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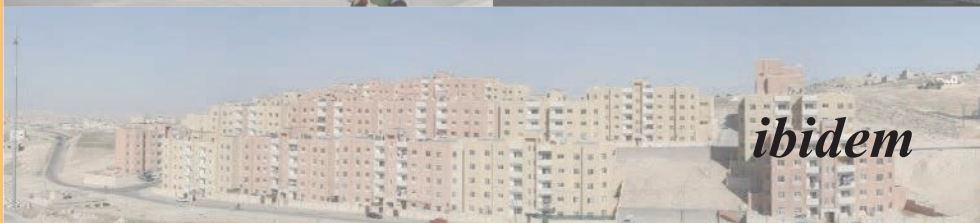
Barbara Schönig (ed.)

Variations of Suburbanism

Approaching a Global Phenomenon







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STÄDTEBAU – ARCHITEKTUR – GESELLSCHAFT

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Introduction: Variations of Suburbanism

Barbara Schönig

Planners and urban designers alike tend to dislike what is commonly referred to as "Suburbia" or "Post-Suburbia" and even more the spatial pattern that is the result of intensive suburbanization, known as sprawl (Bodenschatz/Schönig 2004: 59). Appreciated instead is what is conceptually understood as the material-spatial antithesis of sprawl, the ideal "European city": compactness, density, mixed use, walkability - altogether: a model of sustainable urbanism. But flying over the globe and looking out of the plane, we can easily recognize that this ideal form of the city can rarely be found, even in Europe. The traditional "European cities" that still roughly match these criteria are usually part of large urban agglomerations. Those densely populated and built out areas integrate smaller cities, villages, and far stretched monofunctional parcels of single family homes, service clusters, malls or industrial sites, linked by networks of highways, transportation and technical infrastructures such as waterways and energy lines. From birds eye view we can recognize a patchwork of urban structures, industrialized agriculture, and natural reserves. Beyond the borders of traditional cities, we see an urbanized landscape that some time ago already ceased to be "sub-urban", in the sense of being "subordinated" to a core city in a functional or economic way.

This, in a truly literal sense of the word, "post-sub-urban" landscape, this "In-Between-City" (Sieverts 1997), may not be well liked by planners and urban designers. But we need to admit that it is simply there and will be of a growing importance in the decades to come in terms of population and economic activity located there, but also with regard to challenges for urban society and urban development (see Keil 2014; Phelps 2010; Modarres/Kirby 2010). This holds true not only for urban areas in Europe or Northern America, but also for those in other parts of the world. Urbanization in the global south to a large part takes place not within cities

but at their fringe (McGee 2013: 20) where large housing developments, informal housing settlements, economic and service clusters, government or university campuses, entertainment and shopping districts are stretching out into the hinterland of city centers. Noone thinking about the sheer numbers of people moving to urban areas and the scarcity and cost of land in central cities could be surprised that the growth of cities actually takes place as an extension of urban areas into city surroundings where land is still available and mostly also cheaper than in inner areas of cities. It is beyond city limits, in suburbanized areas where "a majority of Americans, many Europeans, and a growing number of Asians, Afrians, and Latin Americans live" (Kirby 2010: 66). Therefore, the start of the "urban millenium" that was pronounced by the UN in 2007 when the majority of people on the globe lived in cities for the first time (UNFPA 2007: 1), actually could be understood as the start of a "sub-urban millennium".

However, "sub-urban" could hardly be understood in the sense of its original meaning that derived from the model of the North American (and also European) city (McGee 2013: 20). "Suburban" in the original sense points to a dichotomy of center and periphery, indicating differences concerning the area's role and function within the metropolitan region, its building and population density, its land uses, its socio-economic structure and also the way of life dominating there. Even at a first glance at the morphological, social and functional diversity as well as the heterogeneity of the emerging respectively already existing urbanized areas beyond city borders hints to the fact that this dichotomy might not be claimed. Instead, it seems convincing to follow the hypothesis that talking about "suburbanization" here indicates nothing more than an "increase in non-central city population and economic activity, as well as urban spatial expansion" (Keil 2013: 9).

