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**Between homology and
reinvention:
the production space in Geneva**
A study on the transformation of Zimeysa industrial
area in the period 1990-2020

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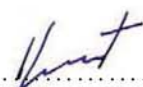
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Summary

After the beginning of the 1990s, the industrial areas of Geneva entered a period – still ongoing – of profound urban transformations, alongside equally profound rearticulations in the organizational and regulatory structures underlying those same transformations. These transformations, although they are rapidly changing the face of this city, are generally little investigated and, where attention emerges, it's mainly about policy issues and processes.

This research aims to fill this gap by conducting an exploration that comes to terms with the multifaceted nature of urban transformation processes. This objective of restoring its thickness to the phenomenon of the transformation of space is pursued by working on three different levels. The first is the discursive one: how is change presented? What improvements justify it? From this perspective, the industrial areas of Geneva go from being seen as old, separate, devalued places, to becoming real laboratories for testing new production models such as “industrial ecology”. The second level is the technical one: how does the public infrastructure equip itself to convey these transformations? Which regulatory tools, which organizational models, which real estate strategies? Here emerges an intense experimentation work conducted by local public authorities which reposition themselves as the protagonist of the transformations. That is, who takes care not only of the task of setting goals and perspectives but also, mainly through a meticulous mediation work, of the concrete execution of the interventions. The third level is the spatial one: what kind of space emerges, for what uses, for what city? Here instead emerges a desire for homologation with the rest of the city. New open spaces and buildings have an appearance that mimics the residential neighborhoods of the city center and which contrasts with the processes and infrastructures they host within them.

These levels of investigation cross three independent – but mutually related – explorations. The first is an investigation on important dissemination channels

which aims to grasp recurring themes and representations about these industrial areas. New value orientations, new paradigms, new discourses, which push for a relocation of the problem of production processes and places in the city. The second is a survey on the Geneva plans of the last twenty years. The plan documents – belonging to the *Projet d'agglomération*, the *Plan directeur cantonal*, etc. – constitute a precious lens for looking at the redefinition of Genevan production sites, illustrating the changes in objectives, priorities, representations. The third and last exploration is an investigation on the work of an actor. The FTI, a parapublic actor, that conducted an intense work of mediation, communication, management, coordination of territorial transformations, of control of the production methods of each of these. An actor who took on the task to spatialize a concept as poorly defined as that of *écoParc*.

Finally, this research aims to highlight the importance that the transition that is taking place in the industrial areas of Geneva has with respect to the city. The role that this transformation plays in the processes of reinvention of the city itself.

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*I would like to dedicate
this thesis to my sister
Maité Llevat Soy*

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Introduction

In Europe, the territories are populated with industrial areas and production spaces that are currently undergoing profound transformations. Spaces that, after experiencing exponential growth over the period of the *Trente Glorieuses*, went through a long period of stagnation after the 1973 oil crisis. This period of inertia and contractions was marked by policies that accentuated the need to replace the function of industrial areas – most of which by then had become wastelands –, fighting against soil pollution and, especially for those closest to densely inhabited centers, filling the voids with cultural and commercial activities. But in more recent times another kind of transformation seems to be looming. A transformation that, largely driven and supported by public policies, replaces the haste to completely substitute the type of activities hosted by these spaces with a will to revolutionize its production processes. A search for alternative production models which may adopt different names such as “green manufacturing”, “industrial ecology”, “circular economy”, etc., but which share as a common feature the emphasis on greater consideration for the environmental impact of these processes. These new directions find in industrial areas real laboratories where to test new manufacturing tools, new organizational models, new real estate managements, new spatial articulations.

These new transformations are the result of the convergences between two different spheres: that of manufacturing activities and that of urban planning. That of manufacturing is a sphere crossed by deep sector crises and by a more pronounced struggle in identifying reliable directions for capital accumulation. Difficulty in being competitive in contexts where labor is more expensive, social and environmental externalities are more monitored and policed, and where the cultural images associated with it contrast

with emergent value coordinates¹. Difficulties that lead manufacturing activities to a constant work of rationalizing their processes and redefining their social and cultural impact. And these rationalization and redefinition actions affect the space in ever-changing ways.

At the same time, the sphere of urban planning has long faced two different problems. On one hand, what to do with the extensive industrial areas that populate the European territories. How to manage the problems posed by a soil that has been the support of a type of production that is now considered outdated? How to manage its relationship with the city? On the other hand, how to create suitable space conditions for a solid and reliable path of economic development? How to attract enterprises capable not only of increasing jobs and wages but also of establishing harmless relationships with the environment? In some cases, these two problems are treated as one by planning policies: how to trigger a transformation of existing industrial areas that can make them suitable for new models of economic development?

Therefore, these two spheres, each with their own problems and their own tools to answer them, interact with each other in space. In the translation into a space of a negotiation that gives rise to precise urban forms and infrastructures. A reorganization of production in space that is taking on completely new forms today.

These transformations, although they are rapidly changing the face of these territories, are generally little investigated and, where attention emerges, the focus is mainly about policy issues and processes, economic and quantitative dynamics, or purely morphological variations. This work aims to help fill this gap by conducting an exploration that comes to terms with the multifaceted nature of urban transformation processes. This objective of restoring its thickness to the phenomenon of the transformation of space is pursued by working on different levels. Among which urban planning practices appears as perhaps the most privileged by this research. Although the mutation in manufacturing processes is fundamental, the impression is that we can better understand, today, in Europe, the mechanisms underlying the production of a new kind of built environment for production² by following planning practices. This impression – that wants to remain so and not pass as an affirmation – is supported by the changes themselves which can easily be registered on both levels. Manufacturing processes are becoming increasingly lean, with less bulky production means and therefore more adaptable to different spatial conditions. These activities appear to be less capable, and perhaps even less interested, of impacting space with the same force that Fordist mass production had.

1 In 2016, the French agency OPEO published a survey carried out by OpinionWay on more than 1500 people which showed that only 66% of workers in the manufacturing sector would advise their children to continue on their way. In 2017, the US agencies The Manufacturing Institute and Deloitte published a survey on more than 1,000 Americans – spread across 50 states – in which only 43% of respondents agreed with the fact that « The US manufacturing industry provides careers that are both interesting and rewarding. » and 32% with the statement that « Jobs in the US manufacturing industry are clean and safe. » (p.11). Sources: <https://www.opeco-conseil.fr/actualites/les-francais-veulent-croire-dans-leur-industrie/>; <https://www2.deloitte.com/content/dam/Deloitte/us/Documents/manufacturing/us-public-perception-manufacturing-study.pdf>.

2 The term “built environment for production” is of David Harvey who distinguishes it from “built environment for consumption” (Harvey, 1985).

While on other hand, production of space processes³ have an increasingly important tool in urban planning practices in these contexts. For Patsy Healey and Richard Williams⁴ the “developmental function” and “development promotion” actions of European urban planning systems have acquired a fundamental place in the dynamics responsible for the transformation of territories (Healey & William, 1993). Planning systems have gone from being « a minor aspect of locally-relevant regulatory machinery » to becoming « an important aspect of local institutional capacity for economic development, in relation specifically to land supply and property development. » (Ibid., p. 701). For these authors, in the European context development activities are « broadly plan-led » (Ibid., p. 703). Plans that are not limited to a single project intervention – as it was most common in the 1980s⁵ – but that, especially after the 1990s, tend to cover the entire city or territory in a strategic perspective: « [...] a pro-active, strategic approach, based on strategically-oriented plans. This rediscovery of the significance of plans is reinforced by the challenge to respond to environmental concerns. » (Ibid., p. 705).

It is on this layer of plans, projects, rules, practices and public-private negotiation initiatives that we have chosen to focus attention for this research. With a clarification: the position adopted by this work should not be believed to be careless of internal changes in the production processes. On the contrary, it is these changes that urban planning aims to meet. The two spheres described above as separate levels are in practice very close and interacting. What supports the choice to orient most of the work in the observation of planning processes, however, is the impression that, in the contexts considered, a great deal of choices that lead to concrete urban transformations takes place *du côté* of urban planning systems.

The productive areas of urban planning. Its inertia and its changes

How has urban planning in Europe dealt with this issue until this moment? Looking at the treatment that urban planning has made of productive settlements in Europe, two contradictory aspects can be noticed: on one hand, the continuous attempt to adapt them to the disruptive arrival of radically different economic paradigms and pressing alterations in the value schemes of society; on the other hand, a very pronounced inertia in some of its material and formal features, but above all in the perceptions that continue to trigger and in the place it is assigned to them within cities.

3 The reference to this well-known term by Henri Lefebvre serves to express an idea of space, on one hand, of wide latitude – that is, space « in its totality or global aspect » (Lefebvre, 1991, p. 37) and not a simple surface on which objects are arranged –, and on the other hand, as an inseparable product from the processes involved in its genesis – « A new concept, that of the production of space, appears at the start; it must ‘operate’ or ‘work’ in such a way as to shed light on processes from which it cannot separate itself because it is a product of them. » (Ibid., p. 66) –.

4 Which also refer to the work of H. W. E. Davies and the Department of the Environment of Great Britain (Davies, 1989) and the work of Hartmut Dieterich, Richard Williams and Barry Wood published in the six volumes of *European Urban Land and Property Markets* (Dieterich, Williams, & Wood, 1993).

5 « Comprehensive city planning was rejected as a hangover from the modernist, statist, technocratic post-war period. » (Healey & William, 1993, p. 711).

In fact, regarding this last point, industrial areas have a sort of stigma that distances them from the preferences of society and the interests of urban projects. Even though they occupy a bulky surface in European territories, industrial areas suffer from a sort of invisibility. Patricia Lejoux and Corentin Charieau explore the reasons for this invisibility in the fields of research and urban planning. According to these authors, industrial areas are rarely featured in university and professional publications and, where research emerges, it is predominantly focused on their role in local economic development⁶ – i.e. logistical, land, policy studies –, therefore, neglecting the urban aspects (Lejoux & Charieau, 2019). More an economic object than an urban space⁷ (Ibid.). This invisibility is also accompanied by not a few ambiguities and confusions from a semantic point of view. On these two trends, invisibility and ambiguity, see the text *Un collasso in sospenso. Il dibattito scientifico sulla produzione* (Llevat Soy, 2019) in which the author reports the results of a ten-year survey (2007-2017) of scientific publications in urban studies. Also in architecture studies there has been a progressive abandonment of this theme: Roberto Gabetti at the end of the 1970s built a bibliographic research in which he reconstructs the gradual disappearance of industrial architecture from academic production and teaching courses (Gabetti & Avigdor, 1977).

To this invisibility in the studies is also added an invisibility produced by their distance. The distance generated by poor accessibility: selective openness – road infrastructure and means of transport prioritize goods and workers and exclude other possible visitors – and aggressive closeness – frequent use of subtraction devices such as fenced plots, gates, surveillance cameras, dense vegetation, opaque glass, etc. – keep at bay the curious eye of those who want to penetrate the interiors of these spaces.

Industrial areas are not only invisible but are also rejected. There is a sort of revulsion in the senses: industrial areas are perceived as noisy, polluted, risky, ugly places. Places belonging to the peri-urban landscapes described by Zoé Chateau when talking about the “*Franche moche*”: « *le paysage mêle bitume, hangars, autoroutes, parkings, rocades, panneaux publicitaires démesurés, lotissements sans personnalité et autres hypermarchés.* » (Chateau, 2019). A « *nature peu attrayante* » (Lejoux & Charieau, 2019, p. 2) which has a negative effect on their ability to appeal to workers but also to enterprises that invest in their image and highly skilled labor: « *Pour tout chercheur ou praticien, la perspective de travailler sur ces espaces situés en périphérie des villes, accessibles uniquement en voiture, où s’alignent des entrepôts ressemblant à des “boîtes à chaussures” n’est guère engageante.* » (Ibid., p. 2). The indus-

6 But also from an economic point of view they are often neglected. They are no longer those Fordist places of territorial concentration of work but gradually become spaces where activities that cannot be elsewhere find a refuge. In Brittany for example: « *La majorité des emplois est localisée au cœur du tissu urbain (60 à 70 %) : commerces de détail, services à la personne, banques, assurances, administrations, établissements d’enseignement ou de santé... Pour ces secteurs, les zones d’activités ne sont pas forcément à privilégier car l’emploi est une des bases du bon fonctionnement des villes. Les zones d’activités gardent en revanche toute leur pertinence pour bon nombre d’activités (industrie, construction, logistique, commerce de gros...) qui ne peuvent trouver leur place en ville pour différentes raisons : besoin d’espace et d’infrastructures, génération de nuisances ou de trafics routiers importants [...]* » (Fédération régionale des agences d’urbanisme et de développement & Chambres de commerce et d’industrie de Bretagne, 2017, p. 1).

7 Distinction also present in the operational context: « *Faisant davantage appel aux compétences de développeurs économiques que d’urbanistes, les services en charge de la gestion des zones d’activités économiques se préoccupent peu de leur insertion au sein des espaces urbains : impacts sur l’organisation urbaine, intégration dans le site, qualité architecturale des bâtiments, offre de services aux usagers.* » (Lejoux & Charieau, 2019, p. 6)

trial area « *ne fait pas “rêver”* » (Ibid., p. 2), on the contrary, is “*une forme de tristesse*” (Chateau, 2019).

However, this invisibility and rejection condition is accompanied by a parallel effort of constant renovation. Above all coming from that part of urban planning attentive to new economic conditions and, more recently, to environmental ones. That planning that continues to see in places particularly equipped to accommodate economic activities a means to pursue local economic development.

To illustrate this reading here we briefly cover some stages considered fundamental in the changing of answers given by European planning to the problem of production areas. Considering that opening a discourse, even if brief, on European planning in a unitary sense is very difficult, here we focus above all on Great Britain and France, listing only some fundamental passages.

The Fordist project (*Les Trente Glorieuses*)

The places for production, within urban planning, immediately became “zones”. A term which, thanks perhaps to its diffusion and its duration⁸, still today seems inseparable from these places. This character of zone spread with force in Europe after the Second World War with the aim of organizing industrial reconstruction and the development of impoverished territories. For Jean-Pierre Renard, Éric Glon and Didier Paris five main influences facilitated the diffusion of this tool in France: planning practices of Anglo-Saxon countries and its Industrial Parks, Industrial Areas, Special Areas, etc.; the hygienic and functionalistic concerns of the Athens Charter; the emergence of laws and tools in French planning that pushed towards zoning⁹; the centrality of the State in spatial planning, especially since the *quatrième plan* of 1960s; the effect that some crises had in encouraging a resolute policy¹⁰ (Renard, Glon, & Paris, 1996). The *zones industrielles*, *zones artisanales*, *zones portuaires et aéroportuaires* began to sprout and, starting from the 1970s and the growing tertiarization of the economy, the *zones commerciales*, *parcs technologiques*, *technopôles* appear. In Italy, the creation of specialized areas to accommodate production activities, with a similar systematic character, take place a little later with the *Piani per gli insediamenti produttivi* (PIP) of the law 22nd October 1971 n. 865.

In this phase the industrial areas are mainly located in the suburbs of urban centers in the search for greater availability of land and ease of accessibility. These are mainly simple areas reserved for industrial buildings that occupy them spontaneously – both through new installations and extensions of enterprises already established –. Public infrastructure interventions in these areas are minimal: « *Celles-ci étaient aménagées de façon strictement fonctionnelle pour accueillir des ateliers de fabrication et des usines (davantage d’espace - meilleure accessibilité).* » (Institut d’aménagement et d’urbanisme de la

8 In France, the *zones industrielles* occupy about 450,000 hectares, while only in Ile-de-France they represent 30% of the built surface (Cerema, 2014).

9 Such as the *Plans d’urbanisme directeurs* (1958), the *Zone à urbaniser en priorité* (1959), the *Zones d’Aménagement Différé* (1962), the *Loi d’orientation foncière* (1967) and its *Zone d’Aménagement Concerté*, etc. (Renard, Glon, & Paris, 1996)

10 The crisis of the 1930s in the United States and Great Britain, the Second World War, the oil crisis of the 1970s (Renard, Glon, & Paris, 1996).

région d’Ile-de-France, 2018, p. 9). Enterprises have a very large margin of maneuver for what regards the type of installation they can build.

With the arrival of the 1970s the *zones industrielles* become *zones d’activités* and begin to welcome more and more commercial activities that overlap with the industrial ones, giving rise to very composite spaces: « *Ce sont les espaces représentatifs d’une production de masse pour une consommation de masse qui se démocratise dans un contexte de plein emploi.* » (Renard, Glon, & Paris, 1996, p. 216).

The growth machine (the enterprise zones of the 1980s)

With the oil crisis and the end of the *trente glorieuses* the planning of areas for production experiences a discontinuity. This period opens with the intensification of economic and commercial exchanges on a global scale, the crisis of Fordism and mass production, the contraction of traditional sectors and the strengthening of those more linked to advanced technologies and research, the diffusion of tertiary activities. In this context « [...] planning turned from regulating urban growth, to encouraging it by any and every possible means. Cities, the new message rang loud and clear, were machines for wealth creation; the first and chief aim of planning must be to oil the machinery. The planner increasingly identified with his traditional adversary, the developer; the gamekeeper turned poacher. » (Hall, 2014, p. 415). In fact, for Harvey Molotch the city becomes a “growth machine” whose efforts to encourage economic growth concentrate on investments that can above all intensify the uses of a specific area (Molotch, 1976).

One of the most iconic reactions of planning to this new climate has been to hand over parts of the territory to the total dominion of enterprises. Small well-defined areas « simply thrown open to all kinds of initiative, with minimal control », « completely open to immigration of entrepreneurs and capital – meaning no immigration controls » (Hall, 2014, p. 423). In 1980 in Britain the new Conservative government of Margaret Thatcher introduces an experimental program of eleven Enterprise Zones which become twenty-four in 1983¹¹. Small areas of approximately 40 to 365 hectares « consisting of vacant, unoccupied, or deteriorating industrial land within an economically declining community. In contrast to the state zones in the United States, British zone boundaries excluded both existing business and residential areas. The U.K. program focused almost exclusively on industrial development [...] » (Papke, 1993, p. 43).

Contrary to the *laissez faire* rhetoric of the Chancellor of the Exchequer Geoffrey Howe – a central figure in the launch of this program – and to the recurring readings of these policies, the State intervention was decisive (Anderson, 1990). Deregulation goes hand with hand with direct financial subsidy: « Companies moving into an Enterprise Zone could receive 100% capital allowances and de-rating on industrial and commercial buildings, as well as exemption from development land tax and many of the usual planning and other regulatory constraints. » (Hall, 2014, p. 424). Also through the purchase of the land and buildings on which the companies later settled: « For example, in the zone in Swansea, 450 acres of derelict land were reclaimed and new infrastructure provided before designation. In Swansea

11 The legal status is covered by the Local Government, Planning and Land Act of 1980.

alone, public ownership of vacant land rose from 47 percent in 1981 to 89 percent in 1986, and public investment over this period, excluding the EZ incentives of rates relief and capital allowance, totalled £16 million. » (Papke, 1993, p. 47).

This opening from a regulatory point of view together with tax incentives opens the door to “developers” and « *promoteurs-aménageurs, pour créer une nouvelle offre attractive pour l’implantation d’entreprises* » (Renard, Glon, & Paris, 1996, p. 216). Urban planning tools take a step back to give space to other figures believed to be more capable of economically regenerating urban areas in crisis (wastelands, low real estate values, degraded environments). To adapt these places to that different way of generating growth of the cities of the 1980s.

Real estate matters (the *parcs d’activités* of the 1990s)

The 1990s are marked by a greater decentralization of manufacturing activities and a greater diffusion of high technology activities, business services and logistics. A lightening of industrial activities that facilitated both a specialization of the industrial areas (*parcs d’affaires*, logistics platforms) and a diversification with the introduction of *zones d’activités mixtes* (Lejoux, 2018). In France, the severe crises in the manufacturing sector of the 1980s and 1990s did not stop the creation of industrial areas. Indeed, 45% of the existing industrial areas were created in the 1980s (Renard, Glon, & Paris, 1996). Urban planning policies – now commanded also by the municipal authorities after the decentralization policies – try to attract above all those small or medium-sized enterprises seen as more flexible and able to survive in a context of great uncertainties: « *Leurs avantages indéniables dans le domaine industriel par rapport à de grandes unités sont connus: travail sur de petites séries ou des pièces unitaires, potentialités pour une diffusion rapide de l’innovation, facilités pour faire face à une demande très changeante.* » (Renard, Glon, & Paris, 1996, p. 217).

In this context the *parcs d’activités* begin to replace the *zones industrielles*. The transition from the term “industry” to the more generic term “activities” accompanies the greater diversity of situations that these host: « *diversité de fonctions (zone artisanale, industrielle, commerciale, etc.), de localisations (enserrée dans le tissu urbain, isolée au milieu des champs), de formes urbaines (plateforme logistique, parc d’affaire, éco-parc, etc.)* » (Lejoux & Charieau, 2019). While the transition from “zone” to “park” responds above all to a symbolic shift: that is, the will to depart from the more hard and “colourless” imaginaries of the Fordist industrial areas. In practice, however, the terms combine and overlap and there is little clarity on the boundaries between one and the other (Lejoux & Charieau, 2019).

However the changes are important. The *parc d’activité* is no longer considered that driving force of growth like the older productive areas: « *elles sont rarement considérées comme des centralités économiques de premier rang, à mêmes de rivaliser avec celles de l’hyper-centre.* » (Lejoux & Charieau, 2019). But this downsizing in terms of strategic importance for economic growth does not compromise their proliferation: « *Elles sont pensées comme des outils pour rendre la ville active.* » (Chateau, 2019).

Another fundamental change is the type of mechanism underlying their implementation. The *parc d’ac-*

tivité is « un produit d'investisseur » (Institut d'aménagement et d'urbanisme de la région d'Ile-de-France, 2018). In the industrial areas it was the established enterprises that built their buildings with significant capital investments¹². In the *parc d'activités* are instead real estate professionals (promoters, developers, large construction companies) those who take care of the construction of the buildings. The planning authorities – now more rooted in the local authorities of municipalities or groups of municipalities¹³ – encourage the activity of these promoters¹⁴ and their ability to offer buildings « adaptés à la demande évolutive des entreprises » (Ibid., p. 11), to respond to the growing “besoin d'image”, of density of the built environment, of technologies that can claim having a more reduced impact on the natural environment.

Investor mediation also brings with it a different role for buildings. That is, a greater concern for the rentability of buildings comes into play: « *Le portefeuille immobilier est constitué d'un ensemble d'actifs détenus par un ou plusieurs investisseurs en vue d'en tirer un revenu direct ou une plus-value. La gestion des “produits” immobiliers (équivalent à un capital financier) est déterminante afin de conserver une valeur constante ou en progression sur le marché de l'immobilier d'entreprise (bureaux, commerces, locaux industriels, entrepôts...)*. » (Ibid., p. 14). This new “asset” role entails the search for greater durability of buildings – which translates into more flexible spaces, open to any transformations – and constructive and urban quality.

For Peter Hall the issue of urban quality is one of the fundamental traits of urban planning of the 1990s: « It was an approach that saw the city largely in design terms, and it accorded well with another theme of the 1980s and 1990s: the stress on competition between cities, on marketing them like cars or kitchens [...] » (Hall, 2014, p. 454). Steven Ward, in one passage quoted by Peter Hall, underlines the fact that « marketing, narrowly defined, is not enough; behind the fine words and images there has to be at least some physical activity of buildings, public spaces and activities that give at least some genuine promise of a re-invented city » (Ward, 1998, p. 193). And a little later: « [...] never before had urban design and planning been used in quite such a systematically calculating way to re-image and sell places. » (Ibid., p. 194). In the case of *parc d'activités* the buyers are enterprises.

The new *parcs d'activité économique* (PAE) are the result of a design that is attentive to the qualitative aspects of the spaces. Places and objects previously neglected are now treated with care¹⁵: « *aménagements paysagers, emprises de stationnement, aires de livraison, implantation du bâti sur la*

12 « La faible élaboration architecturale de vastes unités de production industrielle ou des boîtes à stocker héritées de la période 60-70 et du fordisme trahit la faiblesse d'une telle préoccupation en période d'opulence. »

13 « *Au moment où s'affirment ces nouvelles tendances de l'économie qui rendent plus aléatoire le développement local, l'état a lancé une politique de décentralisation à partir de 1982 qui a considérablement renforcé les compétences des communes et des groupements de communes depuis 1992 en matière de développement économique, d'aménagement du territoire, et d'urbanisme opérationnel.* » (Renard, Glon, & Paris, 1996, p. 217)

14 « *Le volume de foncier en ZAE, cédé à des développeurs est important. On peut l'estimer certaines années à environ 30% des transactions annuelles.* » (Institut d'aménagement et d'urbanisme de la région d'Ile-de-France, 2018, p. 14)

15 Indeed : « *La faible élaboration architecturale de vastes unités de production industrielle ou des boîtes à stocker héritées de la période 60-70 et du fordisme trahit la faiblesse d'une telle préoccupation en période d'opulence.* » (Renard, Glon, & Paris, 1996, p. 217)

parcelle, couleurs de revêtement des sols, traitement des entrées de parcelles, des grilles et portails, de l'éclairage, etc. » (Institut d'aménagement et d'urbanisme de la région d'Ile-de-France, 2018, p. 12). The construction materials are diversified: colored metal cladding, colored and glued glazing, bricks (Renard, Glon, & Paris, 1996). But not only, the *parcs d'activité* host enterprises “*non nuisantes*” and more services oriented and offer a wider range of services to workers (inter-company restaurants, nurseries, well-kept open spaces, etc.). Often the land products of the promoters constitute large multi-storey buildings in which they house a multiplicity of different companies. Furthermore, there is an effort to better integrate these places with the surrounding urban fabric by paying attention to architectural and landscaping aspects.

Sustainable production (the écoParcs after the 2000s)

More recently, the *parcs d'activité* have begun to integrate projects and regulations that respond more and more to increasingly ambitious expectations linked to the paradigm of environmental sustainability. In France, with the diffusion of the international standard ISO 14001¹⁶ from 1992 and the creation of the PALME association¹⁷ in 1997, territorial planning tools have begun to approach the problem of the conjugation between economic spaces and environmental sustainability. In Italy, the Ecologically Equipped Industrial Area (EEIA) is introduced in 1998 (Duglio, Pairotti, & Beltramo, 2015). With these initiatives attempts to create collaborative networks on a regional scale in order to improve the performance of the *parcs d'activité* (in Franche-Comté, Nord-Pas-de-Calais¹⁸ and Rhône-Alpes for example) and to build new environments that bring the *parcs d'activité* to a radically different internal functioning begin to spread. And the implementation of the *écoParcs* begins as well.

However, this new model of economic space is at an experimental stage. Less studied and less developed than its predecessors. There is little clarity about its fundamental characteristics: much of the available literature remains at a speculative stage and offers little empirical evidence (Gibbs & Deutz, 2007); but, more importantly, the investigations remain mostly sectorialized in their own disciplinary field (mainly economics, manufacturing technology, planning, policies, etc.). For example, if we take the two “eco-industrial park” definitions of the USA’s President’s Council on Sustainable Development (PCSD):

A community of businesses that collaborate with each other and with the local community to efficiently share resources (information, materials, water, energy, infrastructure and natural habitat), leading to economic gains, gains in environmental quality, and equitable enhancement of human resources for the

16 The ISO 14001 standard, from the International Organization for Standardization (ISO), offers a certificate of environmental management system which certifies the “sustainable” performance of an organization. Initially only used by industrial enterprises it gradually extended to urban planning: « *la norme ISO 14001 a été transposée à l'aménagement et à la gestion de zones d'activités* » (Thiard, 2008, p. 233). In 2008, there were 17 certified « *espaces d'activités* » in France (Ibid.).

17 PALME is a « *centre de ressources en «éco-développement territorial»* » (Ibid., p. 234) engaged in the development of methodologies that create eco-sustainable *parcs d'activité*.

18 Where « [...] *la politique régionale d'animation des parcs d'activités nourrit, depuis de nombreuses années, des partages d'expériences entre gestionnaires de zones, le management environnemental étant un des volets majeurs de ces mutualisations.* » (Thiard, 2008, p. 235)

business and local community.

An industrial system of planned materials and energy exchanges that seeks to minimise energy and raw materials use, minimise waste, and build sustainable economic, ecological and social relationships. (PCSD, 1997)

we will notice a distinction between organisational and societal processes (in the first definition) and physical flows (in the second definition) (Lambert & Boons, 2002), as well as an absolute absence of spatial characters. More recently, the World Bank Group, the United Nations Industrial Development Organization (UNIDO) and the German Corporation for International Cooperation GmbH (GIZ) have offered a more open definition: « Broadly, EIPs can be defined as a dedicated area for industrial use at a suitable site that ensures sustainability through the integration of social, economic, and environmental quality aspects into its siting, planning, management and operations. » (The World Bank Group, 2017, p. 13). A “dedicated area”, that “ensures sustainability”, through “integration”, are expressions that enunciate essential but at the same time wide-ranging characteristics of what should constitute an eco-park.

But what can we say about the écoParc as a new form of planning? The écoParc, starting from the use made of it by the planning, presents two fundamental aspects. The first is rooted in the current conditions of the European territories which count with an important presence of industrial areas in disuse, polluted, and judged inadequate to the fixed economic development expectations: « Nowadays, business parks need to transform themselves in order to manage with the economic, environmental and social shortcomings stemming from waste handling, resource consumption, infrastructure aging, land rarefaction, etc. » (Le Tellier, Berrah, Stutz, & Audy, 2019, p. 130). Facing this situation the écoParc offers to local territorial planning authorities an instrument which, beyond the concrete benefits, strongly affects the perception of places: « [...] *une initiative de périphéries ou d'espaces intermédiaires (régions industrielles en difficulté, marges urbaines, espaces à dominante rurale...)* qui cherchent ainsi à se différencier et à acquérir une notoriété susceptible d'accroître leur attractivité économique. » (Thiard, 2008, p. 235). A marketing tool – but not only –, of updating and awakening heavily weakened parts of the territory. Often, the attempt to label these places as écoParcs is accompanied by an effort to strengthen their territorial “identity”: « *Il en résulte la formation de zones d'activités originales qui se distinguent fortement de l'offre foncière économique habituelle par leur degré de territorialisation, puisque ces espaces forment parfois d'authentiques territoires que signalent l'existence d'un gestionnaire clairement identifié et des symboles forts tels que logos, clubs d'entreprises, journaux de site, manifestations sportives et culturelles [...]* » (Ibid., p. 241).

The second characteristic of écoParc urban planning is what Philippe Thiard calls “*caractère hybride*” (2008). That is, the effort of planning tools to “integrate” – as underlined in the World Bank Group definition – spheres so far kept perceived as separate: « Recent years, however, have seen the beginnings of a policy initiative that has attempted to integrate economic, social and environmental aims in a concrete form – eco-industrial development. » (Gibbs & Deutz, 2007, p. 172). The effort of achieving the « ‘win-win-win’ scenario of economic, environmental and social development » (Gibbs & Deutz, 2005, p. 452) by putting into practice promotion and regulation tools to encourage the transition from linear production processes – and therefore large waste generators – to “closed loop” processes – that is, capable of

reusing material and energy waste –¹⁹. It is this hybrid, composite dimension that opens up more ambitious and innovative prospects: « [...] *ni “pur” développement durable, ni écologie radicale, ni outil exclusivement dédié au développement économique local [...] ni manifestation gratuite et tapageuse de stratégies de marketing territorial, elle est une forme pragmatique de promotion de l’acceptabilité du développement durable qui, pour de nombreux acteurs économiques, reste encore souvent vécu sur le mode de la contrainte.* » (Thiard, 2008, p. 240).

But what is the specific role of design and planning instruments in the development of this new form of economic space? What are its tools, what spaces does it give rise to? Paul Hawken – cited in (Gibbs & Deutz, 2007) – said: « imagine what a team of designers were to come up with if they were to start from scratch, locating and specifying industries and factories that had potentially synergistic and symbiotic relationships. » (Hawken, 1993, p. 63). It is understood that planning never counts with this absolute freedom subtracted from negotiation. It is above all the specific role of design and urban planning that remains in the background.

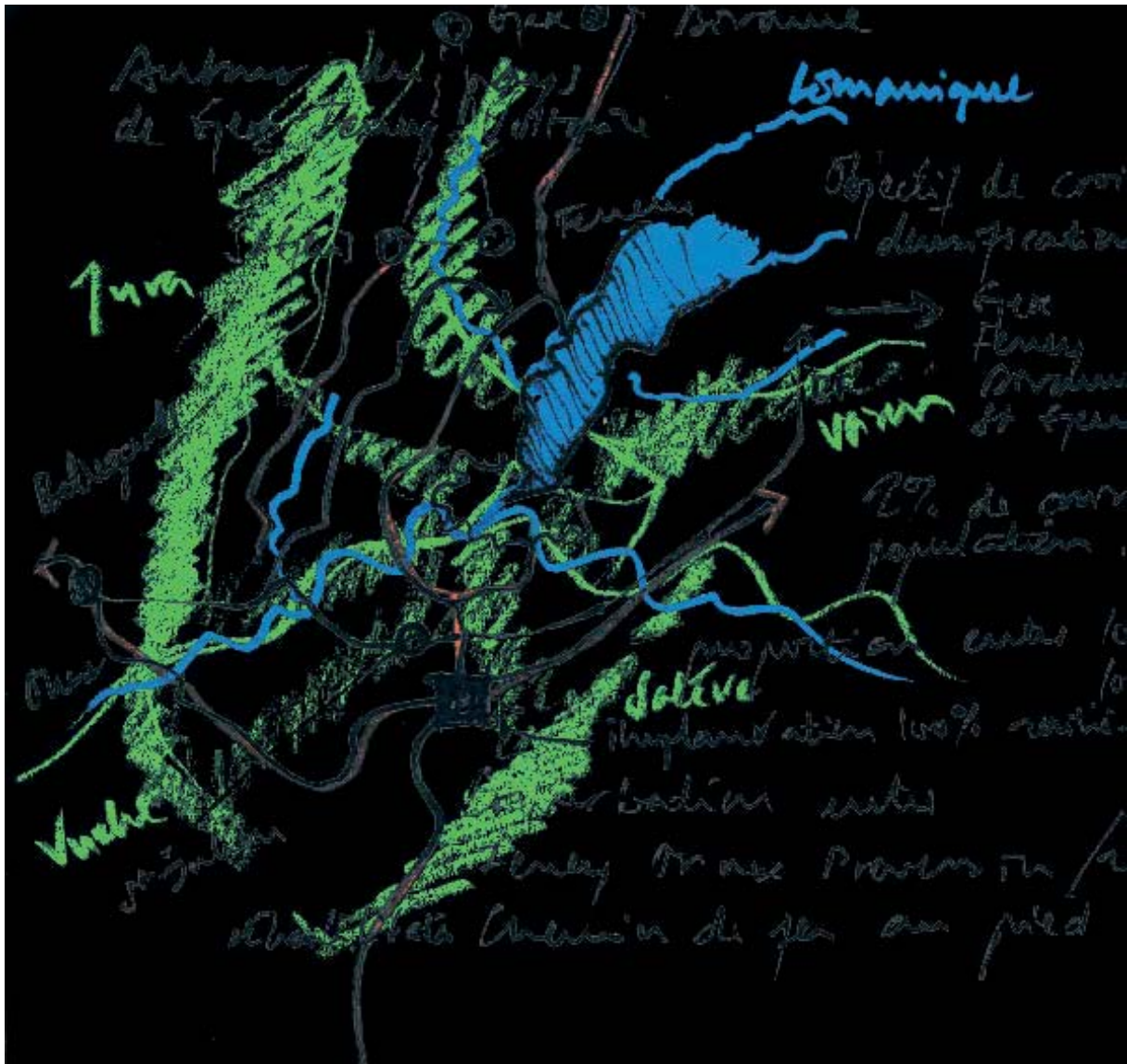
Geneva and its infrastructure for growth. An introduction to the case study

This picture, although extremely summarising, shows how industrial areas are still today not only an invisible and neglected space but also a real laboratory where new models of combination between economy and space are continuously experimented. A reinvention that starts from previously neglected areas such as the quality of spaces or the relationship with the natural environment, which sees a re-organization of the actors responsible for the most crucial changes, which calls into question the link between these places and the city. What forms does this reinvention give rise to today?

In this perspective, the city of Geneva offers a valuable field of study to help answer this question. In recent years Geneva has been a city in which the reconfiguration of industrial areas reserved for manufacturing activities has manifested itself with particular force. Among the many characteristics that distinguish this reconfiguration, we can remark here the coexistence, somehow paradoxical, of urban plans for the de-industrialization of entire production sites and plans for the expansion and densification of other areas dedicated to manufacturing. The reduction of production activities and the growing tertiarization of the economic base of these territories²⁰ (observable in many European contexts) have been accompanied here by an important investment in the design of new productive spaces. This policy

19 This effort to bend economic processes to the dictates of sustainability is also one of the most delicate aspects of this approach: « While collaborative behaviour between firms is central to EIP development if the potential benefits of industrial ecology are to be realised, it is important to realise that such behaviour is difficult to develop from scratch through policy intervention. » (Gibbs & Deutz, 2005, p. 455).

20 A structural change which, in Switzerland, has distant roots: already after World War II, the lack of low-skill workers and the concern of an increase in immigration – of workers judged less unionised – translates into a policy on the part of the Swiss authorities to support the relocation of production plants abroad. A “social desirability” for offshoring (Pitteloud, 2019).



1. Schéma-esquisse concept du plan paysage à l'échelle de l'agglomération, Lin, S., and others, Charte du Projet d'agglomération franco-valdo-genevois, 2007, p. 46.

has particularly invested in an idea of ‘quality’ that is as precise (in the configurations that the space assumes and in the principles and rhetoric on which it is built), as it has hitherto been little investigated by research in the urban field. It is on these policies and on the tools put in place to reconfigure the spatial characteristics of these contemporary infrastructures for the development of economic activities that this research confronts itself.

This research explores the urban planning reconfiguration using as a specific spatial frame industrial areas in Geneva affected by profound changes: where the transformation of entire production sectors, their processes and the resources used reorganizes the entire space and its materials; where the recomposition of the panorama of actors, their alliances and policies constantly modify the boundaries of a territory and its hierarchies; where the social instances that pursue new forms of wealth creation convey an intertwining of ambiguous and varied values, capable of questioning architectural forms, relationships between soils, technologies, images.

However it may be argued that these trends are not specific to the Geneva context. In fact, these are trends found in many European cities. In Geneva these transformations only take on the visibility and strength offered, on one hand, by a rich and voluntarist public power which, as the “*État urbaniste*” of Viviane Claude, tries to take over the city politically and technically (Claude, 2006) and, on the other hand, by a condition of scarcity of soil that forces to deal with every available space and modifies it to adapt it to changed needs and values. In Geneva, as in other, especially Northern European contexts, we ‘see’ the transformation of the production space clearly.

The canton of Geneva has seen two opposite territorial movements in recent years. Each of which spreading tensions over the industrial areas of Geneva and causing contradictory shifts. The first one, is a Geneva that wants to be a metropolis. After a long phase in which Geneva, focusing above all on its international and financial vocations, gave its back to its own territory and to neighboring ones – in this regard Paul Guichonnet speaks of “*ville au regard presbyte*”²¹, Jean-Claude Favez and Claude Raffestin of “*tête sans corps*”²² (Guichonnet & Raffestin, 1974), and “*territoire abstrait*” (Raffestin, 1989) –, it then begins to see in these spaces a means of redemption in a time of severe economic crisis. In fact, with the formation of the European Union and the Schengen area, and with the severe financial crises of the 2000s, there are also evident weaknesses in those sectors to which Geneva entrusted its growth (Wenger, 2004). Its territory therefore begins to become a strategic but insufficient resource – with only 282.49 sq km of surface the canton of Geneva is the second smallest in Switzerland – and the neighboring French one of the Pays de Gex and Haute-Savoie is seen as the necessary but missing space to reconnect with the inner functioning of the city : « it takes a whole region to make the city » (Geddes, 1905, p. 106).

It is in this context that the numerous institutional collaboration initiatives between the French territories and the canton of Geneva were born. The 1974 *Comité régional franco-genevois* (CRFG) – although

21 Which « *saute pardessus son propre environnement [...]* », « [...] *désormais la Cité de Calvin oscillera entre deux dimensions; c’est un village et un monde, la parvullissime et l’internationale.* » (Dallèves, 1982).

22 « *Si elle a réussi brillamment son destin international, si elle est devenue un lieu privilégié de rencontres mondiales, Genève n’est donc pas parvenue jusqu’à nos jours à réaliser son destin local, qui seul permettrait un développement équilibré de la région franco-suisse.* » (Favez & Raffestin, 1974).

there have been previous initiatives – sets off the conformation of a (cultural and institutional) structure of cross-border planning which will have a fundamental maturation in the 2007 *Projet d'agglomération*. Between these two moments there are numerous other initiatives such as the 1990 INTERREG²³, the 1995 INTERREG II and the 2000 INTERREG III, in which Switzerland participates with ambitious cross-border regional programs (Jost & Monney, 2004). But it is with the *Projet d'agglomération franco-valdo-genevois* that regional planning gains such a strength as to win the VIIIth European Urban and Regional Planning Awards in 2010. With these initiatives, Geneva opens onto the French territories and becomes a “*solidaire, dynamique et efficace*” or “*multipolaire, compacte et verte*” agglomeration, or instead looks at the canton of Vaud and turns into a “*métropole lémanique*”. The demolition – symbolic and functional – of borders as a founding act which opens the way for a continuous reinvention of the identity of this territory.

This shift from city to metropolis translates into a search for relating, connecting, combining places and infrastructures, among which last but not least are the spaces of production. A strong polarization between places of living (on France-dormitory)²⁴ and workplaces (on Geneva)²⁵, an insufficient territorial accommodation capacity²⁶, a saturation of motorized traffic, are all problems which regional planning tries to answer by making use of its own tools: thus affirming « *la nécessité de réguler par le dessin* » (Commission d'urbanisme, 2011, p. 24). A design that relies on landscape infrastructures to weave new connective ribs – as well as to give shape to a more unitary regional identity (Lévy, 2017) –, that gives rise to new spatial figures capable of disperse throughout the territory the pressure that the industrial areas of Geneva are undergoing²⁷.

Furthermore, this expansive movement has a key moment with the 2018-2020 *Visions prospectives pour le Grand Genève. Habiter la ville-paysage du 21e siècle* consultation. Promoted by the Fondation Braillard Architectes, this consultation chooses seven interdisciplinary teams to produce scenarios and visions on the transitional phase of the Grand Genève territory. An energetic, economic, social transition which cannot but also can be spatial. The environmental emergency is taken here as an opportunity to reinvent Geneva and its surrounding area.

23 Interreg is a program launched by the European Union to facilitate inter-regional cooperation of European countries and is funded by the European Regional Development Fund.

24 « *Deux tiers des emplois de l'agglomération sont localisés dans le canton de Genève et seulement la moitié de la population.* » (Rapport d'accompagnement : Synthèse du Projet d'agglomération, 2012, p. 27)

25 « [...] *les conditions-cadres des activités économiques, en général plus attractives côté Suisse que côté France (fiscalité, droit du travail, règles comptables, niveau des salaires, etc.).* » (Ibid., p. 27)

26 In fact, a population of 1.2 million inhabitants (a growth of 25% or 35%) and 500,000 jobs is expected for the year 2035. Source: Observatoire statistique transfrontalier - fiche 3, 2016, Projections démographiques 2016 – 2040.

27 « *La croissance des emplois et les mutations induisent une consommation importante de surfaces d'activités, tant administratives et commerciales qu'industrielles. Dans le canton de Genève, 2'600'000 m² de surfaces de plancher non destinées au logement, ont été construits de 1990 à 2005, dont près de 900'000 m² de bureaux; une des conséquence de cette forte demande est que les surfaces disponibles dans les zones industrielles, notamment les terrains de grande taille, ont fortement diminué entre 2000 et 2006.* » (Beurret, and others, 2007, Cahier annexe n°1, p. 12).

Among the seven teams participating in the consultation, the one composed by Habitat Research Center (EPFL) – with which the undersigned had the opportunity to collaborate for this competition – and by scholars Paola Viganò, Luca Pattaroni, Vincent Kaufmann, Corentin Fivet, Pascal Boivin, Olivier Crevoisier and Walter Stahel, pays particular attention to work spaces. The proposal, entitled *On soil and work: The transition, a new biopolitical project*, – among the various design directions – anchors itself to the industrial production sites of Zimeysa, Plan-les-Ouates or Vallée de l’Arve to reposition the place of work spaces in the new Geneva metropolis. By affecting the relationship between the types of activities carried out – which become reuse, repair and reconditioning activities – and the soil that hosts them – which in turn become multifunctional, autonomous, compact spaces –.

The other territorial movement is, precisely, opposite: to build Geneva on Geneva. The “inward development” paradigm is a direction adopted by Swiss planning tools in general and not just by Geneva’s. The protection of resources, the rationalization of territorial assets and processes, are, for Switzerland, strategies which aim not only at maintaining economic prosperity but also at enhancing security (Katzenstein, 1985). This security policy is not to be considered only as a protection from external aggression, but also « as comprehensively including economic, food, energy, and other security challenges » (Gourevitch, et al., 2008, p. 897). The constant search for guarantees that, in a condition of closed borders, the internal functioning is not compromised. A particularly difficult desire in a globalized world.

This protective, securitarian policy takes the form, in territorial planning, on one hand, of rules for the protection of permeable soils and valorisation of natural reserves, and on the other hand, of initiatives to turn new construction interventions towards already built areas, and therefore of “densification” and “requalification” – « *les maîtres-mots* » (TRIBU architecture, 2016) –. Development must be directed inwards: in fact, the places already paved, infrastructured, used, are identified as the new space for growth. This policy, of which the *Loi fédérale sur l’aménagement du territoire* (LAT) is the backbone, promotes built space rationalization, addition, condensation, superimposition.

Here Geneva is not a metropolis but a very compact and well innervated system. This position, despite having a long history – the “*construire la ville en ville*” prospective has in fact strongly invested the culture of Geneva planning, see for example the works of Dominique Joye and Vincent Kaufmann²⁸, Alain Léveillé²⁹, and Elena Cogato Lanza³⁰ – has gradually become radicalized with the expansion of the paradigm of environmental sustainability on Swiss planning institutions. With the consolidation of this orientation, there is a shift from a more unscrupulous and permissive use of the territory, where industries could settle freely where they thought best – and they were indeed driven to occupy the territory in a rather widespread way, as the “*une industrie pour chaque commune*” slogan recalls (Winkler, 1967) –, to a situation of territory-policing, where, instead, enterprises see the available space reduced to already built but underused land.

28 *50 ans de aménagement du territoire a Genève* (Kaufman & Joye, 1998).

29 *Genève, un siècle et demi de projets d’urbanisme* (Léveillé, 2011) ; *Projets d’urbanisme pour Genève 1896-2001* (Léveillé, et al., 2003).

30 *Le plan directeur de Genève de 1935. Une certaine idée de l’urbanisme en Suisse romande* (Cogato-Lanza, 2002).

Pushed between these two movements, the industrial areas of Geneva find themselves at the same time playing the role of small pieces of a large regional game and large plates to be mended, re-knotted, filled in detail. However, the fundamental point is that the industrial areas offer an extraordinary space for experimentation: tissues more open to transformations because they are sometimes underused, far from the most densely populated settlements and therefore from the many complaints (linked to noise, accessibility problems, aesthetic disagreements) that have blocked construction sites throughout Geneva, spaces that escape more than others from the now so extensive hand of patrimonialization – its buildings are relatively recent and its open spaces of little environmental value –. It is in these places where contemporary Geneva reinvents itself.

Places of change

These places have gone from being the result of a control tool³¹, of a desire for separation³² – industrial reserves or “ghettos” (Lopreno, 1989) –, where enterprises can transform their surroundings in protected conditions and with an absence of obstacles³³, to more open and exposed spaces and therefore more internally constricted. That is, spaces where it is combined the aim of strengthening the local manufacturing industry, of « *favoriser le développement d'une industrie genevoise dans un contexte de désindustrialisation* » (Babo, 2011, p. 194), with that of diluting the frictions that are generated between these areas and an expanding city: “*écoParcs*”.

A new focus is on Zimeysa, Plan-les-Ouates, Bois-de-Bay, Mouille-Galand industrial areas. Luc Malnati, founder of the Agence Luc Malnati Architectes Urbanistes and responsible for numerous planning interventions on the industrial areas of Geneva, argues: « [...] the residence is preferred to be valorised. The industrial zones have been set aside. This is not currently the case in Geneva. In Geneva the FTI makes land for production, economic development, business implantation, job creation, etc. »³⁴ This return of attention does not only come from public authorities, but also from the enterprises themselves: « From the years 2000-2003 companies began to demand public spaces. For example, Vacheron Constantin, in Plan les Ouates, asked Michel Desvignes for a park that cost 1 million francs. For us it was incredible, we had never seen such a thing. The oldest watchmaking company in the world asked Michel Desvignes for a park and Bernard Tschumi for a building. [...] a demand for quality in outdoor spaces. This somehow marked a change, after that there were other companies that transformed their spaces. »³⁵. This acceleration in the transformation of industrial areas in fact emanates an energy that is rare in

31 « *L'émergence de l'idée de zone industrielle révèle une prise de conscience d'un phénomène qu'il faut contrôler en raison de ses implications avec l'aménagement urbain général.* » (Raffestin, 1968, p. 54)

32 Not only spatial : « *En effet, à Genève, un curieux mirage dissimule aux yeux des Genevois l'industrie au profit des activités commerciales et internationales. D'où provient cette illusion ?* » (Raffestin, 1968, p. 8)

33 « *Le mode de production de l'entreprise, et par conséquent son plan type, s'impose alors au parcellaire et le détermine.* » (Babo, 2011, p. 194)

34 Interview B: Luc Malnati (Agence Luc Malnati Architectes Urbanistes).

35 Ibid.

the Geneva context: « [...] industrial zones are such a living organism, even more than residential areas, everything moves so fast. In industrial areas I have learned to read the changes in the territory. An incredible movement of interactions between the owners, the companies and the users of this industrial machine that always pushes forward. »³⁶

At the base of this dynamism is the work of an actor. The *Fondation pour les Terrains Industriels de Genève* (FTI) is a parastatal actor which is active on numerous fronts including that of urban planning and manages the industrial areas of Geneva guiding their transition from Fordist industrial zones to places capable of responding to the complex and sometimes contradictory demands of the contemporary city. A transition mediated by state control of the soil with an industrial vocation. This state-related actor introduces new forms of management of space and its stakeholders, constantly reinventing them. Far from “recipe-like” solutions, the FTI intervenes with an iterative action on that articulated field of competing interests – private/public, local/regional, pragmatic/visionary – that is the space, rediscovering design as an instrument of negotiation and condensation of instances.

With the FTI, the industrial areas of Geneva become the field where the urban side of the complex problems that European cities face today is experimented: « The big challenges Europe faces in shaping its own future are more than ever urban questions, questions that converge around the future of the metropolitan regions and extended urban territory. » (Baës-Cantillon, 2012, p. 12). Where, under the title *écoParc*, new models and solutions are tested to disable the contradictions between economic development and the deterioration of the natural environment, where attempts are made to overcome the hegemony of short-term aspirations: « The future is back, the long-term horizon is back, the big agendas are back, and the focus is on strategies capable of linking visions to operational logics. » (Ibid., p. 12).

Research purposes

This research precisely explores the transition, operated primarily by a planning which is also to be considered a profoundly changing realm, that the places of production are going through in European cities, by observing the transformations that have taken place in the last thirty years, approximately, in the industrial areas of Geneva. With the goal of grasping the spatial and organizational forms of this transition, identifying the technical means that make it possible and recomposing its new semantic features. *The hypothesis is that this transition is important, that it is there where it is possible to grasp the deepest changes of contemporary Geneva. In a nutshell: it is in the industrial areas where the city reinvents itself today.*

To test this hypothesis – difficult to demonstrate – an investigation was therefore conducted on recent transformations of the production sites in Geneva. By “transformation” we mean here, rather than the

36 Ibid.

gradual changes that have occurred over time and space verifiable with morphological studies and mapping, or internal changes in industrial processes³⁷, instead the numerous project initiatives which, even if not fully carried out, contribute to the remodelling of a thought about these places, together with the reconfiguration that urban planning has gone through to become an agent of change in these particular places. To be an instrument capable of regulating the relationship between city and production. What problems do these places pose to the urban project? How is the discourse on these spaces being reconfigured: which terms, which recurrences, which associations? What spatial changes have been conceived or implemented: which forms, which urban materials, which architectural choices? How these transformations become technically possible: what conditions, which regulatory instruments, which actors? These questions build the backbone of the thesis and, together, they can bring us (this is the bet) closer to the understanding of what is the new place that these spaces have in contemporary Geneva.

As the hypothesis and the questions suggest, this research is very attentive to the city. That is, it does not consider the interventions on production areas as isolated and autonomous events, but rather intimately linked to the city. It is the city that pushes or attracts these places, it is the city that sets new conditions to admit proximity and mutual entanglements, it is the city that continually re-discusses their borders, it is the city that sets in motion tools and policies aimed at calibrating this relationship. Enterprises and cities each have their own expectations of what a built environment can and should offer. And the Geneva écoParcs seem to be nothing more than the terrain where the negotiation between these different interests take place. Where the different meaning of what Claude Raffestin called “*habitabilité*”³⁸ (Raffestin, 1968) is re-discussed: preparing the conditions necessary for the development of enterprises only – that’s what Raffestin meant –, or becoming fundamental tiles for the overall growth of the city. In other words, the transition from autonomous “islands” to urban places *tout court*.

This work aims to somehow serve to better understand the mutating role of production sites within the European city. Whilst being aware of its starting point limited to the Swiss and Geneva context, nevertheless we have the possibility of reporting arguments and knowledge on a wider field. It is hoped that it will help to better grasp the ways in which today, in Europe, the built environment is prepared for new types of production processes and, in doing so, to understand as the city itself changes its hierarchies, its way of being a support, an infrastructure for the accumulation of capital and, at the same time, a dwelling place.

37 What Simiand called “*formes de la production*” (B. Damalas & Halbwachs, 1943) – meaning work’s technical conditions and “*grandeur des exploitations*” – or what Claude Raffestin called “*le fait industriel*” – of which, in his PhD dissertation, aimed to « *retrouver ses dimensions et ses colorations* » (Raffestin, 1968) –.

38 With this term, Raffestin speaks precisely of the conditions of the Geneva area in relation to the development of the manufacturing industry: what a territory offers to companies to ensure their existence and their ability to expand.

The intermediate levels of processes. Methodology premise and thesis structure

Which documents (drawings, plans, texts, spaces, practices) does the research rely on? In a context such as the Geneva one, where the design proposals and the materials produced – drawings, reports, publications, etc. – accumulate continuously, the selection has a crucial weight in the construction of the research. Three substantial choices guided the selection process.

The first choice was to define a field circumscribed in space. More than to administrative or symbolic boundaries, and more than an arbitrary product of the construction of the research, the space considered is close to what Bernard Lepetit calls “*lot des acteurs*” (Lepetit, 1999). That is, that space relevant to the level of organization of the studied practices. By case-study, therefore, we mean here more than the area corresponding to the Geneva canton, the action space of the actors. A space continuously redefined by these same actions. In a subordinate way, the other space or scale considered is the one that is here recurrently referred to with the term “European city”. This second scale is nothing more than that “*espace de validité*” (Ibid.) on which the “illustrative” value of the case-study would have an exemplary force. Space judged, with due precautions, capable of accepting the properly contextualized generalizations of the case study. But that remains a poorly defined, almost symbolic space.

The second choice was to select sources internal to the space transformation processes. Not the final outcome, sometimes considered the guarantor of an indisputable objectivity and univocity, but rather that intermediate space of negotiation and relating processes between interests, objects, representations. This choice has led us to give priority to sources relating to planning practices: plan documents, reports and studies of institutions related to planning, regulatory instruments, etc. And also to the work of the FTI: not only one of the key pieces in the transformation processes of the industrial areas of Geneva, but also an actor who occupies an intermediate position between the state and the world of enterprises, between the city and the spaces where concrete changes take place. A real channel of changes.

The third choice was to concentrate the research focus on some particular places – mainly Zimeysa industrial area –. These places are seen as spaces where positions are discussed and choices crystallized. They are used as detectors of transformations, omissions, representations. This choice that centralizes and reduces the field explored to a few punctual situations favours the exercise of a close reading of the sources. Opens the possibility to penetrate them by touching dimensions that are often rarely put together. As well as to close those gaps in knowledge that such a heterogeneity of documents carries with it irremediably.

What is left out? The processes related to individual interventions have remained somewhat in the background. That is, the negotiations between the owners of a given lot, the enterprises, the real estate actors and the architectural or engineering firms, despite being a more detailed level of the transformation processes of the industrial areas of Geneva, and for this reason explored to some extent in the course of this research, find a more limited space than wider-ranging processes. These are relegated in favor of larger-scale levels that are considered here, certainly perhaps less resolute and concretizing, but

perhaps more illustrative of thoughts, contradictions, shifts of meaning circumscribed to a larger scale – urban, territorial –.

This placing in hierarchy of the types of sources to be considered was the first step which built the frame of the entire research. The second step was to conduct three independent – but mutually related – explorations. Explorations that also mark the writing of the thesis. These investigations assume different operative angles, each of which explores, based on different sources, the specific way in which the theme of places of production impacts the design in this specific context.

The first part reports an investigation on new value orientations, new paradigms, new discourses, with the consequent semantic shifts, which push for a relocation of the problem of production processes and places in the city. By observing important dissemination channels it is possible to grasp old themes, that gain more strength, and more recent themes, that are increasingly becoming equally powerful. Themes that call into question meanings used to reside on our common sense: development, growth, production. As well as the role of the space in realizing the desired perspectives.

The sources investigated in this first part are mainly:

Primary sources:

- *Official documents and laws of Geneva and Swiss public administrations;*
- *Documents published by the Geneva Chamber of Commerce, Le Monde De Demain, the Office de Promotion des Industries et des Technologies, the Union Industrielle Genevoise, the Geneva Network of Industrial Ecology, and others;*
- *Territorial monitoring tools;*
- *Official websites and documents of the studied initiatives;*
- *Results of public competitions;*
- *Published interviews of involved actors;*

Secondary sources:

- *Scientific articles on the economy of Geneva and on industrial ecology;*
- *Local press articles.*

The second part of the thesis instead reports a survey on the Geneva plans of the last thirty years. Here a more institutionalized area of spatial planning is chosen. The plan documents – belonging to the *Projet d'agglomération*, the *Plan directeur cantonal*, etc. – also constitute a precious lens for looking at the redefinition of production sites. This type of practice, although deeply rooted in the European urbanism culture, saturated with inertia, permeated by bureaucratic formalities, nevertheless clearly illustrates the changes in objectives, prior-

ities, representations. Not only that, the plan documents can be considered a formidable negotiation table where it is tried to shape, in space, a multiplicity of interests, problems, emergencies. That is, they offer us a look at the territorial totality – its representation, of course –, at the reconfiguration of this totality and the positions assigned each time to the places of production.

Of these plans, the focus is mainly on the different treatment given to the Zimeysa industrial area. By bringing out the differences, the attitudes, the spatial figures. It is these multiple Zimeysas that bring us closer to a changing sensitivity regarding the places of production.

The sources investigated in this second part are mainly:

Primary sources:

- *Geneva Cantonal and Municipal official planning documents;*
- *Documents of architecture and urbanism offices;*
- *Public procurement documents;*
- *Official websites, documents and published interviews of involved stakeholders;*
- *Interviews to head architects and major representatives of an institution;*
- *Information made public by the Système d'information du territoire à Genève (SITG).*

Secondary sources:

- *Scientific articles and monographs about these specific places and plans;*
- *Local press articles.*

The third and last part of the thesis presents an investigation on the work of an actor. The FTI, a parapublic actor, shows how the public infrastructure equips itself to translate the established guidelines into concrete actions. How to spatialize a concept as poorly defined as that of écoParc. Even if this spatialization never assumes an a priori defined form. Indeed, the FTI adopts an open planning approach and often only of mediation. Close to what Cristina Bianchetti means when she talks about “*scrittura ipermuscolare del progetto urbano*”, that « *vuole “occuparsi di tutto”* » and « *Aiuta il convergere di interessi esterni, orientandoli su azioni prioritarie. Ben oltre la produzione di forme, il progetto è ciò che saprà innescare: l’esito non del tutto prefigurabile di uno scambio tra una pluralità di attori, valori, interessi e conoscenze.* » (Bianchetti, 2011, p. 122).

What is left out? The processes related to individual interventions have remained somewhat in the background. That is, the negotiations between the owners of a given lot, the enterprises, the real estate actors and the architectural or engineering firms, despite being a more detailed plan of the transformation processes of the industrial areas of Geneva, and for this reason explored to some extent in the course of this research, they find a more limited space than wider-ranging processes. These are relegated in favor of larger-scale levels that are considered here, certainly perhaps less resolute and concretizing, but perhaps more illustrative of thoughts, contradictions, shifts of meaning circumscribed to a larger scale – urban, territorial –.

The transformations that have taken place in recent years in the industrial areas of Geneva, despite being the sometimes unpredictable outcome of processes conducted by a plurality of actors, owe a lot to the management of the FTI. The FTI is the name that immediately pops up when, in these contexts, the question of responsibility for the observed outcomes arises. Which is therefore not an individual but shared responsibility. But which nevertheless leads us back to that work of coordination of territorial transformations, of control of the production methods of each of these, conducted by the FTI. To that work of mediation, communication, management – often occurred “behind the scenes” and therefore difficult to penetrate with our investigations – which gives rise to that concatenation between facts and acts that we call “planned” (Crosta, 1990).

This inquiry mainly investigates sources coming from the FTI itself (documents and interviews published in the institutional reports) and the minutes of the *Grand Conseil* of the canton.

Primary sources:

- *Official documents of local construction and real estate companies ;*
- *Land registry data ;*
- *Autorisations de construire (OAC) documents;*
- *Public procurement documents;*
- *Official websites, documents and published interviews of involved stakeholders.*

Secondary sources:

- *Scientific articles on the management of the Geneva and Swiss built space and economy;*
- *Local press articles.*

To these sources is added a direct experience of the studied places. A presence of the author, an observation, a photographic documentation, which has served to continuously redefine the character of the research. Its aims, its tools, its results.

Through these operations, the research reported in this thesis has allowed to capture the forms, features, structures, contradictions that have been forming within an intense period of experimentation on the industrial areas of Geneva. Each of the selective angles to which the research has relied has revealed different problems and characteristics of a new rethinking of industrial areas, but they have also shown points of convergence, traits that are compatible with each other. The work on the plans has captured a dominant character which, although taking on different forms, runs through a large part of the production of these plans: a homologizing attitude with respect to other places in the city. While the work on the FTI, for its part, revealed a similar posture with respect to the urban space that emerges in a parallel way to a work aimed instead at the search for new organizations between enterprises and new relationships between these and industrial areas. At the end of the thesis, we try to problematize this homologating character and its consequences.

The thesis is part of a Joint Project between the Polytechnic University of Turin and École polytechnique fédérale de Lausanne entitled “City and Production in the crisis frame”. The author is part of the City and Production Lab research group of the Polytechnic University of Turin. This group has given rise to numerous publications on the changing relations between production activities and the city. To mention a few we can name the collective “*Territorio e produzione*” (Bianchetti, 2019), the doctoral theses “*Prato. Città e produzione*” (Cerruti But, 2018) and “*Producing Italy. Territori della nuova produzione*” (Martin L. , 2020), and the articles in magazines “*Mirafiori sud: la città fordista oltre la Fabbrica. Scenari e progetti per (la costruzione di) una nuova identità*” (Vassallo, 2016) and “*Spazi, territori e suoli della produzione*” (Cerruti But, Cristiana , Sega, & Vassallo, 2017).

The author also participated in the Habitat Research Center HRC (EPFL) to the “*Visions prospectives pour le Grand Genève. Habiter la ville-paysage du 21e siècle*” consultation promoted by the Fondation Braillard Architectes. This experience, conducted between the years 2018-2020, not only allowed the author to build a familiarity with the case study through dialogues with important actors and direct contact with places and pressing issues, but also the exploration of design scenarios and spatial prototypes where models, solutions, contradictions inherent to the themes investigated in this thesis were tested.

This thesis is therefore rooted in these two experiences and deeply indebted to them.

Part I
Geneva in
transition.
The discourse on
production

Observing the places for production, the industrial areas, in this particular ambit, is an exercise that can't be done without a recognition of the context of values that permeates the policies, the transformations of the built environment, as well as private initiatives. The industrial areas of Geneva are in fact affected by initiatives and projects based on a composition of values very different from that of the *treinte glorieuses* for example. Identifying the existence of these values, their aspirations, their disavowals, allow us to reconstruct the background on which the initiatives investigated here are based. What are the desired outcomes, the ambitions that define the new horizons of possibilities that orient the space reconfiguration efforts? What are the recurring themes when it comes to the future of the industrial areas of Geneva? Notwithstanding that identifying a background of values is itself a challenging exercise that cannot be completed in a few moves, we believe it is important though to determine broadly what are the themes that cannot be ignored when addressing this issue in Geneva.

To prevent this exercise from completely ramping down into subjective and approximate impressions, the observation gives priority to important dissemination channels (the local press, television channels, award-winning initiatives, etc.) and institutional plans that are dominant in the specific panorama of Geneva (the State, the Chamber of Commerce, culturally influential foundations, etc.).

Another difficulty is the intrinsic local/international relation that some of the discourses have. It is particularly difficult to determine how much a specific theme is linked to the local context and how much is a passive adoption of external models. Issues such as "environmental sustainability" are discourses that have overcome any relationship with specific contexts. These are omnipresent themes in public policies all around the world (Hopwood, Mellor, & O'Brien, 2005). The general impression, downstream of this

work, is that most of these themes have few variations. But on closer inspection, it is possible to grasp a specific story of the context studied and how these general themes have been articulated. How they combined with other problems related to local geographic and economic characteristics, what space have occupied in the legislative field, which actors have identified with them, which initiatives have given them a specific and concrete character. That is, it is possible to grasp a particular tone that makes the use of these themes a circumscribed affair.

It is therefore important to take note of the specific climate of values that permeates the policies and initiatives studied in this thesis. Even though many of these values are part of wider networks that go beyond the limits of the investigated context, this does not diminish their importance. Does not diminish their influence in centralizing and directing resources, in reconfiguring the institutional background of many actors, in redefining the physical space starting from changed principles and regulated processes.

Chapter 1

Geneva is an industrial city? Structural changes in the productive economy

What is meant when is talked about Genevan production? What are the particularities of this economic system? What trends have occurred in recent years? In order to better ground following focuses on production spaces and actors the purpose of this subchapter is to address the specificities and recent transformations of the manufacturing sector of Geneva. Rather than a comprehensive and in-depth restitution, some notes deemed relevant based on the interests of this research are here presented, paying particular attention to the impact that the changes have had from a cultural point of view.

The characteristics of this production system are closely linked to those of the local context: lack of natural resources, lack of space, scarce energy provision¹, dependent on the cross-border workforce, but also a strategic geographic positioning – a kind of “*carrefour régional*” – and a strong and influential financial sector². These local specificities are in fact the basis of a “paradoxical” industry:

L'industrie genevoise est paradoxale, comme l'industrie suisse d'ailleurs en grande partie ; en effet, les dimensions humaines et financières sont à l'image de celles du pays, petites à moyennes. Mais ses fonctions sont internationales et ses affaires ont des ramifications nombreuses et lointaines. Pour continuer cette vocation, en partie imposée par les données locales, l'industrie doit, pour subsister, se consacrer à des activités complexes, très techniques et de haute précision caractéristique depuis le XIXe siècle. [...] La cherté de la main-d'œuvre, celle prochainement de la force motrice et le cout du terrain, consécutif à la rareté de l'espace, pèsent sur les choix industriels, qui, pour cette raison, ne devraient plus être spontanés, c'est-à-dire laissés à l'appréciation individuelle, mais concertés. (Raffestin, 1968, p. 201)

The manufacturing industry in Geneva has experienced, like many European cities, an exponential growth in the *trente glorieuses* – the « *haute conjoncture* » (Zumkeller, 2010, p. 34) – which ended with the 1973 crisis. During this period the production system that characterizes Geneva was consolidated: a strong watch manufacturing, other luxury sectors such as perfume and *bijouterie-joaillerie*, the chemical industry, micromechanics, aerospace, but also construction. With the arrival of the oil crisis, the most traditional sectors suffered the hardest blows, especially the production of machinery and textiles, and those most involved in advanced technologies have instead experienced continuous growth, electronics, biochemistry and information technology for example. Furthermore, at this stage the Geneva industry begins to move towards activities more related to research: « *Genève s'achemine vers la formule du laboratoire industriel concepteur de prototypes et de produits nouveaux de haute technologie dont la fabrication sera, en grande partie, assurée ailleurs, au gré des prix de la sous-traitance.* » (Raffestin,

1 On 7 December 1986, Genevan citizens approved the popular initiative “*L'énergie, notre affaire*” with which a cantonal energy policy is launched which aims for an increasingly reduced use of external energy sources (especially nuclear ones) and instead turns to the lake and other renewable energy sources.

2 Geneva banks have played a key role in financing local industrial activities. Even if, as Claude Raffestin argues, it is difficult to have a precise idea of this support (Raffestin, 1989).

1989).

The Geneva industry of the *trente glorieuses* is well documented in Claude Raffestin's doctoral thesis "*Genève, essai de géographie industrielle. Thèse n.206*" (Raffestin, 1968). A strong industry emerges here, with a density of workers per square meter³ and enterprises per square meter⁴ among the highest in Switzerland – second only to Bâle-Ville –. A predominantly exporting industry, intimately linked to a highly qualified workforce and supported on international networks.

But also fragile. For Raffestin, the Genevan industry is abstract and "*superficielle*", that is, detached from its own territory: « *Une industrie pour laquelle l'espace n'est qu'un support disparaît rapidement si un faisceau de circonstance lui est contraire. Une industrie liée à des ressources minières, pour autant que ces dernières ne s'épuisent pas brutalement, se mourra au contraire lentement, en cherchant à se maintenir tant qu'il y aura une faible demande, à moins d'interventions étatiques.* » (Raffestin, 1968, p. 70). An industry, even in this moment of growth, threatened by the "*hypertrophie tertiaire*" which progressively dilutes the bonds of this territory with its production. Without promising more strategic economic outlets: « *Le tertiaire genevois axé sur les grandes affaires est particulièrement mobile, il peut "décrocher" rapidement. Si nous pensons que l'industrie est indispensable à Genève, bien qu'elle n'y soit pas toujours à l'aise, c'est surtout parce que nous redoutons une mono-activité tertiaire aux racines peu profondes.* » (Ibid., p. 313).

With the oil crisis, Geneva goes from having a "*palette économique complète*" (Raffestin, 1968) to a strongly unbalanced tissue where – we are in 1986 – the machinery, watchmaking and chemical sectors are responsible for 57% of the value of the canton's exports⁵ (Lopreno, 1989, p. 23). This phase of crisis is also amply documented by another doctoral thesis from the University of Geneva: "*Le concept de post-industrialisme. Essai critique sur la transformation du tissu industriel Genevois*" (Lopreno, 1989). Dario Lopreno also focuses on the effects of an increasingly hegemonic tertiary sector. A sector that experiences growth of more than two thirds from 1955 to 1965 and more than a quarter in the period from 1975 to 1985 (Ibid., p. 27) and that seems to push the Geneva economy more and more towards a fully service economy. Leaving less and less space for production activities.

Lopreno identifies the main changes of the productive activities in this phase. First of all, he sees a co-existence between old and new:

D'une part il s'agit de la coexistence de deux phénomènes au sein d'une même entreprise mais également d'un même établissement : des instruments et des techniques de production traditionnels, ici performants, là obsolètes, et d'autres très récents, parfois largement mis à contribution, parfois largement sous-employés. D'autre part, des entreprises bien enracinées dans des nouvelles technologies côtoient, dans la même branche, des entreprises apparemment fort mal assises dans ces processus. (Lopreno, 1989, p. 34)

A strong polarization between small, medium and large companies:

3 A density of 98 workers per square meter (Raffestin, 1968, p. 28).

4 A density of 2 enterprises per square meter (Ibid., p. 28).

5 Dario Lopreno also underlines this « *perte de diversité de l'industrie genevoise* » looking at the occupation. More than 68% of full-time secondary sector jobs are concentrated in these three sectors (Lopreno, 1989).

Petites entreprises fort spécialisées, qualifiées et mobiles, très liées au tissu industriel cantonal et, souvent, à la sous-traitance, dotées de grandes capacités et de rapidité d'adaptation, marquées par l'émergence de nouvelles générations d'entreprises compétitives. [...] Moyennes entreprises aux difficultés structurelles graves, menacées à la fois par la concurrence étrangère, par la capacité d'innovation des grandes entreprises helvétiques et par la capacité d'adaptation des petites entreprises. Grandes entreprises financièrement solides, très liées au marché international, avec un fort potentiel de recherche et de développement, bénéficiant d'économies d'échelles à tous les niveaux. [...] grandement menacées, à Genève, par les impératifs de la rationalisation. (Lopreno, 1989, p. 34-35)

And a remarkable concentration: « *Il est également intéressant de constater que, dans l'industrie du canton, la main-d'œuvre a diminué cinq fois moins, en pourcentage, que le nombre d'entreprises, entre 1955 et 1985.* » (Lopreno, 1989, p. 35).

To what extent have these fears of an increasing tertiarization of the economic base of Geneva been matched? It is difficult to give a definitive answer. Looking at the official statistics we see that the 32,230 secondary sector jobs of 1985 (Lopreno, 1989) became 36,776 in 2005⁶, 42,871 in 2015⁷, and 53,103 in 2018⁸. Sustained growth. But in a relative sense, rather than growth, we continue to see a contraction: in 1985 the secondary sector represented 15% of total jobs while in 2018 13.43%. But it seems to be a contraction that gradually loses its acceleration, which approaches a kind of ideal asymptote without ever reaching it completely. This “asymptote” is nothing more than a core of productive activities which, despite being dominated in official statistics by the weight of the tertiary sector, still constitutes 15% of the Genevan PIB (*produit intérieur brut*). A sector that, due to its persistent weight in terms of PIB and employment, is of strategic importance for Cantonal policies.

In fact, in the *Stratégie économique cantonale 2030*⁹ the Cantonal government sets as the general economic objective the supporting of « *un écosystème économique dynamique et ouvert* »¹⁰ (Département du développement économique, 2015, p. 9) and, among the directions that follow it, that of « *valoriser et promouvoir le secteur de l'industrie, sa diversité et ses filières de formation* » (Ibid, p. 22). The Geneva industry must therefore be protected, valorised and supported since « *porteuse d'innovation* », equipped with « *une forte concentration de hautes technologies* », with « *une reconnaissance sur le plan national et international* », with a high « *qualité de la formation et des hautes écoles (HES, UNIGE, EPFL)* », etc. (Département du développement économique, 2015, p. 59).

It is in fact an industry that has managed to keep up with the times, which has reinvented itself in a radical way. Looking at one of the strongest and most recognized sectors of the Geneva industry, that of watchmaking¹¹, we see a production that has adapted – by making limits become advantages it could be

6 Source : OCSTAT.

7 Ibid.

8 Source : Office fédéral de la statistique.

9 Document produced by the *Département du développement économique (DDE)* and approved by the *Conseil d'Etat* on 24 June 2015.

10 The term “ecosystem” – which as we will see later is not a random choice – means here the openness to exchanges with the outside world, the diversity of elements, the interdependence between the elements, the dynamism of operations, and the sustainability of processes (Département du développement économique, 2015).

11 In 2015 this sector grouped 26.7% of industrial employment together with electronics and optics. Second

added – to the scarcity of soil and raw materials, to the various conjunctural crises – particularly harmful for an exporting economy –, and to the arrival on the market of more advanced technologies. Cantonal policies are well aware of the importance of this sector: « *Il faut relever l'importance de la branche horlogère pour l'économie genevoise. Ses produits représentaient 45% des exportations de biens du canton de Genève en 2013 et près du tiers de la valeur ajoutée du secteur secondaire. Son succès se fonde sur les atouts locaux dans la haute technologie mais également sur le statut de Genève en tant que destination touristique et site d'implantation traditionnel des entreprises horlogères.* » (Département du développement économique, 2015, p. 58).

