Scanning Vienna’s Urban Development Plan on Low Level

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Abstract: At the beginning of the 21st century urban open space is a main issue for sustainable urban planning. This paper questions the reasons why recent urban planning disregards the potential embedded in certain urban landscapes on the example of the 2005 urban development plan of Vienna. The particular conceptions of landscapes prevail in the process of considering planning methodologies used in the context of driving forces for urban development. By addressing effective design theory to the problems of urban flexibility, commodification of urban space, reclaimed industrial sites und urban sprawl, this paper proposes a landscape driven approach to urban planning. This approach focuses on non-generic qualities – not only of the natural landscape, but also of the transformed and alienated urban lands.

Key-Words: urban planning, urban development plan, urban landscape, urban open space, design theory, landscape driven approach

1 Introduction
Drifting [1] from the densely built-up area to the open landscape surrounding Vienna, one can choose a path that does not follow the planned circulation routes along dominant axes and built sequences, but instead is orientated on gaps, disruptions and undefined areas within the urban fabric. Encountering a different urban space, one leaves behind the rationale planners’ perception of cities where “(M)en can see nothing around them that is not their own image; everything speaks to them of themselves. Their very landscape is alive.” [2]

In the 1960s, Kevin Lynch [3] first proposed ways to understand images of the city, using principles for orientation such as edge, path, node, district, and landmarks. Today, if one links these to the Situationalist’s concept of drift and ‘stations’ [4], an urban image can appear, which integrates both the familiar urban elements with alienated places, such as derelict sites, and fragmented landscapes, thus allowing for a richly layered perception of the urban landscape.

The drift’s stations and thus the elements of orientation are formed by spaces which have unusual attributes in common – traceable elements of the pre-urban landscape, dense and odd constellations of spatial elements, as well as transformed but still readable relics of industrial landscapes in exposed topography and the intrinsic passages through fragmented leftovers of cultural landscape in suburbia. These spaces have the ability to serve as distinctive elements for orientation but they lack a language to describe and define them in form, function and potential.

Fig.1 Drift from 6th district of Vienna to the village of Vösendorf – emerging edges, areas, elements.

Is this disparity just an observation or are there reasons why recent urban planning disregards the potential embedded in certain landscapes? Using the 2005 urban development plan of Vienna (STEP’05) and its approach to the urban landscape including recommendations for the design of the urban open space, this paper will explore the complex issues...
associated with managing contemporary urban landscapes.

2 Problem Formulation
Functioning as the most comprehensive document for the development of the area within the administrative boundaries of Vienna municipality, the urban development plan of Vienna is revised every ten years. The driving forces for urban development and the conception of urban planning have changed markedly in the past ten years. The substantial differences are not only methodological but are also evident in the ways regulations are expressed. In examining the problem of planning for complex landscapes in contemporary cities, it is interesting to consider the planning methodologies used in the context of the driving forces for urban development and the resulting development areas proposed. In this process, particular conceptions of landscape prevail.

2.1 The methodology of STEP ‘05
The approach in STEP ’05 to the urban structure provides insights into how planners perceive contemporary urban landscapes. Initially, planners determined the different landscapes in and around Vienna which serve as borders to the urbanized area. Within this urban boundary, a typology of urban structures was devised which concentrated on the historical patterns of settlement, using built space as the main attribute. The various types were then evaluated as urban structural systems with specific attributes, either weaknesses or strengths. From this, bi-polar distinctions, such as landscape and city, urban and rural, artificial and natural, were interpreted.

2.1.1 Underlying economic issues in urban development
For many European cities such as Vienna, the main forces for urban development are seen in the context of the European enlargement and the growing importance of the region. The accelerated competition between cities in the European and within Vienna’s regional context, now known as CENTROPE, serve as main arguments for the development directions in STEP ’05. The proposed leading role of Vienna within the CENTROPE region calls for the development of ambitious new centres both as greenfield and brownfield developments but also by restructuring existing built-up areas. The functional focus on knowledge-based business and services as the main attraction of external capital, has tended to result in ‘postmetropolitan’ projects [5] such as large retail parks.

2.1.2 Underlying infrastructure planning issues
The expansion of the infrastructural network is seen as a major task if Vienna is to take on the leading position in the CENTROPE region. Both the inner-urban and the inter-regional connections are of high priority, supplemented by the connections to the TEN (Trans European Network) system. The realization of other infrastructure buildings (motorways, underground lines, railway stations, etc) also serve as milestones for the timely development of the new development centers and are seen as essential if Vienna is to remain highly competitive.

