THE ZURICH LIMMATTAL
Steps of a servant valley towards emancipation

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1 Introduction

The following description of the Zurich Limmattal (Limmat valley) reports the results of a research embedded in the COST C10 action Outskirts of European Cities: "Les territoires intermédiaires: modalités de régulation de l'urbanité désancrée, à partir d'analyses morphologiques et phénoménologiques", financed by the Swiss Federal Office for Education and Science. The following people collaborated with the named authors in the Cost C10 research group and in the "Ladenburger Kolleg zur Zwischenstadt der Gottlieb-Daimler- und Karl-Benz-Stiftung": Christian Schubarth (Département de géosciences de l'Université de Fribourg), Doris Sfar, Barbara Pfister, Camille Erbetta (C.E.A.T. Lausanne), Oliver Bormann and Martin Schröder (Bergische Universität Wuppertal / process yellow, Berlin).

2 The urban situation

2.1 Geographical context

The upper Limmattal belongs to the metropolitan area of greater Zurich, the most important economic area of Switzerland. The river valley forms the natural extension space along the river Limmat, together with the Glattal (another valley north-east of the city) and the two lakeshores. The pronounced valley-form morphologically and functionally determines the settlement area. It covers over 24 km between the city of Baden and the city of Zurich, bridges a border between the cantons Zurich and Aargau and includes 14 municipalities (6 in Canton Aargau and 8 in Canton Zurich) with very different profiles regarding population and job structure, and growth.

The Limmattal is the western gateway into the city of Zurich. Every day an enormous number of cars through-squeezes this bottleneck. Most Swiss people know the Limmattal as a transit corridor, not for being a place to go or to stay in. Nevertheless, the misjudged valley has an impressive history waiting to be explored.

As the most important supplying and disposal channel, the Limmattal serves as "gastro-intestinal tract" for the greedy city of Zurich. From the point of view of the close-by metropolis, the Limmattal does not have to please but to serve.[1]

The Limmattal is an intensively and variously used space, stamped by mobility and traffic infrastructures (public transport as well as individual transport); it contains numerous service and shopping centres, very diversified forms of housing (multi-storey buildings, smaller blocks of flats, single family housing, rural village-cores, etc.) and offers numerous economical activities in service and industry. With the Limmat River meandering through the valley, the forests on top of the hills, the vineyards, fields and acres, nature likewise is always present.

Greater Zurich Area

Today's situation, with urban sprawl being omnipresent in the whole valley, is the result of a long ongoing process. In the 1970s the new built motorway and the huge shopping mall "Shoppi" in Spreitenbach consolidated and ensured the continuous development of the region as well as the valley's reputation of being a typical suburban part of Switzerland. When talking of the Limmattal hardly any Swiss thinks of the rural idyll it used to be for a long time.

2.2 Historical development

At the beginning of the 19th century the Limmattal is a picturesque valley with only

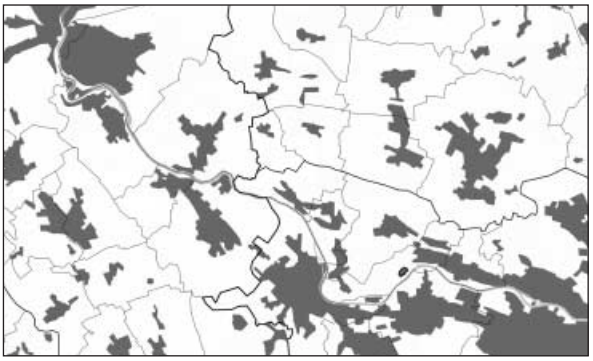
few small settlements. In 1847, the opening of the first railway line section triggers the rapid industrial development. Only 15 years later the valley communes were home to the textile, construction and machine-building industries. An extensive correction of the river harnessed the force of the water to generate electricity. One hydroelectric power plant is built in Baden in 1909, and in 1930 the Wettingen electricity works follow. At the end of the 19th century, settlements are still positioned clearly in the centre of the municipal jurisdiction like the yolk in a fried egg.

On the left side of the Limmat River, the economic boom and the planning-euphoria of the 1950s transformed, within the following decades, these separated settlements into one continuous structure meandering through the valley. On the right side of the riverbank, next to the infrastructures but on the sunny side of the valley, the villages developed not as fast. Today they are appreciated by the middle- and upper class as residential communities.

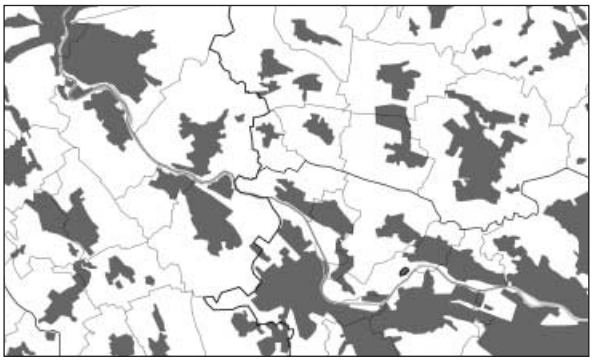
In the 1970s the boom came to an end and building activities slowed down. Nevertheless, the generously dimensioned building-zones generated an ongoing development of disperse settlement resulting in an enormous land consumption. The railway, in particular the large marshalling yard and the motorway have a strong influence on the whole structure of the Limmattal. Since these infrastructures run so close to the river, the settlements can hardly relate to the water. Nevertheless, diverse ecological and recreational spaces developed along the Limmat.

Settlement area around 1880

Settlement area around 1955



Settlement area around 1970



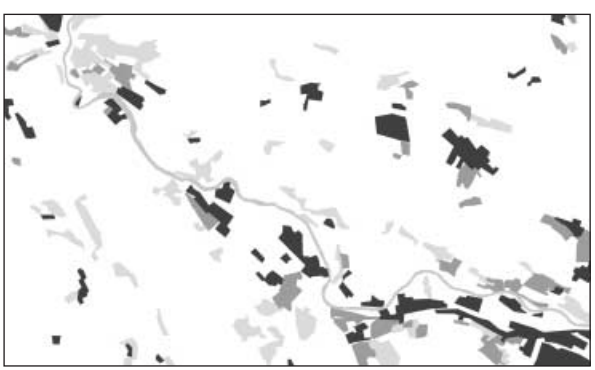
Settlement area around 1995

If one compares today's settlement structure with the structure hundred years ago, the former structure can hardly be recognized. The municipality borders lost the relation to the settled area that grew together and now forms a hardly interrupted urban "ribbon". "Limmattal-city" complies with forces going beyond political borders and institutional planning strategies. Only about 10 years ago planners and municipalities changed their concepts and started to focus on densification and development to the inside of the already settled area. New planning instruments like "settlement separation belts" *(Siedlungstrenn-guertel)* help to prevent further sprawl.

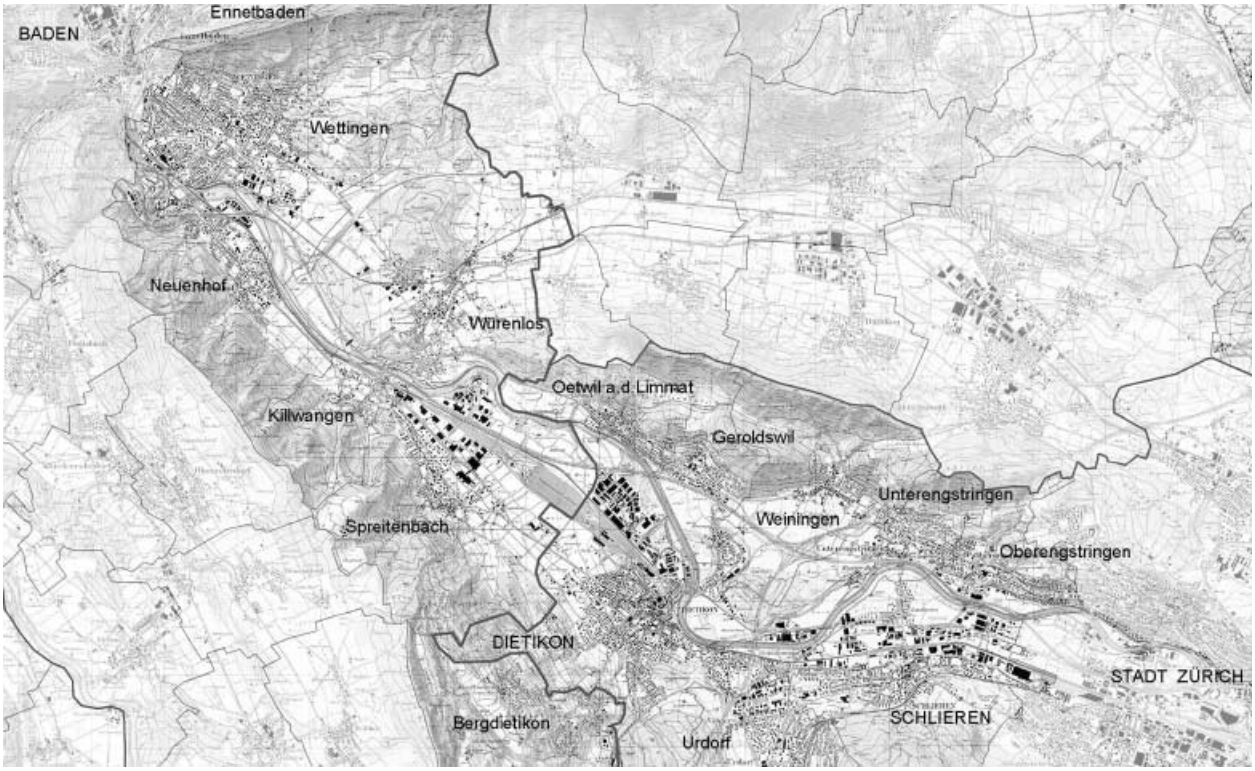
2.3 Settlement area

The modernists' dream of the linear "Ribbon-city" *(Bandstadt)* seems to dominate the development in the Limmat valley even if there has never been a master plan. Swiss geography endorses this kind of growth, and the Limmattal appears morphologically as a Swiss normal case: a small valley, bundled infrastructure, historical settlement cores next to industrial parks and settlement fragments of different sizes and types everywhere. In contrast to the classical centre-periphery model there is no structural relationship between these patches apart from binding infrastructure elements. It's a patchwork of extreme contrasts of scale and characteristics: motorway interchanges next to single family house colonies, the shopping mall next to a marshalling yard, historic farmhouses next to functionalistic multi-storey building. The "city" does not grow circular around the old and new centres, but follows an own diffuse logic.

Looking at the morphological structure we recognize different recurring types of monostructural settlement carpets. "Dots": single family home colonies, "Patterns" geometric housing zones of the 50, 60 and 70s, "Bigs": huge freestanding volumes and patches of industrial buildings. Mixed structures are mainly found in and around the historical cores. It is not surprising to find the "bigs" located along the railway and motorway and to find the hills mainly covered with "dots".



"Dots" – "Patterns" – "Bigs"



Limmattal in 1994

Along the infrastructure, "extra-large-buildings" serve as important landmarks in the suburban vastness: the Swisscom telecommunication centre, the post shipment centre in Muelligen, the gas works in Schlieren, the mall "Shoppi Spreitenbach" or the motorway restaurant *(Fressbuegel)* built across the road – just to mention a few. Their sheer bigness makes some of them even more impressing than the architecture of the nearby metropolis. Beside these pervasive landmarks there is a further form of supra-regional urban structures and huge "blind spots" hidden in the sprawl: the enormous marshalling yard, big storage spaces, vast parking lots. These archetypical structures are hardly familiar to the broad public. Yet, the marshalling yard is a stamping part of the Limmattal identity. Some love it some hate it. There even exists a project, by an ambitious architect, for covering the whole yard with an artificial green hill.

Looking at today's situation these dreams of "back to nature" are more than ever pure utopia: the whole valley is densely covered with settlements and infrastructure facilities. For the few remaining protected free spaces it is difficult to successfully oppose the economical pressure.

2.4 Infrastructure

Traffic infrastructures influenced the settlement development in Limmattal during the last 100 years. The different "ribbons" meander side by side through the valley. Motorway, railway, main and local roads were planned so pragmatically that they isolated the river away from the inhabited areas. Particularly in-between the railway/motorway and the river lot of hardly accessible spaces are remaining. They are ignored or forgotten by the booming development. These "urban biotopes" represent another characteristic element of the Limmattal.

Despite the excellent connection of most municipalities to the public transport network of Zurich, the Limmattal remains, like most "outskirts", a car-dominated area. Public transport suffers the handicap of monocentric orientation on the metropolis. The network within Limmattal is not yet dense enough. Thus in Limmattal the proportion of cars per household is fairly high (1.14), compared with the average in Canton Zurich (1.0), the Swiss average (0.98) or the average in the city of Zurich (0.7). However, it is not as significant as expected in such a well-equipped area.[2]

Catchments area of commuter railway stations (radius of 500 m) and motorway entrances/exits (radius of 1000 m)

The fact that new built roads only shift problems and usually generate even more traffic is no new finding. Nevertheless there are still various huge road-construction projects like the duplication of capacity for the motorway tunnel Baregg near Baden (actually under construction). The shifting of this bottleneck will bring back into actuality projects like the long-discussed expansion of the Gubrist-tunnel (by-pass between Limmattal and the Zurich airport). We don't know yet what effects will have the western by-pass of Zurich on Limmattal, which will be inaugurated approximately in five years.

The central project for public transportation in Limmattal is a new commuter railway system for improving the connections within the Limmattal. The projected route interconnects the centres, the main housing areas and the industrial zones. The capacity estimations show however that the project is not yet profitable enough. In the medium term the examined area will stay car-dominated.

2.5 Economic context

The "Spanisch Broetlibahn", the first railroad line of Switzerland, connecting Zurich and Baden started operating in 1847. This event marked the turning point from rural to suburban Limmattal, even if this process had taken many years to break through. At the end of 19th century numerous large manufactures and industries were settled along the river (1860 weaving mill in Dietikon, 1891 Brown Boveri and Co. in Baden, 1898 gas works in Schlieren). After extensive embankment of the Limmat River it was possible to use the waterpower for generating electricity. Rural villages became industrial towns.[3]

During the economic boom of the post-war period the municipalities self-confidently planned their settlement development. Spreitenbach, at that time an ambitious village of 2'000 inhabitants, planned a new centre for 35'000 inhabitants including the first Swiss shopping mall. The "Shoppi" opened in 1970; other malls followed and changed Limmattal into a "leisure and consumption park" for the motorised metropolitan customers. Beside the availability of space and the excellent location, political strategies pushed this development. By positioning the retail business next to the border of Zurich, the canton of Aargau and its municipalities tried to benefit from the city's buying power, in order to get a slice of the (tax-) cake.

Limmattal cannot deny its dependence on Zurich. The valley has always been the city's servant, ensuring supply and disposal and providing space for the city's big and unwanted facilities like the marshalling yard, the cogeneration plant, the post shipment centre or industry zones – facilities that influenced Limmattal's economic development.

The industrial crisis of the 1970s caused severe problems for many municipalities. In Schlieren the gas works, the dyeing mill and the wagon- and lift-building factory had to close down within a few years. The huge industrial community had to deal with a challenging heritage. It had to reinvent itself. The industrial zones have been transformed step by step into service and business

parks, areas for leisure activities and artist's ateliers. Schlieren is still linked strongly to Zurich, but in a more balanced way. The ETH (Federal institute of technology) of Zurich for example moved some of its institutes to Limmattal.

In 1990 the continuous increase of jobs in Limmattal finally ended and the economic structures seem to stabilise. Of course there are still ambitious projects for huge service parks or new malls, but the speed of growth and the euphoria strongly decreased.

3 Specifics

While Limmattal is a geographical entity, it is hard to define to what extent it is perceived and functions as such. Certainly the planner's appreciation for this space stands in opposition to the political and administrative fragmentation of the territory.

Beneath the functional dependence on Zurich, soon a process of emancipation started in Limmattal. Plenty of subtle differences in the regulation-mechanisms, of the metropolis and the outskirts, shape and polarise the different spatial developments.

Unmarried couples for instance moved to Spreitenbach (Canton Aargau) to bypass Zurich's concubinage law not allowing them to live together. Exceptional permissions and conditions in Würenlos allowed to build the motorway restaurant as "event-gastronomy", a term that did not even exist at that time. The municipalities competed against each other by regulating the local taxes and thus specialising on certain social stratums.

3.1 Limmattal emancipation

The Limmattal was "thought" and planned for decades seen from the perspective of Zurich. Therefore Zurich somehow "engraved itself" with some projects into the territory. The classical understanding of town centre and functionally dependent periphery seems to apply thus also here. Nevertheless, the urban "colonisation" did not completely succeed, because there were also plans and projects of the Limmattal-communities themselves. The Limmattal is far more than only the transit area of the metropolis, and it contradicts the clichés in many ways. The personal curriculum of the "Limmat-city" may be short, but it contains many historically important events and emancipation attempts.

The communities of the Limmattal have almost all, by different means, tried to distinguish themselves from the others through planning strategies and the definition of their own potentials, their own image. These attempts have at the same time produced a gradual emancipation from the two main neighbour-cities Baden and Zurich. It is asto-

nishing how different the results are, especially considering that the planning attempts arose from similar planning guidelines. From the one-family-housing-prairie to the new-town-city-centre, the different strategies have created different identities, and all together compose today's Limmattal kaleidoscope of urbanity, a conglomerate that must not fear the comparison with Zurich.

Spreitenbach, big-centre town: Looking at the projects for Spreitenbach (Canton Aargau) we can see the visions and hopes of a whole generation of planners. The economic pressure on the undeveloped areas, the sheer endless availability of land, an excellent geographical position, good travel connections and a flexible interpretation of regulations and laws of the fairly autonomous municipalities in the Canton Aargau permitted to develop a high-flying project.

Between 1958 and 1962 the small but ambitious commune of Spreitenbach self-confidently plans a new "city-centre". The intention is not to become a satellite of the big neighbour Zurich, but an independent regional centre. "New Spreitenbach – the first completely new planned city of Switzerland. A town planner (K. Scheifele) organises a city for about 35'000 inhabitants, that will be carried out consequently according to his design." That's what the newspaper headlines look like at the beginning of the 1960s. By 1970, Spreitenbach population tripled up to 6'000 inhabitants. Spreitenbach changed into a "new world" providing jobs and space for modern lifestyles, including the necessary liberality (for instance permitting concubinage, as mentioned above).[4]

Aerial view of Spreitenbach towards the end of the 1960s

From today's perspective the vision seems to be kind of over-ambitious and overestimating Spreitenbach's potential for growth by far. Nevertheless Spreitenbach became an important regional economic centre and the shopping mall is still very popular.

Geroldswil, small-centre town: At the beginning of the 1960s Geroldswil (Canton Zurich) likewise Spreitenbach planned a new centre. Geroldswil is located at the privileged right side of the river, on the sunny side of the valley and therefore is "predestined" as a housing area. From the 1950s on, the municipality grew continuously. In 1960, the population had already doubled and new bigger housing projects offered other extensions of the village. In this context the future of the village's centre came up for discussion. The new project aimed at a modern centre providing the population with all necessary facilities for daily life. At the same time the project tried to maintain the village's scale and not to overestimate the economic potential since

Spreitenbach is so close. However, Dietikon and Spreitenbach retail sales were so strong that it was difficult for Geroldswil's centre to find its own position on this local market. Still, today the centre represents a well functioning public space and is an important point of reference for the inhabitants of Geroldswil.

Dietikon, in search of an image: Dietikon's (Canton Zurich) transportation connections are perfect: The town is situated at the east-west motorway (N1) connecting Basel and Zurich and at the same time it's situated at the motorway that bypasses Zurich on its way to the airport. Public transport connects Dietikon with Zurich's extended commuter railway system.

This privileged situation resulted in a continuous growth of population that only stopped about 10 years ago. The community didn't manage to structure this continuous growth and to concentrate public and commercial facilities, which spread until the 1970s more or less randomly all over the commune's territory.

In 1959, the architect Hans Marti worked out a development scheme based on the Garden City model, but his concept of a vast city-landscape didn't fit to the existing small-scale structure. The centre finally developed into a conglomerate of fragments of various development concepts – a common situation in younger cities. In the 1990s, the architect Ueli Zbinden worked out a new concept to overcome the fragmentation. After all the previous planning attempts, Zbinden draw upon a still noticeable, unvarying element: the open structure, generated by low density and rather small building volumes missing inter-spatial correspondence. The open structure allows discontinuous interventions re-linking the different elements into a new kind of a collage.[5]

Wettingen, a century housing practice: Since 100 years Wettingen (Canton Aargau) is extending its vast housing zones continuously. The different epochs are reflected in different architecture-styles, but the urban structure remained rather homogenous. Single- and multifamily houses shape its open structure. Even the only "innovative" intervention, which led to some multi-storeyed buildings in the centre, could not change the character of Wettingen. Here the Limmattal shows its conservative and unhurried face not praying development and dynamics but opposing resistance to any innovation. Nevertheless, "urban" engagement is growing: There are initiatives trying to lift the management for cultural life to a higher, more competitive level.

Schlieren, post-industrial suburb: Hit hardly by the 1970s crisis, Schlieren (Canton Aargau) had to find new perspectives. On the abandoned industrial areas some interesting "occupants" could be found. Some of the area's pioneers are artists. These cultural "seismographs" are interesting elements to comment on the structural change and to show new perspectives.

Schlieren is the first suburban municipality beyond the metropolitan border and thus had difficulties to stand its ground. The village mutated more and more into an industrial commune. In addition, railway and industrial areas form a gap dividing the "village" in two parts that can hardly be recon-

The gas works' area in Schlieren

nected. The settlements near the Limmat River have been cut off and developed much slower than the rest of the commune.

Time left its marks, even if they are sometimes difficult to be decoded. It seems as if Schlieren rather "suffered" from history and still is in search of an own potential for emancipation. Today the city tries to strengthen the centre, to establish attractive functions and to bridge the gap between the northern and the southern part.

3.2 Limmattal highlights

Are spatial situations like in Limmattal as bad as their reputation?

If so, how the discrepancy between the preference of the inhabitant's majority and the judgement of professional planners can be explained? Is it just a faceless mash of settlements without historic deepness or are there "gifts" and multiple identities to discover? The city as an identity-creating living place needs patina, urban sediments and fragments, myths and tales. In the Limmattal a surprising amount of such elements can be found. There are quite some places, worth to be visited.

Between Baden and Wettingen, both an "art trail" and an "industry culture trail" are inviting people to discover the riverside. They are not attracting only the population of the close-by area. The Wettingen culture committee initiated the "art trail" in the 1980s. Along the river, where it passes through a gorge, about 20 artists placed their sculptures they specifically made for this place. An important part of the project is its "message". It is an attempt to let people rediscover their environment by adding these new elements. The trail mainly addresses near-by living people and people interested in arts. As for its political dimension, the project is an example of collaboration between three different municipalities. It mobilised a lot of energy and people.[6]

The concept of the "industry culture trail" is slightly different. Since the idea to show the regional industrial culture in the historic museum turned out to be too expensive, the museum director worked out a concept for an historic trail installing illustrated information panels along the historic sites on the riverside of the Limmat.

In contrast to the "art trail" the concept of the "industry culture trail" appears to be more issue-related and less idealistic. It is a more conventional project, putting less emphasis on its own location and identity than the "art trail".

Sculpture of the "art trail" between Wettingen and Baden: "Zimmer" by Beat Zoderer

An exceptional mix of architecture highlights Bergdietikon, a pure residential community on the left side of the Limmat River. People seem to live their dreams without any consideration to standard. Next to a group of organic grass-covered "cave-houses" around a small artificial pond stands a single-family house looking like a castle from a fairy tale with a moat and small turrets, while the next door neighbour's home is built in a classical roman-villa style.

Not far from these built dreams the sculptor Bruno Weber works since more than 2 decades on a Gaudi-like park "inhabited" by gigantic phantasy-creatures and his own residential house – another fairy-tale castle covered all over with mosaics and ornaments.[7]

Thanks to the artist's continuous dedication – he had to stand endless discussions with the municipality about approvals for his projects – the park came into being on private ground only. On weekends the park is open to the public. It can also be hired for weddings or other private parties.

Near Würenlos the so-called **Fressbuegel** (eating beam), a motorway restaurant, bridges the road. The building, which is well known for its peculiar architecture, also hosts various small shops frequently used by commuters for short shopping stopovers.

In close-by **Haselbühl** mysterious powers can be found. The *Emma Kunz grot,* "one of the most important energy sources in Switzerland" is a mystic place for esoteric pilgrims,

Single family "castle" in Bergdietikon

Motorway restaurant near Wuerenlos

where strong biodynamic energy is set free. A therapeutic stone powder with an astonishing healing power, especially against inflammation diseases, is extracted from the cave and commercialised under the name "Aion A". The legend tells that in the 1940's a boy suffering from a severe infantile paralysis was healed by the traditional healer Emma Kunz thanks to mentioned stone powder.

At the border of Würenlos, in a former gravel pit, a popular theatre-show is staged since some years. Starting as a one-season-project, the show was so successful that it is extending its engagement every year.

The former gas works area in Schlieren hosts – apart from the above-mentioned artists – an international known gay club and world's largest indoor free-climbing centre where competitions and other big events are frequently organised.

The shopping mall in Spreitenbach is still an important attraction for people of all ages and for the suburbanites as well as for the metropolitans from Zurich. On weekends, families travel to this artificial shopping and leisure world. Events organised on special occasions are always able to lure plenty of people.

There are lots of other places and events to mention and yet probably even more to be discovered. For its population Limmattal is an attractive place to live in with lots of appealing spaces: the historically "grown" sites and the old cores of the former villages as well as the industrial and infrastructural monuments with the tensions resulting from the variety of structures and functions. "It's an in-between area interspersed with pearls".

3.3 Limmattal nature

The qualities of Limmattal landscape are frequently mentioned. Very appreciated is the fact that local recreation areas are easily and quickly accessible, anywhere you come from. They assume an important role in promoting the relatedness to a common spatial entity for Limmattal inhabitants. The close contact to natural leisure areas is very important for Limmattal's quality of life. Consequently, they are intensively used for leisure activities as jogging, riding, rowing, walking, bathing, gulf plays (in the plain of Weiningen) and barbecues. These areas are not only frequented by the local population, but attract people from the whole Zurich Area. The plain near Weiningen for example is widely known since it is one of the few places where dogs are allowed to run freely, without lead.

In its current condition the valley is the result of an almost complete over-forming of the formerly rural, cultural landscape. The contrast between city and countryside is long dissolved in favour of an intensive mutual penetration of natural and urban fragments. Between the settlement carpets and the infrastructure lines, various landscape-forms such as cottonwood-rows, allotment gardens, cow pastures, football fields, brownfields or riverside woodlands subsist. The last mentioned are regarded as an important biotope as much as for instance the railway corridor including the huge marshalling yard, which is appreciated for offering habitat to reptiles. Although in the last 150 years the river has been regulated and canalised to a large

extent, there is a wide variety of open spaces next to the river: some agricultural zones, old closed meanders like the one at the power station in Wettingen or ecologically important reed areas. Thus the riverbanks also become recovery and recreational areas. Some are valorised by adding facilities like barbecue-places. Others are transformed completely by the infrastructures into hidden "natural" spaces, which are surprisingly fascinating, maybe due to their uncommon appearance.

The hills are mainly covered with wood thus keeping the crests completely free form settlements. Since forest zones are protected by strict regulations, in Limmattal the specific appearance of the valley formed by the combination of topography and forest is still present.

Agricultural zones are shrinking continuously but there are still some, especially around Weiningen, between Killwangen and Neuenhof and between Würenlos and Weiningen. Viniculture areas used to be an important part of the landscape in Limmattal too. Today there are only a few vineyards left around Weiningen and Wettingen.

In the past agriculture and forestry shaped the landscape's appearance. Today agriculture and forestry lost their economic importance and potency thus bringing up the question of the role of agriculture in today's society and for landscape conservation. On the other side the demand for spaces for leisure time activities and recreation is continuously growing.

In the last fifteen years different efforts were made to extend the protected areas in Limmattal and to improve the nature qualities of certain zones. Above all, compulsory environmental compatibility studies, as for the renewal for the concession of the power station in Wettingen, led to a series of compensatory measures. The power station in Dietikon soon also will have to apply for a renewal of the concession. Probably there too will follow compensatory measures. For sure there will be such measures when ambitious infrastructure projects, like the discussed extension of the Gubrist motorway tunnel are realised.

Nature protection and landscape conservation projects are common at the periphery of bigger cities. In fear of the greedy city extending itself more and more into the landscape, lots of outskirt-areas have been protected against new settlements. In Limmattal too, the concern of the whole valley being covered with vast housing colonies and industrial zones is a major motivation for different nature projects.

Out of this idea of landscape conservation emerged the concept of "settlement separation belts" *(Siedlungstrennguertel)*, a cantonal instrument to stop the growing-together of the sprawl communities. It's the rural answer to the suburbanisation and the "ribbon city concept" propagated long time in upper Limmattal. The separation belts want to protect the landscape and the open spaces in-between the settlement areas, thus forcing an even stronger coalescence of the communities between those belts. The valley's linearity is disrupted and superposed by a new structural system that forms new "city units". In this context the differentiation and conservation of the (rural) identity is important for the communities, also there is the idea of keeping reserves for following generations and their needs. Problematic is the fact that the concept of separation belts is defined negatively. It only defines the development to be prevented. It does not consider the whole region as a functional unit, as a complex economic and cultural fabric. Partially, this focus on spatial effects is relativised because the separation belts are only fixed for 15 to 20 years. Actually.

4 Key topics

4.1 Experts Presentations

Angelus Eisinger historian for urban planning, ETH Zürich: "Stadtland Schweiz".

Human settlements in Switzerland are highly influenced by the topography. Between the Jura and the Alps, both regions holding numerous inhabited or rural areas and few urban landscapes, lies the plateau, which is highly urbanised (Zürich, Basel, Bern, Lausanne, Geneva). The Swiss urbanisation scheme builds a "network-system of towns" made up of large cities, small cities and middle range towns. One can speak of a "decentralized concentration" of urbanisation. This system of towns and this "decentralized concentration" is offering more than just a description of "urban Switzerland": it has been set, since the late 1960s, as the basis for defining public regulation. The governmental publication "Grundzuege der Raumordnung 1996" (Swiss Planning Policy

Guidelines) for instance includes both the principle of "decentralized concentration" and the concept of Switzerland as a networked system of towns.

How did this situation emerge? The principal reasons are:
- Cultural changes
- Socio-technical changes
- Devaluation of the urban culture
- Important increase of mobility

Today 70% of the Swiss population are living in an agglomeration, an urban condition that includes both core cities and suburbia (or "sprawled" settlements organically linked to urban centres). In that respect it makes a lot of sense to speak of Switzerland as "Stadtland Schweiz" (Swiss country-town).

Urs Zuppinger urban planner: "Helveti-Cité"

How can a town planner intervene in a low dense area? The region called "Le pays des Trois lacs" (P3L) is located between the cities of Bern, Neuchâtel, Biel and Morat. It is located at the border of four different cantons and at the language line that separates the german and the french-speaking parts of Switzerland. It is often considered as a "left-over-space" in-between three lakes, including no large town but important farming areas. In spite of being a low dense region it is well integrated into the Swiss major motorway – and railway – networks. The accessibility from the 4 towns is very good.

Expo.02, the Swiss national exhibition that took place in year 2002 in the P3L area, offered the opportunity to make this particular "Zwischenstadt" better known within Switzerland. It also provided for initiating a collaborative teamwork between the four town's authorities. After documenting the forces and weaknesses of their towns and the P3L, the mayors invited interested parties to take part into three meetings. The purpose was to define avenues for common actions and to decide how to manage it together in order to build a collective, and stable collaborative process. This initiative was called "Helveti-Cité". Now that the Expo.02 is over, it is still uncertain whether or not "Helveti-Cité" managed to create such a long-term and on-going procedure.

John Palmesino architect, research director of "Studio Basel": Regio Insubrica

The Regio Insubrica reaches from the Milano region to Lugano, Como and Bergamo. Five million inhabitants live in this area that is the most important economic region of Italy. It crosses the border between Italy and Switzerland. There are major infrastructures but they were planned with regard to the country they belong to and to the towns they deserve. Therefore, the network is not homogeneous. Nevertheless, a new attitude has catched on today, focussing on close cooperation and having lead to important projects. To mention is for example the scheduled train-connection between Lugano / Mendrisio in Switzerland and Como / Varese up to Milano and the Malpensa airport in Italy.

At the local scale, the urban shape can be characterized by some recurring elements and phenomena such as: buildings that concentrate all urban functions in one point,

linear corridors made up of complementary "urban pieces" (commercial centres, pedestrian areas, housing blocks…), the implantation of a new function or building in an old structure, "gated plots": settlements developed by one actor (industry, housing, leisure areas…), "clones": repetition of one element.

At the large scale, the scattering is not homogeneous too, due to the border situation, the infrastructures, the specific dynamic of each town and the topography (mountains and lakes). It is made up of: networks of roads deserving little towns, developments along the motorways, new dense development areas, some very low density settlements around farms and old villages, …

The Swiss part of the Regio Insubrica has particular characteristics due to political and administrative reasons, which are different from the Italian ones. It is a dense region; the topography (Alps and pre-Alps) and the infrastructures play an important role in the constitution of this "in between land". The settlements are located along the major transport systems and on the banks of the lakes. The urban shape is a mosaic.

The northern part of the Regio Insubrica has a very nice climate. Both the Italian and the Swiss part took advantage of this and developed high level international tourist resorts. In comparison to Italy, the Swiss part is more linked to the (topographic) "corridors" and its economic value. The urban organisation is not the result of hierarchical planning but the result of decisions taken by hundreds of actors.

Michael Koch architect, professor for urban planning in Wuppertal/ D: the Limmattal.

The analysis of the Limmattal, located NW of Zürich leads to ask the question: what means "city" in Switzerland. This valley has as backbone linear infrastructures (railway, motorway, roads,…) alongside the Limmat River. It is surrounded by hills covered with forest (in Switzerland, all wooded areas are protected). A patchwork of different settlements can be observed: industry, housing, commercial centres, a large marshalling yard, fields…

It is necessary to give a name to each element of the patchwork, in order, first to be able to discuss and share the knowledge of these territories, and second, by analysing each element, to define how it can or will evolve.

The patchwork is made up of:

- Borderlines: the contact-line between build-up areas and green areas.
- Cores and relicts: (fragments of) historical centres or almost "intact" nature – the memory of the city.
- Ribbons: mainly transportation facilities. Important is the notion of city/landscape in motion
- Clones: there are settlements that are identical in their form such as housing settlements, industrial settlements, and commercial centres, among others. They form the "generic city".
- Ufos: self sufficient and attractive elements, such as commercial centres, highly connected to the infrastructures, ignoring the local urban or natural context
- Blind spots: empty, undefined or inaccessible spaces

The specific combination and appearance of these elements defines the "DNA" of the corresponding outskirts. The forest surrounds this patchwork of elements and is untouchable: it is a common good.

It can be stated that Swiss people fear big cities and Swiss people fear the degradation of their landscape.

4.2 Discussion

Heterogeneity, fragmentation, juxtaposition, density, mixture are keywords that describe this urban fabric. These "concentrated outskirts" are a patchwork of contrasted elements; each space is well kept, is of high quality; the environment is very pleasant, with a lot of green spaces. The lack of uniformity becomes pleasant: at each corner, one can discover something unexpected. It seems to be the "land of boundless possibilities": one can build his dreams, even if they are strange, unconventional, and unusual. It won't bother, it's almost not noticed since it goes under in the heterogeneity of the surroundings. The landscape is present everywhere. "Limmattal is beautiful" and it seems that the quality of life in this valley is quite high: "the outskirts have to be explored in their beauty". The Zurich region including Limmattal can be seen as a garden city as a whole.

How to characterize the Limmattal sprawl?

The Swiss team has grappled with this urban fabric in order to understand it, to be able to share this knowledge with all the urban actors who are interested in the evolution of this valley. It proposes "concepts of understanding": as written before, Limmattal is made up of elements such as: borderlines, cores and relicts, ribbons, clones, ufos, blind spots. These outskirts can be qualified with the following terms: juxtaposition, harmonious fragmentation, coexistence (of different architectures), ambivalence, liquefied space, and emancipation, among others. All these terms are proposed to highlight what is a "morphology of heterogeneity", to help evolving from a conglomerate of random city-patches to a special kind of urban collage.

One can say that the Limmattal is a miniature of Switzerland: low-density settlement areas + rural areas + transport infrastructu-

res + industrial areas + forest areas… Leisure activities are not spectacular, there are no big urban parks, people enjoy their house, their garden, the squares, the forest and the rural areas surrounding the valley.

Scales

The observation of these outskirts depends on the scale chosen to do it. If one looks at the Limmattal at a larger scale, Limmattal belongs to a network of places made up of large cities, middle range towns, villages, and rural areas… The valley can therefore be considered as a place on its own or as one element of this whole urban system. One can also consider that each part of the network can be a central, specific place and therefore Limmattal as well can be seen as a central place – for instance for consumption and leisure.

The Swiss city network is very peculiar. Despite for the Zurich area, which is often considered as the Swiss core, (because it's the main economic centre), the hierarchy between the other towns is pretty loose. Switzerland is a real network of places. Just to give an example, one needs only one hour (at the most) to go from one main town to another. Therefore, Swiss planners are not facing urban sprawl *per se.* They rather have to cope with a broad filling scheme, where the gaps in-between the towns are urbanised and build together a metropolitan area. But this area is not fully urban. Actually, Switzerland still has a strong rural tradition. Even though people are discovering that urbanity – considered as a lifestyle rather than as a built form – has already conquered rural places, they are not ready to admit that they are living in an urban landscape. In terms of perception, it is important noticing that many people who are living in outskirts are describing their surroundings as rural, although they are defined in statistical terms as parts of an urban agglomeration. In that respect, defining Switzerland as a "Stadtland" is a very interesting way of thinking. But one must be aware that it does not fully reunite the rural and the urban poles, which have to be integrated in a kind of a "rurbanisation" scheme. People as well as practitioners have to reconcile both urban life and the figure of the village: this remains the bottom-line from where one can conceive and experience social and political gatherings. Both have to be thought together.

Interestingly enough, many decisions dealing with planning issues such as zoning by-laws are made at the local level. One of the major challenges for the future will be to fine-tune this bottom-up procedure with environmental and transportation issues that rather refer to regional and national scales and that also call for top-down measures. To say that there is a need to integrate larger scales within the local decision-making process is typically one of the many points one can learn from the Limmattal and from the P3L.

Mobility and accessibility

The Limmat valley is very well deserved by a multi-modal system: busses and train, roads and motorways. These infrastructures are well integrated into the landscape and the urban areas. They "re-build" the landscape, creating a new landscape with its own qualities (as it is often the case in Switzerland). The delegates noticed the great quality of the public transports.

The question came up, how the coordination between transportation networks and urban development as seen in Copenhagen (densification around the stations of public transport) is managed.

The Stadtland quality depends highly on the quality of accessibility. But the transport system is almost overloaded (especially in the Limmattal) and it will be very expensive to make any improvement – not mentioning the fact that the expansion at one point only transfers the problem to the next capacity bottleneck. The Swiss team explained that a new suburban commuter railway system is planned to mitigate this problem.

Governance

The Swiss planning system is mainly relying on two documents that are defined in the Swiss planning law: the zoning plan and the master plan. It is the task of the municipalities to elaborate the zoning plan, which has a fully binding effect (a zoning plan is the equivalent of a law and everybody has to comply with it). A master plan has to be made by the 26 Swiss cantons. Its major role is to insure that the policies, measures, plans referring to all the authorities that are involved in planning related issues are properly coordinated. For that reason the master plan is only binding together the public authorities at the local, cantonal and federal levels. As for the federal level, it has only limited competences. It approves master plans made by the cantons and it defines general guidelines, which must be taken into account by the other public authorities.

But, as written before, an area such as the Limmattal represents a new kind of a territory. It is a regional entity made of many municipalities attached to two cantons (canton Zurich and canton Aargau). In that respect, it is a new kind of a city, which needs a new approach to planning. What is the role of the planners and what instruments do they need in such a context?

There is no easy answer although the agenda is fairly easy to articulate. First, there is a need to take into consideration the urban needs of the people, the realm of the present city and the modern aesthetics in order to better understand the urban condition of the Limmattal. Second, there is a need to find concepts and words to describe it and to make it understandable by all the stakeholders. There is a need to discuss the issues related to this new condition, and to induce a collaborative attitude. Only third comes the question of planning tools and practices.

From our point of view it is even more a question of processes rather than of tools and practices. The two last-named are well known and fairly well implemented at the local level. The "Stadtland" must be understood and dealt with at different scales. Therefore, the central question is linked to the ability to cope, following the bottom-up line, which is so important in the Swiss context, with issues at the regional, and national scales. Designing projects as images and as opportunities for organising this procedure seem to be very crucial. At least three initiatives have such a potential to build for supra-local collaboration. First, the new suburban railway line for example could be a good opportunity where municipalities

would have to work together. Second, within the Swiss policy to promote "rail transit", the federal railway line has recently decided to use the Limmattal marshalling yard as a terminal to put trucks on trains. This decision will open new avenues to mitigate the likely new nuisances it will generate in the region. The municipalities will substantially increase their power if they are able to define a common position within the negotiation procedure. Third, because the Limmattal is spanning over two different cantons, each one having different strategies and visions that are defined in its master plans, the Limmattal has been chosen as a testing area for a joint planning effort (PAZ – Plattform Aargau-Zurich). It is not yet possible to identify how this proposal will impact on the region, but it is clearly a third case which has the potential to participate in building a new attitude towards a supra-local kind of planning that respect the power and the prerogatives of the local municipalities. In terms of governance, these examples are good illustrations of possible ways to deal with the condition of urban outskirts.

4.3 Conclusion

As a conclusion one can say that the Limmattal gave the Cost C10 group the opportunity to analyse a very interesting situation, a *Zwischenstadt* that can be considered as a town in itself. This situation finds its roots in the Swiss' people relationship to nature, to rural life and to their network of towns and human settlements. Limmattal is one of the numerous "models" of the urban situations we are looking at. The great lesson Cost C10 has to learn from this experience is that new concepts and new tools for the understanding and the management of these places are proposed here.

Notes

1 Cp. *Schweizer Revue,* 2/1998, Solothurn

2 Data sources: Statistisches Amt Kanton Zürich (ed.) *Statistisches Jahrbuch des Kantons Zürich 2002* and: www.ag.ch/staag/ (web page of Statistisches Amt Kanton Aargau)

3 Cp. *Schweizer Revue,* 2/1998, Solothurn

4 Cp. Scheifele, K., 1967: 10 Jahre Ingenieur- und Planungsbüro Klaus Scheifele (10 years engeneering and planning company Klaus Scheifele – in German), Dietikon

5 Cp. Malfroy, S., 1995: Die Neugestaltung des öffentlichen Raumes im Dietiker Stadtzentrum (The new public space design for the centre of Dietikon – in German) GTA Institute ETH Zurich and Office for architecture Ueli Zbinden (ed.) Exhibition catalogue, Zurich. p.10ff

6 Cp. Communes Baden Wettingen Neuenhof (ed) 1992: Kulturweg Baden-Wettingen-Neuenhof, Baden

7 Cp. Weber B. (ed), 2002: Bruno Weber. Der Architekt seiner Träume (Bruno Weber. The architect of his dreams – in German), Wabern/Bern

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