

Sustainable development in contested landscapes

A landscape model for participation processes

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Abstract

Landscapes are often regarded as common goods even if the land itself belongs to someone. People are increasingly concerned with landscape development and have opinions about that process. Therefore, landscapes are contested space that different stakeholders want to develop according to their interests. They are based on people's individual situation and social context and often they are focused on specific issues (i.e. tourists want "beautiful" landscapes, farmers to optimise their production, environmentalists are interested in biodiversity etc.). Sustainable landscape development that includes an intact environment, economic prosperity and social cohesion has to find a way to negotiate different interests, if it wants to be widely accepted. Participation processes trying to achieve this often fail because different interests are irreconcilable, but also because stakeholders focus on different issues and aspects without realizing that they do this. The visual turn brought a tendency to see landscapes as absolute in the sense of "what you see is what you get", which is inhibiting discussions about different possibilities and trajectories. With the presented landscape model we provide a tool to make differences transparent and to overcome them. It consists of four poles of landscape perception: *nature*, *culture*, the *individual*, and the *society*. Stakeholders and also scientists tend to gravitate to one of these poles and to disregard the others. With the field that is spanned by the poles different positions can be made visible and therefore negotiable. However, our model goes further and identifies six dimensions of landscape perception that can be integrated into the pole model: the ecological, economic, political, aesthetic, identificatory, and corporeal-sensory dimensions. The consideration of these dimensions helps to conceive and plan landscape development in an integral way and is a base for successful participation processes for which recommendations are made.

Keywords

Landscape, commons, sustainable development, stakeholders, participation

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Introduction

Landscapes are a result of people's interactions with their environment. In order to be able to formulate shared aims for the development of landscapes, comprehensive knowledge about processes of perception of landscapes is needed. Because landscapes are the space in and through which people live, work, and spend their leisure time, they are often regarded as common goods even if the land itself and its objects belong to someone. Two processes are enhancing the importance of landscapes in that sense: the debate on sustainable development and the visual or iconic turn (Bachmann-Medick, 2006). Through the debates about sustainable development of environment people become aware that landscapes play an important role in that process and should therefore also be developed in a sustainable way. The increased importance of the visual also makes the appearance and look of landscapes more important. Thus they are regarded as visual proof of a region's ecological soundness and aesthetic appeal – in the sense of “what you see, is what you get” – and become emblems for certain “good” or “bad” developments that are inscribed into them. The alleged closeness of photographs to “reality” leads to the notion that landscapes are what they (or their images) look like, namely “ecologically sound”, “industrialised”, “damaged”, “aesthetically appealing” etc. Consequently, landscapes are regarded as something that has to be protected, enhanced, saved or cultivated. This thinking can lead to perceive landscapes rather in terms of absolutes than as social (or individual) and therefore relative constructions. In that logic landscapes are seen as representations of functions that are attributed to them. When processes and projects are discussed that make themselves felt in landscapes, this can result in misunderstandings and conflicts, especially when *specific* functions – i.e. agricultural production, leisure, tourism, living space etc. – are in the centre of stakeholders' minds without being clearly addressed and explained.

This paper addresses the role of landscapes in planning processes that are aimed at sustainable development and offers a new model of landscape perception that is able to at the same time regard landscapes as more than their physical components and to differentiate between different dimensions or functions. This model is based on four poles that encompass different approaches to landscapes: nature, culture, society, and the individual. Within that field different dimensions – i.e. the corporeal-sensual, aesthetic, identificatory, political, economic and ecological dimension – can be located, which allows for an efficient and thorough analysis of landscapes and landscape-related processes. The model was developed within the Swiss National Research Programme 48 “Landscapes and Habitats of the Alps” (NRP 48) in order to synthesize perception-related projects (cf. Backhaus et al 2007a, 2007b). Although developed for the Alps, the model is also applicable to other mountain areas and other kinds of landscapes.

In the following we will present the landscape model and discuss its dimensions, which will be illustrated with research projects that contributed to the NRP 48. In the last section recommendations for landscape practice and policy will be made. Before that, a few remarks about landscape conceptions are called for, in order to clarify the term.

Landscape conceptions

It is all too well known that landscape conceptions are numerous and vary greatly in both the scientific community and in everyday discourses. For many, landscapes consist of the world and its natural and artificial objects as they appear, as environment, and simply as view into the distance. For others landscapes are a social construction that depends on the social and cultural background of the beholder and some perceive it as the result of ongoing natural processes that is subsequently altered and changed by people to cultural landscapes. Moreover, the conceptions themselves change with the alteration of landscapes and social realities (cf. Stremlow 1998; Antrop 1999; Tress and Tress 2001, p. 144-146; Reichler 2002; Kienast et al. 2007) and thus new images and values about landscapes are called for. In a globalised context landscapes and images of landscapes are beheld by more people with a greater variety of interests than before when they were part of the livelihood of much less people and subject of less interests. This does not mean that there was a single view of them and that they were not contested at all, but the range of possible views and interests was smaller.

