to an aleatory field of meaning and action. On the other hand, fluid planning could also mean "anything goes," as was the case in Melbourne's Docklands, where the focus was entirely on flows of capital and not at all on what it was actually becoming; in other words, everything was fine as long as it sold and someone was willing to consume (Wood, 2009). The problem with the Docklands planning process was not that it was too fluid or ungrounded, but, according to Stephen Wood, "that it was not ungrounded enough." Its openness stopped with the capital, while the other positive and productive forces and desires did not find their way through.

In many cities, the failures of classical, modernist, comprehensive and rational planning, and top-down governing schemes have opened the door for a new social awareness, or rather uncertainty, regarding the best way to develop and govern the city. In recent years, it has become increasingly important for cities to be "open" to their multiple ways of living, diverse interests and ethnic difference and to open up the planning process to "experiments" that involve the public and stakeholders in new ways. Patsy Healey sees the challenge as having two components: understanding the contingencies that make it appropriate "to challenge fixities in one context and seeking to stabilize fluidities in another" (2007: 15).

5. Practicing fluidity: The Tromsø Experiment[1]

In order to illustrate how fluidity way work in practice in an urban planning context, the chapter now presents a case study of the "Tromsø Experiment" or, more precisely, "The City Development Year" (CDY), a planning experiment that took place in this relatively small city in northern Norway in 2005-2006. The formal planning process related to a city centre plan was put on hold for one year. In its place, planning as a deliberately open and fluid process was introduced as an idea and as an answer to the complex and plural field of stakeholders and interests that were involved. Openness often means losing control; indeed, the situation becomes unpredictable and, in fact, in this case, no one was in complete control of what happened the following year. This made a public space for mobilizing new energies and setting new directions into motion. A fixed planning process had, overnight, become a fluid one. Cities rarely have the courage to make a "new beginning" and open up to the unexpected via multilateral cooperation between city planning authorities, citizens, local businesses, production, civil society, and professionals. Collective efforts risk ending in "low politics" rather than competitive strategies. The Tromsø Experiment (the CDY) was a year in which to experiment and to develop alternative ideas and methods for a reformulated city center plan. Table 1 below summarizes the key events and the fluidities of the experiment.

The experiment allowed for new becomings by allowing the aleatory or chance to occur, and stimulated the unexpected through new methods of participation, mapping, discovering and sensing the city. With the citizens, the city was investigated neighborhood by neighborhood, looking at how the form, meaning, and social significance of space and place are dependent on the space's past, present, and imagined future. Contextual conjunctures were analyzed rather than facts. The city was analyzed by highlighting the type of dynamics and driving forces that were working in particular areas, and the rhythms of change to which the areas were exposed. In some areas, for instance, there had been an extensive "appartmentification" or gentrification. Questions were raised in each quarter, such as "What is the history of this space?" and "What is its future?" Other questions included, "What narratives have been played out here?" "What emotions and stories are buried here?" "What is the relationship to the surrounding streets and quarters?" and "What are the threats and what are the possibilities?" People were invited to consider strategies for formulating regeneration and transformation of the neighborhood. Each of these socio-spatial analyses was then put together, linked to maps and visualized. In the end, all of the focus areas were presented as a "City Reader" that provided citizens with a new way of reading about the city, or to give them an opportunity to discover new aspects of the city through other concepts and perspectives.

[1] The case study is based on the authors' observation of urban planning in Tromsø for a period of more than 10 years, through a combination of two different perspectives. The first of these was the insiders' perspective, in participating in some of the activities that led to the experiment. The study also builds on focus group interviews with 40 city stakeholders, representing different businesses, creative and cultural industries, developers, and research and higher education institutions. Document studies, particularly of the CDY report, and its publications, including chronicle articles in the local newspaper published throughout the year, have also been important sources. The section builds on two other papers by the author (Nyseth et al. ,2010; Nyseth, 2011).

Period	Forms of fluidity	Event
1994	Experiments with new forms of spatial planning	The concept of Tromsø as an architectural "experimental zone" is introduced and the dialogic planning model, "The Tromsø Game," is developed
1999	Ordinary planning process	The planning administration starts the process for a new town plan
2000–2005	Public debate - rupture	The City Forum arranges a number of public meetings on issues related to urban planning and development
February 2005	Formal planning process are stopped	The proposal for the new town plan is due for its final decision-making by the planning committee
March 2005	A fluid situation occurs	A last public meeting on the proposal is held in the city and the "time out" is introduced
March 2005 – March 2006	Experiments with different forms of public participation, dialogs, planning discourses, analyses,	The planning administration is removed from finishing the town plan and City Development Year takes over the process, introducing a range of activities, such as; Tromsø X-Files (Expedition) City walks, Feature articles Public meetings and seminars University Conference Focus group interviews Interactive web-page
April 2006	CDY project ends	The City Development Year submits its report to the planning committee and ends its activities
June–August 2006	International publicity	The experiment is presented at the Venice Biennale
to 2007	Ordinary planning process	A new town plan is finally completed

Table 3. Overview of key events of the fluid planning situation and the Tromsø experiment.