Studying suburbanization and suburban areas in that sense in different parts of the world as done in this book not only reveals that there are major differences to be found with regard to urban morphologies, socio-spatial structures, infrastructure and governance. It also shows that sub-urban areas will face major challenges in their future urban develop-

ment. However, the challenges to be confronted in the context of suburbanization are just as manifold as suburban areas themselves, even within same national contexts. Looking at Europe or the United States, e.g., these challenges range from the renewal and adaption of existing areas to demographic shrinkage, aging or poverty in shrinking areas to the securing of green spaces or agricultural land, the provision of low cost housing within suburban spaces or the development of more sustainable urban structures and metropolitan planning in areas facing urban growth (Modarres/Kirby 201: 114; Schönig 2014: 105-110; Münter 2015: 21-22). Urban research until now has little knowledge and answers to the questions that lie at hand here: How can monofunctional single family home areas be adapted to the needs of an aging population? How can the decline of suburban neighborhoods be avoided when building structures lie idle due to economic restructuring or the loss of population. How can auto-oriented urban structures be transformed into more sustainable urban patterns? Postsuburbia in the developped countries is in need of a new kind of "urban regeneration", the regeneration and adaption of suburban structures. But confronting governmental fragmentation, social polarization and the strength of market forces predominant in suburban development, it won't be easy to implement strategies of sustainable urban regeneration and regional development on a metropolitan scale.

Despite the divergences of production, form, sociospatial structures and governance of suburban spaces all over the world it is obvious that any urbanist or urban researcher needs to have in mind that the main challenge of the "urban millennium" will be to understand, design and develop what is usually not at the forefront of our attention: the urbanized areas beyond city cores and city boundaries. This however will necessitate conceiving suburban spaces as research topics of "their own right" (Kirby 2010: 65) that can not be defined solely by being different to the city. Instead it implies to approach suburbanized areas as complex urban spaces that are connected to but not completely and inherently dependent on the adjoining core cities (1), that are "place[s] of mixed, economic activity, mixed densitities, mixed housing tenure and, by no means least, mixed demographics" (Modarres/Kirby 2010: 120) (2) and can show dis-

tinct and different local and regional characteristics and logics (3). Understanding suburban areas in that sense as being complex and heterogeneous urban spaces shaped by local and regional contexts can be understood as a prerequisite to develop adequate design and planning strategies for these parts of urban agglomerations. It will also enable us to disclose suburban areas from a perspective of international comparative urban research.

As shown up to here, thinking about suburban landscapes and suburbanization in Europe and on a global scale raises many questions to urban planning and urban studies. This book gives an insight into the complexity of suburbanization processes, their dependence on specific parameters of urban development in different settings and also the heterogeneity and diversity of suburban landscapes all over the globe. Rather than answering all questions, it compiles different disciplinary perspectives on postsuburban areas in different parts of the world thereby adding to the discourse on and knowledge about postsuburban spaces as an area of urban studies of its own right. It documents parts of a lecture series and a research seminar at Bauhaus-Universität Weimar, Germany, in which postsuburbanization as a global phenomenon was disussed from different disciplinary perspectives. It integrated theoretical papers on specific aspects, such as terminology, sociological aspects, building morphology or infrastructure in postsuburbia, as well as case studies on different metropolitan areas in Europe and beyond.