If people stick to their old ideas and values regarding landscapes, a gap will open between the mental world of individuals and the changed environment. Therefore, landscapes have to be conceived as relativistic and dynamic (cf. Antrop 1999) and not as carved out of stone to be unchanged forever (cf. Tress and Tress 2001, p. 148). Like space landscapes should not be understood as static but as – according to Massey (2005, p. 9; Sparke 2007, p. 396) – a product of interrelations and constituted by interactions, a sphere of the possibility of the existence of multiplicity and coexistence of heterogeneity, and therefore being constantly under construction. Hence, we cannot provide a conclusive definition of landscape. What we can say is that landscape has a mediative function between people and the natural environment. Consequently, it is more important to ask to what ends this mediation serves and how it works, than to define it. Most landscape related research does not start with a definition of the concept but with landscape related problems that are to be analyzed and solved. Most researchers of the NRP 48 (but also others, i.e. Fry 2001; Naveh 2001; Tress and Tress 2001) have stated that only a multidimensional approach, in which insights are shared and connected over the boundaries of disciplines, can achieve this. Since landscapes can be considered as common cultural commodity or public good (cf. Antrop 1999, p. 17; O'Neill and Walsh 2000) these analyses make clear that the participation of the people concerned in decision making processes is very important. Therefore, results of landscape research as well as perceptions and conceptions of landscapes should be communicated as well as possible in order to raise awareness and to initiate participation processes and thus serve as contribution for an ethical discourse on landscape development (cf. Hanssen 2000).

Landscapes and the visual turn

Landscapes are first and foremost visual (this can also be observed in official documents dealing with landscapes; cf. Longatti and Dalang, 2007). Although the term goes back to the middle ages, when it was used to describe the territory of landlords, landscapes owe their significance to painters of romanticism in the 18th and 19th century who with their works created an own genre of painting. Since that time landscapes are not regarded as mere container of objects, but as entities by

themselves that evoke emotions with their contemplators. Alpine landscape paintings were created to show the sublimeness and grandeur of mountain areas (Reichler, 2002), paintings of Arcadian landscapes served as icons of a simple, natural life, and seascapes showed the might and vastness of the oceans. Hence, these paintings did not (only) serve to depict natural reality, but to evoke feelings and emotions – i.e. awe, serenity, a sense of frugality etc. – that are (or should be) connected to such landscapes. In the 18th and 19th century these highly aesthetic views on landscapes through these paintings was reserved to nobility and educated bourgeoisie. Early landscape photography also served to stress the beauty of the natural environment and of traditional cultural landscapes. This was taken up in tourism advertisement, which nowadays sometimes goes as far as to digitally erase objects that do not fit in the desired image of a destination. The advertisements also seem to say “this is what you get, when you visit this place, this is what it looks like and how it is”. Or expressed in a more general way “[images] illustrate, very smoothly, when they present themselves as a kind of double of a thing.” (Boehm 1994, p. 16 in Müller, 2007, p. 51, own translation)

Although visual aspects of landscapes have a long tradition of being reflected upon, the visual or iconic turn came much later in the 1980s and -90s, when pictures began to become ubiquitous and through imaging systems things were visualised that could not be seen that way before (cf. Bachmann-Medick, 2006). These systems – i.e. remote sensing, computerised tomography, or security cameras – are designed to “objectively” capture reality in order to draw adequate conclusions – i.e. about land use, illnesses, or crimes. Through Google earth for example, images of landscapes are even more popularised. The increasing quality of the processed satellite images contribute to view landscapes in absolute terms. Moreover, the possibility to create digital visual information made it possible to model landscapes in order to use these models in research or planning processes (cf. Schroth et al., 2006; Hunziker 1995). These models are designed to resemble as good as possible the visual impression of the real landscape and therefore also contribute to a more absolute view on landscapes, even though they are often used to visualise different scenarios of landscape development.

To sum this up, we can say that the visual turn contributed to rather regard landscapes as something visual that is in stasis and in which results of former processes can be seen than as construct with different meanings, trajectories, and possibilities.

Landscapes, stakeholders and commons

Objects that can be located in landscapes often belong to people or institutions that can restrict its use and accessibility. However, landscapes as images and constructs filled with different meanings cannot be appropriated to exclude others (on appropriation of space cf. Backhaus and Müller, 2006). Therefore, we have a situation where at the same time landscapes are regarded as common property and a large number of the objects that landscapes are composed of are not common property. Therefore landscape related projects do not only affect owners of “objects” (including land) but also a wide range of stakeholders who in one way or another are affected by changes (for stakeholder identification cf. Ejderyan et al., 2006). Each stakeholder group has different interests that sometimes are not compatible with each other. Problems cannot only arise if different interests clash but also if

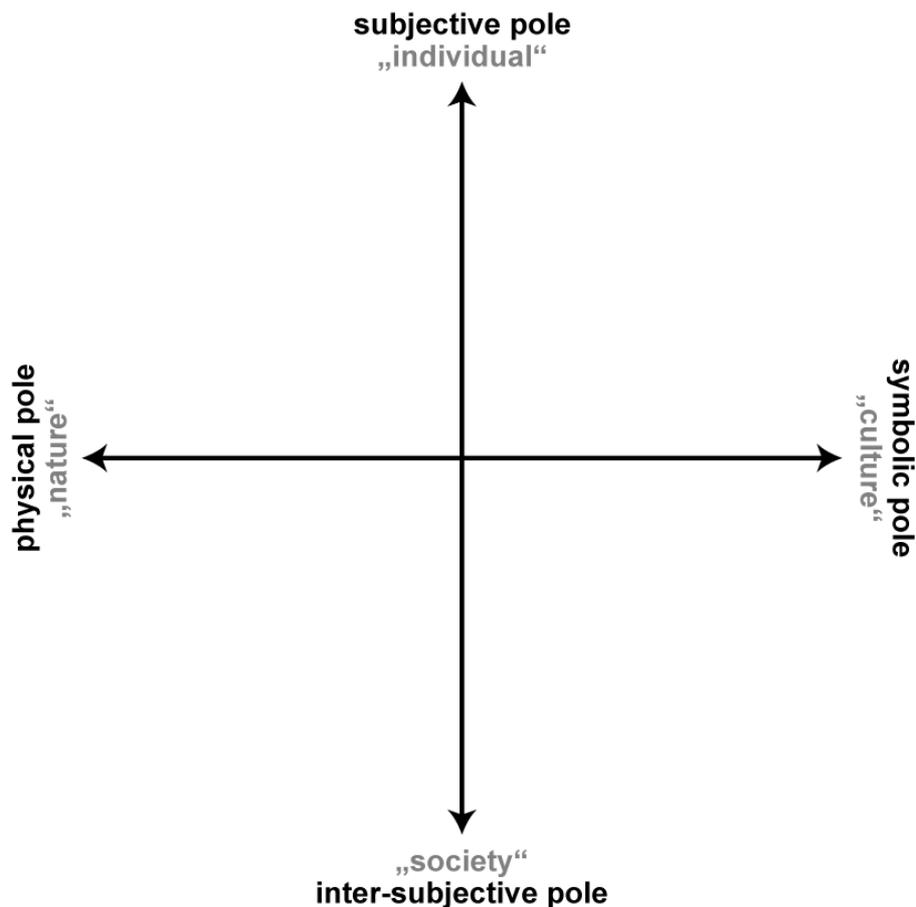
stakeholders regard their view of landscapes as the real and only one. The way people perceive landscapes depends on different factors: their values, their preferences, their information, and their stance or posture towards the specific context.

There are different theories about people's values that influence their perception of the environment and their notion towards change – i.e. the Douglas-Wildavsky theory of cultural bias (Ellis and Thompson, 1997), the value concept of Schwartz and Taylor (Buchecker et al., 2007) and others. It is not the aim of this paper to evaluate these theories, for each approach has its advantages. However, what they lack is a concept of the specific situation in which stakeholders enter a process or discourse. If for example, a farmer with a certain value set (that for example is "fatalistic" or "security" oriented) enters a debate on whether a nature park should be established in an area which she uses as pasture for her cattle, she may do this from a perspective that focuses on the stability of her own livelihood. If she is at the same time involved in communal politics she may look at the project – that may enhance the village's image – from a different angle. That means that the same person (with the same value set) can look at landscapes and related projects in different ways depending on their position, stance, or posture (the term goes back to Bourdieu and is used by Droz and Miéville-Ott, 2005). Consequently, a conception of landscape perception that should be useful for the negotiation of development processes has to provide for taking in different stances or postures too.

The landscape model of the four poles

Landscape's role as mediation between natural environment and human activities is not immediate and spontaneous. Rather it is dependent on acquired rules, models and cultural patterns (i.e. viewing routines or the attribution of meaning). Consequently, we can perceive landscape perception as occurring between the polarity of *nature* and *culture*. Staying with human beings we can detect another polarity, namely between the *individual* and the *society*. The former by his or her perception of landscape and the latter by the way space is organized, managed and appropriated by different social groups. Thus, we have two polarities that can be displayed in a schema with two axes (see figure 1). Of course one could argue that this polarity is a construction too, for also the engagement with the physical aspects of landscapes is based on social norms (cf. Müller 2007, p. 119). But that is not the point. In order to be able to talk about landscapes' different aspects, it is necessary to present a model that different stakeholders can relate to and that is close to their everyday experiences (cf. Backhaus et al., 2007, 2008). This is one of the reasons why we did not use Actor Network Theory (ANT), which is more difficult to grasp. Another one is that we do not attempt to write about the ontology of nature-culture relations, but rather about how different facets of landscapes can be approached and taken into account in a structured way.

Figure 1: The four poles of landscape perception



Source: Backhaus et al., 2007: 41, adapted

Scientists and experts who are dealing with landscapes tend to gravitate towards one of these poles according to their specialization and to emphasize its supremacy over the other ones according to their discipline or field of interest – Naveh (2001) calls this “disease of specialized deafness”. Therefore, the respective definition of landscapes and notion about its development depends on one’s position within this grid. Biologists, geomorphologists or ecologists, for instance, tend to focus on natural aspects and to neglect aspects that belong in the realm of social sciences and the humanities. Psychologists and behaviourists tend to concentrate on individual behaviour, because its pole expresses individual sensations, without which perception is not possible. Sociologists or economists put the inter-subjective pole into the fore, because they argue that landscapes are mainly results of social processes and cultural scientists, who analyze the meaning of aesthetic models and representations are drawn to the cultural pole. Within the plane that is spanned by the poles an instable balance is reached by different approaches (i.e. between the natural sciences and the humanities, but also between quantitative and qualitative approaches, Fry 2001, p. 162). This is conflicting with the notion of an “absolute landscape” that was formulated between the age of enlightenment and romanticism and that is in line with Augustin Berque's (1986) three layers of landscape: the biophysical, the subjective, and the social layer (cf. Reichler 2002). The introduction of a fourth layer or rather pole – the differentiation between the inter-subjective and the cultural pole – offers the possibility to better show socio-cultural tensions, rifts

and disruptions that are determining landscapes today. The model also shows the breadth of the term 'landscape'. Moreover, it is dynamic and does thus justice to the permanent change of landscapes.

The physical pole

What people generally perceive first when they behold landscapes are their physical elements: meadows, forests, settlements, roads, animals, machines etc. Without these elements or objects landscapes would merely be ideas (which they are according to strict constructivists, but we do not want to go that far). However, the physical evidence of these objects should not lead to the reification of their meanings in the sense that landscapes are what they look like. In fact it does not make sense to conceive of a landscape per se without considering different points of view from which landscapes are perceived. One of these views is taken by the natural sciences whose aim it is to closely describe biological and physical elements and to analyze human impacts on natural processes.

The subjective pole

The subjective aspect of this pole has two meanings. The first refers to the subject as the centre of emotions, sensations and perceptions, for which landscapes appear when they open themselves to the outside using his or her senses. Landscapes would not exist, if subjects would not approach them with intentionality and the ambition to grasp their surroundings. Although the visual aspect of this process is increasingly important, it is not the only way subjects perceive landscapes. Moreover, the visual sense is coupled to other senses and the rest of the body and therefore more than just an "optical device" in order to detect the environment. Hence, the development of a landscape theory that encompasses all senses is called for. The second meaning of the subject refers to the individual as part of the society. Individuals – conceived as agents that make their own decisions (regarding action theory cf. Werlen 1992; Searle 1997; Treibel 2000; Münch 2002) – retain a certain degree of freedom of action that includes judgments and choices. Therefore, individuals choose the aspects of landscapes that raise their interest – they do not merely react to stimuli – and consequently they tell their own story when talking about landscapes.

The symbolic pole

The symbolic pole refers to approaches that are based on the conception of cultural patterns, aesthetics and symbols. These approaches depend on the fact that people perceive the world – and with that landscapes – mediated through visual and linguistic patterns, which they attribute to meanings that are related to their cultural environment (Roger 1978). The role of art – and today also the media – is to transmit these patterns that are not merely instruments of perception but also systems of interpretation. They are passed down from one generation to the next and at the same time they are altered by social changes, and symbolic standard values (cf. Schama 1995; StremLOW 1998). This way art and literature on the one hand conserve qualities that are attributed to landscapes. On the other hand they also discredit stereotypical notions and renew our view on landscapes. The introduction of perspective to painting in the 15th century for instance, or the invention of photography and the artistic revolutions of expressionism and abstraction shook up

conceptions of landscape. Hence, landscape became a carrier of identity, especially of national identity in modern Europe (Walter 2004).

The inter-subjective pole

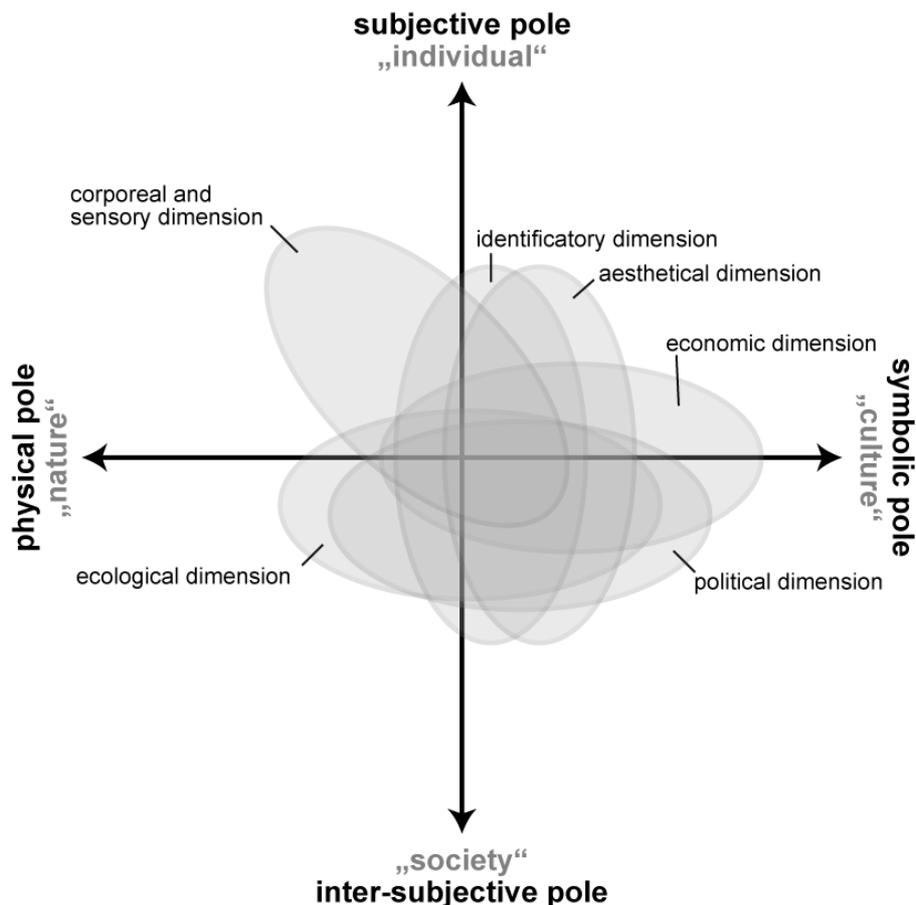
At the social pole landscape is defined as product of social practices (cf. Cosgrove and Daniels 1988; Jackson 1994; Corbin 2001). These practices (i.e. sport, leisure, agriculture, trade etc.) are analyzed within their social and economic determining factors. Economic evaluations of landscapes (cf. Simmen et al. 2007) regard them as resource that has a certain use value (i.e. for agriculture and tourism) or a market value (i.e. exploitation of land ownership, added value of spectacular vistas etc.). Others are more connected to a sense of belonging that is linked to discussions about the authenticity of landscapes (cf. Kianicka et al. 2006). And authenticity is again connected to the social history of landscape representations for example seen from an insider's vs. an outsider's perspective, or as a natural vs. a cultural landscape. Authenticity is a concept that is often falsely reified in the sense that authentic landscapes can only assume one distinct form and a deviance from this state is a compromise of authenticity. Like landscape, authenticity should rather be regarded as construction that allows for different interpretations.

Political aspects of landscapes also belong to this pole because of decisions by the authorities that can have great impact on landscape development. Often laws pose restrictions that limit the range of possible changes and therefore also limit the scope of discussions. Moreover, landscapes can be a matter of conflict about differing demands of different stakeholder groups that all want to influence and define landscape development.

Six dimensions of landscape

Within the model of the four poles different possibilities of locating standpoints regarding landscapes can be conceived. One typology could be deduced from the connecting lines between two poles. We, however, want to establish different zones or foci within that field. For their identification we use the topics and results of research projects of the NRP 48. We analysed the projects' different approaches to landscapes and by compiling and structuring them we could differentiate six landscape dimensions. Interviews with practitioners in the field of planning and research confirmed their usefulness. Figure 2 shows that the six dimensions overlap and more or less go through the centre of the field. The dimensions can also be perceived as flashes that illuminate and unveil landscapes at the same time. The positions of the dimensions' lenses are relative not absolute, they were not calculated but rather discussed.

Figure 2: The six dimensions of landscape



Source: Backhaus et al., 2007: 102, adapted

The corporeal and sensory dimension

The corporeal and sensory dimension is the dimension of sensation and perception. Landscape is basically and increasingly a matter of seeing and therefore the visual sense is regarded as the central affected sense. For art historians landscapes are a genre of painting like the portrait or the still life. But is landscape only a view that is delimited by the frame of our visual faculty? Some researchers expand this position with the aggregation of different view points that enhance the inter-visibility of landscapes (cf. Ormaux 2005, in: Droz and Miéville-Ott 2005). Droz and Miéville-Ott (2005) deduce from this diversity of viewpoints diverse justifications for specific landscapes and call them – in line with Bourdieu’s terminology – “postures”, thus emphasizing the fact that *different* views are possible. Other researchers develop a multi-sensory conception, for example Bingley (2003) emphasizing touch, or Reichler (2005), who also includes sensations of the skin and perceives notions about mountain air not only as health factor but also as landscape component. In their analysis of the perception and consumption of nocturnal landscape by illumination (of streets, advertisements, monuments, and even mountains) Zumthor et al. 2006 also emphasize the importance of the sensory dimension. For “nightscapes” are not simply landscapes without light, they are perceived and felt differently than in daylight.

The aesthetic dimension

The aesthetic dimension is expressed in the relationship of the cultural pole with the other poles. It can refer to the subjective pole if it emphasizes the value that is attributed to beauty, to personal pleasure, or to intellectual discoveries and sensations. Connected to this is the familiarity with specific landscapes. In relation to the inter-subjective pole learned patterns are emphasized with which the “neutral” elements or objects described in the physical pole become a landscape (cf. the German expression *Stimmung* – mood, sentiment – as used by Georg Simmel 2001). Consequently, perception is directed by social systems of estimation (Roger 1978). The both sides of the aesthetic dimension are connected and appear in different contexts of Alpine research. Forsyth, 2003 analyzes the aesthetic meaning the Alps had for the English (and others) in the 19th century and how this led to the development of Alpinism. Wirz (2007) focuses on the history of appropriation of mountain tops by women, which is depicted as a difficult endeavour that was heavily contested by male Alpinists and consequently revealed their aesthetic notions about mountain peaks and the path to their top (cf. also Siegrist 1996). Reichler (2005) and his team tell the story of the rise and fall of Alpine health resorts. Their appeal also depended on the aesthetics of their surrounding landscape as it was described by Thomas Mann in his novel “*Der Zauberberg*” – “*The Magic Mountain*” – (Mann 2004 [1924]). Of course aesthetics were not only relevant for the 19th century, they are also important for current landscape perceptions and expectations for their future development. A difference between then and now is maybe that aesthetics are more personalized today. In the 19th century there was a common understanding (and debate) of what is aesthetically appealing and what is not, today beauty and sublimeness are rather regarded as personal perceptions.

The identificatory dimension

This dimension concerns the emotions of belonging – in the sense of the (intranslatable) German expression *Heimat* that landscapes can evoke. Landscapes are thus perceived as carriers of a common history of a community (cf. Nora 1993), in which people recognize themselves. Landscapes become a symbol that goes beyond its materiality and the visual. “Life worlds” – two films about past and present livelihoods of people in Hinterrhein (Röösli 2005) and the Valais (Risi 2006) – and a study about identity and identification with landscapes (Felber Rufer 2005) are two projects that show how complex and intricate identification processes can be, for people identify with different elements or aspects of landscapes and this also changes over time. Nostalgia for past landscapes is something that can be observed with many people, but mostly with those who are not (anymore) living in the area. Image analyses moreover revealed that the identification with a region (and its future landscape) also includes people who stand for or against a certain development (Müller 2007; Müller and Backhaus 2007). This dimension is extraordinarily rich and encompasses socially and individually experienced space and spatial relations.

The political dimension

If landscapes are a consequence of human actions, they are also political. For different interest groups are each trying to shape spaces according to their needs and desires. Consequently, many research projects focus on these needs and wishes and conduct surveys in order to detect (potential) conflicts and to make recommendations for policy makers. Common interest groups are locals, tourists,

owners of second homes, farmers, hunters, hoteliers, men, women, different age groups etc (cf. Droz and Miéville-Ott 2005). Although these groups often have common interests, people's opinions depend on the specific context and their personal situation. In conflicting situations and in cases where decisions have to be made, the role of experts and the administration becomes important. As outsiders or "neutral" persons they should provide know-how that helps to solve conflicts or to make just decisions. However, also experts and policy makers have an opinion with which they enter "the game" and thus they also become stakeholders. Hence, also the role of these experts is debatable and their opinion can differ from those of the people concerned (cf. Hunziker 1995).

The economic dimension

The economic dimension occupies the centre of the model and it is also central to many discussions about landscape development. It is revealing that the development of modern economy is closely linked to the delimitation of private landownership, which is also central for the development of landscapes. The economic dimension has been important in discussions about beauty and usefulness of landscapes in the 18th century (i.e. private *landscape gardening* or the development of *enclosures* in England). It was present in the construction of sanatoriums in the 19th century, where Alpine and marine landscapes and fresh air became economic resources. Today, those landscapes are regarded as economic resources more than ever, for example as tourist areas, locations for leisure activities, space for sustainable primary production, or as place to live (cf. Simmen et al. 2007). While there is a tendency to measure such landscape functions in monetary units – which is certainly useful for the assessment of different functions – not everything that is important about landscapes can be expressed in dollars, euros or francs (i.e. identification, aesthetic delight, biodiversity, or environmental quality).

The ecological dimension

This dimension concerns all aspects that are related to ecological aims of sustainable (landscape) development. It is relevant when decisions regarding protection or use of landscapes have to be made, for example when tourist infrastructure threatens an area's biodiversity or when flood protection, river renaturation, and agriculture have to be coordinated (cf. Junker and Buchecker 2006; Zaugg Stern 2006). Biodiversity has in this dimension become a buzzword that almost became a synonym of ecological soundness and sustainability. However, there are different ways to conceive of biodiversity (i.e. genetic diversity, species diversity, or diversity of ecosystems). Ecological questions also become important in discussions about people's preferences regarding wilderness, which paradoxically (at least in the Alps) can only exist when it is carefully protected and delimited (cf. StremLOW and Sidler 2002).

Summarizing, we can ask ourselves what is new about this model (cf. Backhaus et al. 2007a). First, the distinction of four poles (instead of a "nature-culture" dichotomy, three levels "biophysical-subjective-social" (Berque 1986), or three spheres "bio-, geo-, and noo-sphere" (Tress and Tress 2001) emphasizes the distinction between cultural, social and subjective aspects of landscape perception. At the same time it is able to locate different approaches within the field it opens up. Second, the

conception as poles rather than layers shows the dynamics of landscape research and perception rather than to suggest with layers or spheres that it is per se holistic and should only be regarded as such. Third, the introduction of the six dimensions (which by themselves are not new) into the model of poles shows with which “lenses” or “foci” landscapes are approached and discussed. The list of six dimension is not meant to be final. Depending on the context the use for other dimensions are possible. Nevertheless, we think that our dimensions cover most kinds of landscape perception. Although they are not similar, the dimensions touch the notion of landscape ethics to preserve landscapes for their aesthetics, intrinsic worth, and utility (Soper 1995 in Hanssen 2000, p 250). This is important when we look at processes of landscape planning where different stakeholders emphasize different aspects of landscapes, often without naming them. Here the model can help to make people aware of their own position and that of others and serve as starting point for inter- and transdisciplinary research (cf. Fry 2001) but it also lays the foundation of an ethical discourse about landscapes (Hanssen 2000).

Recommendations

Based on the model we can develop an ethical discourse that includes a mandate for the protection and formation of landscapes (cf. Backhaus et al. 2007a, b, 2008). According to this, landscapes have to be developed on the basis of inter-subjective agreements. This should be based on a democratic dialogue and deliberation rather than on preference calculations (cf. Arler 2000, p. 301). Landscapes should eventually please the people, offer familiarity, bring long-lasting revenues, and should be ecologically stable (Haber 2006). In order to get to this future-oriented landscape development, we want to present a few considerations and recommendations from our model:

- Landscape development should be designed as a social process that includes different interests and claims of concerned stakeholders. These different notions are both opportunity and risk. The former, because new ideas are generated and discussed, the latter because unsolved conflicts tend to deepen and widen.
- People associate emotions with landscapes that are connected to recollections and individual and collective notions. In fact, this emotional content determines a great deal of different people’s interest in landscape topics. Therefore, this emotional approach has to have a place in participation processes along with models, plans and scientific insights.
- The analytical (and detached) approach of planning processes has to be combined with one that is oriented towards experience and identification. Art projects for example – that emphasize the reflection of perception and representation of landscapes *per se* – can help to bridge the gap between these approaches.
- Landscapes are never completed. Rather they are constantly built and rebuilt through people’s engagement with their inner images and with their physical environment. Therefore, questions regarding landscape policy are embedded in changing social, cultural (and individual) contexts. As a consequence, “inner” landscapes and their implicit evaluations have to be made transparent (cf. Bingley 2003).

For landscape development and planning material and immaterial aspects are important. With our model we try to present a way to make them transparent and therefore negotiable.

Conclusions

Landscapes are an essential part of people's livelihood and should therefore be developed in a sustainable way. Through the visual turn landscapes have become more important and by the same process they are regarded rather as absolute and static given than as a construction that is dynamic and that is interpreted in different ways. In processes regarding landscape change and development many people and interest groups have stakes even if they do not own the land or other elements of the landscape. In order to avoid a clash of different interests that are based on an absolute interpretation of landscape the presented model of landscape perception is helpful. With its four poles it shows different aspects of landscapes that should be considered when trying to develop them in a sustainable way. The six dimensions are entry points through which people and interest groups perceive landscapes and often other dimensions are not taken into consideration in debates on landscape development. The model visualises landscapes' multidimensionality and enables a discussion that allows for more than one or two trajectories of development. This is important because landscapes are not (anymore) a matter that concerns people who actually live in it, but have become a matter of interest to a wide range of stakeholders who regard them as common property in which they want to have a say too.

References

- Antrop M. 1999. Background Concepts for Integrated Landscape Analysis. Agriculture, in: *Ecosystems and Environment* 77, pp. 17-28.
- Arler F. 2000. Aspects of Landscape or Nature Quality, in: *Landscape Ecology* 15, pp. 291-302.
- Bachmann-Medick, D. 2006. Cultural Turns – Neuorientierungen in den Kulturwissenschaften. Rowohlt, Reinbek.
- Backhaus, N. & Müller, U. 2006. Regionalisierung: eine konstruktivistische Perspektive, in: Backhaus, N. & Müller-Böcker, U. (Editors), *Gesellschaft und Raum – Konzepte und Kategorien*. Schriftenreihe Humangeographie Vol. 22, Zürich, pp. 13-29.
- Backhaus N., Reichler C., Stremlo M. 2007a. Alpenlandschaften: Von der Vorstellung zur Handlung – Thematische Synthese zum Forschungsschwerpunkt I «Prozesse der Wahrnehmung» des NFP 48. Zürich: vdf.
- Backhaus N., Reichler C., Stremlo, M. 2007b. Ein Landschaftsmodell für den Alpenraum – Erkenntnisse aus einem schweizerischen Forschungsprogramm, in: *Histoire des Alpes – Storia delle Alpi – Geschichte der Alpen* 12, pp. 307-321.
- Backhaus N., Reichler C., Stremlo, M. 2008. A landscape model for the Alps – Perceptions of Alpine Space and Policies for Sustainable Development, *Mountain Research and Development* 28 (2), in print.
- Bätzing W. 2005. *Bildatlas Alpen – Eine Kulturlandschaft im Porträt*. Darmstadt: Primus-Verlag.
- Berque A. 1986. *Le sauvage et l'artifice – Les Japonais devant la nature*, 2ème partie: *La raison du milieu*. Paris: Gallimard.

- Bingley A. 2003. In Here and out There: Sensations between Self and Landscape, in: *Social & Cultural Geography* 4, pp. 329-345.
- Buchecker, M., Kianicka, S. & Junker, B. 2007: Value Systems: Drivers of Human-landscape Interactions, in: Kienast, F., Wildi, O. & Ghosh, S. (Editors), *A Changing World. Challenges for Landscape Research*. Springer, Dordrecht, pp. 7-26.
- Corbin A. 2001. *L'homme dans le paysage*. Paris: Textuel.
- Cosgrove D, Daniels S. 1988. *The Iconography of Landscape – Essay on the Symbolic Representation, Design and Use of Past Environments*. Cambridge: Cambridge University Press.
- Droz Y, Miéville-Ott V, editors. 2005. *La Polyphonie du paysage*. Lausanne: Presses polytechniques et universitaires romandes.
- Droz, Y. & Miéville-Ott, V. 2005. Le paysage de l'anthropologue, in: Droz, Y. & Miéville-Ott, V. (Editors), *La polyphonie du paysage*. Presses polytechniques et universitaires romandes, Lausanne, pp. 4-20.
- Ejderyan, O., Geiser, U. & Zaugg Stern, M. 2006. Stakeholder als sozialwissenschaftliches Konzept: Begrifflichkeit und Operationalisierung, in: Backhaus, N. & Müller-Böker, U. (Editors), *Gesellschaft und Raum – Konzepte und Kategorien*. Schriftenreihe Humangeographie, Vol.22, Zürich, pp. 73-101.
- Ellis, R.J. & Thompson, F. 1997. Culture and the Environment in the Pacific Northwest. *American Political Science Review*, 91(4), pp. 885-897.
- Forsyth, N. 2003. *The Rise and Fall of the English Alps*, NRP 48 mid-term conference, Berne.
- Fry G. L. 2001. Multifunctional Landscapes – Towards Transdisciplinary research, in: *Landscape and Urban Planning* 57, pp. 159-168.
- Haber W. 2006. Kulturlandschaften und die Paradigmen des Naturschutzes, in: *Stadt + Grün* 55, pp. 20-25.
- Hanssen B. L. 2000. Ethics and Landscape: Values and Choices, in: *Ethics, Place & Environment – A Journal of Philosophy & Geography* 4, pp. 246-252.
- Hunziker M. 1995. The spontaneous reforestation in abandoned agricultural lands – perceptions and aesthetic assessment by locals and tourists, in: *Landscape and Urban Planning* 31, pp. 399-410.
- Jackson JB. 1994. *A Sense of Place, a Sense of Time*. New Haven: Yale University Press.
- Junker B, Buchecker M. 2006. Social Contributions to the Participatory Planning of Water Systems – Results From Swiss Case Studies, in: Castelletti A, Soncini Sessa R. *Topics on system analysis and integrated water resources management*. Oxford: Elsevier.
- Kianicka S, Buchecker M, Hunziker, M, Müller-Böker U. 2006. Locals' and tourists' Sense of Place. A Case Study in a Swiss Alpine Village, in: *Mountain Research and Development*. 26, pp. 55-63.
- Kienast F, Wildi O, Sucharita G. 2007. Change and Transformation: A Synthesis, in: Kienast, F, Wildi, O. and Sucharita, G. editors. *A Changing World – Challenges for Landscape Research*. Dordrecht: Springer, pp. 1-4.
- Longatti, P. & Dalang, T. 2007. The Meaning of "Landscape" – An Exegesis of Swiss Government Texts, in: Kienast, F., Wildi, O. & Ghosh, S. (Editors), *A*