The Reader was primarily an opening up to the ordinary citizens of the "black boxes" of planning, through new ways of analyzing the city using a different rhetoric than formal plans normally do. Terms like "appearing and disappearing city landscapes" and "curing" were used to illustrate the degree of transformation and damage that the different areas had undergone. Political and planning intentions and considerations are often hidden in maps and texts, so the Reader also provided citizens with insight into how planning works. Such methods can also make planners more open about their intentions and their use of rhetoric. Although the experiment departed from the traditional focus on the qualities of place and

governance, the planning discourse was, through the CDY, extended from a formerly narrow focus on planning, architectural programs, and urban form, towards an understanding of the city as a complex embodiment of everyday life processes made of subjects and practices. This made it possible for the participants to acknowledge that places are made of flows of becoming, and to realize the significance of forces of the imaginary and desire as well as capitalism and politics. The CDY committee and the way it performed was, in itself, an example of networks, flows, and contingencies between formal and informal arenas. The construction of the group with professionals from outside the planning authorities makes this an example of a governance network (Nyseth, 2008), in that it involved relatively stable, horizontal articulations of actors that were interdependent but operationally autonomous (Sørensen and Torfing, 2007). The committee's performance and activities also constructed new networks and a connection between actors that did not normally have contact with each other. This new connectivity can be exemplified by the idea suggested by a narration of a marine researcher, of a "marine fish market" at the harbor. The story involved a visit from some Japanese colleagues who commented that it was peculiar in a city that has fish as its basic industry that "it was not possible to eat fish anywhere in the city at lunchtime." This story led to a project about the construction of a coastal food and adventure centre at the harbor. In a rich fishing region, such a project is not exceptional, but it had not been realized before, and it did occur through the opening and new connectivities that had been created through the CDY. The fluid situation had created new spatial and urban life connectivities. The publication of ideas from the public also mobilized normative statements about, for instance, the need for more collaboration in the city. Through a number of seminars and conferences, webs of relations were established with other cities facing similar problems and to the central level of government, which connected planners, sectors, and other central participants in urban governance networks.

Through an exhibition called Tromsø X-files and city walks, the city became an arena for potential ongoing explorations by the citizens. Its ambition was to give citizens a unique opportunity to get to know their city in a new way; that is, to take them on a sensory journey through the city's past, present, and future architectural and physical landscape. Opening up planning in this way challenged the established knowledge and practices of planning. It became more legitimate to ask questions about what was going on, and especially the potential effects on planning itself and future city development. This exhibition put almost all the new, but not yet realized buildings and development projects in the city on display. Even architects' drawings and sketches of their ideas for new projects were used. This enabled anyone to see not only one project at a time, but every project arranged within its context; the surrounding buildings and quarters. The exhibition made it possible to see what it would mean for the city as a whole if all these projects were realized. A concrete model was produced of the existing city, where some of the new projects were added, so everyone could judge their potential effects on the city. Guided tours of the exhibition by a member of the network or the planning office were arranged on a daily basis. This exhibition represented the essence of the experiment, which one of the members of the network expressed as: "To exhibit is to open up!" This slogan became a brand for the ideology the CDY wanted to represent. In this context, "opening up" refers to the number of new and unknown projects that were in different phases of realization, including sketches on drawing-boards, and also to the process and methods used to uncover the city's "hidden

future." "Opening up" also referred to critical dialogues between the project and the citizens, which was one of the goals of the project.

So, from a situation where plans had been more or less closed to the public, the new openness produced new possible "lines of flight" concerning conflicts and impasses. It was an experiment that moved contingency and fluid planning into a political situation that could question the city's hegemonic planning discourse, not least because in charge of this experiment was a network of professionals and "bricoleurs" independent of local government and planning authorities (Nyseth et al., 2010).

6. Conclusion: Does the concept of fluidity take us anywhere?

The metaphor of fluidity makes it possible to move from the focus on fixed, ordered, and regulated landscapes and planning as the tool to achieve this, towards exploring processes, flows, movements, open boundaries, informal relations, etc. Fluidity is flexibility and change; it is flows of money and desire; it is the formation of new identities of both people and places (Dovey, 2005: 243). But the fluid is also fragile; it can be there one moment and vanish in the next. To follow these lines of thought, one needs to have a certain taste for the unknown.

