



ISLAND DYNAMICS

Suburban Processes of Islandisation in Austria: The Cases of Vienna and Tyrol

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Abstract: Suburban areas are often described as monotonous and generic. In Europe, however, suburban areas show distinct morphological and functional configurations in different regions due to cultural, spatial, economic, and institutional conditions. This paper compares recent suburban developments in Austria in the region south of Vienna and in the region of Tyrol, highlighting significant developments after 1985 in the fields of housing, shopping, leisure, and commercial sites. Using quantitative (aerial images, statistical data, plans) and qualitative (case studies) methods, the paper analyses the distinct morphological similarities of selected case studies and tries to answer two questions. First, how can these developments be assessed from the viewpoint of urban and spatial planning? Second, what spatial strategies could be useful for further interventions? It is concluded that these developments can be understood as island-like developments. This means that hybrid suburban structures have appeared where sharp-edged boundaries separate single elements from adjacent ones. These island-like developments have increased dramatically over the past decades and are today to a large extent characteristic of Austrian suburbs. Capitalism, market liberalisation, and prevailing planning regulations and culture are driving these processes of islandisation. The paper furthermore shows that new spatial strategies are required for creating more coherent spaces. Interstitial landscape as a planning tool seems to be one option for creating more livable and sustainable suburban areas in the future.

Keywords: Suburbs, island cities, islandisation, island-like developments, urban planning, Vienna, Tyrol

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1. Introduction: Ongoing urbanisation and its impact on fragmented spatial arrangements in the modern city

As early as 1970, the French philosopher and sociologist Henri Lefebvre (1970) stated that society is undergoing a process of 'complete urbanisation', with only a few areas being excluded. He noticed that the traditional European city was beginning to move away from its original, concentric pattern; instead, spatial fragmentation had started. Furthermore, Lefebvre saw that the large economic centres of Europe were becoming interconnected and thus that large economic regions would come into being. Lefebvre then applied his ideas – originally relating to Europe – to the global scale, painting a picture of a globally interconnected world that could be read in spatial terms as a continuous urban fabric spreading across the Earth. Lefebvre argued that capitalism was the driving force behind this urbanisation process: Its growth objectives would lead to an ever-stronger expansion of industrial production. In Lefebvre's opinion, urban aspects would spread to suburban and rural areas (Brenner, 2014: 17).

If we look at today's cities, we can clearly recognise Lefebvre's ideas in their spatial arrangements. Fragmented urban patchworks have come into being, inside of which the most diverse elements are arranged, thereby creating an urban space entirely different from that of the earlier European city model: a city developing according to a concentric pattern. Centrality has become polymorphic, and heterogeneous polycentric structures are dominant. The historic hearts of cities and towns are just as much part of these structures as are newly developed centres and suburban areas (Schmid, 2006, 2014: 67). In general, we can argue that these dynamics must today be seen as part of the complete urbanisation of the world and, from this perspective, that the 'traditional' city has been replaced by global urban processes (e.g. Brenner, 2014, 2013; Wachsmuth, 2014; Amin & Thrift, 2002).

These developments are not, however, guided by planning considerations or deliberate decisions in higher-level spatial development strategies. Instead, it is above all capitalism and further market liberalisation that are driving these processes (Lehrer, 2013). Already at the end of the 1980s, Rem Koolhaas (1990) pointed to the impact of the economy on the plannability of urban developments: He argued that an urban development concept based purely on building was no longer in keeping with the times. According to Koolhaas, planners no longer had any control over what was being built because urban developments could no longer be guided, owing to constantly changing political, financial, and cultural forces – thus obstructing any attempts at planning. Indeed, since the 1980s, various authors have sought to grasp this new type of city in conceptual terms. Technoburb (Fishman, 1987), Edge City (Garreau, 1991), Exopolis (Soja, 1992), FlexSpace (Lehrer, 1994), Zwischenstadt (Sieverts, 1997), Spread City (Webber, 1998), Netzstadt (Baccini et al., 2003), Boomburb (Lang *et al.*, 2007), and Metroburbia (Knox, 2008) are some examples worth naming. All of these concepts describe the phenomenon of this new city structure and seek to work out its specificities.

