HESP

Higher Education in Spatial Planning
Positions and Reflections

Bernd Scholl *(ed.)*

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Preface

Universities and technical schools educate today for the tasks of the future. Ideas about what tasks will be meaningful for spatial planning and development in the future must therefore be the central starting point of a university education. Research and education thus stand in close interaction.

Spatial development in Europe and abroad is now facing unprecedented major challenges. As before, the expansion of settlement areas continues to draw on valuable cultural land, the overload from large infrastructures keeps increasing and, under tight financial conditions, the development of major transportation infrastructures can no longer keep up with the desired economic development.

Especially in numerous Eastern European countries, there are still extensive environmental protection problems to be solved, in other countries, a change of energy supply will offer new possibilities, but could also create big conflicts.

Among the challenges are the development of a comprehensive approach to the spatial impact and the consequences of change in society, climate, and technology. The core task of spatial planning is the orderly, sustainable design of our living spaces. For about a half-century, spatial planning has been embedded in the law as an institutionalised public function and is therefore part of the function of public administration and decision-making. The various levels of spatial planning have, depending on the respective countries, a variety of regulations and quite different jurisdictions. The planning culture in interaction with spatially relevant actors is likewise quite different. Spatial planning is a discipline that is deeply bound to language, culture and paradigm.

Although worldwide usable models for the acquisition and testing of solutions can offer valuable insights and foundations, seldom can they replace real space as a learning laboratory. That is especially true for the understanding of social, legal and political interactions. Therefore, cooperation with leading actors in practice is of central importance in a high-quality education.

University education is in an upheaval. Far-reaching changes in the field of education (for example, the Bologna reform in Europe), new possibilities for learning that are independent of time and place (e-learning), expanded possibilities for experiments using tailor-made

models, and additional demands on graduates have led to new study programs and educational concepts.

In times of rapid change, it is necessary to get the overview and deeper insights about the state and perspectives of higher education in our field. Therefore, the Chair of Spatial Development took the initiative to invite colleagues from different countries and continents, from universities and practise to start a dialogue and discourse about future demands, challenges and perspectives of Higher Education in Spatial Planning (HESP).

In a sequence of HESPSs, as we are calling the respective symposia of 2009, 2010 and 2011, positions and arguments were developed and strengthened. By the middle of 2011, instead of only talking about the education of our students, we invited them to present results from their studios and projects. This was an exciting moment and created an interesting and inspiring discussion among the group. And even more important, it encouraged us to collect our results, observations and experiences in a publication on this topic.

We hope this book will stimulate discussions and debates in the various countries and, most important, that it will help establish studio and project-based learning as a top-quality common core of university curricula of spatial planning.

Our thanks go to all the contributors to the HESP symposia, most especially, the authors of the individual contributions, the editors' group, the Director of Studies of the MAS Program in Spatial Planning ETH Zurich and the Coordinator and Secretary of the events.

Prof. Dr. Bernd Scholl

Chair for Spatial Development, ETH Zurich

Zurich, September 2012

Introduction

Bernd Scholl

The initiative, Higher Education in Spatial Planning – HESP, took shape over the three years between 2009 and 2011 as a series of international symposia at ETH Zurich. The idea behind this initiative was to stimulate the debate about higher education in our field.

In this undertaking, we could also bring in earlier deliberations and initiatives from colleagues and institutions.[1]

We had the opportunity to discuss the first results of our initiative on different occasions, for example, at relevant national institutions and a round table at the World Congress of Planning Schools in 2011 in Perth, Australia. Discussions with colleagues showed that there is a strong concern to keep the quality of education up in a time of economic crisis. It seems that universities are facing far more formal regulations on one hand and reduced budgets for education on other. As we will demonstrate in this book, in a globalised world with limited natural resources – where land plays a key role – the challenges of severe changes in world population and climate will increase the demands on the quality of education in our field.