2.1.3 Identifying Development Areas
In STEP’05 the approach explicitly reflects the shift from planning with a consistent focus on the urban area as a whole to project-oriented planning, which derived originally from urban renewal and developed upon the “big projects” in the 1990’s, seen to improve the city’s competitive positioning.

Fig. 2: 13 target areas of urban development in STEP ‘05

STEP’05 has 13 defined target areas of urban development which were chosen because of their extraordinary potentials to act as catalysts for future urban development. The definition of this potential is strongly aligned with economic interests. The formulated strategies also coincide with imaging, commodification, governance and integrated approaches, derived from advanced project management.

2.2 Which Landscapes are provided in Vienna’s Development Areas?
Landscape is given an important position in the STEP ’05. At the city-wide scale, landscape is primarily perceived as nature and thus as a counterpart to urbanity, particularly the peripheral areas of extensive natural areas (like Wienerwald, Lobau). These are
defined as five natural landscape types. As well, large areas of cultural landscape (vineyards, agricultural land of Marchfeld and the morphologic landscape of terraces) are characterized by the perceived quality of the landscape elements and their ecological potential which is seen to be developed for touristic uses.

![Fig. 3: Five natural landscape types in STEP '05](image)

In contrast, open spaces in the densely built up areas are interpreted as merely areas of green space without any specific attributes, even though their landscape quality is remarkable and therefore has potential to serve as a vehicle for development strategies.

In the development of the thirteen target areas, the design of open space is considered within four criteria: 1. The technical connection to the superior system of green space and thus to the five natural landscape types is of importance in the peripheral target areas and in those adjacent to existing natural areas. 2. In target areas developed on greenfields, the focus lies on the quantitative provision with open space. 3. In primarily economically-driven target areas the design of open spaces acts as an incentive for upgrading processes, for example providing high value spaces towards expected business, commerce, tourism and high grade apartments uses. 4. Only in two target areas, where significant natural elements prevail (Donaukanal and Wiental), the preservation and extension of the existing landscape potential is articulated.

Thus the definition of open space in STEP’05 reflects two approaches. On the one hand, there is an ecologically-determined bias, which follows a natural science approach to landscape. Those spaces which have natural features are consequently highly valued and subject to preservation and significance. On the other hand, open spaces lacking those naturalistic features are seen in social and economical terms. These open spaces are primarily to be developed for future uses, informed by quantitative criteria.

### 2.3 Criticism
Against the background of the dominant competitive arguments about urban development, the STEP’05 attempts to define a framework which will attract external capital. Urban open spaces in this framework relate to the five major landscape types which characterize the natural areas in Vienna.

The dichotomy between city and landscape or urban and rural or artificial and natural underlies this approach. In contrast, urban open space within the densely built up urban areas remain undefined, like white spots on a map. Due to the accelerated pressure for profit-orientated utilization of open space, the potential within derelict land, devalued land and fragmented left-over is not considered, in the main because their alienated and ephemeral qualities. Thus the concept of landscape between the poles of un-built or leftover space and natural areas needs to be differentiated and described.

Until this is done, the important link between urban design and the identity-building capacity of urban open space both in peripheral/edge and in central locations remains unarticulated. While their supporting role to facilitate urban renewal designs has been explored, their non-generic attributes and their potential role in place making in capital-driven development projects has not been realized.

Within urban planning documents, design guidelines are in the main thematically focussed on infrastructural planning and architecture, while the design of landscape is not considered, landscape architecture being placed as a sub-theme. The recent statement by Kenneth Frampton that “the design of landscape is of greater consequence than architecture on its own” [6] seems to have been ignored in the new Vienna Plan where there is a lack of place-related design guidelines for open spaces. Equally, the broadscale landscape guidelines on the urban level have no continuity at the level of the target areas.

It could be argued that this is a missed opportunity and confirms the introductory question/proposition of this paper namely, there is a disparity in the perception of urban open spaces within built-up areas. Their manifest opportunities are limited to their ability to produce profit, leaving their non-generic qualities unexplored. The next question is ‘How can the potential of different urban landscapes be made visible and activated in urban planning?’