This book is divided into two parts: The first part contains articles that show different approaches to understand, redevelop and design suburban areas applied to or examined by looking at suburban sites in Germany. *Sigrun Langner* as a landscape architect focusses on the question how the complexity of fragmented metropolitan landscapes that poses a major obstacle to receive attention and (public or political) support for metropolitan planning and design can be addressed by strategies of mapping. The urban planner *Jan Polívka* discusses whether and to what extent the model of urban life cycles can be used to explain the develop-

ment and maturation of suburban settlements and what challenges suburbs face when approaching the state of maturation. Stefanie Bremer and Johanna Schlaack, both from the perspective of an architect, address different aspects of the role infrastructural development and design plays within suburban areas. *Stefanie Bremer* suggests to understand suburban highways, the roads taken by thousands of commuters day by day as a part of the city that is worth receiving the attention of urban designers. She explains her concept by presenting a Masterplan for the A40, the main highway passing through the metropolitan Ruhr area in Germany. *Johanna Schlaack* on the other hand discusses the way in which airport cities and major airports must be understood as important nodes of metropolitan areas, as places that need to be carefully designed in the context of their immediate surrounding and metropolitan area and that need to be thoughtfully planned using participative strategies that integrate not only key players but also the general public.

The second part of the book includes a number of case studies: According to the issues of the respective case studies presented, the authors focus on different aspects of postsuburban developments in the metropolitan areas discussed. Compiled are articles on Western European cases, namely Leipzig (Germany), Paris (France) and the "Randstad" (Netherlands) (*Arvid Krüger, Elodie Vittu and Holger Gladys*), Eastern Europe, namely Kazan (Russia), Bukarest (Romania) and Kiev (Ukraine) (*Iana Samakaeva, Ion Alexander Retegu, and Iana Korolova*). These articles are followed by perspectives on suburbanization in the Arabic world (Amman in Jordan by *Mazen Alazazmeh*), in South Asia (Bangalore and Kolkata in India, written by *Vaishali Satyamurthi and Pryiambada Das*) and in the Latin American context (Córdoba in Argentina, written by *Carlos Grezzi, Monica Rame, Cristian Terreno and Regina Vidosa*). These cases impressively show that indeed "Variations of Suburbanism" are to be found globally. But they also point to the fact that metropolitan areas despite of different characteristics, governance structures and drivers of suburbanization face similar problems when confronted with rapid and extensive suburbanization: weak planning, social fragmentation, low quality of

urban and architectural design as well as a lack of infrastructure in suburban spaces, and ecological damages.
While it might be false to claim these problems in any context as being caused by a specifically suburban development in the notion of "suburbia" as something "different" or "other" to development within the city, it nevertheless seems to be necessary to consciously turn the attention of urban researchers and planners towards the suburban areas. This book is an attempt to move forward in that sense.

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Part I
(Re-)developing Suburban Spaces

Mapping Urban Landscapes - Between understanding, interpreting and negotiating

Sigrun Langner

Introduction

In the context of global urbanization in the era of late capitalism, an urbanized landscape is emerging whose dynamics and origins we need to understand more comprehensively. Urban landscapes are shaped by the complex interplay of socio-economic and ecological processes that we need to become more familiar with, if we are to influence them productively or to enhance the quality of urban landscapes. The complexity of today's urban landscapes requires instruments that can help us to read and reveal the processes that shape the landscape, and the spatial impacts these processes have.

The increasing availability of atlases and other cartographic representations of the diverse interrelationships in urban landscapes seem to suggest that maps are eminently suitable for this purpose. Various designers have described the use of mapping as an active practice of the creative interpretation and reinterpretation of an existing situation (Corner/MacLean 1996; Corner 1999; Berger 2002; Beelen 2010). This practice has arisen in the context of a growing general awareness of the need to address urban development issues at a regional scale. The use of cartography as a creative practice of producing ideas and knowledge, especially for large-scale planning purposes, has gained increasing attraction within planning and design disciplines in recent years.[1]

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[1] In particular in large-scale design projects, maps are presented as an integral part of the design project. Examples can be seen in the work of Studio 09 - Bernardo Secchi / Paola Vigano on the "Le Grand Paris" competition (Stadtbauwelt 182 I 2009 on the topic of "Le Grand Paris"), the work of Chora, e.g. the Taiwan Strait Incubator (Bunschoten 2010), the work of Comhrá (Bunschoten/Doherty 2004) or the Water Atlas Studio Urbane Landschaften (IBA Hamburg 2008).