This paper presents the results of a comparative study of recent suburban developments within Austria. The study deals with two regions: one in the south of Vienna and the other the Inn Valley

in Tyrol, both experiencing growth albeit to very different degrees. The paper explores suburban developments after 1985 in the areas of housing, recreation, retail, and commerce. It is based on desk research, literature studies, field research, and morphological research (analysis of maps and aerial photos). This article proceeds with a section discussing the use of the island as an urban metaphor. Then, five case studies are described, three of which are located in the south of Vienna and the other two in the Inn Valley in Tyrol. This is followed by a brief outline of Austrian planning arrangements, which in fact prescribe the essential framework conditions for the development of suburban regions. The final section presents findings and conclusions.

2. The island as an urban metaphor

The present article seeks to explain how the spatial structure of suburban areas has been changed by the continuing urbanisation process described in the works mentioned above. In concrete terms, we will ask how 'deposits' of suburban space – so-called 'islands' – embed themselves in existing spatial structures. The paper hereby uses the expression 'island' in a metaphorical way and focuses on island spatiality within the urban context.

Although 'real' geographical island communities (pieces of land surrounded by water) are not necessarily isolated or static entities but are instead sites of constant 'island movements' (Pugh, 2013), 'the island' as an isolated site of distinction has served as an ideal model and metaphor for cities since ancient times (Pigou-Dennis & Grydehøj, 2014). This has echoed up into today's era of urban design, with the island metaphor being evident in the concepts of functional separation within cities postulated by Le Corbusier (1924) in the *La Ville Radieuse* project and by Ludwig Hilberseimer (1944) in *The New City*. Even Walter Christaller's (2006 [1933]) concept of the *Central Place Theory* can be seen in the context of the metaphorical use of island. Within the context of urban research, the popularity of conceptualising cities as islands increased enormously when the architects Ungers and Koolhaas formulated a new manifesto on *The City in the CITY – Berlin: The Green Archipelago* (Ungers & Koolhaas, 2013 [1975]). With their idea of the 'archipelago city' – a city understood as islands of urban density within a large forest (Neumayer, 1990) – they sought to find an answer to the depopulating European city (Grydehøj *et al.*, 2015). Other positive politico-architectural projects and visions followed, which have used urban polycentricity as a theoretical framework (e.g. Aureli, 2011; Schrijver, 2006; Oswald & Baccini, 2003). On the other hand, the terminology of 'the island' is also used to describe negative aspects (e.g. social or economic exclusion) of the modern city (Grydehøj *et al.*, 2015). Our discussion of urban islands and island-like development thus does not seek to suggest that pieces of land surrounded by water are isolated from outside influence but instead seeks to engage with the longstanding tradition of metaphorical island thought within urban design and research. In so doing, we will in fact have occasion to note dissimilarities between 'islands' surrounded by land and those surrounded by water, thereby drawing attention to the importance of water (rather than just the land itself) in social and economic processes involving islands in the river or the sea (Hayward, 2012).

Our use of the term 'island' describes actual spatial processes and elements of suburbia that have strong and clear boundaries relative to their surroundings. The functions within these islands do not have, and do not wish to have, any relationship with their immediate surroundings – with the exception of the necessary access points and transport systems. In

other words, the surroundings themselves are not the reason for why these elements are placed precisely where they are, in stark contrast to many island cities surrounded by water, which developed precisely because of locational factors relative to their surroundings (Grydehøj, 2015). Instead, social reasons (e.g. a desire to live outside the city), economic reasons (e.g. favourable land prices), access to transport connections (e.g. motorway access), and remoteness from emissions (e.g. noise, exhaust fumes) are among the driving forces.

By describing the case studies from Vienna South and Tyrol, the paper seeks to explain suburban island developments within the Austrian context, their possible 'reading', and strategic aspects of how to deal with them from an urban design and urban planning perspective.

3. Suburban Developments in Vienna and the region of Tyrol, Austria

Austria is situated in the eastern Alps and covers a total of 83,879 km². Some 60% of the country is mountainous terrain. Only about 32% lies below 500 m sea level, and about 43% is covered by forest (Statistik Austria, 2013). Two regions are explored within the framework of this study: one is located to the south of the federal capital Vienna, and the other is in the Inn Valley around the Tyrolean state capital Innsbruck. In many ways, Vienna and Innsbruck have quite different characteristics. Whereas more than 1.8 million currently live in Vienna (Statistik Austria, 2014), just 122,000 live in Innsbruck. There are other significant differences, such as topographical conditions and structural dissimilarities.