It is rare for any city to look for a truly fluid planning practice as part of its ordinary everyday planning; instead it will seek a "temporary resting" (Healey, 2006) in which it tries to regain an order of development, for instance, by looking for inspiration by promoting debate on an "open situation" in urban planning and development. Cities do not necessarily look for scenarios, rather for ideas about contemporary forces of development to be dealt with and how to cope with them. If cities were to have truly fluid planning, they could include, as in the case of Melbourne, Australia: (1) a "future vision," (2) "scribbles indicating possible functional zones," (3) a "collage creating composite pictures," for instance, by only working from (4) "a diagram presented as fluid blobs," that have (5) "no content" because the "fluid city" is only discursive (Dovey, 2005: 133–134). Alternatively, as in the Tromsø case, this could be achieved through openness, through inviting "bricoleurs" or "outsiders" into the planning process, and through new discourses about urban planning.

In summing up this chapter, it is necessary to raise some concern about the concept of fluidity. Fluidity may have some advantages related to flexibility, openness and the production of new ideas, but it also means destabilization, which could lead to a situation where no one is in control. Dovey, for instance, expressed a deliberate ambivalence towards the fluid conditions of urban development, saying: "there are values in both 'going with the flow' and in resisting its place-destructive tendencies" (Dovey, 2005: 5). The flows of desire for a better future are the very basis of urban place-making, yet unregulated desires are also the source of urban destruction. Fluidity also has connotations of uncertainty, difficulty, and ambiguity. Too much fluidity, or fluidity going "wild," would mean not only losing control, but also, in a sense, giving up the ambition of steering, which would certainly give other forces more room to maneuver. Questions about power must be raised. Who gains and who loses in situations of fluidity? What forms of power dynamics are played out when a planning process is "opened up to the unknown"? Fluid conditions may marginalize civil society, giving too much power to

private investors. Therefore, there must be limits to fluidity. Decisions have to be made and plans have to be adopted, which means stabilization and fixity. On the other hand, in order for urban planning and democracy to become alive, processes need to be open for the unexpected.

Fluidity, therefore, is a condition to which all cities must face up to. Like its opposite – "stability" – "fluidity in urban development is both good and bad" (Dovey, 2005). Fluidity and stability must be understood as a continuum; there is never complete fluidity or complete stability. There will be temporary resting, and at the same time moments, situations and spaces of temporariness which call for a new approach. The challenge seems to be how fluidity can be managed without losing control? There needs to be a form of institutional capacity that can translate the fluid moment into a strategy. The case study in this chapter has illustrated one form of control that was organized within a project with a strict time limit and accountability placed in the planning council. This might be a solution that worked in this case, but there may be many other models to develop. The role of public planning is perhaps not to control but to manage fluidity, to stand against the destructive forces of the marked as a mediator of public interests. But the "public interest" is also fluid as it consists of a multiplicity of interests that is never stable. Managing this ambivalence is perhaps the most difficult task that urban planning will face in the years to come.

7. Acknowledgements

Thanks to Ronny Kristiansen for comments and suggestions that improved the chapter considerably and also the PLANNORD network at the Aarhus meeting august 2011.7.

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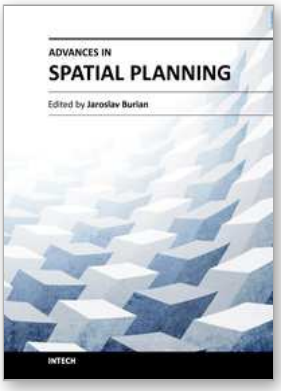

Advances in Spatial Planning

Edited by Dr Jaroslav Burian

ISBN 978-953-51-0377-6
Hard cover, 366 pages
Publisher InTech
Published online 21, March, 2012
Published in print edition March, 2012

Spatial planning is a significant part of geosciences that is developing very rapidly. Many new methods and modeling techniques like GIS (Geographical Information Systems), GPS (Global Positioning Systems) or remote sensing techniques have been developed and applied in various aspects of spatial planning. The chapters collected in this book present an excellent profile of the current state of theories, data, analysis methods and modeling techniques used in several case studies. The book is divided into three main parts (Theoretical aspects of spatial planning, Quantitative and computer spatial planning methods and Practical applications of spatial planning) that cover the latest advances in urban, city and spatial planning. The book also shows different aspects of spatial planning and different approaches to case studies in several countries.

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University Campus STeP Ri
Slavka Krautzeka 83/A
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Phone: +86-21-62489820
Fax: +86-21-62489821