The Geneva watch industry, it is useful to linger, is a complex and paradoxical industry: « *L'horlogerie est une structure "sédimentaire" qu'il faut déchiffrer couche après couche.* » (Raffestin, 1968, p. 30). On one hand, it is an activity linked to its past and the use of traditional techniques: « *On découvre des traits psychologiques hérités du passé et devenus parfois des anachronismes qui ne laissent pas d'être un poids pour l'avenir.* » (Ibid., p. 97). On other hand, an industry that seeks technological excellence. Raffestin in fact identified two different “worlds” within this sector: that of “*fabricants de pièces*” and that of “*assembleurs*”. The first is a hidden and anonymous world of manufacturers focused on the technical qualities of their products. The second is that of the big names in the watch industry, obsessed with hiding their production processes: « *un esprit horloger étroit qui baigne dans la psychose du secret* » (Ibid., p. 102). According to Raffestin, this industry, so tied to its craft traditions, would have struggled to find its place in the new technological and economic climates: « *On note une discordance entre le contenu mental de l'horlogerie et la réalité technique et économique.* » (Ibid., p.102).

Instead we discover, fifty years after Claude Raffestin’s thesis, that the watch industry has managed to position itself as one of the most vigorous sectors of the Geneva economy. The key to this success is offered for example by the studies of Pierre-Yves Donzé – published in his books *A Business History of the Swatch Group: The Rebirth of Swiss Watchmaking and the Globalization of the Luxury Industry* (Donzé, 2014) and *L'invention du luxe. Histoire de l'industrie horlogère à Genève de 1815 à nos jours* (Donzé, 2017) – or Ryan Raffaelli – see the articles *Mechanisms of Technology Re-Emergence and Identity Change in a Mature Field: Swiss Watchmaking, 1970-2008* (Raffaelli, 2013) and *Technology Reemergence: Creating New Value for Old Technologies in Swiss Mechanical Watchmaking, 1970–2008* (Raffaelli, 2018) –. In these studies, an industry emerges that, against all technological determinism, has been able to counteract the massive domination of Japanese quartz technologies by leveraging the symbolic and discursive aspects of a traditional, historically rooted European manufacturing, capable of offering goods that are perhaps technologically inferior but distinctive and luxurious¹².

In Geneva, this lever on local traditions has not only been operated by the great watchmaking industrial players, but also by countless other entities.

Historians:

Ainsi, les travaux de nombreux historiens soulignent la permanence des traditions artisanales et des savo-

only to construction (34.8%). Source : OCSTAT.

¹² The latest studies by Luc Boltanski together with Arnaud Esquerre in fact underline the capital importance of the luxury industry for the European economy (Boltanski & Esquerre, 2017).

ir-faire, de l'Ancien Régime ou du XIXe siècle à nos jours. Ils offrent un discours sur la continuité comme explication à la compétitivité actuelle de l'industrie européenne du luxe. [...] Les transformations technologiques, organisationnelles et entrepreneuriales des XIXe et XXe siècles n'intéressent pas ces auteurs, qui préfèrent regretter un paradis perdu. Cette idéalisation du passé et l'absence de recherches historiques critiques sur la période contemporaine débouchent sur une mythification de l'"horlogerie genevoise" [...]. (Donzé, 2017, p. 9-12)

Museums :

Le Musée d'horlogerie et de joaillerie, l'exposition « Montres et Bijoux », ainsi que les ventes aux enchères, sont précisément de nouvelles institutions qui représentent de nouveaux vecteurs pour le discours sur la tradition et permettent d'élargir l'étendue de ce dernier, l'intégration des nouveaux venus étant un enjeu essentiel au cours de cette période. (Donzé, 2017, p. 154)

But also associations, publishing projects, tourism organizations, etc. For Pierre-Yves Donzé, it is the combination of these two fields – that of manufacturing companies and that of apparently detached institutions – that trigger those collaborative strategies that were at the basis of the relaunch of the Geneva watch industry: « *Les institutions collectives servent à produire un discours sur l'excellence genevoise, dont la légitimité provient précisément de leur apparente indépendance vis-à-vis des entreprises horlogères, et qui bénéficie en fin de compte à ces dernières dans leur stratégie marketing.* » (Ibid., p. 181). An integration between economy and culture that has as a common basis that of a place and its history: « *C'est de cette intégration que naît le luxe moderne dans l'industrie de la montre. Il est une invention des dernières décennies du XXe siècle.* » (Ibid., p. 186).

To talk about Geneva industry means talking about a city that first predicted and feared, and then resisted with determination, the complete tertiarization of its economy. That protected its productive activities supporting its radical transformation. Geneva today has a part of its production that is easily recognizable, the more traditional one of metalworking and construction for example, but it also has another part that resists the easy classification and that, like the watchmaking one, has paradoxical features. Geneva is not an industrial city like Turin or Manchester – even these now hardly attributable to these categories –, does not depend exclusively on its industry and the latter does not have a hegemonic weight in the social and cultural organization of the city. However, Geneva has an important industry, on one hand, intimately rooted in its culture and past and, on other hand, open to technological changes and new organizational models.

Observing productive Geneva shows the different way European cities are productive today. It shows the transition from a strong and sometimes dominant industrial past to an openness and contamination of this economic base which becomes increasingly less one-dimensional. A contamination where the city itself and its institutions play a completely new role. Saying that Geneva is an industrial city maybe takes us very far from the realities that constitute this city, but allows us to put this fundamental shift in the spotlight.

1.1. The creation of an internal demand for production spaces: the PAV restructuring

Apart from the more general characteristics sketched out before concerning the type of productive economy in Geneva, its idiosyncrasies, the transformations within a sector, etc., there are also more particular events that have profoundly marked the economic base of the Canton. Among these there is certainly that of the “abandonment” by the State of Geneva of the Praille Acacias Vernets industrial area as a production devoted settlement. Here too the term “paradoxical” comes in handy for describing a story that gets out of the usual trends.

The Praille Acacias Vernets (PAV) is one of the first industrial areas of Geneva¹³, and the largest (230 hectares) until Zimeysa took this position away from it. The PAV extends over the municipalities of Ville Genève, Lancy and Carouge and is equipped with an important railway infrastructure. More than the 80% of land properties are public – of the State, of the FTI, or of the various municipalities – but the established enterprises have *droits de superficie* contracts until 2050 and even further.

For some years, however, this area has begun to suffer an increasing pressure from the real estate market. It is no longer the industrial area on the outskirts but, with the expansion of residential areas and the development of transport infrastructures, it finds itself occupying a centrality coveted by many players, who are no longer exclusively industrial. And the State leans towards a scenario of radical transformation: « *La roue a tourné. Il y a 50 ans, cet espace était situé à la périphérie ouest de Genève. En ce début de 21e siècle, ce secteur apparaît aux yeux de nombreux politiciens, urbanistes et promoteurs, comme autant d'espaces à densifier.* » (Zumkeller, 2010, p. 76). From 2005 onwards¹⁴, the State has set up projects and initiatives for the transition of this part of the city from an industrial area to a “mixed zone” made up of 11,000 new housing units and 11,000 new jobs (mainly offices and commerce)¹⁵. But move away 1,600 enterprises and 20,900 active jobs is not an easy task: « *le projet Praille-Acacias-Vernets (PAV) sera au cœur d'une opération immobilière sans précédent qui s'étalera sur plusieurs décennies.* » (FTI, 2017, p. 12). This situation results in a greater focusing on the remaining industrial areas of Geneva which must be prepared to accommodate these enterprises that otherwise would go elsewhere. It results in the creation of an internal demand for spaces for production.

The transformation of the PAV thus triggers the internal reorganization of the Canton's manufacturing space. Initially, the cantonal authority delegated to the FTI the management of the project, the relocation of the established enterprises, and the preparation of the remaining industrial areas to accommodate them. « *Une ville qui vit est une ville qui bouge* » said in 2004 the then President of the FTI Carlo Lamprecht¹⁶ (FTI, 2004, p. 12).

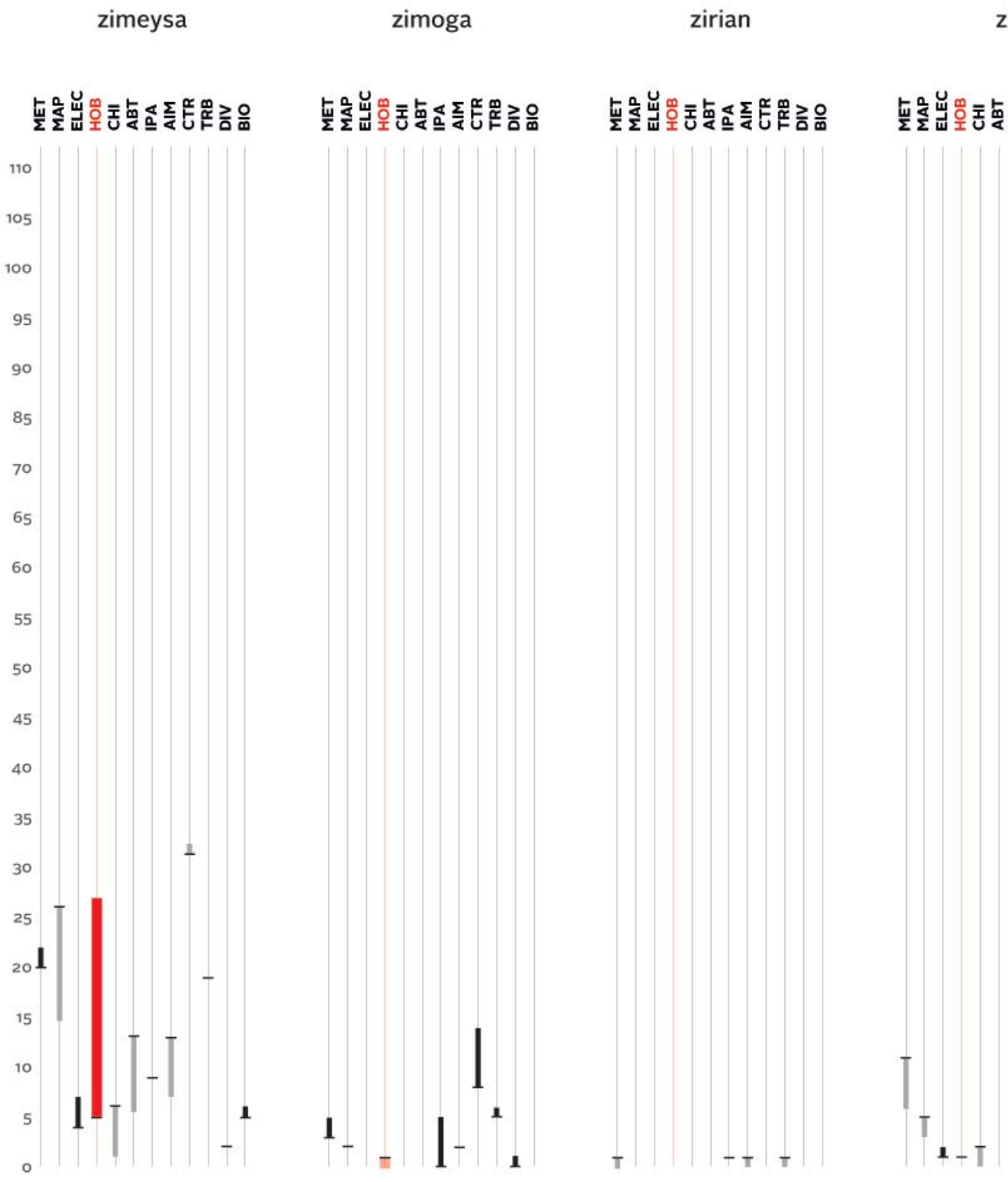
A local enterprises movement that is however crushed by the cantonal government which imposes a

13 After those of Coulouvrenière and Jonction which were the very first industrial areas of Geneva.

14 The first steps were the 2005 *Concours Fédération des architectes suisses (FAS)*, the 2007 Masterplan and the 2009 Grand Conseil's *Résolution 566*.

15 These numbers are reported in the *Plan directeur de quartier Praille Acacias Vernets (PDQ) N° 29951* approved by the Conseil d'Etat on 1 April 2015.

16 As well as *Conseiller d'Etat chargé du Département de l'économie, de l'emploi et des affaires extérieures*.



1. Comparison between the number of companies present in the industrial areas of Geneva in the year 2003 and 2019.

Source: prepared by the author with data from the *Système d'Information du Territoire à Genève (SITG)*.

NOGA codes: MET - metallurgy, MAP - manufacture of machinery and equipment, precision mechanics, optical instruments, ELEC industry and graphic arts, AIM - other manufacturing industries (spinning, textiles, plastics, minerals, leather, recovery, recycling),

ili

ziplo

zibay

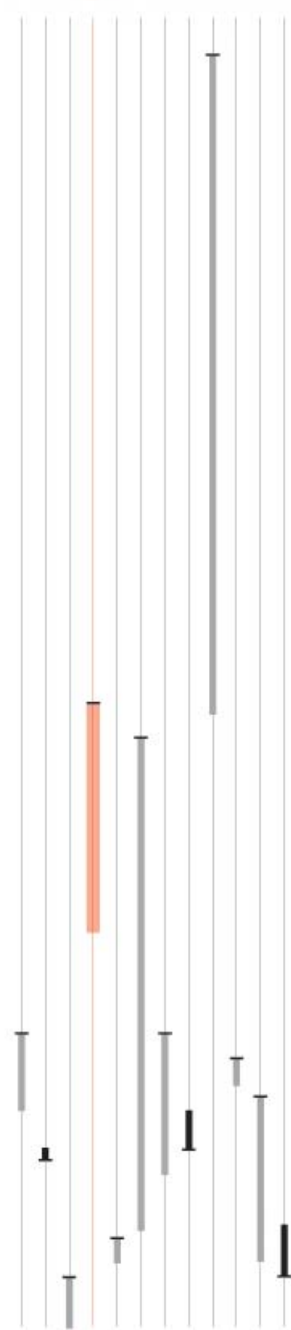
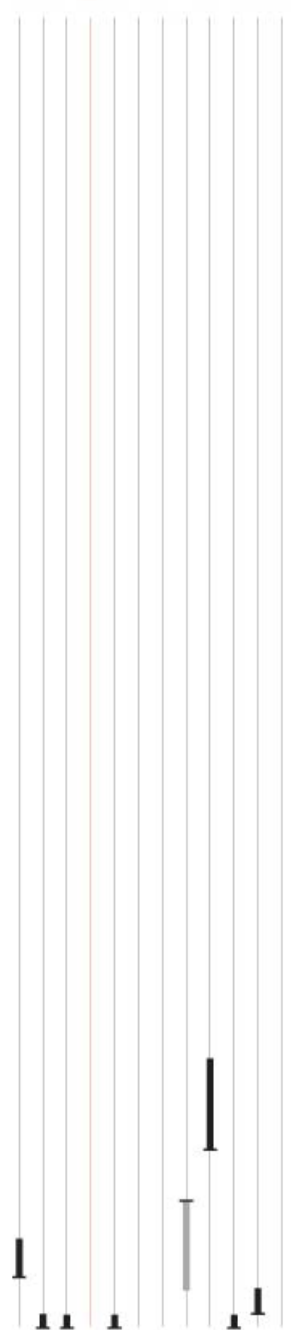
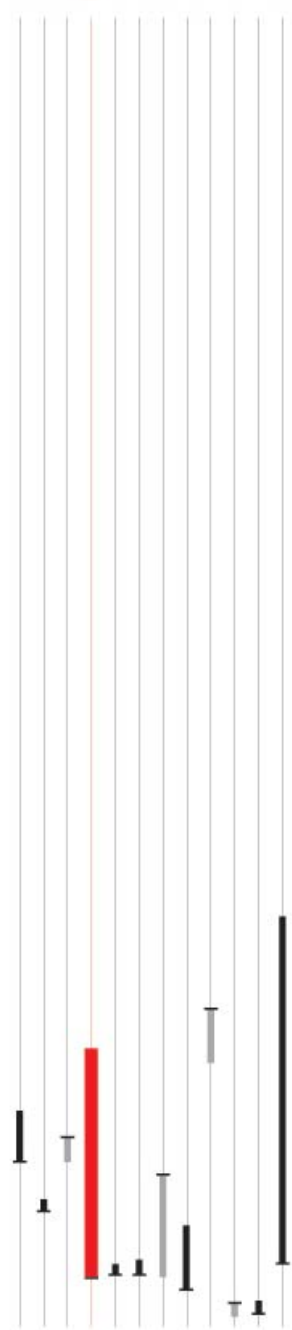
zipa

IPA
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- electrical and electronic equipment, HOB - watchmaking, jewelry, CHI - chemical industry, ABT- food industries. IPA - paper
CTR - construction, TRB - woodcraft, DIV - various industries, energy, crafts, BIO - biotech.

new *comité de pilotage* without the FTI. « *Cette décision interrompt le processus coopératif et crispe les entreprises qui se méfient du gouvernement. La grande majorité d'entre elles préfère désormais rester au PAV jusqu'à l'échéance de leur droit de superficie, ce qui bloque la libération des terrains.* » (Lambelet, 2016). For Sébastien Lambelet, this choice of the cantonal government is linked to the desire to quickly access a surplus land value estimated at 400 million CHF generated by the transformation of this area into a *zone de développement*. Fund that is not intended for the mutation of the PAV, but instead used by the cantonal government to amortize other expenses.

In any case, the FTI does not lose its authority over the remaining industrial areas and continues its work of preparing the conditions for absorbing the arrival of PAV's enterprises – and not only –. This forced movement of enterprises is presented on the communicative level as an “opportunity”. In 2016, then FTI President Charles Spierer declared that the FTI's goal is « *faire de cette relocalisation une opportunité, permettant à chacun d'optimiser son outil de production et ainsi réinventer son activité, afin de faire face aux défis de demain.* » (FTI, 2017, p. 4). An opportunity to modernize the enterprise, its means of production and its spaces.

It is an enterprise movement in the making, most of which has yet to occur. However, a part of this movement begins to be perceptible. Looking in more detail, and considering a fairly long time span, we can in fact notice an important decrease in industrial plants in the PAV and growth in the remaining industrial areas. Looking at the data published by the *Système d'Information du Territoire à Genève* (SITG) and comparing the number of enterprises present in the industrial areas of Geneva in 2003 with those of 2019¹⁷ we see the following differences. The PAV loses about 50 factories in the construction industry, about 40 in the food industry, about 20 in the watchmaking and jewelery industry, about 15 in various other industries like energy and crafts; the only sectors to increase their number were those of biotechnology (4 new plants), other manufacturing industries (3) and machinery manufacturing (1). Meanwhile, Zimeysa (Meyrin e Satigny) and Ziplo (Plan-les-Ouates) industrial areas experience a strong growth of watchmaking companies (about 23 in Zimeysa and 20 in Ziplo) and biotech companies (about 33 in Ziplo). The other industrial areas, Zimoga, Zirian, Zili and Zibay, experience more contained growths and decreases.

As can be seen, the industries experiencing a more pronounced contraction are the more traditional ones such as construction, food and crafts, which disappear from the PAV and do not reappear with the same force in other industrial areas. This is not true, however, for the watchmaking industry, which reappears in other areas with twice the number of those that disappeared from the PAV, and the biotechnology, which remains almost unchanged in the PAV and grows strongly in the Ziplo. The business movement does not seem, for now, to be very democratic. The most advanced sectors, from a technological or added value point of view, find a future in Geneva after the loss of their PAV sites, the others simply disappear or go elsewhere.

17 The choice of this time span responds to the availability of sources. While the most recent years are updated on the official website of the SITG (<https://ge.ch/sitg/>) those further back are harder to find. Here we use data from 2003 because, in the published document (FTI, 2004), are related to industrial areas and use the NOGA code.

Chapter 2

Growth or degrowth? A crisis-embedded conflict

On November 24, 2019, the popular initiative (*Initiative populaire cantonale*) “*Pour un pilotage démocratique de l’Aéroport de Genève – Reprenons en main notre aéroport*” (IN 163) is approved. The initiative proposed to make Geneva International Airport a public law establishment, which would respond to the authority of the State. Until that moment, the airport was an autonomous public establishment. At the basis of the request there was concern about the environmental effects that the increase in air traffic is having on the Geneva territory and on the planet¹⁸. This initiative was at the center of an intense debate which, as Richard Etienne writes, “divided Geneva” (Etienne, 2019). On one hand, those who support the initiative seen as an important step for the promotion of ecological and sustainable policies, on the other « *les milieux économiques* » (Ibid.) and who is worried about the regressive effects that this can have on the economic development of the Canton.

The initiative radically raises the problem of what kind of development are we willing to pursue in environmental crisis times. What costs are we willing to assume: « *Cet aéroport est important pour notre territoire, mais son développement ne doit pas se faire au détriment de ce même territoire.* » (RTS, 2019). A situation that brings processes and habits hitherto taken for granted. In fact, in the face of the danger of economic downturn, the *Chambre de commerce, d’industrie et des services de Genève* (CCIG), together with other important institutions linked more directly to the economy sphere¹⁹, becomes the guardian of economic growth, of its defense, in this debate. “Is economic growth still a desirable goal?” (*La croissance économique est-elle toujours un objectif désirable ?*) asks the CCIG (CCIG, 2019). Assuming that « *bien-être matériel collectif* » and economic growth are inseparable, the CCIG launches a study to help solve the problem of « *comment aborder la croissance à Genève* », how to measure its qualitative advantages, which alternative models can be implemented (Ibid., p.1). Provided, however, that growth is not interrupted: the political director of Geneva Airport Nathalie Hardyn, in the same issue of the CCIGinfo, calls for equal treatment between environmental issues and economic interests and not an imbalance for the former as this initiative does (Ibid., p.2).

The Geneva airport affair remarkably expresses the climate that for some years has characterized the space dedicated to the development of the economy in this territory. At the center is a continuous negotiation on the direction to be taken. On the type of development to be promoted. And, in the strength achieved by this negotiation, Geneva can be considered a pioneer – “*Genève pionnière*” – (CCIG, 2019). Geneva was in fact the first community in Europe to adopt a law on public action for sustainable development (CCIG, 2019, p. 3)²⁰, in the same year the Ecosite group was created for the implementation of

18 « *Le nombre de passagères et de passagers à l’aéroport de Genève a plus que doublé ces quinze dernières années, dépassant désormais 17 millions par an. En parallèle, les nuisances ont crû, en particulier le bruit par l’augmentation de la fréquence des vols – jour et nuit –, la pollution de l’air, ainsi que les émissions de CO2, responsables du réchauffement climatique.* » (Source : <https://www.initiative163.ch/>).

19 But also some political parties like the *Parti Libéral-Radical*, the *Union Démocratique du Centre* and the *Mouvement Citoyens Genevois*.

20 Is the *Loi sur l’action publique en vue d’un développement durable (Agenda 21) (LDD) A 2 60* of 23 March



2. *The urgency to slow down*, Nicolas Abdelkader, 2020.
Source: <https://www.collater.al/en/the-urgency-to-slow-down-nicolas-abdelkader-art-graphic-design/>

the “industrial ecology” concept in the territory, in 2010 the principles of this concept were included in the Loi cantonale sur l’énergie and in 2012 in the Constitution genevoise. Not only, the documents and regulations of the Geneva planning institutions, as will be seen in Part 2 of the thesis, have included with determination the postulates of environmental sustainability.

But, as the airport affair itself reveals, there is not only an alignment with the dictates of ecology and environmental sustainability, but there is also a counter-thrust that promotes economic development and that underlines its fragility and the necessity of taking care of it. Support for the continuity of economic development in the cantonal territory takes a defensive position and, in an attempt to get out of the setbacks progressively imposed by the eco-sustainable paradigm, invests more and more in the basic layers of the economy. Both cultural and material layers: for example, on one hand, it launches initiatives to revive the entrepreneurial culture in the younger segments of society through the creation of new broadcasting spaces on radio, television and on social networks dedicated to the industrial culture of Geneva²¹; and in other hand, the State, through the FTI (this aspect will be dealt with in detail in part 3 of the thesis), launches a concrete and ambitious land policy to host new manufacturing companies.

However, and this is the most interesting and representative aspect of the climate in which the initiatives belonging to the Geneva economic sphere – especially the secondary sector – move today, while the airport affair reports a clean-cut division between “ecology-supporters” and “economy-driven actors”, the policies and programs that dominate this space seek instead compromise. And it is this search for conciliation, synthesis, for the mitigation of conflicts and contradictions – implicit moreover in the term “sustainable development” – that seems to guide the various transformation programs of the Geneva area from a hegemonic position.

Geneva 2050

Looking at the most important initiatives in recent years in Geneva – that is, those emanating from central institutions or which have in any case won a considerable slice of attention – a more precise idea of what forms takes this search for conciliation can be grasped. Many of these initiatives consider a very extended time frame. The difficulty of the problems faced, and the radical changes they impose, oblige the authorities to work over a long period of time in order to have a more concrete vision of the effects that could derive from their policies; as well as to have a sense of control and direction in very hectic times. The confrontation with the future becomes a constant in the most important initiatives. Where does the environmental crisis will take us, where does the opening of Geneva to its adjacent region will take us, what effects will continuous demographic growth have, what territory will result from the profound changes going through production practices? In fact, many of these initiatives adopt

2001.

21 One of the most important is the “*Le Monde de Demain*” space, a communication campaign launched in 2017 and broadcasted on the *lemanblue.tv* channel for “awaken the appetite for industry” – *L’appétence pour l’industrie* (CCIG, 2019, p. 5) –. Source: <https://www.lemanbleu.ch/fr/Emissions/Magazine/Le-Monde-de-Demain/Le-Monde-de-Demain.html>.

the form of the “scenario” and the “vision” as means to make the becoming of this territory accessible, experimentable, questionable: « *L’exploration rigoureuse de futurs possibles permet de se familiariser avec ces transformations et ainsi éclairer les décisions à venir pour se donner les moyens de construire une Genève résiliente, c’est-à-dire apte à faire face avec succès à des chocs et à des changements conséquents, à s’adapter et à se développer positivement.* » (Conseil d’Etat, 2018, p. 4).

Recently, the Conseil d’État published the report Genève 2050 (Conseil d’Etat, 2018), a “*démarche prospective*” for the city of Geneva open to the opinions of the population through events, debates and a digital platform²². This report explores some important trends recorded in the various fields that compose this territory – cultural, energetic, demographic, political, spatial, etc.–. Among these, there are trends « *liées aux modes de production et de consommation* » where, in addition to the impact of communication technologies on labour, the gradual dissociation of that unity between places and times that characterized « *l’ère industrielle* », and a predominance of uses over the ownership of some means²³, there is a growing importance of production activities which derives, among other sources, from the same ecological movements: « *Promue par des mouvements hétéroclites (écologistes, souverainistes etc.) et rendue nécessaire à cause de la raréfaction des ressources et des énergies nécessaires au transport, la production locale, industrielle et alimentaire, va jouer un rôle de plus en plus important.* » (Conseil d’Etat, 2018, p. 27).

These trends are subsequently articulated and radicalized in four scenarios or hypotheses for the Geneva of 2050: a first scenario characterised by the absence of territorial strategies, a second one where the so-called economic degrowth prevails, a third one where the scarcity of resources and the collapse of the welfare system hit hard the well-being of the local population, and a fourth one marked instead by the hegemony of computer systems and artificial intelligence. The second scenario clearly highlights the tensions we have seen explode in the popular initiative for public control of the airport. That is, the effects on society, the economy and the space of environmental constraints and « *limites du monde physique* » (Conseil d’Etat, 2018, p. 51). The scenario also anticipates a different role of the State. A state that plays an increasingly central position in the « *réorganisation des activités et dans l’allocation des ressources* » (Ibid., p. 53), involving itself more and more in the economy sphere²⁴, and dictating the end of « *l’État-Providence* » and the resurgence of « *l’État planificateur* » (Ibid., p. 75):

Ce système de gestion rappelle celui des économies de guerre dans l’Europe du 20ème siècle. Le canton régule, et parfois même planifie, une bonne part des activités économiques dans le but de limiter les gaspillages. L’État genevois encourage également le retour à la terre, sur le territoire du Grand Genève, d’une partie des urbains qui ne trouvent plus d’activité professionnelle dans les villes. Un nouveau contingent de travailleurs assure ainsi la transition vers un système agricole et artisanal pérenne. Les années 2050 sont celles des territoires résilients, organisés autour des activités économiques locales et bénéficiant de compléments d’activités industrielles et servicielles assurés par les villes alentours. (Conseil d’Etat, 2018, p. 53)

22 See: <https://www.ge.ch/dossier/geneve-2050>.

23 This issue is, moreover, very close to the land policies piloted by the FTI, as will be seen in part 3 of the thesis.

24 « *Réguler l’économie dans un contexte de rareté.* » (Conseil d’Etat, 2018, p. 53).

Afterwards, many aspects of this “degrowth” scenario become part of the vision of a desirable future presented by the report. This *futur souhaitable* includes a robust local economy, driven by more rooted enterprises in the territory²⁵, more “urbanized”²⁶, more involved in sustainable processes²⁷. “Conciliation” here is embodied by a tissue of more responsible enterprises, more aware of their material and social impact, closer to the interests and concerns of the Genevans.

25 « [...] le retour d'entreprises et de sites sur le territoire. » (Ibid., p. 92).

26 « En 2050, la production industrielle à Genève sera assurée en grande partie par des micro-usines connectées, implantées au cœur de l'espace urbain. » (Ibid., p. 113).

27 « [...] entreprises répondant au cahier des charges d'une économie verte et durable [...] » (Ibid., p. 113).

Chapter 3

A reconciling paradigm : the “écologie industrielle” policies

However, the search for convergences between economic and ecological interests – which is nothing more than a new pact between economy and society –, is not just about exploring future times. The support and valorisation of practices and initiatives already active in the territory, as well as continuous testing of new production models, the attempts to apply them to existing conditions, constitute the other fundamental front on which Geneva policies are committed.

For example, the work of the *Association Demain Genève*, which produced the documentary *Demain Genève*²⁸ – « un film pour montrer qu’à Genève aussi des solutions existent » (Association Demain Genève, 2017) –, is aimed at discovering sustainable initiatives currently engaged in the Geneva area. Those who are the current protagonists of the so-called ecological transition: « *Avides de comprendre les rouages du changement, nos jeunes citoyens sillonnent la région et découvrent des porteurs d’initiatives qui œuvrent parfois depuis plusieurs décennies dans le sens d’un avenir durable. Et c’est ainsi que Genève se révèle pionnière dans quelques domaines cruciaux pour l’avenir de la planète.* » (Association Demain Genève, 2018, p. 3).

The initiatives gathered here stand out for their structural openness, that is – and these is moreover one of the six selection criteria established by the *comité de sélection* – projects, enterprises, organizations performing equally on the ecological, social and economic level, which produce a positive impact on all these plans. Initiatives such as Matériuum²⁹, Terrabloc³⁰, Yellowprint³¹, Genilac-SIG³², and others, are examples that open up new spaces where market strategies and environmental deterioration would no longer be interconnected and consequential processes.

Another important initiative to promote this type of activities are the awards that the CCIG, together with the State of Geneva and the *Office de Promotion des Industries et des Technologies* (OPI), offer to the enterprises with the aim of promoting the local economic tissue. These are two awards, the *Prix*

28 Inspired by the 2015 documentary “*Demain*” by Cyril Dion and Mélanie Laurent, “*Demain Genève*” is a film produced by Gregory Chollet and Elisabete Fernandes to discover pioneering initiatives on the Geneva basin. See: <https://www.demain-geneve.org/>.

29 « *Matériuum est une ressourcerie ayant pour objectif de collecter et valoriser des matériaux réutilisables destinés à être jetés, en provenance de lieux culturels et entreprises du canton de Genève.* » (Association Demain Genève, 2018, p. 10)

30 « *Entreprise qui produit des blocs de terre compressée (btc) dotés d’excellentes propriétés en matière de résistance mécanique, de durabilité et d’inertie thermique.* » (Association Demain Genève, 2018, p. 10)

31 « *Yellowprint est spécialisée dans le conseil et la gestion de projets liés à l’installation, la commercialisation et l’acquisition en propre ou en copropriété de panneaux photovoltaïques.* » (Association Demain Genève, 2018, p. 10)

32 « *GeniLac est une solution thermique innovante, 100% renouvelable qui utilise l’eau du lac pour rafraîchir et chauffer les bâtiments du centre-ville de Genève.* » (Association Demain Genève, 2018, p. 10)

IDDEA, more focused on eco-sustainable business projects, and the *Prix du commerce de l'économie genevoise*, more open regarding the selection criteria³³. The delivery of this award, and of the symbolic and monetary resources linked to it, to activities committed to reducing the environmental impact of production processes, such as Serbeco³⁴, is an important indicator of the direction taken by Geneva policies and the type of economy they want to implement.

Geneva's fondness for ecological industry

Of all these initiatives, however, it is the promotion of the “industrial ecology” concept that constitute the real spearhead of Geneva's policies. Actually, this concept is often combined with other concepts such as circular economy, *écoconception*, *économie verte*, *économie de la fonctionnalité*, which, although not exchangeable, share a sort of common track in local policies³⁵. Nevertheless, from all this amalgam of terms emerges a predilection for the *écologie industrielle* concept.

The push for a progressive alignment of the production processes of the Geneva territory with the principles promoted by the *écologie industrielle* concept has its roots in a close exchange between the local academic, political and economic spheres. Research conducted by EPFL, University of Lausanne and Geneva University study centers on industrial ecology have played a fundamental role in the development – theoretical first and then promotional – of new production models and management of material resources forms. One of the central figures in this research is Suren Erkman, author of *Vers une écologie industrielle* (Erkman, 2004) and founder and director of the Institut pour la Communication et l'Analyse des Sciences et des Technologies (ICAST) in Geneva. A fundamental figure both in the international debate on industrial ecology – is in fact one of the most renowned and cited authors – and in local Genevan policies – Erkman was directly involved in some programs developed by the Geneva public authorities, especially within the Ecosite working group –.

But what is industrial ecology? The *Institut International de l'Écologie Industrielle et de L'Économie Verte* (2iécologie), founded by Suren Erkman in Geneva in 2014, offers a definition:

*Industrial ecology is a concept that expresses an innovative attempt by our industrial system to operate in a respectful manner towards the environment by taking inspiration from the self-regulating functioning of a natural ecosystem. In practice, industrial ecology draws on the systemic approach and studies the interactions between the industrial system and the biosphere. This approach has made it possible to highlight similarities between the structure of natural ecosystems and those of industrial ecosystems.*³⁶

33 This award aims to « [...] *mettre en valeur le commerce de proximité, lui offrir une meilleure visibilité, capitaliser sur le savoir-faire et le sens de l'accueil, dynamiser l'image de Genève et récompenser la créativité et l'originalité.* ». (Source: <http://flashleman.ch/prix-iddea-recompensant-les-projets-dentrepreneur-lies-au-developpement-durable-dans-lespace-economique-genevois/>).

34 Serbeco, which wins the *Prix du commerce de l'économie genevoise* in the 2019, is an enterprise located in Zimeysa that works in the valorisation of industrial waste.

35 For a bibliometric survey on industrial ecology and circular economy uses see “*How circular economy and industrial ecology concepts are intertwined? A bibliometric and text mining analysis*” (Saidani, Yannou, Leroy, Cluzel, & Kim, July 2020).

36 Source: <http://2iecologie.ch/en/industrial-ecology-and-green-economy/>.

Suren Erkman traces the origin of this concept in the ecological scientific literature of the Seventies³⁷, especially in the years of the United Nations Environment Program (UNEP) creation, but, according to the same author, it was in the Nineties that it gained a certain notoriety with the works of a group of industrial engineers linked to the National Academy of Engineering of the United States (Erkman, 2001). Far from being a clearly defined concept, industrial ecology is still today continually criticized, discussed, redefined, both in a purely theoretical context and in the moments of its implementation: « The extraordinarily fertile cross-disciplinary dialogue that has been stimulated as a result, where to some extent industrial ecology is reflexively generating its own social critique as it continues to deconstruct and re-define itself, is both stimulating and relatively unique. » (Allenby, 2006, p. 37).

Industrial ecology is first of all, for many authors, an oxymoron. An expression that contains in itself the will to bring together two contrasting worlds. On one hand, the term “ecology” refers to scientific ecology and the studies of the *milieux* where organisms live. The use of this term is aimed at a similar scientific observation on industrial processes – focusing on interactions with the environment – and their redirection towards behaviors that are believed analogous to those of living organisms – the balanced and non-predatory use of resources –: « The use of the word ecology is meant to imply that one should conserve and reuse resources, as is the practice of biological systems. » (Graedel, 1996, p. 70). On other hand, the term “industry” refers, in the broad sense, to all economic activities in modern society. An outlook that overcomes the distinction between services and industrial activities which, as Pierre Veltz argues, is a distinctive feature of the “*société hyper-industrielle*” (Veltz, 2017)³⁸. For Thomas E. Graedel this term is used to signify: « [...] the sum total of human activity, encompassing mining, manufacturing, agriculture, construction, energy generation and utilization, transportation, product use, and waste disposal. IE [industrial ecology] is not limited to the domain within the factory walls, but extends to all the impacts on the planet resulting from the presence and actions of human beings. IE thus encompasses society’s use of resources of all kinds. » (Graedel, 1996, p. 73). Indeed, scholars include activities that at first glance seem to have a reduced impact on the material world such as telecommunications, tourist activities, leisure, but which actually leave a heavy and deep imprint on the territory.

Therefore, this term proposes an integrated and global vision of society and its relationship with the environment. A vision that would allow the quantitative control of flows, movements, transformations. Vision, but at the same time socio-economic project. Like living organisms, is claimed that society should have a “zero-sum” overall functioning, it should return what it takes from the environment.

This holistic vision contains two cores emphasised by literature. On one hand, there are some authors who emphasize the underlying scientific determinism. A reading of socio-economic processes that tends to separate the technical sphere from the social one – « *entre la machine et l’organisation* » (Opoku & M. Keitsch, 2006, p. 144), the autonomy of the technological, material and susceptible to engineering control aspects. This separation is gladly welcomed by those who want to get away from the vague and demagogic drifts into which some policies fall: « *Cette démarche se révèle d’autant plus nécessaire qu’elle contribuera à tempérer les dérives de l’écologisme politique, toujours prompt à propager des*

37 « In fact, and not surprisingly, specialists of scientific ecology had for a very long time the intuition of the industrial system as a subsystem of the Biosphere. » (Erkman, 2001, p. 5).

38 Suren Erkman in fact speaks of a West “*hyperindustrialiste*” (Erkman, 2004, p. 208).

semi-vérités, séduisantes mais trompeuses, issues d'une vision idéalisée de la nature [...] » (Erkman, 2004, p. 172). By cutting out the human and its subjectivity, it remains a purely objective world more easily ascribable to prescriptive models. On other hand though, there are authors who highlight an irreducible metaphorical component. Industrial ecology is an evocative term that causes shifts in meanings, overlaps, and which already contains in itself an attempt to exorcise the characteristics usually associated with the traditional Fordist industry. For this contrast between industrial ecology as a model and as a metaphor, see the article “*L'écosystème industriel. Difficulté épistémologique d'une telle analogie*” (Hess, 2009).

These two meanings are also intimately linked to the use that is made of this concept. Academics, technicians, politicians constantly oscillate between a defence of the strictly practical and methodical use, a concrete and necessary step forward in a context of environmental crisis, and the acceptance of a more rhetorical and open use that would allow appropriations and continuous redefinitions – as well as more unscrupulous in its use as a consent-building tool –.

It is important to underline that in the Francophone context this term takes on a more territorial connotation: « [...] *la majorité des chercheurs français en Écologie Industrielle s'intéresse aux interactions entre la société industrielle et la nature et notamment aux échanges de flux de matières et de substances avec les écosystèmes naturels et à l'intérieur de la société industrielle, sur un périmètre donné, soit un territoire.* » (Brullot, Junqua, & Zuindeau, 2017, p. 776). So much so that many of the French authors prefer to talk about “*écologie industrielle et territoriale*” (EIT)³⁹.

However, and this also applies to French studies, the predominant spatial category is that of “ecosystem”. In fact, it could be added that other categories such as cities, territory, areas, zones, etc., do not disappear from the discourse but are subordinated to a vision – inspired by biological and ecological studies – of space as a set of objects and organisms involved in transformation processes. Like that of territory, the ecosystem is a holistic category, open to include the entirety of a given space. But, on other hand, it emphasizes the material and physical dimensions of the processes: energy, material transformations, temperature, emissions, flows. And it tends to leave the institutional, administrative and political components in the background. This passage from territory to ecosystem, or from city to ecosystem (Parlange, 1998) – which sometimes becomes an “urban ecosystem” (Pickett, 2015) – has a long and independent history from studies related to industrial ecology. However, the latter contribute to its expansion by adding an in-depth study on the relationships between production and industrial processes and environmental systems.

How does industrial ecology become a concrete policy in Geneva? The translation of this concept into policies, which the case of the Eco-industrial Park of Kalundborg, Denmark, constitute perhaps the best-known precedent, often occurs through the promotion of an overall intertwined, interconnected, collaborative functioning. Where – is believed – the actors create more efficient, more virtuous relationships which become synergies, symbiosis⁴⁰. Where the processes do not have a single result – that of economic profit –, but many – social and environmental –.

39 This is the term chosen for example by the French law 2015-992 of August 17, 2015 *relative à la transition énergétique pour la croissance verte*.

40 Suren Erkman parla di “symbiose industriale” nel suo studio del caso di Kalundborg (Erkman, 2001).

The emphasis is on proximity. Various types of proximity: « *De ce fait, la distinction entre la proximité spatiale (géographique), la proximité organisationnelle, la proximité cognitive et la proximité institutionnelle est nécessaire.* » (Lorek, 2012, p. 137). A proximity between enterprises and processes that reduces the environmental costs of displacements, generates new opportunities to create points of convergence – “the neighbour’s waste is my resource” kind of conjunction – and potentially enabler of agglomeration effects (Laperche & Merlin-Brogniart, 2016). But also a proximity that imposes behaviors, that regulates the ways of relating between the individual actors: « *La résolution des conflits passe en effet par la capacité des acteurs à mobiliser et/ou à construire une proximité relationnelle susceptible de faciliter la production de règles collectives et d’un projet de développement partagé.* » (Beurain, Maillefert, & Lenoir Varlet, 2017, p. 25). However, and this is an important contradiction, while the concept communicates an idea of spatially broad and interconnected “ecosystems”, the pursuit of proximity mainly translates on the transformation of clearly limited parts of the territory: *parcs industriels, zones d’activités, écoParcs*, etc. Where are the borders in an ecosystem? Asks Jouni Korhonen (Korhonen, 2005).

For territorial policies, the concept of industrial ecology has a lot to offer in the management of industrial zones. It allows to approach industrial areas in a different way, to try different alternatives in a moment when they seem to be scarce. The implementation of this concept allows first of all to talk again about industrial areas, their transformation and their functioning within cities. To present them not as an obstacle to the ecological transition but as an asset. Industrial ecology offers a positive image of these parts of the territory, profoundly affecting their attractiveness (Decouzon & Maillefert, 2012). But, beyond these representation-related effects, the use of this concept also have consequences on the relationships between actors. Under this paradigm, the actions of very different actors can be combined – so it is claimed – in ways that are also completely different from before. Industrial ecology builds a sense of common direction that absorbs and redirects a multiplicity of different and sometimes conflicting purposes and interests. It imprints a direction – which is neither fixed nor monolithic – on the tissue of different processes and problems present in a productive territory: « *L’enjeu apparaît ainsi de déterminer la contribution de l’écologie industrielle et des acteurs qui y participent à la construction d’une proximité institutionnelle partagée, intégrant la résolution des problèmes productifs divers au sein du territoire et/ou à un processus de concertation permettant de faire émerger un projet de développement conciliant les différentes valeurs attachées à l’environnement au sein du territoire.* » (Beurain & Varlet, 2015, p. 202). One could say, it brings the diversity of processes and interests of the actors closer to the overall functioning of the territory.

In 2008, the French newspaper *Le Monde* published an article entitled “*Ecologie industrielle. La nature pour patron*” (Joignot, 2008) in which the author interviews Suren Erkman⁴¹ and Daniel Chambaz⁴² and presents not only the characteristics of the concept but also its operational possibilities. In this article, Geneva is presented as an avant-garde territory in introducing principles of industrial ecology into its policies. Some Genevan initiatives are presented, like the project to use the water from the Léman lake to cool laboratories and heat neighboring buildings, the introduction of the principles of industrial

41 The author of the article emphasizes Suren Erkman’s involvement in local politics: « *Il a contribué à l’adoption par la ville de Genève d’une loi adoptant plusieurs principes de l’écologie industrielle.* » (Joignot, 2008)

42 Daniel Chambaz is, starting from 2007, *Directeur général de l’environnement* of the Etat de Genève.

ecology in the law on Agenda 21, the Ecosite project and its works to quantify the Geneva industrial “ecosystem”. In fact, this article reveals a Geneva determined in orienting its transformations towards the paradigm of industrial ecology. In making it the guiding concept for concretize the transition from an industrial system considered obsolete to a new operating model compatible with new environmental awareness.

The quantification works of the Ecosite project mentioned in the previous paragraph resulted in two publications of which Suren Erkman was editor. A first one released three years before the Le Monde article where the first results of a measurement of the “metabolism” of the Geneva industrial system are revealed. Here are is mainly emphasized the “unsustainability” of an economy extremely dependent on external resources and the importance of the Geneva state as an economic player⁴³ and its consequent responsibility in being a reference model in conceiving eco-sustainable economic practices (Direction générale de l’environnement, 2005). The second report comes out ten years after that first publication – and three years after the inclusion of “industrial ecology” in the Geneva constitution⁴⁴ –. In this publication, which is presented as a summary of the work carried out on the industrial ecology frame of Geneva for 15 years, a set of initiatives launched in Geneva in this period are exposed – in the treatment of construction materials, metals, energy, water, etc. –, as well as a series of operational lines on which it is suggested to focus the attention (Direction générale de l’environnement, 2015).

The main institutions in translating the principles of industrial ecology into local policies are above all the *Direction Générale de l’Environnement (DGE)*, the *Direction générale de l’eau (DGeau)*, the *Service Cantonal du Développement Durable (SCDD)*, the *Office Cantonale de l’Énergie (OCEN)*, the *Services Industriels de Genève (SIG)*, the *Office de l’Urbanisme (OU)*. But it is the FTI and its *écoParcs* policy that has the greatest impact on the Geneva industrial sector and its transition towards a more sustainable economic system. The importance of a third party in the implementation of industrial ecology policies is moreover an aspect that is well recognized by the literature. An actor – often public or parapublic – which becomes the bearer of the collective interest is considered almost a necessary condition for the creation of inter-enterprise relationships capable of developing dynamics close to the expectations of industrial ecology supporters: « *Une démarche d’écologie territoriale va donc engager au minimum trois acteurs : l’acteur territorial et deux entreprises.* » (Decouzon, Maillefert, Petit, & Sarran, 2015, p. 154).

In Geneva, following the principles of industrial ecology translates into initiatives aimed at a radical reorganization of the overall functioning of the territory. But it is the existing and planned industrial areas that become the real laboratory for experimenting with new economic models. It is the industrial areas that become *écoParcs* where are tested new types of spaces, new infrastructures⁴⁵, new types of

43 « [...] it is the number one buyer (public commissions), it owns and manages the largest amount of real estate, and it is the largest civil engineering contractor (roads, infrastructure, etc.). Above all, it is the canton’s chief employer with more than 10% of jobs. From a different perspective, it is responsible for educating and training young people. » (Direction générale de l’environnement, 2005, p. 31)

44 In 2012, in fact, Article 161 was introduced on the constitution where it is stipulated that « *L’Etat respecte les principes de l’écologie industrielle.* » (alinea 1) and that « *Il met en œuvre une politique de réduction à la source des déchets, particulièrement ceux qui sont les plus dommageables pour l’environnement.* » (alinea 2).

45 As the CADZIPLO in Plan-les-Ouates: « *Réseau de récupération des rejets thermiques à basse température et de distribution de chaleur dans la zone industrielle de Plan-les-Ouâtres (ZIPLO), pour couvrir une part importante des besoins de chauffage des bâtiments de la zone industrielle.* » (Sneiders, 2015).

entreprises interactions where « *les déchets d'une entreprise servent de matière première ou de combustible à une entreprise voisine, dans une sorte de "chaîne alimentaire".* » (Antonioli , 2013, p. 146). The implementation of an ecological industrial policy has led the Canton to « *repenser les sites de production* » (L'écologie industrielle à Genève, s.d.).

Part II
An excavation in the
plans.
Zimeysa industrial
area in twenty years
of territorial projects

Some notes on the Geneva planning legislation

The sources used in this part of the thesis are mainly plan documents. In order to root the readings made later by placing them within a general regulatory framework, here are some notes which aim to outline the most relevant features of this normative context.

In 1972 the parliament adopted the federal decree on spatial planning (AFU) and in 1979 the '*Loi fédérale sur l'aménagement du territoire*' (LAT) drastically reducing the right to build outside building areas (Nahrath, 2003). With the oil crisis of 1973 there is a drastic reduction in investment in construction (Matthey & Schuler, 2017) and cities largely cease their continued growth to make room for the "peri-urban" growth of individual homes (Ibid.).

From the 80s and 90s in Switzerland, "ecological" policies began to take up more and more space in the debate on spatial planning. Ecological positions generate conflicts between actors – mainly between associations for the protection of the natural environment and economic actors – which will, however, be progressively integrated into the development of projects to avoid the impasse – inevitable in a context of direct democracy – (Kaufman & Joye, 1998). In this context the first '*Loi sur la protection de l'environnement*' was born in 1983, as well as the '*Ordonnance sur la Protection de l'air*' (OPair) of 1985 and the 1994 initiative for the protection of the Alps and a new planning model is begins to emerge that sees in the "*ville compacte*" (Kaufman & Joye, 1998, p. 97) a spatial solution suitable for environmental problems.

Swiss planning replicates the national federating political structure in an “*aménagement fédérateur*” (Matthey & Schuler, 2017) which articulates the “*aménagement partiel*” – in the sense of sectoral and technical planning of particular infrastructures and surfaces of a specialized nature – and the “*aménagement global*” – planning of a territory composed of different parts to be coordinated and placed in a hierarchy – at all scales (Winkler, 1967). At the same time, this federating structure of Swiss planning that accentuates the coordination and the ecumenical character of the management of different themes and problems coincides with an inclination to focus attention on a few points deemed essential. Swiss planning is in fact very directional, unlike, for example, that of the French SCoT¹, placing interests in a hierarchy and making all interventions derive from a greater objective such as reducing land consumption “*développement urbain vers l’intérieur*” or “Sustainable Development”. The approach adopted by the Swiss planning documents seek to combine the search for comprehensiveness, through the inclusion of the greatest number of issues and problems, with the aspiration to condensation, giving priority to a macro objective that gives a meta-direction and dominates all others, and therefore remains « *plus synthétique et plus parlante pour les élus comme pour les citoyens* » (Duval, Iselin, & Marques, 2017, p. 32). The marked hierarchy facilitates the interpretation of the plans and the identification of « *idées inspiratrices* », *les conceptions générales du futur développement* » (Winkler, 1967, p. 74) that compose the coveted purpose that lies behind the regulatory layer².

The main tools of spatial planning are the structural plan (*Plan directeur*), which indicate what ‘should’ be done, what is desirable to be done, and therefore has a more general character, and the *Plan d’affectation* which designate what ‘must’ be achieved and, having the force of law, is more specific and concrete (Winkler, 1967).

Swiss planning at the confederation scale

The structure of planning rules in Switzerland has three levels, that of the federal state (the *Confédération*), that of the federated states (the cantons), and the municipal one (the “*collectivités publiques inférieures*”). The division of powers and tasks on these three levels is guided by the principle of subsidiarity (Article 3 of the *Constitution fédérale de la Confédération suisse* of 18 April 1999) (Donzel & Fluckiger, 1998), which assigns a higher power to the cantons than to the Confederation. The municipalities, on other hand, carry out all the tasks assigned directly by the cantons. This is also the case with regards to *l’aménagement du territoire*: Article 22 quater 9 of the Federal Constitution of 1874 (version 20 April 1999) (which later becomes Article 75 of the Federal Constitution in force today)

1 The ‘*Schéma de Cohérence Territoriale*’ (SCoT) in fact tend to present the diverse issues as a succession of different and separate elements and, lacking a transversal approach, the « *bureaux d’études peuvent aborder le SCoT avec une vision parcellisée des problématiques à traiter et sont ensuite conduits à des redites qui alourdissent la rédaction* » (Duval, Iselin, & Marques, 2017, p. 31)

2 For Ernest Winkler « *l’idée directrice* » is intimately linked to the space over which the communities hold sovereign rights, and to the characteristics of these communities : « *le chiffre de la population, sa stratification, son niveau général de vie, puis finalement les différenciations sociales et les exigences diverses qui en résultent pour les transports, le style des institutions publiques et l’utilisation des surfaces disponibles* » (Winkler, 1967, p. 75).

assigns to the Confederation the task of issuing the principles applicable in the territorial management plans which will however be the cantons to develop in their entirety. The relationship between cantons and municipalities in territorial planning matters also responds to the principle of subsidiarity, it is the canton that issues laws that distribute competences to the municipalities. Article 2 of the *Loi fédérale sur l'aménagement du territoire* of June 22, 1979 (version 1 January 2019) (LAT) underlines this principle, leaving the lower powers a sufficiently significant margin of maneuver (Donzel & Fluckiger, 1998).

In Switzerland spatial planning is considered « the specific tackling of all political problems which affect the living space » (Muggli, p. 3) and it is the highest levels of the political hierarchy that take on the task of « manage spatial conflict » (Gresch & Smith, 1985). The confederation therefore focuses on the issue of planning principles and tools, on the directing of inter-cantonal collaboration, and on the planning of infrastructures of regional importance (highways, railways, airports, etc.). The first article of the LAT establishes the principle of 'economical land use' (Muggli), attributable to the need to promote a « *utilisation mesurée du sol* » (LAT) in a territory with only 30% of the surface that can be used intensively (the rest is occupied by mountains, wooded areas, lakes and rivers). This first principle is of fundamental importance in the Geneva projects which, as will be seen below, focus on the concentration of buildings and densification of already built spaces, avoiding soil consumption at all costs. This attention to the rationalization of the soil and the will « *d'orienter le développement de l'urbanisation vers l'intérieur du milieu bâti* » (LAT, art 1, line 2) it is also linked to the transition to an economic orientation that makes a different use of its territory:

The dynamic of the strongly export-orientated economy has long since switched from land-intensive and polluting industry to service industries. A large number of branches of industry in the existing settlement area now provide the conditions for greater "inwards" settlement development on former industrial land.
(Muggli, p. 2)

The confederation pursues "decentralized" and "concentrated" territories (Muggli, p. 8), populated by compact settlements and "dense building typologies" (Grams, 2018).

The planning instruments of the Canton of Geneva

The cantons are responsible for the creation (with a recurrence of at least ten years) of the *Plan directeur cantonal* (Cantonal structure plan) (LAT, Articles 6 to 12), the most important instrument of the Cantonal policy for spatial planning. The PDCn has binding force with respect to the local authorities (who are however called to participate in their construction), providing the main reference framework for the activities that are the responsibility of the municipalities. These plans establish the ways in which the various activities on a national, cantonal and municipal scale are connected, and also define the necessary measures in terms of new construction, mobility, management of rural areas, natural environments and resources. The "*planification directrice*" (Donzel & Fluckiger, 1998) therefore doesn't propose a project that defines a "desirable final state" (Muggli, p. 5) of the cantonal territory, but a continuous process of coordination and guidance that anticipates changes, allocates resources, contains tendencies

that are not shared.

The *Plan directeur* is composed of two main documents, the *Concept de l'aménagement cantonal* and the *Schéma directeur cantonal* – on some occasions to these documents are added others aimed at dissemination to the general public (brochures)–. The document *Concept de l'aménagement cantonal* defines, on one hand, general principles for the organization of the territory for the next 10-15 years and, on other hand, specific principles for each field of study³. The document relating to the *Schéma directeur cantonal* presents papers, projects and measures which, based on the *Concept de l'aménagement*, constitute the « *volet opérationnel du plan directeur cantonal* »⁴.

This work takes into consideration above all the *Plan directeur cantonal 2030 (PDCn)*, adopted by the Grand Conseil on 20 September 2013 and approved by the Federal Council on 29 April 2015. This plan had a first update validated by the Council of State on 5 September 2018 and adopted by the Grand Conseil on 10 April 2019. The PDCn 2030 aims above all to create the necessary conditions to accommodate an important demographic growth that is expected with the arrival of 2030, while at the same time preserving the quality of life and rural areas of the cantonal territory. With this objective fixed, the plan establishes the necessary interventions for the construction of 50,000 new housing units and establishes the fundamental measures for the promotion of « *une ville compacte, multipolaire, verte* ».

The *Schéma directeur* offers general planning principles (action frameworks), directives, principles for the location of the different activities, and a plan of measures for the implementation of projects⁵. The 43 sheets of measures are divided into four chapters – urbanization, mobility, rural areas, as well as supply, elimination and risks – and divide the information into a first part oriented to the authorities which establishes the way in which the Canton intends to address the problem and the actions to be taken to achieve the set goal – here are also indicated the principles of planning and localization, implementation measures and responsibilities of the various agencies involved – (PDCn 2030, 2015); a second part that presents a dossier aimed at developing in detail the particular issue – this part is informational only –; a third and final part which consists of a list of the various projects to be implemented and their progress.

The canton also counts with the *Plan d'affectation* (Land use planning). In Switzerland, the municipal authorities are the ones to develop the *plan d'affectation*. In fact, the cantons can establish land use rules but most of them delegate this task to the municipalities (Muggli, p. 6) – which must nevertheless comply with the directives contained in the plans developed at cantonal level –. However, in the case of the cantons of Geneva and Bâle-Ville, it is the *Grand Conseil* that assumes this competence. In the *plan d'affectation* the rules are much more detailed than in the *plan directeur cantonal* since it is the use of land, its boundaries, its modalities that are fixed in a binding manner⁶, as well as the distinction – very important in the Swiss context – between areas suitable for construction (*zones à bâtir*) and areas un-

3 Art. 3 line 3 of the *Loi d'application de la loi fédérale sur l'aménagement du territoire (LaLAT - L 1.30)*.

4 Art. 3 line 4 LaLAT - L 1.30.

5 The *Plan directeur cantonal Genève 2030* consists of 43 sheets of measurements, 15 project sheets and a summary map.

6 « *Les plans d'affectation règlent le mode d'utilisation du sol.* » (art. 14, LAT).

suitable for construction (art. 15. LAT)⁷. Unlike the *plan directeur cantonal* which bind only public authorities to each other (Article 9, LAT), the affection plans are enforceable against third parties (art. 21, LAT). The *plan d'affectation* are one of the main tools that the public authorities have at their disposal to try to make the actual use of the land coincide with the use attributed to that land (“affectation du sol”)⁸ and to give a certain order to the transformation of territories by combining « *droit privé (utilisation du sol et institution de la propriété foncière) et droit public (affectation du sol et politique d'aménagement du territoire)* » (Ruegg, 2008, p. 19).

The rules concern parcels, volumes, density, heights, dimensions, distances between buildings, etc., and take into account the quality of the soils, topography, environmental conditions but also the general objectives of spatial planning related to the type of intended destination⁹ (Donzel & Fluckiger, 1998). The *plans d'affectation* must be subjected to a public inquiry (Article 33, LAT) to be approved. The documents of the affection plans present a map with differentiated areas and a legend of colors and symbols « *comprenant parfois des indications utiles, ainsi que d'une réglementation qui définit le statut applicable à chacune des zones ainsi délimitées* » (Bovay & Wahlen, 2008, p. 755).

The cantonal authority also regulates construction through the issuing of building permits¹⁰. This is the case in the cantons of Geneva, Bâle-Ville et Bâle-Campagne, while in the other cantons it is the municipality that has control over the building permits. This permit, administered by the *Office des autorisations de construire*, determines whether a project is compatible or not with building regulations and with the principles that the various canton departments set as basic for compliance with their policies:

[...] *en droit cantonal, on citera les règles de police des constructions telles que les normes relatives à la sécurité des bâtiments, la protection contre le feu, la salubrité, l'esthétique, l'utilisation rationnelle de l'énergie, la protection des biens culturels, l'obligation d'aménager des places de stationnement, etc. (art. 22 al. 3 LAT). La conformité du projet à la zone est l'élément-clé pour l'obtention d'une autorisation de construire ordinaire [...].* (Donzel & Fluckiger, 1998, p. 19)

The planning instruments of the Municipalities

Municipal authorities take on generally more specific and concrete spatial planning tasks. The *Plan directeur cantonal* has in the *Plan directeur localisé* a corresponding instrument that guides the planning of a part of the cantonal territory including one or several municipalities, refining the contents of the

7 « *Le but d'une telle différenciation est d'éviter que les constructions se développent en ordre dispersé et de préserver des sites et des paysages de qualité.* » (Donzel & Fluckiger, 1998, p. 14).

8 « *L'affectation en revanche est l'utilisation du sol souhaitée par les pouvoirs publics compétents.* » (Ruegg, 2008, p. 13).

9 For example « *zones d'immeubles, de villas, de chalets, de maisons de vacances, de constructions d'intérêt public ainsi que les zones industrielles, artisanales ou d'activités [...]* » (Donzel & Fluckiger, 1998, p. 15)

10 The *autorisation de construire* is, after the *plan d'affectation*, the « *dernière étape dans l'enchaînement séquentiel* » (Donzel & Fluckiger, 1998).

plan and leaving more space for local specificities¹¹. The *Plan directeur communal* (LaLAT art 10 line 3) and the *Plan directeur de quartier* (LaLAT art 10 line 4) are part of this type of plans. These plans, once approved, have mandatory force for the municipality but have no legal effect on individuals. Currently a review of all municipal plans is underway, the *2e génération de PDCom* in fact takes its cue from the new cross-border, energy and mobility policies to redefine the plan tool at a municipal scale.

The *Plan directeur communal* particularly, develops the territorial vision of the municipal authorities, however joining the frameworks established by the *Plan directeur cantonal* and regional planning documents (Weil & Schütz, 2016). The PDCom is the main instrument of dialogue between the canton, the municipality and the population (Ibid):

Le PDCom est également un exercice de prospective et un instrument d'aide à la décision. En ce sens, il est un outil d'investigation et d'appropriation du territoire. Il sert à anticiper les besoins, orienter les projets, programmer les équipements et planifier les moyens financiers correspondants. Expression d'une vision politique, le PDCom constitue une référence permanente pour la gestion du territoire communal et la mise en œuvre des projets à incidence spatiale. (Weil & Schütz, 2016, p.6)

The construction of a PDCom takes place along various steps which can be the study and diagnosis of the municipal territory, underlining the criticalities and conditions of the landscape systems, housing settlements, services, infrastructures, etc .; the collection of statistical data regarding the population and local activities; the development of guidelines for an expected improvement with respect to the issues addressed; the condensation of intentions and desired changes in a summary chart and a series of measures. The combination of PDCom and the *Plan Directeur des Cheminements Piétons (PDPCP)*, which focuses on pedestrian infrastructure and street furniture, is also recurring.

Geneva planning and industrial areas

Industrial areas are dealt with in the PDCn and PDCom, however, the Geneva legislation provides for a land use plan (*plan d'affectation*) intended exclusively for these settlements. This is the *Loi générale sur les zones de développement industriel ou d'activités mixtes (LZIAM) L 1 45* of 13 December 1984 (entered into force on February 9, 1985) which lay the groundwork for the creation of *Plans directeurs des zones de développement industriel ou d'activités mixtes (PDZIA)*¹². These plans, developed by the *Département du Territoire* and adopted by the Cantonal Council of State, establish the general conditions for the management of the land and are enforceable against third parties. On some occasions, the Council of State gives the FTI the mandate to draw up preliminary drafts (*avant-projets*) of plans and structural regulations (art. 5 line 2, LZIAM).

11 Art. 10 of the *Loi d'application de la loi fédérale sur l'aménagement du territoire (LaLAT) L 1 30* of 4 June 1987.

12 Even if titled "*plan directeur*" they are overall land use plans.

Their contents are very schematic « *avec un accent porté sur l'aménagement des voiries et des espaces attenants, et sur les infrastructures à réserver* »¹³ and include the management of internal transport and circulation networks, supply networks and industrial pipelines, sewer and rainwater piping networks, equipment, intended use for each part of the area, natural surfaces or « *les aires et écrans de verdure propres à masquer la zone et à en assurer l'intégration au site environnant* »¹⁴, the open spaces, buildings and streets silhouettes (*gabarits*), land remodeling, parking areas, minimum and maximum land use indices, etc. (art. 2 line 1, LZIAM). In 2013 a clause came into force which, for the areas considered *Zones de développement d'activités mixtes*, allows a combination of industrial and tertiary activities with a ratio of 60/40% (art. 1, line 2, and art. 2 line 2, LZIAM).

The construction of public structures is also entrusted to the FTI, which however remains bound to coordination with the *Département du territoire* and with the municipalities (art. 5, LZIAM). Other tools that offer the public authorities facilities for the management of these areas are the 'right of expropriation' – which allows to declare public utility the buildings necessary for the construction of the infrastructures envisaged in the plans and, in general, for the “*mise en valeur*” of these areas (art. 8, LZIAM) – and the 'right of first refusal' (*droit de préemption*) – which gives the State of Geneva the opportunity to take possession of a property when it is sold to third parties and has the purpose « *d'éviter que des biens-fonds ne fassent l'objet d'aliénation à des prix excessifs* » (art. 10 and art. 11, LZIAM) –.

13 « Autres plans d'affectation » <https://www.ge.ch/consulter-plans-amenagement-adoptes/autres-plans-affectation> (consulted on 25/04/2020)

14 Art. 2 line 1, subsection f) LZIAM.

Chapter 1

A definition of the object

This chapter covers the way in which the Geneva plans have dealt with the Zimeysa industrial area. What place is assigned to it within a broader territorial framework, which spatial transformation is judged to be more suited to the needs of the enterprises and workers that use it, which discourses make shifts in its meaning? Looking at the industrial area within the plans allows us to grasp the space it occupies in all those explicitly (- and implicitly) imagined and desired territories. The role it plays in achieving those – iridescent – development ideas of which the plans want to be facilitating tools.

The exercise shown here is a sort of excavation on that dense and articulated “terrain” of the Geneva urban plans. Excavation in a figurative sense: the exercise is a geographically punctual and temporally composite in-depth study. Dense because the production of plans in this particular context has been very important in recent years, both for the regulations that impose the recurrence of some plans, and for the recurrence of numerous other initiatives. And, finally, articulated because each type of plan refers to its own normative context, to its own constellation of actors, and each moment is in turn linked to a particular cultural and political climate. The excavation, therefore, while retaining its focused gaze, raises a whole series of connections without which would remain only a purely formal observation detached from the meaning that each plan wants to convey.

The Zimeysa industrial area is chosen as the case on which to focus this part of the thesis for various reasons. The first and perhaps most important derives from the fact that among the industrial areas of Geneva it is the most present in urban planning. Each of the plans, be they regional, cantonal or municipal – obviously in the case of the two municipalities on which Zimeysa is located –, devote a part to the future that they want to shape for this place. Presence that varies its space within the plans according to the years, the considered scales and the concerns and perspectives that guide the drafting of these plans. But even in the case of plans that deal with the issue of industrial areas in a marginal way, Zimeysa remains the most considered one. In the last ten years Zimeysa has been the subject of numerous proposals for densification, extensions, *Grand Projets*, important architectural projects, etc. A laboratory where to experiment new models and alternatives.

To this abundance of materials produced on Zimeysa is added the other reason for its selection. That of its large surface. If it is looked at a map of the Canton of Geneva and Grand Genève territories, two concentrations of industrial areas will catch the eye. One in a north-south direction that starts from the industrial areas south of the airport, passes through Zimeysa, Bois-de-Bay, the PAV, Plan les Ouates and enters French territory with the Archamps technopole. And the other an L-shaped figure all in French territory that starts from the industrial areas of Annemasse, descends towards the areas of La-Rochesur-Foron and from there turns east towards the industrial district of Valle dell’Arve. Considered these concentrations, the 340 hectares of Zimeysa prevail as the most cumbersome area from the point of view of the extension of land. Neither the PAV – as we have seen, another important industrial area in Geneva

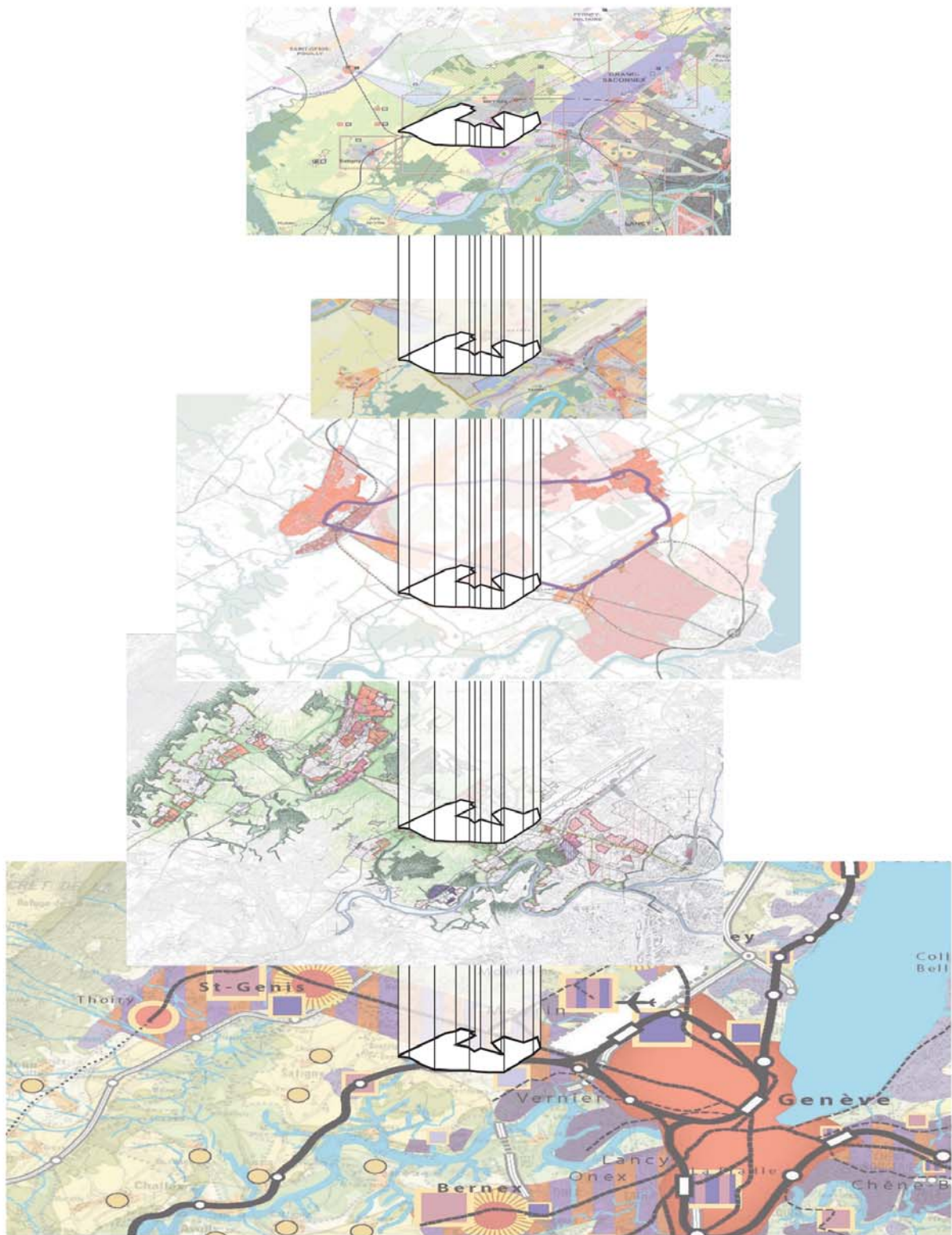
but now on the way to its conversion into an entirely tertiary and residential area –, nor Bois-de-Bay, nor Plan-les-Ouates, undermine this purely dimensional primacy. This cumbersome presence alone disputes that idea of Geneva that one could easily say prevails on the collective imagination. That is to say that of an international city, a tertiary city, of banks or in any case in no way identified with its industrial tissue.

As regards the choice of plans for the construction of this chapter, all the initiatives have been explored – the published ones – produced by the various institutional bodies of Geneva that concern the spatial transformation of the Zimeysa territory. This general exploration was followed by a more in-depth study of the most relevant sources. Some of these articulate the structure of this part of the thesis giving shape to the sub-chapters. The time frame considered is difficult to be defined. For the research interests, it would be enough to include recent plans, which give an updated idea of the new ways of designing the industrial areas of Geneva. But in order for the plans to feel “recent”, and in order to be able to fix that point in time beyond which the sense of relevance to the interests of the thesis would be lost, it is necessary to delve into the very contents of the plans and the production processes that are at the base. In fact, as far as regional plans and municipal plans are concerned, the issue is easily dissolved since their implementation has started *de facto* relatively recently. The regional plans had, before 2007 and the launch of the first *Projet d’agglomération*, some coordination initiatives and a few creations of monitoring and promotion bodies¹⁵, but these have rarely resulted in real plans for the transformation of the territory. The only exception is perhaps the *Charte d’aménagement de l’agglomération franco-valdo-genevoise CRFG* of 1997 which, despite anticipating the motives present in subsequent plans – primarily the guiding and structuring function of the public transport network –, does not delve into the issues investigated in this thesis. While the two Geneva municipalities where Zimeysa is located started the production of municipal plans (PDCom) in 2011¹⁶ and only now are they starting a second wave of plans (“*2e génération*”).

On other hand, the Cantonal plans escape the convenience of a periodization derived from the processes of realization of the plans themselves due to a long urban planning tradition that covers much of the twentieth century, and therefore require a selection process that takes into account their contents. Therefore, observing what the plans say about the industrial area of Zimeysa, we can see an inflection that takes place towards the end of the twentieth century between the plans that envisage with resolve new and large industrial areas necessary to accommodate an expanding manufacturing sector and the plans that, with the same resolution, stop the expansions of these areas and begin to promote the transformation of already built places. More precisely, in the context of the *Loi fédérale sur l’aménagement du territoire* (LAT) of 1979 which contributes greatly to this change of perspective, the 1989 plan is the first *Plan directeur cantonal* of Geneva to be implemented with the new legal basis. Even if the 1975 plan

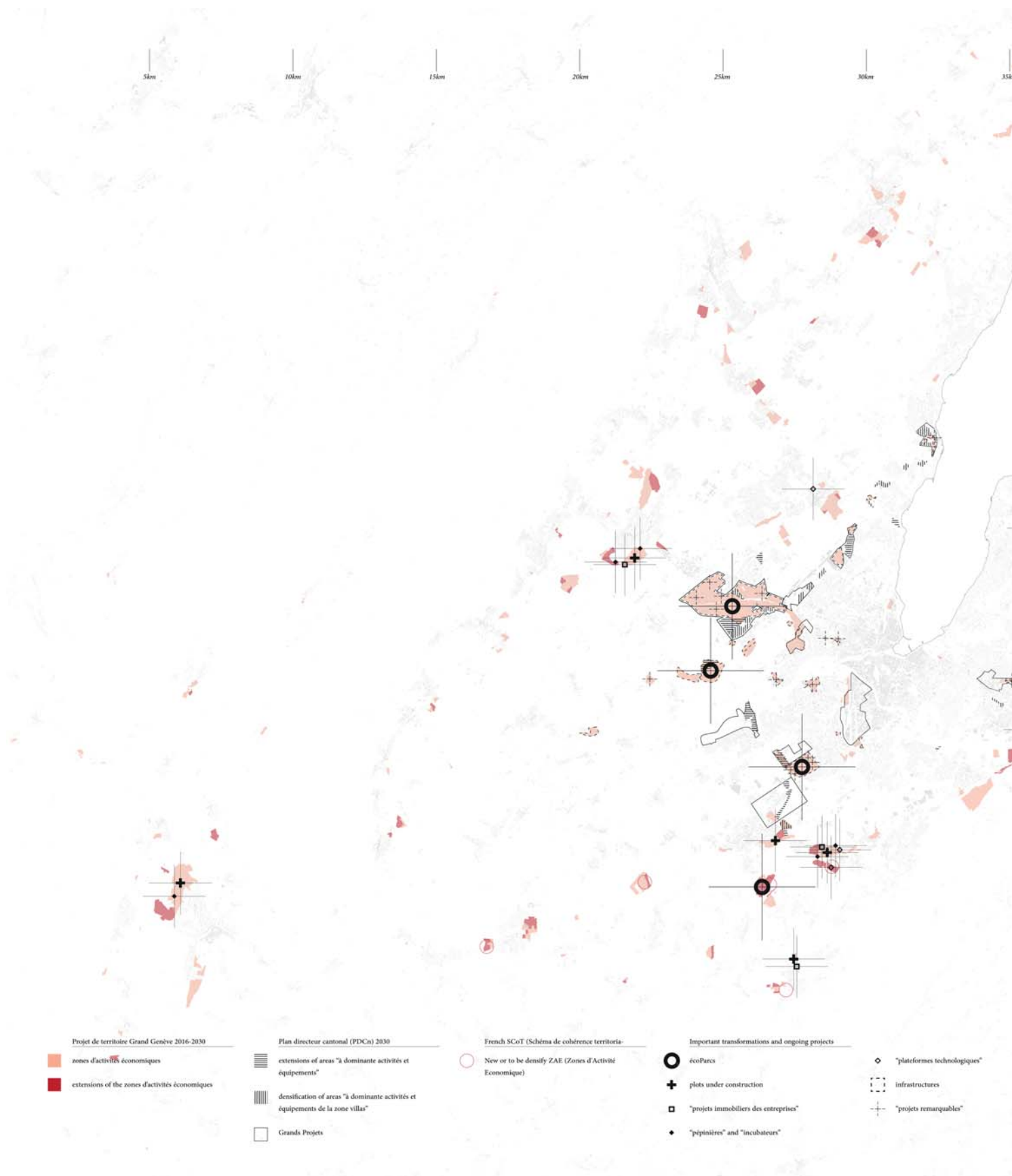
15 For example the creation of the *Comité régional franco-genevois* (CRFG) in 1973, the *Conseil du Léman* in 1987 and the *Association régionale de coopération du Genevois* in 2004.

16 The *Grand Conseil* of Geneva assigned a legal status to the *plans directeurs communaux* (PDCom) in 2002 and only in 2006 did the publication of the first plans began. Before these dates some municipalities have implemented municipal plans even if they did not enjoy a real legal status. However, this is not the case with the municipalities Meyrin and Satigny which have not published any *plan directeur* before this law, with the exception of a few “*études de village*” and some sectoral studies. Their first plans saw the light of day nine years after the 2002 law.



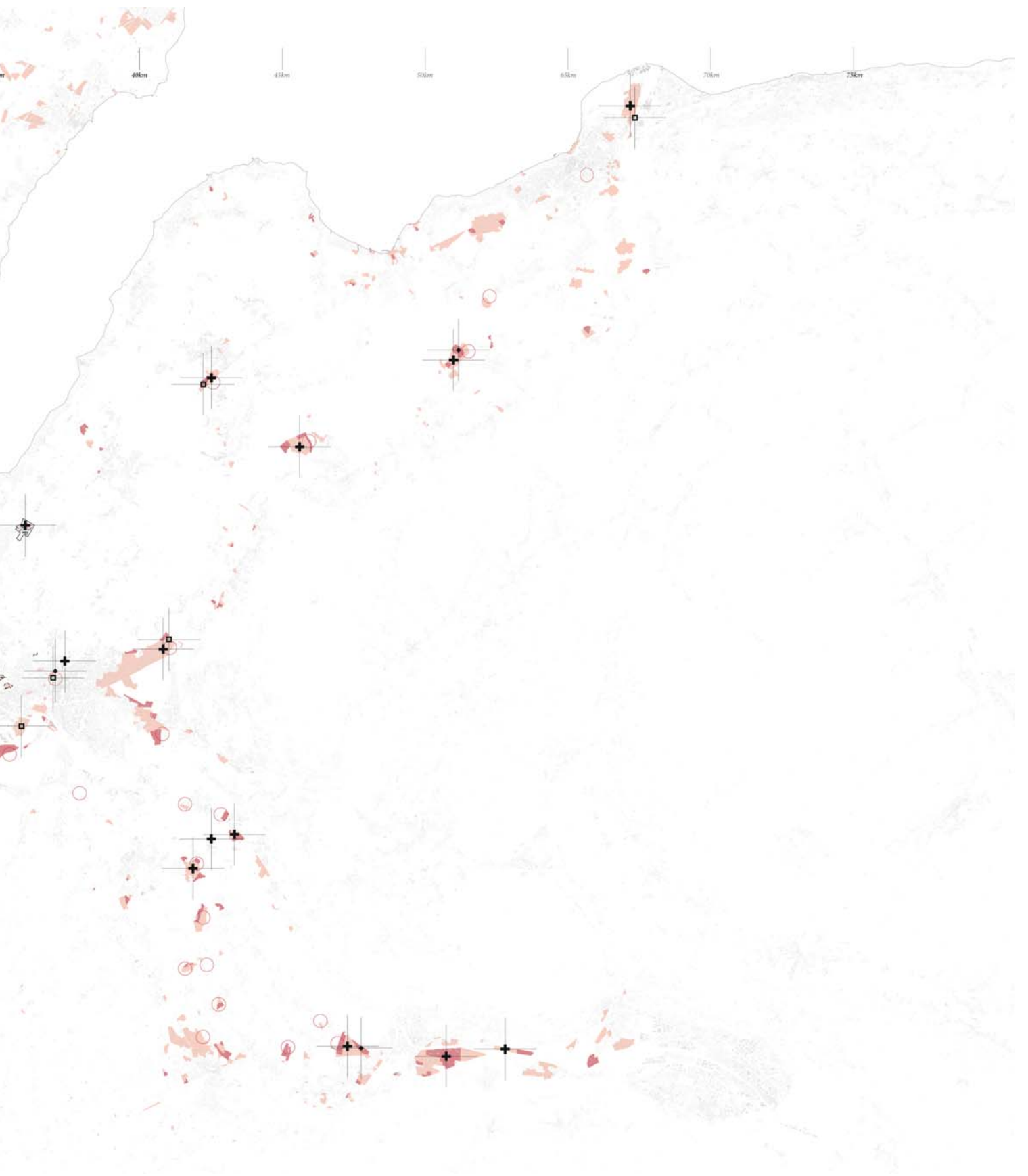
1. Excavation in urban plans.

Source: graphic developed by the author with maps used in this part of the thesis.



2. The projects for the industrial areas of the territory of Grand Genève.

Sources: graphic developed by the author. Data taken from the 2016 *Projet d'agglomération*, 2015 *Plan directeur cantonal*, the *Genevois français 2013 InterSCOT*, the 2018 *Schéma d'Accueil des Entreprises of the Pôle métropolitain du Genevois français* and the website *genie.ch* (<https://www.genie.ch/project/#page1:local>).



anticipates this new orientation to some extent¹⁷, the 1989 one more strongly embodies the refolding of the field of initiatives for the places of production within the boundaries of the already existing industrial areas. And therefore it contains the characteristics of a different – and still to be studied carefully – approach. “Recent” is therefore, for this thesis, a period of time that starts from 1989, even if, as has been said, the realization of the regional and municipal plans will begin much later.

Planning and industrial zones. A problematic relationship

From this exploration of the plans and their way of treating Zimeysa, an overall not very compact, ambiguous, open work emerges. Simply put, problematic. That is, all the compatibility problems and all those contradictions inherent to the theme emerge: an industrial area designed for a productive city, or in any case familiarized to this type of space, which today finds itself occupying another city, one that seems to want (and above all being able to) go forward without places dedicated to manufacturing production. The complications of passing from a presence that is not only tolerated but even required to a foreign existence, out of phase, and sometimes even besieged. The following sub-chapters are populated by these contradictions as well as by the efforts that attempt to resolve them from time to time. Three main themes permeate this group of investigated projects.

First of all, a certain contrast can be identified between a kind of planning that can be considered *cumulative* and the progressive emergence of a new problem. That is, on one hand, that articulated machinery of production of plans which includes all the figures, institutions, documents, laws involved in Geneva urban planning, which grows on itself, rooted in its own traditions, guided by principles that seem to change very little. Compositive and lexical choices are taken up several times by successive projects with few variations. This does not mean that there is little room for innovation but that there is certainly a recognizable, grounded, highly codified design approach. On other hand, an awareness – which immediately becomes a concern – about the difficulty and problems that a production site poses in the current context is growing. First an unexpected growth in the demand for production spaces, then enterprises that rapidly change their locations and their needs, completely new operating models and processes brought about by recent ecological paradigms. In short, the friction that is generated between a design tradition that has grown accustomed to responding to other types of problems and the disorienting effect generated by processes subject to structural changes.

Secondly, the ambiguity between the urban and rural dimension emerges as they continually contend for the fate of this place. Located on the edge of the Canton – but still very close to the most central areas of the city (only 2km away) – in a territory that is at the same time rich in residential and productive settlements, in important infrastructures and with a vast agricultural and natural heritage, Zimeysa finds itself dragged into a continuous tug-of-war between initiatives that see it as a fundamental part of an emerging urban center and choices that instead want to dilute it in a rural background. At the basis of this

¹⁷ This theme is explored in the sub-chapter 1.2.

uncertainty there are different ideas of development. Of its meaning and of the paths that must be taken to reach it. Each of these gives a different hierarchy to the territory and attributes the status of “resource” and “heritage” to different elements. This ambiguity is most evident in the regional and municipal plans.

Thirdly, the plans are often crossed by a continuous transition between an attentive demeanor to the existing conditions and a more impatient and hastier behavior that pursues the radical replacement of these conditions. The sense of necessity that emerges especially from the 2008 PDDE studies which underlines the importance of manufacturing activities for the economy and the overall functioning of the territory, and which gives rise to a series of concerns about the lack of material conditions for the welcoming of these activities is contrasted by the desire to “keep up with the times” so to speak and to hand over the industrial areas to the development of the tertiary and housing sector, to activities with high added value, to leisure, etc. Two different rationalities that overlap continuously, without looking for points of contact.

To this third theme, which emerges strongly in the *Projet d'agglomération FGV de 2ème génération* and in the *Plan directeur cantonal 'Genève 2030'*, the sub-theme of *disguise* is subordinate. That is, the will to shape a change in these industrial areas that makes them more like an urban neighborhood – or rather, a general idea of a residential area –, but without completely losing its vocation as a place for production.

This problematic relationship that Geneva planning has with the Zimeysa industrial area is however a very interesting deposit of experimentations. Perhaps thanks to the lack of a more linear and predictable exchange, the attempts, the unusual combinations, and the forcing have proliferated, and this makes this experience a precious field of study for investigating the new features of the project for production areas.

1.1. Meyrin and Satigny territory

The ZIMEYSA industrial area is closely linked to some infrastructural objects that have profoundly influenced its geographical positioning, its borders and its internal organization. These infrastructures are characterized by a certain exceptional nature: from the point of view of the size of their footprint on the territory but also of the importance they assume in the functioning of the socio-economic life of the Canton and of the adjacent French territories. Among these infrastructural presences we can mention the *Cité*¹⁸ built in 1960, which made Meyrin shift from a village of 3,200 inhabitants to a city of more than 14,000 inhabitants in ten years (Commune du Meyrin, 2004), and for which the production activities located in the Meyrin industrial area have been a fundamental financing instrument (Dumont, 1991, p. 694). In the north-west, between France and Switzerland, CERN takes place, the *'laboratoire européen de physique des particules'*, built in 1954 and since then it has become a center of attraction for researchers from all over the world. To the east there is the intercontinental airport in Cointrin and about three hectares of shopping centers, while to the north there is the Hôpital de la Tour and the Center

18 « *Première cité satellite de Suisse.* » (Raffestin S. , 1996)

Médical de Meyrin. It is also important to mention transport links such as the Lyon-Genève railway and road infrastructures such as the Route de Meyrin built in the eighteenth-century and enlarged in 1973 (Commune du Meyrin, 2004, p. 33), an important axis of connection between the Ville de Genève and the French commune Saint-Genis-Pouilly, and the A1 motorway, “*autoroute écologique*” and the first motorway link between France and Switzerland.

The background of these “*grands éléments*”¹⁹ is that of a mainly agricultural territory. And this is an ambiguity that distinguishes these municipalities but, as we will see later, also the other industrial areas investigated in the Geneva canton. That is, on one hand, the reason why we can distinguish infrastructure objects that relate to other objects and other contexts of different geographical scales while, on the other hand, it remains instead a typical rural territory equipped with mostly agricultural activities, woodlands, riparian vegetation, small villages and buildings. However, this prevalence of agricultural land is not accompanied by a relevance in the context of activities conducted by the local population: only 0.1 and 0.2 percent of workers in the municipalities of Vernier, Meyrin and Satigny respectively work full-time in agriculture. Instead work related to the tertiary sector and, above all in the municipality of Satigny, to manufacturing activities prevails, which is mainly concentrated in the industrial areas of Zimeysa and Bois-de-Bay and makes these municipalities among the most “attractive”²⁰ in the Canton.

	Meyrin	Satigny	Vernier
<i>Inhabitants (2017)</i>	24.128	4.198	35.423
<i>Foreigners (2017)</i>	43,7%	27,6%	44,4%
<i>65 years or more (2017)</i>	17,2%	13,8%	14,7%
<i>Full-time workers (2015)</i>	26.217	7.941	17.751
<i>First sector workers (2015)</i>	0,1%	2,0%	0,0%
<i>Second sector workers (2015)</i>	17,8%	53,7%	27,7%
<i>Third sector workers (2015)</i>	82,1%	44,3%	72,3%

Source : OCSTAT, reference date June 2018

The “large objects / rural background” polarization is accentuated by the self-representation of this place and the proposed territorial projects. On one hand, projects that bring to the fore a grouping of objects

19 The architecture and urbanism offices Güller Güller architecture urbanism – Metron – Michel Desvigne in their proposal for the PACA (which will be addressed later) in fact called them “*grands éléments*” (Cahier n°70-3. Projets des bureaux d’étude pour le 1er degré, 2009, p.4).

20 The “attractiveness” of municipalities in terms of employment is an index measured by the *Office cantonal de la statistique* which put in relation the commuters who enter with those who leave the municipality (without taking into account cross-border commuters). In 2000 the municipality of Satigny had an index greater than 20 together only with the Ville de Genève (Source: *Office cantonal de la statistique (OCSTAT), recensement 2000*).



3. PACA Le Cercle de l'innovation de Genève.

Sources: Güller Architecture Urbanism. Geneva, Switzerland, 2007-2010 (<http://www.ggau.net/html/GG77.html>).

judged to be of exceptional value, on the other hand, projects that highlight the specific characteristics of the natural environment of the territory. In the first group, recent projects that link the industrial areas of these municipalities with other places outside the national border can be included, highlighting the possible “synergy” that could emerge from the interaction among the infrastructures deemed most relevant. These projects, which have found in the primary geometric figures a way to codify the structure of spatial connections and affirm their recognizability, are first of all cross-border cooperation programs and marketing strategies that highlight and enhance the assets considered more relevant than the territorial heritage.

The first of these is the *Rectangle d’or*, a cross-border project for the reorganization of a 760 hectare area (Depagneux, 2003) located between the Cointrin airport and the French municipality of Thoiry. The project, now called “*pôle de développement économique*” (Depagneux, 2003) now “*pôle tertiaire multifonctionnel*” (Commune du Meyrin, 2004), was born as one of the ten planning projects (*projets d’aménagement*) present in the *charte d’aménagement* adopted in 1997 by the Franco-Geneva authorities (Commune du Meyrin, 2004). Under the guidance of the *Comité régional franco-genevois* (CRFG) the *Rectangle d’or* builds a geography of objects that should support the joint development of this territory. These objects are selected as they are considered exceptional not only for their specificity but also for their capacity to offer appropriate interactions between them: the airport, the railway and the major road axes offer CERN and international organizations located on the west bank of the lake a varied and efficient transport infrastructure, while Cointrin airport activities together with the poles of « *activités à haute valeur scientifique et technique* » of Meyrin, Saint-Genis-Pouilly and Ferney-Voltaire and Cern are believed to create together better conditions for scientific research and technological transfer²¹.

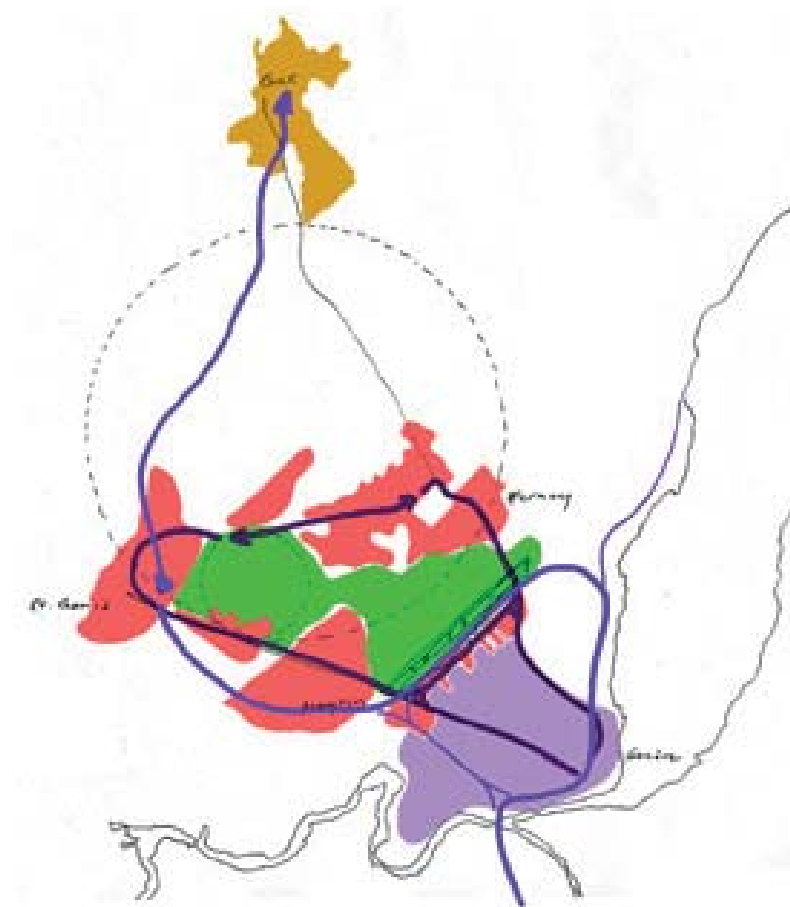
With the maturation of cross-border programs, the *Cercle de l’innovation* was born, another of those initiatives that can be called ‘primary geometric figure projects’²² which, beyond the new name that finds a more direct association in the circle with the Cern, retains most of the objectives and the programmatic directions of the previous project²³. This initiative is part of the *Projet d’agglomération Grand Genève* which after 2007 established the *Périmètres d’Aménagement Coordonné d’Agglomération* (PACA) in an attempt to divide the governance of the French-Swiss cross-border territory into sectors with political pilot structures and own technical expertise (Antoine & et al, December 2016, p. 21). Just as the square did, the figure of the circle relates, by enhancing them, the objects deemed most relevant, while leaving at its center a “multifunctional” agricultural and woodland void:

Le Cercle de l’innovation, concept d’aménagement territorial et économique, vise à mettre en connexion

21 « *A vocation tertiaire, le Rectangle d’Or se développera sous les bannières de la recherche scientifique et du transfert de haute technologie en collaboration avec le CERN, du développement des activités aéroportuaires, du renforcement de l’accueil international et du souci de la qualité environnementale. Le tout sur un périmètre de 20 km².* » (Commune du Meyrin, 2004, p. 26)

22 The use of the rectangle and the circle refers to a strict principle of order and hierarchy that puts each element in its place – in this case the *grands éléments*, also geometric, relevant, emphasized –.

23 « *Ce projet vise à créer une synergie entre les éléments moteurs qui composent la Genève internationale, l’Aéroport de Genève-Cointrin, le CERN, les ONG et Organisations Internationales tout en s’appuyant sur le potentiel économique existant. L’objectif consiste à favoriser un développement endogène et bien sûr qualitatif.* » (Le Cercle de l’Innovation. Une nouvelle étape dans le développement du Grand Genève, 2013, p. 4)



4. Développement urbain concentré dans le Cercle de l'innovation, avec son coeur vert.
Sources: Güller architecture urbanism (<http://www.ggau.net/html/GG77.html>).

les secteurs de développement urbain que sont le centre métropolitain de l'aéroport, les deux sites du CERN, la zone industrielle de Meyrin-Satigny (ZIMEYSA), les centres régionaux d'agglomération centrale de Meyrin, Ferney et Saint-Genis-Pouilly. Le développement urbain est concentré dans ces pôles existants. En son centre, le Cœur vert se veut un espace naturel et agricole multifonctionnel, préservé et valorisé qui accompagne les transformations urbaines. (Antoine & et al, December 2016, p. 201)

This coexistence of important infrastructural objects leads the *Projet de territoire du Grand Genève* to consider the municipality of Meyrin a « *centre régional d'agglomération centrale* » and an « *aire urbaine d'agglomération centrale* » (Weil, PDCOM, 2020), equipped with an « *aire de développement* » (Zimeysa) of great importance. For the Grand Genève project, the municipality of Meyrin is a node closely linked to the city center of Geneva and the “*pôle régional*” Saint-Genis-Pouilly. Nonetheless, this position assigned by the Grand Genève project is only partially accepted by the municipality of Meyrin which claims its greater centrality, precisely supported by the exceptional nature of its territorial assets: « *Cette vision cantonale, centrée sur la ville de Genève, est donc à nuancer, car elle ne reflète pas le rôle que joue la Commune dans la structuration de cette partie de l'agglomération. Meyrin refuse ainsi la vision cantonale d'une commune à la périphérie du centre urbain et du centre régional.* » (Weil, PDCOM, 2020, p.20).

Regarding the second group of projects, the territory of Satigny and Meyrin is treated in such a way as to bring out its natural features, its agricultural lands, its rural heritage, etc. The vineyards of Satigny and the nature reserves of Mategnin take a leading position in the hierarchy of values that these projects want to establish. Within this framework, the Zimeysa industrial area represents an uncomfortable presence as it is judged in direct contrast to the image that it is intended to offer. Even if the regional and cantonal projects add a lot to this direction, it is those promoted by the municipalities that contribute the most to the definition of this territory as a deposit of important rural assets. As we will see later, the municipalities do not count only with urban plans (*plan directeur localisé*) but they have a wider range of tools at their disposal to initiate and implement initiatives for the promotion and valorisation of their rural heritage.

Zimeysa therefore has its place in a territory divided between an image centered on its large infrastructures and another image that instead highlights its rural components. For the first, Zimeysa enjoys a non-secondary position, easily assuming the role of infrastructure for production or in any case of fertile ground for the growth of companies. For the second, Zimeysa remains an obstacle and becomes an object to be neglected and left in the background or to be transformed to adapt it to the selected and favourite country appearances.

A divided territory

The territory between the municipalities of Meyrin and Satigny seems to be looking for a specific role, an importance, an identity within the regional panorama. In this introspection the territory links its self-representation sometimes to large objects and others to the natural environmental background. The

large objects previously discussed, the CERN, the industrial areas, the transport infrastructures, push the attention on the “exceptionality” of this territory, on its being well equipped with fixed capital assets for its economic development, on being an internationally attractive job center. The natural environmental heritage, as it has been just shown, pushes on the rural, healthy, open, specific characteristics of this territory. And this unresolved ambiguity influences the design choices made on various scales. In the plan for Satigny, for example, the municipality is presented as a « *poumon vert* » for the Canton and a « *campagne viticole pour les urbains* » (Weil, PDCOM, 2010, p.13), but at the same time refuses a total identification with this rural character: « *cette impression doit être nuancée : si le contexte agricole et campagnard est manifeste au premier regard, la proximité de l’agglomération genevoise est néanmoins évidente.* » (Ibid., p. 13). Indeed, its large industrial areas serve to justify its being other than the “wine-growing commune” : « *La commune joue également un rôle majeur au niveau cantonal par la présence d’importantes zones d’activités [...]* » (Ibid., p. 13); « *Ces zones représentent plus de 7’000 postes de travail, répartis sur environ 400 entreprises.* » (Ibid., p. 15).

The tension between the rural dimension and the “urban” importance of this territory significantly affects the plans for productive settlements. Industrial settlements, in this enlarged context, are treated both as a resource and as an obstacle to a certain improvement. The plans in fact insert the production areas of Zimeysa and Bois-de-Bay into a web of objects, infrastructures, processes, with respect to which they assume not a greater importance. Their role is here more complex and articulated and, above all, constantly questioned, negotiated. A role that escapes specialization but that instead opens up to contamination with all the strategic assets of the area.

It is this intertwining of different elements (rural, urban, “natural”, mineral, etc.) that builds for the policies of the plans a “*territoire porteur d’innovation*” made of “local synergies”, “network organizations” and “circulation of knowledge” (Charbonnel, 2016, p. 13). The tension between the rural background and the large infrastructural objects, and its non-solution, seems to be compatible with an economic agenda that selects and valorises the objects present in a territory as “*ressources territoriales riches et diversifiées*”: « *Il est question d’une masse critique pré-existante, ou bien à venir, d’individus, d’équipements et de savoir-faire déterminant la structure économique du territoire.* » (Charbonnel, 2016, p. 90). As we will see later, these tensions do not spare the design of industrial areas, and the great attention to environmental factors greatly influences the choices made by designers and decision-makers.

1.2. The Zimeysa industrial settlement

Before starting the study of the recent plans, it is useful to make some hints on the object in question, especially on the settlement logics that have conditioned its forms and on the previous plans that have also influenced its current shape. What today appears as a large uniform and well-defined industrial plate is composed of different parts that have been added over the years and of infrastructural elements that have influenced following concentrations, extensions, separations. What were the localization logics of this industrial area, what were the rhythms of its growth, what are its predominant urban materials?

The industrial zone of Meyrin and Satigny ‘Zimeysa’ is an extension of land for manufacturing activities which measures more than 3 km in length and more than 380 hectares of surface and which today houses more than 1,400 businesses and 16,000 workers (Lecoultre, 2019). « Zone “volontaire” »²⁴ born in the Sixties²⁵ under the name ‘Zimeysa’ (acronym for Zone industrielle di Meyrin et Satigny) to host heavy manufacturing activities and intended to be far from what was then considered the city, it gradually has become the destination of multinational companies such as Hewlett-Packard and the DuPont De Nemours and companies with high added value such as the watchmakers Chopard and Manufacture Roger Dubuis (Commune du Meyrin, 2004).

In the work conducted by the historian Dominique Zumkeller on the FTI important milestones in the creation of the Zimeysa industrial area have been documented. Among these, we can mention here the preparatory studies conducted by FIPA at the request of the *Département des travaux publics* the studies and negotiations conducted in 1968, when the Grand Conseil dealt with the law for the declassing of the area²⁶, the beginning of strong pressure caused by the lack of public transport in Zimeysa - accentuated by the progressive increase of workers²⁷ – and its attenuation with the creation of a trainstation by the CFF (*Chemins de fer fédéraux*) and the provision of its services by the TPG (*Transports publics genevois*) in 1987.

It recently has become ‘Zimeysaver’²⁸, an area composed of a set of industrial zones: the same Zimeysa (182 hectares); the Zodim (*Zone de développement industrielle de Meyrin*) (36 hectares), almost completely confined by residential areas including the *Cité* of Meyrin; the Zimoga (*Zone industrielle et artisanale de Mouille-Galland*) (41 hectares) to the south, within the administrative limits of Meyrin; the Zibat (*Zone industrielle des Batailles*) (38 hectares), the one further east; the Zirian (*Zone industrielle et artisanale de Riantbosson*) (6 hectares), almost entirely dedicated to commercial activities.

Zimeysa in the national maps

24 The emergence of “zones volontaires” is linked for Raffestin to a « [...] *prise de conscience d’un phénomène qu’il faut contrôler en raison de ses implications avec l’aménagement urbain général.* » (Raffestin, 1968, p. 54)

25 Plan adopted by the Grand Conseil on June 20, 1969 (‘LOI concernant l’aménagement d’une zone industrielle sur le territoire des communes de Meyrin et Satigny (3304)’).

26 At this time the considered perimeter consisted of 185 hectares divided into 96 plots of which 81 (140 hectares) were still in private hands (Zumkeller, 2010). The rest was the subject of a sale by the Protestant national church which leaves a quarter of the land of the future industrial area in the hands of the State of Geneva (Zumkeller, 2010).

27 « *Au fil des ans, le nombre d’entreprises présentes augmente notablement (il double entre 1980 et 1983) et la question revient plusieurs fois sur le tapis.* » (Zumkeller, 2010, p. 50)

28 The first document in which this name appears is the ‘*Annexe 4. Mesures du Projet d’agglomération 2012 : urbanisation, mobilité, paysage et environnementil*’ of the *Projet d’agglomération FVG* of 2012. Here Zimeysa is one of the *projets stratégiques de développement* and is called « PSD ZIMEYSA élargie (ZIMEYSAVER) » (p.37).

Looking at the maps produced by the ‘*Office fédéral de topographie*’ (swisstopo)²⁹ it can be grasped the gradual formation of that large industrial settlement which is now known as Zimeysa. Here we briefly cover how this industrial area has progressively developed the morphological features it presents today. The characters mainly linked to the passages between different cultural climates will instead be outlined in the consecutive section.

In the national map of 1958³⁰ where the industrial area is located today, only agricultural fields and housing settlements of the village of Meyrin and the more scattered ones of the municipality of Vernier to the east appear. In the 1967 map³¹ there are new presences such as the Route du Mandement – main link with the municipality of Satigny which will also become a clear border between the industrial settlement and the agricultural areas –, the Rue de Veyrot, the Rue Lect and the western part of the Route du Nant d’Avril – internal road infrastructure to what will later become the Zimeysa industrial area following a parallel orientation to the route de Meyrin – as well as the agglomeration of buildings of the Cern and the first buildings of the *Cité*. There is still no industrial building except for those of the automotive industry (Fiat Suisse SA) on Rue des Voituriers and some other small exceptions. In this first moment the industrial buildings are linked to the *Cité* and the Route de Meyrin.

In the 1974 map³² other roads within the future industrial area emerge, such as the Rue de la Bergère, Rue de Pré-Bouvier and Rue Alphonse-Large, which segment the space delimited by the 1967 map streets giving continuity to the orientation set by them. A second and final development of the *Cité*’s *grands ensembles*, other buildings in the Cern area, some residential structures on Chemin de Mouille-Galand and the Hôpital de la Tour near the center of Meyrin appear. In this second moment, the industrial site starts to untie itself from the *Cité* – apart from a new building of Fiat and of Hewlett & Packard SA – and to move west with a grouping of relatively small production buildings along the rue de Veyrot - such as the building Union Carbide, a perfume laboratory, a jewelry laboratory – and another on Rue du Pré-Bouvier – buildings of the metallurgical industry and warehouses -. In the 1980 map³³ the eastern segment of the Rue du Pré-Bouvier, the central section of the Route du Nant d’Avril which crosses it with the railway, the Rue Lect and the avenue Jacob-Daniel-Maillard, appear among the new elements. These new road sections are joined by expansions of existing buildings and new buildings – *décolletage* plants and warehouses –, especially along the Rue du Pré-Bouvier, which double and triple the surface of the constructions built in the earlier stages. This phase therefore marks the passage from a first period³⁴ (1967-1980) where small industrial buildings were built to a second period (1980-) where most part of the industrial buildings have larger dimensions and which have perhaps in the Firmenich chemical factory the most significant precedent. In addition, the larger size of the buildings accentuates

29 The Office fédéral de topographie swisstopo was founded in 1838 by the Swiss engineer Guillaume-Henri Dufour Depuis and has created the official papers: ‘*Carte topographique de la Suisse 1:100’000*’ (Carte Dufour), l’*Atlas topographique de la Suisse 1:25’000 / 1:50’000*’ (Carte Siegfried) and the ‘*Cartes nationales suisses*’. Access to these maps is available on the site <https://www.swisstopo.admin.ch/fr/home.html>.

30 Swiss confederation, Swisstopo, 1958, ‘*Carte nationale de la Suisse 1:50 000*’. Bern

31 Swiss confederation, Swisstopo, 1967, ‘*Carte nationale de la Suisse 1:25 000*’. Bern

32 Swiss confederation, Swisstopo, 1974, ‘*Carte nationale de la Suisse 1:25 000*’. Bern

33 Swiss confederation, Swisstopo, 1980, ‘*Carte nationale de la Suisse 1:25 000*’. Bern

34 These periodizations refer to the Swisstopo maps.

the westward shift in the growth of the production site that moves away from the more residential areas of central Meyrin and *Cité*.

The 1986 map³⁵ features new road sections such as the west part of the Rue du Pré-Bouvier, Rue du Pré-de-la-Fontaine, the central piece of the Rue de la Bergère and two new internal cutouts of the Rue de Veryot. But above all the road design established by the '*plan directeur de la zone industrielle de Meyrin et Satigny*' (PDZI de Meyrin et Satigny) of 1981 is already present, which divides the area located in the south of the railway and the north of the Route de Satigny alternating railroad outlets with road segments³⁶ and giving rise to a space particularly suitable for logistical activities. The new industrial buildings can be divided into the larger ones located mainly in the new space south of the railway – warehouses, garages and factories – and the smaller ones (compared to the latter ones) concentrated in the area north of the railway and south of the Route du Nant d'Avril – deposits, factories, offices, biotechnology and medical research laboratories –. The 1992 map³⁷ presents the continuity of Route du Nant d'Avril with the Chemin du Grand-Puits and the proliferation of production plants in a widespread way throughout the western part of Zimeysa: among the larger buildings there are factories of railway equipment, department stores, industrial and administrative complexes and expansions of the pre-existing Firmenich plants, while smaller buildings – mainly located in the northernmost parts – consist of deposits, factories, administrative buildings and small sheds for craft activities such as the *center artisanal du Grand Puits*. The 1986 and 1992 maps show the phase of greatest expansion of industrial buildings, both for the numbers of individual plants and for the size of the manufactured products. This period of '86 -'92 also boosts the shift to the west of the growth of the production site that began in '74.

The maps of 1998 and 2004 mark a third phase where the proliferation of productive buildings covers the entire area of Zimeysa in a dispersed and lessened way. In fact, starting from the nineties, begins a period in which the creation of new buildings slows down a lot compared to previous years. In the 1998 map³⁸ the new road sections start an expansion of the industrial area to the east, in the boundaries with the municipality of Vernier, which will be consolidated in the 2004 map: Rue des Entreprises, Rue des Voituriers, the segment south of Rue Lect, Chemin Grenet, Chemin de Morglas and Chemin de l'Émeraude lay the foundations for a progressive expansion towards the residential areas of Vernier. In the 2004 map³⁹ this expansion is already visible with the development of the "*ilot industriel*" of Rue des Ateliers and the large deposit of Chemin de l'Émeraude. This return to the more residential areas close to the center of Meyrin, to the *Cité* and to Vernier mends the space left up to that moment to agriculture and almost doubles the area taken into consideration for industrial use, moving further and further away from the "leaf" or "drop of water" shape present in the 'PDZI de Meyrin et Satigny' of 1981.

The plans that will be investigated in the next paragraphs dealt with an area of almost 4 kilometers in length and approximately 1.3 kilometers in size, enclosed by very defined borders in the west and south

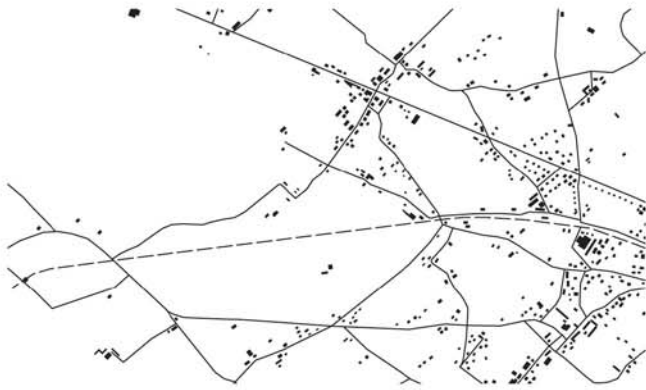
35 Swiss confederation, Swisstopo, 1986, 'Carte nationale de la Suisse 1:25 000'. Bern

36 The transport infrastructures (roads and railways) of the western part present in this plan have actually been built, while its continuation to the east has been interrupted by the Gravière de Montfleury.

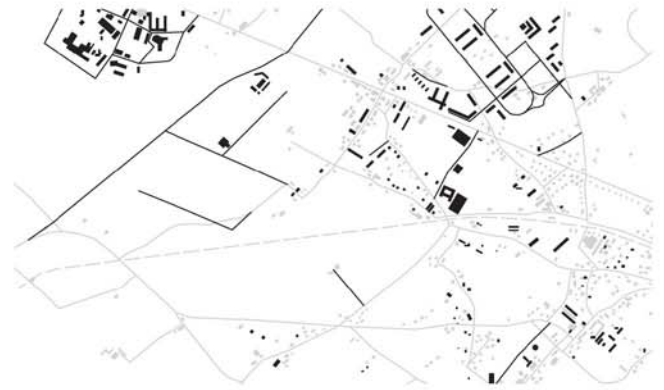
37 Swiss confederation, Swisstopo, 1992, 'Carte nationale de la Suisse 1:25 000'. Bern

38 Swiss confederation, Swisstopo, 1998, 'Carte nationale de la Suisse 1:25 000'. Bern

39 Swiss confederation, Swisstopo, 2004, 'Carte nationale de la Suisse 1:25 000'. Bern



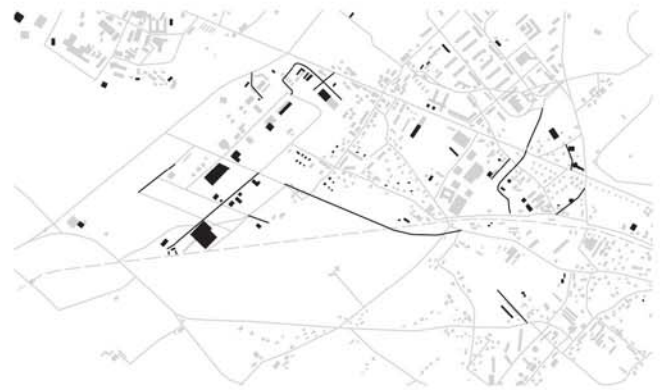
1958



1967



1974



1980



1986



1992



1998



2004

5. The industrial area of Zimeysa in the national maps.
Sources used for the development of this graph: Swisstopo national maps.

in the vicinity of agricultural surfaces, and less defined in the east and north close to the center of Meyrin, the Cité and the residential areas of the municipality of Vernier⁴⁰. An industrial platform of a size equal to that of the airport and the PAV that makes it an important exception both in the Lemanic and French territories along the Rhone. Inside, the industrial buildings appear very different from each other and without a common formal rule beyond the orientation and containment imposed by a regular and continuous street grid.

Zimeysa in previous urban plans

The industrial area of Zimeysa, as a place that over the years has welcomed buildings for manufacturing activities, is present in some twentieth century plans that have anticipated its location. Plans that have, as Charles Hussy claims, at first shaped a convex profile of the city of Geneva – the heights authorized by the Geneva plans starting from the one of 1929 follow a decreasing rhythm from the city center towards the surrounding areas – and in a second time reversed this form – with the strong push of housing outside the post-war city, the planning adopts a general concave profile that allows new buildings in the suburbs to reach greater verticality⁴¹ (Hussy, 1980) –. In this context, the industrial area between Meyrin and Satigny is located on the edge of the city in a territory that passes from being a primarily agricultural land to one of the most inhabited centers in the canton.

In the plan of 1929⁴² the area where the industrial zone of Zimeysa was developed had already some characteristics that will remain unchanged in the production of plans and proposals throughout the twentieth century. That is, an agricultural plain that opens after that sort of threshold created by the proximity of a ridge of the Rhone with the airport – as well as by the presence of the Nant de la Loire park – and which will gradually become pervaded by the extensions of the city. These extensions will pass through this threshold and follow the sections of the railway and the Route de Meyrin, expanding as they approach the border with France. In fact, in the 1929 plan, a first indication of this trend appears (fig. 6 - a) with a “*zone industrielle*” that fills the space between the railway and Rue de Meyrin in that “bottleneck” joint.

In the following plans, the extensions of the city that cross this threshold will be for the most part new housing districts. In the plan of 1936⁴³ the new city for 350,000 inhabitants replaces the industrial area

40 Consequence of the clear separation between constructible and non-constructible spaces that has characterized Swiss planning after the *Loi fédérale sur l'aménagement du territoire* of June 22, 1979.

41 The *Loi générale sur les zones de développement (LGZD)* of 29 June 1957 introduces the “*zones de développement*”, which will become later “*zones primaires*”, which divide the Geneva area into different areas from the point of view of the heights and shapes allowed for any constructions.

42 « *Plan des zones de construction* » annexed to the law of March 9, 1929, *Département des travaux publics (DTP)*.

43 “*Plan directeur régional*”, produced in the socialist government of Léon Nicole from 1933 to 1936 by Maurice Braillard – *chef du Département des travaux publics* – and Albert Bodmer – *directeur du Service d'urbanisme* –.



a



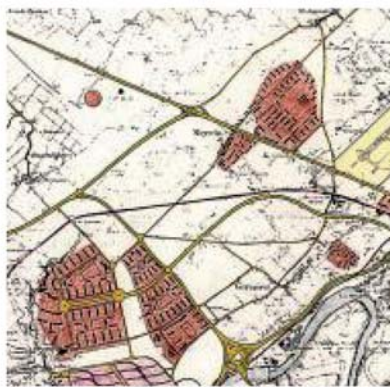
b



c



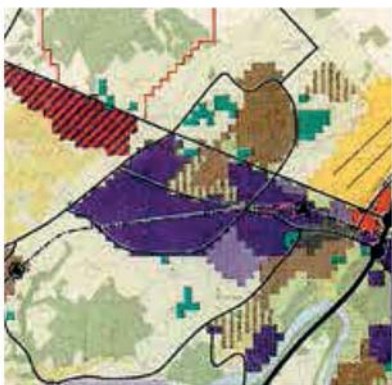
d



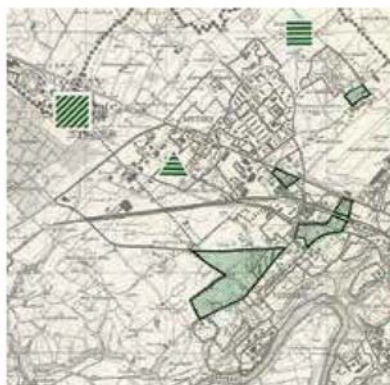
e



f



g



h



i

6. The Zimeysa industrial area in the Geneva plans.
The used sources are indicated in the text.

envisioned by the 1929 plan with a new living space. However, this plan introduces elements that will remain highly influential in an attempt to also articulate the agricultural and wooded areas with the rest of the city - in a framework of protection and valorisation of these areas and control of the expansion of the city (Léveillé, et al., 2003) –. That is, a mesh of new road sections and “verts” public spaces⁴⁴, a “double maillage décalé” (Léveillé, et al., 2003, p. 72), that crosses the urban and agricultural tissues of the whole Canton (fig. 6 – b) anticipating the paths that will be completed only in the sixties – as it is the case of the Route du Mandement that connects the municipalities of Satigny and Meyrin – or which will be taken up in various project proposals – especially the “green mesh” of Braillard which served as a conceptual and practical precedent for many of the projects that will be explored later⁴⁵ –. In the plan of 1937⁴⁶, which comes up with a more decentralized program by proposing groupings of housing settlements separated from the city by a “ceinture de verdure” (Léveillé, et al., 2003, p. 76), the growth of housing areas or “zone de villas” (fig. 6 – c) goes beyond the “bottleneck” of the Rhone ridge approaching the center of Meyrin and a new industrial area is figured along the south side of the railway. In these first plans, directions are then fixed and elements introduced that will be taken up in the following plans, but the industrial area of Meyrin and Satigny still does not appear, except in the still discreet initiatives that emerge in the vicinity of the railway and the Rhone.

Post-war plans become more numerous⁴⁷ and the gestures more decisive with proposals for extensions and infrastructures that cover a large part of this western area of the canton. These plans have a fundamental turning point in the commission of experts⁴⁸ established on 2nd April 1945 by the Council of State of Geneva which introduces themes and concepts typical of the modern movement that will profoundly change the priorities, the design tools and the territory: « *le zoning, la cité-satellite, les ensembles résidentiels jouissant d'une orientation optimale et avec des gabarits élevés pour libérer des espaces verts, etc.* » (Léveillé, et al., 2003, p. 88). The commission produced a plan in 1948⁴⁹ which proposes two satellite cities, in Peney (for 30,000 inhabitants) and between La Plaine and Avully, which will have

44 As Alain Léveillé argues, this mismatch of the two tissues also reflects an economic logic: the mesh of public spaces – “zone improductive” – proposed by these plans of the 1930s constitutes a sort of complement for the daily and economic activities of the canton – “zones de rendement” – which in turn bear the costs for the construction and maintenance of the first one (Léveillé, et al., 2003, p. 74).

45 The importance of the figure of Maurice Braillard for the French planning culture cannot be reduced only to a kind of influential but outdated intellectual reference. It is also linked to a continuous revival of his work and the recurring allusions that often take a literal and not a figurative form. The relevance of Braillard to Geneva planning is a topic explored for example by Laurent Bridel (Bridel, 1993).

46 “Plan directeur régional” or “Plan des zones”, also elaborated by Maurice Braillard and Albert Bodmer.

47 « *De nombreux documents ont été produits par les administrations publiques concernant l'urbanisme et les transports depuis la Seconde guerre mondiale : quatre plans directeurs cantonaux, un cinquième en préparation, neuf comptes-rendus de législature de la commission cantonale d'urbanisme, une succession de plans directeurs relatifs aux transports.* » (Kaufman & Joye, 1998, p. 94)

48 The commission is composed of five architects – Jean-M. Bommer, André Bordigoni, Arnold Hoechel, Ernest Martin, Joseph-Marc Saugey – and is headed by Albert Bodmer, head of the urban planning service, while Frédéric Gampert represents the municipality of Geneva, in the role of “architecte de la Ville” (Léveillé, et al., 2003, p. 88).

49 The *Rapport de la commission d'étude pour le développement de Genève* contains a *plan analytique*, a *plan directeur* and a *plan de synthèse* which propose the big infrastructures of Geneva: the airport, the large industrial areas such as the PAV, river bridges such as the Point Butin, and important road routes such as the Route des Jeunes and the Route de Saint-Julien.

economic support for their construction and development in new adjacent industrial areas. Industrial areas removed from the city and located in an agricultural area by « *le souci d'hygiénisme* » (Kaufman & Joye, 1998, p. 98) and by the desire to separate work from living, typical of the design culture of those years. But not only. The arrangement of new industrial areas, as well as the rethinking of new housing areas and transport infrastructures, are part of a broader vision that considers the functioning of these places within a cross-border context:

Notre étude, dans sa phase première, s'est donc étendue au delà des limites administratives de la ville, de manière à saisir, même en dehors du canton, tous les éléments qui peuvent influencer le développement de Genève, pour revenir et se concentrer ensuite sur l'ensemble des problèmes généraux touchant le canton et la ville proprement dite. [...] C'est ainsi, par exemple, que nous avons recherché même très loin au delà de nos frontières, le tracé des grandes voies internationales, tant économiques que touristiques qui passent par Genève, ou qui pourraient y passer. (Bommer, et al., 1984, p. 2)

A change of perspective which will find continuity in the most recent regional plans. However, apart from its influence on subsequent projects, the plan will find a reduced execution, especially for the proposed interventions in the area where Zimeysa currently takes place (fig. 6 - d). In fact, this area remains a predominantly agricultural area confined by the satellite city of Peney and a new “*zone de villas*” in Vernier south of the railway.

In the 1950s plans the grandiloquence of the 1940s plans and that « *enthousiasme à l'égard de la croissance et de la modernité* » (Kaufman & Joye, 1998, p. 98) coincide with the awakening of an awareness of the effects of demographic growth on the territory. The rapid contraction of the agricultural area and the increase in food needs led the Grand Conseil to adopt a law in 1952 that introduced the distinction between “*zones des villas*” (5e zone A) and the “*zones proprement agricoles*” (5e zone B)⁵⁰ and another law in 1954 for the protection of wooded areas. In the *Plan de délimitation des zones 5A et 5B* the territory of the future Zimeysa is considered half agricultural half buildable and has in the village of Meyrin the axis that divides the two uses of land. However, the desire to preserve natural soils does not stop the production of other proposals that focus on housing and production needs. This is the case of the Plan Marais⁵¹ of 1953 and the housing programs of the then Councilor of State Émile Dupont which will resume the solutions announced by the 1948 plan - that is, the construction of *grand ensembles* in peripheral municipalities - and will expand them on the Geneva territory through multiple interventions⁵² linked by an important network of new roads for individual travel. The new proposals of these plans populate the agricultural municipalities of the canton with neighborhoods such as Cité Meyrin, Cité du Lignon, Cité nouvelle Onex-Lancy, Tours de Carouge, etc., which refer to the Athens Charter and rely on the *immeuble-barre* as a favorite housing model. In the area of the future Zimeysa (fig. 6 - e) the Plan

50 “*Loi du 19 décembre 1952*” which completes the article 13 of the LCI (*loi sur les Constructions et les Installations diverses*) of April 27th, 1940. To this law is annexed the “*Plan de délimitation des zones 5A et 5B*”.

51 These are the works of the *Service d'urbanisme* directed by André Marais and the *Département des travaux public* to introduce 40,000 new houses on the territory of Geneva at a time of strong migratory pressures.

52 Housing projects that are based on a close collaboration between the architectural firms and the *Service d'urbanisme*, giving rise to what Alain Léveillé calls “*urbanisme de projets*” (Léveillé, Genève, un siècle et demi de projets d'urbanisme, 2011, p. 20).

Marais⁵³ introduces new road layouts – such as the one already anticipated by the 1936 plan which will become the Route du Mandement – and places two new Cités in Meyrin and Satigny which compress an area that however remains essentially agricultural.

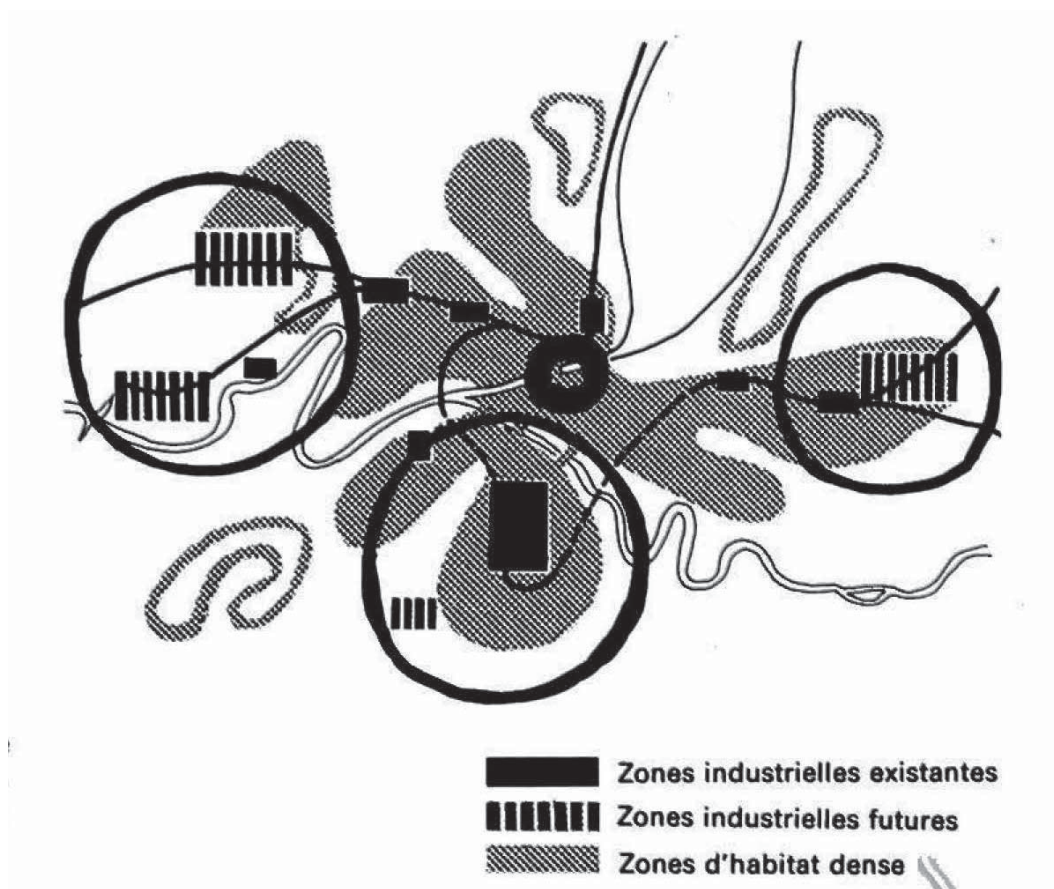
The Zimeysa industrial area finally appears in the plans of the sixties, at least with the outlines and dimensions that characterize it today. The *Plan directeur 2015* or “*plan alvéolaire*”⁵⁴ abandons the satellite cities scheme of the previous plans and proposes a compact city that grows on itself but, and this is the goal of the plan, in a controlled way. This plan imagines a city structured in separate “*alveoli*” and served by a network of highways in which the new housing areas or “*habitat à forte densité*”, together with a new system of industrial areas, cover the boundaries of existing residential areas.

Here too, the design of the space follows the paradigm of the separation of work activities and living. The industrial areas are, in most cases, located in the peripheral space of the city and despite having a strong connection to the railway and automotive networks, they retain some independence from these: the areas intended for the “*activité industrielle*” are treated as patches similar to the other residential areas, units complementary to the latter ones and an integral part of a single cell⁵⁵. In the Zimeysa area (fig. 6 - f) there is an industrial area which, like that of Bois-de-Bay and Annemasse, remains outside the main alveoli of the city. An area that despite having its beginning in the alveolus of Vernier and Le Grand-Saconnex crosses its borders towards Meyrin and Satigny following the railway and the Route de Meyrin and filling all the space between the recent Route du Mandement and the Route de Satigny. This expulsion of the industrial area of Zimeysa responds to the first principle established by the *Plan alvéolaire*, namely « *développer la ville d'une façon équilibrée autour de son centre* » (Commission d'urbanisme, 1965). The containment of the city in its center is aimed at countering a feared shift of the city's activity center to Meyrin caused by the importance of the CERN, the airport and the new industrial area of Zimeysa. In addition, the plan envisages new large industrial areas in Plan-les Ouates and Annemasse (fig. 7) that can act as counterweights to the right bank of the Cornavin-Cointrin-Meyrin-Cern axis. However, Zimeysa remains the largest of the industrial areas envisaged by the plan, although, as seen in the national maps (fig. 5), in those years there were still no particularly significant traces of industrial settlements in that specific portion of territory.

53 As it can be seen in the document “*Projets d'aménagement, assemblage, 50'000 logements projetés*” produced by the *Département des travaux public* in 1956.

54 Plan created by the recent *commission d'urbanisme* (born in 1961) in 1966 for a city of 800,000 inhabitants for the year 2015.

55 This scheme will be heavily criticized in the following years: « *le regroupement des zones d'activités, des services et équipements publics dans des pôles s'est révélé difficile à mettre en œuvre et on assiste à “l'implantation spontanée d'activités le long des routes [...]”* » (Kaufman & Joye, 1998, p. 95). However, it can be said that this settlement autonomy of industrial areas proposed by the *plan alvéolaire* has not completely disappeared in the design and construction of Zimeysa and Bois-de-Bay.



7. Principe n.6 «Développer les zones industrielles».
 Source: (Commission d'urbanisme, 1974).

The plans starting from the Seventies. Industrial areas as engines to hide

In the 1970s, urban planning turned its back on this « *grand récit futuriste* » (Matthey & Gaillard, 2012, p. 11) and its main proposals – primarily to the network of freeways – (Kaufman & Joye, 1998). The drive for growth that characterized the plans of the 1960s is slowed down by the structural crisis faced by the Swiss economy after the oil shock of 1973 and the increased awareness of environmental degradation and the scarcity of available soil. The forecast of population growth becomes more judicious and the measure of the availability of financial funds for construction also becomes more contained. The 1975 plan⁵⁶ takes up the idea of the compact city of the *plan alvéolaire* but relocates it on the space already built⁵⁷. It therefore reduces the new expansions of buildings, expects a more rational use of existing built areas and gives priority to projects located on land well served by transport infrastructures and various services.

This brake on the expansion of the city does not however hinder the desired proliferation of industrial areas (Cottier, 1981) which are distributed on the territory of the peripheral municipalities in a similar way to the plan of '66 - the industrial area Zimeysa was in fact “*déclassée*” by the Grand Conseil on June 20, 1969 -. Unlike the '66 plan, the '75 plan is less concerned about the possibility of a displacement of the center of urban activities towards the Meyrin axis⁵⁸. Industrial areas are continually considered an infrastructure-engine attractor of activities to be placed strategically in the junctions between different regions of the territory⁵⁹. These have to be considered more than anything else as “storage areas” necessary for the overall functioning of the canton but at the same time harmful and repulsive compared to other types of activities and therefore need to be isolated and hidden⁶⁰. In fact, the '75 plan introduces the “*zone de dépôt*”⁶¹ which occupies portions of the territory between Meyrin and Vernier (fig. 6 – g) exposed to the noise of aircraft from Cointrin airport. Therefore, Zimeysa is now considered an integral

56 “*Plan directeur cantonal – étude de mise à jour*” (third *plan directeur*) published in 1975.

57 « *Aux termes du projet de loi, ne doivent être désignés comme zone d'occupation que les territoires qui se prêtent à la construction:*

- *S'ils sont déjà bâtis dans une large mesure, ou*

- *S'il faut en disposer pour la construction dans un proche avenir, mais au plus tard dans un délai de vingt à vingt-cinq ans, dans le cadre d'une occupation ordonnée du territoire, et s'ils peuvent être équipés dans ce délai.* » (Commission d'urbanisme, 1974, p. 45)

58 « *Par ailleurs, le développement explosif d'Annemasse (33 000 habitants en 1962 et 50000 en 1973) contribue à maintenir l'équilibre entre la rive gauche et la rive droite du fait que les frontières politiques du canton ne constituent nullement des frontières naturelles.* » (Commission d'urbanisme, 1974, p. 15)

59 « *L'importance des zones ZIMEYSA et ZIPLO est dictée par le souci de favoriser un équipement équilibré des différentes régions géographiques de l'agglomération.* » (Commission d'urbanisme, 1974, p. 20)

60 « *Par ailleurs, la C.U. constate que la simple répartition des activités en secteurs secondaire et tertiaire n'est pas suffisante. Fréquemment, on peut trouver des entreprises commerciales qui produisent des effets tels sur l'environnement qu'il convient de les loger en zone industrielle. A l'inverse, des entreprises de production sont assimilables au secteur tertiaire: elles peuvent très bien s'implanter dans un quartier d'habitation.* » (Commission d'urbanisme, 1974, p. 48)

61 « *Par ailleurs, il est de créer des zones de dépôt dont le besoin s'est fait sentir. Ces zones sont destinées à recevoir du matériel. Elles n'ont pas besoin de tout l'équipement d'infrastructure d'une véritable zone industrielle. L'absence de personnel permanent travaillant sur place permet de les implanter dans des régions soumises à des gênes sonores, par exemple celles en bout de piste de l'aéroport.* » (Cottier, 1981, p. 40)

part of the territory by the Geneva plans following the *plan alvéolaire*⁶², even if it is sometimes considered both a potential pole of attraction bearer of territorial imbalances, and a vector of negative externalities, even though it is still only partially populated. Thus, in the seventies the emphasis on growth diminished, but industrial areas remain the “engine” to be maintained and hidden.

The plan of 1989⁶³ and the one of 2001⁶⁴ are introduced in a context of profound changes in the regulatory instruments of the territory. The *Loi fédérale sur l'aménagement du territoire* (LAT), voted on 22 June 1979, can be considered a real turning point for Geneva and Swiss planning in general⁶⁵. Since the approval of this law, the nature of the *Plan directeur cantonal* has radically changed:

Il découle des explications qui précèdent que le plan directeur cantonal selon la LAT est un document complexe assez différent des plans directeurs établis dans le passé à Genève. S'il ne contient pas l'image de l'affectation future souhaitée de toutes les parcelles du canton il définit en revanche une politique d'aménagement apte à aider les autorités à préciser ces affectations au gré des décisions ponctuelles et il met l'accent sur les questions de coordination entre ces autorités. Document évolutif le plan directeur a pour but d'être à la fois un outil de travail et une base de collaboration pour les différents milieux concernés par l'aménagement du territoire. (Département des travaux publics, 1989, Plan directeur cantonal)

The 1989 and 2001 plans bring much more minute changes to the Zimeysa industrial area than previous ones. The plan of '89 (fig. 6 - h), concerned about the preservation of the natural environment⁶⁶, initiates more limited actions compared to the previous plans and limits itself to promoting densification⁶⁷. Indeed, the plan proposes a definitive cessation of the expansion of the industrial area towards Vernier through new “*zones de verdure et de délassement*” which should have completely detached Zimeysa from the airport and Rhone junction. The 2001 plan (fig. 6 - i), for its part, rejects this block and proposes a small expansion of the industrial area in the same place - in a similar way to the '75 plan -. In addition to this marginal expansion, the 2001 plan does not seem to give much importance to industrial areas

62 The *Commission d'urbanisme* claims that the extension of the industrial areas envisaged in the 1966 plan « *couvre largement les besoins actuellement prévisibles pour les 20 prochaines années* » (Commission d'urbanisme, 1974, p. 20). The surface fixed for industrial areas is part of a prediction that envisions a gradual shift of production activities from the most central municipalities to the new areas and a convenient replacement of the buildings left behind with new residential ones: « [...] *différentes industries implantées plus au centre de l'agglomération à Carouge et à Plainpalais sont appelées à se développer et, par leur déplacement dans la plaine de l'Aire, permettront la réalisation de nombreux bâtiments d'habitation. La nouvelle implantation de ces industries restera favorable eu égard au domicile de leur personnel.* » (Projet de loi N° 3544, in Commission d'urbanisme, 1974, p. 20).

63 *Plan directeur cantonal*, adopted in 1989.

64 *Plan directeur cantonal, projet, 2015* adopted in 2001.

65 Although, as we have seen, Geneva had already a tradition of making plans for its territory, after the LAT the *Plan directeur cantonal* became mandatory for all cantons.

66 « *C'est un plan marqué par l'écologie, qui constitue à cette époque en Suisse une priorité politique.* » (Kaufman & Joye, 1998, p. 94)

67 Densification will become one of those « *invariants structureaux* » which remain constants in subsequent plans: « *Chacun de ces plans se confronte à la question de l'extension de la ville et par suite à celle des limites urbaines. Chacun de ces plans réfléchit au problème des densités urbaines. Chacun de ces plans cherche à résoudre des problèmes de transport.* » (Matthey & Gaillard, 2012, p. 10).

and focuses on other projects considered more necessary and more complex from the point of view of coordination between actors and expertise.

For these profound changes regarding the type of tool that is the “*plan directeur*” and the importance of the project proposals, these plans will be treated in more detail later. Here it is however important to emphasize the transition from a phase in which the plans propose large industrial areas in the predominantly farmlands of Meyrin and Satigny as a tool necessary for the growth and development of Canton, to a second phase, which begins with the ‘75 plan and that becomes more evident with the plan of ‘89, in which the industrial areas remain substantially unchanged and the expansions become increasingly marginal. The great interventions of the *treinte glorieuses* give way to the more measured and horizontal gestures - in the sense of greater collaboration between actors (Kaufman & Joye, 1998) – of the post-oil shock plans.

Chapter 2

A thematic shift. Zimeysa in the Projet d'agglomération

How is the industrial settlement of Zimeysa covered in regional urban plans? What roles, what objectives, what interventions, what discourses intersect it? In this part, is observed the way in which this settlement has been considered within the regional, cantonal and municipal urban plans of the last ten years. That is, is examined how this place is incorporated into a territorial project, how it is played in favour of an established direction, and what spatial and discursive strategies are put in place to implement this annexation.

Geneva's regional plans has reacted in different ways to the bulky presence of the Zimeysa industrial area. Cumbersome due to its large surface area which requires an unavoidable confrontation, especially in the case of plans that aim at an overall reconfiguration of the territory. Forced to deal with this urban object, the regional plans reacted in two ways: first by avoidance and afterwards by problematization. The first proposals of 2007 seem almost to simply superimpose the general territorial scheme on the industrial area that remains a place like any other. The “*axe de développement*”, the “*espace-rue*”, are interventions that strengthen a road axis that happens to pass near Zimeysa. On other hand, the following plan of 2012 and the PACA insights recognize the need to make specific proposals for industrial areas and to deal with their particular settlement features. In fact, the 2012 plan introduced the notion of “poles” and imagined new public transport routes within Zimeysa.

But these two reactions give place to not so different outcomes. In these plans, which will be detailed later, Zimeysa is treated from a position that remain somewhat external to its realities. Of course, these are plans with a broad spectrum of interests, crossed by a multiplicity of different themes, and where what matters most is how these dissimilar elements interact with each other, how they fit together. But despite this, it is possible to appreciate a difference in intensity, in depth, in the contact with the realities present in Zimeysa's industrial tissue, compared to what is done for other themes and places. The choices made by the plans for Zimeysa, arrive from the outside, so to speak; and most of the time to respond to needs that are also external to the specificities of this place.

This externality of the regional projects with respect to industrial areas can be identified in some attitudes. The first is the strictly *neutral* connotation that industrial areas, as urban places, assume in these plans. Being predominantly a background capable of receiving any transformation without putting up any resistance. And without being able to offer anything in return. The lack of interest that the plans have with respect to industrial areas emerges explicitly – in the judgments that underline the ordinariness, uniformity and repetitiveness of these places – and implicitly – in the almost carefree freedom of the proposals themselves in drastically modifying (in the sense that sometimes conceive total substitutions or overlaps) the built environment –. The value that the regional plans recognize in Zimeysa is only functional. That is, the need to preserve spaces that can continue to host traditional industrial activities, logistics, construction, etc., is admitted, in view of a correct overall functioning of the territory. They

also have to stay somewhere and their continuous removal from the more populated centers is rejected because may prove not to be advantageous. The regional plans recognize a role, a necessity, in Zimeysa which however remains absent in the proposed spatial transformations. Which struggles to become a recognizable space.

A second attitude that denotes this “detached” approach of the proposals of the regional plans is the *optimism* with which the progressive and certain course of some transformations is expected. As well as its beneficial effects. The inclusion of new public transport networks, infrastructures for soft mobility, open spaces equipped with commercial services, is expected to trigger an expansive effect on the entire industrial area. The implementation of a public transport axis on the Route de Meyrin in the 2007 plan is a choice that takes for granted the propagation of redevelopment interventions from north to south. The proposals for the 2007 PACA add to this north-south movement another of the opposite direction driven by the “*pénétrantes de verdure*”. The new public transport networks inside Zimeysa and the VVA of the 2012 plan aim at a transformation that would instead move from a central axis towards the borders of the industrial area. While the focus on the Gare di Zimeysa as the new center of the PACA industrial area in 2011 imagines a branch of interventions that start from this same center. At the basis of these proposals, it is possible to notice, on one hand, a strong – but also generic – idea of public space that enhances what it touches, that carries by itself interventions that are always improving, that opens closed and segregated places to the city. And on other hand, a weak idea of the spaces of the industrial area. Lacking quality and requiring the infiltration of elements from outside. This attitude takes on an extreme expression in some of the 2009 PACA proposals where Zimeysa is fragmented and assimilated by what its borders touch.

The passivity of the industrial area in the face of the imagined transformations and the confidence in the expansive effect of some additions are also found in the numerous “vegetalization” proposals for Zimeysa. The *Voie verte* and the *pénétrantes de verdure* present in most of the proposals of the regional plans move from an idea of valorisation via vegetation and of unfolding places via traversing paths:

Participant activement à la qualification urbaine, une des tâches centrales du Projet d'agglomération, les espaces publics ont vocation de porosité libérant des parcours urbains maillés, de liaisons inter-quartiers évitant tout enclavement néfaste, de points d'accrochage de l'urbanisation aux TC structurants, de lieux d'identification des interfaces entre transport et urbanisation. (Cahier n°70-6. Rapport final du collège pour le 2ème degré. PACA Genève-Meyrin-St Genis, 2010, p.72)

Et c'est aussi par la narrativité du cheminement que « l'effet parc » se constituera, de proche en proche et à plus petite échelle, proposant à l'usager une expérience sensible et structurée – une suite de séquences aux ambiances contrastées qui, de la plus calme à la plus animée, de la plus minérale à la plus végétale, de la plus aménagée à la plus spontanée, racontent littéralement une histoire à celui qui la parcourt. » (Cahier n°15-30. Voie verte d'agglomération. Etude de faisabilité. Cahier de présentation. Projet d'agglomération franco-valdo-genevois, 2010, p.4)

The new vegetation interventions, almost always linear – in which it is easy to recognize the influence

of Maurice Braillard⁶⁸ –, innervate the space of the industrial area with the intention of opening its core to the rest of the city⁶⁹. Climbing walls perhaps not completely understood.

Public space as a device that triggers a proliferation of transformations on the built environment, the *mixité* “valorisante” as an access door for different uses⁷⁰ of space capable of « *conférer une urbanité à un lieu* »⁷¹, the replacement of manufacturing activities with upmarket or tertiary economic activities, the nature that redeems from squalor, are all moves that have in common an external position vis-a-vis the industrial area and a reluctance to grasp characteristics, peculiarities, specific contents already present. In all of them the searched improvement is produced by an exogenous process.

The only exception to this interpretation is perhaps that of the team Güller Güller for the PACA 2009 where, in the “Zimeysa-tech” proposal, there is an attempt to identify objects already present – a « *mosaïque de structures grandes* » – that can serve as a basis for the transformation of the area – becoming « *pièces maîtresses* ». Although the project still aims at a radical replacement of the activities present here with companies belonging to high technology and the tertiary sector.

But in addition to this exogenous and detached attitude – perhaps an expression of the marginal position that this topic occupies today in European design thinking – it is also interesting to linger on the proposed transformations. Not everything is possible in an industrial place designed to remain industrial for the next years. What spatial choices affect this place, even if characterized by a distant approach?

2.1. 2007. Defining a new urban centrality for Zimeysa

The regional plans *Projet d’agglomération*, produced from 2007 to 2016, offer design proposals for a territory that surpasses the borders of Geneva. How does this new frame change the place that the Zimeysa industrial area is expected to assume within the territorial dynamics? How is this industrial area located near the border treated by the initiatives that aim to contain the effects of this boundary? Subsequently, the documents of the regional plans, thematic studies, graphic schemes, proposed measures, etc. are observed, paying particular attention to the ways in which Zimeysa is treated. To the problems identified, the roles assigned, the interventions proposed, the terms used.

68 In Geneva planning this type of intervention is very recurrent: « *Un élément narratif qui est souvent convoqué par les faiseurs de ville et de territoire contemporains, pour inscrire leur projet dans l’histoire et la géographie du lieu.* » (Matthey & Gaillard, 2012, p. 10)

69 Public space as a device that “opens” private space to citizens is seen as an intrinsically democratic gesture and has, here too, the work of Braillard as the highest reference: « *M. Braillard supprime la plupart des clôtures et travaille avec son équipe sur le plan de 1936 car si la promenade dans un parc fermé est réservée aux loisirs, le parcours d’un homme d’affaires venant de la cité à son habitation fait partie des faits et gestes de tous les jours. En créant des allées et des avenues, on met la jouissance d’un parc à la portée de tous.* » (Bodmer, march 1933, pp.36-38, cited by Léveillé, et al., 2003, p. 74.

70 The spectrum of new uses imagined for this place is however mainly reduced to generally commercial and residential activities.

71 Cahier n°70-6. Rapport final du collège pour le 2ème degré. PACA Genève-Meyrin-St Genis, 2010, p.55

The *Projet agglò* 2007, in its goal of making the Geneva area an “*agglomération multipolaire performante*” (Projet d’agglomération, Cahier annexe n°3, 2007, p.10), follows four basic principles. The first, called “*centres-noeuds-axes*”, focuses on the term “*multipolaire*”⁷² and responds to the desire of recoding this territory in terms of spatial organization composed of networks, axes and nodes. The recoding discerns and classifies the various territorial elements according to the role they can play within this schematic reading of the functioning of the Geneva area⁷³. The discriminating key factor in the classification is the existing transport network designed by the plan, from which the type of circulation⁷⁴ and its centrality⁷⁵ are dictated. The second, entitled “*densités*”, derives from the first and determines which nodes can be considered recipients of a population, constructions, or economic activities densification, following for example the number of “branches” (transport connections) or the proximity to a public transport stop. Depending on whether the individual element is located near an important transport junction or a “regional center”, different densities orders are assigned to it⁷⁶. The third, called “*mixités fonctionnelle et sociale*”, aims to ensure « *la viabilité et la rentabilité* » (Ibid., p. 12) of the public transport and of the soft mobility offer through the diversification of the activities carried out in the new centers⁷⁷, the “*mixité sociale*”, the variation of housing forms, commerce and proximity services. The fourth, “*attractivité des différents sites*”, introduces entirely qualitative categories and seemingly aims to counterbalance the schematism of the first principles. The nodes here become sites, goods, resources, endowed with specificities and identities of their own to be identified and enhanced⁷⁸. These principles constitute the conceptual framework of the entire plan and with respect to which each specific intervention is subordinated.

The industrial area of Meyrin and Satigny in the design schemes

72 « *La multipolarité implique le fonctionnement en réseau.* » (Projet d’agglomération, Cahier annexe n°3, 2007, p.11)

73 Abstraction and schematization respond to an effort to objectify the functioning of a cross-border territory through the production of new images and new codes. From the representation of this regional dimension that starts from its functioning – for this reason the emphasis on mobility – the subsequent overall descriptions, the sectoral or close readings, as well as the proposed transformations take root.

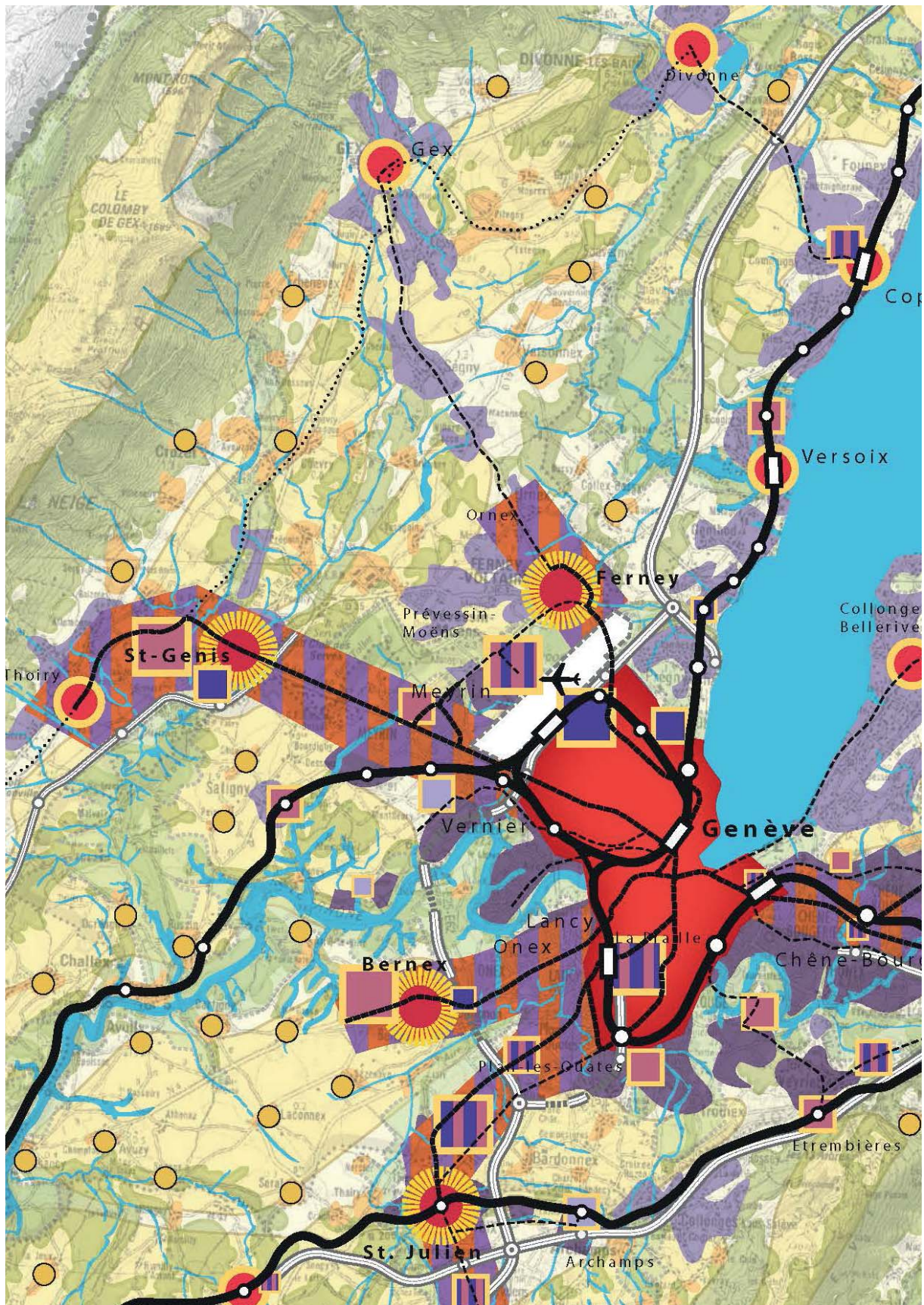
74 Public transport (TP or TC), individual motorized transport (TI or TIM), soft mobility (cycle paths and pedestrian paths) (MD), etc. (Projet d’agglomération, Charte du Projet d’agglomération, 2007).

75 « *Les centres et nœuds TP offrent une accessibilité TP performante dans plusieurs directions. Une gestion des TIM est alors possible (gestion stationnement, contrôle d’accès etc.). Il en résulte un comportement modal favorable (part TP et MD élevée). Ce comportement permet la localisation d’utilisations qui génèrent beaucoup de déplacements : une urbanisation avec des densités très fortes, pôles d’emplois denses, centres commerciaux, équipements publics d’importance d’agglomération et régionale.* » (Projet d’agglomération, Charte du Projet d’agglomération, 2007, p.12).

76 « *Il s’agit donc de développer des utilisations et des densités différenciées. Les densités diminuent le long de l’axe plus on s’éloigne du centre. Inversement, plus on s’éloigne du centre, plus la part du logement augmente.* » (Projet d’agglomération, Charte du Projet d’agglomération, 2007, p.12)

77 « *Les zones urbaines de développement ne sont pas exclusivement vouées à l’habitat, la part des emplois étant au minimum comprise entre 10 à 20%.* » (Ibid., p. 12)

78 « *Les sites à considérer pour le développement urbain ont tous un contexte, une histoire et des particularités.* » (Ibid., p. 12)



8. Schéma d'agglomération Horizon 2030, 2007.
 Source: *Projet d'agglomération, Cahier annexe n°3, 2007, p. 151.*

The *Schéma d'agglomération*, which summarizes the principles in a map⁷⁹, provides the face that Geneva should adopt by the year 2030. The scheme is also a combination of three scenarios⁸⁰, each of which takes one of the specific points of the scaffolding of the guiding principles to the extreme: a city composed of large nodes, a city made of dense axes and made up of very different elements. The first scenario imagines a concentration of the built environment in the city and on the main nodes leaving the natural and agricultural space intact. The second scenario instead envisages a city that grows along its public transport axes. The third scenario outlines a differentiated growth with variable density and at the same time a greater expansion of the built tissue in the rural area and an important introduction of open spaces in the most densely populated areas.

The *Schéma d'agglomération* assembles the three scenarios and integrates them into a representation that makes use of zones and symbols⁸¹ in an attempt to remain abstract⁸². Thus emerges a city that develops, starting from the “*Coeur d'agglomération*”, along three main axes – the west one towards Saint-Genis, the south one towards Saint Julien and the east one towards Annemasse – and two secondary ones – towards Bernex and towards Ferney-Voltaire –. These axes follow the “*axes TP fort d'agglomération*”⁸³ and not the railways or expressways as it was the case with the previous Geneva plans. Correspondence to public transport also determines their length⁸⁴. From this “star-shaped” expansion, a direction protrudes over the others: the St. Genis - Annemasse axis is opposed transversely to the dominant axis of the Geneva area that accompanies the lake, passes from the center of Geneva and chases the Rhone up to Bellegarde. The St. Genis - Annemasse axis unites the two closest points on the border with France and where two of the most urbanized centers in the French territory are located⁸⁵.

Along this east-west axis appears Zimeysa. The industrial area is here almost completely assimilated by the *Axe de développement* which coincides with its thickness. But the assimilation communicated by the scheme is not without complications. The “development axis” is considered above all as a space

79 « *Le Schéma d'agglomération est un plan d'orientation sur lequel s'engagent les autorités politiques. Ce schéma définit l'organisation de l'agglomération et identifie les projets stratégiques de développement. C'est la traduction graphique des objectifs et concepts (chap. 1.2.1 et 1.2.2) d'urbanisation, coordonnée avec les dispositions des autres domaines du paysage et de la mobilité. Ce schéma sert de base pour définir les mesures et les fiches de mesures.* » (Projet d'agglomération, Cahier annexe n°3, 2007, p.15)

80 “*Trois scénarios d'aménagement*” that try to give different answers to the expected growth (more than 200,000 new residents and more than 100,000 new jobs) (Projet d'agglomération, Cahier annexe n°3, 2007, p.13).

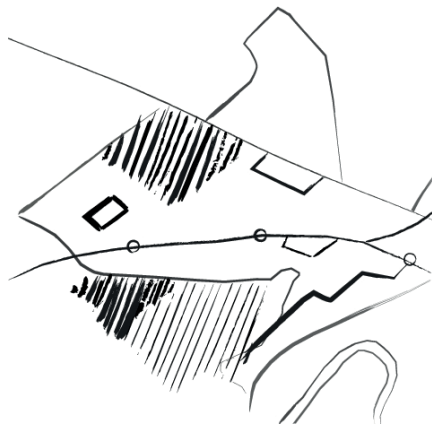
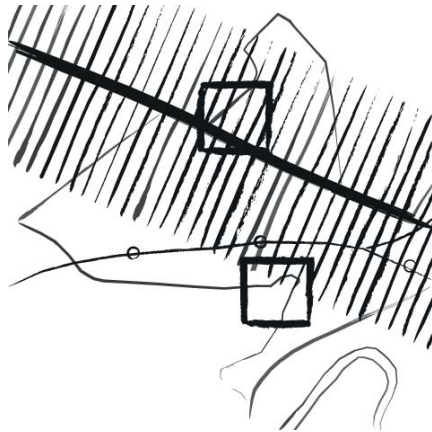
81 A « multi-theme layering for all relative contents in a single key map » (Tang & Hurni, 2009, p. 7).

82 « *La raison de ce changement de représentation est d'éviter une interprétation trop précise (affectations bien délimitées) au lieu de l'identification de secteurs de développement préférentiel où les affectations seront à préciser dans le futur à travers l'approfondissement du Schéma d'agglomération et la réalisation de zooms successifs [...].* » (Projet d'agglomération, Cahier annexe n°3, 2007, p.14)

83 Public transport networks with tram and bus lines (with their own lane).

84 « *Les axes de développement ne doivent pas être trop longs (max. 8-10km) de manière à garantir un temps de parcours attractif sur un axe fort TP vers le cœur de l'agglomération en liaison directe et sans transbordement [...].* » (Projet d'agglomération, Cahier annexe n°3, 2007, p.26)

85 The municipality of Saint Genis has a Technoparc-Industriel and a part of the Cern, while Annemasse is one of the most inhabited centers of the Haute-Savoie with 35'042 inhabitants (INSEE, 2017) also equipped with an important industrial area.



9. Zimeysa in the Schéma d'agglomération (up) and in the Schéma Illustratif (down).
Source: Redesign by the author of graphics present in the Projet d'agglomération, Cahier annexe n°3, 2007, p.151.

for the expansion of residential areas, where strong concentrations of economic activities cannot arise⁸⁶. s Zimeysa is, on one hand, already an area full of productive activities, and on the other, is crossed by the regional railway line⁸⁷, the two factors above mentioned contradict this will. The industrial area therefore remains an anomaly accepted and integrated by the plan which invokes the diversity and the “mixite” that can offer the mixture of housing and economic areas along the development axes⁸⁸.

But the development axis is not just a collection of urban fragments. It is also a transportation infrastructure. Zimeysa is confined by the Route de Meyrin which invests a leading role in the *Schéma d’agglomération* as a new public space in the agglomeration. The “*espace-rue*” adjacent to the Zimeysa industrial area is reserved for a variety of interventions that can « *améliorer la qualité de l’espace-rue* » (Projet d’agglomération, Cahier annexe n°3, 2007, p.26). The *espace-rue* is for the plan a « *nouvelle chance pour transformer l’image de l’agglomération en dehors de la ville “traditionnelle”* » (Ibid., p.26). Here a fundamental question emerges which will remain so in subsequent proposals: the *espace-rue* / industrial area overlap, that is, between the public space pivotal to the new physiognomy of the city which has become a large agglomeration and the homogeneous space – in the urban materials and in the type of settled activities –, introverted and well demarcated of Zimeysa.

For Zimeysa, the plan includes other provisions beyond the development axis. In the *Schéma d’agglomération* Zimeysa is involved in two *Projets stratégiques de développement* (PSD)⁸⁹, the project for the new les Vergers neighborhood and the project “*activités de faible et moyenne densité*” between Meyrin and Vernier. These interventions, together with the other strategic projects, are the spearhead of the *Projet d’agglomération* and it is required that they satisfy this symbolic charge through a differential treatment of the design: « *Extension importante et précise de l’agglomération à forte valeur ajoutée par la qualité architecturale et l’attractivité des espaces publics (projet urbain). Sorte de laboratoire urbain propice à urbanisation contemporaine.* » (Projet d’agglomération, Cahier annexe n°3, 2007, p.27). Quality that, in the case of places with an important presence of economic activities, is also pursued

86 « *Les activités de toute nature sont à développer le long des axes mais sans créer des forts pôles d’emplois de haute densité qui sont réservés pour le cœur de l’agglomération et les centres régionaux.* » (Projet d’agglomération, Cahier annexe n°3, 2007, p.26)

87 The plan intends to distribute most of the expected jobs on the railway hubs: « *En effet, les secteurs qui seront les mieux desservis par le réseau ferroviaire régional, c’est-à-dire le cœur d’agglomération et une partie des centres régionaux et locaux, seront densifiés et renforcés, en accueillant une part prépondérante des nouveaux emplois.* » (Projet d’agglomération, Cahier annexe n°4, 2007, p.65)

88 « *Cependant, un certain nombre de pôles d’emplois préexistants sont à conforter le long des axes, en visant à développer la mixité. Dans tous les cas, la localisation des activités doit s’orienter sur les arrêts (tram ou bus) et interfaces (nœud local TP) des TP.* » (Projet d’agglomération, Cahier annexe n°3, 2007, p.26)

89 The “strategic development projects” are key interventions for the *Projet d’agglomération*. The importance they invest, in terms of operational priority and design depth, is greater than the various measures proposed. Strategic projects are the first and most important step for the plan towards the materialization of the project intentions into concrete and specific actions: the PSDs are in fact « *périmètres pour un développement concentré et concerté sur un programme fonctionnel spécifique (des emplois particuliers, des types et formes d’habitats spécifiques par ex.) bien adapté aux lieux.* » (Projet d’agglomération, Cahier annexe n°3, 2007, p.27)

through the decrease of private parking⁹⁰ and the promotion of “soft mobility”⁹¹. In the specific case of the *projet stratégique* “*activités de faible et moyenne densité*” of the industrial area between Meyrin and Vernier the search for quality is condensed into an idea of opening or re-joining the production site with its surroundings, and therefore in a search for greater compatibility. The desire to integrate the production area with the surrounding context derives from the concern to further reject the location of this type of activity⁹²:

Une majorité de ces emplois ne peut trouver sa place dans les autres zones (prix du terrain, immissions, trafic poids-lourds etc.). Les zones prévues sont moins bien desservies par les TP ou subissent déjà des immissions importantes (aéroport, route à fort trafic). Il est cependant nécessaire de procurer à ces emplois générés par la région des localisations adéquates à des prix abordables, au risque de les rejeter encore plus loin dans la périphérie (augmentation du trafic, pression sur le paysage). (Projet d’agglomération, Cahier annexe n°3, 2007, p.29).

The Zimeysa industrial area is here a necessary presence to integrate. The directives seek to fulfill this intention by designing “*espaces libres fonctionnels*”, avoiding “*des secteurs « clos »*”, guaranteeing greater accessibility to public transport networks and, also in this case, significantly reducing the surface of private parking.

In the *Schéma Illustratif*⁹³ instead, Zimeysa appears as a “*zone urbaine centrale*”⁹⁴ – together with the other densely built areas nearby (the Cité of Meyrin, the Cern and Saint-Genis) – flanked by two new housing districts⁹⁵, the one of Les Vergers, which will be actually built in the following years, and the other one, not built, located on the stretch of railway between the industrial area and the center of Satigny. In addition, the *Schéma Illustratif* proposes two new types of interventions for Zimeysa, towards the outside and the inside of the industrial area. On one hand, the scheme proposes an expansion of the industrial area south towards the river with a first enlargement attached to the railway classified as

90 « *Limitation et gestion des places de parc privées. Regroupement de places de parc privée et gestion multi-usages (pendulaires, loisirs nocturnes, achats de fin de semaine etc). Importance des plans de mobilité d’entreprises pour diminuer la génération de trafic.* » (Projet d’agglomération, Cahier annexe n°3, 2007, p.27)

91 « *Efforts soutenus pour promouvoir la mobilité douce : structure de quartier favorable, qualité des espaces, places couvertes pour vélos, mesures incitatives grâce au plan de mobilité d’entreprise etc.* » (Projet d’agglomération, Cahier annexe n°3, 2007, p.27)

92 Productive and tertiary activities classified as « *emplois secondaires (logistique, artisanat, industrie)* » (Projet d’agglomération, Cahier annexe n°3, 2007, p.29).

93 The *schéma illustratif* completes the *schéma d’agglomération* « *offrant une représentation plus précise des périmètres et des affectations, qui sera adapté et validé à chaque progrès de planification.* » (Projet d’agglomération, Charte du Projet d’agglomération, 2007, p.69)

94 The most densely constructed areas are divided into three categories – “*coeur de l’agglomération et centres villes*”, “*zone urbaine centrale*” and “*zone urbaine périphérique*” – which reflect an idea of radial expansion of the city, with the clarification, however, that in this case the center is not one (Geneva) but there are different (Annemasse and Nyon). To these categories is added the one called “*villages et bourgs de l’agglomération*” which gathers small villages and residential agglomerations spread over the entire region. This distinction was introduced by a study on the population growth, labor distribution and land use in the period 1990-2005 (Projet d’agglomération, Cahier annexe n°1, pp.24-27).

95 “*Nouveaux quartiers d’habitat, moyenne densité*” (Projet d’agglomération, Cahier annexe n°3, 2007, p.152).

“zones d’activités moyenne à forte densité”, and a subsequent expansion that covers the agricultural land between Zimeysa and the housing centers of the Route de Peney nominated instead “zones d’activités extensives”. On the other hand, within Zimeysa there are three small areas “zones d’activités moyenne à forte densité”, one to the west near Rue du Pré-Bouvier, one to the east in the block cutted by the railway and the Route du Nant d’Avril, and one further south of the Cité along the Route de Meyrin. The other significant intervention towards the interior of Zimeysa is the large “zones mixtes, accent activités dans la zona urbaine centrale” located in the space diametrically opposite to the new Les Vergers district below the Route de Meyrin.

The *Schéma d’agglomération* and the *Schéma Illustratif* offer a first design framework for Zimeysa as a constituent piece of a cross-border territory. Singular actions aimed at making the industrial area or “zone d’activités” a suitable place to carry out its « vocation essentielle d’accueil des activités » (Avant-projet d’agglomération, 2007, p.40), by “densifying”, “requalifying” and “dynamizing” it. But also aimed at mitigating the incompatibility between « les activités industrielles et les autres activités, notamment commerciales, qui ont tendance à évincer les premières » (Avant-projet d’agglomération, 2007, p.40). The plans for the *espace-rue* of the Route de Meyrin, the expansions of the industrial area, the densification, the attention to open spaces and architectural quality, are all actions that seek to give a place to industry and to curb its movements:

L’extension et la requalification du cœur d’agglomération et des grandes zones industrielles suburbaines d’une part, la valorisation des centres régionaux et locaux d’autre part, favorisent une concentration encore plus forte des activités dans la ville dense, qui accueille 61’000 emplois supplémentaires sur un total de 65’000. Il y a donc renversement de tendance par rapport au phénomène actuel de dispersion des emplois en périphérie. Les nouveaux quartiers à proximité des gares et des interfaces sur les lignes de tram offrent en particulier une capacité d’accueil importante. (Projet d’agglomération, Cahier annexe n°4, 2007, p.67)

However, the two schemes remain at a « premier niveau de précision » (Projet d’agglomération, Cahier annexe n°9, 2007, p.6). The indications remain general and indeterminate since the main objective is to relate the multiple operations between them and to provide an overall vision. In summary, the individual actions are limited to the assignment of land uses and the definition of the desired characteristics – in broad terms – for each section of the territory: thus following that coupling of an “ordonnateur” role and a “régulateur” role which for Michel Matthey and Martin Schuler constitutes a distinctive trait of the practice of spatial planning in Switzerland (Matthey & Schuler, 2017).

2.2. 2012. Breaking up the agglomeration center

The 2012 regional plan proposes a *schéma* that collects the experiences of the PACA of the past years⁹⁶. Instead of the axial scheme of the 2007 plan, compact and independent centers are introduced here.

96 « Grâce aux travaux des PACA, l’identification et la hiérarchisation des centres est plus fine et plus précise dans le schéma d’agglomération. Cette précision accrue est notamment justifiée par une évolution constante du

The *Cercle de l'Innovation* to the west, the Bernex-St-Julien-Porte Sud center to the south and the Annemasse-Trois-Chêne to the east constitute a new image of the territory which is no longer radiocentric but composed of various centers located between the Geneva and French territories. The breakdown of the compact city center of Geneva into a plurality of centers follows the desire to grasp the specific dynamics of more circumscribed portions of territory to better convey the plan actions⁹⁷, but also to trace these specificities and find a more anchored overall structure of the agglomeration⁹⁸.

Within this reading of the Geneva area as a set of different centers, Zimeysa is considered both part of the macro-center of the *Cercle de l'Innovation* and a “*pôle d'activités d'agglomération*”. As a section of the *Cercle de l'Innovation* Zimeysa is part of a network of exceptional infrastructure objects – as it has been anticipated –. Meyrin, Saint-Genis-Pouilly, Ferney-Voltaire, etc., build a complex that is intended to be dynamic and interacting and which is superimposed on the axial scheme of the previous plan. Here Zimeysa is pushed by a need to create external links between the various entities of the “circle”⁹⁹ and more specifically to establish a strong relationship between these elements and the « *trois moteurs économiques et vecteurs d'image* » (Projet d'agglomération, Annexe 3. Schéma d'agglomération, 2012, p.75) which are the airport, the international organizations and the CERN. The plan also highlights the importance of the “*Coeur vert*”, above all in terms of image and promotion of this part of the territory, which does not directly touch the borders of Zimeysa due to the presence of the *Cité*. It is nonetheless a fundamental component of the *Cercle de l'Innovation* to be considered when creating links with the industrial area. Zimeysa's presence in the *Cercle d'innovation* will be further explored in the PACA study of the same name.

The Politique de pôles de développement économique (PPDE)

Zimeysa is also considered a “*pôle d'activités d'agglomération*”. Just as in the case of the *Cercle de l'Innovation*, the *pôle d'activités* are an incorporation in the 2012 plan of previous studies. In this case it is the PPDE (*Politique de pôles de développement économique*)¹⁰⁰ studies carried out in 2008 always with-

rôle des centres au sein de l'agglomération centrale » (Projet d'agglomération, Annexe 3. Schéma d'agglomération, 2012, p.12)

97 « *La hiérarchisation de ces centres, ainsi que la différenciation de leurs rôles, identités et potentiels, vise principalement à permettre de localiser “les bonnes choses aux bons endroits”* ». (Projet d'agglomération, Annexe 3. Schéma d'agglomération, 2012, p.47)

98 « *Ces centres jouent autant un rôle de proximité pour la vie quotidienne (principalement à l'échelle de leur secteur), qu'un rôle dans la structuration de toute l'agglomération centrale (organisation des réseaux de transports, localisation des équipements, etc.) et d'attractivité économique à l'échelle de l'agglomération entière.* » (Projet d'agglomération, Annexe 3. Schéma d'agglomération, 2012, p.47)

99 « *Assurer un lien étroit entre les stratégies économique et spatiale pour le secteur et ses sites : dans les secteurs dynamiques, l'une ne peut être dissociée de l'autre sans perdre une grande partie du potentiel et de l'attractivité du territoire.* » (Projet d'agglomération, Annexe 3. Schéma d'agglomération, 2012, p.75)

100 These studies have been published in three reports: the *Cahier annexe n°11-1. Synthèse de la connaissance du tissu économique franco-valdo-genevois* (2008), the *Cahier n°11-2. Inventaire de base. Premières études en vue de l'élaboration progressive d'une PPDE franco-valdo-genevoise* (2008) and the *Cahier n°11-3. Inventaire*

in the *Projet d'agglomération* initiative. These studies, it is useful to focus, first built an overall picture of the conditions of economic activities within the entire cross-border territory, by capturing the imbalances and trends deemed unfavorable, and then proposed compensation strategies. A canton dominated by the tertiary sector¹⁰¹ but still addressed to external demand¹⁰², the real « *locomotive de l'économie de l'agglomération* » (Projet d'agglomération, Cahier annexe n°11-1, 2008, p.33), and a French crown which remained mostly a dormitory space¹⁰³, constitute the background from which the studies aimed at an overall evaluation (in a broad sense) of the industrial activities land situation, by measuring their spatial imbalances and their possible “attractiveness” on the international market. With these studies as a basis, the *Politique de pôles* proposes an improvement of the conditions of the Geneva production tissue to welcome new enterprises¹⁰⁴, especially the high-tech ones¹⁰⁵, the creation of tools for regional cooperation and for the bi-localization of enterprises¹⁰⁶, and the implementation of information channels capable of reducing the legal complications caused by a border (“*information multilatérale*”).

As far as Zimeysa is concerned, the PPDE focuses only on a group of neighboring industrial areas located south of the railway - the extension of the proposed industrial area south towards Route de Peney, the

de base. Ières études en vue de l'élaboration progressive d'une PPDE franco-valdo-genevoise (2008).

101 In those years about 85% of the workforce of the canton of Geneva was employed in the tertiary sector, the remaining 15% belonged almost entirely to the secondary sector and only 0.5% to the primary sector (Projet d'agglomération, Cahier annexe n°11-1, 2008).

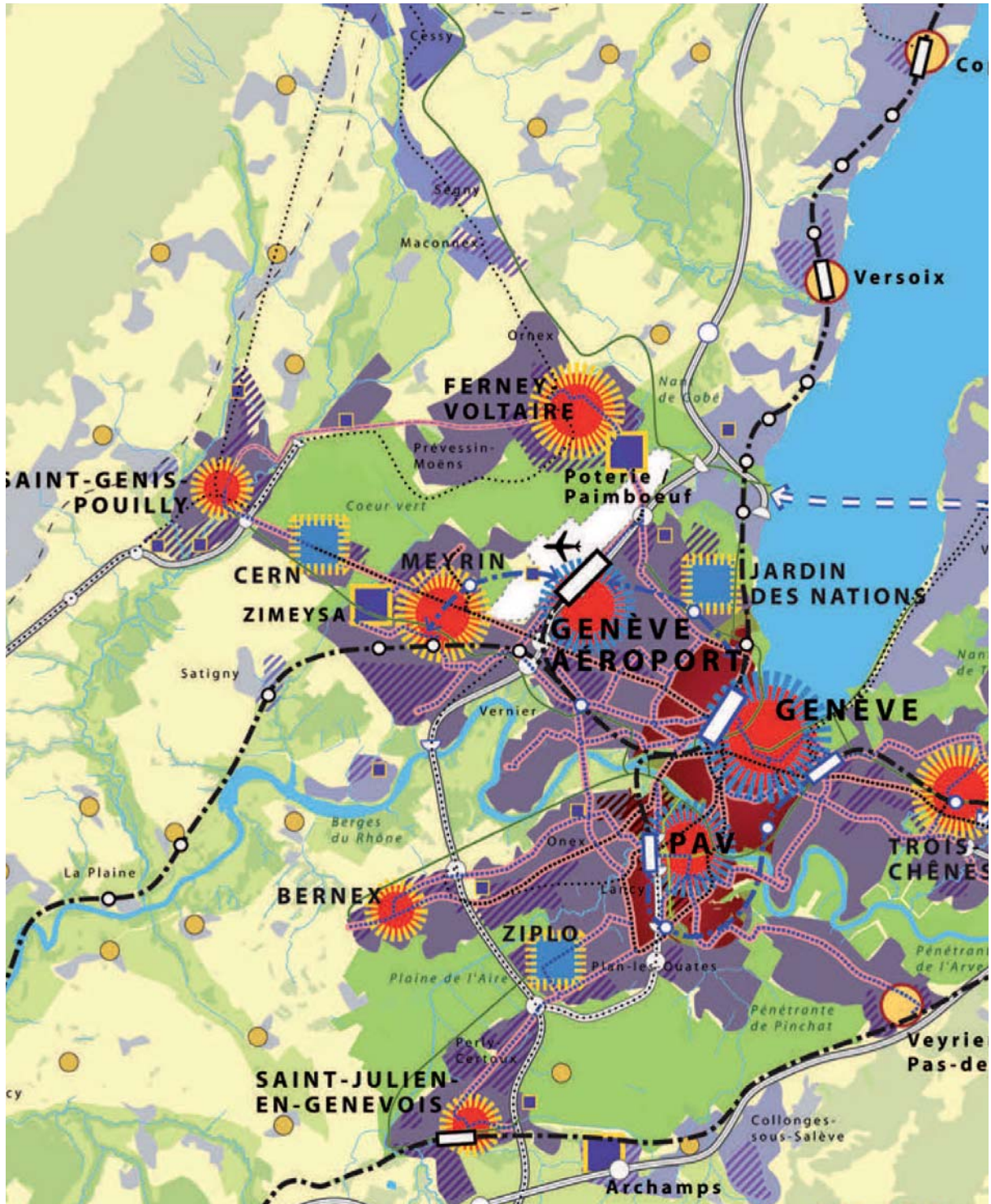
102 « *L'efficacité de l'économie genevoise s'explique donc par les qualités des collaborateurs, par la technologie et les performances de l'appareil de production, mais aussi par la demande internationale à laquelle cette économie est en mesure de répondre. En effet, l'économie genevoise est non seulement fortement exportatrice de biens (37% du PIB en 2006) mais de plus elle produit une large gamme de services qui sont consommés ou destinés à une clientèle non-résidente. L'économie genevoise est par conséquent dépendante – donc potentiellement fragilisée – de la demande externe, notamment dans le domaine des biens et services à haute ou très haute valeur ajoutée. [...] environ la moitié du produit intérieur brut (biens et services) est acheté par les non-résidents. Le taux de dépendance de 100% correspond aux activités des organisations internationales, de 77% aux activités financières, de 56% à la production manufacturière et de 50% à l'hôtellerie et la restauration.* » (Projet d'agglomération, Cahier annexe n°11-1, 2008, p.21)

103 More than 69% of the establishments in the *Genevois français* area are intended for residential activities (Projet d'agglomération, Cahier annexe n°11-1, 2008, p.26).

104 Great importance is given to the need to balance the tertiary sector in Geneva: « *Compte tenu de l'exiguïté de son territoire, de la tension sur le marché du logement et de la quasi-saturation de ses axes de transport, Genève doit veiller à équilibrer son tissu économique très fortement dominé par les activités de service.* » (Projet d'agglomération, Cahier annexe n°11-1, 2008, p.39)

105 « *Ceci se traduit par la densification des réseaux de recherche, par l'attention aux transferts de technologie entre la recherche et l'industrie, par la promotion d'incubateurs d'entreprises ciblées et de nombreuses collaborations avec d'autres cantons suisses et avec des centres de réputation mondiale en la matière.* » (Projet d'agglomération, Cahier annexe n°11-1, 2008, p.39)

106 « *Afin d'augmenter l'intérêt des entreprises à profiter de la complémentarité des territoires et aussi des conditions économiques et fiscales qui y prévalent, les démarches impulsées par le Projet d'agglomération franco-valdo-genevois ont abouti à l'ouverture d'une perspective réglementaire fort intéressante à l'intention des petites et moyennes entreprises qui voudraient développer leurs activités de l'autre côté de la frontière. Il s'agit de la possibilité offerte à de telles entreprises de passer avec la Direction française des impôts un accord préalable sur la manière dont cette dernière va imposer les prix de transfert. En apparence très technique, cet accord ouvre des perspectives considérables à des entreprises intéressées par une bi- ou multi-localisation. En effet, La bi-localisation se heurte à l'obstacle de l'incertitude juridique quant au traitement fiscal des prix de transfert.* » (Projet d'agglomération, Cahier annexe n°11-1, 2008, p.46)



10. Charte du Projet d'agglomération franco-valdo-genevois, 2012.

Source: *Projet d'agglomération, Cahier annexe n°3 Appendice cartographique, 2012, p. 3.*

area currently occupied by the Montfleury quarry and the ZIMOGA (*zone industrielle Mouille-Galand*) – and another group of areas north between the railway and the Route de Meyrin - the ZODIM (*zone de développement industrielle de Meyrin*) and the ZIBAT (*zone industrielle et artisanale des Batailles*) –. Of these areas, the capacity of the surfaces to accommodate enterprises is assessed by estimating their effective availability¹⁰⁷, the proximity to public transport infrastructures, the presence of proximity services and services to enterprises, their “representativeness”, the type of business that « *s’implantant dans un certain site et créant ainsi un environnement plus ou moins attractif pour des implantations futures* » (Projet d’agglomération, Cahier annexe n°11-3, 2008, p.13). The question of assigning a specific role to each surface, a compatibility with a type of enterprise (the “*utilization optimale*”), is a complex topic which will be taken up again and further explored by the *Gran Projet Zimeysaver* which will be seen later. The considered areas of Zimeysa emerge here as surfaces in need of strong government interventions capable of significantly improving their juridical and material conditions. More concretely, it is feared that the effects that a “*scénario marché*”¹⁰⁸ could trigger in an area partially served by public transport networks and where a concentration of low purchasing power activities – for example “back-office” or storage activities¹⁰⁹ – can occur . This scenario is contrasted by a “*scénario transports – densité*”¹¹⁰ which instead imagines a relocation of economic activities in relation to the public transport network, thus ensuring a certain balance among heavy commerce activities, “*industries traditionnelles*”, advanced technology enterprises, construction companies, etc., in the industrial area of Zimeysa.

The *Projet d’Agglomération 2012* therefore takes up this 2008 study¹¹¹. Considering the whole canton, the plan is concerned by the strong concentration of economic activities in the west – unrest that, as we have seen, was already present in the *plan alvéolaire* –:

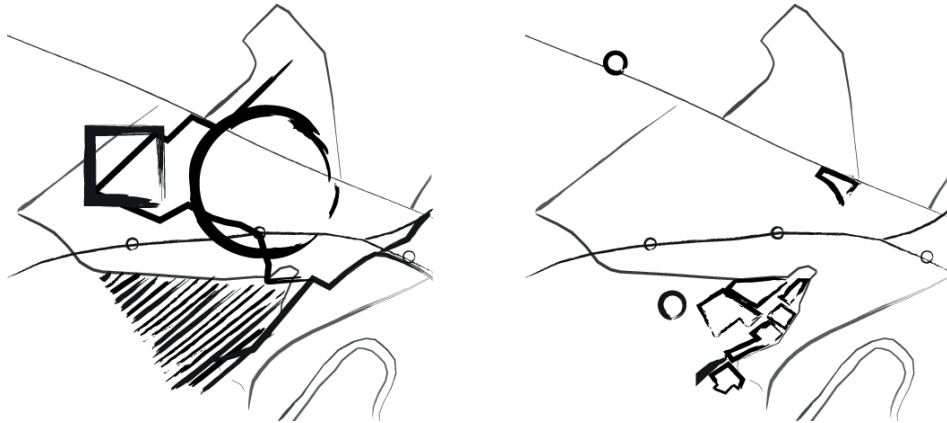
107 Especially in terms of existing contracts and planning rights. Here emerges the importance of public action and a resolute land policy such as the one that the FTI has undertaken (see Part 3): « *Globalement et à long terme, les surfaces effectivement disponibles dans les sites d’accueil avec une action forte de l’Etat ne couvrent que 80% de la demande. A court terme, la pénurie de surfaces est encore beaucoup plus importante et seul un tiers de la demande peut être satisfait.* » (Projet d’agglomération, Cahier annexe n°11-3, 2008, p.12)

108 In the “*scénario marché*”, which expects a limited public action, a strong spatial segregation is imagined between activities with high added value and activities with limited purchasing power. The latter here occupy neighboring areas which are not very attractive from the land point of view.

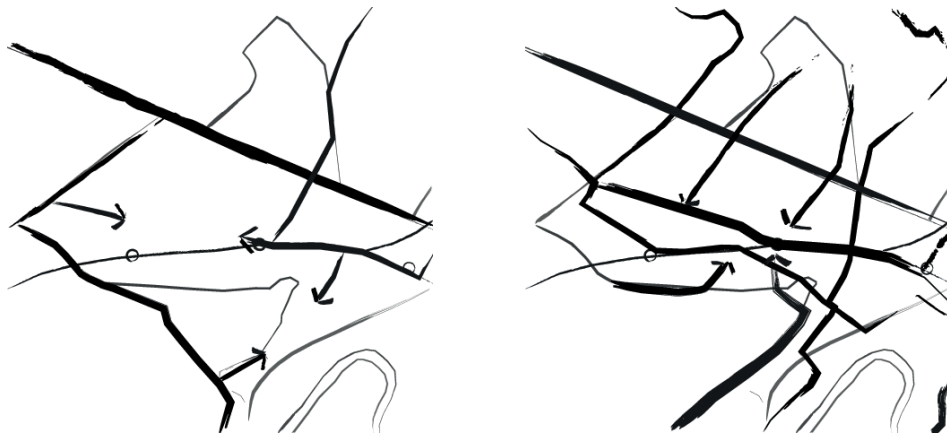
109 Storage activities in Zimeysa are prevalent in the “*scénario mixité-synergies*”, which contemplates a continuity of local administrative policies and above all the strengthening of an idea of “*mixité*” between different enterprises. This scenario predicts a greater coexistence between activities with high added value and more traditional activities, even in central areas as the PAV. However, here is also expected the creation of more specialized clusters of business services, storage or construction activities, especially in the west.

110 In the “*scénario transports – densité*”, which concentrates the activities involving more workers in the nodes best served by public transport networks, it is expected a localization in Zimeysa of enterprises which benefit from the proximity of the railway.

111 However, a reference that aims to achieve a more articulated spatialised economic policy: « *L’étude PPDE ne fait pas de choix stratégique concernant un profil économique visé pour l’agglomération. Au-delà de l’analyse de l’attractivité des différents sites, elle n’est pas allée jusqu’à proposer un accueil économique spatialisé. Elle donne des pistes sur les localisations préférentielles des activités et sur les points d’amélioration de l’attractivité des zones. A noter que l’étude PPDE a permis de mettre en avant les pôles d’activités principaux de l’agglomération, à l’exclusion des zones dites “locales”.* » (Projet d’agglomération, Annexe 3. Schéma d’agglomération, 2012, p.95)



11. Zimeysa in the Schéma d'agglomération (left) and in the Schéma structurel (right).
Source: Redesign by the author of graphics present in the Projet d'agglomération, Annexe n°3, 2012.



12. Zimeysa in the Schéma d'accès TIM (left) and in the Schéma d'organisation MD (right).
Source: Redesign by the author of graphics present in the Projet d'agglomération, Cahier annexe n°3, 2012.

Les pôles genevois s'organisent très majoritairement dans une large bande nord-sud à l'ouest de la ville et qui va de l'aéroport à la douane de Bardonnex, le long de l'autoroute. Ils correspondent à la région de l'aéroport, aux grandes zones industrielles nord-ouest et au futur quartier de Bernex-Nord, ce qui tend à renforcer l'emploi dans la couronne suburbaine ouest, où il est déjà bien implanté. En comparaison, la moitié est du canton de Genève ne compte que trois pôles de développement, de moindre importance, comme La Pallanterie, ce qui permettra cependant un rééquilibrage limité. (Projet d'agglomération, Annexe 1. Diagnostic, 2012, p. 107)

Situation that is sought to be resolved with a more widespread localization of new development poles (*pôles de développement*), but at the same time condensed in certain places: « *une "décentralisation concentrée" de l'emploi* » (Projet d'agglomération, Annexe 1. Diagnostic, 2012, p. 107). The poles are not only intended to rebalance economic activities from a spatial point of view. On the contrary, the poles policy pursues a multiplicity of goals such as the concentration of economic activity in the sites best served by the public transport networks¹¹², the strengthening of the specific "economic vocation" of each pole¹¹³, the economic promotion of these places, the densification and restructuring of the building environment in existing production areas¹¹⁴, etc.

Zimeysa, together with other industrial areas such as Bois de Bay, Archamps, Ville-La-Grand, etc., is considered a "*pôle d'activités d'agglomération*". That is, a pole of activities involved in the economic movements that take place within the agglomeration. The other type of "pole" is the one called "*pôle d'activités métropolitains*" and is used to distinguish those industrial areas containing activities involved in dynamics with a wider radius., i.e. international¹¹⁵ ones. Zimeysa is therefore considered an industrial area that hosts local businesses. Although this does not exclude an interest of the plan to build stronger links with neighboring Cern – that has now become another "*pôle d'activités métropolitains*" – and with the airport.

The *Schéma d'agglomération* that emerges from these visions for poles and for autonomous territorial figures shows a territory where the built environment is more compact than that of the 2007 plan. And Zimeysa is one of the parts that best shows this new consistency¹¹⁶. Compared to the 2007 plan, here the

112 In line with the "*transports – densité*" scenario of the 2008 PPDE studies.

113 « [...] *concrétiser les profils économiques des différents sites.* » (Projet d'agglomération, Annexe 3. Schéma d'agglomération, 2012, p.100)

114 But also the new ones: « *A noter que plus les sites d'activité genevois sont de création récente, plus ils ont tendance à être occupés de façon dense : une densité minimale de 1 est aujourd'hui requise dans les zones industrielles.* » (Projet d'agglomération, Annexe 1. Diagnostic, 2012, p. 107)

115 The "*pôles d'activités métropolitains*" are defined as : « *Les pôles d'activités avec un rayonnement international, qui contribuent à la visibilité générale de l'agglomération franco-valdo-genevoise dans la compétition mondiale des régions métropolitaines.* » (Projet d'agglomération, Annexe 3. Schéma d'agglomération, 2012, p.95)

116 The choice to group the most strictly economic activities in few places is the answer to a desire to avoid dispersion and to concentrate resources: « *En parallèle de la promotion des centres régionaux, le SA2 propose de concentrer (pour commencer) les efforts de promotion économique pour chaque agglomération régionale sur un pôle d'activités d'agglomération, afin d'éviter une dispersion de l'énergie et des moyens disponibles. Cela concerne aussi l'agglomération centrale, dans laquelle le SA2 propose de concentrer les efforts sur les pôles d'activités suivants : la ZIMEYSA, le site d'Archamps et le site Ville-la-Grand – Altea.* » (Projet d'aggloméra-

Schéma d'agglomération indicates in Zimeysa the extension of the industrial area to the south, already present in the *Schéma Illustratif* of the 2007 plan. This extension, called “*extension Zimeysa*” in the PPDE study, is further developed in the paper entitled *Schéma structurel* which shows the different degrees of densification desired for each part of the territory¹¹⁷. In this map the Zimeysa extension appears divided into three different extensions: a thickening of new industrial districts along the Route de Peney, a filling of agricultural areas north of the Chemin de la Petite Garenne road and a new presence still not defined indicated as “*projet à étudier*”. Another new element in the *Schéma d'agglomération* of 2012 is a TP (public transport) axis which penetrates more deeply into the interior of the industrial area. Here it is not only the idea of “juxtaposing” an important public transport axis along the Route de Meyrin in Zimeysa¹¹⁸ as it was the case with the 2007 plan, but also of entering the heart of the industrial area by following the Route du Nant d'Avril and Rue de la Bergère. This direction is visible in more detail in the transport maps. By contrasting the chart entitled *Schéma d'accès TIM (transport individuel motorisé)* and the chart titled *Schéma d'organisation MD (mobilité douce)* it is possible to see how Zimeysa is seen as an area that leaves its edges to private travel (cars and goods trucks), while consecrating its interior to public transport and to a dense network of pedestrian circuits that follow the “*centralités*”, the stops and the *voie verte*¹¹⁹.

In the *Schéma d'agglomération* 2012 Zimeysa assumes greater importance than in the 2012 plan. This is perhaps related to the financial and economic crisis of 2008 and to a growing concern regarding the conditions of the basic strategic assets for a coveted economic recovery together with greater awareness of the scarcity of available resources. The proposals for this industrial site are manifold but can be grouped in two substantial directions. The first consists of actions aimed at a direct transformation of the built environment which are distributed in densification interventions and projects for the extension of the industrial area. Actions deeply influenced by the proposals for expansion and improvement of the public transport network are included in the same plan. The second direction instead is less concrete, since it is made up of proposals that aim at an “*évolution de son profil économique*” (Projet d'agglomération, Annexe 3. Schéma d'agglomération, 2012, p.98) and at a greater involvement in the economic dynamics of the *Cercle de l'Innovation*. Proposals that remain essentially open and poorly defined.

The strong push for the densification of the built environment is one of the distinctive features of this plan. In line with the vision of a more compact urbanization promoted by the *Schéma d'agglomération* and its adhesion to the “*inward development*”¹²⁰ paradigm. Densification is here coextensive to almost all the production areas of the agglomeration, unlike the *Schéma Illustratif* of 2007 which imagined

tion, Annexe 3. Schéma d'agglomération, 2012, p.97)

117 Here most of the industrial areas already existing in the canton and in the French territory are indicated by the title “*densification de quartier avec dominante activités*”.

118 It is important to remember that for these plans the public transport network has a structuring role and that most of the proposals for the transformation of buildings follow choices made for improving this network.

119 The *Voie verte* is an initiative that will be explored later in the section of the in-depth analysis of the *Projet d'Agglomération*.

120 In fact, among the objectives set for the development of the PSD (*projets stratégiques de développement*) there is: « *promouvoir le développement vers l'intérieur – secteurs autour des nœuds principaux et des axes TC structurants, quartiers urbains et zones industrielles avec un potentiel important de densification, qui justifient de nouvelles infrastructures.* » (Projet d'agglomération, Annexe 3. Schéma d'agglomération, 2012, p.114)

only small areas to be densified within the built tissue. Densification is added to the creation of public transport axes – prevalent in the 2007 plan – as the main directions that pave the way for a consecutive qualitative improvement in the built environment. Two directions that respond to functional needs but that are the gateway for subsequent operations for the promotion of the attractiveness and quality of these spaces. However, Zimeysa is considered a complex place that can put a lot of resistance to these programs: « *La réussite dépend essentiellement de la capacité de mettre en mouvement la ZIMEYSA et de libérer des terrains thésaurisés actuellement. (La densité du tissu bâti de la ZIMEYSA est actuellement limité, en partie à cause de grandes réserves non-construites des entreprises présentes.)* » (Projet d'agglomération, Annexe 3. Schéma d'agglomération, 2012, p.90).

Zimeysa, as well as Ziplo and Bois de Bay, is included in a “*périmètre stratégique de développement*” (PSD). Therefore, delegating the most concrete choices to the *Plan Directeur Cantonal Genève 2030*. There are however some general indications that the plan leaves in the *Annexe 4 - Mesures du Projet d'agglomération*¹²¹. Zimeysa is included in two “measures”: the measure “*Couloir Bellegarde – Genève et Pays de Gex – sud*” and the “*Axe de développement Genève – Meyrin – St-Genis et Cercle de l'Innovation*”. In the “*Couloir Bellegarde – Genève et Pays de Gex – sud*” measure, aimed at upgrading the railway line between Bellegarde and Geneva, Zimeysa is a crucial node that expects an increase of 16,000 jobs and 1,200 housing units by 2030 (Projet d'agglomération, Annexe 4. Mesures du Projet d'agglomération, 2012, p.38). It is therefore suggested to update the passenger reception facilities and the capacity of the station platforms. In the “*Axe de développement Genève – Meyrin – St-Genis et Cercle de l'Innovation*” measure, aimed instead at strengthening the Route de Meyrin, Zimeysa is involved in multiple interventions such as the *voie verte d'agglomération*, the restructuring of the space of the Zimeysa train stop, the construction of new tram connections along the Nant d'Avil road, the creation of new MD routes and new public spaces on the same road, the opening of a new road between the industrial area and the Route de Peney (*route du plateau de Montfleury*), the optimization of the area's logistics capacity through new connections of the railway line, etc. These are measures that reconfirm the close “*urbanisation-mobilité*” link that distinguishes the *Plan d'agglomération*: the creation of new road axes gives rise to interventions of “*requalification de l'espace-rue*”, the expansion of the *gare ZIMEYSA* starts the construction of new public spaces¹²² and the realization of an infrastructure for soft mobility (la *Voie verte d'agglomération*) offers the opportunity to improve the “*qualité urbaine*”.

2.3. 2016. The habitability of an industrial area

121 « *L'annexe 4 présente l'ensemble des mesures du projet d'agglomération et répond ainsi aux exigences de base (EB4 et EB5) des directives de la Confédération pour l'examen et le cofinancement des projets d'agglomération de deuxième génération.* » (Projet d'agglomération, Annexe 4. Mesures du Projet d'agglomération, 2012, p.6)

122 « *La place de la gare de la ZIMEYSA, de part et d'autre de la halte, est une des futures centralités fortes de la ZIMEYSA élargie. Les espaces publics situés aux abords immédiats de la gare sont réaménagés pour améliorer l'interface avec les réseaux TP secondaires de rabattement et pour faciliter l'accessibilité MD.* » (Projet d'agglomération, Annexe 4. Mesures du Projet d'agglomération, 2012, p.98). And again : « *La création d'un espace public de qualité permet de confirmer cette fonction de centralité (CE2) et de renforcer la sécurité aux abords de la gare (CE3).* » (Ibid., p.98)

After a non-verification of demographic forecasts in absolute¹²³ and distributive¹²⁴ terms, and also after a housing units production that contrasts with the objectives of the previous plans¹²⁵, the third version of the 2016 *Projet d'agglomération* reacts to these conditions by focusing on the theme of dwelling, of “habitability”¹²⁶, and quality of life¹²⁷ and environment¹²⁸ of this territory. A greater consideration of the “*bassins de vie*” and the residential settlements of the small villages¹²⁹ are in fact an expression of this protagonism of dwelling and of the concerns regarding the capacity of the territory to absorb accelerated growth. Villages that are now superimposed on that “*multipolaire*” scheme that gave shape to the *Schéma d'agglomération* of the 2012 plan. The final outcome presented by the *Schéma d'agglomération de 3e génération*¹³⁰ largely resumes the structure already present in the *Schéma d'agglomération* of the 2012 plan 2012¹³¹.

It is at a more detailed level that the elements of novelty emerge. In the Zimeysa industrial area, the municipality of Meyrin also appears here as a “*centre régionaux de l'agglomération centrale*”¹³² (indicated in the diagram with a red circle with yellow edges). These centers are considered pivots of fundamental importance for the functioning of the entire territory. Equipped to convey the overall functioning of a

123 « *En effet, la croissance de la population a atteint 40% depuis 1990 alors que le nombre d'actifs trans-frontaliers a triplé entre 1999 et 2013. Ainsi, en 2015, la population du Grand Genève est estimée à environ un million d'habitants pour un nombre d'emplois qui avoisine les 500'000.* » (Projet de territoire Grand Genève 2016-2030, 2016, p.31).

124 « *Le district de Nyon et les territoires français ont accueilli plus de nouveaux résidents que le canton de Genève, qui enregistre cependant une des croissances les plus fortes de son histoire [...]* » (Projet de territoire Grand Genève 2016-2030, 2016, p.40).

125 « *La production de logements a été largement inférieure aux objectifs dans le canton de Genève et bien supérieure dans les territoires français.* » (Projet de territoire Grand Genève 2016-2030, 2016, p.40)

126 « *La 3e étape se résume en un slogan : “Le Grand Genève, à vivre et à construire”. A travers le premier terme “à vivre” il s'agit de mettre l'habitant au cœur du projet, avec les problématiques liées à la qualité de vie, ainsi qu'à la cohésion sociale, dans l'esprit d'une agglomération plus durable. Le second terme “à construire” renvoie à la nécessité d'un plus grand pragmatisme et d'une volonté commune affirmée de réaliser les projets.* » (Projet de territoire Grand Genève 2016-2030, 2016, p.15).

127 « [...] *améliorer le cadre de vie et de contribuer à la santé des habitants [...]* » (Ibid., p.15)

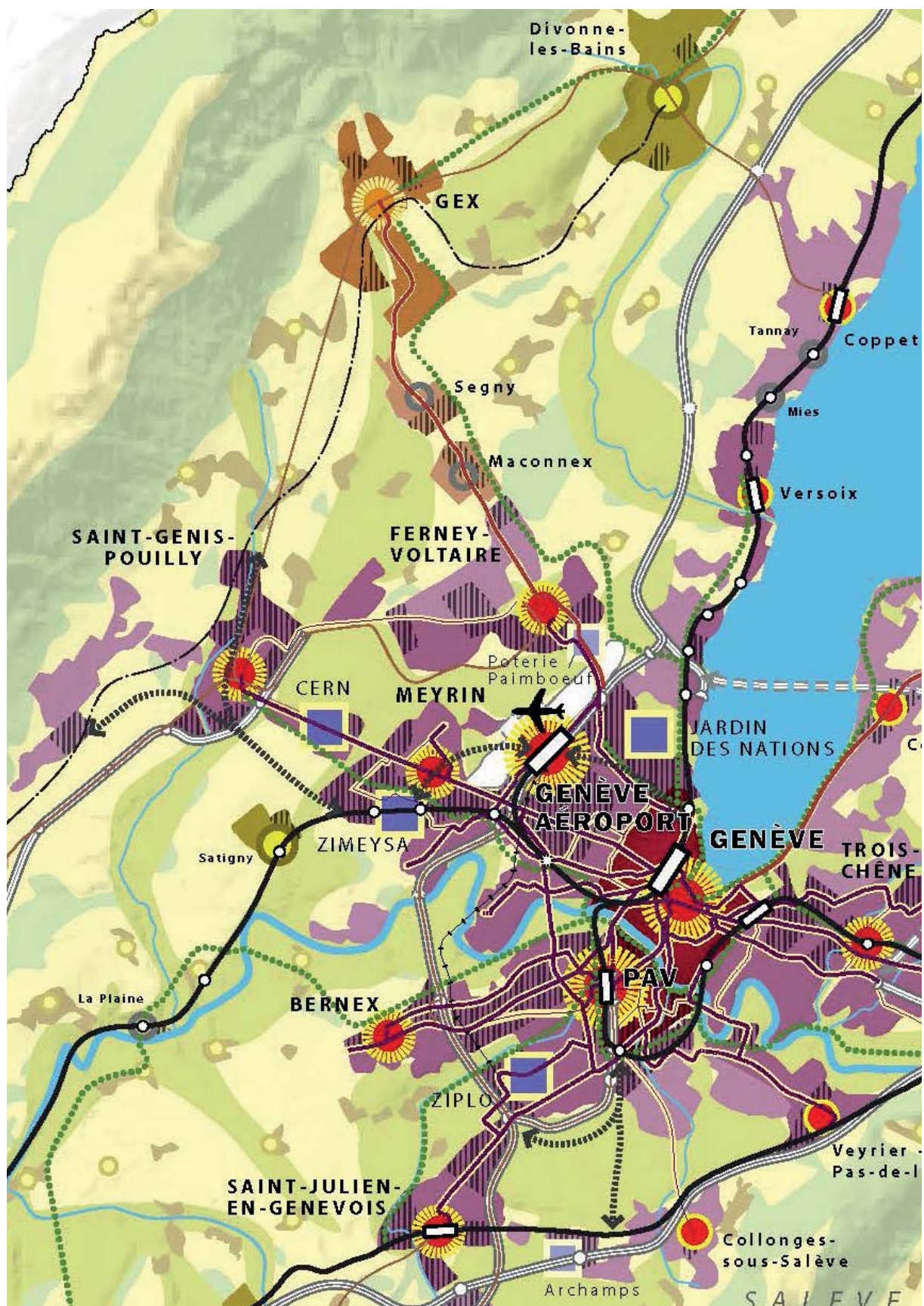
128 « *Pour un environnement de qualité.* » (Ibid., p.15).

129 « *Lors des précédents projets d'agglomération, des pôles locaux avaient été identifiés dans l'espace des bourgs et villages, mais ils ne jouaient qu'un rôle secondaire. Le projet se concentrait sur le principe d'une agglomération compacte et multipolaire et le reste de l'espace métropolitain était considéré comme rural, voué à l'agriculture, à la qualité paysagère, aux loisirs et à la fonction de poumon vert de l'agglomération.* » (Projet de territoire Grand Genève 2016-2030, 2016, p.72).

130 Map present in high definition in the document entitled “Annexe 1. Cartographies” (Projet de territoire Grand Genève 2016-2030, 2016, p.6).

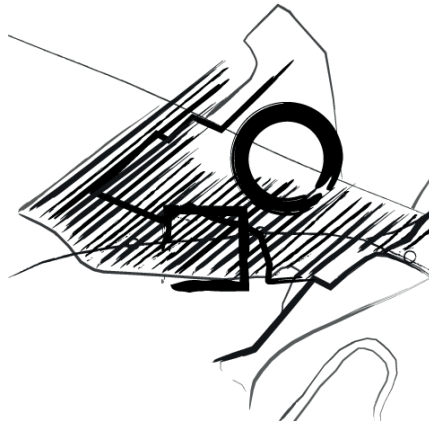
131 « *Le PA1 distinguait au sein de l'agglomération centrale un cœur et 5 centres régionaux. Le PA2 identifiait une structure urbaine plus fine et plus précise offrant ainsi un potentiel opérationnel accru en distinguant deux niveaux de structuration de l'agglomération centrale. La 3e étape du projet conforte cette structure.* » (Projet de territoire Grand Genève 2016-2030, 2016, p.63)

132 The *Projet d'agglomération de 3e génération* distinguishes between the “centres métropolitains” – agglomerations such as Genève-center, Annemasse, Genève-aéroport et Praille-Acacias-Vernet with important resources in terms of image, accessibility, services, etc. –, and the “centres régionaux de l'agglomération centrale” – centers such as Meyrin, Ferney-Voltaire, St-Genis-Pouilly, St-Julien-en-Genevois, Bernex most relevant to the local context of the Franco-Geneva agglomeration –.



13. Schéma d'agglomération de 3e génération, 2016.

Source: *Projet de territoire Grand Genève 2016-2030, Annexe 1. Cartographies, p. 6.*



14. Zimeysa in the Schéma d'agglomération de 2e génération (up) and in the Schéma d'agglomération de 3e génération (down).

Sources: Redesign by the author of graphics present in the Projet d'agglomération, Annexe n°3, 2012 ; Projet d'agglomération, Annexe 1. Cartographies, 2016.

cross-border context:

Ils jouent un rôle important en matière d'équipements, de rayonnement ainsi que de structuration de l'urbanisation et des réseaux de transports urbains de l'agglomération centrale jusqu'à ses limites. Ils jouent aussi un rôle au sein de leur secteur, en matière de concentration de l'accueil de la croissance démographique et des activités économiques. (Projet de territoire Grand Genève 2016-2030, 2016, p.68)

The industrial area itself appears classified as a “*pôle d'activités métropolitain*”¹³³ and no longer as a “*pôle d'activités d'agglomération*”¹³⁴ (indicated with a dark purple square with yellow edges) as it was the case with the *Plan d'agglomération* of 2012. An important change since Zimeysa is considered to not be a support for the agglomeration which hosts a multiplicity of activities fundamental for the functioning of the territory, but instead a strategic resource that supports « *activités à forte valeur ajoutée et à forte génération de déplacements* »¹³⁵ and is involved in international exchanges. No longer an area occupied by necessary activities but not very attractive from the point of view of the quality of its spaces and not very driving from an economic point of view. It becomes instead a place aimed at the foreign market and designed to welcome highly performing companies which are very attentive to the quality of the environment where they take root.

Beyond these alterations, the rest remains unchanged. Exception made to the disappearance of the extension of the industrial area proposed to the south between Zimeysa and Route de Peney from the 2012 plan. The redesign of the industrial area is withdrawn within the confines of the existing built tissue. In the *Schéma d'agglomération* Zimeysa is covered by what is referred to as “*aire de développement*”¹³⁶ (represented with vertical dark purple lines). That is, the places that will have to prepare the most to accommodate the expected growth both in terms of inhabitants and workers: « *Dans ces sites centraux, de nouvelles surfaces d'activités doivent être mises à disposition à travers des opérations de renouvellement urbain, avec la création d'espaces publics et d'équipements collectifs. Favoriser une bonne mixité entre habitat et travail est un objectif prioritaire.* »¹³⁷

The future of the industrial area is played out with the densification and restructuring of the existing area. In the measures proposed in the document entitled “Annexe 2. Mesures et programme de travail” (Projet d'agglomération de 3ème génération, 2016) among the “*mesures urbanisation*” the measure “UD2-09 ZIMEYSAVER” appears. Here the densification of the industrial area is defined as a strategic orientation. A densification capable of making this place more attractive for enterprises but also « *agréables*

133 « *Les pôles d'activités métropolitains comprennent les grandes zones d'activités avec rayonnement et orientation (marché) à dominante internationale.* » (Projet de territoire Grand Genève 2016-2030, 2016, p.53)

134 « *Les pôles d'activités d'agglomération comprennent les grandes zones d'activités mixtes (tertiaire, industrie, artisanat, et pour certaines commerces).* » (Projet de territoire Grand Genève 2016-2030, 2016, p.53)

135 Projet de territoire Grand Genève 2016-2030, 2016, p.120

136 « *Les aires de développement comprennent les secteurs de développement et de transformation urbaines les plus importants (en matière de quantité, mais aussi de qualité) pour l'accueil de la croissance. Elles font, pour la plupart, l'objet de projets stratégiques de développement (PSD) dans l'objectif d'une densité forte.* » (Projet de territoire Grand Genève 2016-2030, 2016, p.55)

137 Annexe 3. Diagnostic. Projet d'agglomération de 3ème génération, 2016, p.120

à vivre pour les employés, les usagers et les habitants des environs »¹³⁸. The imagined transformation, of which the most concrete choices are left to the Canton of Geneva, to the municipalities of Satigny, Vernier and Meyrin and to the FTI, must adapt the spatial conditions of Zimeysa to accommodate 70,000 m² of new housing units and 1,285,000 m²¹³⁹ of economic activities which can be industrial, craft or logistic activities linked to the presence of the railway. Densification and attention to dwelling therefore seem to be the traits that most distinguish the treatment of the Zimeysa industrial area from *Projet d'agglomération de 3ème génération*.

2.4. A regional node. The PACA proposals

The *Projet d'agglomération* initiative also includes detailed plans with the aim of identifying more precise and suitable measures for the particularities of more circumscribed parts of the territory. The *Périmètres d'aménagement coordonnées d'agglomération* (PACA) follow the “urbanisation, mobilité, environnement” sequence present in the *Projet d'agglomération* in an attempt to better specify

[...] *les éléments de formes urbaines, de densité, de programme, de mixité, de centralité, de qualification des espaces publics, de connexions physiques et visuelles (entre quartiers, entre espaces urbains, entre espaces ruraux et urbains), de préservation et de valorisation du patrimoine, de trame paysagère et environnementale, de tracés ou d'alternatives de tracés des transports publics, de positionnement des haltes, de localisation des dessertes, des mesures détaillées de mobilité douce (emplacement connexion)*. (Feddersen, and others, Cahier annexe n°9, 2008, p.6)

PACAs give priority to issues related to the most densely inhabited space, to the public space and to the “quality” of the built environment, leaving more specific transport problems in the background:

Ces études, plus réservées aux secteurs urbains, aborderont la qualification des espaces publics du point de vue de la qualité de l'espace urbain et paysager; du lien avec l'urbanisation bordant ces espaces et de leur mise en réseau. Les études d'ingénierie de transport seront précédées ou accompagnées par ce type de démarche. (Feddersen, and others, Cahier annexe n°9, 2008, p.6)

Their realization is left to private studios¹⁴⁰ through the competition method¹⁴¹. This method also fore-

138 Annexe 2. Mesures et programme de travail. *Projet d'agglomération de 3ème génération*, 2016, p.345

139 Ibid., p. 345

140 The competition is aimed at multidisciplinary studies but driven by an architect or urban planner: « *L'équipe pluridisciplinaire comprendra au minimum un architecte/urbaniste et un expert en mobilité. Elle pourra s'adjoindre en tant que de besoin les compétences d'autres spécialistes (expert en paysage et/ou environnement, expert en économie, ...), soit en tant que membre de l'équipe pluridisciplinaire, soit à titre consultatif. [...] Le pilote de l'équipe doit être un architecte/urbaniste. Il doit disposer d'expérience en matière d'aménagement du territoire ou être associé à un urbaniste qui a ces compétences.* » (Cahier n°70. Programme des études tests. PACA Genève-Meyrin-St Genis, 2009, pp.9-10)

141 The main steps are the following: an invitation to submit applications starts the competition; the teams

sees the development of a multiplicity of different scenarios for each part of the territory investigated:

Les études privilégieront le recours à des « mandats d'études parallèles » (au sens suisse) ou « marchés de définition simultanés » (au sens français), ou toute forme de concours favorisant la qualité. Ces types d'approche permettront à plusieurs équipes pluridisciplinaires de développer des scénarii alternatifs en dialogue avec le maître d'ouvrage, jusqu'au choix d'un scénario préférentiel. Le résultat de ces études doit aboutir sur des projets opérationnels. (Feddersen, and others, Cahier annexe n°9, 2008, p.6)

This initiative has generated a considerable production of materials in recent years. The territories are eight (PACA Bernex, PACA Genève - Plaine de l'Aire - St Julien, PACA / PSD Nyon - St Cergue, PACA Meyrin - St Genis – Thoiry, PACA Nations - Aéroport - Ferney avec PSD Aéroport Nord/Sud, PACA/ESPU Genève - Eaux Vives – Annemasse, PACA Veyrier - Vessy - Les Iles, PACA/PSD sur l'axe Annemasse – Evian) and two of these include two of the areas that are explored in this chapter. Zimeysa is taken into consideration in the PACA Meyrin - St Genis, and the Ziplo in PACA Genève - Plaine de l'Aire - St Julien. In this part the various documents produced by the PACA Meyrin - St Genis from 2008 to 2016 are examined.

The Projet d'agglomération 1re génération further elaborations

The 2007 *Projet d'agglomération* published a document entitled *Cahier annexe n°9. Lignes directrices. Approfondissement du Schéma d'agglomération. Document technique pour l'élaboration des cahiers des charges des Périmètres d'aménagement coordonnés d'agglomération (PACA)* among its annexed documents, the only one to have been published a year later. This study was carried out by two architecture offices based in Zurich – 'Feddersen & Klostermann, urbanisme architecture paysage' and 'Brühlmann Loetscher Architectes' – and by an engineering office specialized in transport issues, also from Zurich, – 'Müller, Romann & Schuppisser, transport et développement territorial' –. The 74 pages document is divided into a first part where the general principles set for the definition of the guidelines are presented and a second part where these guidelines are highlighted for each of the eight PACAs. The aim of this work is to start a phase of urban project studies scheduled for the period 2008-2010. The documents produced by these studies play a guiding role that should unite « *l'élaboration ou la révision des outils réglementaires d'urbanisme de chaque institution française, vaudoise et genevoise* »¹⁴².

apply with a presentation file and a motivation letter; the evaluation committee, made up of officials and experts, chooses three multidisciplinary groups based on the established evaluation criteria; the selected teams test different scenarios and subsequently a project, with or without variants, for the urbanization of the territory in question; the trial study takes place in two study phases, with two open (non-anonymous) returns and exchanges between the college and each participating team. With the conclusion of this first phase of the competition, the results are presented and discussed in round tables. After this step, the committee provides the teams with the necessary indications for the continuation of the second phase (*approfondissements, réorientations, test d'une hypothèse, ...*). (Cahier n°70. Programme des études tests. PACA Genève-Meyrin-St Genis, 2009, pp.8-9)

142 Feddersen, and others, Cahier annexe n°9, 2008, p.6

In the 12 general principles that will guide the development of each PACA set out in the first part¹⁴³ there is a prevailing attention to public transport and its link with “*urbanisation*”, public space, gentle mobility and activities. The other interests range from the need to contain the expansion of buildings and to achieve greater compactness of metropolitan and regional centers to the valorisation and enhancement of natural open spaces.

In the second part, where the guidelines for each PACA are set out, the PACA Meyrin-St Genis-Thoiry is presented as a territory structured around an “*espace public majeur / structurant*” axis which coincides with the Route de Meyrin. The guidelines propose the “requalification” of this axis, the densification of some of its points, the strengthening of the “regional center” St Genis (western extremity of the axis), the development of the “*pôle d’activités transfrontalier du Rectangle d’Or*” north of the airport, the exploration of the new housing district proposed in Satigny, the valorisation of the landscape presence of the Jura mountain range, etc. Among these lines is also indicated the extension of the “*zones d’activité*” Zimeysa, Zibat and Zimoga taking into account, however, the “*qualité paysagère du site*”¹⁴⁴. The main interest is therefore to explore the possibility of an expansion of the Zimeysa industrial area and the ways in which it could integrate with its surrounding landscape.

The document is made up of charts containing sketches, drafts and diagrams that make a first step in this direction that focuses on the extension and the relationship with the landscape of Zimeysa. Two schemes present two variants for public transport. In one version, it is proposed an axis that crosses the main Cornavin-St Genis axis transversely to connect the north area of the airport with a new “*pôle périphérique*”¹⁴⁵ that is imagined south of Zimeysa. In the other version, the same connection leads instead to the western end of the industrial area located at the intersection of the Route du Mandement and the Route de Satigny where the new pole has to be positioned. This scheme lays the foundations for what will be explored in the other sketches: how these areas are at the same time parts of the same territorial figure structured by the Cornavin-St Genis axis and urban tissues that establish complex relationships with their surroundings.

From the more detailed sketches the border separating Zimeysa from the agricultural areas to the south emerges as a central issue. On one hand, there is a proposed extension of the industrial area to the west along the Route du Mandement and another to the south below the Montfleury quarry. Extensions that are imagined as a “*parc paysager avec entreprises à haute valeur ajoutée*”¹⁴⁶. Small presences that penetrate the cultivated areas which have become open spaces equipped as parks¹⁴⁷. On the other hand,

143 « *Les principes d’urbanisme et de mobilité pour l’élaboration des lignes directrices.* » (Feddersen, and others, Cahier annexe n°9, 2008, pp.11-12)

144 Feddersen, and others, Cahier annexe n°9, 2008, p.38

145 A center or pole planned as « *projet stratégique de développement, centre local* » (Feddersen, and others, Cahier annexe n°9, 2008, p.47).

146 Feddersen, and others, Cahier annexe n°9, 2008, p.42

147 Here two variants are proposed, one imagines extensions with small insertions and the other one hypothesizes more compact extensions south of Zimeysa. The latter variant, although in line with the *Schéma Illustratif* present in the same *Plan d’agglomération 2007*, does not appear in the other sketches collected by the Cahier annexe n° 9. In these sketches, appears to be more convincing a scenario in which the industrial area grows above all on itself and crosses its borders only with high added value companies that position themselves on the



15. Croquis des enjeux sur l'ensemble du périmètre, 8.
Source: *Projet d'agglomération 1re génération, Cahier annexe n°9 - mars 2008, p. 40.*



16. Proposition d'urbanisation de la zone d'activités Zimeysa - Meyrin - Satigny. Variante 1: extension étendue avec pénétrantes de verdure, and Variante 2: extension compacte avec nouvelle halte RER entre Zimeysa et Satigny, parc paysager avec entreprises à haute valeur ajoutée
Sources: Source: *Projet d'agglomération Ire génération, Cahier annexe n°9 - mars 2008, p. 42.*

interventions aimed at the interior of the industrial area are prospected. These interventions can be divided into linear introductions that cross Zimeysa and punctual insertions. In the first type of interventions there are the “*pénétrantes de verdure*” which start from the agricultural areas to the west and cross the industrial area from side to side and the “*espace public majeur*” axes that branch from the central axis towards the railway stations positioned within Zimeysa. In the second type of interventions, instead, there is a concentration of parcels in the current Montfleury quarry to be densified with the grafting of mixed activities¹⁴⁸. In addition to this concentration of parcels, other scattered parcels on Rue du Pré-Bouvier and nearby the airport are indicated. Furthermore, some parcels in the western part are indicated with the expression « *densification / requalification du tissu bâti existant* ».

The 2009 PACA studies

A year later the first studies of the competition were published. The requests expressed in the documents that initiate the consultation underline the need to think about the improvement of the economic capacities of this territory not in a separate and specialized way: « *Valoriser le potentiel de développement économique du périmètre dans une approche intégrée combinant urbanisation, mobilité, environnement et paysage.* »¹⁴⁹ And they also relaunch the interpretation of this territory as a figure made up of a main axis and transverse elements already present in the sketches of the Cahier annexe n°9:

Il y a lieu d'identifier les séquences urbaines composant l'ensemble de cet axe, de leur attribuer une vocation, de comprendre le rôle des transversalités (liens transversaux spécifiques aux parties française, genevoise ou mixtes) et d'élaborer une composition urbaine d'ensemble assimilant les thèmes essentiels : habitat; paysage; économie; mobilité ; tout en développant le potentiel d'une urbanisation densifiée sur les séquences desservies par les transports publics. (Cahier n°70. Programme des études tests. PACA Genève-Meyrin-St Genis, 2009, p.20)

As far as Zimeysa is concerned, are required scenarios that involve the densification of the buildings and the expansion of the industrial area: « *Différents scénarios de : densification en fonction du potentiel de développement urbain (p. ex. autour des haltes du RER) ; nouvelles extensions (p.ex. le long de la route de Satigny) ; structuration autour des infrastructures lourdes (autoroute, voie ferrée, tramway)* ».¹⁵⁰

The proposals selected and presented in *Cahier n°70-3. Projets des bureaux d'étude pour le 1er degré* (2009) were those of the studies 'Güller Güller architecture urbanisme/Metron planification/Desvignes

outskirts looking for a more open and natural environment.

148 In the legend these parcels are indicated with the expression: « *Développement urbain à vocation mixte, prédominance d'activités économiques, densité élevée.* » (Feddersen, and others, Cahier annexe n°9, 2008, p.41)

149 Cahier n°70. Programme des études tests. PACA Genève-Meyrin-St Genis, 2009, p.21

150 Ibid., p.26.

& Dalnoky'¹⁵¹, 'Obras/Coteba/Alphaville'¹⁵² and 'KCAP/Buchhofer Barbe AG/Wuest & partner SA'¹⁵³. These early works, or *1er degré*, propose a « *concept général d'aménagement* »¹⁵⁴.

The Güller Güller architecture urbanisme/Metron planification/ Michel Desvigne Paysagiste proposal is titled "*La ville dense, différenciée, compacte, verte, techno-tertiaire, avec image et perspective mondiales*". As this title indicates, the intent is to enhance the international potential – in terms of economic, relational and image exchanges – of this territory. The directions indicated are the densification of the built environment, paying particular attention to industrial areas¹⁵⁵, a new section of railway between Meyrin and St-Genis, and the accentuation of the difference between « *paysage et grands éléments* »¹⁵⁶, that is between the « *éventail de vert* »¹⁵⁷ of agricultural valleys, woods, vineyards, etc., and the international organizations, the CERN and the airport as driving forces of « *recherche et le développement, la formation, le hi-tech, le tertiaire haute gamme, etc.* »¹⁵⁸.

The report presents three urban projects named "*villes doigts*"¹⁵⁹ as close references to the overall strategy of the proposal. The *villes doigts* shown are the masterplan for Orestad in Copenhagen designed between 1994 and 2006, the "Fiber City: Tokyo 2050" initiative proposed by Ohno Hidetoshi in 2006 and the "Amsterdam 2020" plan and more specifically the Sloten / AmsterdamZuid and Amstelveen fringes. Of these examples, the linear arrangement of the settlements, the autonomous and differential character of each node, the penetration of natural open spaces between one node and another are highlighted. The Genève-Meyrin-St Genis area is therefore called a "*ville doigt différenciée*". Differentiated by the presence of different objects and by the sequence of different landscapes that intersect the main axis.

In this proposal Zimeysa is treated with some indifference. It does not appear among the « *grands éléments marquants* », – indeed it is surrounded by these – and not even between the « *zones à urbaniser clés* »¹⁶⁰. It is only interested by the new railway line that it is imagined starting from the Gare de Meyrin towards the Pays de Gex and by the proposal to achieve greater densification of the built area.

151 The Güller Güller architecture urbanisme studio has the urban architect Michael Güller as "pilot", that is, the main figure, Metron planification is represented by the "traffic planner" Marc Schneiter and Michel Desvigne Paysagiste has as its landscape architect Michel Desvigne.

152 Obras Architectes Urbanistes has as referent the architect Frédéric Bonnet, Coteba is represented by the "*ingénieur organisation planification*" Jean-Baptiste Rey and Alphaville by the "*urbaniste programmiste*" François Monjal.

153 KCAP Architects & Planners is represented by the urban planner Ute Schneider, Buchhofer Barbe by the mobile engineer Daniel Amstad and Wuest & Partner by the economist Hervé Froidevaux

154 Cahier n°70. Programme des études tests. PACA Genève-Meyrin-St Genis, 2009, p.16

155 « *Dans ZIMEYSA et d'autres zones industrielles, les entreprises bloquent trois fois plus de surface qu'ils utilisent.* » (Cahier n°70-3. Projets des bureaux d'étude pour le 1er degré. PACA Genève-Meyrin-St Genis, 2009, p.4)

156 Ibid., p.4.

157 Ibid., p.4.

158 Ibid., p.4.

159 The authors are inspired by the *Fingerplanen* launched in 1947 in Copenhagen which provided for the growth of the city along 5 "fingers" each including its own railway.

160 The areas selected as requiring major urbanization projects are the area south of the airport ("tête GVA"), the area north of the airport ("campus GVA Nord") and the French part of Cern ("Porte de France").

Only direct reference to Zimeysa is the “*pôle hi-tech*”¹⁶¹ conceived as a densification project of the industrial area to accommodate 17,000 workers.

The Obras / Coteba / Alphaville project works in four directions called “*séquences, équilibres métropolitains*”, “*entrelacement des échelles, de la chambre aux montagnes*”, “*vis-à-vis, patchwork et tissages*”, “*respirations et limites*”. The first deals with the issue of commuters and the work / residence imbalance between the Swiss and French sides and proposes a rapprochement between the worker and the workplace through an « *urbanisme de la mixité* »¹⁶² and a diversification of attraction centers¹⁶³ on the territory. The second emphasizes the valorisation of the landscape¹⁶⁴ and on the need to rethink its relationship with the built environment¹⁶⁵. The third explores the possibilities of contact between the « *plaques monofonctionnelles* »¹⁶⁶ who, so they argue, build this part of the territory. The fourth and final direction brings up the question of the “quality” and healthiness of the environment.

Zimeysa is considered primarily in the third direction. Here the territory is read as a “*patchwork urbain*” and divided into “*pavillonnaire*”, “*résidentiel*”, “*grands ensembles*” and “*zone industrielle et commerciale*” fabrics which are distinguished from each other above all by the grain of the buildings¹⁶⁷. Zimeysa appears as an industrial-commercial plaque continued by CERN to the north and the areas south of the airport. The project actions proposed for Zimeysa are mainly two. An “*aération*” operation to the industrial fabric based on the removal of some buildings – in line with the “*respirations et limites*” line –. It is important to note that this “*aération*” action is opposite to that of the densification of Zimeysa promoted by the previous project and by most of the regional plans. While the other action consists of a series of interventions on « *zones de contact stratégiques* » that separate the industrial area from agricultural fields to the north-west and south and residential areas to the north. The “*zones de contact*” to the south they are then retaken in “*figure du projet*” and proposed as “*franges*” and « *lieu du valorisation des “plaques” d’activité* »¹⁶⁸.

The third proposal, that of the studios KCAP / Buchhofer Barbe AG / Wuest & partner SA, builds the project around a guiding principle called “*centres-noeuds-axes*”. This principle puts the public transport

161 Cahier n°70-3. Projets des bureaux d’étude pour le 1er degré. PACA Genève-Meyrin-St Genis, 2009, p.34

162 Ibid., p.51.

163 Called « *producteurs de temps* » (Ibid., p.51).

164 « *L’urbanisation récente, à toutes les échelles, ne tient pas compte de la structure topographique, de l’orientation des vues, du sol et des formes du paysage.* » (Ibid., p.51).

165 « *En terme de forme urbaine, et même d’architecture. Aucun bâtiment récent ne semble tirer parti de ce paysage ineffable, que beaucoup de régions urbaines envieraient à Genève...* » (Ibid., p.51).

166 Ibid., p.52.

167 The building as a fundamental object for the definition of a coherent “urban form” is a question that the Obras / Coteba / Alphaville studio leaves for the second phase of the competition. The building as a complex issue requiring new typological inventions: « *Il faut une véritable invention typologique (pour les bureaux, mais aussi les logements, les usines, les espaces publics majeurs, les lieux commerciaux, les stations de train et de tramway, les infrastructures). Un «bestiaire» reste à répertorier et à inventer, qui tire pleinement profit à la fois de l’urbanité et des grands paysages.* » (Ibid., p.53)

168 Ibid., p.84.

axes at the fore « *formant la colonne vertébrale de l'urbanisation existante et future* »¹⁶⁹, the nodes considered as potential opportunities for densification of the buildings, and the centralities of the territory judged hierarchically prevalent. The chosen central areas are the municipalities located in the “Pied du Jura”, the “Campus” of CERN, the “Porte de Genève” (Meyrin and Vernier) and the “Coeur” consisting of the airport and the Ville de Genève. Starting from this basis and from the requests expressed by the *Projet d'agglomération*, the proposal explores three different scenarios: the “*axe dense*” – which foresees a continuous densification operation along the public transport lines –, the “*diversité urbaine*” – who envisions greater urbanization of agricultural land –, “*nature et ville dense*” – which tests a condition of maximum densification around the nodes and public transport infrastructures and a minimum footprint on cultivated land –¹⁷⁰.

In this latest proposal, Zimeysa is almost entirely ignored. It appears only as an inseparable part from the other residential areas of Meyrin, a whole entity named “*Porte de Genève*”. Or as an industrial area to be densified. The only distinctive element is perhaps the choice of considering a section of the territory that includes the industrial and research activities located north of the Route du Nant d'Avril and the Rue Alphonse-Large and the residential buildings located along the Rue Virginio-Malnati as a mixed area that acts as a turning point both between industrial and residential areas and between the French and Geneva territories.

For the *2ème degré* of the competition the committee asks the three participating study groups a « *projet et stratégie d'aménagement* »¹⁷¹ and to deepen the various possibilities that can open the “multipolarity”, “*mixité*” and densification directions. More specifically, and with regard to the themes that interest this research, the committee asks to offer more concrete visions of the configurations of the “*secteurs d'activités*”, to define the type of enterprise to host¹⁷², to explore forms of *mixité* that test the possibility of combining economic activities with high added value activities and housing units – « *vivre en secteur d'emplois* » or « *travailler en secteur de logement* »¹⁷³ –.

The Güller Güller architecture urbanisme/Metron planification/Desvignes & Dalnoky team presents in this *2ème degré* of detail of the proposal, for the first time, the *Cercle de l'Innovation* territorial figure which from that moment on will become the definitive name for this PACA. In fact, in this second delivery the team proposes to consider the territories of the PACA Genève-Meyrin-St Genis and the PACA Nations-Aéroport-Ferney as a single territory¹⁷⁴. The two axes – Genève-St Genis and Ferney-Gex – that

169 Ibid., p.102.

170 These scenarios were already developed in 2007 by Metron SA, Transitec Ingénieurs Conseils SA, Atelier B&M, Müller and Romann et Schuppisser studios for the *Schéma d'agglomération del Projet d'agglomération 1ère génération* (Projet d'agglomération, Cahier annexe n°3, 2007).

171 Cahier n°70-3. Projets des bureaux d'étude pour le 1er degré. PACA Genève-Meyrin-St Genis, 2009, p.17.

172 « [...] définir les qualifications, site par site, en faisant le lien avec le type d'entreprises préconisées dans l'étude PPDE [...] » Cahier n°70-4. Rapport intermédiaire du collège pour la 1ère phase. PACA Genève-Meyrin-St Genis, 2009, p.23.

173 Cahier n°70-4. Rapport intermédiaire du collège pour la 1ère phase. PACA Genève-Meyrin-St Genis, 2009, p.23.

174 In the *Cahier n°70. Programme des études tests* document, opening the competition and presenting the territory in question and its problems, the strong bond that these two parts of the territory have was underlined

depart from the center of Geneva towards the French territory are here rearticulated into a single territorial figure. Following the contours of a figure closed in on itself such as the circle of the Large Hadron Collider, the centers of Ferney-Voltaire, St Genis, and Meyrin together with the airport and CERN become portions of a closed track¹⁷⁵. As important as these segments that shape *the Cercle de l'Innovation* is the *Coeur Vert*, the great system of open spaces that remains at the center of this figure. Wooded areas, sports activities, “microagriculture”, “inhabited parks”, etc., will have to populate this large space which for the proposal assumes a complementary role with respect to the more densely constructed edges.

The project by the Güller Güller, Metron, Desvignes team pays close attention to the Zimeysa industrial area. In this proposal Zimeysa is divided by the railway into two different parts: “Zimeysa-tech” – imagined as an area that combines high-tech production activities, services and residences – and “Zimeysa-fer” – a more traditional industrial area that hosts manufacturing and logistics activities that can benefit from the connection with the railway –. The distinction between these two areas is clear. On one hand, Zimeysa-tech is seen as a heavily modified place. In fact, it appears colonized by large building artifacts – a « *mosaïque de structures grandes* »¹⁷⁶ –, both in terms of the footprint on the ground and volumes height and of the kind of hosted activities characterized by a strong recognition – among the “*pièces maitresses*”¹⁷⁷ are mentioned, for example, the metalworking company Agie Charmilles, the DuPont de Nemours Innovation Center, the watchmaker Chopard, the headquarters of the chemical company Firmenich, and others –. Its open spaces have also been modified and are seen crossed by a new system of vegetized infrastructures and paved public spaces that protrude from the public transport axes and that mend its borders with the other adjacent residential areas. While on other hand, Zimeysa-fer remains quite similar to how it was before. Its buildings remain very low and wide and its open spaces devoid of any other connotation other than that of simply being paved grounds between one building and another. The only new element in this area south of the railway is the construction of new industrial buildings that are expected in the area that today occupies the Montfleury quarry.

The proposal of the Obras, Coteba, Alphaville team puts the landscape at the center¹⁷⁸. The design choices here try to valorise the “*paysage ressource*”¹⁷⁹ and to treat the open spaces equipped with vegetal es-

and a parallel treatment is recommended: « *A noter qu'il existe une interrelation forte de ce PACA avec le PACA Genève-Ferney-Gex dont l'étude est menée en parallèle.* » (Cahier n°70, 2009, p.22). But it didn't go any further.

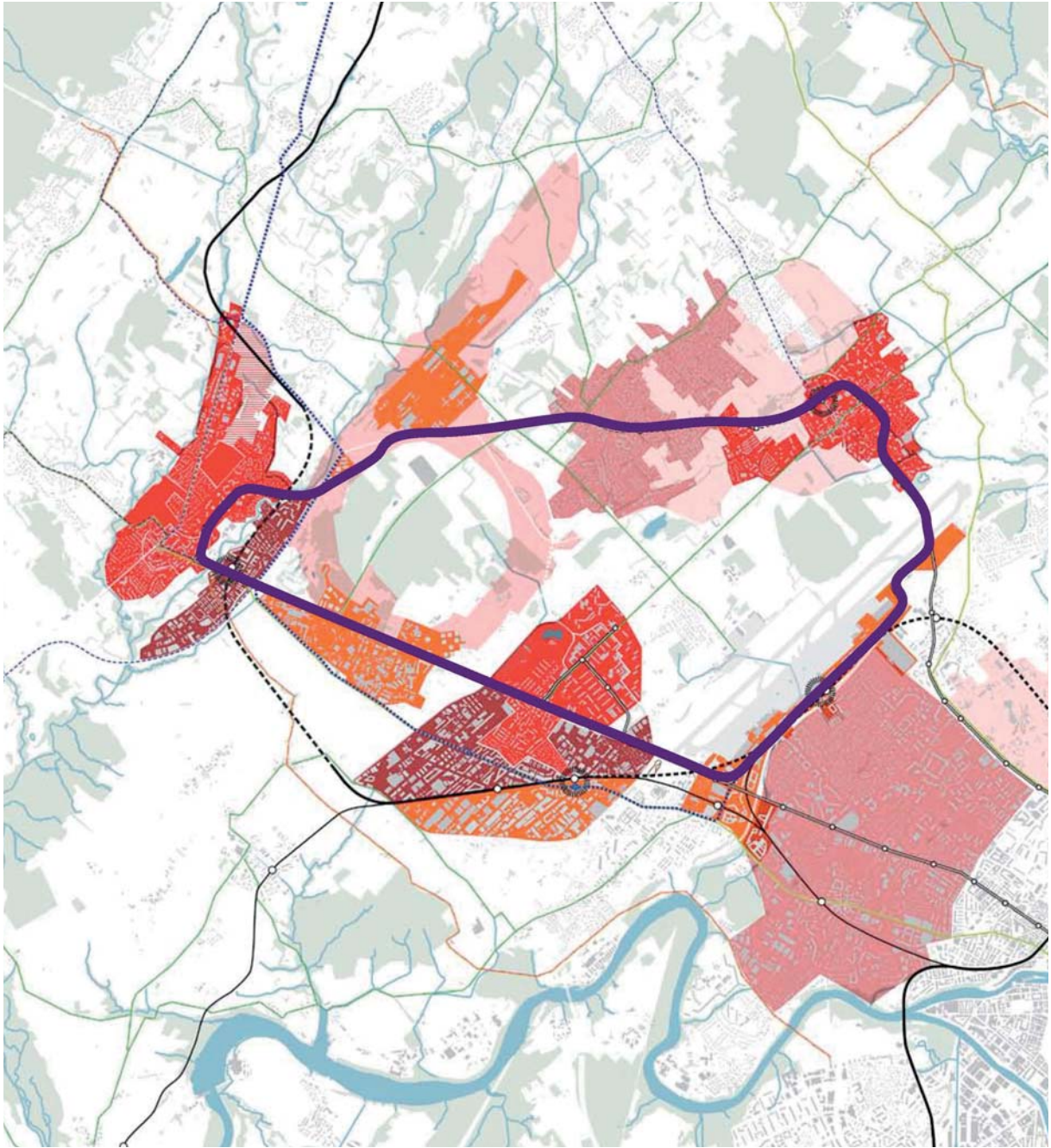
175 « *Le projet GGau cherche à mettre en place une identification d'adresses d'énergie suprarégionale et internationale qu'il estime pouvoir être portée par la dynamique particulière de la trilogie CERN-Aéroport-Organisations Internationales (ressource du PACA Genève-Ferney-Gex), ceci de manière à garantir une perspective internationale à haute valeur ajoutée aussi sur territoire français.* » (Cahier n°70-6. Rapport final du collège pour le 2ème degré. PACA Genève-Meyrin-St Genis, 2010, p.58)

176 Cahier n°70-5. Projets des bureaux d'étude pour le 2ème degré. PACA Genève-Meyrin-St Genis, 2009, p.34

177 Ibid., p.32

178 Not that the other proposals have overlooked this aspect: « *La conscience de prendre possession d'un territoire naturel magnifique est omniprésente.* » (Cahier n°70-6. Rapport final du collège pour le 2ème degré. PACA Genève-Meyrin-St Genis, 2010, p.89)

179 Cahier n°70-5. Projets des bureaux d'étude pour le 2ème degré. PACA Genève-Meyrin-St Genis, 2009, p.91



17. Relier sites existants, et les lier à l'aéroport!

Source: Cahier n°70-5. Rapport final du collège pour le 2ème degré. PACA Genève-Meyrin-St Genis, 2009, p. 14.

sences as a public space that permeates the city and guarantees its spatial continuity¹⁸⁰: « *la ville avec la nature* »¹⁸¹. Permeability which, however, does not confuse what is thought of as a built space and what is left to agriculture and vegetation of various types. Indeed, this distinction is made extreme in this proposal. Zimeysa is renamed here “*Le Front*”, that is a “*figure urbaine*” which follows the southern edges of the industrial area that separate it from the vineyards and agricultural fields of Satigny and the northern edge crossed by a “corridor” of open spaces. This border is one of the places on which the proposal focuses its attention, working on mobility, settlement logic, types of activities to host, etc. Thus leaving out the interior of the industrial area. *Le Front* is imagined as a (again) “mixed” place, where new office buildings and new typologies such as towers, slats and circular buildings, together with new services and new types of open spaces, break with the homogeneity that distinguished Zimeysa. In addition to this reconfiguration of the internal part of the borders of Zimeysa, a small expansion of the industrial area to the south is also imagined, a sort of « *façade de l’urbanisation* »¹⁸² composed of new multi-storey slatted buildings on a permeable soil surface. In fact, this initiative seems to incorporate what in the *Cahier annexe n°9 of Projet d’agglomération 1ère génération* was called « *parc paysager avec insertion d’objets architecturaux de qualité* »¹⁸³. Both the new open spaces that penetrate the boundaries of Zimeysa and this expansion towards the south are based on an idea of a qualifying natural landscape, that is, with properties that valorise the objects associated with it¹⁸⁴: « *l’attractivité naît de ce “luxe” offert aux lieux de vie et de travail.* »¹⁸⁵. The evaluation committee, however, remains skeptical about this last initiative and considers it potentially favorable to the consumption of agricultural and uncultivated land¹⁸⁶.

The KCAP team, Buchhofer Barbe AG, Wuest & partner also proposes the inclusion of Ferney and Prévessin and the ring of residence centers and industrial and research areas, very similar to the *Cercle de l’Innovation* of the Güller Güller, Metron, Desvignes team. The transition from the Genève-St Genis axis to the closed figure is also accompanied here by a work on open spaces – is proposed the swamps, agricultural fields, uncultivated land valorisation and their systemization under the name of “PACAParc”¹⁸⁷ – and a work on mobility – new public transport and soft mobility networks that take on the task of re-connecting each of the inhabited or “working” centers of this territory –. As for Zimeysa, the KCAP, Buchhofer Barbe AG, Wuest & partner team envisages a less “mixed” area than the other proposals. Zimeysa here remains an area for production and offices. The only exception is the “zoom” called *ZA Meyrin village* where that wedge-shaped part of Zimeysa located in the northern part, enclosed between the Route de Meyrin and the Route du Grand-Puits that separates the *Cité* from a settlement of single-family houses, becomes a mixture of different uses. This area, currently occupied by large com-

180 In line with the “*armature paysagère*” initiative of the *Projet d’agglomération*.

181 Ibid., p.113

182 Cahier n°70-6. Rapport final du collège pour le 2ème degré. PACA Genève-Meyrin-St Genis, 2010, p.76

183 Feddersen, and others, Cahier annexe n°9, 2008, p.42

184 « *Le caractère mêlé entre nature et bâti destiné à augmenter la qualité des lieux de vie et de travail est exacerbé.* » Cahier n°70-6. Rapport final du collège pour le 2ème degré. PACA Genève-Meyrin-St Genis, 2010, p.76

185 Cahier n°70-6. Rapport final du collège pour le 2ème degré. PACA Genève-Meyrin-St Genis, 2010, p.59

186 Addirittura « *l’antithèse d’une ville «compacte»* » (Cahier n°70-6. Rapport final du collège pour le 2ème degré. PACA Genève-Meyrin-St Genis, 2010, p.77).

187 In the same way as the “*Coeur vert*” of the first team.



18. Redéveloppement de zimeysa tech en zone mixte: typologies et hauteurs.

Source: Cahier n°70-5. Rapport final du collège pour le 2ème degré. PACA Genève-Meyrin-St Genis, 2009, p. 37.

mercial slabs, parking areas and, in the easternmost part, automotive industry buildings, is imagined as a sort of laboratory in which to combine types and combinations of different buildings¹⁸⁸: three-storey residential buildings with the ground floor used for manufacturing activities are juxtaposed with the existing commercial slabs, new office buildings cover the sides and roofs of other commercial structures, the open spaces are filled with new volumes that mix homes and services, parking lots are “condensed” giving shape to multi-storey constructions. These new additions are arranged in an opportunistic way without following any pre-established principle. They simply cover the available spaces, on some occasions leaving the interiors empty to create gardens and squares. An area surrounded by recognizable places, such as that of the *Cité* and its slatted buildings or those of Zimeysa with its industrial warehouses, carries upon itself some of these characteristics. That is, it becomes a space of transition through contamination, thus attenuating the abrupt jumps from one place to another.

The *Collège* (the competition evaluation commission) welcomed the proposals of the three teams with a positive judgment. However, it considers excessive the replacing manufacturing activities with high value-added activities and housing:

La logique de complémentarité et de compatibilité entre activités du secteur doit rester au cœur des préoccupations de développement. Ainsi par exemple au plan de la compatibilité, ZIMEYSA élargie, à fonctionnalité industrielle, ne peut accueillir du logement.

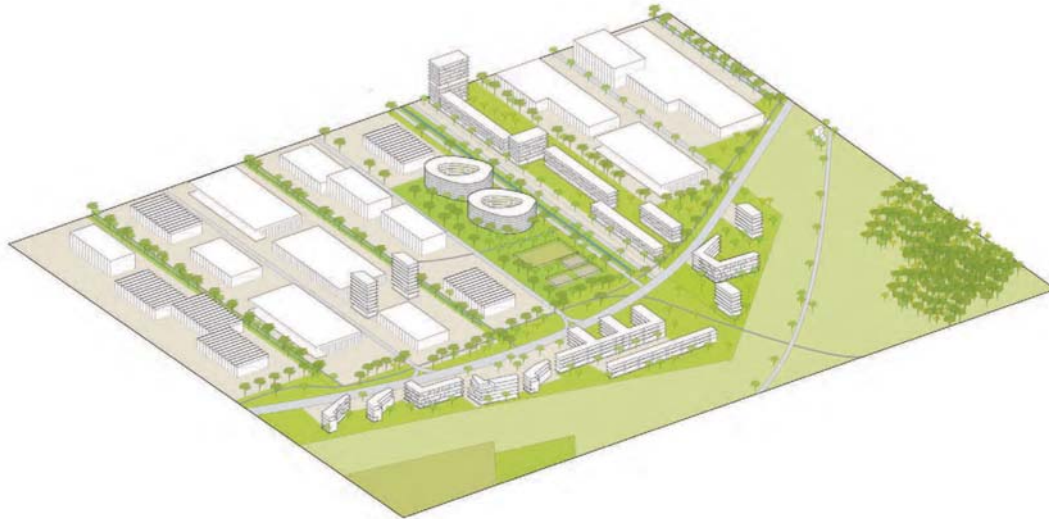
Le Collège pense encore que ce périmètre industriel ne doit pas miser exagérément sur les activités à haute valeur ajoutée et doit chercher à valoriser également les activités du secondaire. Une organisation en verticalité (logistique au rez, fonctions à valeur ajoutée aux étages) laisse présupposer même d'un possible mixage d'activités à priori difficilement conciliables. De plus le tissu des activités peut s'enrichir de l'introduction, outre d'espaces publics, de fonctions de commerces et de services à l'intérieur même de la zone industrielle.

Le secteur de développement en frange Sud (OBRAS) est perçu positivement par le Collège pour autant que sa vocation de pur habitat soit abandonnée au profit d'une mixité accueillant des activités compatibles. (Cahier n°70-6. Rapport final du collège pour le 2ème degré. PACA Genève-Meyrin-St Genis, 2010, p.65)

The *Collège* takes up the PPDE report¹⁸⁹ as an overall framework for the development of manufacturing activities and services throughout the territory of the Franco-Geneva agglomeration and recalls the need to leave spaces suitable for this type of activity.

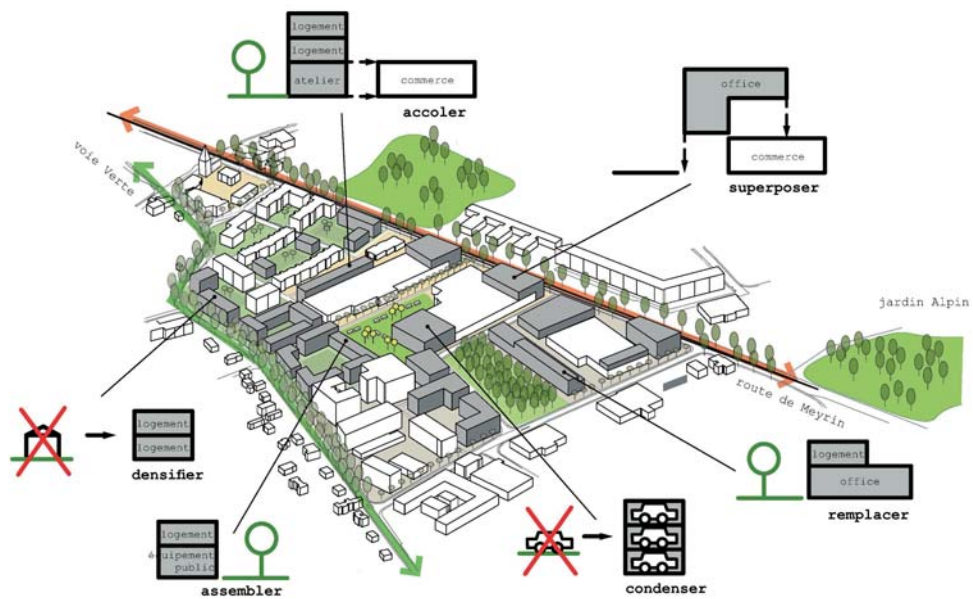
188 « *Densification injectant de la mixité* » Cahier n°70-6. Rapport final du collège pour le 2ème degré. PACA Genève-Meyrin-St Genis, 2010, p.64

189 The PPDE policies were mentioned on pages 65, 74 and 100 of *Cahier n°70-6. Rapport final du collège pour le 2ème degré* (PACA Genève-Meyrin-St Genis, 2010).



19. Le front.

Source: Cahier n°70-5. Rapport final du collège pour le 2ème degré. PACA Genève-Meyrin-St Genis, 2009, p. 122.



20. Transformation de ZA Meyrin village.

Source: Cahier n°70-5. Rapport final du collège pour le 2ème degré. PACA Genève-Meyrin-St Genis, 2009, p. 174.

The 2011 PACA synthesis

Downstream of the competition phase, aimed above all at the exploration of different scenarios¹⁹⁰, in 2011 a synthesis was published¹⁹¹ which starts from these studies and reorganizes them in a more coherent and systematic framework aimed at the revision of local regulatory instruments (the French SCoT and PLU and the Genevan PDC, the PDQ and the PLQ), as well as the enrichment of the *Projet d'agglomération de 2ème génération*. Both the works of the competition and the *Projet d'agglomération* of 2007 proposals are reviewed here and condensed into principles¹⁹² and more concise recommendations. This *Rapport final* focuses on issues related to landscape and environmental systems – the *Coeur vert*, the “franges”¹⁹³, the “*plaines agricoles*”, the biodiversity, the “*connexions écologiques*”, the “*éco-quartiers*”, etc. – and mobility – public transport and soft mobility networks –. The issues related to “urbanization”, i.e. the transformation of the built environment, are subordinate to the environmental and mobility issues: not only because they are placed in the last position among the « *recommandations sur les concepts thématiques* » but also because of the three guiding principles two are derived from the other themes – « *s'organiser prioritairement en fonction du système TP et MD pour accueillir la population et les emplois attendus* » e « *s'insérer dans le grand paysage et créer une dualité bâti / nature attractive* »¹⁹⁴.

The space left to the issues of territory and industrial areas economic development is therefore reduced. In the paragraphs dealing with this issue, the objectives are set – to welcome 35,850 new workers¹⁹⁵ and the new activities coming out of the PAV¹⁹⁶ – and the main ones are underlined “*potentiels de développe-*

190 « *Le principe d'une étude test consiste à disposer de plusieurs visions sur le développement transfrontalier du territoire, de manière à susciter le débat, avant que les décisions ne soient prises par chacune des entités française et suisse concernées.* » (Cahier n°70-6. Rapport final du collège pour le 2ème degré. PACA Genève-Meyrin-St Genis, 2010, p.11)

191 This synthesis was made by the urbanist and architect Marie-Paule Mayor (Mayor + Beusch) – who was part of the *Collège de évaluation* of the PACA Genève-Ferney-Gex –, Christine Thibaud Zingg (Thibaud-Zing SA) – also part of the *Collège de évaluation* of the PACA Genève-Ferney-Gex –, Benoît Ziegler, David Oppliger and Michel Schuppisser (mrs partner SA) – Benoît Ziegler is a member of the *Office cantonal de la mobilité* and was co-author of the 2007 *Projet d'agglomération* –, Anne-Lise Cantiniaux (Indiggo) – called in the guise of *Mandataire environnement* – and Han Van de Wetering (Van de Wetering Atelier für Städtebau GmbH) – co-author of the 2007 *Projet d'agglomération* as an integral part of the Metron SA team and here called in the guise of *Mandataire cartographie* –.

192 As the « *coordination entre urbanisation et transports* » (key principle since the beginning of the *Projet d'agglomération*), the « *multipolarité* », the creation of a « *zone urbaine compacte différenciée* », etc. (Cahier n°81-1. Rapport final. Principes, concepts et mise en œuvre. PACA Genève–Saint-Genis–Gex, 2011, pp.30-32)

193 « *Zones de transition entre nature et bâti* » (Cahier n°81-1. Rapport final. Principes, concepts et mise en œuvre. PACA Genève–Saint-Genis–Gex, 2011, p.43).

194 Cahier n°81-1. Rapport final. Principes, concepts et mise en œuvre. PACA Genève–Saint-Genis–Gex, 2011, p.93.

195 Only in the *Cercle de l'Innovation* territory. The overall territory of the PACA Genève-St Genis-Gex expects a growth of 56,000 new jobs (25,000 more than the forecast of the 2007 *Projet d'agglomération*); to be divided into 65% on Swiss territory and 35% on French territory (Cahier n°81-1. Rapport final. Principes, concepts et mise en œuvre. PACA Genève–Saint-Genis–Gex, 2011, p.114).

196 Which it is imagined will focus mainly on the expansion of Zimeysa planned to the south: « *une partie des relocalisations du PAV se feront sur ce PACA et principalement sur la zone de Crotte-au-Loup (environ 6'500 emplois)* » (Cahier n°81-1. Rapport final. Principes, concepts et mise en œuvre. PACA Genève–Saint-Genis–

ment” of this territory. Places for economic activities or “*sites d’activités*”¹⁹⁷ – that appear in the diagram on page 95 – alternate with centers with a prevalence of residences without being confused with these. Thus underlining the distinction between these two types of spaces. Among the “*poids des développements*” are mentioned the CERN, the “*Croissant Porte de France*” of St Genis, the sectors de la Poterie, Paimboeuf and Très-la-Grange south of Ferney Voltaire, the “*south façade*” of the airport, the “*Jardin international*” between Ferney and Ornex and, finally, the *Zimeysa élargie* and its expansion in Vernier on the Crotte-au-Loup road.

Zimeysa, as one of the “*weights of development*”, is considered a reserve to accommodate traditional industrial activities and to absorb the movement of enterprises leaving the PAV. Its role therefore remains virtually unchanged compared to the one it currently plays. What changes here is the way it is wanted to be part of a set of other places that work together. This reintegration of Zimeysa into the *Cercle de l’Innovation* territory is pursued with two different actions. The first is to connect every important centrality of the territory through the public transport hubs – namely the « *interfaces de transports (gares, haltes, arrêts de tramway, de bus express)* »¹⁹⁸ – that are inside them. Here the gare de Zimeysa is the strategic focal point that acts as a device to nail the industrial area to this overall territorial figure. The second type of action is based in the treatment of the boundaries between the built and the open spaces and in the creation of « *espaces/zones de transition* »¹⁹⁹ between the city and the countryside and between different neighborhoods. In this second direction, the space that separates the residential areas of Vernier and the industrial areas of *Zimeysa élargie* is imagined as a place at the service of its neighboring lands. In other words, it is intended to accommodate leisure and service infrastructures for the inhabitants of Vernier and for the workers of Zimeysa, but also for the « *mise en valeur des nouveaux terrains industriels (jardinage, sports, espaces verts, gestion des eaux...)* »²⁰⁰. In addition, the border that separates the existing industrial area of Zimeysa and the one planned to the south from the agricultural fields of Satigny is marked as a space to be considered a “transition zone between city and countryside”. As can be noticed, these two actions reflect the centrality given by this synthesis to the themes of mobility and the natural environment.

The synthesis also presents more detailed treatments with the smaller scale of the *projet stratégique de développement* (PSD). Two PSDs interest Zimeysa, the PSD *ZIMEYSA élargie* and the PSD *Tête GVA - Casai – AIG*. The PSD *Tête GVA - Casai – AIG* focuses on the hub around Gare Cornavin south of the airport after which the Zimeysa industrial area opens up. A crossroads traversed by the Rhone, the railway, the highway, and the Route de Meyrin which connects Switzerland with the Pays de Gex, and above all where the industrial area itself begins. To this pivot-like place the PSD establishes links between the industrial areas and the most central part of the Canton – the “*cœur d’agglomération*” –. More specifically, is imagined a transformation of the *Étang* neighborhood – project that also addresses

Gex, 2011, p.114).

197 Ibid., p.99.

198 Cahier n°81-1. Rapport final. Principes, concepts et mise en œuvre. PACA Genève–Saint-Genis–Gex, 2011, p.96

199 Ibid., p.110.

200 Ibid., p.111

in its own scale the industry/city mediation issue ^{–201}, the design of a “*vitrine économique*”²⁰² along the highway to « *construire une bande d’activités tournées vers l’aéroport et l’autoroute, participant à une vision urbaine globale de la Façade Sud de l’aéroport* »²⁰³, and various interventions to densify the buildings, especially along the main roads. The new buildings will have to play both a role of presentation of the industrial areas to the north-west, a showcase in fact, and act as an acoustic and visual block between the production activities and the airport and residential areas of Vernier.

The PSD *ZIMEYSA élargie*, which includes the entire industrial area, instead takes up the two directions presented at the regional scale of the *Cercle de l’Innovation* in the Cahier n°81-1: public transport stops as the starting point for a transformation of the urban fabric and the *espaces de transition* between different neighborhoods and between “the city and the countryside”. In fact, as can be seen on the map on page 24 of *Cahier n°81-2. Rapport final. Fiches PSD* (2011), the most notable interventions are the new space around the Gare Zimeysa and the transformations to the south between the new extensions of the industrial area and the residential districts of Vernier. The Gare Zimeysa here is the new vital center of the industrial area, to which the workers arrive – the entrance door to Zimeysa²⁰⁴ –, around which activities and services²⁰⁵ and open spaces²⁰⁶ are concentrated and from which a new system of linear public spaces arises that innervates the entire area²⁰⁷. The *espaces de transition* materialize in this PSD in the boundaries between residential districts and industrial settlements²⁰⁸ and between the new extensions of the industrial area and permeable open spaces²⁰⁹. The new boundaries have been retraced by the expansion of the industrial area south of the Route de Satigny which is obtained mainly in the agricultural land of Satigny²¹⁰.

On the same map of the *Cahier n°81-2. Rapport final. Fiches PSD* in fact, two predominant “spaces of transition” emerge. To the south-west, between the new extension of Zimeysa and the agricultural areas of Satigny, a “transition zone” is envisaged that clearly distinguishes the building space from the

201 « *Le secteur de l’Étang, mal intégré à la ville, associe des friches et des industries obsolètes. Ce secteur accueillera des activités côté autoroute et des logements en direction des quartiers à densifier intégrés au PSD Châtelaine.* » (Cahier n°81-2. Rapport final. Fiches PSD. PACA Genève–Saint-Genis–Gex, 2011, p.10)

202 Cahier n°81-2. Rapport final. Fiches PSD. PACA Genève–Saint-Genis–Gex, 2011, p.10

203 Ibid., p.10

204 « *Les gares ferroviaires seront considérées comme des portes d’entrée de la ZIMEYSA pour les employés.* » (Ibid., p.25)

205 « *Les centralités liées aux haltes CFF accueilleront des programmes d’activités denses voire certains équipements publics ou commerciaux.* » (Ibid., p. 25)

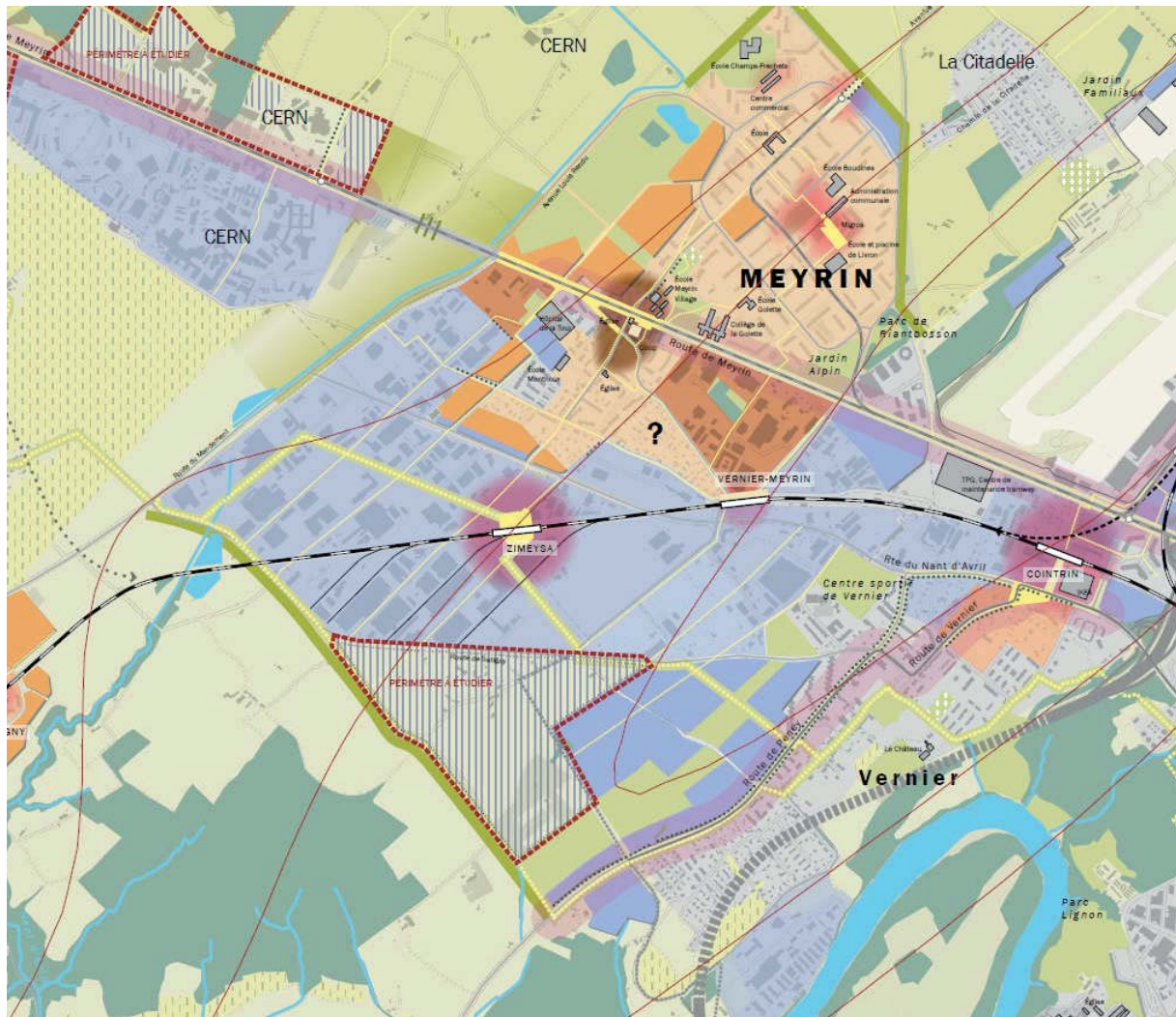
206 « *Des lieux de convivialité et de rencontre, par ex. place publique, seront créés.* » (Ibid., p. 25)

207 « *Un maillage d’espaces publics urbains hiérarchisés et structurés doit contribuer à organiser le tissu d’activités.* » (Ibid., p. 25)

208 « *L’enjeu pour Meyrin et Vernier est aussi d’assurer la transition et/ou couture entre leurs quartiers urbains et les zones industrielles.* » (Ibid., p. 24)

209 « *Aménagement de la zone de transition nature/nouveau quartier* » (Cahier n°81-1. Rapport final. Principes, concepts et mise en œuvre. PACA Genève–Saint-Genis–Gex, 2011, p.93).

210 « *Les terrains d’extension de la zone industrielle correspondent à des secteurs en zone villas en cours de déclassement et à des terrains agricoles, correspondant pour l’essentiel à des surfaces d’assolement et destinés partiellement à l’exploitation de gravières.* » (Cahier n°81-2. Rapport final. Fiches PSD. PACA Genève–Saint-Genis–Gex, 2011, p.24).



21. PSD 05 - Zimeysa Élargie.

Source: Cahier n°81-2. Rapport final. Fiches PSD, 2009, p. 24.

non-building space²¹¹. To the south-east, on other hand, between the new extension of Zimeysa that extends beyond the Montfleury quarry and the settlements of individual houses in Vernier, a more complex space is imagined: the Route de Peney becomes a « *corridor de développement, axe urbaine* »²¹² which thickens with new productive and tertiary buildings, thus mediating the purely industrial areas of Zimeysa and the residential areas of Vernier. In addition, between the Route de Peney and Zimeysa an important permeable open space is designed that intertwines with the “*Voie verte*” and penetrates the interior of the industrial area up to the Vernier sports center²¹³. A transition space that must contain some « *activités vertes (sport, horticulture, jardins familiaux)* »²¹⁴. Another “transition” front is the one to the north between Zimeysa and the center of Meyrin and the *Cité*. Here it is the Route de Meyrin that acts as a mediation space, becoming a boundary around which the variation in the type of activities allocated is strongly imposed: « *Les secteurs à vocation artisanale, commerciale ou de services techniques dans l'épaisseur de l'axe de la route de Meyrin sont voués à se transformer en quartiers urbains mixtes.* »²¹⁵. Variation that will begin to decrease as it approaches the industrial area's interior: « *La zone industrielle se densifiera, avec une gradation sectorielle depuis le centre de Meyrin vers des activités artisanales et industrielles (desserte marchandises).* »²¹⁶

In addition to these transformations – and which, as it emerged previously, will be summarized in the *Schéma d'agglomération* e nello *Schéma structurel* of 2012 *Projet d'agglomération* – the PSD proposes other less conspicuous changes. An enhancement of the logistical performance of the southern part of the industrial area is suggested²¹⁷, the introduction of a greater variety of types of activities (*mixité*) in some points and the densification of the building fabric²¹⁸ to accommodate 16,000 new jobs²¹⁹, etc. In addition, the FTI is indicated as the main responsible for the implementation of the master plans for industrial areas (ZODIM, ZIBAT, ZIMOGA, ZIRIAN, ZITUIL)²²⁰, the purchase of land, the negotiation with companies, the clearing of parking areas and underused green areas and the promotion of industrial and craft “vocations” in these areas.

The 2011 PACA summary will remain the main reference framework for the following years. The 2012 *Projet d'agglomération* in fact, will only bring back the choices made by this synthesis. As for the 2016 *Projet d'agglomération*, as we have seen, the transformation has moved within the industrial area

211 « *Une limite claire avec la campagne, correspondant à une nouvelle voie verte, sera assurée sans consommation d'espaces agricoles.* » (Ibid., p. 25).

212 Cahier n°81-1. Rapport final. Principes, concepts et mise en œuvre. PACA Genève–Saint-Genis–Gex, 2011, p.93.

213 « *Le maillage des espaces verts intégrera la future voie verte d'agglomération et la transition verte avec Vernier.* » (Cahier n°81-2. Rapport final. Fiches PSD. PACA Genève–Saint-Genis–Gex, 2011, p.25).

214 Cahier n°81-3. Annexes. PACA Genève–Saint-Genis–Gex, 2011, p.70.

215 Cahier n°81-2. Rapport final. Fiches PSD. PACA Genève–Saint-Genis–Gex, 2011, p.25.

216 Cahier n°81-3. Annexes. PACA Genève–Saint-Genis–Gex, 2011, p.70.

217 The creation of an « *interface logistique de grande taille* » that plays the role of “logistic gateway” to the agglomeration. (Cahier n°81-2. Rapport final. Fiches PSD. PACA Genève–Saint-Genis–Gex, 2011, p.24).

218 « *Aussi bien pour la zone actuelle que pour les extensions prévues, on privilégiera une occupation dense en tirant parti des possibilités de superposition des activités.* » (Ibid., p. 25).

219 7,000 ff which it is estimated will come from the PAV (Ibid., p. 24).

220 Ibid., p. 27.

abandonning the idea of an extension of Zimeysa to the south. More than a quantitative strengthening of the industrial area, here is recommend instead a refinement of the functioning of the activities already established and those arriving: « [...] *la stratégie économique vise notamment à renforcer les activités garantes du fonctionnement du territoire au quotidien et les activités spécifiques à ce territoire.* » (Projet de territoire Grand Genève 2016-2030, 2016, p.207)

2.5. The Voie verte. The crossing bicycle path as a unifying gesture

Another regional initiative that touches the Zimeysa area is the “Voie verte”. As in the case of the PACAs, the *Voie verte* is a proposal that arises within the *Projet d’agglomération* but which acquires a certain autonomy with its maturation. This proposal appears first as an accompaniment to the new section of the CEVA railway²²¹ and it is only in the “*Cahiers thématiques*”²²² published in 2009 and 2010 and in the PACA projects also of 2009 where takes on its distinctive characteristics for the first time. The *Voie verte*²²³ is imagined as an infrastructure for soft mobility – i.e. for cyclists and pedestrians – which crosses the Geneva canton from side to side passing from the French side of Annemasse to the other French side of St Genis. Infrastructure that also becomes an opportunity to introduce vegetation and open spaces into the most densely built parts of the territory: thus giving shape to a 22 km long linear park²²⁴.

New park that will have to respond to various purposes: protect the natural environment²²⁵, valorise the landscape²²⁶ and create a new network of public spaces²²⁷ (« “*la place publique*” » *de l’agglomération*

221 So it is mentioned in the first version of the *Projet d’agglomération* (Projet d’agglomération, Charte du Projet d’agglomération, 2007, p.50; Projet d’agglomération, Cahier annexe n°3, 2007, p.97).

222 In the section dedicated to mobility: Grand Genève, Agglomération franco-valdo-genevoise, Médiathèque, Cahiers thématiques, Mobilité : <https://www.grand-geneve.org/mediatheque/cahiers-thematiques/72> (Consulted 28 July 2020).

223 The most in-depth studies were carried out by a team of three professional firms: the landscape architects firm Hüsler & Associés, the architects and geographers firm Contrepoint Projets urbains, and the studio specialized in mobility issues Transitec in situ vivò.

224 The use of “linear parks”, “landscape reinforcements”, “green meshes” solutions is, as it is easy to notice, very recurrent in this specific context. Several regional and cantonal projects make use of it, often referring to the work of Maurice Braillard, and *Voie verte* is not an exception: « *Sans doute est-elle le plus souvent plantée, arborée ou végétalisée, constituant ainsi une forme de continuité végétale ayant peu ou prou valeur de continuité écologique à travers le grand territoire. Mais c’est là encore sur ses bords et par ses connections avec la structure paysagère existante qu’elle pourra exercer cette fonction de parc naturel linéaire et devenir un instrument de naturation active, à grande échelle, des grandes mailles écologiques dont rêvait Maurice Braillard en son temps.* » (Cahier n°15-30. Voie verte d’agglomération. Etude de faisabilité. Cahier de présentation. Projet d’agglomération franco-valdo-genevois, 2010, p.4).

225 « *Elle permet de préserver le paysage, de constituer et de dynamiser plusieurs corridors biologiques.* » (Cahier n°15-1. Voie verte d’agglomération. Document cadre. Projet d’agglomération franco-valdo-genevois, 2009, p.6).

226 « [...] *met en scène les paysages du bassin genevois.* » (Ibid., p. 6).

227 « *Elle est aussi un lieu de rencontre, de détente et de loisir pouvant accueillir diverses animations ponc-*

*franco-valdo-genevoise*²²⁸). Therefore, in line with the principles of the *Projet d'agglomération*, the infrastructure for mobility is again the starting point for a reconfiguration of the territory that crosses: « *Il est impératif que l'aménagement de la voie verte s'inscrive dans une approche globale du territoire et tienne compte des zones urbanisées, des secteurs en mutations, du contexte agricole et naturel situés dans un large périmètre.* »²²⁹ Even if the thickness set for concrete interventions is mainly reduced to « *l'emprise de la bande de circulation, ses structures paysagères et à sa fonction biologique ainsi que ses connexions directes avec la proximité des tissus qu'elle traverse.* »²³⁰

Its location in some specific parts of the Franco-Genevan territory responds to the desire to serve the most densely populated areas or with the greatest concentration of activities, to connect with the stops of the public transport networks²³¹, to decrease car transport traffic by occupying road sections previously used exclusively by cars²³², to bring inhabited places and services closer together²³³. Its layout is segmented into eight sequences – each of which will be the subject of a specific document (*i cahier*) –, separated by seven nodes, and by other levels of sub-sequences at smaller scales that correspond to intersections and crossings. To this segmentation is added a layer of new architectural elements which also contribute to the structuring of the entire route: the “*écofolies*”²³⁴. These seven « *pavillons “écologiques”* »²³⁵ – which must coincide with the seven nodes – are punctual presences in charge of giving the VVA a greater sym-

tuelles. » (Cahier n°15-1. Voie verte d'agglomération. Document cadre. Projet d'agglomération franco-valdo-genevois, 2009, p.6) ; « [...] *espace de déambulation, de sociabilité et de rencontre que, de proche en proche, elle contribue à ménager, enrichir ou reconstituer.* » (Cahier n°15-30. Voie verte d'agglomération. Etude de faisabilité. Cahier de présentation. Projet d'agglomération franco-valdo-genevois, 2010, p.4) ;

228 Cahier n°15-1. Voie verte d'agglomération. Document cadre. Projet d'agglomération franco-valdo-genevois, 2009, p.6.

229 Ibid., p. 16.

230 Ibid., p. 16.

231 Action they call « *dendrite* » referring to the branches of the nervous tissue (Cahier n°15-30. Voie verte d'agglomération. Etude de faisabilité. Cahier de présentation. Projet d'agglomération franco-valdo-genevois, 2010, p.4).

232 Strategy that they call « *contre-allée* » (Ibid., p. 4).

233 « [...] *la VVA génère des espaces de voisinage, qui deviennent le support des usages prosaïques et ordinaires de la vie quotidienne : la pause, la rencontre, l'échange, la promenade... Si la VVA doit assurer la continuité de la traversée de l'Agglomération, c'est de proche en proche qu'elle sera utilisée, et sa force majeure est de pouvoir générer des proximités fortes entre des quartiers ou des équipements, souvent mal reliés par les transports existants, à des échelles intermédiaires qui sont de l'ordre du kilomètre.* » (Ibid., p. 4).

234 « *Le terme éco-folies. se réfère au sens du mot folie dans l'art des jardins, qui désigne une construction plaisante (autrement appelée fabrique), qui fait partie intégrante de la composition du jardin tout en étant un lieu de plaisir et de convivialité (un petit temple, un kiosque, une chaumière, ...). Quant au préfixe éco-, il désigne non seulement le thème écologique – lequel ne se cantonne pas à l'écologie naturelle mais intègre les enjeux d'une écologie humaine, urbaine ou industrielle –, mais surtout celui de la relation, interactive ou rétro-active, entre l'homme et son environnement, entre le programme et l'usage, entre le bâtiment et le visiteur, [...]* » (Ibid., p. 11).

235 Ibid., p.4.



22. Séquences. From left to right: Variant A, B and C.
 Source: Cahier n°15-33. Voie verte d'agglomération. Etude de faisabilité. Les zones industrielles, un axe de restructuration. Projet d'agglomération franco-valdo-genevois, 2010, p.6, p.14, p.20.

bolic valence²³⁶ and to enhance its public space character²³⁷. Their concrete definition remains unclear²³⁸, as well as its functions²³⁹. However, it is important to emphasize that they are considered “urban” objects – even “hyper-urban” – and not rural artefacts or in any case close to that more pastoral side of the VVA that pushes towards the vegetalization of open spaces and the protection of the natural environment: « *Si les thèmes associés aux folies des jardins d’antan sont souvent d’ordre pittoresque (à peindre) et bucolique (campagnard), les thèmes à associer aux écofolies devraient être d’ordre sensible (à percevoir) et “hyper-urbain” (interactifs).* »²⁴⁰

One of these sequences coincides precisely with the Zimeysa industrial area²⁴¹. Here the layout of the VVA is considered a distinct element with respect to the context, a gesture that contrasts and introduces diversity. In the words of the authors: « *une ligne médiane distincte* »²⁴², « *un itinéraire différencié et un espace végétalisé* »²⁴³, that crosses an industrial area seen as a « *ordinaire, uniforme et isotrope* »²⁴⁴ place and with a « *fonction monovalente* »²⁴⁵. The VVA offers other functions – « *mobilité douce, rétention des eaux, haies indigènes, production énergétique* »²⁴⁶ –, other services « *espaces publics, des cafés ou des commerces* »²⁴⁷, and another image that « *retournant l’image habituelle d’une suite de rues glauques et indifférenciées, devienne la vitrine des entreprises et fasse image de marque* »²⁴⁸.

On the VVA route on Zimeysa, the Hüsler & Associés - Contrepoint Projets urbains - Transitec in situ vivò team explores three variants where the location of the axis changes. In all three variants, however, one segment of the track remains unchanged: the one located in the center that crosses the Rue de la Bergère becoming a linear public space connected to the Gare de Zimeysa²⁴⁹. In the first variant, enti-

236 « *Une stratégie d’image et de promotion de la VVA.* » (Ibid., p. 11).

237 « *L’“écofolie”, enfin, désigne un objet architectural inédit, dont le programme hybride est à la fois générateur d’espace public et promoteur de valeurs écologiques ou environnementales. Elle est le symbole potentiel de l’opération VVA.* » (Ibid., p. 5).

238 « *Architecture des écofolies. La question reste ouverte. Une dimension expérimentale est sans doute nécessaire. Est-ce le registre des folies du parc de la Villette où une même forme, élémentaire, est déclinée selon une diversité de programmes ? Ou au contraire faut-il considérer que chaque nœud doit donner lieu à une architecture singulière, là encore adaptée à chaque programme et situation locale ?* » (Ibid., p. 12).

239 « *[...] l’écofolie devient par exemple une tour productrice d’énergie, un pavillon de la biodiversité ou une plateforme de mobilité douce qui ponctue le tracé paysager de la VVA en même temps qu’il constitue un espace public de rencontre, de loisir ou de débat sur les enjeux écologiques [...].* » (Ibid., p. 11).

240 Ibid., p. 11.

241 The document or cahier presenting the work on the VVA segment corresponding to the industrial area of Zimeysa is entitled *Cahier n°15-33. Les Zones Industrielles. Un axe de restructuration* (2010).

242 Ibid., p. 3.

243 Ibid., p. 3.

244 Ibid., p. 3.

245 Ibid., p. 3.

246 Ibid., p. 3.

247 Ibid., p. 3.

248 Ibid., p. 3.

249 « *Faire de la rue de la Bergère l’axe emblématique de la Zone Industrielle de Meyrin-Satigny : entre l’axe ferroviaire (CEVA CFF) et l’axe automobile (rte du Nant d’Avril) un axe de mobilité douce, d’espaces publics, de services aux entreprises et de transports publics qui mène du Nant d’Avril à la gare de Zimeysa.* » (Ibid., p. 8).

tled *Rue du village* (fig. 22), after the junction located at the intersection of Rue de Satigny and Rue du Mandement, the VVA crosses Rue du Pré de la Fontaine²⁵⁰ and after the Rue de la Bergère it crosses the quarry de Montfleury and the areas of individual houses – “*le village de Vernier*” – up to Route de Peney where the other node is located (“*L’entrée du village*”). In the second variant, entitled *Chemin des écoliers*, the node to the west is located on the Route du Nant d’Avril, thus giving rise to a more direct access to the industrial area and closer to CERN, and the easternmost section towards Vernier follows the entire Route de Montfleury up to a “shopping center” node. And finally in the third, entitled *Axe historique*, all the western part of the VVA remains similar to that of the first variant while the eastern route changes after the Gare Zimeysa. In fact, here the VVA does not cross the Montfleury quarry but resumes the Route du Nant d’Avril and after the Chemin Delay crossing the large buildings of the Zimoga²⁵¹.

In these variants, the VVA is a 5 meters thick set of cycle and pedestrian paths that cross roads, parking spaces, private gardens, etc., exploiting the public regime of some plots and contracting instead in the private ones. But also of open spaces swallowed up by these paths that take advantage of the presence of buildings belonging to institutions of a certain exceptional nature – as is the case of the *Comité International De La Croix Rouge* headquarters²⁵² – or to manufacturing companies perhaps willing to negotiate the transformation of their appurtenances – as the watchmaking companies of Rue de Pré-de-la-Fontaine –. A device that seeks at the same time to be the bearer of differences in a context judged to be flat and monofunctional and to emanate from itself a unitary sense that can serve to achieve a certain common coherence of a space also perceived as fragmented and composed of detached parts: « *Cohérence la plus grande du point de vue fonctionnel, social et symbolique à la fois : distribution centrale et accessibilité égale, concentration progressive dans le temps, des services aux entreprises et aménités de proximité, aménagement unitaire et narrativité du cheminement entre trois secteurs différenciés.* »²⁵³

250 « *Une entrée indirecte et nature dans les ZI.* » (Ibid., p. 6).

251 « *Desserte d’un secteur de zones artisanales ou industrielles en pleine mutation.* » (Ibid., p. 24).

252 Also seen as an opportunity to soak up the international aura of some of these institutions: « *Lien programmatique avec l’échelle internationale.* » (Ibid., p. 14).

253 Ibid., p. 6.

Chapter 3

The refraction of Zimeysa. The cantonal structural plans

What do the cantonal plans offer for Zimeysa? What changes in the treatment of the largest industrial area in Geneva in the transition from a broader cross-border view to a more centered framework on the dynamics and territorial peculiarities of the canton?

Notwithstanding the fact that regional and cantonal plans have sought mutual congruence, and that many of the professionals who have been involved in the making of one of these types of plans later we find them in the other kind, however, both the absence of the obligation to negotiate with the authorities of the French territories and the greater institutional and spatial closeness to the *Grand Projets* introduce considerable differences. One of the most important differences is the greater attention that the cantonal plans devote to different land uses²⁵⁴ calibrated with more precision according to the needs that the territory is expected to have in a fairly long period of time. It is therefore a sort of translation into space of sectorial studies (demographic, economic, environmental) and of the trends identified by them. Different from the regional plans is not only the degree of precision of the cantonal plans, but also the type of overall functioning desired for the canton, which in no way excludes collaboration with neighboring territories but favors, where possible, a certain degree of autonomy – for the sake of security mainly –.

Two essential and related points emerge from this inquiry: on one hand, a growing attention on industrial areas arise, and on other hand, this attention is not followed, however, by a well-defined proposal.

Focusing on Zimeysa, the industrial area progressively goes from occupying a marginal position in cantonal policies to a recognition of its importance. Relevance also influenced by the unexpected increase in companies wishing to locate themselves in these settlements. This centrality – which as we will see later will be stronger in the 2015 ‘*Genève 2030*’ plan – it is not accompanied by a clearly defined policy or vision. On the contrary, the position that the Canton seems to adopt on industrial areas is neutral and all-inclusive. The various needs are recorded and placed on the same level without giving them a hierarchical order and without worrying about the possible conflicts that may arise from some of their individual incompatibilities. The industrial areas must at the same time be a place that supports and promotes traditional production activities which must be necessary and “healthy” for the Canton’s economy, a platform for welcoming high-tech and high added-value international enterprises, must keep account of the quality of life of workers and inhabitants of adjacent neighborhoods, must protect the natural environment, must include more services, must take into account the image of its architecture and open spaces, etc. All requests remain listed, without a synthetic framework that organizes them, without a position that excludes some of them.

It is important to emphasize, though, that this approach, however open, indulgent, weak it may seem, does not stop the trend of change in the industrial area – on the contrary, perhaps it contributes to its

254 However, these remain indicative in the *plan directeurs*. It will be the task of the *plan d’affectation* to establish land uses with the force of law.

acceleration –. The lack of a defined and explicit policy in its choices does not give rise to an impasse. Indeed, the proliferation of needs brings with it a radical change of perspective. It puts Zimeysa in a completely new light. The industrial area here goes beyond its usual functional and symbolic boundaries and explodes in a myriad of different directions, greatly shifting the boundaries of what from then on will become easy to consider feasible. Zimeysa is refracted into a multiplicity of possibilities that increasingly distance it from being a single-purpose industrial area and gradually bring it closer to an ordinary piece of the contemporary European city: a neighborhood pervaded by “urbanity”, by “cityness”. A place open to extreme diversity²⁵⁵ that cannot fail to redefine its meaning.

3.1. 1989. Geneva “ville en ville”

Starting from the 1989 *Plan directeur cantonal* – first *plan directeur* post-LAT²⁵⁶ –, it is possible to grasp the beginning of that retreat towards the most built parts of the city that distinguishes the plans of the Nineties and 2000s. A recalibration between the areas estimated necessary for the Canton’s food needs, those for the protection of the natural environment, those for the absorption of the constant population growth and, finally, those that are believed suitable to allow a progressive strengthening of the local economic base, builds the key elements of this plan. Not that this question will disappear in subsequent plans but, as will be seen later, over time the diversity of issues and objectives faced by the *plan directeurs* is enriched.

In fact, the plan chooses a direction where agricultural land can remain undisturbed by the effects of demographic and economic growth²⁵⁷. Where the development of the Canton must be contained within the built areas and cannot exceed its borders:

Un développement du canton, axé plus sur les aspects qualitatifs que quantitatifs, est la condition nécessaire pour assurer un équilibre entre la ville et la campagne et pour répondre aux buts et principes énoncés dans la LAT. Or, un développement qualitatif est bien plus dépendant de la maîtrise du développement économique et de la politique d’aménagement des autorités que de la taille de l’agglomération et du canton.

255 Something close to what Neil Brenner and Christian Schmid call “*differential urbanization*” (Brenner & Schmid, 2015, p. 168).

256 As already mentioned, the 1989 plan is the first *plan directeur cantonal* of Geneva made with the new *Loi sur l’aménagement du territoire*, LAT of June 22, 1979. But it is not the first plan that the Canton realizes on its own for the government of its territory. Some speak in fact of « *cas particulier* » genevois » (Plan directeur cantonal, Geneva : République et canton de Genève, 1989, p.6) and argue that the new LAT law does not entail substantial changes for Geneva: « *On peut donc affirmer que l’adoption d’un plan directeur conforme à la LAT ne modifiera pas fondamentalement la façon de gérer le territoire de notre canton, dont l’exiguïté constitue, depuis longtemps, un de ses traits dominants.* » (Ibid., p. 6)

257 « *La préservation de l’environnement naturel et la volonté de densifier sont au centre de la démarche de ce plan directeur. C’est un plan marqué par l’écologie, qui constitue à cette époque en Suisse une priorité politique.* » (Kaufman & Joye, 1998, p. 95)

Même si les moyens d'action restent limités, il faudra veiller à ce que la croissance économique et démographique n'excèdent pas les capacités d'un territoire très exigu et déjà fortement sollicité. Dans ce sens, il y aura lieu de poursuivre et d'intensifier les concertations avec nos voisins vaudois et français sur l'ensemble des problèmes relatifs à l'aménagement du territoire. (Plan directeur cantonal, Geneva : République et canton de Genève, 1989, p.123)

This choice finds in an idea of “quality” of the built environment a possible answer to make the space intended to accommodate the expected growth coincide with the existing built space²⁵⁸.

In the economic sphere, “quality” becomes, for example, diversification of the economic base of the Canton²⁵⁹, protection of manufacturing activities²⁶⁰, promotion of non-polluting production processes, with low environmental impact and high added-value, but also economic activities that make less extensive use of space. In this context, the industrial areas of Geneva represent the main front on which to direct efforts to achieve a more parsimonious use of space. A reserve of industrial settlements where « *les indices d'utilisation ne sont pas très significatifs* »²⁶¹ and where individual enterprises owning the land leave large areas only for the storage of cars.

It is important to note that for this plan traditional industrial activities still occupy a strategic position in the desired development of the Canton. Despite being an economic sector corroded by a strong crisis, the policies of the Canton expect, and therefore are preparing for, its eventual recovery:

On peut estimer que le nombre d'emplois de ces activités va diminuer jusqu'en 1990, soit jusqu'à ce que des mesures de redressement aient été prises pour les entreprises qui peuvent être sauvées, et que se manifestent de nouvelles entreprises qui existent déjà, mais qui sont au stade de l'innovation d'activités inédites et dont le développement donnera tous ses effets dans 5 ans. Dès lors, on peut admettre une décroissance, puis une stabilisation et éventuellement une reprise. (Plan directeur cantonal, Geneva : République et canton de Genève, 1989, p.112)

But at the same time, the awareness that this type of activity is changing its needs and that hitherto unprecedented interventions are needed to create favorable conditions for its development begins to emerge. That is, interventions aimed at the idea of quality – of services, built environment, infrastructure, etc.:-

Les activités économiques sont, aujourd'hui plus que jamais, soumises à des critères de localisation tels que la qualité des services (télécommunications, transports) et celle de l'environnement physique et hu-

258 As we have seen previously, this is a key theme also in the *Projet d'agglomération*.

259 « [...] le maintien d'activités diversifiées dans les divers secteurs économiques, comme à l'intérieur même de chacune des branches qui les composent, est un facteur qualitatif prépondérant de même qu'une protection contre les aléas de la conjoncture. » (Plan directeur cantonal, Geneva : République et canton de Genève, 1989, p.127)

260 « [...] il faut chercher à promouvoir des activités de production compétitives comportant un niveau d'emploi qui permette au secteur secondaire de rester l'un des éléments moteur de l'économie locale. » (Ibid., p. 127)

261 Ibid., p. 87



23. Concept de l'urbanisation.

Source: Plan directeur cantonal, 5- Concept del 'aménagement cantonal, 1989, p.134.

main. Toutes les mesures permettant à Genève de conserver les atouts qui sont les siens dans ces domaines devront être prises. Parmi celles-ci, le maintien d'une agglomération à taille humaine et la promotion d'infrastructures performantes permettra d'éviter une dégradation des conditions de vie due, notamment, à l'aggravation des problèmes de transports. (Plan directeur cantonal, Geneva : République et canton de Genève, 1989, p.127)

This plan sets a direction which perhaps remains only sketchy, but which will be deepened by subsequent plans. Creating suitable conditions for an economic development of the territory is no longer the creation of new industrial areas in previously agricultural land but becomes the reconfiguration of the existing built environment, its “densification”, the recombination and *mélange* of different activities²⁶². However, these are indications that remain abstract. In the maps attached to the plan, Zimeysa is only marked as “*zone de développement industriel*” without concrete indications on the actions to be taken to achieve the desired greater compactness of the building fabric. The only exception is that of the “*zone de verdure et de délassement*” which, as has already been anticipated²⁶³, intends to block any possible enlargement of the industrial area towards Vernier.

3.2. 2001. Geneva “ville mondiale”

The *Plan directeur Genève 2015* was approved in 2001 after the previous plan’s review studies conducted by the *Commission consultative cantonale pour l’aménagement du territoire* (CAT) and the works of the *Commission de l’aménagement cantonal du Grand Conseil*. Four years earlier the *Charte d’aménagement de l’agglomération franco-valdo-genevoise* (CRFG) was published, which profoundly influenced the writing of this plan. Here the cross-border dimension emerges for the first time as a reference scale for the *Plan directeur cantonal*. Not in the sense of taking on the task that corresponds to the regional plans of dictating objectives and measures for the Franco-Geneva context directly but instead in calibrating the desired transformations for the cantonal territory within a wider territorial context. It is a moment where a governance that distributes the management of the transformation of the territory on a multiplicity of public and private actors begins to emerge – Vincent Kaufman and Dominique Joye in fact speak of « *l’ère des partenariats formels* » (Kaufman & Joye, 1998, p. 96) – making use of new tools such as the *périmètres d’aménagement coordonné* (PAC) and the *périmètres d’aménagement coordonné transfrontalier* (PACT)²⁶⁴. This rearticulation of the panorama of actors takes place in a context of profound changes in the economic sphere: « *Les changements par rapport au plan directeur actuellement en vigueur sont motivés par la pression exercée par la mondialisation de l’économie, qui nécessite, aux*

262 « [...] il s’agira d’éviter une trop grande spécialisation dans l’occupation du sol en encourageant un mélange judicieux de l’habitation et des activités compatibles avec elle dans l’ensemble des zones à bâtir denses. » (Ibid., pp. 135-136)

263 In the paragraph “Zimeysa in previous urban plans”.

264 These are proposals for the transformation of parts of the territory deemed particularly important for the development of the Canton and in need of « *une planification particulièrement attentive* » (Une présentation résumée, Plan directeur cantonal Genève 2015, 2001, p.16). These tools will result in the *Grand Projets* of the subsequent cantonal plans and in the PACAs of the *Projet d’agglomération*.

yeux des auteurs du plan, une plus grande flexibilité dans l'affectation des zones et une ouverture trans-frontalière. » (Kaufman & Joye, 1998, p. 96)

Another element that distinguishes the direction of the 2001 plan is the centrality of sustainable development. Already in the 1989 plan, a sensitivity to the natural environment was beginning to emerge which led to the definition of measures that will remain constant from there on, such as the protection of agricultural land and the construction of « *ville sur la ville* » (Kaufman & Joye, 1998, p. 95). But it is in the 2001 plan that the theme of sustainable development takes on an explicit and dominant presence:

L'aménagement du territoire a pour finalité le développement durable, qui postule une recherche équilibrée, conjointe et coordonnée du développement social, du développement économique, de la protection de l'environnement et du patrimoine [...]. (Concept de l'aménagement cantonal, Plan directeur cantonal Genève 2015, 2000)

The translation of this new orientation into concrete principles and measures will be a trial and error and slow process that will also involve subsequent *Plan directeurs*. However, it always remains a mostly abstract and poorly defined concept that gives rise to a multiplicity of very different initiatives. The Genève 2015 plan leads for example to a strengthening of densification measures²⁶⁵, to a « *protection des milieux naturels* », the protection of the soil and sub-soil, the protection of the air, the « *renaturation des cours d'eau et des rives* »²⁶⁶, the development of public transport infrastructures, waste management, promotion of renewable energy consumption, etc.

But how does the treatment of industrial areas change in this plan? Two sentences present in the document *Concept de l'aménagement cantonal* (2000)²⁶⁷ condense the direction adopted by the plan in the economic sphere:

*La force est dans l'équilibre!*²⁶⁸

*Le développement économique est une condition nécessaire pour le maintien d'une société stable et solidaire et pour la préservation de l'environnement. L'inverse est tout aussi vrai.*²⁶⁹

The first sentence gives a title to the preface of the then *Conseiller d'Etat* Laurent Moutinot, and is therefore the gateway to the entire document, while the second opens the first chapter entitled '*Cadre*

265 Densification is divided here into interventions « *mesurées et ponctuelles* » in urbanized tissues, « *densifications intermédiaires* » adding new settlements following the parcel and road structure of existing parts of the territory, and « *restructuration complète* » which give rise to completely new projects.

266 Concept de l'aménagement cantonal, Plan directeur cantonal Genève 2015, 2000.

267 The document is divided into five areas: the "*cadre économique et social*", the "*espace urbain*", the "*espace rural et milieux naturels*", the "*transports et réseaux de communication*" and the "*protection de l'environnement et gestion des ressources*". References to the themes investigated by this thesis can be identified only in the first two.

268 Concept de l'aménagement cantonal, Plan directeur cantonal Genève 2015, 2000, p.4.

269 Ibid., p. 13.

économique et social'. The first expresses the need for « *harmonisation* »²⁷⁰ between economic processes and other land uses. The second emphasizes the two-way relationship, therefore not unilateral, that economic activities have with the related social and environmental tissue. Both share a relational vision of the economy which, although it continues to be treated in a sectorial way by the plans – which dedicate chapters or sub-chapters to “*emploi*”, “*surfaces d’activités*”, “*activités économiques*”, etc. –, ceases to be considered the destination of interventions, projects and measures that aim *only* at the enhancement of its economic performativity. The idea of balance and harmonization such as that of the relationship with the environment are accompanied by a redefinition of the plan objectives, as well as the notion of “development” itself. This shift is important.

The opening of the register of points of view through which a place dedicated to economic activities is judged suitable or not to contribute to the growth and functioning of the Canton translates here into greater attention to the complex and multifaceted role that the built environment can play. The plan is characterized by an awareness of the new climate in which enterprises are moving and the changes in expectations of what a place can offer them²⁷¹. The goal therefore becomes to build a « *cadre de vie* » of quality:

Dans une situation de concurrence toujours plus vive, de nouveaux facteurs de localisation des entreprises d’ordre qualitatif, par exemple ceux concernant les niveaux de formation de la main d’œuvre et la qualité du cadre de vie, prennent de l’importance. Il faut donc gérer avec attention l’environnement et le patrimoine naturel ou bâti: ce sont des ressources non renouvelables qui ont un coût, mais qui génèrent aussi des bénéfices pour la société et l’économie. (Concept de l’aménagement cantonal, Plan directeur cantonal Genève 2015, 2000, p.13)

To guarantee an « *structure urbaine cohérente* »²⁷² and well served by basic, transport and commercial services²⁷³. To offer enterprises an « *structure d’accueil souple et diversifiée* », where the *mixité* of different activities should ensure greater attractiveness. But the goal also becomes that of attracting a specific type of enterprise – rooted in international networks, committed to services, specialized in advanced technologies²⁷⁴ – and a specific type of worker – more “brains” and fewer “arms”²⁷⁵ –.

270 Ibid., p. 4.

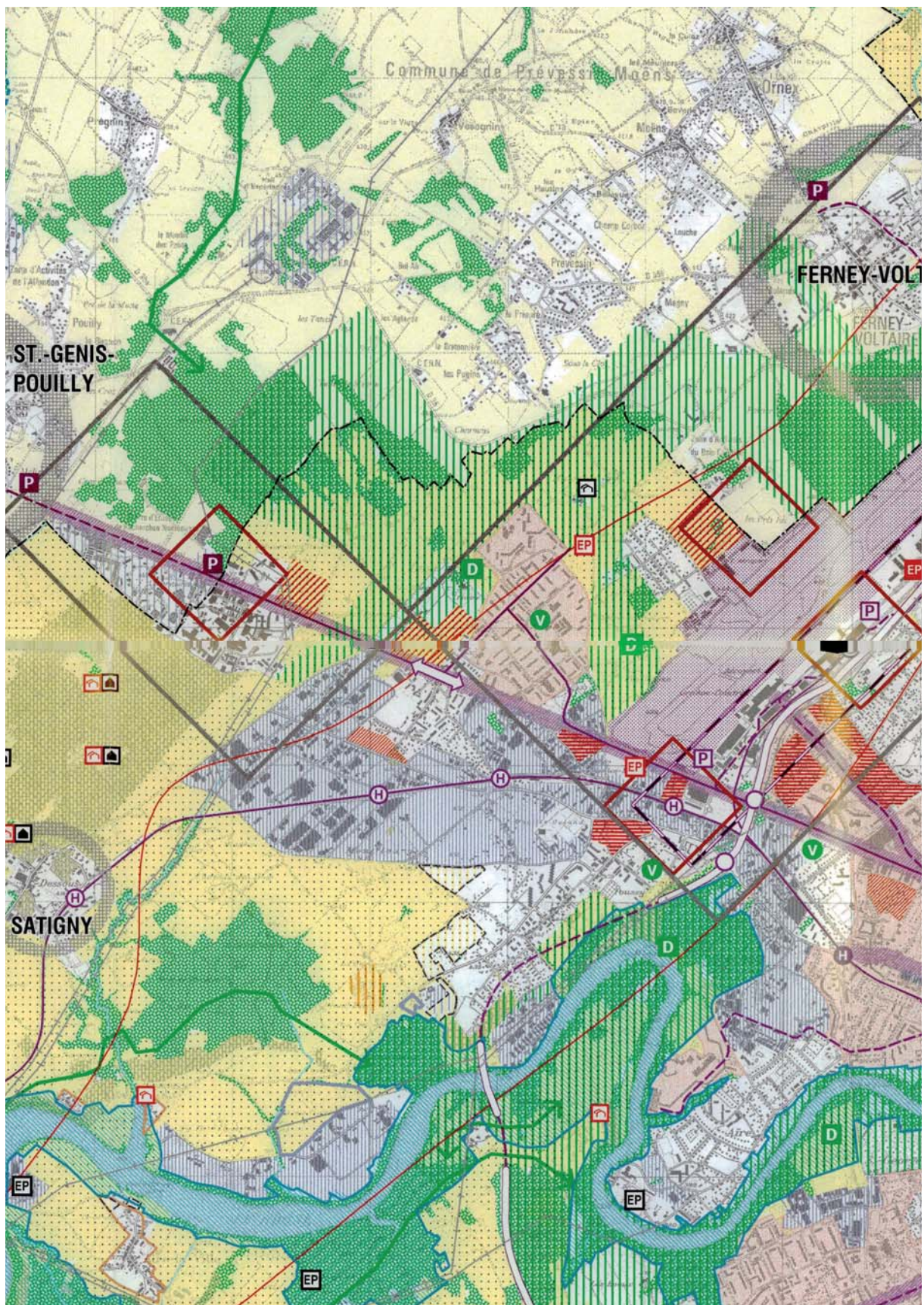
271 For example: « *Aujourd’hui, il s’agit de mener une politique d’aménagement du territoire favorable à l’évolution des activités économiques, qu’elles soient industrielles, commerciales ou administratives.* » (Rapport explicatif, Plan directeur cantonal Genève 2015, 2001, p.32).

272 Concept de l’aménagement cantonal, Plan directeur cantonal Genève 2015, 2000, p.15.

273 The public transport networks are here, as will also be the case with the *Projet d’agglomération FVG*, seen as a unifying system: « *Enfin, les secteurs des gares et haltes de ce système, seront les lieux de nouvelles polarités urbaines qui intégreront, avec des espaces publics majeurs, les activités économiques, artisanales et commerciales, les logements et les équipements...Vaste et belle perspective!* » (Commission d’urbanisme, 2007, p. 21).

274 « *Les branches motrices de l’économie genevoise sont celles qui en font une ville ouverte sur le monde : organisations internationales, sièges des firmes multinationales, sociétés financières, foires commerciales, industries à forte valeur ajoutée, sociétés de services.* » (Ibid., p. 15).

275 In fact, in *Annexe 2* of the *Rapport explicatif* they ask themselves « *Faut-il influencer l’évolution démographique ?* » (Plan directeur cantonal Genève 2015, 2001, p.22). And then respond « [...] *il s’agit d’être plus attentif au niveau économique et social des personnes qui immigreront ainsi d’ailleurs qu’à la qualité de celles qui*



24. Schéma directeur cantonal - carte.
Source: Plan directeur cantonal, «Genève 2015», 2001.

But how are these goals translate into concrete actions? The Geneva industrial zone policy aims at a broad and attractive supply²⁷⁶ of surfaces for new enterprises. Attractiveness also from the point of view of « *image du site* »²⁷⁷. They also imagine densification interventions in the building tissue, the creation of pedestrian circuits and public spaces. However, these actions remain essentially vague and superficial and never make a clear transition from intent to space. This is also evident in the map attached to the *Schéma directeur cantonal* (2001) (fig. 24). The more operational aspects are in fact fully delegated to the management of the FTI:

Poursuite de la politique d'achat de terrains industriels par les collectivités publiques et mise en droit de superficie de ceux-ci. Extension des compétences de gestion des terrains industriels par la FTI. (Rapport explicatif, Plan directeur cantonal Genève 2015, 2001, p.32)

La Fondation des terrains industriels de Genève (FTI), les communes et les propriétaires privés doivent répondre à la demande des entreprises en mettant à disposition suffisamment de terrains et de locaux équipés, à des prix abordables et stables, dans un environnement attractif. (Catalogue des projets et mesures (2e édition), Plan directeur cantonal Genève 2015, 2001, p.15)

Maintenir dans les zones industrielles des conditions-cadre favorables aux activités industrielles et artisanales, notamment par l'intermédiaire de la Fondation des terrains industriels de Genève (FTI). (Schéma directeur cantonal. Projets et mesures, Plan directeur cantonal Genève 2015, 2001, p.2)

3.3. 2015. Geneva “ville passante”

In 2007 the *Secrétariat du Grand Conseil* submits a motion proposal²⁷⁸ to the *Conseil d'Etat* requesting a revision of the 2001 *Plan directeur cantonal*. Among the reasons listed, the deputies indicate the lack of industrial land in the Canton. Between 2001 and 2007, the Geneva area experienced an occupation of industrial areas that was not provided for in the plan Genève 2015 (M 1799, 2007, p.5). Referring to the *Rapport du Conseil d'Etat* (RD 685, 2007) the motion proposal argues that « *la demande s'avère forte et l'offre de plus en plus restreinte* » (M 1799, 2007, p.9), that the economic development of the Canton is blocked by the difficulty of welcoming companies of a certain size into existing industrial areas (Ibid., p. 9). And that, after a series of meetings with the managers of the *Promotion économique* and the FTI

émigrent. » (Ibid., p. 22). To pay attention to « *La qualité des personnes qui immigreront.* » (Ibid., p. 22). Even if they close the matter with a dubious tone: « *Que la formation et la qualification professionnelle soient déterminantes pour l'avenir de notre économie est indéniable, mais n'est-il pas illusoire de croire que l'économie d'une région puisse être essentiellement composée de secteurs à haut revenu?* » (Ibid., p. 22).

276 The provision of new spaces is mainly based on making unused spaces available in industrial areas: « *Les zones industrielles actuelles présentent 175 ha de terrains non bâtis, auxquels s'ajoute un important parc de locaux vacants.* » (Rapport explicatif, Plan directeur cantonal Genève 2015, 2001, p.31).

277 Ibid., p. 31.

278 M 1799 filed on November 23, 2007.

was urgent « *non seulement d’initier la densification des zones industrielles, mais également de planifier rapidement les déclassements possibles pour créer de nouvelles zones industrielles.* » (Ibid., p. 9). The deputies conclude the question by adding to this quantitative urgency the need for space rationalization : « *Dans la vision d’un aménagement du territoire contemporain, il s’agit de définir de manière plus rationnelle les emplacements des zones industrielles et des zones de logement afin, d’une part, d’éviter les conflits qui peuvent résulter de la proximité des unes par rapport aux autres [...].* » (Ibid., p. 9). The *Conseil d’Etat* answers²⁷⁹ to this solicitation mentioning ongoing studies and procedures for the construction of new industrial areas – already indicated in the 2007 report RD 685 – but acknowledges the delay in the revision of the *Plan directeur cantonal* and its need for the supply of new « *périmètres de développement* » (M 1799-A, 2008, p.4).

In 2010 the *Commission d’urbanisme* publishes its ‘*Douzième compte rendu*’ where it presents a different model of city. A Geneva now cross-border and built on its own « *maillage viaire* » (Commission d’urbanisme, 2010, p. 60). A “*ville passante*” where the transformation of the built environment starts from the redefinition of the relationships between road networks and the built fabric:

Or la conception des tracés viaires est un acte qui doit redevenir partie intégrante du dessin de la ville et qui doit permettre de réconcilier vie locale et circulation. A l’échelle des tissus urbains, la voie dessert mais peut également être ce qu’elle a toujours été par le passé, le support de l’édification. Cette conception articule tant la logique routière, qui vise à favoriser les flux et le passage, que la logique urbaine, qui cherche à stabiliser, à croiser, à rassembler. Les relations entre le maillage viaire et la morphologie urbaine doivent revenir au centre de la pratique urbanistique. (Commission d’urbanisme, 2010, p. 60)

“*Ville passante*” and not “*ville morcelée et diluée*”, observing of its infrastructure²⁸⁰, led by an « *urbanisme de tracé plutôt que l’urbanisme de secteur; la ville passante plutôt que la juxtaposition d’environnements sécurisés, la ville métisse plutôt que la ville homogène* » (Mangin, 2004, p. 321)²⁸¹, and having in the street the main spatial and symbolic figure on which the various judgments on the quality and adequacy of the transformation proposals are based: the « *base de l’édification de la ville* » (Commission d’urbanisme, 2010, p. 61). The road should therefore offer an unifying function²⁸², a flexible and changing public space, and a foundation for buildings. All functions which, as we have seen, were also central to the 2007 *Projet d’agglomération FVG*. The *Commission d’urbanisme* also proposes a reinvention of the “*boulevard*” model, capable of reconciling urbanization, circulation, « *les déplacements des piétons, les plantations, le mobilier urbain, l’accès au quartier et le cas échéant l’accès aux propriétés riveraines.* » (Ibid., p. 73).

These two precedents raise questions and offer directions that will be taken up by the 2015 *Plan direc-*

279 Rapport du Conseil d’Etat M 1799-A, filed May 7, 2008.

280 «[...] *tout ce qui est routes, ponts, canaux, égouts, câblage [...]*» (Commission d’urbanisme, 2010, p. 60)

281 Citato da Commission d’urbanisme, 2010, p. 61.

282 « *La rue doit retrouver sa fonction de combinaison de l’habitat, des commerces, activités de circulation (transit et desserte) et de jouissance de l’espace public : arbres, bancs, cafés, vitrines, etc.* » (Ibid., p. 61).

teur cantonal ‘Genève 2030’²⁸³. A concern for the lack of material conditions for the development of local industry and a privileged position of the road networks considered a starting point for any proposed transformation of the building tissue. In fact, among the “*envies*”²⁸⁴ presented in the brochure ‘*Genève envie*’ (Office de l’urbanisme, 2015) the “*envie de créer*” is indicated. That is, the need to improve the conditions for welcoming new production activities in the Geneva area and the desire to strengthen this type of economic activity considered essential for the life of the Canton:

Pour autant, il ne se limite plus à considérer ces activités comme génératrices de nuisances, devant donc être soigneusement isolées des autres secteurs de la ville, selon le principe du siècle passé, qui voulait que l’on se déplace entre son lieu de travail, son lieu de domicile et ses lieux de loisirs. L’activité économique, génératrice de prospérité, d’échanges, de créativité, mais aussi de vie dans les quartiers d’habitation, fait aujourd’hui partie intégrante des projets de développement du canton. (Office de l’urbanisme, Département du territoire (DT), Brochure, Genève, Plan directeur cantonal 2030, 2015, p.15)

The *Plan directeur cantonal* ‘Genève 2030’ therefore proposes to implement a kind of planning « *beaucoup plus fine et diversifiée* »²⁸⁵ for the local industry and its needs. Diversified in offering an « *structure d’accueil souple et diversifiée pour les activités* » (this is one of the strategic objectives of the *Concept de l’aménagement cantonal* del *Plan directeur*) suitable for very different types of enterprises. “Finer” in creating new spaces that meet such different criteria as that of sustainable development, the *mixité* of activities and functions, the densification of the built environment, etc.:

La planification localisée vise à encourager la densification des sites industriels, localement avec une certaine mixité avec d’autres activités et la présence d’équipements et services, et intègre les objectifs environnementaux et de l’écologie industrielle, notamment en matière de gestion de l’énergie, des eaux, des matériaux et des déchets, ainsi que de la nature et du paysage. (Concept de l’aménagement cantonal, Plan directeur cantonal Genève 2030, 2015, p.6)

Concern about what constitutes a suitable place for industrial activities today begins to emerge in this plan. A concern which, while integrating them, does not seem to be satisfied by the decisive prescriptions of the previous plan, that is, “densification” and “*mixité*”. Here, on other hand, there is a reiteration of the need to rely on industrial zones as a suitable tool for governing recent changes²⁸⁶, and it is also considered necessary to identify the specific industrial “vocation” of each of them: in terms of the type

283 The plan was adopted by the *Grand Conseil* on 20 September 2013 but approved for the *Conseil fédéral* in 2015.

284 In the brochure, aimed at presenting the 2015 *Plan directeur cantonal* to the general public, the directions fixed by the plan are exposed in the form of “desires”. Thus, “*Envie d’air*” for example expresses the need to improve the air and natural environments quality, “*Envie d’espace*” the need to obtain new surfaces for agriculture, “*Envie d’habiter*” the housing shortage issue for a rapidly growing population.

285 Office de l’urbanisme, Département du territoire (DT), Brochure, Genève, Plan directeur cantonal 2030, 2015, p.15

286 « *Dans le contexte de modernisation des processus de production et de leur dynamique de développement, les entreprises industrielles ont besoin de nouveaux terrains équipés, à des prix compétitifs, que seules les zones industrielles sont à même d’offrir à Genève.* » (Schéma directeur cantonal, Plan directeur cantonal 2030, 2015, p. 94)

of enterprises – those with high added value, those generating the greatest annoyances but « *essentielles à la bonne santé de l'économie* »²⁸⁷, those younger and with fewer workers, those with a low density of employment²⁸⁸, etc. –, of accessibility – of people and goods –, of land prices²⁸⁹, of “image” or representativeness²⁹⁰.

What impact do these new concerns have on Zimeysa? Zimeysa first appears as “Zimeysaver”, one of the fifteen *Grand projets d'urbanisation* (GP)²⁹¹ introduced by the *Schéma directeur cantonal*²⁹² aimed precisely at improving the conditions of an industrial area to accommodate new manufacturing, craft and logistics activities. Zimeysa becomes a *pôle logistique*, so mainly the southern part of the railway, and is enlarged by the “*extensions urbaines à dominante activités*” to the south and by the “*densification de la zone villas à dominante activités*” towards the Route de Peney. However, the objectives and indications introduced for the realization of the *Grand Projet* add little to those already indicated in the *Schéma directeur cantonal*: the densification of the built environment is proposed again – especially near the Route de Meyrin –, a new network of public spaces integrated with the VVA of the *Projet d'agglomération*, a clear distinction between built and agricultural areas, an application of the *écologie industrielle* principles²⁹³, etc. But the realization of these objectives is left to the development of the actual *Grand Projet*, to the various PDZIs (*Plan directeur de zone industrielle*) which take place within the industrial area and to the management of the FTI²⁹⁴.

287 Concept de l'aménagement cantonal, Plan directeur cantonal Genève 2030, 2015, p.88

288 But necessary for the overall functioning of the territory: « *Le maintien dans le canton d'activités à faible densité d'emplois mais nécessaires au fonctionnement de l'agglomération (traitement des déchets, logistique, stockage, etc.) nécessitent que des sites adéquats soient réservés.* » (Concept de l'aménagement cantonal, Plan directeur cantonal Genève 2030, 2015, p.10)

289 The possible diversification of land prices via the *droit de superficie* is a complicated and unresolved issue even if it has been going on for several years. What slows down the making of a definitive choice is above all the difficulty in identifying convincing criteria to structure this diversification: which indicator to choose to measure the greater willingness that an enterprise or type of enterprise would have to pay a higher price for the area occupied; how and when to introduce this new regime and how would it affect companies that have been rooted in those spaces for years?

290 The capacity of the place to offer opportunities for businesses to have a positive visual impact on nearby residential neighborhoods or highly frequented places. In other words, to be a sort of “showcase” that facilitates the implementation of image strategies for enterprises that can range from the architecture of their factories and sales outlets to promotional signs on the streets. « *Promouvoir une architecture de qualité* » is in fact one of the measures indicated in *fiche A07* (*Schéma directeur cantonal, Plan directeur cantonal 2030, 2015, p.89*).

291 That take on the role of the *Périmètres d'aménagement coordonné* (PAC) of the previous plan.

292 The *Schéma directeur cantonal* is the “*volet opérationnel*” of the *Plan directeur cantonal*. The document presents a plan of measures that aim to define the conditions for the implementation of the desired interventions and is composed of 43 *fiches de mesures*, 15 *fiches de projet* and a *carte de synthèse*. The *fiches de mesures* investigated in this chapter are the ‘*A07- Optimiser la localisation des activités*’ and the ‘*A08 - Densifier les zones industrielles existantes et en créer de nouvelles*’ (*Plan directeur cantonal 2030, 2015*).

293 *Schéma directeur cantonal, Plan directeur cantonal 2030, 2015, p.326*

294 The proxy to the FTI is indicated for example in *fiche A08* on page 92 (*Schéma directeur cantonal, Plan directeur cantonal 2030, 2015*). The Canton leaves to the FTI the responsibility for the elaboration and revision of the various PDZIs, as well as the implementation of a land policy on these same places.

Chapter 4

The conciliation between rural and urban. Zimeysa in communal structural plans

What do the municipalities of Satigny and Meyrin have to say? How did they react to the positions adopted by the regional and cantonal plans regarding the transformation of Zimeysa? What do their *plan directors* add? These are the questions we will try to answer in this sub-chapter.

First of all, one can read a certain disagreement on the part of these municipalities regarding some choices made by the regional and cantonal plans. For example, in the *préconsultation* relating to the *Schéma directeur cantonal* of the 2001 plan, which took place between August and November 2000 and reported in Annexe 3²⁹⁵ of the same plan, the municipality of Meyrin asks for a greater tertiarization of the industrial zones located under its district. Request refused by the Canton as it was deemed contrary to the « *concept de l'aménagement cantonal* »²⁹⁶. Another example is the dispute between the municipality of Meyrin and the 2015 *Plan directeur cantonal 'Genève 2030'* where the administrative councilor responsible for urban planning of Meyrin Pierre-Alain Tschudi²⁹⁷ and the *chef de projet* and municipal urbanist Alexandre Malacorda, in an interview left for *Interface* magazine (Gaillard & Matthey, 2012), not only claim a lack of involvement of the members of the municipal council of the municipality – only those of the executive power were consulted – in drawing up the plan but also and above all putting the “*Cité-Parc*” municipal policy at risk (Ibid., p. 26). Policy aimed at valorising the natural open spaces and rural heritage of the municipality and therefore considered threatened by the densification policies supported by the Canton in this part of the territory, by a consequent feared increase in car traffic²⁹⁸ and by the *Plan directeur* choice to increase the supply of industrial land on this place – both via densification and extension of the surfaces –²⁹⁹.

The municipality of Meyrin also rejects some choices of the regional plans. For example, disapproves the 2011 PACA decision to exclude any type of commercial activity from Zimeysa, the idea of making this industrial area a « *porte d'entrée logistique* » for the territory and the intention to locate production activities on the Route de Meyrin³⁰⁰. Against these purposes the municipality proposes an idea of “*densification mixte*”, interventions that can make this territory less specialized and subservient to productive activities.

295 Rapport explicatif, Plan directeur cantonal, 2001, pp. 33-39.

296 Ibid., p. 36.

297 Belonging to the *Verts* party and mayor of the city council in the years 2012-2013, 2015-2016 and 2018-2019.

298 « *Du fait de ce manque de planification, la commune de Meyrin va subir les conséquences du trafic induit par l'urbanisation multipolaire préconisée.* » (Gaillard & Matthey, 2012, p. 26)

299 While the municipality of Meyrin « [...] *privilégie une densification différenciée sur le territoire meyrinois.* » (Ibid., p. 26).

300 Cahier n°81-3. Annexes. PACA Genève–Saint-Genis–Gex, 2011, p.88.

The municipality of Meyrin, and as we will see also that of Satigny, does not limit itself to discarding regional and cantonal policies:

Le conseil municipal meyrinois a donc rejeté le plan directeur cantonal 2030, en votant un préavis négatif à l'unanimité. Les autorités communales ne se contentent toutefois pas d'un refus. En accord avec le plan directeur communal, elles proposent une densification raisonnée et planifiée en mettant en avant les préceptes de qualités urbaines (améliorations des enveloppes énergétiques des bâtiments, valorisation des espaces extérieurs, prise en considération de l'« espace social » de la commune et des pratiques des habitants, etc. (Gaillard & Matthey, 2012, p. 26)

The municipal plans put into practice their own policy for the transformation of the territory that coincides in many points with the cantonal or regional ones. However, small changes especially in the order of priorities and tones expressed by some initiatives offer another angle of questioning the role of Zimeysa within this part of the territory and the reconstruction of its physical and formal characteristics.

An angle that seems to reverse the direction of regional proposals. Here the gaze does not start from the outside but from the inside. The goal does not change – make the industrial area something more similar to the residential city that is to be implemented in the rest of the Canton – but varies the way the strategies to achieve it operate. The gaze coincides with that of a hypothetical pedestrian: central figure on which the project for Zimeysa rests in the municipal proposals. A sort of character-filter from which needs emanate, with respect to which choices are made and to which the entire productive universe of Zimeysa ultimately submits. Unit of measure that regulates space and gives coherence to the proposed transformations.

In these plans, therefore, the pedestrian and the infrastructures that enhance it (public spaces and paths for soft mobility) are used as the starting point for a qualifying transformation of Zimeysa. The mere hypothetical placement of the pedestrian figure within the industrial area brings out a series of contradictions that automatically become project actions. The short circuit generated by two different scales – that of “human scale” and that of large buildings and transport infrastructures for industry –, by two different rhythms – the slow one of walks and the fast noisy one of freight trucks – and by two different symbolic orders – the bucolic one of the tree-lined paths and the harder one of the manufacturing plants –, wants to be solved for the benefit of the pedestrian universe. The use of the pedestrian as the main user also breaks down the barriers inherent to the specific dynamics of the Zimeysa industrial area, to its being something very different from the park for Sunday walks.

4.1. Meyrin and Satigny rural background valorisation

First of all, in recent years the Meyrin and Satigny municipalities have yielded a series of policies to enhance and highlight the “*patrimoine environnemental*” (Commune de Meyrin, 2005) of this territory. The care, maintenance and promotion of this environmental heritage, which includes vegetal species,

water and architectural elements, cross various institutional layers of municipal planning: they are present in the *plan directeur localisé* and in inhabitants' associative practices³⁰¹. The industrial settlement of Zimeysa is in fact immersed in an area with large extensions of agricultural land and wooded areas to which great attention is paid in the territorial projects. This attention to the “*espace de nature*” (Commune du Meyrin, 2004) not only builds a sort of frame for the industrial area that remains unchanged inside, but rather an environment that crosses the boundaries of production sites by occupying a prominent position in defining the design horizons that deal with these places. The industrial area of Zimeysa is therefore part of a territory that gives a lot of importance to its natural environmental characteristics and it is therefore useful to briefly outline here the objectives, the highlighted materials and the characteristics of the proposals of the territorial projects of Meyrin and Satigny that support this interest.

In municipal plans – the ‘*Plan directeur communal (PDCom) Meyrin N°29630-526*³⁰²’ and the ‘*Plan directeur communal (PDCom) et plan directeur des chemins pour piétons (PDCP) de Satigny N°29638-535*’ – the natural elements valorisation³⁰³ responds to different purposes. In fact, the declared objectives that refer to “nature” as an end in itself or as a means to achieve a further end are manifold but can be divided into three groups: a first group of objectives identifies the natural space with the public space, a second group sees in this space the possibility of accentuating the specificity of places, a third associates instead an idea of ‘power’ of nature with the health of the inhabitants (as well as the planet), while the fourth group focuses instead on the usefulness of the natural environment in relation to the objective of autonomy (alimentary but also productive, energetic and political). Much of the transformations proposed by these projects, the movements reorganizations, the timely interventions, the presented institutions, as well as the articulation of the speech and the graphic apparatuses, therefore respond to the need to improve the natural environment conditions.

Natural space as public space. The municipal plan of Meyrin indicates among its main objectives the construction of a network of diversified public and collective spaces, « *faisant la part belle aux éléments naturels (végétation, eau) et favorisant la biodiversité* » (Weil, PDCom, 2020, p.55). A network of open and “natural” spaces that takes on a role of glue³⁰⁴ to the various housing and production settlements

301 First of all the Association des Habitants de la Ville de Meyrin (AHVM) and the Association des Habitants de la Commune de Satigny (AHCSA).

302 The current municipal plan was approved by the Council of State on 21 September 2011 and, while remaining a useful source for this survey, more attention is paid here to its revision published in 2020 under the title ‘*Plan directeur communal (PDCom) Meyrin 2e génération*’. This plan is part of the “2.0” municipal plans, currently being drawn up and approved, required by cantonal directives in 2016 following the entry into force of the *Plan directeur cantonal 2030* (PDCn) and the *Projet d’agglomération du Grand Genève (3ème révision)*.

303 Here the term “natural elements” is used to indicate, in complete consistency with the intentions present in the investigated documents, all those organic or mineral environmental elements that have not been (apparently) built by man. We therefore leave to one side the shared objection that the artificial/natural opposition is today an ineffective dichotomy and with very little empirical evidence. The use of the natural / non-natural distinction in this part of the work simply responds to the need to report intentions, meanings, values, as they are expressed by the sources investigated.

304 A network of public spaces forming an “*armature paysagère*” was already present in the 1936 ‘*Plan directeur régional*’ in Geneva – designed by Maurice Braillard and Albert Bodmer –, and in the ‘*Projet des zones et liaisons de verdure*’ proposal of 1948. In these plans, the « *pénétrantes vertes ou maillages urbains verts* » are



25. *Une ville à la campagne.*

Source: Commune du Meyrin, 2004, p. 80.

in the municipality: « *Face à l'importante mutation que va connaître la commune dans les prochaines années (Cointrin, VEA, zone d'activités), l'aménagement des espaces publics apparaît comme un corollaire indissociable pour garantir un urbanisme qualitatif. Lieu par excellence du vivre ensemble, l'espace public joue un rôle intégratif en étant ouvert à une pluralité d'usages et d'usagers-ères, [...].* » (Ibid., p. 55). An integration that in the plan document is imagined to take place on different dimensions - on the social level (through spontaneous encounters), on the cultural level (sharing and valorisation of inherited values), on the economic level (a common attraction of public spaces), on the urban level (as an ordering and structuring element of the urban fabric), and on the environmental level (for the improvement of the quality of the urban environment) (Ibid., pp. 55-56) –. Parc Riantbosson, Jardin botanique alpin, Campagne Charnaux, Parc des Arbères, Center sportif des Vergers and lac des Vernes et ECG de La Gravière together form the « *couronne paysagère* » that surrounds the Cité de Meyrin, the tree-lined paths of the « *avenue urbaine végétalisée* » of the route de Meyrin-av. F. Dubois are the axis that will connect Meyrin with Ferney Voltaire, and the waterway of the « *césure verte* » of Nant d'Avril and Verger is the linear element parallel to the border line with France that will act as the “natural” border for the Zimeysa industrial area and the Meyrin residential center. The public space here is that element that holds everything together, a natural and accessible structuring mesh that crosses the entire fabric of the town of Meyrin, and orders it. As we have seen, this idea of linear and structuring public space is also present in regional and cantonal plans and is deeply rooted in the Geneva design culture. Here they take on only more concrete characters.

Promenades, footpaths and cycle paths constitute a network of public spaces that opens the rural territory to the inhabitants of the *Cité* and the center of Meyrin, as well as the city to the plant materials of the local natural space.

Natural space and place specificity. In the Meyrin and Satigny municipalities plans the natural space is also considered a vast “local heritage”, a deposit of specificities (plant essences, landscape features, topographical formation, etc.) which distinguish a part of the territory. The plan document of the *Plan directeur communal (PDCOM) et plan directeur des chemins pour piétons (PDCP) de Satigny N°29638-535* (Weil, 2010) underlines the diversity of the « *plaine, coteaux, terrasses, vallons* » (Ibid., p.69), the “wealth” of the hydrographic network and the importance of the landscape of viticultural agriculture of the « *paysage satignote* ».

The Satigny plan highlights the peculiarities of a predominantly agricultural landscape located between the Jura ridge and the industrial areas of Zimeysa and Bois-de-Bay: « *Cette différence de vues a un fort impact sur l'ambiance paysagère, puisque les vues plein est montrent un arrière-plan très urbain et industriel contrastant fortement avec le premier plan agricole. Les vues ouest montrent moins de contraste et offrent des scènes paysagères remarquables sur la campagne* » (Ibid., p.71). The plan continues with a more detailed classification of the specific features of the natural space: the wooded areas (*Grands*

“éléments fédérateurs” which connect the different parts of the territory. See the monograph ‘*Projets d’urbanisme pour Genève 1896-2001*’ (Léveillé, et al., 2003) and, for the question of the continuity between these plans of the first half of the twentieth century and the new plans of the canton, see the report ‘*11e compte rendu de la Commission d’urbanisme (Genève 2002-2005)*’ (Office de l’urbanisme, 2005)

Bois, Bois du Château, Bois de Merdisel) which contrast with the cultivated land; the cultivation plots of cereals, vineyards and pastures; as well as the historical routes cataloged by the *Inventaire des voies de communication historiques de la Suisse (IVS- Office fédéral des routes)*³⁰⁵. Subsequently, the plan of Satigny indicates among its objectives the conservation and valorisation of this landscape heritage (architectural and natural).

Meyrin's 2020 plan is, compared to Satigny's, more focused on the functional dimension of the natural space – as a space of connections, loisir, “health” – and less on the landscape one. If we look instead at the 2011 plan (still in force) and two publications produced in 2004-2005 as presentation booklets of the municipality itself, the landscape issue takes a leading role. The *Plan directeur communal (PDCom) Meyrin N ° 29630-526* begins with a territorial analysis which, just as the one of Satigny, highlights the historical routes, the wooded areas (the “*ceinture verte*” of Bois de Serves, Bois de la Maille and étangs de Mategnin) and the agricultural spaces. The 43 hectares of forest areas of the municipality perform economic and loisir functions, but it is above all the conservation of the “*patrimoine arboré*” (Triporteur architectes, and others, PDCom, 2011) and its valorisation to be put in the foreground.

Valorisation that is not only declined in the conservation of the forest area in its entirety but also in the accentuation of its specific features. It is remarked in fact the relationship between “*milieux traditionnels*” and agricultural areas, the alignments of oak trees along the historical routes (Route de Prévessin and chemin du Roussillon), the paths, the marshes (Fontaines and Crêts), the plant formations, the species of flowers, the local fauna. In the plan document, natural space is above all the habitat of uncommon biological presences³⁰⁶.

Six years earlier, this attention to the specificity of the local natural environment and its predominance over other themes was also present in the presentation brochure of the municipality of Meyrin ‘*Meyrin : commune du 21e siècle*’ (Commune du Meyrin, 2004), comprising a historical and geographical overview of the portion of the territory included in the administrative limits of the municipality. Here too, the “*espace de nature*”, the meyrinois agricultural space, its rural landscape, the characteristics of a topography that has the Jura mountain range as its background, are mobilized to define the “identity” of a commune « *où la vie urbaine et la vie rural se confondent subtilement* » (p. 3). In fact, Meyrin is presented in the pamphlet as « *une commune plutôt «campagnarde»* » (p. 75) « *où la vie urbaine et la vie rurale se confondent subtilement* » (p. 3) ; «*ville à la campagne*» (p. 75) with « *un visage champêtre et aéré* » (p. 75), where « *entre les immeubles se trouve plus souvent du gazon que du bitume* » (p. 75). In this document the specific features of the rural space are also exhibited: « *Si la cité de Meyrin, le village, la zone industrielle ou le quartier de Cointrin sont relativement connus des Genevois, il est des morceaux de territoire plus «confidentiels» dont le charme est pourtant indéniable.* » (p. 77), the diversity and rarity of the tree species is exposed « *des cerisiers à fleurs du Japon, des noyers d’Amérique, des peupliers noirs d’Italie, des chênes de Hongrie, des cèdres bleus de l’Atlas, des faux-noyers du Caucase,*

305 « *Ce réseau se distingue par la conservation de tracés à peine lissés, leur inscription dans la topographie, mais aussi par leurs accompagnements végétaux ou la présence d’objets du patrimoine routier, fontaines, bornes ou autres.* » (Weil, 2010, Plan directeur communal..., p.75)

306 See for example page 67 in Triporteur architectes, and others, PDCom, 2011.

ou encore un séquoia géant » (p. 75), the ancient hamlets and their architecture (especially the “hameau” de Mategnin) are highlighted, the biotopic richness of the marshes and of nature reserves is evidenced.

In a booklet published the following year, *‘Meyrin, commune du développement durable’* (Commune de Meyrin, 2005), it is once again exposed the need for care of the “natural heritage”, as well as a census of the plant essences that enrich this heritage: the more than 3,891 trees of Meyrin (Ibid., p. 29) are presented here as « *véritables œuvres d’art naturelles* » (Ibid., p. 29), as « *un objet biologique de haut intérêt* » (Ibid., p. 30) and as a « *bien de chez nous* » inheritance (Ibid., p. 29). Trees and wooded areas in general « *verdissent nos cités grises* » (Ibid., p. 29).

Within this promotion of the territories of Meyrin and Satigny through the specificities of the natural environment, the building environment takes a second place (see fig. 25), and with it the industrial areas that cover an even more marginal position. The plan document for Satigny highlights the lack of visibility of these spaces « *au caractère industriel marqué (constructions de grand gabarit sans qualité architecturale, parkings, stocks, trafic dense...)* » and « *peu de qualités paysagères spécifiques* » (Weil, 2010, PDCOM, p.72) since these are positioned in the lower part of a sloping ground. Although below, the Zimeysa and Bois-de-Bay nevertheless stand out « *par leur densité, la dimension des constructions et de leurs annexes qui contrastent fortement avec les espaces agricoles voisins* » (Ibid., p. 72) and therefore remain a presence “at the edges”, a front and a background that strongly oppose the natural environmental qualities that these documents want to make stand out.

Natural space and an idea of health. The rural background surrounding the industrial area of Zimeysa is also promoted in the municipal plans for its association with an idea of ‘health’ and ‘well-being’. In the Meyrin municipal plan of 2020, both wellness and health are positioned among the most important objectives to follow: « *Le bien-être des citoyen-ne-s est la finalité première de la ville de Meyrin. Pour y parvenir, elle a ainsi souhaité axer son développement et guider sa planification en mettant la santé au coeur de son projet de développement.* » (Weil, PDCOM, 2020, p.22); and even as the backbone that supports and justifies the revision of the municipal plan: « *En axant la mise à jour de son plan directeur dans une perspective qui intègre la santé comme préoccupation centrale, les autorités communales souhaitent donc remettre le bien-être individuel et le bien vivre ensemble comme valeurs cardinales et ainsi placer l’humain au coeur du développement urbain.* » (Ibid. p. 22). The relevance of the environment for health is supported here by a reference to the 1946 Constitution of the World Health Organization ³⁰⁷ and the idea that health derives from « *tout ce qui vient avant le soin* » (Ibid. p. 22).

The plan continues with the identification of the appropriate interventions for a « *urbanisme favorable à la santé* », Proposals that find the most solid supports in the “naturalness” and in the figure of the pedestrian. The natural space planted with trees, the promenades, the networks of gentle mobility « *favorise les interactions sociales et l’activité physique, agit sur la santé mentale et le développement des enfants, est bénéfique pour le climat, l’air et la biodiversité* » (Weil, PDCOM, 2020, p.22). The ‘health’ objective, « *inscrite dans le présent plan directeur comme valeur centrale* » (Ibid., p. 27), guides the construction

307 « *La santé est un état complet de bien-être physique, mental et social et ne constitue pas seulement une absence de maladie ou d’infirmité.* » (OMS, July 22, 1946)

of more concrete interventions, such as structures for physical activity (parks, gardens, cycle paths), spaces for “urban agriculture”, connections “*biologiques*”, etc.

On the other hand, the “*urbanisme favorable à la santé*” looks at the pedestrian. The pedestrian, considered a « *vecteur d’urbanité et de santé* », and walking, seen as a somewhat “urbanity” enabling activity, constitute what for the plan can combine « *qualité de ville et qualité de vie* » (Weil, PDCom 2020, p.25). This plan differs from the one of 2011 to a great extent in the importance given to the pedestrian who passes from being treated in a sectorial way to taking a central position specifically declined in any other topic dealt with:

Redonner aux piéton-ne-s le droit de la cité passe ainsi par des politiques urbaines (logements, services de proximité, espaces publics, sécurité, environnement, etc.) plus que par des politiques sectorielles orientées sur les déplacements. Pour cette raison, dans le présent PDCom, la marche et les besoins des piéton-ne-s ne sont pas uniquement abordés dans le cadre du plan directeur des chemins pour piéton-ne-s (PDPCP), mais sont intégrés de manière transversale dans tous les domaines de l’aménagement urbain : programmation, espaces publics, mobilité, environnement, etc. (Weil, Plan directeur..., 2020, p.26)

« *Penser la ville et le territoire à l’échelle du piéton* » (Ibid., p. 25) translates into a city « *des courtes distances* » (Ibid., p. 26), accessible, less polluted, where the natural environment guarantees “climatic comfort”. More concretely, the plan envisages the « *végétalisation plus systématique* » along the roads, the preservation of as much permeable soil as possible, the planting of a minimum of 250 new trees favoring in this way the native species « *avec un grand volume de masse foliaire* », the strengthening of the biological connections, etc.

Even within this framework, the industrial space is in default. In Meyrin’s plan, health is considered « *un critère d’évaluation des projets de développement, notamment dans les secteurs fortement exposés aux nuisances environnementales de bruit et pollution* » (Weil, PDCom, 2020, p.22) and the pedestrian a sort of unit of measurement which becomes particularly relevant in a context such as the meyrinois one « *où certains secteurs privilégient une accessibilité automobile et ne sont pas favorables à la marche (centres commerciaux, zones industrielles)* » (Ibid., p. 27). Zimeysa is also considered a “heat island” harmful to health in a broad sense and therefore has to be “vegetalized” – « *L’objectif étant de réduire la température des espaces publics, notamment dans les secteurs prioritaires soumis aux îlots de chaleurs (zone industrielle / d’activité [...])* » (Ibid., p. 68) – through the insertion of green roofs and new trees in open spaces, the management of rainwater, the introduction of spaces dedicated to biodiversity (“*zéro phytosanitaires*”).

Natural space and territory’s autonomy. And lastly, the natural space is valorised because it is considered a fundamental resource in view of achieving the canton’s objective of autonomy (of food, energy, production, politics, “security”). This macro-objective is defined and followed on a national and cantonal scale but in the municipal plans more concrete strategies and specific interventions are implemented.

In the 2011 plan for Meyrin there was the problem of a feared restriction of the municipal agricultural

area. The agricultural land of 346 hectares (34.9% of the municipal area) was exploited only in part by agricultural activities, that were reduced to only 290.5 hectares – also taking into account agricultural buildings – (Triporteur architectes, and others, PDCOM, 2011). The remaining 55.5 hectares were occupied by « *bois et bosquets, équipements publics, surfaces de compensation écologique (SCE), entreprises industrielles, jardins familiaux, weekends, etc.* » (Ibid., p. 61). Furthermore, it was stressed that the construction of the Les Vergers neighborhood³⁰⁸ would reduce agricultural land by 21 hectares and increase the « *pression humaine sur l'espace rural* » as a consequence of the creation of 1,100 new housing units (Ibid., p. 61).

However, in the 2020 plan for Meyrin the association between natural space and autonomy assumes an explicit centrality by inserting among the aims of the plan the creation of an « *espace rural multifonctionnel* » capable of accommodating activities related to food production, recreation, health:

[...] et tendant à répondre aux enjeux de la sécurité / souveraineté / autonomie alimentaire, du changement climatique et du maintien / renforcement de la biodiversité, y compris alimentaire. Des liens entre paysans-producteurs, consommateurs-mangeurs, l'administration et le politique renforcés, favorisant une consommation locale et responsable dans une logique de relocalisation de l'agriculture et de son économie.
(Weil, PDCOM, 2020, p.56)

The Satigny plan, for its part, focuses on the production potential of the « *plus grande commune viticole suisse* » (1,140 hectares of useful agricultural area and 487 hectares of vineyards) (Weil, PDCOM, 2010, p.15). In these plans, the natural environment is therefore considered a strategic resource, and the protection of the wooded areas, the increase in the quality of the soils, as well as the improvement of the general conditions necessary for carrying out agricultural activities, innervate most of the design choices that affect this territory, even those that concern the spaces of manufacturing production.

4.2. The Satigny structural plan

The *Plan directeur communal* of Satigny³⁰⁹ it hardly differs from regional and cantonal plans with regard to the objectives and measures proposed for Zimeysa. Here too we find the will to introduce new open spaces for public use, new networks for soft mobility, etc.

Instead, it is in the higher level of specificity reached by some of these moves that the plan finds its distinctive function. Following an investigation made to enterprises active in the industrial areas of Satigny³¹⁰ – the *Zone industrielle de Meyrin-Satigny* (Zimeysa), the *Zone industrielle du Bois-de-Bay*

308 Launched by the '*Plan directeur de quartier (PDQ) Les Vergers N°29500-526*' approved by the Conseil d'Etat on March 7, 2007.

309 Weil, M. – urbaplan –, (2010). Plan directeur communal (PDCOM) et plan directeur des chemins pour piétons (PDPC) de Satigny N°29638-535.

310 86 of the companies solicited replied to the survey carried out by post, ie 32 percent (Weil, 2010, Plan

(Zibay) and the *Zone industrielle de La Tuillière* – the need for a greater number of services in Zimeysa is identified – especially nurseries, banks, restaurants, shops –, as well as to improve the circulation of private means of transport (aggravated by the arrival of Ikea) and to increase the reach of public transport networks to cover the needs of workers³¹¹. To these needs resulting from the survey are added others that derive from the general direction that the authors of the plan want to establish for this territory. This is the case, for example, of the desire to valorise the perspectives that open up in some points of the industrial area towards the agricultural landscape of Satigny³¹², to strengthen the soft mobility networks, improve the systems for selecting and recovering waste generated by production activities, to improve the « *valeur paysagère ou écologique* »³¹³ of the industrial area in order to aspire to the *Fondation Nature & Economie*'s “*Nature & Economie*” label³¹⁴.

The plan also offers a *fiche de mesure* entirely dedicated to the management of Zimeysa. The ‘*Fiche de mesure 5-1 Zone industrielle de Meyrin-Satigny*’³¹⁵ too adds little to what has already been established by the cantonal and regional plans. It is mentioned here only because it shows the impact that the policies of the municipality of Satigny, and especially the preference given to landscape and ecological themes, have on the planning of the transformation of Zimeysa. Here, for example, the extension of the industrial area in the direction of Montfleury promoted by the Genève 2030 cantonal plan is rejected. In its place, the municipality favors the densification of the areas already dedicated to industrial production: « *Privilégier en premier lieu une meilleure utilisation des zones industrielles existantes (densification)*. »³¹⁶ Other expressions of this policy are the various “*avenues paysagères*” and “*cordons boisés*” – already present in many proposals already discussed here – and a deliberate concentration of activities and workers³¹⁷ on the areas closest to the Gare Zimeysa.

The Satigny plan therefore denotes a more detailed attention to the needs of the enterprises located in Zimeysa, but at the same time demonstrates a desire to reduce the footprint of the industrial area on the territory as much as possible. Avoiding its enlargements, compacting the activities, facilitating the penetration of plant essences.

4.3. The Meyrin structural plan

The 2004 Meyrin Municipality presentation brochure contains a photograph showing a three-story factory in Zimeysa (fig. 26). The image is titled « *La zone industrielle de Meyrin, entre nature et technologie*

directeur communal de Satigny, p.59).

311 Weil, 2010, Plan directeur communal de Satigny, p.59.

312 As we have seen above, this was an initiative taken up by the Plan Guide for Zimeysa of 2014.

313 Weil, 2010, Plan directeur communal de Satigny, p.60.

314 See: <https://www.naturundwirtschaft.ch/fr/certifier/>.

315 Weil, 2010, Plan directeur communal de Satigny, p.195.

316 Ibid., p. 61.

317 Assigning entitled: « *Secteur à haute densité d'emplois (dans un rayon de 500m de la halte RER)* ».

» (Commune du Meyrin, 2004, p. 21). This sentence summarizes the prevailing direction adopted by the municipality's policies for the transformation of the industrial area of Zimeysa. On one hand, the promotion of technological excellence and, on other hand, the opening of the area to the surrounding landscape and the introduction of vegetal elements. Two poles that, in the municipal plans, are held together by the figure of the pedestrian who becomes the cornerstone of the transformation of the industrial area. A pedestrian who moves to an area that has become a "neighbourhood" where the activities of advanced technology and high added value are surrounded by trees, permeable open spaces, landscape views of the Jura massif, etc.

Regarding Zimeysa the municipal plan approved in 2011³¹⁸ differs little from that of Satigny of the previous year. Similarity explained by the collaboration undertaken between these municipalities: « *En ce qui concerne l'aménagement de la zone industrielle, la commune de Meyrin s'est associée ad initio au souhait des communes de Satigny et Vernier de réviser le plan directeur de la ZIMEYSA datant de 1981 [...].* »³¹⁹ Here too, therefore, the decision was made for a limited expansion of the buildings ascribed to the industrial area³²⁰, for the concentration of enterprises « *à forte densité d'emplois* »³²¹ near the tram and railway stops, for the use of soft mobility networks and "*pénétrantes de verdure*" to tie Zimeysa to adjacent living quarters, etc. And here too, the desire to valorise the industrial area by making use of plant essences and the rural landscape is also predominant: « *La qualité paysagère de ces zones pourrait être améliorée, notamment à l'approche des franges affectées au logement, par une gestion coordonnée des espaces publics, des alignements d'arbres ou de l'éclairage public [...]* »³²².

With Meyrin's 2020 plan³²³ (currently under public consultation) there is an important change of position. Zimeysa is no longer a rather static place and of limited "*potentiel constructible*", but here there is an "acceleration"³²⁴ and becomes rich in "*potentiels de planification*". These potentials are also linked to an increase of about 9.000 - 12.500 workers expected by 2030 in the areas of Zimeysa belonging to Meyrin³²⁵. The municipality is in favor of welcoming this important increase in workers – which together with that planned for the south facade of the airport would lead to a territorial imbalance between the western and eastern parts of the Canton (already feared by the plans of the 1960s) – provided is taken into account the need to equip these spaces with a high level of quality: « *La ville de Meyrin n'est pas opposée à la croissance du canton, mais un tel développement quantitatif ne peut être acceptable que si*

318 Triporteur architectes, Citec ingénieurs conseils, Viridis environnement, (2011). Plan directeur communal (PDCoM) Meyrin N°29630-526.

319 Plan directeur communal (PDCoM) Meyrin N°29630-526, 2011, p.25.

320 « *Le potentiel constructible pour la ZIMEYSA commence aujourd'hui à se restreindre pour la commune de Meyrin. Quelques extensions de bâtiments existants ou des projets de construction ponctuels sont à bout touchant ou en cours, mais ceux-ci ne modifieront pas sensiblement l'aspect général de la zone telle que nous la connaissons actuellement.* » (Ibid., p. 54).

321 Ibid., p. 96.

322 Ibid., p. 96.

323 Weil, M. – urbaplan –, (2020). Plan directeur communal (PDCoM) Meyrin 2e génération. Plan directeur des chemins pour piétons.

324 « *Le secteur de la ZIMEYSAVER, dont le développement a déjà important ces dernières années, pourrait connaître une accélération.* » (Plan directeur communal (PDCoM) Meyrin 2e génération, 2020, p.46)

325 Ibid., p. 139.



26. *La zone industrielle de Meyrin, entre nature et technologie.*
Source: Commune du Meyrin, 2004, p. 21.

les moyens pour l'accompagner de manière qualitative sont mis en œuvre. »³²⁶

In this plan is wanted Zimeysa – now become Zimeysaver – more open to the diffusion of tertiary and high added value activities³²⁷, to the “*multifonctionnalité*”, to the diversity of services for workers and passers-by. But it is the attention that is given to the pedestrian here that constitutes a significant new element. First of all, in this plan the *Plan directeur communal* and the *Plan directeur des chemins pour piétons* are merged. Even if they belong to different laws and procedures³²⁸ here they are integrated into a single document.

In this context, designing a transformation for Zimeysa translates above all into the design of the “*espaces publics du quotidien*”³²⁹. In fact, a series of road axes, soft mobility infrastructures, “*avenues urbaines*”, “*avenues industrielles*”, “*avenues paysagères*” who will have to infiltrate the industrial area and tame it, adapting it to the slow and hedonistic walks of a hypothetical pedestrian. The « “*territoires du moi*” du marcheur » (Lavadinho & Winkin, 2005, p. 1)³³⁰ overlap the fragmented, closed, frenetic territories of Zimeysa. Truck and freight traffic will somehow have to become quieter and less noisy. The hermetic shells of industrial establishments will have to open their ground floors to the enjoyment of passersby³³¹. Architecture will also have to submit to the needs in terms of image that these new flows will convey³³². The streets will have to become more and more « *rues agréables favorables à la marche* » and be equipped with a « *accompagnement végétal (alignements, bosquets, etc.) et des perspectives sur le paysage environnant.* »³³³.

It is the set of these initiatives that push high value-added activities, the tertiary sector and the pedestrian to make this area a neighborhood, a “*quartier d'activités*”. No longer an area or a sector, the industrial area must move further and further away from that idea of “*concentration monofonctionnelle*”. It has to become something closer to the world of the pedestrian: « *Le secteur d'activités, très imperméable et hostile aux piétons par la prédominance de grandes parcelles industrielles et de stockage logistique entièrement clôturées et entourées par une voirie à caractère exclusivement routier (longs détours à l'échelle du piéton, trottoirs étroits, etc.)* »³³⁴. The plan therefore aims at « [...] *renforcer le caractère urbain des quartiers d'activités, notamment par l'implantation des adresses des entreprises, lieu d'ac-*

326 Ibid., p. 206.

327 In 2013 the *Loi générale sur les zones de développement industriel ou d'activités mixtes (LZIAM)*. L 1 45 which foresees the partial occupation of tertiary activities on industrial areas. The presence of activities belonging to the secondary sector must in any case exceed the tertiary ones (that is, they must cover 60 percent of the “*surface brute de plancher*”) (Art 1, line 2).

328 The law in question is the *Loi sur l'application de la loi fédérale sur les chemins pour piétons et les chemins de randonnée pédestre (LaLCPR)*. L 1 60 of 1998. This law delegates the processing of the *Plans piétons*.

329 Plan directeur communal (PDCoM) Meyrin 2e génération, 2011, p.59.

330 The authors make use of an expression by Erving Goffman found in his book *La Mise en scène de la vie quotidienne, Tome II : Les relations en public* (1973).

331 « *Favoriser les activités à caractère urbain : rez-de-chaussée actifs.* » (Ibid., p. 60).

332 « *Renforcer l'image urbaine (aménagement des espaces publics, traitement architectural des façades, etc.)*. » (Ibid., p. 60).

333 Ibid., p. 60.

334 Ibid., p. 279.

cueil des visiteurs. »³³⁵ Is a new “*maillage piétonnier*” to take charge of this step. A more secure *maillage* – protected by more regulated traffic and more suitable for the attendance of children and the elderly –, more spacious – the widening of the sidewalks starts from a minimum of 1.80 meters –, more comfortable – rich of “*qualité environnementale*”³³⁶ and therefore free from annoying noises and smells and equipped with natural elements and visual openings to the nearby rural landscapes –.

335 Ibid., p. 60.

336 Ibid., p. 283.

Chapter 5

The dilution of the industrial plaque. Zimeysa in cross planning initiatives

Zimeysa was also the object of detailed plans that dealt with the entire industrial area and with some of its individual parts. These plans, which as we will see below are very different from each other, have in common the fact that they are the result of an inter-municipal, but also inter-institutional collaboration – as they involve multiple entities such as the FTI and the *Département du territoire* –. In this sub-chapter, the points considered most relevant of these initiatives are briefly covered.

Many themes that have already emerged in the regional, cantonal and municipal plans are present here. Such as that of disguise, that is, the desire to bring these places closer and closer to something more like a residential neighborhood. But there are two themes which, although they may be recognized in the other planes, emerge here with particular clarity. The first is what we can call the ‘figure of the mosaic’. The breaking up of Zimeysa into a series of smaller plots – both responding to a localization logic as in the case of the Plan Guide, i.e. the definition of an area and its contours according to the specific type of enterprise that is to be accommodated³³⁷, and reflecting the characteristics of the built fabric and infrastructures present as in the case of the PDZI, and also following more arbitrary choices linked to bureaucratic constraints – for the simplification of the design of the entire industrial area. That is, it should favor the identification of the smallest problems and the most appropriate solutions. The image of the mosaic that emerges from these choices takes Zimeysa away from that idea of a large uniform and mono-functional production plaque and instead brings it closer to a colorful and fragmented place. That fragmentation that in the regional plans was achieved with the use of strong road axes is here obtained with the introduction of a mosaic of different pieces.

The second theme is that, present in most of the plans already treated, of a sort of covering of urban amenities. That is, the introduction of squares, small open spaces, street furniture, etc.³³⁸. Typical actions of small-scale urban planning which however contrast here with the context of application. They contrast with the characteristics of an industrial area, with its morphology and its image: a place burdened by the uniformity and size of its blocks and its road layouts, by the type of activity hosted, by the kind of circulation it emanates. The divergence between Zimeysa’s spatial characters and the kind of daily practices that the design of furniture and sidewalks brings with it gives rise to situations of overlapping. The imposition of a grid that divides the surface of the industrial area into different zones breaks up the unity between buildings previously considered indivisible and relates them to other external elements, thus offering autonomous characteristics to particular urban situations.

337 In this case, we could speak of qualification through the type of enterprise. It is the assignment of a specific type of business and economic activity to define the formal characteristics, the type of image, open spaces, services, etc., of a certain portion of the industrial area.

338 Chiara Sottosanti calls them “modest actions” (Sottosanti, 2019).

The fragmentation proposed by the figure of the mosaic and the ordinariness conveyed by the urban amenities do nothing but reject the otherness of Zimeysa in relation to its residential surroundings.

5.1. A general proposal. The Grand Projet Zimeysaver

All the elements that emerged in the *Plan directeur cantonal* are collected, condensed and rearticulated by the *Grand Projet Zimeysaver*. The plan is implemented by the municipalities of Meyrin, Satigny and Vernier, and by the FTI « [...] *en concertation avec les associations, les entrepreneures et les habitantes de ce large périmètre.* »³³⁹. The GP performs a double function. The first is to develop in a more detailed way the multiple requests and measures that emerged in the *Plan directeur cantonal*. The second, to build a general framework of the entire industrial area that can serve as a background for the various *Plans directeurs des zones de développement industriel ou d'activités mixtes* (PDZIA).

The *Grand Projet* has in the 2014 *Plan Guide T3 Zimeysaver*³⁴⁰ a more detailed progress report. The *Plan Guide* in fact follows the goal of « *initier et matérialiser la vision de développement de ce territoire* »³⁴¹. The priority of the road networks of the “*ville passante*” promoted by the *Commission d'urbanisme* can be recognized in the various tracks of the “*liaison majeure mobilités douces*” that innervate not only the main roads but also the spaces inside the blocks, in the “*dessertes industrielles*” along the Route de Montfleury and the Route du Nant-d'Avril to serve the new industrial areas³⁴² and in the “*continuité paysagère*” networks which cross Zimeysa starting from the agricultural lands of Satigny and ending on the *Cité*. While the concern about the need to adapt industrial areas to the new requirements of the production sector has resulted in a splitting of the industrial area – *à la zoning* – in different sectors depending on the type of activity that is wanted to accommodate. High market enterprises should settle in multi-storey buildings in the plots near the Route de Meyrin, and therefore to the residential areas, and in those surrounding the two train stops (Gare Zimeysa and Gare de Meyrin), enterprises dedicated to technological development should occupy most of the land of Zimeysa north of the railway, companies mainly active in logistics activities would instead populate the areas to the south most served by rail transport, while those more traditional companies indicated simply as “*artisanat*” and “*industrie*” are left in the areas most affected by the noise of the airport to the east. A mosaic of differentiated pieces therefore emerges according to the type of productive climate to be nourished and the density of the

339 Plan directeur communal (PDCom) Meyrin 2e génération, 2020, p.139

340 The plan was commissioned by the *Etat de Genève*, the FTI and the municipalities of Meyrin, Satigny and Vernier to the urban planning firms Agence LMLV (Luc Malnati) and Atelier JPPD, to the civil engineers BG ingénieurs, to CITEC mobile engineers, to HKD geomatic engineers, to I-Consulting economists, to architects Paysagegestion landscape architects and SOFIES environmental engineers.

341 Quote taken from the official website of the study of urban planners Agence LMLV: <https://lmau.ch/project/zimeysaver-geneve/>

342 Here a new motorway infrastructure is also proposed, the “*Barreau routier de Montfleury*”, which would start from the current Montfleury quarry and end up on the Route du Canada industrial area next to the Rhone. This project is expected to result in a significant reduction in the traffic load on Zimeysa. See: <https://www.ge.ch/dossier/barreau-routier-montfleury/objectifs-mobilite>

building environment.

Everything is held by a system of five main public spaces that give this place an air more of a “neighbourhood” than a “zone”³⁴³. Two public spaces in the most central areas of the industrial area around the two railway stops³⁴⁴ and three other public spaces that mediate Zimeysa’s relationship with neighboring residential areas – the center of Meyrin, the commercial areas south of the airport and the Vernier “zone villas” –. This policy of opening up the industrial area through the design of new public spaces was announced a few years later by the *Chef de projet* of the Canton’s *Office de l’urbanisme* Mikaël Meyer: « *Il faut parvenir à tisser des liens avec les quartiers résidentiels voisins. Pour cela, nous devons travailler sur la création d’espaces publics qui donnent envie de se déplacer. Le décroissement des zones industrielles est essentiel.* » (Lecoultré, 2019)

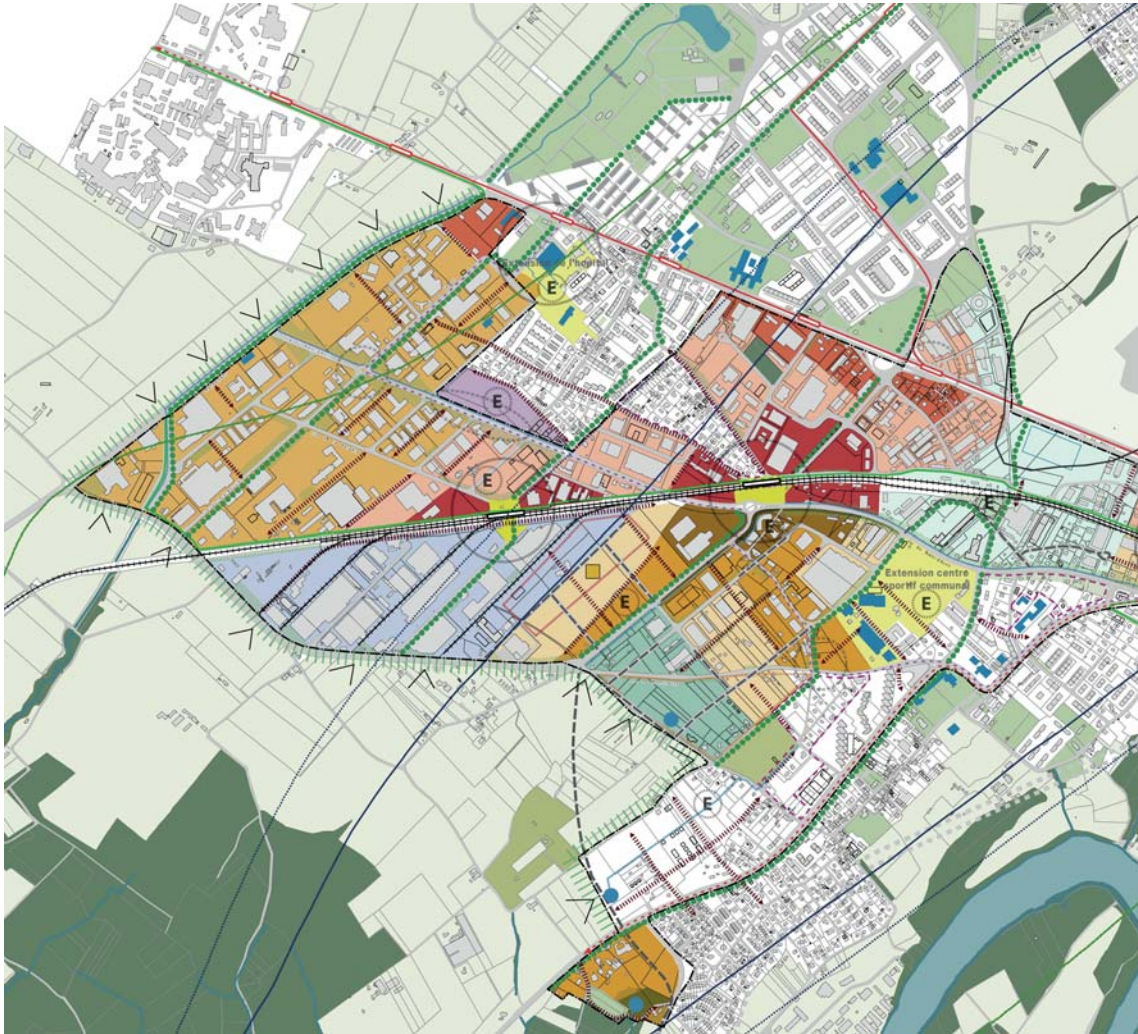
Another element that marks this transition from zone to neighbourhood is the desire to guarantee enterprises a visual appreciation of the agricultural landscapes of Satigny which gives rise to a series of “*ouvertures sur le paysage agricole*” along the Route de Satigny and the Route du Mandement. An unusual need for manufacturing activities from which it is more common to expect an exclusive interest in the functional performance of the places where they reside.

To these anomalies, so to speak, – which are all part of the markedly renewing tension that the *Plan directeur cantonal Genève 2030* aims to lead in the spatial-economic field –, the “*Plateforme de récupération des déchets pour entreprises*”, the “*Périmètre test de faisabilité économique et technique de valorisation des géomatériaux*” and the “*Pôle logistique lourd de valorisation des ressources*”, located in the land currently occupied by the Montfleury quarry and in the southern space of the new *Zone de développement industriel et artisanal* of Mouille-Galland, are added. An infrastructure aimed at adapting the production processes supported by Zimeysa to the principles of *écologie industrielle*. In other words, the reuse for production purposes of waste derived from industrial processes.

The Plan Guide seeks to align Zimeysa with the new economic climates, on one hand, by favoring the reception of high value-added companies trained in the use of advanced technologies and, on other hand, by digging new centralities within it. A vision of an industrial space marked by the weight of public spaces and urban equipment such as promenades, cycle paths, etc., and by a series of small portions of the building fabric endowed with the qualities that a specific type of enterprise should bring with it emerges: « So, on one hand, change comes from the outside, infrastructure projects, transport, open spaces, and on the other, it comes from enterprises, there are fewer and fewer heavy companies and more and more companies linked to the internet, to technologies of communication, which produce different environments. » (Interview B: Luc Malnati)

343 As indicated in the third part of the thesis, the FTI has carried out work to officially rename the industrial areas with the name “neighbourhood”.

344 « We imagined a project with train stations, it’s simple, ZIMEYSA is crossed by the railway going to Paris. There are three stations: the Vernier station, the Meyrin station and the ZIMEYSA station. These three stations need to have a public space, a square. » (Interview B: Luc Malnati)



27. Une ville à la campagne.
Source: Commune du Meyrin, 2004, p. 80.

5.2. The segmentation of Zimeysa in the PDZIs

Zimeysaver is divided into seven sub-areas each of which is the subject of *Plans directeurs de zone industrielle* already made or under development. The *Plan directeur de zone industrielle Mouille-Galand* (ZIMOGA) – which concerns the enlargement of the most recent industrial area to the south – and the *Plan directeur de zone industrielle et artisanale des Batailles* (ZIBAT-SUD) – which treats the eastern junction of the industrial area and south of the airport – are currently in force, while the *Plan directeur de la zone d'activités mixtes de Meyrin – Satigny* (ZDAM) – focused on the most central area of Zimeysa – is currently under public investigation and the *Plans directeurs de ZIMEYSA Nord* and *Sud* – which concern the westernmost areas – should see the start of their development at the beginning of 2021³⁴⁵.

The PDZI, for their nature of plans with the force of law and therefore opposable to third parties, define what will be the definitive contours of these parts of the industrial area. They therefore focus above all on the new road layouts and on the elements that they carry with them (urban furniture, vegetation, soils), but also in public spaces and in that system of « *micro-espaces (placettes, squares, jardins, bancs)* »³⁴⁶ aimed at ensuring a higher level of comfort for workers and passers-by. In addition to these infrastructures, the PDZI also indicate the density of the buildings that each block will have to adopt³⁴⁷.

Of these sub-areas, ZIMOGA is the one that offers the most opportunities for welcoming new businesses since much of the land is currently used for agriculture. Delimited by the Route de Satigny, the Route du Nant-d'Avril and the Chemin du Sorbier, the new industrial area superimposes a grid of streets that defines eight large blocks on the existing agricultural plots.

The ZIBAT³⁴⁸ is instead characterized by its being crossed by a dense infrastructural network. Oil pipelines, gas pipelines, proximity to the airport runway, railways and roads close to each other together with the narrow and elongated shape make this area a piece of difficult spatial treatment. The complexity is also linked to the variety of uses and typologies that occupy it: offices, warehouses, individual houses, parking lots, etc. The plan tries to contrast this heterogeneity of materials with a certain legibility of the space. The fact that qualification and “*lisibilité*” are here two inseparable directions had already been clear for the *Commission d'urbanisme* a few years earlier (Commission d'urbanisme, 2007, p. 118). Readability is pursued through with the introduction of a couple of internal streets that redefine the shape of the blocks making them more circumscribed – as well as facilitating access to the interior of the blocks –, but above all via a new network of public spaces which, on one hand, follows the Route du Nant d'Avril while, on other hand, gives rise to a “*dorsale verte*”³⁴⁹ which crosses the industrial area by

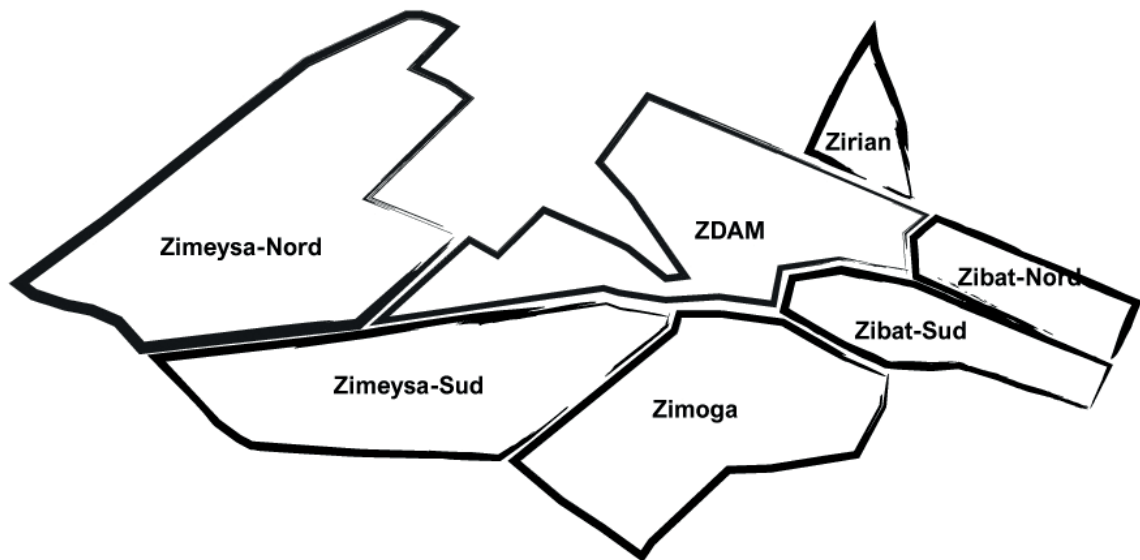
345 For the current status of each of these plans, consult the official website of the State of Geneva on the address: <https://www.ge.ch/dossier/nouveaux-quartiers/zimeysaver>.

346 Plan directeur communal (PDCom) Meyrin 2e génération, 2011, p.208.

347 This density work is primarily aimed at reducing surface parking areas.

348 The implementation of this plan was carried out by various phases of studies which involved B. Leutenegger urbanistes, Mayor et Beusch architectes, SD ingénierie SA, Trafitec et B+C Ingénieurs SA, etc. The final plan was drawn up by Agence Luc Malnati on 9 October 2015 but was approved by the State Council only in 2018.

349 (Commission d'urbanisme, 2007, p. 118).



28. Subdivision of the Zimeysaver industrial area into various PDZIs.
Source: Graphic developed by the author.

half, connecting it with the residential and more spacious areas to the north and south.

But is the ZDAM³⁵⁰ to contain the most experimental characters. This territory of almost 70 hectares that acts as a hinge between the westernmost and easternmost parts, but also between the industrial areas and residential districts to the north – « [...] *une véritable mosaïque d'identités (Meyrin-Village, secteurs résidentiels de la Cité, zone d'activités, campagne, forêt, aéroport, etc.)*. »³⁵¹ –, plays a complicated role. That is, to give coherence to this variety of situations without subduing them, allowing them to become part of the industrial area and break its “monofunctional” hardness: « *Un enjeu majeur de couture urbaine en découle, afin d'assurer des continuités territoriales à travers ces différents tissus urbains et faire ainsi d'une zone monofonctionnelle fragmentée un quartier productif ouvert et accueillant.* »³⁵². This opening is also made extreme by being the first industrial area in Geneva to adopt the new legislation regarding mixed industrial areas³⁵³. With the new legislation, this area can leave 40 percent of its surface to tertiary activities.

If, as seen in the *Plan directeur cantonal 'Genève 2030'* and *Plan communal de Meyrin*, Zimeysa is often treated with the logic of residential neighborhoods, the PDZDAM extends this attitude to the domain of the architectural fabric. In fact, the ZDAM is seen as a neighborhood: an industrial area that gives priority to the use of public spaces, which while leaving 40 percent of its land to services prohibits the establishment of large commercial plants that increase traffic and invade its parking spaces³⁵⁴, but it is above all the attention paid to the characteristics of the built environment that clearly reveals this desire for disguise. The new architectures will have to offer “*frontages*” that qualify public spaces, that is, that offer quality spaces facing roads, stops and open spaces. The built tissue is modeled according to this relationship with public spaces: « *Pour cela, différentes typologies de fronts sont définies par le PDZDAM et elles sont réglementées par la définition de bandes d'implantation, retraits de façade, gabarits, rapport à l'espace public, etc.* »³⁵⁵ The plan also introduces the concept of “*Nid*” (nest) which would correspond to silo infrastructures – it is easy to see a correspondence with the VVA's “*écofolies*” – containing parking spaces, services and « *pôles mutualisés de gestion des ressources et des déchets.* »³⁵⁶

350 At the moment the PDZAM is not yet in force. The plan is currently going through stages of negotiation between the various actors involved. See for example the informational feedback session of the *Plan directeur de la Zone de développement industriel ou d'activités mixtes -PDZDAM- de Meyrin-Satigny* which took place on May 24, 2018 and published by the FTI on its website: <https://translate.google.ch/?hl=it#view=home&op=translate&sl=fr&tl=it&text=s%C3%A9ance%20de%20restitution%20d%E2%80%99informations>.

351 Plan directeur communal (PDCOM) Meyrin 2e génération, 2011, p.209.

352 Ibid., p. 209.

353 The 2013 *Loi générale sur les zones de développement industriel ou d'activités mixtes L 1 45 (LZIAM)*.

354 One of the objectives of the PDZAM is in fact that of « *Limiter les implantations commerciales, générant beaucoup de trafic et ne contribuant pas à l'animation des espaces publics et à l'urbanité du quartier et privilégier les activités à forte valeur ajoutée.* » (Ibid., p. 211).

355 Plan directeur communal (PDCOM) Meyrin 2e génération, 2011, p.210.

356 Ibid., p. 209.

On this line the official reports published by the FTI – perhaps the main actor in the production of PDZIs – are a very useful source. In the *Rapport de gestion 2013* (FTI, 2014) this desired passage from “zone” to “neighbourhood” is clearly highlighted:

Tout comme dans les quartiers d’habitation, cela implique de repenser le « vivre ensemble » dans les zones. La FTI a ainsi fait le choix d’élargir l’offre de service dans les mois et années à venir afin de soutenir la compétitivité des entreprises et d’accroître la satisfaction de leurs collaborateurs et usagers. En tant qu’opérateur de cette mutation des ZI vers les écoParcs industriels, la FTI souhaite apporter sa contribution à dessiner des quartiers qui s’inscrivent au cœur même de la ville. (FTI, 2014, p. 14)

Part III
The reconfiguration
of the public
infrastructure:
the FTI

Chapter 1

The FTI's strategy. Objectives, networks and tools

This chapter investigates the work of an actor deeply involved in the transformations of the industrial areas of Geneva. The *Fondation pour les terrains industriels de Genève* (FTI) in recent years has carried out a complex and articulated work that has profoundly affected the industrial tissue of the Canton. Due to this strong connection with the transformation of the production spaces in Geneva, the FTI occupies a considerable space within this research. What tools does it use for the implementation of production sites? What organizational forms does it build with other actors? What communication strategies?

The peculiarity of the investigation conducted on the FTI reported in this chapter, which distinguishes it from the study of the plans, is the directly operational and factual dimension of the observed processes. In fact, unlike the plans that mostly remain on an aspirational and general level, the actions of the FTI often guide the transformation along its various steps until its final concretization. The enterprises world no longer remains a vague and generic dimension hidden under the categories of secondary sector or *activités* but it is instead treated in a detailed and individualizing way – that is, from enterprise to enterprise. This is also true for the space: for the FTI the land has prices, properties, advantages, disadvan-

tages, etc. For this level of detail, the work of the FTI is able to delve into the complexity of relations between enterprises and space.

This operational and close dimension gives that extra step with regard to the plans: the work of the FTI begins where the plans stop. However, this statement does not want to give the idea of a total detachment between the plans and the FTI. In fact, the FTI is directly involved in the production of some of the plans investigated in the second part of the thesis, and many of these plans support initiatives created and promoted by the FTI. Is intended just to express the importance of such a pervasive presence for the transformation of the industrial areas of Geneva. The FTI does not create spatial conditions that later abandons, but remains in place, so to speak. It remains by creating networks between different actors and encouraging the creation of links between companies – an action which is anything but unusual in industrial policies¹ –, but also by governing the transformation of the production sites in Geneva, its resources, its uses, by managing its multiple dimensions (infrastructures, processes, legal aspects, finances, representations, etc.), and occupying all the practical space accessible to it.

In this chapter, therefore, we try to focus on how this actor acts on the daily and material conditions of the industrial areas of Geneva. The more specific issues that guide this part are as follow: first of all, what are the structural and operational properties of this actor? Here we investigate its role, the figures that constitute it, its positioning within the plot of actors who guide and govern the relationship between territory and production. Second, how this actor builds his networks. What actions, what networks of actors, what mechanisms? Once these characters inherent to the actor and its context have been outlined, the following chapter proceeds with an investigation into the tools with which the FTI affects the land. Here we try to identify the technical means which the FTI relies on to conduct a land policy. But also, less codified but equally relevant actions such as those of mediation between companies and the transformations of the built space.

1.1. The FTI's role reconfiguration

The FTI is primarily a tool for managing the canton's industrial land assets. It was born on January 1st 1960 as *Fondation pour les terrains industriels Praille et Acacias* (FIPA), an institution in charge of the industrial zone of Praille et Acacias. At this first stage, the foundation was made up of two groups, a first group of representatives of the Council of State and the municipalities concerned and a second group composed of professionals mainly from the economic field (Zumkeller, 2010, p. 19). In this phase, the management of industrial areas mainly translated into the administration of surface contracts and rents,

¹ Incentives to create agglomeration economies like the “technopark” or “technopole” policies, the Cluster development programmes (CDPs), the regional district policies, ecc., have had a strong diffusion – for Martin and Sunley even a sort of “panacea” (Martin & Sunley, 2003) – in public policies over the last thirty years to foster competitiveness, innovation and growth at national, regional or local level.

into basic infrastructure works (railway nodes and links, road connections, plumbing and lighting systems, etc.), and into the liberation of land from other types of activities (primarily residential ones). Together with these cardinal tasks, the foundation also regulated the dosage of types of enterprises present in industrial areas through the veto instrument: « *La création d'écosystèmes équilibrés car diversifiés est fondamentale pour la vivacité de l'économie genevoise.* » (FTI, 2019, p. 7).

The FTI is a para-public actor. A public enterprise² but autonomous from a financial point of view, the FTI moves on an ambiguous ground. Concerned by the feasibility of its choices but at the same time willing to make courageous steps thanks to the solidity of its finances:

Un acteur parapublic comme la FTI, avec une assise financière solide, peut réfléchir plus loin et plus large que les acteurs privés, même s'il doit ancrer la rentabilité dans ses décisions. On ne peut pas répondre à ces enjeux en réfléchissant uniquement en termes de catégories d'objets immobiliers et de taux de vacance. Nous devons chercher la mise en place d'écosystèmes de compétences, dont la pertinence se révèle sur le terrain. Le modèle économique de la FTI a ceci de génial qu'il permet cet équilibre. (FTI, 2019, p. 7)

Positioned under the authority of the Grand Conseil and the Conseil d'Etat de Genève, the FTI is composed of members selected by these two entities. The Grand Conseil chooses a representative for each political party³ and the Conseil d'Etat appoints three among its members. Ten *membres de droit* represent the state and municipalities. These members constitute the Foundation Board. As for its operational part (the *collaborateurs*) the FTI is currently managed by 34 employees⁴ divided into five *pôles* – general direction, communication support, *écoParc* service, reception, planning – and seven *domaines d'activités* – support for enterprises, management, finances, rental and contractual management, computer science, human resources, juridical activities –. Its workers cover a broad spectrum of technical specialties: engineers, architects, urbanists, geomaticians – engaged in the planning of industrial areas –, jurists – who mainly elaborate the *droit de superficie* contracts –, real estate management experts, etc.

A structural evolution. The FTI after the 1990s

2 The FTI is part of the decentralization policy of the Canton of Geneva: « *La Fondation pour les terrains industriels de Genève (FTI) (ci-après : la fondation) est instituée en qualité d'institution décentralisée de droit public cantonal, dotée de la personnalité morale.* » (Art. 1, line 1, *Loi sur la Fondation pour les terrains industriels de Genève (FTI)*, PA 327.00, 1985)

3 Since a modification of the FTI law in 1998 (Zumkeller, 2010).

4 This number appears on the official website of the FTI (<https://www.ftige.ch/equipe/>). In 2013, however, the Foundation consisted of only 23 workers of which only 19 were full-time (FTI, 2014, p. 7).

Box 1: Important moments in the evolution of the foundation

28.06.1958 – the Grand Conseil of the Canton votes a law establishing the Fondation pour les terrains industriels Praille et Acacias (FIPA)

17.10.1958 – the Grand Conseil issues a law that decrees the alienation for the benefit of the State of Geneva of various land in view of the management of the industrial areas of Praille et des Acacias (ZIPA)

01.01.1960 – start of the FIPA activities

13.12.1984 – the FTI law

1996 – the FIPA changes its name to FTI

2015 – begins the écoParcs policy

2015 – the Grand Conseil approves the Convention d'objectifs entre le canton et la Fondation pour les terrains industriels

2017 – the Grand Conseil approves the FTI law (LFTI) (for the sharing of existing car parks)

Progressively, the role of the FTI begins to radically change⁵. The FTI (then still FIPA) starts to expand its field of action towards other industrial zones. To Vernier in 1963, to Zimeysa in 1964, to Plan-les-Ouates in 1969, to Mouille-Galand in 1978, and to Bois-de-Bay in 2001⁶. In 2010 the 63% of land dedicated to the secondary sector was managed by the FTI (FTI, 2011, p. 17). Not only that, the industrial area in which the foundation was born begins to yield to the pressure of the real estate market and the Geneva authorities begin to encourage the gradual abandonment of the industrial activities rooted in it. The PAV (Praille Acacias Vernet) will have to gradually change its role within the Canton and move from an industrial area to a residential area, along with offices and various types of services. Faced with this desired change, the FTI assumes the task not only of “accompanying” the companies that will have to leave the PAV and settle in the remaining industrial areas of Geneva, but above all of making this enterprises movement an advantageous opportunity for the Canton and for the enterprises themselves. The then director Yves Creteigny in fact stated « *Pas de doutes, les objectifs ont bel et bien changé. Par le passé, la principale mission de la FTI était d’allouer un terrain à une entreprise. De nos jours, la FTI porte les projets lorsque cela est nécessaire beaucoup plus loin.* » (FTI. Rapport de gestion 2013, p. 5). The FTI – no longer FIPA⁷ – thus became the foundation for Geneva’s industrial land, not just the PAV. It became the « *élément fédérateur* » between the *Département des travaux publics* (currently *Département du territoire* (DT)) – in charge of the management of the territory – and the *Département de l’économie publique* (currently *Département du développement économique* (DDE)) – responsible of the Canton’s economic policy (Zumkeller, 2010) –. A position that allows it to govern the conjunction between economy and space, to be the representative figure for the general promotion policies of industrial areas⁸ and the main mediator between public authorities and the private actors involved in them.

While it is in the second half of the 1990s that this change of role – although it would be better to speak in terms of broadening the previous role rather than its replacement – becomes decisive, its roots spread to the 1960s. Indeed, Dominique Zumkeller points out that the FTI quickly begins to perform other functions: « *Rapidement, la FIPA est perçue non comme ce pour quoi elle a été créée, l’offre avantageuse de terrains industriels, mais comme un instrument permettant de construire la ville en ville.* » (Zumkeller, 2010, p. 24). This urban planner kind of role arises from the need to manage a growing number of complications and requests that come from various local stakeholders: managing the relocation of a company

5 For the historian Dominique Zumkeller, the evolution of the FTI can be divided into three periods. A first phase that goes from its birth to the early Seventies where the land that the Foundation offers in the industrial area of Praille Acacias is rapidly occupied by a growing production sector – « *L’image triomphante de l’industrie et du chemin de fer trouve ici sa consécration.* » (Zumkeller, 2010, p. 80) –. A second period that begins with the 1973 oil crisis and the end of the *trente glorieuses* and concludes in the mid-Nineties when manufacturing slows down its expansion and the discourse on *mixité* is dominant – « *Le long débat sur la mixité des emplois en zones industrielles reflète bien les indécisions d’un monde en mutation.* » (Zumkeller, 2010, p. 81) –. And a final phase that has not been completed yet, starting from the Nineties where the Foundation tries to adapt to a radically changed industrial climate – « *Depuis 1993, la Fondation pour les terrains industriels de Genève est entrée dans une nouvelle ère.* » (Zumkeller, 2010, p. 81) –.

6 Source: <https://www.ftige.ch/histoire/>.

7 FIPA became FTI on 6th December 1996 under the impulse of Jean-Philippe Maître - at that time in charge of the *Département de l’économie del Conseil d’État* – (Zumkeller, 2010).

8 In fact, the *Office pour la promotion de l’industrie* (OPI) is an organ dedicated to the promotion of products only. The FTI centers on itself the major responsibility in terms of promotion, coordination, project management concerning the Geneva industry.

and transferring it to another industrial area, undertaking a real estate operation to offer new spaces to an enterprise, respecting the requests of the owners of the parcels within the PAV perimeters, etc.

Nevertheless, it is in the first decade of the 2000s that this evolution reaches an advanced state. Dominique Zumkeller expresses this radical change clearly:

Une promenade dans la ZIPA ne vous donne pas la même impression qu'une balade dans la ZIPLO. Une génération les sépare. L'image résolument moderne des dernières constructions élevées dans le périmètre géré par la FTI marque une étape capitale, voire un tournant. Les lieux mêmes de la production se sont ouverts à la complémentarité interne : fabrication, recherche et marketing souvent cohabitent dans un même immeuble résolument moderne, spacieux et lumineux. Sous l'impulsion de la FTI, l'architecture industrielle a aussi pris en compte un aménagement verdoyant et arborisé des nouveaux sites, répondant ainsi aux demandes nouvelles d'un développement durable et harmonieux. (Zumkeller, 2010, p. 81)

Two industrial areas managed by the FTI at different times show signs of a substantial transformation in space management. Zumkeller again states: « *Laboratoires de recherches, ateliers de production et unités de commercialisation forment un tout, la manufacture moderne est mieux intégrée. Respectueux de son environnement, le secteur secondaire s'ouvre à la cohabitation et à la mixité.* » (Zumkeller, 2010, p. 81)

At the base of this transformation in the ways of managing space there is a structural change in the institution. The objectives have changed: a desire to influence the transformation of the Geneva production “ecosystem” emerges, just like a growing concern about the environmental performativity of industrial areas and the interest in the quality of the spaces – « *De simple gestionnaire, elle devient plus que jamais un véritable soutien pour la richesse de l'industrie genevoise, assurant sa nécessaire transformation et sa pérennité. Il est important dès à présent de négocier ce virage dans les meilleures conditions afin de faire de notre ville réinventée un espace de vie de qualité pour les générations futures, tout en préservant sa diversité industrielle.* » (FTI, 2017, p. 4) –.

The actions have diversified: the Foundation does not only deal with infrastructure provision for the industrial land, but it is involved in planning, in real estate management and accompanies enterprises on different paths (relational, procedural, legal) – « *La FTI a diversifié son action au sein de l'écosystème économique genevois. Cette évolution comporte également un volet interne qui marque de son empreinte la manière dont les collaboratrices et collaborateurs de la Fondation vivent leur travail au quotidien.* » (FTI, 2018, p. 36) –. Its presence in planning becomes progressively more pervasive: « *Outre sa mission d'origine – qui consiste à favoriser l'établissement d'entreprises dans les ZI du canton – la FTI participe désormais à la coordination de l'aménagement et de la planification des diverses zones urbaines (notamment dans le cadre de la mutation urbaine induite par le projet “PAV”) et à la rationalisation de la gestion des espaces voués aux activités industrielles et artisanales.* » (FTI, 2016, p. 10) In 2015 with the *Convention d'objectifs entre le canton et la Fondation pour les terrains industriels* the Foundation becomes the main responsible for the production of PDZI⁹.

9 Art.5 of the *Convention d'objectifs* (2015)..

The receptivity to new dynamics has expanded – the previous director Yves Cretegny in fact claims « *Dans un contexte de profonde transformation de l'industrie – par l'arrivée rapide du digital dans les processus de conception et de production ainsi que la généralisation du e-commerce comme mode de distribution – le rapport au territoire des entreprises évolue : elles ont besoin de moins de place tout en se révélant plus efficaces et plus mobiles. Leurs espaces de travail doivent être adaptables pour absorber la reconfiguration fréquente de leurs outils. Il s'agit également d'offrir des environnements de travail qui facilitent le recrutement et la conservation des talents, voire leur stimulation.* » (FTI, 2018, p. 8) –.

New objectives, new actions, new receptiveness open up the FTI to experiment with new models of space management for production.

Indeed, the factor that accompanies these internal changes is the role of the urban operator in the industrial areas of Geneva. The FTI is not a private promoter¹⁰: instead, it is a public law and a decentralized institution that responds to objectives negotiated with the State¹¹. However, like a promoter, it unifies, manages and coordinates the various operational levels that a real estate operation goes through. Thus, it becomes a key player in the Geneva panorama that assumes the task of carrying out ambitious transformation projects on the industrial land that today occupies a large part of the central areas of the Canton¹². An operator that at the same time tries to satisfy new requests in terms of land management – linked to health, environment, landscape – and to create favorable conditions for welcoming companies with changed needs: « *Tout en le conservant, la FTI a dépassé son rôle initial de simple « facilitateur d'implantation » : en tant qu'« opérateur », nous appliquons le principe de « la bonne entreprise au bon endroit » qui donne du sens à l'insertion, dans la durée, d'une entreprise dans son écosystème. Dans ce contexte, l'écoParc est l'outil qui permet d'atteindre cet objectif compte tenu de l'exiguïté du territoire.* » (FTI, 2019, p. 6)

However, converging interests is a complicated business when it comes to industrial activities in a city like Geneva. Being an urban operator in this context pushes the Foundation to seek innovative solutions capable of softening in some way the presence of industrial areas inside a territorial background which pushes dichotomously either towards a “pure” rural side or a “hyper-urban” one. That is, to build “neighborhoods” and “ecosystems”: « *A ce titre, nous cherchons à être des fabricants de quartiers et d'écosystèmes. En effet, le modèle des ZI hérité des années 60 est dépassé : les entreprises doivent se sentir bien là où elles se développent, en termes d'environnement, de prestations et de synergies.* » (FTI, 2018, p. 8). Meticulously managed and controlled ecosystems. In fact, the FTI has put in place a monitoring tool that follows the changes over time of 112 indicators that can offer quantitative support to the evaluation of

10 Since the Eighties, there have been many occasions when the construction of entire parts of the city has been carried out by a single actor who concentrates in his work the different activities of conception, realization and financing usually entrusted to different actors (Fainstein, 2001) (Theurillat & Crevoisier, 2014) (Vicari, 2019). The emergence of the promoter or developer also embodies the transition from an authoritative relationship between the state and the private sector to a negotiated relationship, where non-economic (political) moments are brought back to an economic logic (Crosta, 1990, p. 199), and the urban project « *viene essenzialmente ridotto alla fornitura di condizioni pubbliche per l'iniziativa privata* » (Ibid., p. 199).

11 The 'Convention d'objectifs entre le canton et la Fondation pour les terrains industriels' approved by the Conseil d'Etat in November 2015.

12 About 720 hectares.

pre-established goals¹³. Along this line, the *écoParc* experiment is perhaps the most advanced expression of a search for spaces for the confluence of divergent worlds.

Even in the choice of its collaborators we can find clear evidence of this change in the operational guidelines of the Foundation. The Foundation Council has chosen Mr. Guillaume Massard as *Directeur général de la FTI* starting from October 1st, 2020¹⁴. Mr. Massard has a background at the EPFL in *Sciences et ingénierie de l'environnement* and a PhD at the Université de Lausanne in *Gestion durable des zones industrielles et de l'économie circulaire*. Not only that, Massard was co-founder and scientific director of the *Bureau de conseil Sofies SA*¹⁵, commissioner of the *Commission Globale de Gestion des Déchets* and member of the *Comité de cautionnement du Fonds de technologie*. As can be noticed from the profile of the new director, the Foundation is looking for figures who can support it in a process of redefinition of the meaning and functioning of industrial areas:

*Le Conseil de fondation se félicite de l'engagement de Monsieur Massard. Ses compétences en matière de co-construction de projets industriels d'envergure, lui permettront de créer les synergies inter-entreprises indispensables au développement durable d'un secteur d'activité en pleine mutation. Son expertise scientifique est un atout pour la mise en œuvre de la dynamique écoParc, consistant à dessiner des quartiers d'activités compétitifs et respectueux de l'environnement, intégrés au tissu urbain et agréables à vivre.*¹⁶

But it is not only the fact of becoming an urban operator that marks a change in its role. The FTI is increasingly present in the web of relations between enterprises and helps to implement them by making use of its strategic position: the Foundation is in fact the guardian of operational access to the industrial places and actors that animate the industrial areas of the Canton and holds a wide and varied portfolio of relationships containing manufacturing firms, construction companies, public institutions, associations, local planners, architects. A social capital that facilitates and qualifies the networking of actors who may also be distant from the point of view of their fields of action. This network allows the Foundation to carry out very articulated actions¹⁷ and to set up complex practices that are often rejected in other contexts. An example of these practices are the *ateliers écoParcs*¹⁸ which will be discussed later.

Administrative control of the space together with an important social capital allow the Foundation to lead processes that are usually managed by companies in an autonomous way. The entry of an enter-

13 From 2016 to 2018, the goals were the environmental, social and economic impact of the local enterprises (FTI, 2018, p. 23); the integration of the industrial area with its neighboring environment; the mix of activities and their interactions; the service relationships between companies and between the industrial area and the municipalities (FTI, 2019, p. 16)

14 See: <https://www.ftige.ch/communique-officiel-guillaume-massard-nomme-directeur-general-de-la-fti/>

15 Sofies SA is an « international sustainability project management and consulting firm ». See: <https://sofies-group.com/en/>

16 In: <https://www.ftige.ch/communique-officiel-guillaume-massard-nomme-directeur-general-de-la-fti/>

17 « *En provoquant des synergies entre acteurs publics, développeurs immobiliers et entreprises, elle est au cœur de la mutation des activités industrielles à Genève.* » (FTI, 2018, p. 2)

18 « *En pilotant la transition des ZI genevoises en écoParcs industriels, elle vise à concilier l'activité économique avec son environnement par une optimisation des infrastructures et des ressources, en proposant un cadre de vie de qualité.* » (FTI, 2018, p. 2)

prise to one of the industrial areas managed by the FTI is a mediated entry from the beginning: in the choice of the cadastral parcel, in the restrictions and suggestions regarding the typological, material and technological characteristics of the industrial property, in the conditioning of the production processes, in the coordination of events that associate it with other companies, in the continuous surveillance that measures trends, processes, exchanges – as well as in the placing of meta-goals with respect to which a progressive alignment seems to be increasingly in demand –. The foundation is simultaneously guaranteeing what is good for the individual company and what is good for everyone and is therefore committed to eliminating the contradictions between these two cores of expectations. The overall behaviour of the enterprises grouped in an industrial area and that of the single enterprise entity becomes part of a plan that concerns an overall improvement of these places.

1.2. The FTI and its networks

How does the foundation build its networks *with* and *between* the actors? The FTI creates its networks substantially on two levels: a level that can be called (schematically) collaborative – where the FTI relates to the other actors as equals – and another level that can be considered hierarchical – where the FTI assumes a directing position compared to the other –.

On the collaborative level all those links that the Foundation tries to create with other local and extra-local entities of similar operational orientation can be found. The purpose of creating these networks is both technical and consensus oriented. They are networks that try to refine the management tools of a specific type of activity – in this case a particularly complex one –. The transformations that industrial activities are currently going through are in fact difficult to manage and the exchange of management tools and consultancy services between interested parties becomes a fundamental strategy. On the collaborative level, international networks are built to respond more to abstract type of needs, and this is aimed at the exchange of cognitive tools – “vicarious learning” (Barrile, Calabrese, Iandolo, & Giudice, 2013) (Di Mascio & Natalini, 2018) – and legitimizing tools – these networks gravitate around objectives-themes such as sustainability, circular economy, industrial ecology, etc. –. For example, among the networks to which the FTI adheres it can be mentioned PALME Romandie, Sofies SA, Ecoparc Association, which involve public and private institutions mainly rooted in French-speaking contexts – eg. the Pays de la Loire, Aquitaine, Québec, Wallonia –.

There are also local collaborative networks which tend to be rather operational alliances between public institutions and the representatives of the major Geneva companies and are oriented towards the promotion of industrial activities (both towards the international scene as brands and as a “creative climate” and towards their own territory, especially to stimulate interest among young citizens), to update organizational models, to improve the conditions of the built environment, etc. These networks are mainly built through events – Meyrin Economic Forum, *Actes’Industries 2017*, *13e Journée des entreprises de Plan-les-Ouates*, *Ateliers Genie.ch*, *Les pieds dans le PAV*, etc. (FTI, 2017, p. 16-17) – and informative platforms – #LeMondeDeDemain –. Other local networks, also operational, are built around a specific

intervention or assignment: eg. the foundation's links with FUSION Incubator PropTech respond to the goal of promoting the development of start-ups specialized in technologies related to “*villes intelligentes*” (FTI, 2019, p. 21-22).

On the hierarchical level instead, the Foundation occupies a different position than the networks it helps create. The relationships that are created on this level are coordinated and supported by an actor (the FTI) who tries to use these same relationships to achieve public objectives – from the State or the Foundation itself –, and are mainly composed of private actors (enterprises) who enjoy some advantages offered by associating in a network. On this level, the FTI implements specific tools for the construction of local enterprises networks – with respect to which it always remains a conductor – that allow the sharing of projects, economic resources. The tools are various and change very quickly over time: this is attributable to the sustained attention of the foundation and the Canton's public policies to the creation of networks between local actors and the consequent allocation of substantial resources for the promotion and experimentation of new methods of aggregation. The most relevant tool through which hierarchical networks are built is that of the *ateliers écoParcs*.

On these two levels different types of actors are associated. On the collaborative level, actors approached by casual and intentional encounters given by geographical and organizational proximity, by adherence to similar interests and knowledge, and by similar professional paths, gather. For these actors, proximity counts, which can be for the type of activity or geographical. Proximity favours unexpected or recurring microsocial interactions. On the hierarchical level, on the other hand, the actors are approximated in formalized and mediated conditions. These actors, often manufacturing or service enterprises, can nevertheless create relationships that exceed the objectives of the occasions orchestrated by the FTI. In other words, there are relationships that are not foreseen but favoured by gathering themselves on the occasion of a participatory atelier or workshop. They are companies that share canteen services, car parks, nursery schools, waste treatment, etc., or divide up segments of the production processes themselves. The distinctive feature is the birth of their relationship within a device, a sort of vivarium designed to initiate the first meeting, to “melt the ice”, between actors who want to aggregate in an organized social practice.

Although this picture is certainly schematic and incomplete and does not exhaust the variety of types of actors with which the Foundation establishes more or less lasting relationships, it can nevertheless offer an idea of the different types of ties in which the FTI takes part.

Chapter 2

The écoParc instrument

One of the Foundation's most recent and ambitious policies is the development of an instrument that is difficult to define: the **écoParcs industriels**¹⁹. It is ambitious as this tool should guide the transition of the industrial areas of Geneva towards a new type of entity more suited to new times and new demands. It is poorly outlined as the definition of what an *écoParc* is does not precede its implementation, nor does it seem to constitute a following objective. This intrinsic semantic openness forces us to start from its operative characters in order to be able to gradually circumscribe it.

First of all, what is *not* an écoParc? The écoParc is not a defined project but a way of managing the relationships and material conditions of industrial areas. Yves Cretegnny stated in fact: « *Ce n'est pas un projet appelé à se terminer un jour mais une philosophie de gestion qui oriente chacune de nos décisions en tant qu'aménageur, implantateur d'entreprises ou propriétaire d'immeubles ou de terrains. En tant qu'opérateur urbain, nous contribuons à la qualité de vie des collaborateurs de quelque 4'400 entreprises industrielles et artisanales.* » (FTI, 2018, p. 8). The same director later reiterated the desired conceptual openness of the écoParc tool: « *Ce n'est plus un concept mais notre philosophie de travail au quotidien ! Elle implique une dimension participative poussée et la réconciliation permanente des enjeux du développement durable.* » (FTI, 2019, p. 6). Functional needs do not immediately translate into a defined object, an exhaustive plan, an all-encompassing design vision; needs and goals are not *a priori* linked to the material means used to satisfy them.

This choice of the Foundation not to nail the écoParc concept to a specific spatial principle or a specific form could be traced back to the difficulty of the task. When nomological knowledge is besieged by such rapid and profound transformations as those that overwhelm activities and places of production today, that is, when the « *regolarità delle connessioni causali tra fini sociali e mezzi spaziali* » (Crosta, 1990, p. 86) collapses, the physical form defined upstream of the transformation process is no longer a guarantee of effectiveness with respect to the achievement of the desired effects.

This does not mean that urban plans for these areas are considered useless, only that the écoParc formula is not limited to these plans. First of all, there are no "écoParc-plans". Plans are convenient as a legitimization, negotiation and marketing facilitating tool. Plans above all aim to delineate and offer a background to the transformation process, but the écoParc formula remains independent from these. The écoParc

19 The denominations "ecozones", "éco-sites industriels" and after, starting from 2013, "écoParcs" (FTI, 2014, p. 14), is the result of a work conducted by the FTI that sees in the renaming act a useful mean to accentuate and guide the transformation of the industrial zones. Renaming guides, of course, but here the horizon, the point of arrival, does not seem so clear as the idea from which they want to get away. The prefix "eco" and the particle "parc" perform a re-signification function by contrast: they refer to meanings as distant as possible from the images commonly associated with industrial sites such as "ecology", "ecosystem", "parks". It is the great semiotic distance between one group of meanings to the other that counts, while the specific terms tend to vary.

Box 2: What is an écoParc?

1

A tool that guides and supports the transformation of industrial processes

Le secteur secondaire change. La manufacture des produits est soutenue par des opérations administratives et de marketing de plus en plus importantes et le nombre des sociétés actives dans les nouvelles technologies – cleantech, biotech et medtech – ne cesse de s'accroître. Cette transformation conduit à la modification du paysage des espaces industriels et pousse à plus d'harmonisation entre les infrastructures et les aspects environnementaux pour rendre ces pôles économiques attractifs et conviviaux. (Fondation pour les terrains industriels de Genève, 2011, p. 28)

Désormais, la pérennité et la prospérité des activités industrielles repose aussi sur la capacité des acteurs du secondaire à intégrer les contraintes écologiques. L'heure n'est plus à l'émission de substances ou de déchets polluants, mais à la valorisation des déchets, sous produits et co-produits afin de diminuer la consommation de ressources naturelles et de laisser aux générations futures des terrains non pollués. ... réalisation d'éco-sites industriels et l'a fait figurer dans sa stratégie approuvée en 2010 par son Conseil de direction. (Fondation pour les terrains industriels de Genève, 2011, p. 30)

Les écoParcs industriels ont ainsi pour objectif de concilier entreprises, efficacité économique, qualité environnementale et bien-être des usagers dans un même espace de production. Cette nouvelle approche en matière de gestion raisonnée de l'espace industriel permet de soutenir un développement économique respectueux de l'environnement et source de progrès social. (Fondation pour les terrains industriels de Genève, 2014, p. 4)

Pierre angulaire de éco-Parc industriel, l'écologie industrielle permet de mettre en évidence des synergies potentielles entre les entreprises et de développer des services communs. Valorisation des déchets, mutualisations des besoins, optimisation de la performance, autant d'éléments qui incitent les entreprises à travailler ensemble pour une dynamique durable et pour un territoire offrant un réel potentiel d'innovation. (Fondation pour les terrains industriels de Genève, 2016, p. 14)

2

A tool for building collaborative networks

Il est à noter qu'un écoParc industriel est une zone industrielle et artisanale conçue de manière participative et gérée de manière active notamment par l'association des entreprises en présence qui interagit positivement avec la collectivité et le territoire. Ses principes d'aménagement, sa gouvernance de proximité et ses usages concourent à soutenir la performance économique, environnementale et sociale tant des entreprises que de la communauté d'accueil. (Fondation pour les terrains industriels de Genève, 2013, p. 6)

Rendre les ZI plus innovantes implique notamment de créer les meilleures conditions possibles de coopération, de réinventer les espaces, d'encourager la collaboration entre les entreprises, de créer des synergies avec les usagers et, enfin, de changer les modes de gouvernance. Ce dernier point doit désormais être une affaire collective regroupant l'ensemble des acteurs du développement économique : entreprises, canton, usagers et communes. Redessiner les contours des ZI passe donc par un processus participatif qui mobilise tous les acteurs. (Fondation pour les terrains industriels de Genève, 2015, p. 14)

En dépassant l'approche foncière et l'aménagement, la FTI devient ainsi le fer de lance pour animer et détecter les opportunités de collaboration tout en menant une politique artisanale et industrielle dite « positive » sur le développement durable du canton de Genève. (Fondation pour les terrains industriels de Genève, 2015, p. 14)

3

A territorial marketing tool

Pour l'Etat, c'est un outil territorial qui permet de mettre en œuvre de manière efficace et harmonieuse les objectifs de durabilité et de développement économique. C'est aussi à terme un outil de marketing territorial au service de l'attractivité de la région. (Fondation pour les terrains industriels de Genève, 2014, p. 5)

Pour répondre à un député (UDC) qui souhaitait mieux comprendre la notion d'écoparc, M. Cretegnny précise que le terme d'écoparc est avant tout un outil de marketing. Il explique que, pour installer un restaurant ou un hôtel dans une ZI, il faut passer par un régime dérogatoire, notamment dans le but d'éviter des déplacements supplémentaires et favoriser l'espace sur la route pour les livraisons. (Procès-verbal, Secrétariat du Grand Conseil. PL 11631-A (29 mai 2015))

L'écoParc répond aussi à la transformation des métiers industriels, qui amène de nouveaux besoins, et aux attentes actuelles des usagers des zones industrielles, qui entendent trouver à proximité de leur lieu de travail des espaces de vie et des services comme des restaurants ou des fitness. Il était difficile de répondre à ces attentes auparavant, ne serait-ce qu'en regard du cadre légal. Pour accompagner cette transformation complexe, le fait que la FTI se soit vu attribuer l'aménagement des voiries devrait assurer une meilleure coordination avec les utilisateurs et une plus grande efficacité dans la réalisation d'infrastructures en partenariat avec les communes. (Fondation pour les terrains industriels de Genève, 2019, p. 6)

tool is another thing (see Box 2): it is the process itself, incremental, guided but open to redirections, it is what facilitates and guides exchanges between actors by replacing, removing and adding predetermined purposes and ends with being adopted in the exchange. The concrete and definitive spatial character is the final outcome of a process.

So, summarizing, with this term the FTI wants to indicate at the same time a new nature of the industrial areas, their progressive transformation in something else – which however remains substantially unknown –, and a new administrative and governance model. As a new kind of industrial area the écoParcs should answer difficult issues related, on one hand, to the transformation of the production tools and processes, and on the other, to new demands addressed to the built environment. The new industrial areas should be sustainable, more connected with their surroundings, with a less one-dimensional and more varied internal life. As a governance model the écoParcs objective is to involve the actors in the management of their perimeters, in the words of former FTI General Manager Yves Cretegny: « *Si les entreprises se sont parfois fédérées autour d'un périmètre ou d'une problématique, elles n'ont pas toujours fait le pas de se réunir en association. La démarche écoParc est là pour y pallier et impliquer les acteurs – tous les acteurs – dans la gestion de leur périmètre. Pour les entreprises, il est question de trouver une solution à leur développement au travers de projets concrets.* » (FTI, 2019, p. 6). An implication driven by the FTI's "facilitateur" action that builds relationships of proximity through events or workshops: « *Les entreprises partagent par ailleurs le même espace et le même environnement. Nous pouvons donc les encourager à développer ensemble des solutions communes.* » (FTI, 2018, p. 9).

2.1. The écoParc as participatory workshops

On the official website of the Foundation are the objectives of the écoParc formula are presented²⁰. The écoParc is a device for « *favoriser la collaboration interentreprises* »²¹, a mechanism that would encourage companies to work together, to share services and infrastructures. To improve them: « *Elle veut permettre aux entreprises de créer des opportunités d'économies, tout en augmentant leur efficacité ou leur efficience.* »²² This facilitator role is declined in a series of tools that try to concretize and institutionalize those exchanges and relationships that usually occur in a spontaneous way. The *Commissions écoParc industriel*²³, the atelier, the workshops are the tools through which the écoParc formula materializes itself in actual operative events.

The atelier is the device implemented by a participatory management or, as described by the foundation

20 See: <https://www.ftige.ch/ecoparcs/>.

21 Ibid.

22 Ibid.

23 « *Chaque écoParc industriel dispose de sa propre Commission écoParc industriel. Cette nouvelle structure regroupe représentants des entreprises, des communes, de l'État et de la FTI. Ses membres sont nommés – sur présentation – par le Conseil d'État. Les associations d'entreprises y soutiennent les intérêts des usagers de la zone en envoyant deux délégué(e)s pour chaque commission.* » (Ibid.).

itself, by a “*gouvernance de proximité*” (FTI, 2017, p. 5). Its functioning seems to replicate the typical mechanisms of the neighborhood council²⁴ (see box 3): bringing together the actors, offering a platform for discussion, transmitting propositions or themes, capturing concerns or conflicts, agreeing on solutions and facilitating the implementation of shared projects.

There are moments of discussion between the representatives of the enterprises of the specific industrial areas and of the institutions concerned, and these are almost always coordinated by the FTI itself. However, on some occasions the FTI has delegated its directing function to other entities. This is the case, for example, of the 2017 écoParc ZDAM Meyrin-Satigny Workshop (example Atelier A, box 3) coordinated by the urbz studio of Rahul Srivastava and Matias Echanove, a group of architects, designers, urban planners, anthropologists, economists and policy makers specialized in participatory planning, in the direct involvement of inhabitants and stakeholders, in the “self-organizational” approach to urban design: « *We believe that residents are experts of their neighborhoods. Their everyday experiences constitute an essential knowledge for architecture, planning, urban development and policy-making. We are committed to information sharing and public participation. Bringing together local and global knowledge, we produce innovative models in architecture, planning and policy making.* » (<http://www.urbz.net/>). Urbz and its “user-generated approach” therefore tackled the recurring themes of industrial ecology, mobility, sharing of services and infrastructures, as well as the more complex ones of the identity of an industrial area such as Zimeysa, of what characterizes an écoParc and what it could become.

In most cases, however, it is the foundation itself that coordinates the participatory workshops. It is in the discussion and exchange triggered by the ateliers that the Foundation deposits the hope of an improvement in the industrial areas. An improvement that depends on the Foundation’s ability to bring together the different players who inhabit the industrial area:

On le sait, développer l’attractivité des ZI passe inmanquablement par la case innovation. Il faut, dès lors, repenser leurs modèles et créer des synergies entre les acteurs tout en changeant les modes de gouvernance. Mobilité, optimisation des infrastructures et équipements, mise en commun de ressources et collaborations inter-entreprises sont au coeur de la transition des ZI en écoParcs industriels. [...] Pour la FTI, la mise en lien des acteurs revêt toute son importance. C’est pourquoi elle a réalisé, durant toute l’année 2015, toute une série d’ateliers participatifs permettant de fédérer les acteurs industriels des futurs écoParcs. (FTI, 2016, p. 17)

The assumption is that what is missing between an unwanted state of affairs and an improvement is not resources or ideas but conversations, contacts, encounters. These factors then become knowledge, networks, exchanges, collaborations, projects, actions.

The objectives, with respect to which the sense of improvement is measured, have a varied base. The representatives of enterprises and public institutions meet to achieve for example the objective of reconciliation between industrial processes and environmental sustainability – “*symbiose territoriale et énergétique*”, “*bâti faible impact*”, “*éco-mobilité*”, “*valorisation des rejets de chaleur*”, etc. (FTI, 2013,

24 Or those of participatory artistic practices (often called public, participatory, relational art).

p. 7) –. The FTI also hopes for a significant enhancement in the innovation of productive processes and enterprises' organization. But the collaboration is in itself an objective – namely the “*gouvernance active*”, “*interrelations*”, “*mutualisation des services, des ressources, des infrastructures*” (Ibid., p. 7) –. The écoParc mission is therefore a mixture of means and ends: collaboration appears both as a tool through which the goal “sustainability”²⁵ can be achieved, and as a purpose, containing itself a substantial improvement for industrial areas.

The atelier is the device that facilitates and guides a joint action, which aggregates individual actions into collective action. The écoParc, as a management model, is expressed in these meetings organized to create situations of solidarity, exchanges, agreements, between actors who have in common, first of all, a geographical proximity facilitated by the clear and rigid boundaries of the industrial areas of Geneva.

How does this device affect the transformation of industrial areas?

The impact that the ateliers have on the transformation of space is difficult to grasp: « At the moment, after three years of implementation of the écoParc concept in those areas, we are not able to see important differences. It took two years to create the écoParc concept and then we started with group discussions, commissions, etc. The real effect of this intervention is not so visible yet. The mind of people has to change, and that takes time. Between the time when people say “ok let's have a space for collaboration” and the time when you can feel the change, through buildings and realisations, it takes a while. Even if some of our projects are well implemented is not easy to see their effects. To be honest. »²⁶ Here, however, we try to indicate some aspects that can be considered influential on processes that have spatial repercussions.

Instead of being present only in the design and construction phases of an industrial area, the FTI's way of managing chooses a continuity of its presence within the daily processes that take place in these places. An upstream presence: in its implications in the transformation actions of industrial areas and in the coordination of the location of enterprises – « *la bonne entreprise au bon endroit* » (FTI, 2019, p. 36) –, but also a downstream one: in the monitoring of industrial areas, in the insistence on profound changes in production processes – « *Cette nouvelle approche, qui prend tout son sens sur le territoire genevois, a pour objectif de concilier – selon des critères de développement durable – l'activité économique avec l'environnement et la qualité de vie.* » (FTI, 2015, p. 14) –; but above all, precisely by creating moments of dialogue with enterprises.

This presence of the FTI that penetrates the minutiae of the quotidian of the enterprises' life allows, at the same time, to identify problems and needs that would otherwise remain invisible and to inject into

25 And not only. The collaboration and sharing of services is also motivated by the strong presence of SMEs which do not have the critical size to implement themselves concerted actions of economies of scale (FTI, 2014, p. 15).

26 Interview A: Marc Sneider - *chef de projet écoParc industriel* in the FTI.

Box 3: Examples of participatory workshops

Example atelier A

Workshop écoParc ZDAM

Meyrin-Satigny, 9.11.17

Participants: 40 business representatives

Coordinates: urbz office

The workshop first collects problems and needs around 4 main themes:

1. Identity of the écoParc:

- a. need for coherence between sustainable activities and infrastructures (energy, mobility, mixité of activities)
- b. harmony with nature
- c. quality of life and well-being of workers (soft mobility of "world class" quality, pleasant workplaces, common areas, meeting spaces)
- d. communication (signage, visibility of ecological efforts, etc.)
- e. synergies (inter-company spaces, business ecosystem and interdependence, working together to reduce problems, added value)

2. Quality of life in the écoParc:

- a. key infrastructures not taken seriously (poor soft mobility, no parking spaces for trucks, train station in poor condition, etc.)
- b. non-optimized spaces (parking as lost spaces)
- c. need for living spaces for all (diversity of activities, meeting places, affordable prices and local commerce)
- d. protection and increase of green areas (vegetation is what constitutes the charm of Meyrin, the need for "mini oases")

3. Mobility:

- a. traffic and congestion on the Route de Meyrin and Nant-d'Avril
- b. lack of signage
- c. narrow streets and too many parking spaces
4. Mutualization of services:
 - a. user mobility and connection to the airport
 - b. meals
 - c. logistic mobility
 - d. waste

In its next phase, the opportunities for mutualisation are identified and inter-enterprise prototype projects are carried out. Examples of prototypes:

1. Maison de l'énergie (information platform on enterprises energy needs)
2. Inventaire des déchets Smart Junk (waste inventory by category / volume / enterprise)
3. Plateforme d'informAction (open-source application to map insecurity situations in real time)
4. Téléphérique (soft mobility infrastructures in 3D (in height))
5. ParcZDAM (for the sharing of existing car parks)

Example atelier B

Atelier écoParc spécial mobilité ZIPLO

21.05.2019

Participants: 26 enterprises representatives and 11 representatives of territorial authorities and associated parties (AZIPLO, Commune, Canton de Genève, Centrale Mobilité, TPG)

Coordinates: FTI

The meeting begins with an inquiry built on a general question: What are the difficulties encountered by the users in terms of mobility? And other more specific questions about more general issues.

6 main issues emerge in the discussion:

1. obstacles to soft mobility
2. differences in carpooling practices between France and the Helvetic Community
3. gaps in the public transport offer
4. parking prices
5. last minute connections and Leman Express
6. problems with the bus system

Proposed measures and solutions:

1. On the infrastructural level:

- a. develop soft mobility infrastructures across borders
- b. create a reserve of self-service bicycles
- c. create electric charging stations in new buildings
- d. increase the offer of public transport and the capacity of line D
- e. review the circulation pattern in the area

2. About services:

- a. have mobility management tools available
- b. develop internal solutions for buses
- c. develop associations with small businesses
- d. have more services: restaurants, nurseries, post offices, etc.

3. About communications:

- a. change habits, perceptions
- b. get rid of "a priori" conceptions
- c. better communicate existing tools and alternatives
- d. improve relay communication in enterprises

4. On the organizational level:

- a. offer subsidies for public transport
- b. have attractive rates for the Leman express
- c. discount the working time on the train
- d. encourage teleworking whenever possible
- e. create a toll "zone industrielle"

company micro-processes interests that are alien to the concerns of private actors. Problems that may involve the use of space: a different articulation of consumption, new needs of workers, new requests for buildings image, accessibility problems, etc. Rapidly changing companies also change their ways of being in space and it is this change that the Foundation intercepts with the écoParc tool: « *Vous l'aurez compris, la FTI est en mouvement dans le but de répondre, devancer et anticiper les besoins des industriels de demain. La réalisation de projets concrets centrés sur les besoins de nos clients privés et publics reste le fer de lance de notre Fondation.* » (FTI, 2015, p. 5); « *A l'écoute des usagers, leur raison d'être est de faire remonter les demandes plus efficacement pour apporter des solutions concrètes.* » (FTI, 2018, p. 22).

However, the ateliers are not just useful for taking notes. During the meetings the actions and means necessary to initiate an improvement intervention are also identified. The sharing of resources and infrastructures, the joint creation of services, are also important processes in the transformation that today occurs in the industrial areas managed by the FTI. Not only, in the ateliers solutions that respond to the Foundation's objectives are introduced.

One example through which it is possible to illustrate the way in which the écoParc management model affects the space is the ZIMEYSAPARK project. Here, in this single project, both the moment of listening – the enterprises have repeatedly expressed the need of additional parking spaces – and the introduction of the wishes of the Foundation – the land must be exploited to the maximum with densification interventions and the circulation of cars – are present. In fact, the outcome is « *un parking centralisé pour optimiser les surfaces de production* »²⁷. The private company GDF Immobilier SA builds a three floors parking building in a land owned by the FTI²⁸ for the common use of all neighbouring enterprises that accept the established conditions: enterprises must densify their production tools (*outil de production*) and occupy their land in a more rational way, giving up their parking spaces, to obtain spaces in the centralized parking²⁹; not only that, companies must assume a management of the mobility of their employees that considers the different types of mobility in the same way, leaving ample room for the use of public transport and soft mobility. « *Cette opération répond aux principes vertueux de mutualisation des infrastructures, d'optimisation de la ressource foncière et de synergies inter-entreprises, conformément à la philosophie des écoParcs industriels.* »³⁰ The offer of a service also becomes the achievement of a purpose foreign to the interests of companies.

2.2. The écoParcs as new industrial areas

But what idea of an industrial area does the FTI promote? This question is also very difficult to answer because, as has been said, the écoParc formula is intrinsically open. It is more related to processes and

27 See: <https://www.ftige.ch/zimeysapark-un-parking-centralise-pour-optimiser-les-surfaces-de-production/>

28 A 7,000 m² surface transferred to GDF Immobilier through a *droit de superficie* contract.

29 Areas of industrial land vacated in exchange for parking spaces in ZIMEYSAPARK (Ibid.).

30 Ibid.

marketing rather than to places. The Foundation is aware of this peculiarity:

Cinq ans plus tard, il apparait que le terme « écoParc » a acquis plusieurs significations. Désormais, il peut être indifféremment associé à un projet (projet écoParc de mutualisation de la surveillance), un territoire (l'écoParc du Bois-de-Bay) ou une commission (la Commission écoParc de la ZIRIAN).

Ces notions sont des produits de la mise en œuvre du concept d'écoParc industriel. Mais elles ne sont pas « l'écoParc ». Aussi, une redéfinition s'avère nécessaire afin de replacer au centre des débats la notion de philosophie écoParc développée par la FTI, soit une déclinaison propre des principes du développement durable appliquée au secteur de l'industrie et de l'artisanat.

Ce besoin de redéfinition n'a rien d'anodin. En effet, le nombre d'écoParcs genevois est appelé à croître, impliquant de nouveaux principes de gouvernance et de fonctionnement. Leur réussite ne pourra être acquise que si les fondamentaux sont clairement énoncés et intégrés par les acteurs en présence. (FTI, 2020, p. 20)

Despite this, here we carefully inspect the communication field to try to outline, briefly, an underlying idea of what should look like an écoParc-industrial area. The sources used are mainly the official reports of the FTI itself, so the framework we are trying to reconstruct here must be measured based on the nature of this type of document. A document that aims to convince – of the efficiency of the actions carried out, of the rightness of the choices, etc. –, and which with respect to the écoParc policy expresses mostly aspirational considerations. Other important sources are the interviews to FTI members.

On January 22nd, 2015, the FTI launched a forum entitled *La Fabrique Ecoparcs* with the aim of « *faire connaître et sensibiliser les entreprises aux potentiels de ces nouveaux espaces que sont les écoParcs industriels* » (FTI, 2018, p. 16). The various guests were asked to answer the question “*comment construire les espaces industriels du futur?*” offering their specific points of view rooted in their experiences in the logistic, social and economic fields: how to optimize the use of resources, how to organize different activities on space, how to create cohesion, a sociality, a community between actors, how to ensure that everyone achieves economies of scale (Ibid.)? All the interventions followed a criterion considered fundamental: « *repenser notre vision souvent trop figée de l'espace industriel* » (Ibid., p. 16). In this forum, the importance awarded by the foundation and by public policies in general to the development of industry and its spaces clearly emerges.

The FTI takes on the task of breaking this rigid idea of industrial space and thinking of a new type of space more suited to new problems³¹. A new type of space which, however, does not have the Foundation as its exclusive source, but emanates from a multiplicity of actors involved in the écoParc: « The actual collective consciousness is not fully ready to talk about vision and intentions. People are afraid of those

31 « Almost all enterprises have their intentions focused on how to survive. The attention and concern of small companies is about how to pay the salary of its employees, how to have enough clients, how to increase production, so these factors are really fundamental. A vision of what could be the activities of the second sector is not in the space. This is a subject for the State of Geneva, the FTI and some professional associations, which dedicate more attention to this topic. » (Interview A: Marc Sneider - *chef de projet écoParc industriel* in the FTI)

ideas. We are still doing that but it is not so obvious. We co-create a vision with all partners. »³². The écoParc precisely embodies this effort to co-construct a new vision of industrial space.

What characteristics should an écoParc have according to the FTI? First of all, it should be a different space from traditional industrial areas clearly separated from the rest of the city: « The belief system was that industries create disturbance and we must place them away from the city. The distance was not defined, it could be 1km or 10km. “Away” was more like an idea. »³³ A space that, losing a clear distinction from the rest of the city, gradually becomes closer to an idea of a “neighbourhood”³⁴: « *Les zones industrielles ne sont plus ce qu’elles étaient... Auparavant situées en périphérie, elles sont désormais englobées dans les périmètres urbains. De même, les activités qu’elles accueillent ne sont plus exclusivement réservées au secteur secondaire. Une mutation qui nécessite de repenser leur dénomination.* » (FTI, 2019, p. 15) A more densely built space : « Sous l’effet de la densification, les ZI côtoient désormais des quartiers d’habitation. » (FTI, 2019, p. 15) A space no longer frequented exclusively by workers and goods: « *De même, il est question de périmètres qui ne sont plus uniquement fréquentés par les personnes y travaillant.* » (Ibid., p. 15)

A first trait is therefore a proximity to the idea of neighborhood. The écoParc should be a neighborhood where industrial activities, services and public spaces intertwine, giving rise to a space seen as more lively and varied³⁵. This variety poses the problem of a new denomination: « *Leurs utilisateurs s’attendent désormais à y trouver une palette de services – restaurant, crèches, etc. – ainsi que des espaces de convivialité. Une question se pose : faut-il encore appeler ces zones « industrielles » ? En effet, cette désignation n’est plus en adéquation avec les mutations présentes et futures de ces périmètres.* » (Ibid., p. 15) In fact, the FTI has made a proposal³⁶ to change the way these places are called. A new nomenclature « *reflétant davantage la réalité du terrain* » (Ibid., p. 15). The écoParc would therefore become, with this renaming or re-branding, a “*quartier industriel ou économique*”: « *Les zones industrielles d’hier deviennent donc les quartiers de demain – tout en restant dédiés aux entreprises. L’appellation Quartiers industriels ou économiques évoque de manière pragmatique ces nouvelles dimensions.* » (Ibid., p. 15)

This idea of “industrial or economic neighborhood” should definitively get rid of the one-dimensional and separate vision of “industrial zone”: « *Pour certains, les zones industrielles constituent des « ghettos ».* Il manque des tea-rooms, des cafés, des restaurants, des brasseries, des guichets bancaires, des offices postaux, etc, mais aussi des boulangeries, des épiceries, des blanchisseries, des coiffeurs, des garderies d’enfants. Des demandes légitimes, et qui n’ont rien d’extravagant. » (Zumkeller, 2010, p. 53). Dominique Zumkeller recalls in his book on the FTI that the position of public policy in the 1980s was exactly the opposite. In fact, in 1986 the possibility of opening a café-restaurant in the PAV (at the time there was only one in Zimeysa) was considered intolerable « *afin de ne pas attirer en ce lieu une multitude de clients non utilisateurs de l’immeuble.* » (Ibid., p. 52) This position begins to change in the

32 Ibid.

33 Interview A: Marc Sneiders.

34 This is a point of convergence with some of the urban plans treated in the second part of the thesis.

35 « *Même excentrée, une ZI est un lieu de vie dont les usages sont multiples.* » (FTI, 2020, p. 6)

36 The proposal was approved by the Foundation Council and will be the subject of a consultation between various public bodies from the municipalities, the Canton and the Swiss Confederation (FTI, 2019, p. 15).

early 1990s³⁷.

The écoParc must also be a reconciliatory place. A place where opposite worlds collide without harming each other. Where economic activities, sustainable development processes, natural and social environments intertwine and enrich each other: « *Il vise à concilier, sur les critères du développement durable, l'activité économique avec son environnement. Il met en avant la qualité de vie au sein des zones industrielles et artisanales. écoParc industriel permet de répondre aux défis posés par l'exiguïté du territoire cantonal, en redéfinissant et optimisant les espaces de production à Genève.* »³⁸

The écoParc should be the materialization, the most successful and articulated manifestation of the principles of industrial ecology. The new spaces of a production that reconciles all that is harmful in manufacturing with the natural environment. A production that recycles, reduces its energy impact, and reuses the waste from other processes: « *Un autre objectif concerne l'économie industrielle (faire des déchets des uns la matière première des autres ; cf. art. 116 Cst/GE sur le développement durable). Les écoParcs sont les zones industrielles du futur* »³⁹. A kind of sustainable machine.

A third trait is that of a more radical rationalization of the soil. The écoParc is considered a place where enterprises occupy very little space, and where every square meter is exploited to the maximum. The écoParc will have to move further and further away from that type of production and commercial plaques with large base/low height buildings and equipped with parking areas that double those of the buildings, and get closer to spaces like Plan-les-Ouates where most industrial buildings reach five floors in height and where parking lots are mostly underground. The écoParc is a compact space: « *L'écoParc industriel est un concept d'aménagement et de gouvernance incitant à une meilleure utilisation du sol et des surfaces par une optimisation des infrastructures, des équipements et des ressources.* »⁴⁰

And finally, an écoParc is seen as the space of the enterprises of the future. In 2018 the Sofies and OPEO companies⁴¹ and the FTI⁴² launched a pilot program on five enterprises currently located in the PAV but ordered to move elsewhere. The aim of this program is to help the enterprises design their future production space. What new needs, what production processes, what flows, what technologies, what territorial impact, and finally, what spaces? These questions and others are the basis of a radical rethinking of the enterprise's production activity. « *Elle se construit sur le terrain, au contact des acteurs, en fonction de différents modules qui couvrent par exemple l'évolution des flux, la digitalisation, les facteurs humains, l'impact environnemental ou le déménagement justement. Pour apporter des réponses, nous engageons*

37 In 1992 the *Département de l'économie publique* « a examiné de nouvelles mesures propres à rendre les zones industrielles genevoises d'une part, mieux adaptées à l'évolution économique, et d'autre part socialement plus proches des besoins de leurs utilisateurs. » (Zumkeller, 2010, p. 53)

38 <https://www.ftige.ch/ecoparcs/>.

39 Conseiller d'Etat Antonio Hodgers in : Rapport de la Commission de l'économie chargée d'étudier le projet de loi du Conseil d'Etat modifiant la loi sur la Fondation pour les terrains industriels de Genève (FTI) (PA 327.00), PL 11796-A, Secrétariat du Grand Conseil, Filing date: March 21, 2017.

40 <https://www.ftige.ch/ecoparcs/>.

41 They have conducted a similar study on more than 400 enterprises (FTI, 2019, p. 14)

42 Which took over 60% of the costs of the program (FTI, 2019, p. 14).

des experts dotés de compétences métiers propres au secteur de l'entreprise. »⁴³

To anticipate the technological and organizational advances of enterprises it is added to this effort a different expectation regarding the way in which they occupy an industrial area. The aim is to have a presence that contributes to the overall improvement of the écoParc and not to its deterioration. An enterprise presence that adds value to the soil and does not subtract it: « *Nous travaillons sur le terrain, dans chaque écoParc, afin de cerner ces enjeux de manière concrète tout en utilisant les opportunités et en stimulant les porteurs de projets. Lorsque l'on fabrique du bâti, nous cherchons à ce que toute implantation apporte de la valeur au niveau du parc.* » (FTI, 2019, p. 6)

Therefore, the FTI's aspiration to build new industrial spaces under the name of écoParc is still very vague and approximative, but for now we can fix these features deemed essential. For the FTI an écoParc is also a neighbourhood-like space where services and non-industrial activities take place; an industrial ecology materialization where the common critics to manufacturing environment predation shouldn't find a hold; a compact place where buildings look like ordinary office buildings; and a space for updated enterprises that exploit and contribute to what the écoParc has to offer as a place of production.

43 Alban Bitz, Directeur général Sofies SA et Associé, in *Rapport d'activités 2018* (FTI, 2019, p. 14)

Chapter 3

The FTI's land policy for manufacturing enterprises

Between 2014 and 2019 – period related to the *Convention d'objectifs 2014-2019* approved in 2015 – the FTI has produced each year 129,000 m² of surfaces (*Surfaces Brutes de Plancher* - SBP) for the enterprises, has bought 115,000 m² of land in industrial zones and has bought back from the State most of its land and buildings located in ZDIA (total value estimated at CHF 160 million) (FTI, 2020, p. 8). Currently, of the 857 hectares of industrial areas of the Canton, 364 hectares are publicly owned (mainly by the Canton, the municipalities, or the FTI) and 18.7% – or about 160 hectares – belongs to the FTI (FTI, 2020). On the other hand, taking into account real estate properties, the FTI owns 144 buildings (Ibid.).

This important estate is part of the land policy that the Foundation has conducted in order to build a suitable environment for the establishment of manufacturing enterprises. The FTI is one of the major autonomous authorities (*grandes régions autonomes*) of the Canton of Geneva in charge of implementing the policy decreed by the Council of State in its specific fields⁴⁴. Mission that in the case of the Foundation carries with it some very ambitious supporting, infrastructural and expansionist tasks, and therefore generates « [...] *un besoin accru de capacité d'investissement et d'autonomie financière de la FTI. Pour les remplir, le Conseil d'Etat entend lui donner les moyens nécessaires en lui transférant de nouveaux actifs, hors PAV, et en lui déléguant la compétence complète d'équiper les zones industrielles, comprenant non seulement la réalisation, mais également le financement et la perception de la taxe d'équipement.* »⁴⁵ In the Article 7 of the *Convention d'objectifs entre le canton et la Fondation pour les terrains industriels* (2015), entitled precisely *Politique foncière*, it is in fact established the compromise for the purchase of land in industrial areas (line 1), and the capacity to exercise the pre-emption right (*droit de préemption*) for the direct purchase of buildings.

The role of owner of a vast real estate portfolio in the industrial areas gives the Foundation a singular solidity, a weight within the panorama of local actors and makes it unavoidable. Land ownership increases its authority over industrial areas and makes it a more rounded territorial institution, that is, having in the territory a constituent element.

The process of land appropriation

But how exactly did the FTI built this real estate assemblage? If the data published by the Foundation in its annual reports is looked at a general picture of the last twenty years and some crucial movements

44 *Convention d'objectifs 2014-2019* (2015).

45 *Convention d'objectifs 2014-2019* (2015, p. 2).





1. Sales and purchases of land made by the FTI .
 Source: Map made by the author with data cited in text.

can be noticed. Certainly the most important one, the purchase of land far exceeds all other transactions – reaching 98 hectares (not counting the *Droit Distinct et Permanent de superficie* DDP that are almost 13 hectares) –. In fact, land sales only reach 9 hectares. Only the sale or transfer of DDP surfaces is significant – 48 hectares – (see fig. 1). These two main movements, property purchases and sale of DDP contracts, also have a particular behaviour that can be grasped in a temporal and spatial dimension.

Looking at transactions over time, two peaks stand out from the rest. A peak in DDP sales in 2013 and a peak in land purchases in 2015. Of these two, the peak of purchases stands out much more, in fact it is about 42.7 hectares – while the average annual purchases are around 3 hectares –. This trend is not only concentrated in time, but also in space. By investigating the publications of real estate purchases made in the Canton of Geneva⁴⁶ the data of the specific parcels purchased can be identified. With this data, the address of each parcel can be identified in the Geneva land registry⁴⁷ and is possible to build a general representation of these movements. Finally, on this chart (fig. 1) it can be noticed that purchases are mainly concentrated in Zimeysa and Bois de Bay industrial zones, while DDP sales are located in the PAV and a small part in Plan-les-Ouates. In fact, this synthetic graph shows a photograph of the transfer that the FTI has made in the last twenty years towards the other industrial areas of Geneva, leaving behind its birthplace, namely the PAV.

This massive movement is partly an individual operation of the FTI, partly an exchange with the state of Geneva. In fact, in the 2010 official report of the Foundation it is written:

Afin de permettre la réalisation du projet PAV, la Fondation a cédé à l'Etat de Genève des terrains dont elle était propriétaire sur ce périmètre, représentant une surface de près de 50 ha. En contrepartie, une surface équivalente lui a été attribuée dans 10 zones industrielles différentes. Les plus importantes sont situées dans la ZDIA de Meyrin-Satigny, soit un peu plus de 17 ha, dans la ZDIA du Bois-de-Bay, soit un peu plus de 9,5 ha, dans la ZDIA de Plan-les-Ouates, soit un peu plus de 8 ha, et dans la ZDIA de Mouille-Galland, soit 11 ha. (FTI, 2011, p. 23)

The Canton gains greater dominion over an area that will progressively become less and less industrial and more and more suitable for commercial and residential activities, and the Foundation increases its weight in the other areas that remain for the exclusive use of productive activities. Greater weight that should accompany the expected movement of enterprises rooted in the PAV: « *Ces surfaces, dont certaines devront être aménagées et équipées, permettront de reloger les entreprises se trouvant sur les périmètres du projet PAV et du CEVA, ou de proposer de nouveaux terrains à des industriels ou des artisans.* » (FTI, 2011, p. 23). As seen above, this sale is part of an intervention by the State in the PAV rearrangement process which was previously followed by the FTI itself directly. Intervention that for Sébastien Lambelet is not without counterproductive effects (Lambelet, 2016).

46 And made accessible on the website: <https://www.ge.ch/consulter-publications-acquisitions-immobilières>

47 Source: <https://www.cadastre.ch/fr/services/service/info.html>. On this site only the active parcels appear, to identify the outdated ones it was necessary to go to the Registre Foncier du Genève (a Municipal administration office) in Rue des Gazomètres 5-7, 1205 Geneva, Switzerland.

This State-FTI land exchange has in the 2014-15⁴⁸ years a crucial moment⁴⁹. Even if this is actually a long and articulated process⁵⁰, in the 2014-15 period it concludes an exchange of large areas of industrial land occurred in a short time. An exchange that begins with the transfer of DDPs located in the PAV from the FTI to the Canton (mainly in the 2012-13 period) and culminates with the transfer of the properties located in the other industrial areas of Geneva from the Canton to the FTI (2014-15 period). As Marc Sneiders said in the interview, these two different moments are chained together in a single operation: « So, it depends of how you look at our statistics. If you select only one year maybe you will see that FTI buys a lot and you won't see that it also gave a lot away. It is not so easy to have a good understanding of the situation by looking only at one year. »⁵¹

Both through gradual and slower purchases of land and State exchanges the FTI has progressively placed itself in the industrial areas of Geneva. Mainly in Bois de Bay and Zimeysa where it comes to own about half of the total area. Considering not only the land exchanges of the last twenty years but also the previous land portfolio of the FTI (fig. 2), the total presence of public land in these industrial areas can be observed. The FTI surpasses other Geneva public bodies in quantity of land (State, municipalities, Confederation and *Services Industriels de Genève* - SIG) – which nevertheless remain very present – except in the case of the PAV where the Foundation remains only with the more southern parcels attached to the railway. It is also important to note that the acquisition of land by the FTI is most notable in agricultural areas only recently downgraded to industrial surfaces. This is the case, for example, of the Mouille-Galand industrial zone (ZIMOGA) south of Zimeysa and the extensions north of Bois de Bay. Areas of lesser land value such as agricultural lands or those used for storage – like the abandoned car depots in the parcels west of Bois de Bay – are more easily acquired than areas occupied by major companies that do not foresee an interruption of their production cycles. To this it can also be added the fact that Bois de Bay and those more eastern areas of Zimeysa are affected by aircraft noise, and this also favors the greater availability of land.

The purposes of land appropriation

The appropriation of land properties is one of the many means the Foundation relies on to make their transformation technically possible. With this process, which Jean Ruegg would call “*cantonisation du sol*”⁵² (Ruegg, 2008, p. 16), the FTI occupies « *une posture idéale* » (Ibid., p. 16) which allows it to force

48 In the graph only the 2015 appears as a significant year because most of the transactions are registered on the *Registre foncier* only in that year but, as can be seen in the official reports of the FTI, it is a process rooted in 2014 as well.

49 « *Dans ce contexte, 2014 a été l'une des années les plus importantes en termes d'acquisitions de surfaces et de bâtis pour notre Fondation.* » (FTI, 2015, p. 4)

50 In fact, Marc Sneider had make this clear in the interview: « [...] is a process that take time, I would say that between the decision and the moment when it is really effective usually pass three years. » (Interview A: Marc Sneider - *chef de projet écoParc industriel* in the FTI).

51 Interview A: Marc Sneiders - *chef de projet écoParc industriel* in the FTI.

52 In the end, the FTI is still an extension of the State of Geneva.





2. Canton land, FTI land and private land in the industrial areas of Geneva.
Source: Author's elaboration with data from *Rapport d'activités 2019* (Fondation pour les terrains industriels de Genève, 2020).

a convergence between set objectives and land uses. With a “*maîtrise foncière forte*” the Foundation ensures hegemonic decision-making power over industrial areas – where, it is useful to recall, private actors have a not negligible weight – : « *Il n’aura échappé à personne que toutes planifications ou nouveaux modes de gestion doivent s’appuyer sur une maîtrise foncière forte. La FTI tout en déployant ses nouveaux modes d’action doit donc continuer à faire grandir le patrimoine foncier et immobilier pour pouvoir peser sur les zones industrielles.* » (FTI, 2015, p. 4).

The FTI’s greater importance on industrial areas resulting from land ownership manifests itself in various ways. One of which, and perhaps the main one, is the imposition of land prices. On this aspect too, the interview with Marc Sneiders clarifies the Foundation’s intention: « *This help to have a control on the land prices. Because of the law on Geneva we are able to control the prices of the exchanges, how much it has to be paid for the land. Because of that the small companies are able to stay in the Genevan Canton. Otherwise the pression of the cost will push them away. So it is a mission to maintain small prices. Therefore, the FTI buy land every time it can.* »⁵³. Reducing the cost of the land occupied by the enterprise, subtracting it from the market and its prices, are effective ways to allow the enterprise to remain active in a context characterized by the scarcity of available land and its general expensiveness.

But protection from market prices to conserve second sector activities is not the only goal of land seizing. Land property detention in a land scarcity context allows the FTI to also dictate the conditions of transformation processes: « *La situation se résume ainsi : peu de terrains pour un grand nombre d’investisseurs. Cette attractivité grandissante des ZI permet à la FTI de disposer d’une position favorable dans le cadre de ses négociations et de fixer les conditions du développement en droit de superficie.* » (FTI, 2018, p. 12). The very choice of the figures responsible for a transformation is played in favor of a pre-established objective: « *Aussi, le processus de sélection des partenaires doit être maîtrisé : sans abandonner les projets issus d’une conjonction d’opportunités, il est question d’assurer à la FTI la capacité d’étalonner le marché en lançant des appels à projets compétitifs lorsque les conditions le permettent.* » (Ibid., p. 12). That is, it allows what they call “calibrating the market” (*étalonner le marché*).

This is therefore the way through which the Foundation can afford to demand a certain level of quality of the new buildings: « It is also a power to be the owners, because when the FTI owns, it can constrain the construction of industrial buildings and ask for a certain quality level. We also gain money from the properties rent, so it is good for everybody. The gained money returns to the State of Geneva or allows us to buy more terrains. »⁵⁴. Quality of the buildings’ image, but also quality from a performative point of view. That is, more in line with the paradigms of environmental sustainability. The most outstanding example of this type of “quality demand” is the preference for high-density developments: « *Pour favoriser l’émergence des meilleurs projets, la FTI encourage la concurrence entre développeurs – qu’elle choisit aussi sur la base de critères durables. Dans le même but, elle s’est dotée d’une politique de fixation des prix des terrains et des DDP qui tient compte de la densité bâtie.* » (FTI, 2020, p. 24). As an owner, the Foundation imposes an urban form with specific types of buildings.

53 Interview A: Marc Sneiders - *chef de projet écoParc industriel* in the FTI.

54 Interview A: Marc Sneiders - *chef de projet écoParc industriel* in the FTI.

However, there are some sections of industrial real estate where investors are scarce. In these cases, mainly unattractive places due to a number of factors ranging from soil pollution to distance from transport infrastructures, land ownership is only a means by which the FTI can trigger its own building projects and commercialize them with its own standards: « *De même, les développeurs n'investissent pas dans les segments du marché à plus faible valeur ajoutée, alors qu'ils sont indispensables au maintien de certaines activités à Genève et à la diversité du tissu économique. Pour combler ce manque, la FTI doit développer ses propres projets, par exemple pour des surfaces de petite taille (env. 100 m² de SBP) et/ou bon marché.* » (FTI, 2018, p. 12).

The acquisition of land is also linked to the interventions for the infrastructure of industrial areas. The FTI has been dealing with industrial areas' technical equipments (lampposts, street furniture, railway connections, etc.) since the beginning (mainly in the PAV) but, after the year 2017 it becomes directly responsible for providing the necessary infrastructures. Indeed, with the new law of the FTI (LFTI) of 2017⁵⁵ and the *Convention d'objectifs* of 2015, the Foundation is equipped with a *fonds d'équipement* supported by the *taxe d'équipement*⁵⁶ and its own reserves: « *Ce changement assure davantage d'efficacité : alors que l'État réalisait préalablement les équipements dans les zones industrielles, l'entrée en force de la LFTI le 4 juin 2017 donne désormais à la Fondation la possibilité de réaliser en direct les travaux et jouer le rôle d'opérateur urbain public.* » (FTI, 2018, p. 26). This instrument, together with the work carried out in the past, make the FTI a key player because of its ownership of key infrastructures for the functioning of industrial areas. Indeed, the Foundation is among the most important owners of railway tracks in Switzerland, excluding CFF (FTI, 2019). « *Trois quartiers industriels sont reliés au rail et assurent la desserte des entreprises raccordées. Ainsi, la FTI assure la surveillance et la sécurité de même que l'entretien et la maintenance de près de 28 km de voies ferroviaires empruntées annuellement par plus de 25 000 wagons.* » (Ibid., p. 32).

Reduction of land costs for manufacturing enterprises, quality and building typologies control, development of new infrastructures for industrial areas, are all actions permitted or in any case facilitated by the direct ownership of the land. Land ownership, and with it the assumption of the risks of a possible failure, are for the Foundation a necessary step for the implementation of a project, or more precisely, for its execution in the precise way in which it is believed it should be implemented. With the required timeline, the decided quality, the wanted relations with the surroundings, the desired contained activities. Ownership reduces the need for compromises and increases the decisional space.

55 *Loi modifiant la loi sur la Fondation pour les terrains industriels de Genève (FTI) (11796), PA 327.00 (April 6, 2017).*

56 Collected from enterprises that are installed or that develop their site (FTI, 2018).

3.1. Tools for the management of land transformation

The land policy of the FTI does not end with the purchase of land in industrial areas. By regulating the use of this land, and the transformation of the space associated with it, the Foundation ensures the consolidation of its particular vision of industrial places. But how does this regulation take place? Through what tools? In this part, three different tools to which the FTI entrusts the task of realizing a specific use of industrial space, are explored. A contractual tool, a kind of selection via accommodation tool, and a building process control tool.

Through these tools, the Foundation conveys its objectives and manages to root its visions and policies in the physical space of the industrial areas of Geneva. By these means, it interferes with the systems of enterprises, especially in their movements in space. A high degree of interference that brings structural alterations to these systems through space transformation. Planning, negotiation, regulation are types of actions with which the FTI focuses on itself the most important choices in terms of space.

Droit de superficie. Planning through lease contracts

One of the main functions of the FTI, which has performed since the Sixties, is that of the attribution of leasehold estate contracts (*droits de superficie*)⁵⁷ to enterprises active in the secondary sector. In article 779 C of the Swiss Civil Code, the “*droit de superficie*” is a kind of contract where the land owner gives a third party the right to dispose of the land as he sees fit: « *Le propriétaire peut établir en faveur d'un tiers une servitude lui conférant le droit d'avoir ou de faire des constructions soit sur le fonds grevé, soit au-dessous.* » At the end of the contract, the land returns to the owner's hands with all the transformations made by the user. It is a contract that separates the owner from the user and developer person and which forces in any case a future return of the complete domain to the original possessor.

Le droit de superficie utilisé est une servitude personnelle, constituée en droit distinct et permanent, limitée dans le temps et conférant à son titulaire le droit d'ériger et de maintenir, en tant que propriétaire, des constructions sur le bien-fonds d'autrui. Il implique deux parties : le superficiant, à savoir la FTI, l'Etat de Genève, la Ville de Genève ou les communes, propriétaires du sol, d'une part, et le superficiaire, entreprises industrielles, artisanales ou technologiques, propriétaires des bâtiments et autres installations fixes, d'autre part. (Rapport du Conseil d'Etat au Grand Conseil sur les exercices 2000 et 2001 de la Fondation pour les terrains industriels de Genève (FTI), RD 467, filed December 19, 2002)

The administration of this type of contract is an onerous activity due to the dynamic nature of the enterprises which grow, fail, transfer elsewhere. However, the FTI derives much of its income from this ac-

⁵⁷ The duration of the leasehold estate contracts ranges from 30 to 90 years. This type of property can be combined with property by floor contracts (*propriété par étage* or PPE). The FTI takes inspiration from the *contrats de superficie* managed in the Dreispitz industrial and port area of Bale (Zumkeller, 2010, p. 21).

tivity. In fact, the rents paid by the enterprises, together with the development tax (*taxe d'aménagement*) and the “*parité ferroviaire*” for the enterprises connected to the railway, constitute the foundation’s main revenues (Zumkeller, 2010). In 2010 the FTI had land subject to *droit de superficie* contracts in Zimeysa – 20% of its surface –, in Bois de Bay – 20% –, in Plan-les-Ouates – 32% –, in Mouille-Galand – 15% –, and in Praille-Acacias-Vernets (PAV) – 64% (this is before the exchange with the state) – (FTI, 2011, p. 20).

But why does exactly the FTI choose this type of legal instrument? First of all, it is a type of practice that has become increasingly popular in Switzerland where land prices are too high⁵⁸. Of all Switzerland, Bern, Bienne and Basel have a higher density of *droit de superficie* than the average – the Canton of Basel even owns 40% of the land in Bâle-Ville and is no longer authorized to sell it but only to issue this type of contract – (Wüest Partner AG, 2017, p. 11-12). In fact, in this context buying or building on a rented area is cheaper than purchasing the entire property. With this tool, the public authorities (and in this case the FTI) on one hand, can open the doors to investments and real estate developments by private individuals without losing overall control of the land, while on the other hand, private actors (and in in this case, enterprises) take advantage of a lower need of capital to invest⁵⁹. A control that allows the exercise of a continuous influence:

En effet, l'instrument du droit de superficie permet aux pouvoirs publics, sans pour autant les obliger à s'engager outre mesure financièrement, d'intervenir de manière plus ou moins accentuée dans la conception puis de continuer à exercer une influence, que ce soit pour des raisons de politique sociale, de planification territoriale ou de politique économique. Dans ce contexte, on peut partir du principe que le droit de superficie gagnera en importance à l'avenir et que les pouvoirs publics domineront encore davantage le marché du droit de superficie. (Wüest Partner AG, 2017, p. 7)

D'un point de vue économique, le motif principal est celui de réaliser un rendement direct et ce, sans vendre la parcelle ni s'engager financièrement. Pour les pouvoirs publics et en partie également pour les fondations en tant que superficiaires vient s'y ajouter un motif supplémentaire: sans les obliger à s'engager outre mesure financièrement, l'instrument du droit de superficie leur permet d'intervenir de manière plus ou moins accentuée dans la conception puis de continuer à exercer une influence et ce, pour des raisons de politique sociale, de planification territoriale ou de politique économique. (Ibid., p. 10)

What is important to underline, however, is that the influence that is exercised through the *droit de superficie* takes very specific forms. Use restrictions, energy standards, building typologies, activities

58 In Geneva the price per m² of the apartments has doubled since 2004 and in Zurich has increased of 437% since 1974. See: *Cahier n°10-5-2015. Production et marchés du logement dans le Grand Genève - Monitoring -* (Bureau Géodes – Annecy, 2015); Canton Zurich’s official website (<https://www.zh.ch/de/planen-bauen/raumplanung/immobilienmarkt/bodenpreise.html>).

59 In the case of a PME, the cost of the land can be as high as 20 or 50 percent of the total cost (Wüest Partner AG, 2017, p. 10). Once this burden is removed a small business, generally lacking in funds, can concentrate on other cost items: « *La réduction nette des coûts d'investissement et de financement suite à la non-acquisition du terrain plaît généralement beaucoup au superficiaire et dépasse les inconvénients qui ne deviennent majeurs que plus tard, tels que la vente ou la mise en hypothèque plus difficile.* » (Ibid., p. 10).

allowed, all take part in the written contracts. It is a practice of contractual cunning that follows different but explicit purposes. In fact, in a Parliament session a deputy of the party *Ensemble à Gauche* (EAG) asked what means of control were available to the FTI to verify that the enterprises « *utilisent bel et bien ces emplacements* »⁶⁰. Question that the general director of the FTI Claudia Grassi answered saying that this was precisely the purpose of using the *droit de superficie* contracts: « *Tout d’abord, dans les contrats de droit de superficie, il est clairement stipulé que le DDP est octroyé pour tel but et que si le but change il y a une révision de la rente, voire une révision complète de l’octroi du droit.* » (Ibid.).

For example, the FTI made use of the *droit de superficie* contract to ensure the correspondence between the projects carried out by private actors and the *Plan directeur cantonal*’s idea about the PAV future: « [...] *la FTI conclut désormais un pacte d’emtion lors de la cession d’un droit de superficie sur ce secteur, afin de faciliter la mise en œuvre future du projet d’intérêt public Praille-Acacias-Vernets (PAV). Celui-ci permet à la Fondation d’acquérir l’immeuble au cas où le superficiaire ne souhaiterait pas développer son bâtiment conformément au projet PAV, moyennant le paiement du prix convenu à sa conclusion.* » (FTI, 2011, p. 20).

The gain obtained by the FTI is not, in first instance, an economic rent or an increase in the value of the terrains, but a correspondence between land uses and its own expectations.

Regulation of enterprises systems. Planning through selection

The Foundation also has tools that allow it to control the system of enterprises located in an industrial area. The authority that grants the right of veto, together with its involvement in the movements of companies – « *l’implantation de la bonne entreprise au bon endroit* » –, offer the FTI the opportunity to influence the transformation of an industrial area through the choice of its users.

In article 4 of the new *Convention d’objectifs entre le canton et la Fondation pour les terrains industriels* of 2020 it is in fact set as one of the objectives of the FTI the « *Adéquation de l’offre en surfaces et de la demande des entreprises éligibles en zone industrielle.* »⁶¹. Following the two declared objectives in terms of spatial management – the accompaniment of the Canton’s economic and climate strategy (art. 4 line 1) and the preservation of a certain diversity of the industrial fabric⁶² (above all of the areas of activity and size of companies) (art. 4 line 2) –, the FTI works to match the surface area supply with the demand of the “*éligible*” enterprises. The identification and choice of enterprises deemed suitable takes place through an internal tool for the supply and demand correlation⁶³, and an advisory and expert ser-

60 Rapport de la Commission de l’économie, PL 12340-A, PL 12510-A, Secrétariat du Grand Conseil, Filing date: August 14, 2019

61 In this 2020 document, a work that the FTI was already conducting before was simply made explicit.

62 « *Cette diversité se comprend tant au sein d’une même zone industrielle qu’entre plusieurs d’entre elles.* » (art. 4 line 2, *Convention d’objectifs*, 2020).

63 « [The FTI,] *développe un outil interne mettant en corrélation l’offre et la demande foncière des entreprises*

vice for private development initiatives⁶⁴. The supply and demand correlation work relies, for example, on a digital platform aimed at mediating the commercialization of industrial spaces. On its own website⁶⁵, the FTI offers a section dedicated to the *objets immobiliers* of the industrial areas. It is presented here detailed information on the technical characteristics of the spaces, the services in its vicinities, and the type of activity that is claimed to be suitable⁶⁶.

This theme of the selection of activities that can take root in an industrial area brings with it a long debate that oscillates between those who, on one hand, support the need to preserve the “purity” of these production sites and, on the other hand, and now totally triumphant, those who support a radical opening towards the *mixite*⁶⁷ of different types of enterprises. It must be remembered that these are industrial spaces that tend to remain attractive also for other types of activities: « *Les superficies gérées par la FIPA en attirent plus d'un. Ils sont souvent éconduits.* » (Zumkeller, 2010, p. 47). The very idea of “purity” of industrial, productive and manufacturing activities begins to collapse with the evolution of the occupations themselves: « *Par ailleurs, l'évolution des métiers industriels provoque encore des questionnements : est-ce qu'une société d'informatique travaillant essentiellement pour des entreprises industrielles « font certaines de renom », peut s'installer dans le périmètre de la FIPA ?* » (Ibid., p. 63). Added to this is the nominative problem that the administrative and legal apparatuses carry with them:

[...] *la définition de l'activité industrielle/artisanale est plus large que ce que la Confédération appelle “secteur secondaire” au sens étroit du terme. Par exemple, un garage est classé à Genève dans le secteur secondaire et est compatible avec l'activité industrielle. Il en est de même des activités liées à la logistique des marchandises (transport, dépôt) et du secteur de la TEC.*⁶⁸

In fact, at the end of the eighties the FTI begins to consider the links that an enterprise, despite being a tertiary type of activity, may have with the local industry to build a judgment on its admission (Ibid.). The shift of the selective policy of the FTI starts from this sort of “gray zone” (Ibid.) of chemical or IT companies that rapidly change towards the tertiary sector.

pour permettre un pilotage optimal des projets dont la fondation est saisie. » (Ibid., art.4 line 3, e)).

64 « [The FTI,] *s'implique dans des projets de développement d'initiative privée dont elle a connaissance, en assumant son rôle de conseil et d'expertise.* » (Ibid., art.4 line 3, f)).

65 « *Développé par l'agence genevoise Procab Studio SA, dont la connaissance du milieu immobilier a entre autres motivé sa sélection, ce nouveau site internet s'articule sur plusieurs axes distincts. Si bien sûr la partie institutionnelle reste présente, permettant toujours de découvrir la FTI, ses missions, ses objectifs, ses instances dirigeantes et ses collaborateurs, l'accent est aujourd'hui davantage porté sur le territoire et plus particulièrement le service à la zone.* » (FTI, 2017, p. 20).

66 « *Notre module immobilier a été également totalement repensé. Offrant des possibilités de recherche supplémentaires, il facilite le lien entre les industriels en quête de surfaces et la FTI, avec la possibilité de s'abonner à des alertes sur une zone ou des critères spécifiques et d'enregistrer des favoris.* » (Ibid., p. 21).

67 As we saw in the previous part, the theme of *mixité* is also deeply rooted in the more recent planning culture of Geneva.

68 Intervention of the former director general of the FTI Yves Cretegnny in the Minutes of the Grand Conseil (Rapport de la Commission de l'économie, PL 11796-A, Secrétariat du Grand Conseil, Filing date: March 21, 2017).

However, although the tolerance towards the presence of tertiary activities in industrial areas has now changed a lot, the FTI remains a conservation tool for the Geneva secondary sector:

Un rapport, commandé par Jean-Philippe Maitre, estime que la mixité « risquerait d’anéantir les heureux résultats de plusieurs décennies d’efforts des autorités », mais admet que l’ouverture des zones industrielles « aux entreprises de l’informatique ou analogues serait de nature à sauvegarder l’existence d’une partie de l’industrie genevoise et surtout à compléter et stimuler les conditions souhaitables de son développement futur. » Prudents, les rapporteurs prennent le soin de préciser que « l’ouverture éventuelle devrait toutefois rester rigoureusement contrôlée dans l’intérêt de l’industrie elle-même ». Ouverture oui, mais circonspection surtout. (Zumkeller, 2010, p. 65)

But what idea does the Foundation have of the *mixité* that this selection role helps to promote? First of all, the FTI advocates for the coexistence between tertiary enterprises – seen as innovative and even “disruptive” – and manufacturing activities – seen as traditional instead – : « *Là où les horlogers fabriquaient leurs mouvements, la ville se réinvente désormais à l’ère “disruptive” avec des plateformes collaboratives qui redessinent les espaces de travail et de rencontres tout en cohabitant avec les acteurs “traditionnels”.* » (FTI, 2016, p. 5). This dichotomy, also present in many projects discussed in the previous part, between innovative and often upmarket activities and more traditional and sometimes not as wealthier ones, has in the new type of industrial areas called “*zone de développement d’activités mixtes*” established in 2012 its most advanced product. As anticipated in the second part of the thesis, this type of area was tested in the ZDAM north of Zimeysa. The legislation inherent to this type of area internalizes the tertiary / industrial dichotomy and splits the total surface into 40 and 60 percent correspondingly.

The tertiary / secondary coexistence is also imagined combined with the densification policies promoted by the Canton and the Foundation. *Mixité* and densification of the built environment translate into the selection of activities corresponding to the space they can occupy: « *une PME du secteur industriel nécessitant des surfaces de plain-pied et une société de services installée à l’étage cohabiteront idéalement au sein d’un même bâtiment.* » (FTI, 2019, p. 36). This combination of different activities and densification policies is summarized in the “*densification différenciée*” principle, according to which the creation of spaces for industrial activities must take into account the vast diversity that distinguishes the enterprises world. The Foundation take into account this need for differential availability of space « *afin que toutes les catégories d’entreprises trouvent des fonciers qui répondent à leur besoins. En effet, certaines activités à moindre valeur ajoutée ne peuvent entrer dans une logique de densification. Cependant, elles demeurent indispensables à l’activité industrielle dans son ensemble et leur présence doit être maintenue à Genève.* » (FTI, 2019, p. 36).

The selection is also linked to an idea of complementarity. Different enterprises but with possible points of convergence are preferred over companies that turn their backs to each other: « *La diversité est gage de complémentarité, autre caractéristique d’un bon écosystème. Sur cette base peuvent être lancées des collaborations interentreprises, qu’elles soient commerciales ou qu’elles prennent la forme de partenariats voire de mutualisation de services (centrale mobilité, parking, gestion de déchets, concept énergétique territorial, surveillance de sites, etc.).* » (FTI, 2019, p. 36).