Taking a large-scale landscape and design-oriented perspective on current urbanization processes, this article examines the potential of design-oriented cartography as a practice of generating knowledge and ideas for the design of large-scale landscapes in the context of the pressures of global urbanization processes.
Using examples from selected design projects, this article discusses mapping as a practice of understanding, interpreting and negotiating of urban landscapes.

1. A large-scale landscape perspective on urbanization processes

Many of the pressing issues concerning the future of urban space, such as the effects of climate change, of demographic change in shrinking regions, or issues such as the quality of daily life in large spatial agglomerations, can only be studied seriously within large-scale regional contexts (Meijsmann 2010: 5).
The consideration of complex socio-economic and ecological interrelationships goes beyond our perception of urban space in the usual spatial categories of city and country. This relational notion of urban space allows us to think of it as a continuous "urban fabric" that extends across the land - sometimes woven more densely and sometimes more loosely (Lefèbvre 1970).
Taking a look around, it can be seen that a new urban reality is emerging: town and city centers, estates of detached houses, farmland, industrial and commercial areas, urban open spaces and nature preservation areas are all becoming interwoven into a single urban region. Various spatial constructs have been proposed to describe this phenomenon, such as "Zwischenstadt" (Sieverts 1997), "Netzstadt" / "Urban System" (Baccini/Oswald 1998) or "urban landscapes" (Seggern 2010). All of these concepts merely go beyond describing visually perceptible spatial attributes: The complex system of socio-economic and ecological factors that shapes modern environments results in a web of relationships that does not stop at a designated spatial boundary. Urban space is increasingly being used, and perceived, on a day-to-day basis at a broader, regional

scale. This "urban fabric" can only be grasped intellectually through its relationships.

Maps can be a helpful instrument for visualizing and understanding such spatial interrelationships and in turn empower the wider community to participate in a more nuanced way in decision-making processes that concern their urbanized environment. Maps have the capacity to depict simultaneity in space (Schlögel 2007: 97). They are representations of coexistence, and thus can draw what is physically separated into a spatial system of relatedness (Löw et al. 2007: 68). In the context of a relational notion of space this makes them an important means of expression.

In the current discourse on regionalization, the concept of the "city" is being increasingly eroded: The city is no longer understood as a physical unit defined by its settlement structure but as a fluid space that is also defined by the flow of people, information and goods (Castells 2001). This system of relationships within a global network is constantly in flux. Global urbanization processes stimulate regionalization: In order to remain competitive, regions restructure themselves and establish collaborative networks between their various institutions and enterprises (Castells 2001: 436ff.). These efforts aim to create coherent, effective regions and cooperative city networks that are better prepared to respond to fierce international competition than individual cities are able to on their own. In the context of this increasing competition between regions, and the sometimes extreme disparities between them, the protagonists of region-building need to ask themselves: What is the specific quality of the region? What are its inimitable features? Where does its potential lie? And, above all, how can all this be communicated and developed?

These issues are exacerbated when funds are scarce and resources are limited. The pressure of competition and the antithetic constitution of regions demand that we address the varying economic, social and cultural foundations of each region on its own merits if we are to develop it sustainably out of its "Eigenlogik" as Berking and Löw (2008) have called it. Consequently, an increase in urban research into the structures that describe a city’s intrinsic logic can be noticed. How will the specific spatial qualities of a region as a habitat and economic unit look like in the

future? What are the specific (landscape) resources, spatial use patterns and development strands of a region? How does one trace and define its intrinsic logic?
These questions play a key role in the search for the respective particularities of places and their different "features, aptitudes and qualities" within the wider urban fabric (Sieverts 2004: 23). This focus on a locality's endogenous potential becomes even more important in times of limited municipal financial resources; not so much with respect to inter-municipal competition but rather as a way of working towards a mutually beneficial functioning urban system based on inter-municipal collaboration and communication.