We have to take into consideration that spatial planning, even in a more globalised world, is still very strongly tied to language, culture and the local patterns of thinking, acting and decision-making. This is and has to be reflected by the various curricula. Nevertheless, we were confronted with a more or less common understanding that guided and explorative learning-by-doing, using the best available knowledge, is essential for academic discourse and progress in our action-oriented academic domain.

Principles of Learning

Usually there are two principle alternate foundations for academic study. First, a defined knowledge packet is communicated to the students and, second, assistance

1 The following contributions deserve special mention: Core Requirements for a High-Quality European Planning Education, AESOP Working Group on Planning Education, p. 23, AESOP 2008; Global Report on Human Settlements: Revisiting Urban Planning, Chapter 10: Planning Education and Challenges of Urban Areas, 2009; Policy Statement of the Royal Town Planning Institute (RTPI), London 2004.

is offered in an open, critical and inspiring environment and the students learn to use their own minds in various areas of knowledge.

In the first, schools and its teaching approach are based on a defined knowledge package. Such a packet is based on known problems and their known and applied solutions. In Europe, the Matura degree was originally the end of this kind of schooling. As a result of the Enlightenment, the existence of true, permanently established knowledge was denied. What had once proved true could become false. New knowledge could replace theories, models, methods and routines that had been deemed correct for centuries. The never-ending search for enlightenment, otherwise known as research, is indispensable for a strong society with responsible members.

Academic study should not be led by any current ruling concept, rather it should allow the unsolved problems to lead the process, the small as well as the large, theoretical as well as practical. This approach yields the connection between research and education. The special task of academics is to examine the world with open questions and to remain learners throughout their entire lives: in practice, in education and in research.

If the study of unsolved problems is introduced to the academic program, it would bring in aspects that are difficult to teach theoretically, but are easier to learn through experience. For example: the selection of assumptions and tools, the processes of discovering and testing, making mistakes, learning from them and moving on, encountering and recognising fragments of knowledge always presumed to be imperfect, practicing new skills and organisations. These resist being put into clearly definable knowledge packets. Academic educators should therefore report and lecture on how they have tried, and are trying, to solve difficult real-world problems, whether they failed or succeeded. This then belongs to the knowledge base of what is accepted today as proven knowledge.

Academic teaching designed in such a way would also be of the highest practical importance. Academics have an obligation to act where proven routines are missing or unusable. This is why there is varied and often contradictory partial information. Academics should be ready and capable of independently filling the gaps in their knowledge and skills with new tasks.

If defined knowledge packets are what is communicated, then testing is simple; one establishes whether

the content can be reproduced. For academic studies, in contrast, the capability to think over and systematically engage with unsolved problems is central, both inside and outside one's discipline, theoretically and practically, large and small, and, to be able to report clearly about them. To evaluate the quality of these capabilities in a student requires that the educator has experienced them – and continues to experience them – as a lack of actual experience will cause problems in the attempts to clarify or explain both the problem and the solution.

Difficult questions are linked up with a mass of information and thus recede from full visibility. Without using abstraction and hypotheses or theories for simplification, large or small, known or self-designed, one runs around blindly. However, abstraction consistently hides the danger of things being distorted. It is an important speciality of academic studies to learn to construct and employ abstractions correctly and purposefully. If it concerns a problem in the area of visibility, the pictorial, the tangible, or the concrete, then other educational methods are more appropriate.

The students from the fields where knowledge appears to be secure will be thrown into a world of incomplete knowledge, parts of which are simply conflicting shards. This is what is offered to the student, the rigor of an incessant, independent study and the burden, even the hardship, of documenting his knowledge and his capabilities in extensive interdisciplinary papers. This makes acquiring a truly academic education a challenge and, depending on devotion and dedication, a gift and an obligation for one's entire life.

Enabling Exploratory Learning

Using unsolved problems with real connections to actual practice must be the core of learning. Here teaching is more about coaching students to open their minds to various solutions and about being able to evaluate suggestions from the students through experimental knowledge drawn from one's own practice. Learning the required knowledge is achieved in this method not through the reproduction of presented information, but mainly through the first-hand experience of exploratory learning.