### 3 Suggested Problem Solution
The gap between the STEP’05’s entitlement to comprehensively guide urban development on both the broadscale and target area level and its inability to formulate adequate design approaches for diverse urban open spaces could be addressed by the
application of effective design theory to the problem. The paper proposes the concept of a landscape-driven approach to urban planning, consisting of an analysis of the contemporary challenges and the application of design analysis methods to bring out the range of the potentials of urban open spaces in a comprehensive way.

3.1 What are the contemporary challenges to urban open space?
As Sieverts points out, a particular analysis of some contemporary socio-economic developments and their problems is needed to inform a landscape-driven approach to urban planning. This analysis could constitute the base for coping with contemporary design challenges related to edges, sprawl, and significance on an area level [7]. Sieverts identifies this need but does not suggest how to address it. The issues of urban flexibility, commodification of urban space, reclaimed industrial sites and urban sprawl landscapes are some of the major challenges related to urban open space.

3.1.1 Urban Flexibility
The post-fordistic logic of flexibility requires urban development to focus on the expansion of the infrastructural network as well as changes in one’s perception of urban space. As the development of the target areas in the STEP’05 are closely linked to infrastructural access, not only the structure of the area itself is of interest, but also the acts of arrival and passing through. As Sieverts [8] points out, with more and better traffic infrastructure, to a certain degree, the centre–periphery urban tension will be reduced through increasing commutation.

3.1.2 Commodification of Urban Space
The discourse of the competition between cities, the constant search for investment capital as well as the orientation towards the needs of the knowledge-based society are implicated in phenomena like commodification, privatization, branding and homogenization of urban space. In Vienna we have found different aspects of commodification impinging on urban landscapes. Master Planning has increasingly been used as a planning tool, however there is the risk that this process predominantly serves the needs of investors with predictable results. In a positive way the branding of areas can lead to a new importance of urban open space as a trademark for the surrounding area, namely open space as a key-factor for the revaluation of areas. Innovative master planning will be the next challenge for Landscape Design.

3.1.3 Reclaimed industrial sites – Urban Voids
The interior urban expansion predominantly takes place on former industrial sites as a form of a densification and change of use. The single focused development of these “terrain vagues”, as de Solá Morales [9] called them, results in the loss of the unusual qualities of these sites which have the potential to create intriguing urban environments. Allowing development to be seen as a continuative force means that there can be an interaction between contemporary values, bygone use and future urbanity. We argue that this can lead to ‘authentic’ landscapes.

3.1.4 Edge landscapes – „Zwischenstadt“ - Urban Sprawl
The urban developments following major infrastructural lines are constantly redefining the urban edge: in Vienna, areas lacking strong natural elements (like ridges, woods, rivers) to the south and northeast are subject to urban sprawl which has covered former agricultural land. The phenomenon of „Zwischenstadt“ [10] or urban edge landscapes lacks ‘significancy, legibility and orientation’ according to Sieverts and is continuously developing. The question about which elements have the potential to define urban edges is of vital interest. At present the fabric of this edge consists of disperse urban development and fragmented landscape elements which are subject to cultural and social interpretations.

3.2 Landscape-Driven Approach - Urban Level
For adequately activating the potential of existing urban open spaces, we propose an approach to urban landscape design which takes open spaces as potentially significant elements with specific capacities. For the assurance of high quality urban space in Vienna on the scale of STEP ‘05 we suggest the following design methods in addition to the planning methods used. They include typologies as ordering devices and some new design approaches within cities.

3.2.1 Typology of Urban Space
We suggest a new typological method for a profound analysis of urban open space on the broad urban scale drawing from the urban analysis developed by Lynch in the US in the 1960s [11] and elaborated in the 1980s UK with the concept of ‘responsive environments’ [12]. This methodology allows for the integration of psychological perceptions of the way urban form is experienced with the city’s underlying natural forces and anthropogenic interferences. In doing so, an alternative legible system of urban open spaces can emerge.
Out of this analysis, spatial types can be identified, for which a new urban language, informed by design principles, can be developed. The problematic issues of sprawl, defining the edge of the city and maintaining urban voids are thus approached from a landscape-driven angle. This method could be useful to cluster certain types of urban space or landscape together. But there is the danger of formalism. As urban space has a complex set of meanings, we have to build different typologies depending on the issues of concern.