In spite of these differences, we can detect comparable trends in the field of spatial development and the expansion of urban elements into the countryside in the areas surrounding these two cities. Both to the south of Vienna and in the Inn Valley, we can note the consequences of the globally ongoing urbanisation process. The urban areas have expanded farther, and suburban areas have been enriched with urban elements so that they today significantly contribute to defining the shape of these areas. Hybrid structures have appeared: The cities have taken on new elements beyond their historic town centres. Island-like structures have emerged in the vicinity of agricultural land, transport infrastructures, and historic town centres. These structures are only indirectly connected to their immediate surroundings.

4. Processes of islandisation in the Viennese suburbs

Before the First World War, some 2.1 million people lived in Vienna. Further growth was hindered by the two world wars, and it is only in the past few years that massive population growth has begun again. Today, Vienna has 1.8 million inhabitants. Current growth forecasts and the population itself expect the two-million mark to be reached as early as 2019 (Statistik Austria, 2014). This means that visible changes and considerable development processes are taking place, not only within the city limits but also in adjacent areas. Vienna is considered to be the gateway to Eastern Europe, and the headquarters of important firms have settled there. It is precisely its position at the crossroads of East and West that makes Vienna so interesting from a business point of view. At the same time, thanks to its cultural character and qualities making it an attractive city in which to live and work, it has become a dynamic place where ever more people wish to live.

Ongoing growth concerns not only the city area itself but also the adjacent regions. Until well into the 1990s, Vienna's suburbs were mostly of a residential nature, but this has changed

drastically in the years since. Apart from residential uses, today's spatial developments are mainly characterised by commercial, productive, shopping, leisure, and educational uses. A key reason for the substantial developments taking place in suburban areas in the past few years is the existence of extensive transport infrastructure in and around Vienna. Let us now turn to the specific case studies that illustrate the process of islandisation in Vienna.



Figure 1: Housing. [Vienna South. Lat: 48.034210N, Lon: 16.354425E]

As shown in Figure 1, single-family houses and residential settlements have been built on former agricultural land, structured into deposits of settlement. The centres of these various housing conglomerations are defined by small artificial lakes. Together with the associated golf course, these structures are island-like elements for which the surrounding landscape provides no functional context. Streets form the only external connections.

The dream of a single-family house in the countryside is the strongest driving force behind such real estate developments. In our concrete example, this wish for life in the countryside is made all the stronger by the additional incentive of private access to a small lake. Numerous developers have specialised in this type of demand and serve this housing market. It is clear simply from looking at the residential settlement's location in the agricultural setting that this is not about consciously embedding housing estates in existing residential areas – neither in a building sense nor in a social sense. Rather, it is about satisfying the individual wishes of residents. An even greater degree of exclusivity is conferred by the adjoining golf course. Inverting the outward-

looking, relational nature of islands encompassed by water (Stratford *et al.*, 2011), these islands in the fields not only themselves encompass water but also turn away from their surroundings.

The formation of isolated residential structures, clearly fenced off from the inside out (island-like), which can only function with the availability of individual methods of transport, represents a massively wasteful way of dealing with land. This trend in real estate goes against all of the principles of sustainable spatial planning in Austria such as compact settlement structures, functional interrelations, space saving and space management, creation and securing of free spaces and increasing of energy efficiency through spatial planning measures (ÖREK, 2011: 18, 71-72).



Figure 2: Shopping. [Vienna South. Lat: 48.107458N, Lon: 16.317869E]

Before 1989 (the year the Iron Curtain fell), the area to the south of Vienna had already experienced significant developments along the motorway to Graz. One of the largest shopping centres in Europe was built beside this infrastructure link, some 12 km as the crow flies from the centre of Vienna: Shopping City Süd (SCS). SCS was built in the 1970s, and over the years, it grew in size, acquiring a total surface area of 192,500 m² and more than 330 shop premises. Every day, over 50,000 cars drive to SCS (Seiß, 2011). Nevertheless, until the early 1990s, the edges of the city of Vienna were mostly devoted to residential uses. However, since that time, commercial structures have been built beside SCS. These include a showroom park for prefabricated houses as well as hotels and leisure and sports facilities.