For many academics, this kind of learning is unusual because the outcome of each process is open and brings with it the adventure of exploring unknown territory and it makes teachers into a supervising partner for stu-

dents as well as a partner in collaborative learning. This route is lined with many questions, and can develop into a culture of enquiry. Since Socrates, we have known about the importance of asking critical questions before giving any answers. In some cultural circles, open questions are seen as a sign of a lack of knowledge, so questioning does not occur, much to the disadvantage of the students who are thirsty for knowledge. As researchers, and even more as practicing planners, we are very aware of the significance of the interplay of critical questions and answers. As part of our responsibilities, setting the game of questions and answers in motion is a key task, along with ensuring that all the conflicts and difficulties do not get lost – we do not know of any difficult task in which someone was in possession of the solution in advance, i.e., the ultimate truth and wisdom. Potential solutions must be robust and capable of holding up over the long haul in order to survive the laborious wrestling with critical arguments that take place on the road to a decision.

University learning and education can and must prepare for this reality.

How to use this book

Given this knowledge, we have not tried, or better said, we have resisted the temptation to develop a role model for a curriculum for planning studies. It appears more important to us to formulate a common and thereby cross-nation and cross-culture position for higher education in spatial planning. We regard this to a certain extent as a guideline for a high-ranking education. Several working groups were formed at the symposia for this purpose:

- Missions, Goals and Features
- The Core of the Planning Discipline
- Demands of Practice
- Current Practise of Planning Education
- Future Directions of Planning Education

The discourse that follows the publication of this HESP book should show whether these positions can be condensed at a later point in time to a manifest for higher education in spatial planning. Those who participated in this initiative are ready to do that.

Independent of the joint positions represented in this publication, we want to use the chance to introduce the personal experiences and thoughts of the university teachers and experts from practise who participated in the HESP symposia. We have called this part Reflections. Naturally, these thoughts and ideas have quite a different focus, for example, some are dedicated to education in spatial planning or to the current state of education in various regions and their perspectives.

Between the contributions of the first part, Positions, we have inserted double pages with a picture on the left. On the right side, you will find some statements about spatial planning that the authors have agreed upon. There are five groups (Mission, Needs, Principles, Movement and Profession and, finally, Learning). These could be the basis for the above-mentioned manifest.

The double pages in the second part, Reflections, contain a series of important maxims to observe when it comes to implementation.

The layout of this book makes it possible, independent of the information of the joint positions, to initially go deeper into the personal reflections. Of course, it is also possible to follow the given sequence. In any case, we wish you enjoyment and new knowledge gained from the following contributions.

Positions

The first part of this book is dedicated to the fundamental aspects of higher education in spatial planning presented as five position papers. The first contribution gives the framework for the following papers. The second deals with core aspects of the planning discipline, such as paradigms, fields of knowledge, skills, maxims and methods. The third contribution outlines the demands of practice, whereas the next reflects on the current practice in planning education at eleven universities in America and Europe based on a survey of symposia delegates. Finally, an outlook on the possible future direction of planning education is offered.

Mission, Goals and Features of Spatial Planning

Charles Hoch, Raphaël Fischler

1 Basic Framework

1.1 Mission

To anticipate and organise change in human settlement planning in order to enhance its environmental, economic, social and cultural value.

1.2 Goals

Each stakeholder in a planning process may bring different goals to it and professional planners differ in their goals as well. As a whole, though, the planning profession can be said to share several higher-order goals:

- To improve places of human habitation as communities, spaces of activity and networks of transportation
- To promote environmental sustainability in spatial development
- To foster economic development balancing local and global interests
- To nurture local identity in adapting place and environment for the future

1.3 Features

Spatial planning addresses the complex changes shaping places and their environment. These are:

- Holistic: It integrates multiple disciplines to master spatial complexity and temporal uncertainty, using a long-term view.
- Inclusive: It puts social, political and institutional understanding and process skills to use in order to ensure relevant stakeholder involvement in decision-making.
- Practical: It calls for collaborative learning that integrates scientific insight and moral sensitivity to compose useful, adaptive, and feasible plans.

