

## References and further readings

Koch, Michael; Nepl, Markus; Schönwandt, Walter; Scholl, Bernd; Voigt, Andreas; Weilacher, Udo: "Foreword: Research Adventure - the Doctoral College as Exploration Shared". In: spatial research lab - forschungslabor raum. The Logbook - Das Logbuch, Internationales Doktorandenkolleg Forschungslabor Raum 2012, p. 12

Schönwandt, Walter; Voigt, Andreas: "Planungsansätze". In: Handwörterbuch der Raumplanung, Akademie für Raumforschung und Landesplanung 2005, p. 769, 772

Schönwandt, Walter; Voigt, Andreas: "Embedding Education in Strategic Planning in Planning Curricula". In: HESP- Higher Education in Spatial Planning, ETH Zürich 2012, p. 86f., 90, 93

Voigt, Andreas: "The Planning World meets the Life World". In: spatial research lab - forschungslabor raum. The Logbook - Das Logbuch, Internationales Doktorandenkolleg Forschungslabor Raum 2012, p. 130

Schönwandt, Walter: „Grundriß einer Planungstheorie der ‚dritten Generation‘“. In: DISP 136/137, ETH Zurich 1999, p. 30ff.

Tschirk, Werner: "Planung als Lernprozess - Stadtteil- und Quartiersentwicklung in Metropolregionen". Wien 2012, p. 38ff. Dissertation TU Wien

Schönwandt, Walter: "Nine Levels of Scientific Work in Planning". In: spatial research lab - forschungslabor raum. The Logbook - Das Logbuch, Internationales Doktorandenkolleg Forschungslabor Raum 2012, p. 158, 182

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## Digital analysis and digital planning

Digital tools enable the visualization of spatial data and precise geographical information. In this context GIS technologies allow us to model, analyse and simulate processes within our built environments. Spatial modelling is thus an acceptable abstraction of spatial complexities. The visualization of spatial information with digital tools constitutes a basis for communication in planning processes. Here GIS offer multi-scalar insight into planning problems for interdisciplinary stakeholders in planning processes and allow the exchange of userspecific interests, ideas and decision-making support. Additionally, web-based GIS technologies and open source tools facilitate the exchange of spatial information. Moreover, these digital developments allow the preservation of analytical output and enable documentation standards to be maintained within a cooperative planning process. In a multi-domain planning process, the digital support provides the visualization of visible and invisible system elements. This facilitates the exploration of different system connections, hence different fields of interest can be evaluated simultaneously and their outputs can be consolidated and interconnected afterwards. Digital planning tools therefore provide for interdisciplinary cooperation in planning and decision-making processes via interactive mediation. This cooperation process enables knowledge transfer and generates multi-domain knowledge.

## Scientific work in planning

**Levels of scientific work in planning** [Schönwandt and Voigt 2012, p. 93]

1. Conceptual | Using precise terminology (reduce vagueness and imprecision)
2. Logical | Making consistent statements (avoid contradictions)
3. Methodological | Are there any gaps in the way an issue is presented that might lead to different results?; challenging, offering critique, providing justification (proffering corroborating arguments or rebuttals)
4. Epistemological | Ensuring empirical backing, avoiding assumptions that do not tally with prevailing scientific and technical knowledge
5. Ontological | Having a consistent view of the world which is in accordance with prevailing scientific and technical knowledge
6. Valuational | Aspiring to worthwhile objectives; making sure that the impact and consequences of action are acceptable
7. Practical | Using appropriate means to achieve one's objectives; developing useful guidance (plans, ect.)

If we include the levels "problems first" (the definition of problems) und "approach" (reflection on discipline-based planning approach), there are nine levels of scientific work in planning [cf. Schönwandt 2012, p. 158, 182]. These levels build on and presuppose each other.

### Steering a course between a rational approach and intuition

As planners, we are used to thinking and arguing on the rational, reason-based level. We aim to create "order" in the "external world" in order to "develop" the latter. In doing so, we often forget that this "order" is the product of our own thinking, values and ideas. The planning and design process should therefore be seen as an iterative process; one that should manage to construct an argument that steers a course between the emotional, the intuitive and the rational.



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## Planning, Planning culture, Planning approaches