A new, functionally varied space has emerged, combining business, shopping, and residential areas, all surrounded by agricultural land and transport infrastructures. SCS and adjoining structures form island-like sections divided by streets. The conglomeration as a whole forms a (sub)urban fabric, with distinct individual segments. As shown in Figure 2, the area is spatially divided into individual 'urban islands', rather like an archipelago. Neither the islands nor the surrounding spatial and functional structures are interlinked, save for by the road space that provides access to the various sectors. Like water surrounding islands of archipelagos in the sea, road and transport infrastructure can represent both a means of access and a barrier to crossing, fragmenting the suburban fabric (Graham & Marvin, 2001: 108-109).

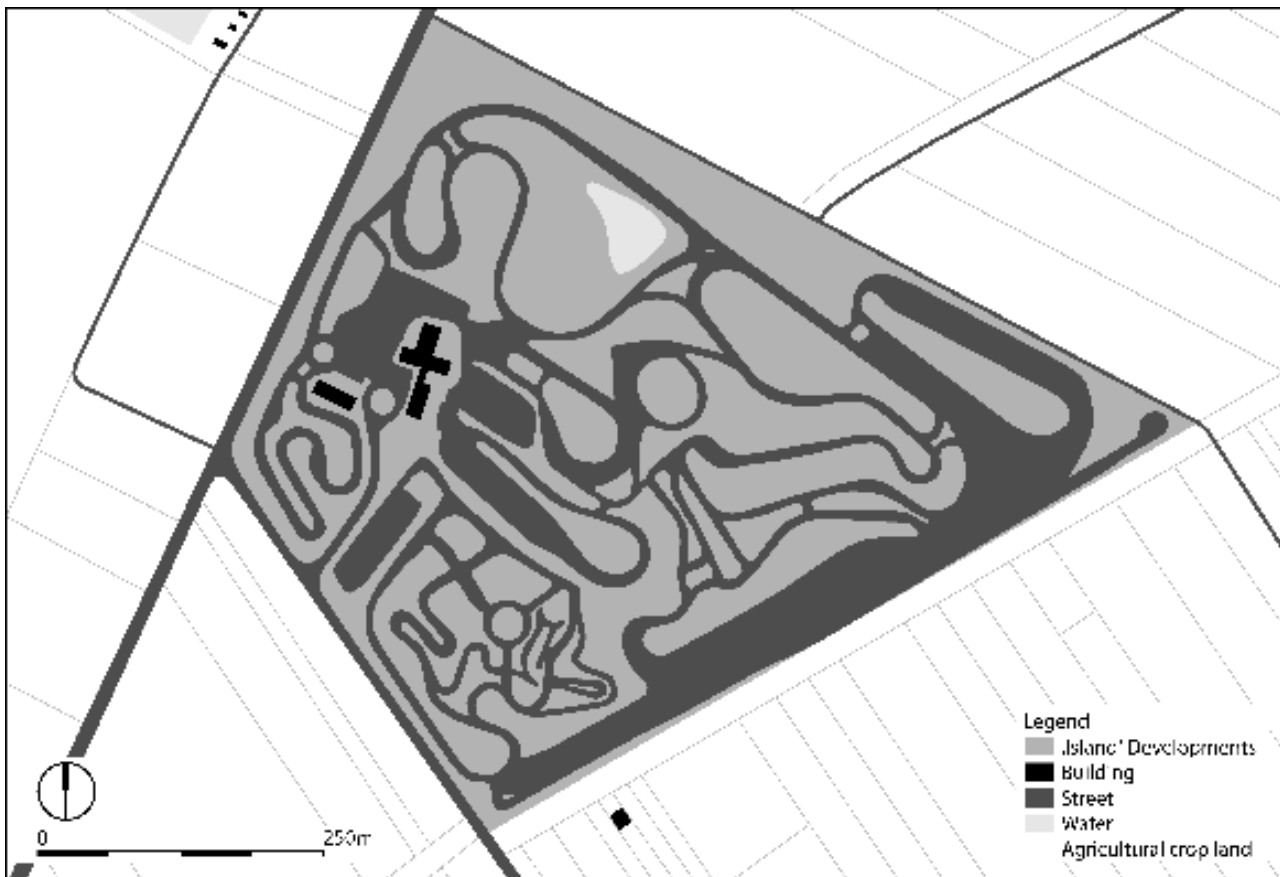


Figure 3: Leisure [Vienna South. Lat: 47.960421N, Lon: 16.275397E]

Golf courses and leisure facilities have been significant drivers of spatial development south of Vienna. Although such facilities require proximity to Vienna if they are to enjoy sufficient demand, their large size and/or emissions volumes preclude them from being built in the urban centre. As a result, they have instead been built in easily accessed locations in the vicinity.