- Changing World. Challenges for Landscape Research. Springer, Dordrecht, pp. 35-46.
- Mann T. 2004 [1924]. Der Zauberberg. Frankfurt am Main: Fischer Taschenbuchverlag.
- Massey, D. 2005. For space. Sage, London.
- Müller U. 2007. Die Kraft der Bilder in der Nachhaltigen Entwicklung – Die Fallbeispiele Unesco Biosphäre Entlebuch und Unesco Weltnaturerbe Jungfrau-Aletsch-Bietschhorn. Zürich: vdf.
- Müller U., Backhaus N. 2007. The Entlebuchers: People from the Back of Beyond, in: Social Geography. 2, pp. 11-28.
- Müller-Böker U. 2005. Reflections on the Himalayan landscape: An Interview with Harka Gurung, a leading authority on the Himalaya, in: Mountain Research and Development. 25, pp. 126-127.
- Münch R. 2002. Soziologische Theorie – Band 2: Handlungstheorie. Frankfurt am Main: Campus.
- Naveh Z. 2001. Ten Major Premises for a Holistic Conception of Multifunctional Landscapes, in: Landscape and Urban Planning. 57, pp. 269-284.
- Nora P. 1993. Les lieux de mémoire. Paris: Gallimard.
- O'Neill J, Walsh M. 2000. Landscape Conflicts: Preferences, Identities and Rights, in: Landscape ecology. 15, pp. 281-289.
- Reichler C. 2002. La découverte des Alpes et la question du paysage. Genève: Georg-éditeur.
- Reichler C. 2005. Le bon air des alpes – Présentation. Revue de Géographie Alpine. 1/2005:9-14.
- Risi M. 2006. Im Lauf der Zeiten – Oberwalliser Lebenswelten (Film). Baden: hier + jetzt.
- Roger A. 1978. Nus et paysages – Essai sur la fonction de l'art. Paris: Aubier.
- Röösli L. 2005. Hinterrhein – Umbruch im Bergdorf (Film). hier + jetzt.
- Rufer F. 2005. Landschaftsveränderung in der Wahrnehmung und Bewertung der Bevölkerung – Eine qualitative Studie in vier Schweizer Gemeinden, Dissertation. Bern: Universität Bern.
- Schama S. 1995. Landscape and Memory. London: Harper and Collins.
- Schroth, O., Wissen, U. & Schmid, W.A. 2006. Developing New Images of Rurality, in: DISP, 42(3), pp. 26-34.
- Searle J.R. 1995. The Construction of Social Reality. New York: The Free Press.
- Siegrist D. 1996. Sehnsucht Himalaya. Zürich: Chronos.
- Simmel G. 2001. Aufsätze und Abhandlungen 1909-1918, Band 1: edited by R. Karmme und A. Rammstedt. Frankfurt am Main: Suhrkamp.
- Simmen H, Walter F, Marti M. 2007. Den Wert der Alpenlandschaften nutzen – Thematische Synthese zum Forschungsschwerpunkt IV des NFP 48. Zürich: vdf.
- Sparke, M. 2007. Book review symposium: Massey, D. 2005: For space. London: Sage, in: Progress of Human Geography, 31(3), pp. 395-405.
- Stremlow M, Sidler C. 2002. Schreibzüge durch die Wildnis – Wildnisvorstellungen in Literatur und Printmedien der Schweiz. Bern: Haupt.
- Stremlow M. 1998. Die Alpen aus der Untersicht von der Verheissung der nahen Fremde zur Sportarena – Kontinuität und Wandel von Alpenbildern seit 1700. Bern: Haupt.

- Treibel A. 2000. Einführung in soziologische Theorien der Gegenwart. Opladen: Leske + Budrich.
- Tress B, Tress G. 2001. Capitalising on Multiplicity: A transdisciplinary Systems Approach to Landscape Research, in: Landscape and Urban Planning 57, pp. 143-157.
- Walter F. 2004. Les figures paysagères de la nation territoire et paysage en Europe (16e-20e siècle). Paris: Ecole des Haute Etudes en Sciences Sociales.
- Werlen B. 1992. Society, Action, and Space. London: Routledge.
- Wirz T. 2007. Gipfelstürmerinnen – eine Geschlechtergeschichte des Alpinismus in der Schweiz 1840-1940. Baden: hier + jetzt.
- Zaugg Stern M. 2006. Philosophiewandel im schweizerischen Wasserbau. Zur Vollzugspraxis des nachhaltigen Hochwasserschutzes. Zürich: Schriftenreihe Humangeographie, Vol. 20.
- Zumthor P, Beer I, Mathieu J, Marcacci M, Hungerbühler R, Morici L, Wunderle S, Maus K. 2006. Wieviel Licht braucht der Mensch, um leben zu können, und wieviel Dunkelheit. Zürich: vdf.