This contribution reflects the discussions and findings of Charles Hoch and Raphaël Fischler as contributors to the Mission, Goals and Features Workshop at the International Symposium on Higher Education in Spatial Planning (HESP) organised at ETH Zurich.

2 Challenges for Spatial Planning Education

2.1 Current challenges for planning education

Spatial planning evolves in response to changing circumstances and challenges. Professionals all over the world practise spatial planning in response to global challenges, which include:

- Conserving and enhancing the natural environment
- Ending dependence on fossil-fuel energy
- Anticipating and mitigating global climate change
- Planning for an increasing metropolitan scale of spatial development
- Meeting increased expectations for the quality of city and town life
- Anticipating increased immigration and more diverse communities
- Recognising the salience of transport decisions for settlement form
- Coping with the acceleration of social and technical change
- Designing and applying forms of governance beyond state authority

By meeting these challenges, spatial planning will play a more prominent role in helping to solve problems of spatial development.

2.2 Envisioning what spatial planners will do ten years into the future

Spatial planners enhance the quality of life in human settlements by considering both biophysical and socioeconomic quality, balancing infrastructure provision and sustainable development, fostering harmony with nature, ensuring access to technological innovation, and working with citizens from diverse cultures and different walks of life. Planners focus on the future by identifying and responding to a diversity of local needs and by anticipating global pressures for change.

Spatial planners are effective in different decision-making systems, using a solid understanding of socio-political dynamics to address cultural differences, societal priorities, and political values. They embrace sustainable development, use new technologies, and integrate global and local concerns.

Planners work with the private, public and non-profit sectors and balance resource constraints with stakeholders needs. They facilitate deliberative processes and engage in teamwork that is purposeful and democratic. They engage in participatory decision-making using alternative dispute resolution techniques as necessary.

2.3 What do spatial planning students need to learn?

As said, professional spatial planners must learn to plan for the complex flow of people, goods, and information at the local and global levels; to limit the extent and mitigate the impact of global warming and other environmental change; to foster the use of alternative energy and the conservation of resources; and to manage the urbanisation of world cities. They need to learn important skills: critical thinking, data analysis, computational techniques, urban design, communication and negotiation, project management and teamwork.

Planning education should offer a holistic understanding of the interrelationships between human society, natural resources, and the built environment. It must include interdisciplinary study, scientific training, and international and cross-cultural comparisons. Students must learn to forecast outcomes, visualise impacts, assess resources, and integrate social, cultural and economic changes with the spatial demands for future settlement. They must learn to exercise informed judgment in situations where there is disagreement or even conflict and to recommend paths of action when information, time and other resources are insufficient. Such learning requires a hands-on experience of planning.

3 Spatial Planning Principles

3.1 Spatial planning is disciplined and pragmatic

Spatial planning for a cosmopolitan world relies on democratic intelligence informed by scientific know-how, design artistry and practical virtue to act on moral ideals in shaping settlements.

Spatial planning relies on many disciplines in order to master complex processes. Spatial planners construct scenarios for the future organisation of settlements and their environment and offer innovative, practical alternatives to current trends and established policies. These visions combine knowledge of social, economic, engineering and design disciplines to assess the diverse forces of change, the politics of decision-making, and the prospects for implementation of place-based projects, incentives, regulations and other policies.

Good spatial planning requires a wide range of practical judgment. Although these judgments draw upon the disciplined learning of professionals, they also take shape in deliberations that inform both ideas for physical improvements and the social, economic, political and cultural meanings given to these improvements.

Planning uses science to inform artful judgments on the future. Students of spatial planning learn to exercise judgment first in disciplinary training to design ways of meeting various human needs. But theory, method and technique are of little help to overcome some of the non-technical problems involved in spatial development (e.g., convincing suspicious residents to welcome foreign neighbors or approve an affordable housing project). Learning how to deal with conflict, uncertainty and novelty requires confrontation with real places and real problems, mentoring by people of experience, and learning from trial and error. Each student must learn the hard way because each must learn to square disciplinary ideals with the demands of practical deliberation and marry expertise and persuasion.

Spatial plans, unlike architectural blueprints, offer provisional advice. The residential project, infrastructure improvement, district redevelopment scheme or regional plan may each change focus, scope and constituency as conditions change. Plans offer compelling intentions at a specific time and in a specific place; but they are always subject to reconsideration as time passes and as people modify or recast their intentions. So plan-makers need be able to release attachments to prior ideas, offer alternative frames of reference to find new meaning in earlier plans, and anticipate (and prepare for) new circumstances tied to social, economic, political and cultural change. This takes practice to learn.

3.2 Spatial planning is collaborative

Planners must conceive, design and realise future spatial improvements, conduct deliberations about these visions, encourage diverse input, prepare long-term institutional frameworks to realise the imagined changes, anticipate unexpected change and prepare for it, manage a complex program of action, inform political decision-making, engage and survive political conflicts, and coordinate and guide practical efforts to implement the plans. No one person can do all these things equally well. Spatial planning requires people to work together in teams, and these teams must include practitioners who were taught how to integrate various activities and outlooks by means of practical judgment. Many people may plan well without having studied planning in school, but the education of spatial planners can ensure that they learn about both the complexity of the division of labour involved in making plans and about some of the strategies that practitioners can adopt to improve judgment and coordination in planning for complex collective problems, from the site to the region.

3.3 Spatial planning is inclusive and pluralistic

Even a good professional planning team, let alone an individual planner, cannot adequately fulfill all the demands of robust spatial planning. First, spatial plans result from social collaboration and deliberation. Even though not every one of the many stakeholders involved in typical planning processes can participate equally in the making of plans, at least some other parties, besides planners, need to be involved. Second, the diversity of

stakeholders and of their positions makes it likely that multiple plans will take shape, compete for public attention, and offer opportunities for conflict, collaboration and joint learning. Instead of focusing on a single master plan from the outset, good spatial planning encourages and supports efforts to make many different kinds of plans for the future of a place. (The idea of a fruitful multiplicity of plans should not be confused with a neo-liberal conception of competition among private plans. This represents only one specific kind of arrangement and hardly a universal model.) Planners need to be able to elicit planning ideas from non-professionals and to find positive ways of reconciling differences in their plans.

4 Spatial Planning: Movement, Morality and Profession

Spatial planning emerged as a reform movement committed to reducing social and physical suffering in the industrial city and to creating conditions for desirable change. The planning movement included diverse lines of effort to improve the city and region, to make transport more efficient, remove sewage and solid waste, reduce the burdens of poverty, make ugly public spaces beautiful and much more. This progressive tradition remains viable, if modest, even in our fragmented world filled with postmodern longings and conservative revivals.

4.1 Planning is problem-focused, not power-focused

Contemporary spatial planning recognises both the limits of science and the persistence of moral disagreement about the sorts of spatial problems that inspired our predecessors to combine disciplines and offer practical advice. Large-scale bureaucratic planning often proves inept at solving the sorts of problems that spatial planning was invented to help anticipate and solve. Efforts that subordinate spatial planning to competing ideological doctrines encourage endless debate that distracts people from the practical problem-solving work that is required. The issues of political power, social exclusion and cultural difference matter as spatial planners struggle to foster social order and equity across geographic scales, but the promise of improvement that inspires spatial planning pushes us to consider these competing ideological systems much as we do disciplines: as resources for practical judgment rather than as moral frameworks for political agreement or worse, subordination. We do not ignore differences but address them in the deliberations that inform spatial plan-making for settlement features and places.

4.2 Planning is cosmopolitan and collective, not partisan and corporate

The concept of the public interest takes on renewed meaning for spatial planning most clearly as an expression of democratic intelligence in the cosmopolitan communities of contemporary settlements. Planning for these communities must combine respect for democratic participation and for individual action with understanding of the complex nexus of power relationships. It calls on planners (professionals and others) to consider not only the interest of the powerful and the few, but also those of the many stakeholders tied to the place from near and far.

4.3 Planning is practically provisional, not politically powerful

Planning cannot and should not be perceived as a solution to urban and environmental problems. Planning provides insights and ideas about the future consequence of expected changes which people may use to inform decisions and actions. Plans help to improve judgments and decisions, but cannot substitute for them. (Some would argue that the master plan ideal was more trouble than it was worth.)

The plan works in practice as advice and not as mandate. But democratic leaders find it especially difficult to take responsibility for mistakes and are prone to blame plans produced by experts for leading them to make bad decisions. At the same time, they will take full credit for making decisions based on plans prepared for them. This asymmetry needs to be recognised as a structural institutional irony, almost inescapable for spatial planning, even though it is unjust.

5 Learning Spatial Planning

Planning education must encourage an active, searching curiosity in the service of practical judgment. Planning education should teach three P's: perception (understanding), performance (effectiveness), and prudence (practical judgment). These terms express the main objectives of planning education.

Planning for any spatial issue draws upon a large array of disciplinary knowledge, even though no one person can know it all. Students need to learn how to tap a diverse assortment of the most relevant disciplines for the spatial issues at hand. Some kinds of knowledge and the understanding needed to put it to use deserve special attention:

What? On one hand, planners need to understand (perceive, comprehend), describe, analyse and interpret the character of the space, the multidimensional and interrelated spatial phenomena that exist at all scales, the complex relationship between people and space, and the interpretation of this knowledge for planning.

How? On the other hand, planners need knowledge and skills to describe, analyse and interpret issues, to compose possible visions, processes, and designs, to use argument, judgment, negotiation and persuasion, to inform decision-making, to manage plan-making activity in different institutional contexts, and to implement plans as intended.

5.1 Knowledge

Core knowledge in spatial planning includes the domains of disciplinary theories and methods that students may use to understand how places change and how spatial plans work. Students will acquire this knowledge while learning to think critically and imaginatively about origins, function, meaning, application and more:

- Knowledge about the natural environment in relation to planning issues (ecology, natural resources and processes)
- Knowledge about the social environment in relation to planning issues (social structures and processes, social and cultural diversity, economic, political and financial aspects, health conditions, legal and institutional structures)
- Knowledge about the relationship between people and space (spatial structures and fabrics at different scales, human settlements, technical, functional and physical aspects of landscapes, infrastructure, services)
- Knowledge about planning theory, methodology, techniques (the theoretical and practical frameworks) with a focus on strategic planning
- Knowledge about plan- and policymaking (physical and policy plans) as well as formal and informal decision-making processes
- Knowledge about traditions, conventions and techniques in the exercise of planning judgment in the past and today

With respect to the last point, it must be clear that planning students must learn history not as a tradition requiring emulation, but as precedent worthy of analysis to inform practice.

5.2 Skills

Students need to learn how to create spatial plans that make a difference. The complexity of these plans requires that students acquire a range of know-how; this, in turn, requires learning-by-doing. Key skills concern the ability to:

- Visualise spatial relationships at different scales and grasp elements of cartographic, architectural, engineering and landscape design
- Write arguments and narratives in memos, reports, policies, regulations and other texts used in planning
- Graphically analyse and illustrate geographic and spatial features associated with socioeconomic and demographic change
- Analyse numerical data measuring spatial and temporal distributions and trends in the natural and built environments
- Build and use models to simulate and evaluate future spatial and functional effects