As shown in Figure 3, an Austrian Automobile Club Association driving centre has been established in an agricultural landscape south of Vienna. Proximity to a high-frequency road connection to Vienna, cheap land prices, and availability of plots are primary requirements for executing such a project. Given its countryside location, the driving centre can only be accessed by car via the adjacent street. It is disconnected from its immediate surroundings. This large-scale driving and training park forms an island-like structure within the suburbs.

5. Processes of islandisation in the Inn Valley, Tyrol

The Inn Valley has topographical features entirely different from those found in the region to the south of Vienna. It is the largest valley in the State of Tyrol, which lies in western Austria. As part of the central Alpine ridge, this region is shaped by the surrounding mountains and adjoining valleys. Only about 12% of Tyrol's surface area is suitable for and zoned for long-term settlement and construction. Buildings, roads, car parks, and other infrastructural amenities can be found within this area. Another regional specificity is that Tyrol, as a popular tourist destination, is highly developed in terms of infrastructure. More than 42 million overnight stays are recorded in this region annually (Statistik Austria, 2014), and this will lead to the State of Tyrol's further infrastructural development in future.

Innsbruck (population 122,000; Statistik Austria, 2014) is the largest city in Tyrol and is situated roughly in the middle of the Inn Valley, which runs along an east-west axis. Both to the east and west of Innsbruck, and in the side valleys of the Inn Valley, we can find many towns and villages of varying sizes. It is expected that Innsbruck and the adjoining areas will experience population growth in the coming years. This will contribute to the further spread of settlement areas inside the Inn Valley. It is already clear that towns and villages are increasingly merging with each other. As a result, linkages between them are also growing.



Figure 4: Commercial sites and Industrial Parks [Tyrol. Lat: 47.283767N, Lon: 11.547396E]

The development trend towards a large, coherent urban space has already been described by the 'TirolCITY' concept in 2005 (Andexlinger *et al.*, 2005). Highly diverse urban functions and elements have spread across agricultural landscapes along the Inn Valley outside Innsbruck. Alongside residential buildings, we can observe facilities such as shopping centres, commercial sites, and leisure amenities (e.g. sports grounds, golf courses, event parks, ski resorts). In the Inn Valley, as in the Viennese suburbs, urban elements are increasingly established along important transport infrastructures, leading to island-like developments with little connection to their immediate surroundings. Within the context of this islandisation in the Inn Valley, we consider two exemplary cases: commercial sites, which have multiplied since the 1990s, and staged themed experiences, a topic of considerable importance for Tyrol.

The development of commercial sites is strongly influenced by the fact that local councils are in direct competition in the fight for investment – and consequently tax revenue. Since the 1995 scrapping of the lucrative tax on alcoholic drinks, local budgets have become dependent on tax revenues from other sources. For many local authorities, attracting businesses is vital in financial terms. From a land use perspective, this trend has led to the emergence of countless small- and medium-sized commercial sites in Tyrol, above all in the Inn Valley. An exemplary case is shown in Figure 4. Often, these commercial sites and industrial parks have been sited outside of existing settlements and alongside radial roads and motorway junctions, representing island-like conglomerations of development within the surrounding landscape. Spatial aspects – concerning design, integration into existing structures, *etc.* – are given little consideration.

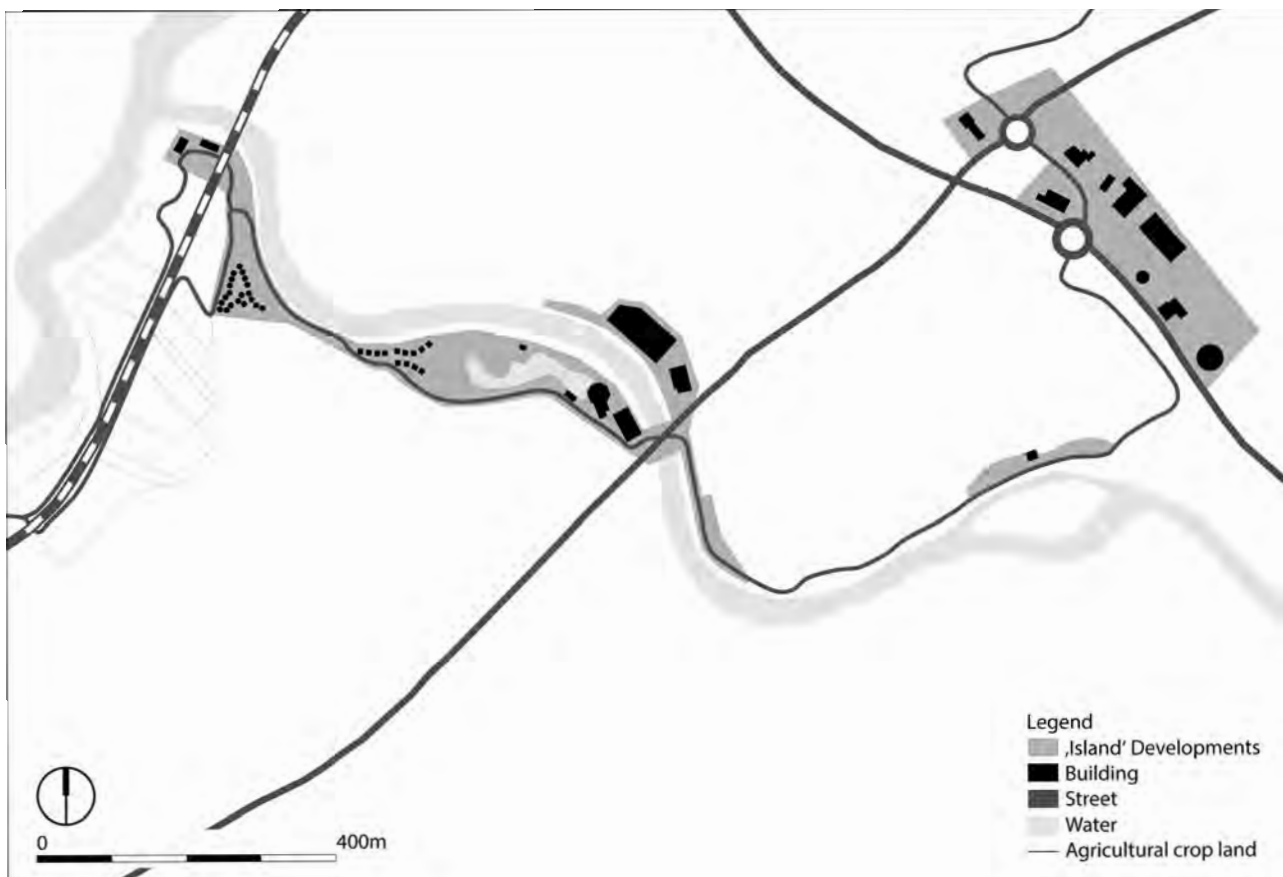


Figure 5: Leisure [Tyrol. Lat: 47.228467N, Lon: 10.846645E]

As noted above, Tyrol is a popular tourist destination. The initial stages of the tourism industry can be traced back to the early 19th Century, but mass tourism only took off just after World War Two. Whereas in the 1960s, 1970s, and 1980s, development mostly meant building ski lifts and tourist lodgings, since the 1990s and, above all, since the beginning of the 21st Century, this has changed noticeably. The awe-inspiring mountain world or a range of sporting activities have long ceased to be sufficient to attract tourists to the Alps. Instead, the mass public also has to be entertained. The event business has thus gained enormous significance. The mixture of sporting opportunities and staged events has strongly taken off in the past few years; giving rise to the construction of dedicated infrastructures.

Area 47, shown in Figure 5, is a striking example. At the entrance to the Ötz Valley, which has specialised in tourism, a large entertainment venue has been built close to the motorway. This is complemented by a boulder park, a swimming lake, huts and wooden teepees (for overnight accommodation), and other leisure facilities. Numerous concerts and other events attract mass tourists, complementing the region's sporting opportunities. Isolated from existing settlement structures, Area 47 has been created as an island-like element within the surrounding alpine landscape, targeting young people and catering to diverse leisure activities (bathing, climbing, concerts, *etc.*).

The choice of location for this venue was not based on particularly high-quality natural virtues but rather on the fact that a motorway feeder road was nearby, one that also feeds the Ötz Valley as a whole. Area 47 is thus a real estate unit, pasted onto the countryside. It requires no relationship with its surroundings but merely needs to be connected to highly frequented transport infrastructure. Neither the spatial siting of this development in the countryside nor its architectonic design fulfil high standards. One is instead reminded of a business park.

6. Spatial planning culture and land consumption in Austria

The case studies presented above illustrate how the ongoing global urbanisation process is leaving its mark on Austria: Urban deposits are being established in the countryside and giving rise to island-like structures. Capitalism is the key driver promoting such developments (Lefebvre, 1970), but the prevailing planning culture and body of rules also play a significant role in the context of spatial production.

In Austria, unlike in many other European countries, the planning authorities and planning rules and regulations are mostly to be found at the local level, where decision-making authority in matters of spatial development is located. It is only in matters concerning national state infrastructures (such as the trunk roads or water provision) that decision-making authority is located at the national state level. A high-level legislative layer binding the whole of Austria does not exist in the spatial development policy area, and there is no national spatial development strategy that constrains the lower levels (Arbter, 2001).

The two lower governance levels – provincial and local – possess essentially greater decision-making authority, or jurisdictional capacity (Baldacchino, 2010), in the realm of spatial development. The legislative framework for spatial development is set at the level of Austria's nine regions or provinces. This means that nine different bodies of rules preside over Austria's spatial development. At this level, a series of sets of regulations relevant for spatial

development can be found: for instance, infrastructural plans, protected landscape areas, and danger zone maps (Arbter, 2001).

Beyond these, only a few provinces have created province-wide strategic spatial plans. In Tyrol, for instance, there is no overall development strategy that is binding for all local authorities. Instead, local authorities are required to provide objectives within the framework of a 'local spatial development plan' covering a 10-year period. Decisions taken by local officials largely decide the fate of spatial development. The problem with this is that each and every local authority acts on the basis of its own perspective and its own interests, in isolation from neighbouring – and competing – authorities. It is thus not unusual for local politicians to prioritise individual decisions within the framework of their decision-making authority rather than pursue long-term plans (Arbter, 2001). Provincial authorities do approve of collaboration between local authorities in the field of spatial development, and the legal framework for such collaboration does exist in the form of 'planning associations', but until now, few social amenities have been constructed on an inter-local level (e.g. old people's homes, sport facilities); otherwise, no joint spatial development strategies have been implemented.

In the case of Vienna, the situation is a little different. Within the framework of strategic development planning, the urban Vienna area has an instrument at its disposal: STEP (city development plan), which is valid for ten years. The Viennese suburbs in which the case studies presented above are located are not part of the urban Vienna area proper but are instead part of the neighbouring province, Lower Austria. Vienna and Lower Austria do engage in some joint work on spatial development issues, yet the island-like developments described in this article show that sustainable spatial development strategies were not deemed important with regards to the implementation of these projects.

The absence of high-level spatial development strategies leads to a high rate of land consumption in Austria. A modest population increase of 1.1% per year (Statistik Austria, 2009-2011), mostly caused by immigration, contrasts with an annual 10% growth of sealed land cover (built-up land, land use by traffic) (BEV, 2009). On average, 10 hectares are added for construction and transport purposes every day (Umweltbundesamt, 2013a). When one adds the land surface claimed for other infrastructures (such as utility areas, waste disposal sites, storage yards), amounting to 12.5 hectares per day, a total 22.5 hectares are given a new 'use' on a daily basis (Umweltbundesamt, 2013a). According to Guiding Principle 13 in the Austrian Sustainability Strategy, the daily claim for additional land surface by construction and transport should already have been reduced to 2.5 hectares per day (BMLFUW, 2002). So far, this target has been missed by a wide margin.

Under current parameters – population growth, transformation of family structures, changes in lifestyle, *etc.* – and in the absence of a national, binding spatial development strategy, we cannot assume that land consumption in Austria will decrease significantly in the coming years.

7. Findings and conclusions

Today's cities have different features than they did just a few decades ago, when many could be described as concentric. Since the 1980s, we have witnessed modifications to the urban fabric, owing to radical economic changes and increasingly flexible production processes.

Cities can no longer be 'read' and 'understood' from the inside towards the outside but instead resemble an amorphous space. Since then, the most striking changes that are observable in spatial terms have taken place in suburban areas. Production and consumption have reshaped urban space in the past 30 years (Lehrer, 2013: 58-59).

European cities have thus encroached upon the countryside, tentacle-shaped, along corridor lines. We can today find office space and agricultural fields side-by-side. Single-family houses are squeezed between large-scale leisure facilities and commercial sites and are surrounded by infrastructural amenities such as roads, power cables, and railway tracks. Such structures are not considered desirable within cities and therefore get built on the cities' peripheries: They are the 'things' that we need but that are not welcome in the old city centres (Lehrer, 2013: 60-61). Urban elements have been pasted onto the countryside with no direct relationship with their immediate surroundings – neither with the country landscape nor with adjoining structures. Instead, they are more closely connected with (more distant) city centres or fit into global economic networks. As a result, these elements create an islanded or archipelagised urban fabric in which most functions are segregated and are set in space in isolation from each other. In this, such metaphorical suburban islands differ from near-shore island cities that gain their vitality from interconnections between island and mainland (Khoo et al., 2015; Swaminathan, 2015; Grydehøj, 2015).

The current spatial structures of urban fringes are difficult to read. On the one hand, we detect clearly defined boundaries (islands), yet on the other hand, the spatial structures within these islands are often blurred and unclear. These islands are linked by 'connectors', i.e. roads (along which services and retail facilities are located), with the original city centres (Larup, 2011). At the same time, they are often cut off from their direct surroundings by superhighways and only possess access points in specific sectors. In design terms, valued aspects on urban planning, urban design, and architecture used for interweaving these places into the surrounding areas have been totally neglected. Island-like developments lead to an enormous amount of land consumption. This is caused by the comparatively low price of land plots and generally results in a low building density. Investors need only consider the costs of land purchase and development within the plot itself. Since these pieces of real estate are often far from existing infrastructures (or since existing ones are insufficient), high and long-term costs for the public sector are often involved.

Island-like developments have on the whole turned urban fringes into strongly hybridised zones. As a consequence, an essential question arises: How can we deal with these developments in terms of quality design? Bruno Latour uses the terms 'networks' and 'spheres' to define the relationship between one element and another. While Latour (2013) uses 'networks' for "long-distance and unexpected connections starting from local points," 'spheres' is used to describe "local, fragile, and complex" 'atmospherical conditions'. (Both these uses of 'spheres' and 'atmospherical conditions' are borrowed from Sloterdijk, 2004.) Using 'networks' and 'spheres' in the context of this article means that the island-like developments must be seen as nodes within a network (i.e. long-distance connections), with no links to their local surroundings. Perhaps one sphere or another appears within these island-like structures, but there is no sphere beyond them. There are no relationships with the surroundings, with the exception of technical infrastructure (e.g. streets, electricity).

From a planning perspective, the aim must be to dissolve island-like developments and create more coherent spaces. To this end, the rigid boundaries of these island areas must be broken up. The following steps will play an essential role: structuring the interstitial landscapes, interweaving by creating new transport connections, and removing failed structures or adapting and densifying them by implementing new complementary elements.

Let us return to Rem Koolhaas' argument that constantly changing political, financial, and cultural forces prevent successful planning. In the context of this statement, Koolhaas (1990) continues by saying that precisely for this reason, vacant spaces are the only areas where certainties still make sense. This remains true today. It makes sense to think about the landscape in between all of these island-like elements. The interstitial landscape is a key element for creating a stable yet flexible and adaptable spatial fabric in which all of these elements are inserted. Architects as well as urban and regional planners will need to deal with the question of how island-like structures can better be implemented in their surrounding landscapes in order to create more sustainable suburban areas in the future.

Figures

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