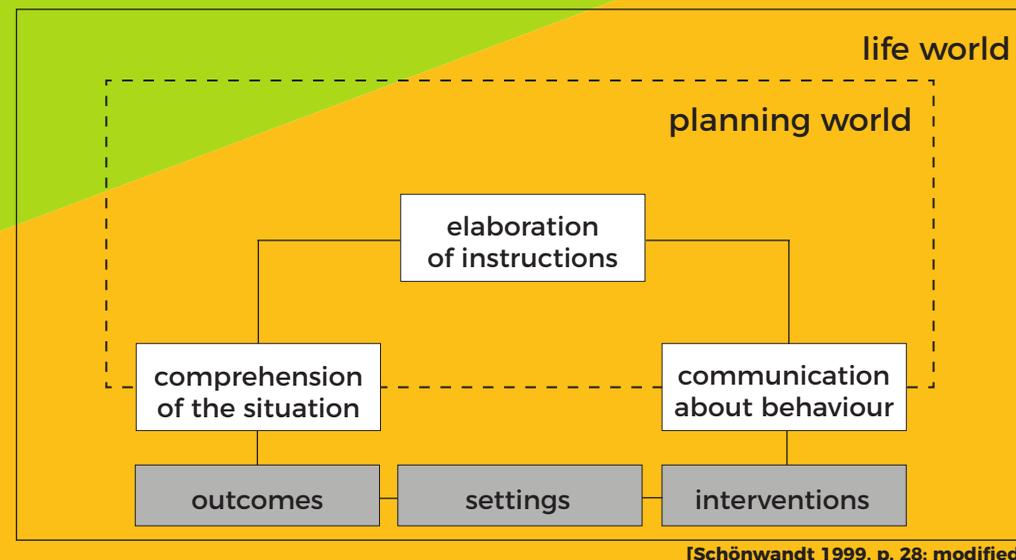
Spatial planning and spatial development ties up with the language, culture pattern of thinking in any country. This explains varying planning cultures and colleges of education in the different regions of Europe and beyond. [Koch et al. 2012, p. 12]

Actions have to be planned so as to make efficient use of scarce resources, such as space, time or money. Territorial authorities (...) engage in spatial planning whenever space-related public interests, issues relating to the common living environment or social issues with a spatial aspect are at stake. Spatial planning always includes space, time and society. The focus of planning processes is on the systematic and methodological identification and solution of spatial problems or the prevention of their emergence. Planning problems are tasks as yet unsolved. The point of departure may be a state of affairs perceived as negative that is to be improved, or a situation which is viewed positively but assumed to require planning and action in order to persist. The clear definition of a problem is a prerequisite for improved problem solving (...). Planning usually responds to a need or unsolved issue and is based on a distinct underlying approach. [Schönwandt and Voigt 2005, p. 769, 772, 2012, p. 86f.]

Planning approaches consist of four components: a set of problems (problem views), a set of aims, a set of methods and defined background knowledge. These four components always interlock and depend on each other. There are many different planning approaches and they act like lenses through which we look at a situation. Hence, the initial planning approach we adopt is not dictated by the nature of things in and of themselves; rather, it is always possible to choose among a variety of initial approaches. [Schönwandt and Voigt 2005, 2012, p. 90]

## Basic scheme of planning (I)

Depending on the individual planning approach, the perspectives adopted to deal with problems, as well as aims, methods, and the necessary background knowledge, may turn out to be very different. This chaos at the beginning of every thinking and planning process entails many diverse points at which to take up controversial debates within the planning world, within the life world, and between the two worlds. It makes things more difficult that - each influenced by our own discipline - we always adopt a specific approach to planning. We are unable to do otherwise. But it is also an enrichment when we can exploit the diversity of different approaches to planning in order to illuminate problems from various angles and thus recognise and understand them better. This is a solid foundation from which to develop feasible solutions, which can become reality when the actors responsible make corresponding decisions. [Voigt 2012, p. 130]



## Basic scheme of planning (II)

### Glossary

*Life world:* The life world includes everything beyond and surrounding the planning world.

*Planning world:* The planning world is the field in which plans or instructions are developed. As a rule, several players (from the planning world) are involved here, acting within specific forms of organisation or cooperation.

*Settings:* In very general terms, all those aspects of the life world that we wish to either change or retain through planning are known as "settings". In concrete terms, this concerns the part of the life world that is accessible to the players of the planning world for action and observation.

*Comprehension of the situation:* Comprehension of the situation is a matter of putting together a description of the planning problem so that the planning task is presented as validly as possible. This usually takes place via the interplay of empirical investigation, as the examination of given circumstances, and the interpretation and evaluation of one's findings. Developing a "comprehension of the situation" makes precise reference to the interface between the life world and the planning world.

*Elaboration of instructions:* These instructions show everything that needs to be done in order to bring about the desired result (plans, descriptions).

*Communication about behaviour:* Once instructions have been outlined, it is a matter of agreeing with those affected or involved about further procedures (...).

*Interventions:* The keyword "interventions" is used to refer to every concrete measure that is implemented in reality as a consequence of the instructions developed. [Schönwandt 1999, p. 30ff.]

## Solving complex problems

Generally speaking, in spatial planning we can make a distinction between simple and complex problems. With simple ones, the problem is evident. There are obvious relationships between cause and effect. In the case of large-scale, complex planning tasks - such as regional and supra-regional spatial development projects, for example - the problems are not immediately obvious. The degree of ignorance and non-transparency is usually huge, as is the risk of making bad decisions. In such cases, the task of the planning process and the actors involved is to define the problems and chart an appropriate course towards a solution. [Tschirk 2012, p. 38ff.]