> "The development of complementary local features, 'aptitudes' and qualities within the wider differentiated urban landscape offers considerable potential for improving productivity and quality of life." (Sieverts 2004: 23)

The development of cooperative systems of relationships requires different spatial design approaches: Approaches are needed which consider urban space at a regional level and which can mediate between global and local conditions, but also approaches which can reveal the potential for complementary inter-municipal collaboration, and which can promote their respective local "aptitudes" (Sieverts 2004: 23). Therefore, the large-scale regional level of urban spaces has become an important subject and field of action for spatial design and planning disciplines.
By searching for the particular characteristics and "intrinsic logic" (Berking/Löw 2008) of a region and the development of its specific features - aptitudes and qualities - a landscape perspective needs to be adopted in order to improve the quality of life, perception and accessibility of a region and to promote its sustainable urban development. A landscape perspective helps to understand the connections between closed and monofunctional systems that follow global patterns of development and the specific conditions of a locality. Even within the concept of a "space of flows", actual places still exist. The significance of local conditions for an urban system becomes especially apparent when catastrophes such as flooding occur, which reveal the vulnerability of urban systems. At a

more general level, the way in which we experience and access landscapes on a daily basis is also an important measure of the quality of life in a region, and a locational factor that can no longer be ignored. A landscape perspective therefore searches for regional development perspectives that emerge from the intrinsic logic of the landscape.

By looking at the ecological, social, economic and also aesthetic aspects of space from an integrative viewpoint, urban landscape can be perceived as a multi-dimensional performative process, which Hille von Seggern defines "Raumgeschehen" (Seggern 2012: 194). Here the term "urban landscape" denotes not a spatially enclosed territory, such as a city region, but rather the social reality as shaped by global urbanization processes (Seggern 2009: 275). In this sense, it is a defining cultural category for almost complete urbanization. Adjacent spatial units may be quite different, however, whenever they can be seen as related parts of a larger system they are interpreted as a landscape. This "placing within a relationship" happens at both the perceptive and experiential level as well as at the structural level. What belongs functionally together and constitutes a system? Which dynamic socio-economic and ecological processes shape the spatial relationships?

By taking the landscape perspective it becomes possible to see the interrelationships between the global and the local, between systems of relationships and spatial units, between natural processes, human action, and economic patterns.

> "In the future, urban landscapes will need to be stronger mediators between the local place and the global level than they are now […] They will have to accommodate both global elements that follow global rules and local elements that serve the small living and working worlds of the local area." (Sieverts 2008: 263)

2. A design-oriented perspective of large-scale urbanization processes

In the light of stronger interregional competition for limited resources, the sustainable development and design of regions as livable everyday environments is of great importance. In this context, the inclusion of per-

ception and design need to be included as dimensions of planning. These must be considered as part of the development of possible future scenarios for sustainable living and working in regions shaped by the interaction of global forces and local conditions. A design-oriented perspective creates the conditions for new ideas and approaches in order to deal with and shaping such relationships and interactions.

Within spatial design disciplines, renewed interest in these large-scale relationships and the design issues that arise in connection with them can be noticed. Until recently, such large-scale areas were the domain of regional planning. The method of spatial design is gradually being used and discussed within large-scale urbanization processes as a possible means of developing new approaches to familiar problem as well as for revealing new research questions and for investigating sustainable development (Koch/Schröder 2006; Meijsmann 2010; Seggern 2012). In the context of large-scale design projects a shift in the way design is applied can be observed: it is less typological and more situational, less product-oriented and more process-oriented. Likewise, the role of the architect has shifted away from the image of the creative genius or distinguished expert towards the image of the mediator or curator. Thomas Sieverts (2008) sees great potential in a more comprehensive understanding of design at a regional scale: design can be used as a means of coming up with new knowledge and ideas within complex, large-scale problems (as a method of cognition). It serves as a means of promoting understanding within difficult and protracted negotiation processes at a regional level (as a means of communication). Additionally it can be used to shape and improve relationships and connections within the urban landscape (as an instrument of design). (Sieverts 2008: 262)

In recent years, numerous creative-productive approaches to the design of large-scale areas have been developed in teaching, research and practice. The studys "ZwischenStadtEntwerfen" (Bormann et al. 2005), which deals with improving qualities of the Zwischenstadt, "Creating Knowledge" (Seggern et al. 2008), which is concerned with the design of urban landscapes, and "Designing for a Region" (Meijsman 2010), which focuses on spatial design at a regional scale, provide a good overview of

the current design approaches and methods for tackling large-scale design problems. Many of these methods involve an intensive and creative investigation of the existing situation and the corresponding processes that contribute to producing the landscape.

André Corboz (2001) describes a shift in regional planning thinking away from the "tabula rasa formulae" that view space as an abstract field of activity towards a conception of space as a long-term accumulation of successive layers. In this "palimpsest", the various territorial processes of the past, the geological traces and traces of former uses can all be read - and taken into consideration before intervening in this stratification (Corboz 2001: 163f.).

Therefore instruments are required which make it possible to read and reveal these relationships and their spatial impacts. The proliferation of cartographic representations and atlases (especially for large-scale projects) indicates that cartography has been discovered as a helpful tool being capable of revealing the intrinsic logic of an urban landscape. This becomes especially relevant when searching for the specific resources of a region.

In spatial design disciplines, working with maps is a familiar and fundamental activity. Mostly, however, maps serve as a neutral analytical tool for preparing the subsequent creative design work as well as an objective basis for making decisions, and as a means of defining fixed parameters within which the design and planning process operates. This way of using maps remains rooted in the cartographic notion of maps that sees maps as a neutral representation of a given spatial reality. Cosgrove (1999) has described how the understanding of maps has shifted away from the objective, scientific representation of the earth’s surface to a broader view that takes into account the cultural dimension and influence of maps within particular contexts and processes (Cosgrove 1999: 3ff.). Maps can be seen as an expression of the performative practice of understanding spatial relationships (Kitchin/Dodge 2007; Crampton 2010). This notion of maps considers them in the context of their situational use, and this in turn points to their use in design. From a design-oriented perspective, maps are a means - and mapping the practice - of generating knowledge

and ideas within the design process. As it will be demonstrated in the following examples maps have the capacity to serve as a medium for the practice of orientation, of construction and of negotiation. Additionally they are capable to facilitate the design and development of large-scale landscapes.

3. Mapping as a practice of orientation: reading and understanding urban landscapes

Throughout the ages and different cultures around the world, maps have served and continue to serve as a means of orientation in space and time. The wish to find one's way in the world and understand the structure of space was and is closely linked with the development of cartography and the visualization of spatial information in the form of maps. Mapping can be understood as the ancient cultural practice of wishing to understand (cf. Harley/ Woodward 1987; Crampton 2010). Urs Primas (2008) has discussed the increasing role of maps in urban design as a need to understand what happens around us:

> "The use of maps in urban design is becoming ever more important and indicates above all that we want to understand what is actually happening." (Primas 2008: 66)

Cartography is seen as a suitable way of tracing the logic of urban landscape and understanding its complex developmental interrelationships. With the help of maps the complex spatial dependencies and systems of relationships within an urban landscape can be read, revealed, presented and understood.

An understanding of urban landscapes and the processes that produce the landscape is vital in order to develop new ideas for it. It is through the process of understanding that the idea emerges. This is a transformative process in which there is a "fusion of horizons" between the past, the present and the connection to the future (Seggern 2008: 228ff.). While the process of understanding cannot be operationalized into a method, it can be supported by different practices. An intensive and creative investigation of the existing situation can facilitate the process of

understanding. Additionally the mapping of urban landscapes is a possible means of undertaking this dynamic investigation.

From a landscape-oriented view of urban development, it is initially of interest to observe and comprehend the reciprocities between the natural spatial conditions of a landscape and its urban development. The aim is, with the help of cartographic representations, to uncover the internal mechanisms of urban landscapes, to read its underlying structures, and to reveal and understand its importance and historical origins. How did landscapes come to be what they are today (genesis of the landscape)? Which natural spatial and socio-economic processes form urban landscapes? How is landscape produced? What are the links and dependencies between landscape and urban development?

A well-known example of research into natural regional conditions and urban structural development through cartographic depiction is Ian L. McHarg's (1969) study "Designing with nature". In a series of different layers, maps show how the spatial structure of the development of Washington was influenced by natural spatial conditions, e.g. the underlying geological conditions.

Examples of how topological relationships and structures can be expressed through maps can also be seen in James Corner's cartographic representations of the American landscape. In the book "Taking Measures Across the American Landscape", American landscapes and their particular qualities are described through a combination of photographs (by Alex S. MacLean) and cartographic representations by the landscape architect James Corner (Corner/MacLean 1996). In his maps of the American landscape, Corner reveals the diverse relationships between the forms and techniques which are being used when working with landscape and the existing features of the natural landscapes and the respective unique images of the landscape that they give rise to. Corner sees mapping as a means not only of exploring what exists but also of reformulating and interpreting what is there.

> "The capacity to reformulate what already exists is the important step. And what already exists is more than just the physical attributes of terrain (topog-

> raphy, rivers, roads, buildings) but includes also the various hidden forces that underlie the workings of a given place." (Corner 1999: 214)

In "Drosscape", Alan Berger (2002) uses cartographic depictions to visualize how "waste landscape" is produced through processes of suburbanization and deindustrialization (Berger 2002). Berger's maps portray the American West as a landscape in transition, which is produced by mining and engineering work which when seen in these dimensions has an aesthetic quality of its own, that does not run the risk of negating the landscape.

Another example for visualizing landscape producing processes is the book "Schichten einer Region" (Layers of a Region, own translation), an annotated set of maps that intends to show new approaches to the future development of the structure and characteristic urban features of the Ruhr metropolitan region. The "Landscape Machine" is part of this project (Langner 2011). The metaphor of the landscape machine offers a new view of the "landscape producing forces" and the historical genesis of the landscape structures in the Ruhr conurbation. The focus of the project lies in revealing the reciprocal effects between interventions in the orographical situation (terrain machine), the management of the water resources (water machine) and urban development. The transformation of the topography of the Ruhr and its impact on the water resources are made clear by comparing maps of the situation in 1840 with the present day. The "terrain machine" has sculpted the hills and valleys of the landscape. The most effective shaping forces are water and mining. The "water machine" keeps the water system of the Rivers Emscher and Ruhr functional and usable by pumping, diverting, channeling, branching and damming the water. Individual maps show the different mechanisms of the complex water machinery. The combination of terrain and water machines leads to the formation of three "Ruhr lands" each with their own characteristics: the Polderland, Hellwegland and Bergland.

The final map in the chapter emphasizes on the one hand the specific characteristic features of each of these Ruhr lands, and on the other hand links them as a coherent Ruhr landscape. Each of these "lands" is

Figure 1: Ruhr Lands: the Polderland, Hellwegland and Bergland (Langner)

crossed by a line in the landscape (the River Emscher, the Ruhrschnellweg roadway, and the River Ruhr) that has the capacity to be an identifying characteristic at a regional level as well as to be a green infrastructure that offers great potential for the development of attractive and diverse Ruhr landscapes.

These few examples illustrate how mapping reveals the underlying logic of a landscape and how their landscape producing processes, coherences and relationships concealed in the status quo can be unveiled and visualized. Such maps contain analytical information while simultaneously permitting interpretative readings. Deciphering particular spatial and process nexuses from conventional maps can be an inducement to see new landscapes. Also, new ideas emerge through making hitherto unseen nexuses visible (Corner 1999: 249).

The use of maps in these examples goes beyond representing the existing spatial attributes. The intention here is not to present available knowledge in different, more legible ways but to use the maps to reveal previously unseen relationships, in turn generating new knowledge about urban landscapes that can serve as a basis for future actions. This approach of uncovering the existing logics of landscapes as a basis from which to reformulate reality is described by Kelly Shannon as "descriptive landscape urbanism":