In a very important 2007 report⁶⁹ made by the Conseil d'Etat on the state of the industrial areas of Geneva, which had great weight in cantonal and regional policies, a list of permitted activities appears. This text already presents that balance between the opening and conservation of industrial areas with respect to the type of activity to be hosted that the FTI seems to promote today. Among the « *activités admises en zone industrielle* » appear the most obvious and « *proprement industrielles* » ones like the « *activités économiques à vocation industrielle, artisanale ou technologique* » and the « *activités de stockage ou d'entreposage, sans transformation de produits* ». To these types of activities, which constitute the undisputed heart of industrial areas, a number of other activities is added. That is, offices are permitted « *si ceux-ci sont nécessaires au déploiement de leur(s) activité(s) principale(s)* », high technology enterprises engaged in research and development activities that do not include material transformation processes⁷⁰, training centers « *et de perfectionnement professionnels* »⁷¹, and a whole series of « *entreprises prestataires de services utiles aux utilisateurs des zones* » which comprises « *tearooms, cafés, restaurants, brasseries, agences de distribution de tabacs et journaux, guichets bancaires, fitness, offices postaux, garderies d'enfants, épicerie/self-service, etc.* »⁷². The only set of activities excluded a priori in a clear way seems to be only residential and commercial activities, especially the large-scale distribution establishments.

Although this framework helps to have an approximate idea of the criteria that the Foundation puts into action in the exercise of choice, in the end it is a detailed work that takes into account the specific case and does not rely on pre-established classifications. This, on one hand, helps the Foundation to count with great freedom of choice and with a wider field of experimentation, but on the other, it raises the problem of justification. The malleability of the selection criteria leaves the Foundation open to confutations that can come, for example, from the various deputies of the *Conseil d'Etat* as can be seen in the sessions of Parliament.

The aspect that most interests here is though the influence this selection tool has on the transformation of space. The rupture of a certain uniformity of activities leads to the rupture of spatial uniformity. The opening of an industrial space to a micro-universe of small services for workers leads to the creation of small and more accessible spaces. It affects urban equipment, increases openings in buildings, influence visual aspects, etc.

This tool of 'qualification via selection'⁷³ also comes to terms with a certain specialization of the indus-

69 Rapport du Conseil d'Etat au Grand Conseil sur l'état de situation de la gestion des zones industrielles du canton, RD 685, Secrétariat du Grand Conseil, Filing date : May 3, 2007.

70 « *Pour être admises en zone industrielle, de telles entreprises doivent, de manière prépondérante, concevoir, développer, produire ou transformer des biens matériels ou immatériels et ne procéder qu'à titre accessoire à la commercialisation de tels biens.* » (Rapport du Conseil d'Etat au Grand Conseil, RD 685, Secrétariat du Grand Conseil, Filing date : May 3, 2007, p. 6).

71 « *La formation et le perfectionnement professionnels jouent en effet un rôle de toute première importance dans les secteurs technologiques car l'évolution des technologies intervient avec une rapidité telle qu'il est nécessaire de disposer d'une formation de base performante et de remettre ses connaissances constamment à jour.* » (Ibid., p. 7).

72 Ibid., p. 7.

73 Not in the sense of a greater or lesser "quality" of the spaces, but of a transformation in qualitative terms.

trial zones of Geneva. Leaving Zimeysa to one side, where the variety of activities is greater than in other areas, Plan-les-Ouates is mainly home to watchmaking companies and Bois de Bay to wreckers and builders. Here the FTI addresses the problem of what kind of relationship has to be established between the new chosen enterprises and the existing system: should the newcomers in some way contribute to, or at least not interrupt, the current balance that has been gradually built up among the enterprises already established? Or on the contrary should they be a disruptive element that replaces a component or a dynamic judged undesirable? These places pose specific problems to the Foundation's selection work.

Building permits and “urban pieces”. Planning through buildings control

The FTI also relies on a tool for the regulation of the built environment at the scale of the single building. The granting of building permits (*autorisations de construire*) is in fact a small-scale planning instrument that the Geneva authorities have at their disposal to ensure compliance with established principles and rules. While the main authority in the granting of this type of permits is the Canton's *Département du territoire* (DT), other entities can intercede according to the areas that may be affected by the single intervention – the fire police, the general directorate of nature and landscape, water supply and geology services, etc. –. The FTI, in fact, participates as the authority responsible for planning industrial areas. Looking at the building permits issued in the last ten years (the period considered is from 2007 to 2018) for new buildings in the industrial areas of Geneva, it can be understood in a more precise way the use that the FTI makes of this tool.

First of all, looking at the permits, one can notice the strong importance of the Foundation as a landowner. In this period 83 permits for industrial buildings were issued⁷⁴. About half of these permits (41) took place on publicly owned land. Land mainly owned by the FTI, apart from 5 permits in Canton's land and 3 in municipalities' land.

Remaining on this distinction between projects for industrial buildings on public land and industrial buildings on private land, what differences emerge? The answer is just a few. Looking at the brief descriptions of the designed type of building in these permits, on the FTI's land, very general indications emerge – *espaces artisanaux, bâtiment industriel et artisanal, bâtiment à vocation industrielle et artisanale, bâtiment multi-activités, entrepôt de logistique et activités, dépôt et d'une zone d'entreposage couverte, dépôt pour stockage, halle de stockage, extension, agrandissement, surélévation d'un bâtiment existant*, etc. – with only a few more specific references – *hangar à voitures, usine de valorisation de la biomasse*, etc. –; while, on private soils, the indications also remain general with some added specificities – *bâtiments à activités mixtes, bâtiment d'activités artisanales sans nuisances, bâtiment de production horlogère, immeuble artisanal et industriel avec restaurant, bâtiment de laboratoires, atelier mécanique et de lavage pour automobiles*, etc. –. The height of the buildings also slightly changes: if the average height of the buildings to be built on FTI's land is 13.21 meters (and 3 average number of floors)

74 For the complete list of the building permits studied, see the section at the end 'Archive documents'.

that of industrial buildings on private land is 13.57 meters (and 3.5 average number of floors).

The reduced variation between the types of building designed for public land and those for private land – which is not reduced only to the nominative aspect but above all includes typological and functional features – can be precisely considered as the manifestation of the breadth of tools with which the Foundation counts to ensure control of the transformation of buildings in industrial areas. In other words, the FTI interferes in the construction of industrial buildings even outside the land it owns. Although this statement remains for the most part a hypothesis that is not fully demonstrated – here the (difficult and broad) question is *who decides* the transformation of a portion of the territory, who affects the most and which interference remains marginal instead –, some evidence that largely supports it is presented here.

The FTI use of building permits

The first evidence is precisely the voice of the Foundation in the issuing of building permits. In the observed building permits the FTI articulates its opinion with a positive (*favorable*) or negative (*défavorable*) evaluation. But in addition to these binary statements, the Foundation usually also expresses a variety of advices, suggestions or more imperative instructions that greatly expand its presence in the executive choices of an intervention. For example, the Foundation can interfere with the constructive choices of the single building – inducing the use of typologies that do not interrupt future additions in height or on the sides to achieve greater density⁷⁵, asking for the use of green roofs⁷⁶ or the installation of solar panels⁷⁷ –, with the treatment of open spaces – requesting the use of drainage materials⁷⁸, tree planting⁷⁹, less usage of closures and, if they are deemed necessary, that do not block the access of spaces open to the public⁸⁰, respect for vegetalized bands and pedestrian routes along the roads⁸¹ –, or by encouraging the sharing of services and inter-enterprise collaboration – the shared use of car parks or the formation of common mobility plans (*covoiturage, mesures d'encouragement à prendre les transports en commun, prêt de vélo*)⁸². These are just some examples of the requests made by the FTI, but they can give an idea of both the type of interest they convey and the level of detail which the Foundation reaches to enforce them.

75 Source : Dossier DD 105070-4, petitioner: Le petit-fils de L.U. Chopard & Cie SA.

76 For the « *regularisation des eaux de pluie* », the « *isolation thermique* », the « *amélioration du cadre de vie* » (Dossier DD 101290-6, petitioner: GSW SA).

77 Source : Dossier DD 101290-6, petitioner: GSW SA ; Dossier DD 105552-2, petitioner: Perret construction SA.

78 Source : Dossier DD 101290-6, petitioner: GSW SA.

79 Source : Dossier DD 99429-6, petitioner: Société cooperative de la cave de viticulteurs de Genève ; Dossier DD 101818-6, petitioner: Sanofi SA.

80 Source : Dossier DD 99218-4, petitioner: Pilet & Renaud.

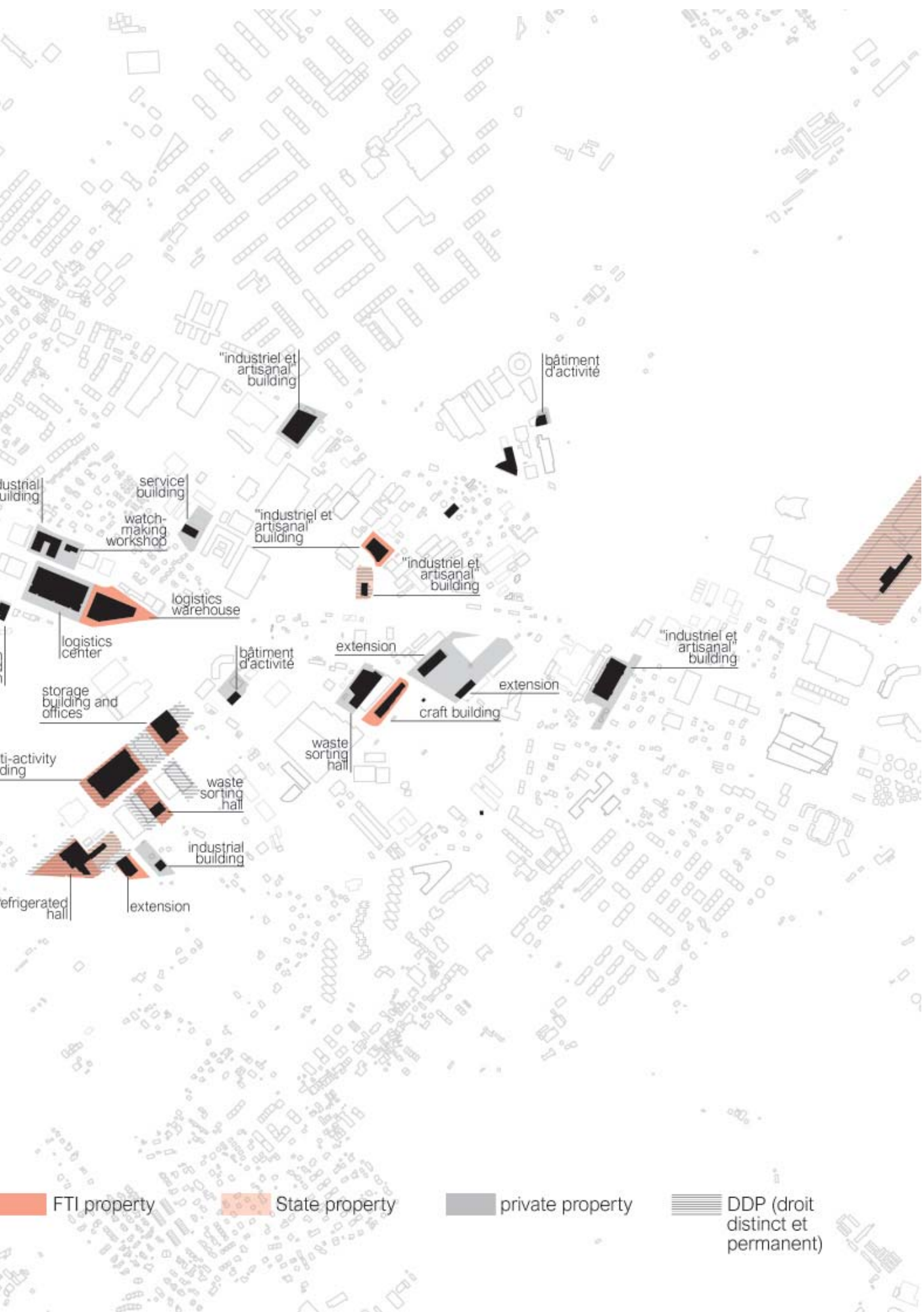
81 Source : Dossier DD 105552-2, petitioner: Perret construction SA ; Dossier DD 106166-2, petitioner: Polebio Energies SA.

82 Source : Dossier DD 105070-4, petitioner: Le petit-fils de L.U. Chopard & Cie SA.



3. Building permits for interventions in Zimeysa from 2007 to 2018.

Source: Author's elaboration with data from the Canton's Département du territoire (DT).



Through the building permits, the Foundation ensures compliance with the indications contained in the PDZI, but also with the initiatives promoted by the *Plan directeur cantonal* and *Projet d'agglomération*. Initiatives such as the *Voie Verte* and the various tree-lined pedestrian paths present in several urban plans find in the building permits a safe channel towards their realization. But in addition to respecting urban plans, the FTI also finds a more open use. That of the pursuit of its own principles. The building permits instrument, and the use made of it by the FTI, open up a field of experimentation for broad and articulated concepts such as collaboration between companies, industrial ecology, environmental sustainability, etc. The Foundation seems to try to use every channel accessible to it to push in the desired directions.

The pièce urbaine instrument

Another means through which the work of the FTI interferes with the building process is the so called *Pièces urbaines*. A kind of condensed urban plan the *Pièce Urbaine* conducts an intervention focused on a small part of the industrial area usually composed of a couple of buildings and their pertinent spaces. A type of design that is spatially reduced but operationally dense.

The Foundation relies on this tool to tackle the difficult and complex tasks involved in the planning of industrial areas: « *La complexité croissante de la planification des zones industrielles et la nouvelle dynamique écoParc ont conduit la FTI à imaginer une étape intermédiaire à la mise en valeur parcellaire : voici la Pièce Urbaine (PU).* » (FTI, 2019, p. 33). “*Intermédiaire*” is in fact the key word. An intermediate scale between the building and the PDZI: « *Le découpage du territoire en pièces urbaines revient à définir des portions de zone industrielle en fonction de critères opérationnels. En effet, le changement ne peut pas être géré de manière concrète à l'échelle de la zone. De même, mener une réflexion au niveau d'une parcelle ne permet pas de donner sens à la modification territoriale.* » (Ibid., p. 33). An intermediary work between the directional definition of plans and the detailed execution of architectural interventions: « *Elle se compose d'un plan d'aménagement (image directrice) ainsi que d'une convention de mise en œuvre (mode opératoire, répartition des coûts et programme de réalisation) qui engagent les partenaires (les propriétaires concernés), en accord avec les parties prenantes (communes, services de l'État, entreprises, partenaires et FTI). Enfin, elle est dotée d'un organisme dédié à son amélioration et sa gestion foncière.* » (Ibid., p. 33).

This tool takes into account the real estate intricacies of the places affected by the transformations – « *est un outil de gestion du changement dont la qualité première est de se construire sur la base des réalités du terrain.* » (FTI, 2020, p. 26) – and maneuvers a close negotiation with the present actors. In fact, it does not implement a single project, but a « *développement concerté de projets* » (Ibid., p. 26). For example, in *Le Plantin* project – presented in the 2019 report as the very first FTI's *pièce urbaine* –, the Foundation establishes a partnership with the Hornbach chain of stores and together they plan and finance the entire intervention.

Located along the Rue des Entreprises in those particularly varied plots occupied by individual residences and industrial buildings – also a kind of pivot where the airport, the center of Meyrin, the *Cité*, and the industrial area converge –, the Plantin area is mainly owned by the FTI⁸³. Under these conditions, the FTI intends to test the objectives of the new PDZDAM (*Plan Directeur de Zone de Développement industriel ou d'Activités Mixtes*): « *La mission de la FTI est d'accélérer la mutation foncière de cette PU avec intelligence et créativité pour permettre la mise en œuvre des intentions du plan directeur de zone de développement industriel ou d'activités mixtes (PDZDAM) et, in fine, de loger des artisans dans des conditions optimales (accès, environnement, bâti, coût d'exploitation, gestion).* » (Ibid., p. 26). That is, it becomes an opportunity to experiment with new configurations between tertiary and productive activities: « *Le contexte de la future zone de développement industriel ou d'activités mixtes (ZDAM), en particulier la mixité des activités secondaires et tertiaires, a permis à la FTI de développer une stratégie innovante.* » (Ibid., p. 26).

Together with Hornbach, the Foundation builds a joint strategy that provides for the organization of construction phases, the sharing of some costs, as well as the creation of common services such as an underground parking and « *des infrastructures de gestion des déchets, de l'énergie et des eaux* » (Ibid., p. 26). In a more autonomous fashion, Hornbach builds a shopping mall for construction professionals, while the FTI develop another building for various enterprises.

From this example – which also for the FTI has a very pronounced representative character⁸⁴ –, clearly emerges the ways through which the Foundation ensures its interference on the transformation of the built environment. In this small piece of the Zimeysa industrial area, the FTI puts into practice a close dialogue with the other owners of the land – especially with those of the pre-existing individual houses with the objective to buy them and clear the ground – and with the enterprises to involve them in the transformation. There is no clear distinction between the operations that the FTI does in its domains and the operations that the private actors do in theirs. Instead, there is a mixture of actions, a mutual implication, a negotiation that leads to that extensive – and intensive – interference made by the Foundation.

83 The Foundation owns 70% of the land, or 22,000 m² of the total 32,120 m² (FTI, 2020, p. 26).

84 « *En apportant un surcroît d'efficacité dans la recherche de solutions en matière de mobilité, d'énergie, de services mutualisés, elle doit inspirer d'autres démarches similaires. En effet, la FTI entend en faire un exemple illustrant de manière convaincante l'utilité de ce concept.* » (Ibid., p. 26)

Chapter 4

What outcomes? From practices to space

In the previous chapter, looking at the discursive production of the FTI – and more specifically at the *écoParc* concept –, some characteristics of the visions concerning the type of industrial space that the FTI wants to shape have been outlined. Here the direction of investigation is changed. That is, we start from the concrete practices conducted by the FTI to influence the transformations in order to reconstruct the type of space that emerges. With a caution: the causal connection between a spatial outcome and an action is not a result that can be obtained with this research. The spatial outcome is the result of the concatenation of a number of actions and actors that far exceeds the field observed by the research. Here we simply take into account the meddling of the FTI reported in this chapter, with its channels, its tools; we remain close to its work and the ways in which affects the space.

In the previous chapter we faced in fact what is imagined to be an industrial space that becomes *écoParc*. A new industrial space that resemble a compact residential or office neighbourhood, expresses the technical efficiency of a sustainable machine and reflects the general effort of individual companies to convey quality through the image of their buildings. But these characteristics remain separate directions, uncontaminated tensions, which do not reach the compromises required by the transformation of an existing place. What emerges instead when the Foundation's work comes into contact with the soil, its complications and its differing voices?

First of all, a restrained space emerges. With this expression we mean a regulated, measured, weighted space based on principles and interests that are co-extensive to the entire industrial area. The single enterprise does not have the same freedom on the spatial, typological and constructive choices it had before. Thanks to the weight that the use of contractual and regulatory instruments guarantees on the transformations of the built environment of industrial areas, the Foundation can affirm a strong control over a large margin of the choices made in the localization and construction fields. To construct a building in this context is a highly mediated process.

The FTI now occupies a role that was previously entirely left to individual enterprises: « *En sa qualité de chef d'orchestre des ZI, elle est également consultée dans le cadre des projets privés, notamment dans le processus d'obtention des autorisations mais également en tant qu'expert. Son savoir-faire en matière de développement conjugué à sa connaissance du tissu industriel genevois contribue à ce que chaque projet atteigne sa cible.* » (FTI, 2020, p. 24). The FTI, as this kind of “*chef d'orchestre*” figure, connects between them the constructive choices of each individual industrial area patch: « *Elle ne se contente donc plus d'une vision par parcelle, mais élargit son champ d'activité aux secteurs, voire aux zones d'activités complètes. La FTI se réinvente en collaborant tant avec l'Etat qu'avec les acteurs privés pour développer des périmètres intégrant toutes les composantes de l'aménagement du territoire.* » (Les zones d'activités genevoises se réinventent et se modernisent, 2018).



4. Grisoni-Zaugg building, NOMOS studio.
Source: Photograph by the author.

This work of mediation has very clear spatial effects. The control can be noticed above all in the upward momentum that the new industrial buildings have had in recent years. Two articles in the Geneva press convey the surprise towards this recent change. Eric Lecoultre in an article for the *Le Courrier* newspaper reports: « *Un décor désormais familier dans ce secteur qui voit des immeubles aux gabarits inédits pousser comme des champignons depuis une décennie à peine. [...] Le temps des entreprises gourmandes en mètres carrés semble révolu. [...] La tendance est aujourd’hui à la création d’immenses blocs – parfois sans fenêtres –, des “hôtels industriels” qui peuvent atteindre jusqu’à 24 mètres de haut (le maximum légal) et abriter plusieurs sociétés et activités différentes.* » (Lecoultre, 2019).

While Charles Spierer, then president of the FTI⁸⁵, in an article for the *Le Temps* newspaper states: « *Cependant, la densification n’a pas la même signification ni le même impact selon le secteur industriel concerné. En effet, alors que la verticalisation du bâti engendre généralement des économies d’échelle en matière de logements ou de bureaux, l’inverse est malheureusement vrai pour nombre d’activités industrielles et artisanales. [...] Certaines activités économiques ont besoin de peu de mètres carrés pour créer beaucoup de valeur, alors que d’autres en ont besoin de davantage. [...] Le risque est donc grand, si l’on ne prend pas les mesures nécessaires pour accompagner la densification des zones industrielles, de ne garder sur le territoire genevois que des entreprises avec un haut niveau de valeur ajoutée au mètre carré.* » (Spierer, 2015).

The “*champignons*” of Lecoultre are for Spierer the expression of a selective tendency which if well responding to the densification policies of the State and the FTI can have harmful effects on the diversity of the Geneva industrial fabric: « *Si le paysage industriel est appelé à se densifier, il serait cependant irresponsable de négliger les difficultés de certains secteurs industriels et les dangers de cette transition pour les entreprises concernées. Les solutions existent, à condition de conserver une vision globale des besoins de chacun dans la gestion du parc immobilier industriel et du domaine foncier du canton.* » (Spierer, 2015).

However, there is no doubt that the trend remains dominant and that the work of the FTI has had its importance in its confirmation. The desire for density permeates the Foundation’s discourse, it is present in its annual reports, in the principles it pursues, in the very idea of the *écoParc*. The promotion of this type of spaces is also the result of a search for new typologies, of a reflection on what type of space can accommodate the new needs coming from both enterprises and public authorities. The FTI and its recent *Pôle Développement* ask themselves these kinds of questions. What should be the “*usine du futur*”:

Ainsi le rôle de la FTI n’est pas seulement de leur trouver un nouvel emplacement mais aussi de réfléchir avec elles à une infrastructure idéale, une « usine du futur » pensée et construite sur la base des derniers développements technologiques ou des best practices en matière de processus.

C’est le rôle du pôle Développement et accompagnement des entreprises, qui s’inscrit directement dans la

85 Charles Spierer, president of the FTI since 2014, resigned in 2017 due to a conflict of interest underlying a land transaction: « [...] *l’acquisition, par le fonds immobilier Edmond de Rothschild dont Charles Spierer est vice-président, d’un droit de superficie dans la commune genevoise de Satigny.* » (Nikolic, 2017)

mission de facilitateur d'implantation de la FTI.

En captant les besoins des entreprises et en les traduisant en actions novatrices, son équipe favorise la réalisation de projets et de solutions d'optimisation. Cherchant à répondre à la rareté des terrains disponibles, elle poursuit une logique d'économicité des espaces, d'écologie industrielle et de développement durable.

Elle accompagne les entreprises au cas par cas dans leurs processus de mutation et la définition de leurs besoins en surfaces de production, l'un des enjeux clés de la FTI dans l'ensemble des zones industrielles genevoises. (FTI, 2020, p. 31)

In 2018 the *Chambre de commerce, d'industrie et des services de Genève* (CCIG) publishes an issue of its CCIGinfo bulletin which opens with an article on the work of the FTI. In this article Bernard Chauvet, member of the Board of the CCIG and general director of VCS SA⁸⁶, answers the question « *Les zones industrielles genevoises vont donc beaucoup muter ?* » in this way: « *Oui, sans aucun doute. La rationalisation des systèmes de production, la mixité industrielle et le besoin d'image poussent les entreprises vers une refonte de leurs moyens de production en faveur de la mutualisation et de l'architecture.* » (Les zones d'activités genevoises se réinventent et se modernisent, 2018, p. 2). It is this kind of change that the FTI tries to anticipate in an effort to delineate the new spaces from the new needs. Aiming to « *“entrer dans l'entreprise” pour comprendre ses métiers et ses processus de production* » (FTI, 2020, p. 32).

In fact, in addition to the already mentioned initiatives of the 2015 forum *La Fabrique Ecoparcs* and the 2018 studies with Sofies and OPEO, the FTI launched in 2018, together with the Canton, the HES-SO and the HEG, the *Plateforme de Développement Urbain* program. A research program on « *les meilleures pratiques en matière de bâtiments pouvant associer industrie, services et habitat.* » (Ibid., 25) with the aim of creating a guide for the design of multifunctional buildings: « *Il permettra d'optimiser les choix programmatiques, adapter les dispositifs spatiaux et architecturaux selon leur fonction ou encore élaborer des systèmes énergétiques optimaux.* » (Ibid., p. 25). The evidence of the control and uniformity reported in the press articles have a deliberative character in these initiatives – especially in the concern for the identification of fixed typologies – : « *Aujourd'hui, nous nous concentrons sur l'élaboration du cahier des charges “type” pour chaque catégorie de bâtiments ainsi que sur les critères d'analyse comparative des divers programmes* » (Paola Tosolini in Ibid., p. 25). Typologies capable of giving a definitive answer to the various challenges that densification brings: « *Les questions d'architecture, de structures, d'intégration énergétique mais aussi d'attentes du marché seront également couvertes par cette étude interdisciplinaire.* » (Ibid., p. 25).

The expression of control and spatial uniformity does not end in the compactness of the built environment alone. The recurrence of typological, technical and aesthetic choices also proliferates in the new interventions. With the upward momentum and the gain of a few more floors, the facades of large openings for glazed windows, the flat roofs, the metal or insulated plaster coatings also make their way. And there are fewer blind facades, “saw-toothed” roofs, sheet-metal surfaces. In general, a search for sobriety and image quality takes hold in the use of materials and in the modulation of the openings in the

86 VCS works in the field of construction in Switzerland.



5. Zimeysa seen from Route du Nant-d'Avril.
Source: Photograph by the author.



ZUMWALD

60

100 m

facade. An image that stands out from the traditional industrial buildings that still populate the industrial areas of Geneva – « *Il se différencie ainsi des bâtiments industriels habituels et adopte un style plus sophistiqué* »⁸⁷ – but without presenting the exuberance of the watchmaking plants in Plan-les-Ouates – in particular those of Piaget and Vacheron Constantin –. In addition, the new buildings have in common a search for quality combined with a generalized anonymity. That is, they do not express the specificities of a particular type of production.

Uniformity, sobriety, anonymity. The new “mushrooms” of Lecoultre are well-built boxes made for accommodating a variety of different programs (multi-activity) while remaining unaffected by them. The effort to “enter into the enterprises” in order to define the characteristics of the “*usine du futur*” seems to give rise to, paradoxically, a kind of enterprise-less space.

A division of tasks between the FTI and the enterprises

What seems to be emerging is a kind of division between the building and the enterprise. With the FTI placed at the center of this separation. In fact, in a 2015 report of the Conseil d’Etat on a bill to amend the LFTI (PA 327.00)⁸⁸, Nicolas Aune, general secretary of the *Union Industrielle Genevoise* (UIG), replies to a *Parti Libéral-Radical* commissioner who questions the need for the FTI to ask for loans for real estate investments – referring to article 5 line 3 of the new draft law⁸⁹ –:

[...] *il ne sait pas si le but est que l’entreprise soit propriétaire de ces biens-fonds. Il comprend qu’il y a un élément technique pour la FTI par rapport à l’acquisition, au développement ou à la promotion de bâtiments qu’elle mettra ensuite à disposition des localités. Il pense que la FTI aura plutôt un rôle de promoteur par rapport à l’offre qu’elle proposera. De plus en plus dans l’industrie, le capital est garanti sur l’outil de production plutôt que sur le bâtiment.* (PL 11796-A, 2015, p. 16)

The investment of the FTI in the built environment is disorienting. Doesn’t it make more sense that public investments concern the means of production (*l’outil de production*) rather than buildings? Nicolas Aune wonders. The strategy of the FTI instead affects the space, from the location of an enterprise to the transformation of the building envelope that covers it. The enterprise concentrates entirely on the development of its own means of production, detached from the physical support that hosts it⁹⁰ – the

87 Description of the *Hôtel industriel des Galants* project on the website Architectes.ch. Source: <https://architectes.ch/fr/editions/26/hotel-industriel-des-galants>.

88 Is the *Rapport de la Commission de l’économie chargée d’étudier le projet de loi du Conseil d’Etat modifiant la loi sur la Fondation pour les terrains industriels de Genève (FTI) (PA 327.00), PL 11796-A*, Secrétariat du Grand Conseil, Filing date: March 21, 2017.

89 « *Le Conseil d’Etat est autorisé à garantir les emprunts de la fondation; l’autorisation du Grand Conseil est nécessaire pour la garantie des emprunts dépassant 50 millions de francs.* »

90 It goes without saying that the separation between means of production and buildings (as a spatial fixed capital) does not count with theoretical support. Especially for the Marxist theory, fixed capital is part of the means of production.



6. Geneva Logistics Group building.
Source: Photograph by the author.



7. 'Atrium Park' multi-activity building in Zimeysa, De Giuli & Portier Architectes SA.
Source: De Giuli & Portier Architectes SA.



de Giuli & Portier architectes SA ©

Foundation takes care of this.

The divorce between enterprises and space leaves the FTI with a lot of room for manoeuvre. As we have seen, the FTI constantly reinvents itself by taking on more and more tasks related to the transformation of the built space. And this does not cause few confusions. In the same 2015 report, in front of this composite and considered invasive role of the FTI, a commissioner of the *Parti Démocrate-Chrétien* wonders “what happened with competition” (« *ce qu’il en est de la concurrence* »). The interim general director of the *Office de l’urbanisme* Pierre-Alain Girard replies with an effort to reframe the FTI’s role:

[...] *le but premier de la fondation n’est pas forcément de réaliser, mais de faciliter l’implication des entreprises en mettant à disposition des DDPS. Sur le fond, il y a parfois des discussions sur la concurrence, mais il n’est pas sûr qu’il y ait de grandes discussions sur la concurrence avec le privé. Il peut être parfois reproché à la FTI d’avoir un quasi-monopole de facilitation des entreprises par rapport à d’autres fondations, comme la Pallanterie. La FTI est plus un facilitateur qu’un constructeur.* (PL 11796-A, 2015, p. 22)

“Facilitator rather than constructor”. The work of the FTI actually defies this definition that fails to grasp the regulation on the built environment through building permits and *droits de superficie*, the promotion of a specific type of space, a continuous thought about industrial areas and their role in the contemporary city: « *La zone industrielle de demain sera en phase avec son temps : plus attractive, plus qualitative, plus dense, plus mixte tout en restant compétitive. La FTI prend ce virage et s’engage à construire la ville de demain avec, en son cœur, les écoParcs industriels, qui allient enjeux économiques et durabilité.* » (Charles Spierer in FTI, 2016, p. 4).

The spaces of the FTI

The enterprises take care of production, the Foundation takes care of space and the city. With this division of tasks, space performs functions and follows criteria that were previously completely alien to the interests of manufacturing companies: « *Enfin, la FTI doit également se préoccuper de l’aspect qualitatif et esthétique des ZI, tant pour leurs usagers que pour ceux qui résident à proximité. Dans cette optique, elle développe les voies de circulation, crée et entretient des espaces verts, de manière à conserver la valeur de ces terrains sur le long terme.* » (FTI, 2004, p. 12). Preserving the value of land in the long term is indeed a new objective for spaces so far conceived simply as tools for enabling economies of scale. So much so that one of the major risks facing the FTI is that of real estate speculation: a very unusual concern for a functioning industrial area.

Following Lecoultré: « *De nouveaux promoteurs ont pris d’assaut la Zimeysaver, attirés par des opérations particulièrement lucratives. Ils construisent sur des terrains appartenant à la Fondation pour les terrains industriels (FTI) et réalisent de juteuses plus-values à la revente.* » (Lecoultré, 2019). In fact, it is feared that the industrial areas of Geneva have become places that are all too attractive to the market. And the FTI is aware of it:

La zone industrielle est-elle en proie à la spéculation immobilière? « Le risque existe et nous en sommes conscients », répond Claudia Grassi, directrice générale de la FTI, le bras armé de l'Etat dans ce secteur. Depuis 2017, des mesures ont été prises. Le calcul de la rente exigée par la fondation a été revu et prend désormais en compte le rendement potentiel du promoteur et un droit au gain (une part du profit) est perçu en cas de vente rapide d'un bâtiment. De nouvelles règles supposément dissuasives. « Nous voulons limiter les risques de spéculation. Nous ne cherchons pas à décourager les investisseurs qui sont des acteurs importants. Les bâtiments construits actuellement sont de qualité et répondent aux besoins des entreprises », précise Mme Grassi. (Lecoultré, 2019)

Beyond the actual risk, this is a strong indicator of the changes that the industrial areas of Geneva are facing.

Recent projects like the Hewlett Packard's "The Hive"⁹¹, the Centror-Ritschard building⁹², the Atrium Park⁹³, the Richemont's Campus Genevois de Haute Horlogerie⁹⁴, the Hôtel industriel des Galants⁹⁵ in Zimeysa; the Grisoni–Zaugg⁹⁶ building in Bois de Bay; the L'Atelier and Skylab⁹⁷ twin buildings, or the

91 It is a four-storey rectangular building containing 7,350 m² of floor space. The facade "communicates" a certain relationship to the world of IT technology through the modulation of the windows: « The pattern on the facade is based on computer language, the repetition of the digits 0 1 0 1 0 in binary code. » (Source: www.thehive-gva.ch/en/buildings/hive-2/).

92 Project carried out in 2014 by the firm De Giuli and Portier Architectes SA for the subsidiary of the watch manufacturer Audemars-Piguet. Two similar buildings for different enterprises which try to stand out (also here) with the language of windows: « *Plutôt bienvenues dans une même opération, ces parentés architecturales n'entraînent aucune monotonie et, comme dans toutes les familles, chacun des rejetons possède son caractère et ses singularités. Le bâtiment Centror affiche la présence de fenêtres en longueur, courant sur les quatre façades.* » (Source : <https://www.architectes.ch/fr/reportages/industrie-artisanat/centror-ritschard-64430>).

93 Also designed by De Giuli and Portier Architectes this building is one of the most ambitious. An "immeuble multifonctions de dernière génération" with 30,000 m² of surfaces for industry, workshops, a three-star hotel and a fitness center. This project becomes a sort of gateway to the industrial area of Zimeysa as it is combined with the train station.

94 A campus created by Groupe Richemont for important watchmaking companies such as Cartier, Van Cleef, Jaeger-LeCoultre, Roger Dubuis. « *Une agora moderne pour les maîtres du temps* » also composed of a training center, a restaurant and an auditorium. Source: <https://deplanta-architectes.ch/fr/portfolio/campus-genevois-haute-horlogerie-richemont?fbclid=IwAR201DIF5GxWSoo7RSZrxAvogqizXfVX4ZIT6t%E2%80%A6>.

95 Project designed by the firms Strata Architecture Bohnet & Stiles associés and De Giuli & Portier Architectes where 26,450 m² of surfaces distributed on five levels are intended for small logistic or productive activities. Also here the façade plays a fundamental role in the image of the building: « *L'enveloppe comporte deux types de façade : la première en panneaux sandwich et la seconde en poteaux-traverses. Ces façades, auxquelles s'ajoutent des éléments en crépis isolés, ainsi qu'un design comportant des porte-à-faux de 3 mètres, mettent en valeur le bâtiment.* » (Source : <https://architectes.ch/fr/editions/26/hotel-industriel-des-galants>).

96 Project financed by the construction company Grisoni-Zaugg and the FTI in 2013 and designed by the NOMOS studio. This four storeys high new building for warehouse, offices and crafts activities has a double skin in pseudo-transparent plastic sheets.

97 Projects both located in the Chemin de Pré-Fleuri street in the very heart of the industrial zone of Plan-les-Ouates. The first is a building of 45,000 m² for « *ateliers, laboratoires, surfaces de stockage ou locaux high-tech* » (Source: <https://atelier-geneve.com/projet/>). The second is a building of 27,000 m² with « *une façade minérale, six étages, un mail central sous forme de patio et une toiture végétalisée* » and destined for « *entreprises biotech, cleantech, informatique, horlogerie, restaurants et petits commerces, ainsi que des services publics comme une crèche et une caserne de pompiers. Plus un parking souterrain sur trois niveaux* » (Lecomte, 2014).

Espace Tourbillon⁹⁸ (fig. 8) in Plan-les-Ouates; are all examples of a radically different industrial space. That is, a space where actual production activities are compressed in interiors removed from the gaze of those who observe these places from the outside. From the streets and from the new tree-decorated squares only well-kept-looking volumes can be seen. The freight elevators, the stored materials, the machinery for the transformation of goods, even the parked cars cannot be seen. Everything used by the enterprises lies behind a beautiful facade or it is buried underground.

This space does not, however, include those activities that worried Charles Spierer in his article for *Le Temps*. Those that find themselves in a more difficult situation: « *Et l'on constate que les secteurs d'activité qui ont un ratio défavorable sont ceux qui nécessitent les plus grands espaces: entreposage de matériaux et d'installations mobiles, hangar à autocars et poids lourds, espace de recyclage, de véhicules d'occasion, parc d'engins de chantier, etc.* » (Spierer, 2015). Surfaces for the storage of materials in the open air, machinery for moving large weights, big and noisy material treatment plants. This space is not made for “ugly” activities.

98 The biggest project. A set of five seven-story buildings designed by Brodbeck Roulet architectural firm which reaches a total of 95,000 m² of usable surface. This group of buildings has a more anonymous and softened external “face” – where squares, terraces, ponds emerge « *Afin de concilier un cadre de travail de qualité et des espaces de vie conviviaux* » – and a more hard and technically exposed subsoil – where an internal logistic platform guarantees the continuous flow of goods –. Source: <https://www.espacetourbillon.ch/en/swiss-prime-site/>.

**Under the skin of
the city.
Research
conclusions**

The work conducted, through the lenses we have relied on, gives us back ambiguous results. The questions that guided this work – what forms does the transition taking place today in the production areas of Geneva take, how planning tools rearticulate themselves to take charge of this transition, what relationship is established with the city? – find reciprocally contradictory answers. On one hand, we find a marked desire to erase the places and representations related to the industrial world, while on other hand, a vigorous effort fuelled by radical aspirations emerges that invests these places with innovative interventions and remodelled tools. How do these two trends intertwine?

The repression of industrial areas

In the Geneva plans there is a desire, sometimes explicit and sometimes implied, to remove industrial areas. This desire for removal materializes in spatial forms that convey a sort of repression. Repression emerges where the space that is to be shaped in industrial areas is judged incompatible with the specific characteristics of these places.

As we have seen, Genevan and more generally Swiss planning tools are rooted in an “anti-urban” tradition (Joëlle, 2005) which, however, invests heavily in an idea of the city and in its expansion. That is, that passes from seeing the city only as an expression of the ills of technological progress and demographic concentration – “*la ville mal-aimée*” (Ibid.) – to consider it part of the solution: the “urban idyll”

(Hall, 2014). Planning tools, especially from the moment they assimilate the principles of environmental sustainability, begin to promote a type of space that contains, at the same time, characteristics of the city center and the countryside: « This borrows associations from rural life – the “local community,” “nature,” “heritage,” the “village” – to recreate a vision of civilized urban living: the urban village. » (Hall, 2014, p. 459). Although it is difficult to clearly define this space promoted by Geneva planning, one thing is certain: it does not contain any traits within it that can be considered close to the industrial spaces inherited from the Fordist period. As a matter of fact, they host a sort of internal distance which constantly seeks the distinction with respect to industrial areas – and it could perhaps be added to urban peripheries in general, or rather, to a stereotyped image of the suburbs characterized by marginality, degradation, absence of services (Bellicini, et al., 1989) –.

The regional plans are crossed by this internal distance that emerges, first of all, in a stripping of the specific significances of the industrial areas. We have seen this for example in the external approach – which sees Zimeysa as a neutral and passive background – and in the recognition of strictly functional values – Zimeysa is only considered useful as it contains activities necessary for the economic health of the region –. In a second step, the internal distance manifests itself in the design proposals for these places. In overlapping initiatives: the public transport networks running through Zimeysa, the *pénétrantes de verdure*, but above all, the new public spaces which, like the Voie Verte (“*place publique de l’agglomération*”) or the Gare Zimeysa of the 2011 PACA, match existing roads and enhance places deemed strategic. And in opening actions: the search for compatibility between some areas of Zimeysa and its surroundings, such as the ZA Meyrin Village promoted among the PACA proposals, the separation between spaces to be hidden and spaces to be integrated with the rest of the urban fabric, such as the distinction made in the PACA between “*zimeysa-tech*” and “*zimeysa-fer*”, the identification of suitable places to give a different face to the industrial area, as is the case in the “Front” and the “*park paysager*” (also these part of the PACA proposals) which should offer a sort of urban facade to the interior spaces of Zimeysa. These efforts to deny the otherness of Zimeysa have, in the 2016 plan, with the greater emphasis on dwelling and urban “quality” that distinguishes it, an important moment of maturation. Here the industrial area becomes a space “*agréable à vivre*” rather than a workplace.

The cantonal plans embody the desire to distinguish new spaces from industrial areas in a similar way. Here is practised above all variety, the inclusion of difference, *mixité*. In a nutshell, the blowing up the industrial area in a myriad of different directions, effectively denying the spatial and uses homogeneity associated to it. The municipal plans, for their part, exercise this distance from the inside through the figure of the pedestrian. Here an industrial area made for walking, for strolling, is pursued. The municipality of Satigny strives above all to reduce the territorial and landscape footprint of Zimeysa, while Meyrin instead engages in its heavy pedestrianization. In making it a “neighborhood”. This idea of a neighborhood is also central to the GP Zimeysaver, which seeks, through the figure of the mosaic, a breakdown of this space judged undifferentiated into more readable and therefore more “familiar” pieces.

These different forms of repression of the characteristics of the industrial area, however, do not allow us to speak in terms of “plan”. But of attitude. There is no concrete direction that we then see taking on specific forms in the different planning tools. It lacks a clear and stated purpose. A clearly defined intentionality. The approach is rather reactive, inert. Repression manifests itself, so to speak, by itself

when a project begins to take shape. A little bit conveyed by the culture of planning itself¹, a little bit promoted by local economic policies that see in the valorisation of the rural landscape, the tertiary sector, the *économie résidentielle* and *présentielle*, preferable forms of wealth creation. There is first of all a belief: the underlying assumption that bucolic rural characters or city center-like urban forms are however and wherever preferable, regardless of the type of processes and activities settled or that want to establish themselves.

Space as a limit

However, this compression of the symbolic and spatial characteristics of the Fordist industrial areas also seems to suffocate the spatialization of all those initiatives that we have seen committed to a radical change in the relations between economy, society and environment. The attention of the cantonal policies of the “*Genève pionnière*” to the industrial ecology paradigm, and the will to translate its principles into concrete spaces and processes, seem to weaken in the moment in which they have to affect the built environment of industrial areas.

Even the most ambitious initiatives find a limit in space. The *Cercle de l’Innovation*, the 2008 PPDE, the 2015 *Plan directeur cantonal* and its “*envie de créer*”, these are all proposals that focus on industrial areas and aim for their reintegration into the territorial game between places and processes, which underline the importance of bringing out their specificities, their particular vocations. These are initiatives that not only pose the question of what constitutes today a suitable place for industrial activities but seek their fundamental contribution in the reinvention of the Geneva metropolis. However, these purposes remain mostly limited to the communicative level, while the space is in the hands of those tools of production and reproduction of a kind of city that does not contemplate industrial activities. The actual production activities remain contained within anonymous spaces and those interventions more specifically related to industrial ecology policies, such as platforms for the recovery and valorisation of waste, remain discreet and without important consequences on a spatial level.

Even when the tools of transformation and control of space are very effective. The FTI’s “*cantonalisation du sol*” work, which guarantees it an ideal posture to weigh on these same industrial areas, to impose prices, to dominate key infrastructures, however, does not seem to allow free experimentation of spatial forms related to new production models. Neither the instruments of *droit de superficie* contracts, which allow the FTI to ensure correspondence between its expectations and effective land uses, nor the building permits, which grant the capacity to intervene in areas not directly owned by the FTI with high levels of detail, produce spatial outcomes which can be considered very different from those generic

1 A planning culture which strongly contrasts the presence of strongly distinct territorial entities: « [...] Switzerland – which is famous for its variety of languages and cultures, customs, and everyday amenities, for cultural difference per se – cannot handle real difference in the sense of urban culture. A thesis: Switzerland, the land of hyperdifference, is less able to live with and make something of difference than any other country! » (Diener, Herzog, Meili, de Meuron, & Schmid, 2006, p. 160).

office settlements that are seen elsewhere.

The will to govern the production space is strong. The FTI is an actor that strengthens itself, becoming a key player within the Geneva context, precisely at a time when the secondary sector is shrinking. Its double role of urban operator and industrial areas' guardian (in terms of relationships and networks), translates, at an operational level, into a multiplicity of different actions. These actions can be considered "relationally complex" – involved in different governance levels and in broader geographical areas – and "highly versatile" – intrinsically open, accustomed to trial-and-error processes, constantly reinventing themselves –. This government of the productive space, so versatile and so effective in achieving the objectives set – thanks precisely to this versatility –, is however highly normative when it comes to spatial forms. What seems to emerge clearly in the research carried out and reported in this thesis is precisely this asymmetry between, on one hand, a strong push on the communicative level and a great effectiveness in the processes which intervene in the built fabric of industrial areas, and on the other, an asphyxiating containment of the freedom of transformation of these spaces.

The processes underlying the production of these spaces do not promote the emergence, on space, of substantial changes that are happening in the modes of production. These processes, on the other hand, reproduce a very generic, but at the same time very inflexible, idea of city.

The city as a skin

The Geneva écoParcs are the most eloquent expression of this asymmetry. Strong semantic shifts, profound reconfigurations in the modes of production, great importance given to the role of space, which nevertheless affect this space on a micro level. In that minutiae of the quotidian of enterprises organization, in those small changes in the uses of space designed in the ateliers organized by the FTI. Potentially important changes that, as in the example of Zimeysapark and the conditions of access to its services, which is nothing more than a policy of integration, of disciplining the use of space, however give rise to spatially small protrusions. What exactly are these initiatives colliding with?

The space promoted by the plans and directly regulated by the FTI in its guise of "*chef d'orchestre*" is a space that hides the transformations most directly linked to the world of production, to the organizational models of enterprises, to the movement of material goods. A restrained space that, in its desire to shape urban forms compatible with the principles of densification, but above all with that recurring and vague ideal of urban neighbourhood, is resulting in multifunctional buildings, fixed typologies, anonymous open spaces, tree-lined pedestrian paths. The reproduction of what is known and conciliatory. The mechanisms responsible for the transformations, very effective in controlling these same processes, have made a clear division between that external space that precisely wants to imitate city center places – considered beautiful and comfortable –, and the closed dimension of the enterprises that occupy small compartmentalized worlds within large buildings. The actual production processes remain hidden behind the urban fronts that overlook squares or boulevards, behind the anonymous facades of

multi-activités buildings, underground.

It is under this sort of skin made up of anonymous facades – but which communicate a certain idea of quality –, of pedestrian paths, trees, street furniture, where new production processes proliferate. Without ever surfacing. In fact, this skin covers these places distancing them as much as possible from what we are used to consider an industrial area. Industrial areas, especially the Fordist ones, were almost exclusively based on the principle of productivity, that is, land occupation only responded to the need to expand the productivity of enterprises. Today, however, we see completely different objectives taking over: pedestrian comfort, accessibility to slow transport, “aesthetic quality”. These different expectations also meet new interests that have entered the economic sector. That is, interests that go beyond the sole objective of productivity per square meter, instead crossing issues such as fragmentation, uncertainty, spatial flexibility, long term buildings’ rentability, etc. (Vettori, 2013). The result of this opening of expectations and objectives is, paradoxically, an hypercodified space. Where spatial and constructive experimentation is slow. What contains is here to a certain degree detached from what is contained.

A double stiffness

In Geneva, the tools of space production have an extraordinary strength. Not only the problem of industrial areas and their relationship with the contemporary city has begun to emerge, a problem to which a very important amount of energy and resources has been dedicated – as we have seen in the plans –, but also the infrastructures for the guidance and control of urban transformations on more concrete levels has been refined – as we have instead seen with the FTI –. However, this great effort and this great effectiveness run the risk of atrophying the capacity that industrial areas have to welcome the experimentation of new economic models and to spatialize them.

On the one hand, they are increasingly becoming arid contexts for all those economic activities which remain somewhat traditional, more directly involved in the transformation and displacement of material goods, which make a more extensive use of space, which find it difficult to contain the noises of their processes. This type of activities, often located in less profitable market layers and often operated by workers with lower wages, face the difficulties caused by a more stratified, more subdivided, more regulated space, and frequently decide to move elsewhere in search of more flexible situations and less expensive soils. The predisposition of these places to accommodate almost exclusively high market productive activities can therefore be seen as a mechanism of exclusion: in this regard Zoé Chateu wonders if industrial areas « *seraient-elles l’avatar d’un processus plus large de relégation des classes populaires et de l’activité productive – et de plus en plus en plus commerciale – en périphérie ?* » (Chateu, 2019). An exclusion that is potentially harmful for a Genevan middle class facing growing fragilities related to the lack of means for supporting the relative high cost of living. As we have seen, this risk occupies a place in the concerns that drive the local debate: « *De l’ouvrier qualifié au dirigeant de petite et moyenne entreprise, de l’infirmière à l’enseignant, de l’artisan au fonctionnaire, les classes moyennes constituent un élément de stabilité sociale et un garant du bon fonctionnement de la société comme de*

l'économie. » (Beurret, and others, 2007, *Projet d'agglomération franco-valdo-genevois. Cahier annexe n°1*, p. 19). However, the most recent transformations are driving the industrial areas of Geneva towards more restricted scenarios and less equipped to accommodate a wide range of different types of production activities.

On the other hand, the freedom that production processes found in industrial areas, which manifested itself in that disjointed architectural phenomenology and in those amorphous contexts (“*urbanisticamente amorfo*”) of which spoke Roberto Gabetti in his studies on the Piedmont context (Gabetti & Avigdor, 1977), has been severely compromised. The space on which production processes, and its multiple relationships with the surrounding environment, settle themselves is instead a very constrained space. A space in which the disarticulation and the lack of quality have been assiduously fought by interrupting the freedom of access of production processes. This interruption occurs above all by saturating this same space with urban formal references borrowed from the city center. The industrial areas inherited from the *Trente Glorieuses*, accused of being monofunctional and extremely specialized places, are here covered by a layer that seeks continuity with the residential and commercial places of the city center in an attempt to counter this specialization and its spatial effects. However, can residential areas in urban centers really be considered as better bearers of diversity? : « *Mais en même temps, ne pourrait-on pas faire une critique similaire à certains centre-ville qui se transforment de plus en plus en espaces élitistes réservés à la consommation ? Sont-ils de meilleurs lieux de vie aujourd'hui que les zones d'activité ?* » (Chateu, 2019).

This double stiffening of industrial areas, from the point of view of the type of activities welcomed and from the point of view of the freedom of transformation of the built fabric, is a clearly visible trend in Geneva, but which speaks of a problem of the contemporary European city. Indeed, the European city seems less and less willing to accommodate traditional industrial activities, less permissive in regard of its environments, more protective, more patrimonializing, more oriented towards residential economic models (Boltanski & Esquerre, 2017). But, at the same time, is very attentive to the new ecological and sustainable paradigms and very involved in the remodelling of its production and logistics processes. This impasse results in the relegation of production processes to hidden and underground spaces. Processes that remain submerged by a predominant effort of embellishment and reproduction of appeasing spaces.

The re-emergence of production. A design perspective

Downstream of the Geneva experience, a design direction is proposed here.

In order for the transition that is taking place in the industrial areas of contemporary European cities to truly connect with the overall functioning of the city and become an opportunity for radical transformations, the space should return to being accessible for experimentation with new processes and new intertwining between different fields and knowledge. The production processes, so intensely rethought by the new economic paradigms of industrial ecology and the circular economy for example, should be capable to affect the space with force and with a certain amount of crudeness. They should be able to break that gap between “content” and “containing” – “*contenuto*” and “*contenente*” (Gabetti & Avigdor, 1977) – today imposed by the mechanisms of reproduction of space. To become true laboratories, industrial areas should open up to a more uninhibited action engaged in the search for new connections between new production processes and new spatial forms: a spatial innovation capable of breaking the hard skin that today increasingly covers these places. The new models of production and resource management, taking advantage of the greater grip that planning tools have on space in these contexts – as we have seen in the case of the FTI –, should make a more unprejudiced use of space that allows them to reinvent themselves in a more radical, more extensive, more interconnected way. The use of space as a resource capable of elevating production processes from isolated and segmented events to overall territorial functioning.

The power potentially contained in the new paradigms that European cities today place at the top of their political agendas has in industrial areas a privileged space on which to test models, tools, concatenations. A space where it can pass from diluting into that « *livello mitico dei grandi principi, attorno al quale si coagula un consenso di maniera* » (Secchi, 2000, p. 181), of which Bernardo Secchi speaks, to the pragmatic level of exchanges between economic and political resources able to deeply affect the material form of the city. A space where to bring to the limits that greater awareness and control that society wants to achieve with respect to its material support which is contained in the ecological transition agenda: « *Tout se passe comme si la société prenait conscience de son corps, de sa position dans l'espace, et adaptait son organisation aux possibilités qu'elle aperçoit ainsi.* » (Halbwachs, 1938, p. 9).

To deploy all the strength that this potential retains, the tools for managing urban space should not only refine their means, invest more economic resources, create more alliances between local actors, but to leave the space to establish greater complicity with production processes, to allow more freedom to enterprises and public actors to not only build new organizational networks but to mold them into new building typologies and new urban forms, to allow more anomalies to have their place in space². It is a matter of conceiving overlapping not as a covering and suffocation of logistical and production processes but as an opportunity to create new intertwining between different spheres that open up to reciprocate

2 « *Puntavo molto sul fatto che l'innovazione non è progettabile. Tuttavia si può dire che, in qualche modo, sia generata dalla considerazione positiva e non negativa dell'anomalia. [...] L'anomalia “non dolosa” è un sovraccarico di significati. Il contrario è la selezione che non coincide con una supposta evidenza e chiarezza.* » (Crosta & Bianchetti).

ed influences. It is a matter of opening the borders of industrial areas not only to let in what we select as the best or most representative side of the cities, but also to let out the dynamism contained in these places and let it deploy elsewhere that production that for Amin & Thrift constitutes a real “drive” of cities (Amin & Thrift, 2002). Don’t just ask ourselves how industrial areas can become neighbourhoods “*agréables à vivre*”, but also how can the real neighbourhoods welcome new forms of convergence between economic processes, flows of matter, consumption practices, dwelling arrangements, etc.

In a few words: to unpress the repression that have been silently exerted on industrial areas.

On the other hand, what does the Geneva case can teach us about the more operative side of space transformation processes? There are two main choices which, this is the advanced belief, most strongly distinguish the policies applied. Two directions that are not at all to be considered unusual for urban planning when facing this type of problem, but which here take on such demarcated traits as to qualify the type of policy conducted.

The first choice was to delegate the task of transforming industrial areas to an autonomous entity which is entirely defined based on this same task. The Genevan public infrastructure copes with this task by deploying a third-party entity to take charge of the destiny of these areas. This decentralization policy of the Canton of Geneva creates institutional bodies in the image and likeness of the places object of the task, the problems contained, and the objectives set. The most characteristic feature of this policy is that the designedly created third party becomes the bearer of the collective interest while at the same time is committed to satisfying the private needs of the stakeholders concerned. A mediation figure. The implementation of industrial ecology principles in Genevan industrial areas it is not left to the doubtful good will of companies, and it is not even superimposed by massive public policies of territorial infrastructuring – it is rather left in the hands of an actor who remains tied to public interests by contracts while operating in close relationship with local companies. The link between the more abstract aspirations related to industrial ecology and the specific territory conditions is mediated by an actor deeply rooted in both fronts. The potential advantage is, on the one hand, greater knowledge of the specificities of the context – with respect, for example, to public policies of great momentum but little grasp –, and on the other hand, the directing of processes towards a pre-established goals that remain diverse than just the profit of companies – this is of course the risk of policies entirely delegating tasks to private companies –.

The second choice was to combine two different but potentially complementary kinds of operative activities: a communicative work and a soil-related work. On the first front, there is an effort to bring enterprises closer to the management of the industrial area. Here the ecopark concept, the ateliers, the workshops, the marketing, are all part of a management philosophy aimed at promoting collaborative relationships between companies. A greater communication exchange with the enterprises is seen as a facilitator factor for the eco-transition of the industrial area. An influence on the ‘mind set’ of companies and their way of relating to each other and to the environment.

On the second front, there is a more concrete work guided by a desire for a firm and detailed control of the land and its transformations. Here the regulation of the land is pursued through a massive land appropriation endeavour, an articulated contract design work with enterprises, and a piece by piece component (enterprises and buildings typologies) selection exercise. Thanks to the land seizing work it was made possible to demand a certain architectural and technical quality level. The contract design work allowed a constant presence of the Foundation in the construction and land-use phases and therefore to police the compliance of its goals. The selection work made possible to manipulate the industrial areas composition both in terms of the types of company established – and in particular its adaptation to the environmental agenda – and the characteristics of the new buildings – especially regarding constructive and typological choices –.

This second direction can be seen as a kind of ‘pincer movement’ strategy which combine a purely communicative work and a real estate regulatory work. The most interesting aspect of this policy is precisely the potential complementarity of these two fronts: an entirely communicative work would leave too much decision-making power in the hands of individual enterprises – and therefore the non-guarantee of the constancy over time of the compatibility between objectives and processes – while, on the other hand, the control of the land by itself would risk remaining irrelevant with respect to the expected adequacy between productive processes and environmental objectives.

Even if the long-term effects of these choices still remain without proper evaluation, it is important to take note of their potential. Transforming processes completely distinct from the logic of planning such as production ones, affecting the built fabric of industrial areas formed in fairly long time spans, introducing environmental objectives in areas for which opening up to these paradigms means reinventing themselves completely, are extremely difficult tasks. In this frame, both the putting to work of an autonomous entity capable of measuring itself with the complexities of the local context and pushing it towards the set goal, and the coupling of a dense and articulated communicative work and a highly influential work on processes of transformation of the soil, are operational choices that, in the absence of a more suitable word – without concrete results we cannot speak of effectiveness –, can be considered at least credible.

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Interviews

Interview A: MARC SNEIDERS

*Marc Sneiders is an architect who occupies the position of chef de projet écoParc industriel in the FTI.
Geneva*

06/05/2019

10:00AM - 10:30AM

Translation from French to English by the author

In the conference “Écologie Industrielle & Biomimétisme” of November 2018, you talked about the importance of a vision, of a certain vision, to gather together different actors, enterprises, and convince them to engage in a common project. You could tell me a few words about this vision?

I wasn't referring to the vision of the FTI, or the vision of the State of Geneva, because they are already written. The vision I was talking about is the vision that we create for each action or each écoParc. There is no preestablished vision, we create that together. And I have to say that, most of the time, I don't ask the question about what the vision could be. I just ask them some questions, because it is too frightening in some groups. But I still ask them some questions about what could be the purpose of the action or project that we have, some questions that could lead us to find some kind of vision, and then, after obtaining the agreement of the group, I can express it as a vision. It is difficult for me to give you some examples of visions because it really depends of the groups and the energy and what happens in the group. The actual collective consciousness is not fully ready to talk about vision and intentions. People are afraid of those ideas. We still do that but it is not so obvious. We co-create a vision with all partners.

Do you think that the FTI has an idea of a certain future towards which enterprises are going? This idea is currently present somehow in your interventions?

No. Almost all enterprises have their intentions focused on how to survive. The attention and concern of small companies is about how to pay the salary of its employees, how to have enough clients, how to increase production, so it is really fundamental. A vision of what could be the activities of the second sector is not in the space. This is a subject for the State of Geneva, the FTI and some professional associations, which dedicate more attention on this topic.

Until now we have experienced a certain degree of separation between industrial areas and the city. There is a different approach in the work of the FTI? Do you imagine a future for these areas where they could be more related to the city, or this distance is going to be maintained?

I agree with your viewpoint, in the past there was a clear distinction. The belief system was that industries create disturbance and we must place them away from the city. The distance was not defined, it could be 1km or 10km. “Away” was more like an idea. In China or in Turkey you would see like easily distances of 50km. In China you would see industrial areas that are like cities. So there is no comparison

between those situations. In Geneva the State is so small and the agricultural areas are so clearly defined that there will be a connection between the urban and the industrial areas. Even if the State of Geneva is creating the PAV and he is pushing the enterprises out of this area there will be a quite close relation between industries and residential areas. It's not so much the goal though, to make a distinction or not.

In your experience, in implementing the écoParc projects you have encountered relevant differences between the industrial areas of Geneva, specially Bois-de-Bay, Plan-les-Ouates and ZIMEYSA?

At the moment, after three years of implementation of the écoParc concept in those areas, we are not able to see important differences. It took two years to create the écoParc concept and then we started with group discussions, commissions, etc. The real effect of this intervention is not so visible yet. The mind of people has to change, and that takes time. Between the time when people say "ok let's have a space for collaboration" and the time when you can feel the change, through buildings and realisations, it takes a while. Even if some of our projects are well implemented is not easy to see their effects. To be honest.

There are differences that are more related to historical situations. Bois-de-Bay is an industrial area largely developed on demolition waste storage sites: the subsoil is polluted. Therefore, it is not so easy to have buildings above this type of ground, it was predisposed for companies with logistics activities for example. We see companies recycling damaged cars, managing waste, storing construction equipment or doing transport logistics etc. In Plan-les-Ouates, the city authorities had the opportunity to welcome Rolex and other major watchmaking companies, due to the proximity of the Geneva motorway and urban centre, but also to the accepted levels of construction density, which are higher than those of the Bois-de-Bay industrial zone.

In the last years the FTI has bought a large number of properties in the Genevan territory. Why exactly?

In our last years' statistics the FTI had to integrate many properties of the State of Geneva, which were located in industrial areas. This is because the PAV, here the FTI own many properties. But most of them will change their function to residential, commercial and business. The FTI gave them to the State of Geneva and, in exchange, they gave to the FTI the properties which were located in the other industrial areas. That is a process that take time, I would say that between the decision and the moment when it is really effective usually pass three years. So it depends of how you look at our statistics. If you select only one year maybe you will see that FTI buys a lot and you won't see that it also gave a lot away. It is not so easy to have a good understanding of the situation by looking only at one year. But I have to say that the FTI's success is based on the ownership of property, which is part of our missions. This help to have a control on the land prices. Because of the law on Geneva we are able to control the prices of the exchanges, how much it has to be paid for the land. Because of that the small companies are able to stay in the Genevan Canton. Otherwise the pression of the cost will push them away. It is also a power to be the owners, because when the FTI owns, it can constrain the construction of industrial buildings and ask for a certain quality level. We also gain money from the properties rent, so it is good for everybody. The gained money returns to the State of Geneva or allows us to buy more terrains. It is a win-win situation.

Interview B: LUC MALNATI

Malnati Luc is an architect-planner founder of the firm Agence Malnati Luc Architectes Urbanistes. He also worked within the FTI for nine years starting in 1998.

Geneva

25/05/2019

11:00AM – 12:45AM

Translation from French to English by the author

Can you talk about your experience working on industrial areas in recent years, both regarding your direction of an architecture and urban planning office and your previous involvement in the FTI?

In a general way, the industrial zones have been very discredited by urbanism. Basically, these places began to interest the office of urbanism when we dealt with the PAV competition. But generally, the residence is preferred to be valorised. The industrial zones have been set aside. This is not currently the case in Geneva. In Geneva the FTI makes land for production, economic development, business implantation, job creation, etc. It's peculiar, these areas are huge, the ZIMEYSAVER has 380 hectares, Plan les Ouates 62, are pieces of the city cut brutally from the rest. The FTI also had the idea of housing local artisans and responding to people who, for land and economic reasons, do not have the means to pay for too expensive land. It is therefore a matter of protecting the land with controlled prices. The FTI is also a face of the industrial zone, it is someone who is there and if I have a land-economic kind of problem I can call them. In the rest of Switzerland there is no other organization of this kind.

In my opinion though, the urban design regarding industrial areas in Geneva sometimes lacks qualitative efforts in terms of the production of built or urbanized spaces (like public squares, free spaces interesting for workers and visitors, etc.). The current approach is a rather strategic, pragmatic and operational way of working in urban planning. On the other hand, in industrial areas it is very difficult to address this problem of the city. The ZIMEYSA has no public squares, there is nothing on the side of the roads. The problem of the *mise en valeur* of spaces in industrial areas is reduced to making parks for industries, there are no restaurants, no kindergartens, mail services, etc. This is the reason why when we did the PAV the approach was to make a "neighbourhood" of economic activities, the expression "industrial zone" have had catastrophic consequences. It has a negative connotation, it seems that it is a kind of residue. So now we are trying to make industrial districts, business districts, if possible urban and mixed with public spaces and centralities. It could be said that in Geneva there is an economic coherence but there is no territorial coherence.

In your opinion, why the Canton have this desire to preserve production activities?

To the taste of the banks and the administration. My job is neither an architect nor an urban planner, but at the beginning I worked in banks, in credit management. In the 80s there were problems, the banks went bankrupt, there was a lot of money, a lot of loans, there was an economic bubble, too much liquidity. There were federal blocks to liquidity. The prohibition blocked loans to those who wanted to resell. All this changed the job and it was a good thing.

What are the ideas that have guided your projects and how recent manufacturing changes have impacted your ways of dealing with space?

From the years 2000-2003 companies began to demand public spaces. For example, Vacheron Constantin, in Plan les Ouates, asked Michel Desvignes for a park that cost 1 million. For us it was incredible, we had never seen such a thing. The oldest watchmaking company in the world asked Michel Desvignes for a park and Bernard Tschumi for a building. That is the result of the lucidity of a company, it is an excellent market image. This is the first thing that I saw interesting, a demand for quality in outdoor spaces. This somehow marked a change, after that there were other companies that transformed their spaces. But it is also true that watchmaking in Geneva is a world apart, Rolex, Patek Philippe, Piaget, Vacheron Constantin, etc. they do not have the same problems at all as heavy enterprises with less money. Enterprises have changed and so have we in our practice. For example, together with Mayor-Beusch we worked in Bois de Bay and it was the first time that this place saw a mixed pedestrian street. Bois de Bay is a terrible industrial area, badly organized but at the same time very interesting. I was very interested in the subject of construction starting from chaos. In the years 1990-2000 then, with Marie-Paul Mayor and Cristoph Beusch we tried to work with traces of the past. But there was little evolution from an administrative point of view, it was never considered by a masterplanning of areas of economic activities except for parts.

As for the PAV, well, for Mr Laurent Moutinot, a former councillor in Geneva, the industrial areas were “sacred”, they were untouchable, and maintained this position with respect to the transformation projects for the PAV district. It was difficult to imagine that Praille could mutate. With the politics of Robert Cramer instead everything changed, he had a completely different vision of Praille. For Cramer la Praille was a place to open the city, it was already the city. The government of 2005 has made Praille’s transformation project a number one priority. Now is dominant an idea à la “tabula rasa” that imagines a total replacement of industrial activities for residences, but it wasn’t like that before, we worked with an idea of “contamination”. The land problem cannot be bypassed, there cannot be a break between the project and the owners.

Your studio often works on an urban scale. What were the biggest difficulties you encountered when working in industrial areas at this scale?

I have two passions: the strategy of urbanization and the territorial dimension. What I learned by working in these places is that industrial zones is such a living organism, even more than a residential area, everything moves so fast. In industrial areas I have learned to read the changes in the territory. An incredible movement of interactions between the owners, the companies and the users of this industrial machine that always pushes forward. But what doesn’t work from the administrative point of view is that we always focus on the separate areas, here ZIMEYSA, there ZIPLO and there Bois de Bay, without thinking about the links between them. A coherent view of the territory is lacking. It is not only possible to have a political-administrative tool which is asked to take care of a specific area. In fact, what we are trying to do is to create an interaction between the territory project and the land project. What interests me is to find the good urbanization strategy in function of a good territorial and land diagnosis. We try to let the development go on, in order to see how fast it goes and to orient it.

In your participation for the ZIMEYSA plan guide, what was the guiding territorial vision of your proposal?

We imagined a project with train stations, it's simple, ZIMEYSA is crossed by the railway going to Paris. There are three stations: the Vernier station, the Meyrin station and the ZIMEYSA station. These three stations need to have a public space, a square. All the reflection started from the space of the train station. We have made a plan guide but none public space of this has been done. After the plan guide we made small plans like the one for la Tuilière (ZITUIL) and the ZDAM. Space is always prioritized for industries, but the problem is that we can no longer do so, we are not in the 30s, things have changed.

In Geneva these industrial areas seem to be increasingly pushed by the city. Areas that previously could have been more or less called “peripheral” now find themselves qualified by a growing centrality. In your opinion, how will this tension be solved?

The future of the ZIMEYSA will come from the Meyrin road, from the tram. This is a huge change. Beyond the tram there is the eco-neighborhood Vergers with more than 1000 apartments and the people of this neighborhood will take walks on this promenade, and we can expect then some valorisation projects. So, on the one hand, change comes from the outside, infrastructure projects, transport, open spaces, and on the other it comes from enterprises, there are fewer and fewer heavy companies and more and more companies linked to the internet, to technologies of communication, which produce different environments. In my opinion the changes will come more from this than from the projects. The projects that today deal with industrial areas remain confined by administrative boundaries. Change comes from what happens outside. We must adapt to current needs.

Interview C: JEAN-CLAUDE PORTIER

Jean-Claude Portier is an architect Founder of DE GIULI & PORTIER architectes SA.

Geneva

02/05/2019

09:30AM - 11:30AM

Translation from French to English by the author

[Small note: the interview reported here underwent difficulties in transcription phase which resulted in the loss of some fragments]

Can you talk about your experience working on industrial areas in recent years?

Today there are many surface d'activité available but these are not “top” surfaces. So, the place for new concepts has to do with elements that are too delocalized (shopping centers, parking lots, warehouses). That is interesting because it allows us to question ourselves on the reconquest of the city center on the conversion of activity spaces into residential spaces [...]

The contribution that we can make here and there is to find flexible spaces as much as possible while offering them a certain personality and providing external spaces that can last longer, even if eventually converted into something else.

(Showing the CPK2 project)

Here we are in an extreme case because it is a warehouse dedicated to logistics, which is onerous to convert because it has reinforced concrete elements. But on the other hand, we can imagine that one day the entire periphery of the building at a depth of 10 meters could accommodate housing units, perhaps leaving the innermost parts as a data center. These are the questions that we ask ourselves.

(Showing the CPB project)

The other project we worked on is located in a place where there is already a mixed program. The area allows 40% of activities other than manufacturing that can be services to the area. So you have to mix things up and get away from those models where you work in one place and then drive miles and miles to go to a shopping center. This is completely irrational. We are trying to reconvert this industrial area to do something with activities and with a certain urbanity. We have to move away from the “old fashion” way of designing industrial buildings, from that plan du batiment way of doing it, out of the urban context with a large security lock, large parking areas, elements for accesses, and that’s all. Our attitude is different, because we have a project where we combine activities, hotels, a fitness center, a station. Following the urban interface we reformed the road with extremely strong elements along that curve, bringing out a concrete urban form. We also designed a kind of portico facing a square that could become a morceau du ville.

[...]

We must not compare this type of buildings with residences because you live, you breathe, you sleep, you wake up, you take a shower, etc., for centuries certainly changing but still remaining the same need. Industry does not. Industry changes every day. So there is a certain logic according to which a building that was built according to a certain model must re-evolve because it is a outil de travail. Today, however, the reflection on industrial spaces must really question the perennality of the building and its function. We must arrive at very simple but not simplistic solutions. In this project you see for example some spaces for production that we have imagined silent, since in recent years advanced production generates less noise, and alongside spaces where people discuss like us, where they rest, or where they work in a very different way from how my generation of baby-boomers worked (with very compartmentalized spaces and closed private bureaux). Now it is no longer necessary to have closed spaces. What we have done is to think of small islands, small places where people can go to phone, more comfortable spaces. We have also imagined rooms, for conferences for example, and we use fixed points for them.

My impression is that in your works industrial places are handled as a more urban kind of places, more ordinary spaces. They tend to be considered more and more as other type of buildings, like

commercial, offices, or residential ones. My question is, there remain in your experience some specificities, some resistance, some problematics inseparable from industrial places?

The size of the slabs. The ability of the slabs to carry 1.5 tons per square meter, or 1.2, or 800 kilos (this is the minimum). This is very different because in commercial you usually go 400 kilos or something like that. And here you double, so that has an impact in the environment itself. The energy dedicated to these surfaces for the structure is a major issue. This is another reason why we have to maintain the building in the next years, let's say 100 years or something like this. Therefore, we have to plan it in a mode that in the section you may divide it in two different spaces between the slabs of a minimum of 2,30 meters. We would never made less than 5m of void between the slabs. You have to think about the future of the construction starting from the nowadays knowledge and questioning yourself about what sort of experience, of ability, you want to offer in the next years. But the problem is that we don't know how the situation of tomorrow will be. This is the reason why we have to think a lot not only for today. But of course we have always thought for tomorrow, this is common sense, but today is very difficult to think what will happen tomorrow, more than ever. At a certain time we could say that in the next 10 years we should improve the performance of the engines, of the machines, of production. Nowadays who can say what will happen in the next 10 years in the watchmaker industry? The warehouse is a warehouse, we need materials. And if we don't need it any more, it can be easily transformed into housing, if it's not too divided. But industry is more complex.

Today industry is not a theme by itself. Is not like you have industry here, agriculture here and services there. There is some sort of mix, and their intersections are very interesting. So at the end is all about what kind of urban design are we doing in this area, what flexibility can we offer in the future. And we know that we wont be able any more to always demolish buildings, as it has been in the past. The architect today is always looking at the form as a goal, to be published. This is not a goal. This is branding. So, this is another thing that we have to deal with. In industry you have to show, because is advertising, they want to have big buildings. They don't want to pay but they want to have big buildings.

Glossary of abbreviations

CEVA	Liaison ferroviaire Cornavin-Eaux Vives-Annemasse
CFF	Chemins de fer fédéraux suisses
CCIG	Chambre de commerce, d'industrie et des services de Genève
COS	Coefficient d'occupation du sol
DDP	Droit distinct et permanent de superficie
FTI	Fondation pour les terrains industriels de Genève
GP	Grand Projet
IFF	Installation à forte fréquentation
IUS	Indice d'utilisation du sol
MD	Mobilité douce
MZ	Modification de zones
OPI	Office de Promotion des Industries et des Technologies
PACA	Périmètre d'aménagement coordonné d'agglomération
PADD	Projet d'Aménagement et de développement Durable
PAFVG	Projet d'agglomération franco-valdo-genevois
PAV	Praille-Accacias-Vernets
PDCom	Plan directeur communal
PDQ	Plan directeur de quartier
PDZDAM	Plan directeur de zone de développement industriel ou d'activités mixtes
PDZIA	Plans directeurs des zones de développement industriel et artisanale
PLQ	Plan localisé de quartier
PLU	Plan local d'urbanisme (France)
POS	Plan d'occupation des sols – remplacé par le PLU (France)
PPDE	Politique des pôles de développement économique
PSD	Projet stratégique de développement
RAZ	Règlement d'aménagement de zone (France)
SBP	Surface brute de plancher
SIG	Services industriels de Genève
SCOT	Schéma de cohérence territoriale (France)

TC Transports collectifs
TCSP Transports en commun en site propre
TI (TIM) Transports individuels
TPG Transports publics genevois
VVA Voie verte d'agglomération
ZAC Zone d'activités (France)
ZIA/ZDIA Zone industrielle Vernier
ZIBAT Zone industrielle Batailles
ZIBay Zone industrielle de Bois de Bay - Satigny
ZODIM Zone industrielle Meyrin
ZIMEYSA Zone industrielle Meyrin-Satigny
ZIMOGA Zone industrielle Mouille-Galand
ZIRIAN Zone industrielle Riantbosson