3.3 Beyond STEP 05 – Design Methods on Area Level
For developing useful guidelines which focus on the specific capacities of certain areas, we propose the application of selected methods to activate the potentials of open spaces in STEP’s target areas.

3.3.1 Design Methods for moving through Vienna - Cinematic space
Many aspects of urban space are not seen from a fixed point of view, but as a form of cinematic space. People move through city spaces in cars, in public transport or on bicycles, so the way they experience space is related to speed. Designers such as Rem Koolhaas and Bernard Tschumi explored this aspect of urban space through cinematic techniques. There is much potential to design and plan for discontinuous fragments as a metaphor for our fragmented society. They can act as story lines, which we can realise as we move through the urban landscape. The elaboration of urbanistic sketches which follow a dramaturgical logic can enrich the experience of passing through urban landscapes.

The nature of approach roads to new development areas currently provide commodified imagery which contributes to the sense of placelessness in new residential or commercial areas. There is the potential to enrich our urban experiences through the artful use of cinematic techniques. In Vienna this method can be suitable for the target area Wiental, which is the old connection to the western parts of Austria. But it could also be appropriate for new connections in the city, emerging like Brünner Straße/Westgürtel/Liesing Mitte (along elevated underground line no.6). This method needs to go beyond banal interpretations and fully engage with the growing sophistication in filmic techniques.

3.3.2 Design Methods for industrial sites – The Porous City
The qualities of terrain vagues pose similar enigmatic problems. Strangeness, insecurity, limitlessness, the sense of time - their qualities as de Solá Morales defined them – call for a design approach which fosters rhizomatic thinking, haptic qualities, incorporation and existing forces. We propose the term of the ‘porous city’ for not only looking at the city as an interacting system between urban and rural but also regarding open spaces as pores which are in contact with the primordial natural resources the city is built upon and their historical anthropogenic traces. The elaboration of a design language which works with the specific qualities of a place can be taken as a precondition for the design of significant open spaces.

3.3.3 Design Methods for New Parklands - Peri-urban Agricultural Space
Peri-urban landscapes raise further design and planning issues in contemporary cities. In regard of the existing predominant land use in the northeast of Vienna, we suggest for the target areas in this part of Vienna a concept, that is completely different to the greenfield developments proposed in STEP ‘05: Agricultural land should also play in future a vital role in urban boundary landscapes. An interpretation of agricultural land as a site for knowledge transfer is therefore necessary. In Australia, partnerships between agriculture and environmental management, biotechnology, food production, aquatics and creative industries has been explored so that these landscape issues are linked with urban development [13]. The experimental character of this concept needs innovative structures of ownership and use of land. This idea has also been explored by cet-o/kunst + herbert in their Mississippi Fischbek project in Hamburg.

Ideas of peri-urban agricultural space can be complemented by the concept of City Country Fingers by Christopher Alexander. He demanded: “Keep interlocking fingers of farmland and urban land, even at the center of the metropolis. The urban fingers should never be more than 1 mile wide, while the farmland fingers should never be less than 1 mile wide”[14]. The “fingers of farmland” have to preserve the characteristic landscape elements (e.g. “Bisamberg” in the north of Vienna with vineyards etc.), are used by agriculture and their boundary is formed by significant structures (e.g. Marchfeldkanal). The design of the urban edge by highlighting the landscape elements contributes to the living quality at the city’s boundary.

4 Conclusion
Urban open space in contemporary cities is complex in form and layered in meaning. It is a valuable aspect of city form which seems to be poorly understood in current urban development plans. The underlying
problematic issues of the Urban Development Plan for Vienna in terms of open space design are comparable with the situation in other cities. The accelerated competition between cities leads not only to a stronger project orientation on the level of urban planning but also to phenomena like commodified and homogenized urban spaces and the diminishing of unusual sites.

We are proposing a comprehensive analytical – methodological approach which focuses on non-generic qualities – not only of the natural landscape, but also on the transformed and alienated urban lands. Inspired by the Situationist [15] postulation of an irrational, concrete and emotional city a scanning of the urban space at a detailed level could open the planners’ minds to the negative aspects of commodified space and the positive aspects of unusual left-over spaces and their qualities. To achieve this awakening of interest, the development of an intrinsic vocabulary and a language for these spaces is of utter importance.

Urban development need not follow the well-worn and stereotyped paths of globalization but instead could produce distinctive urban spaces by adequately applying effective design approaches for the analyzed problems.

References: