

The exciting challenge of ecological transition calls for a twenty-first century city-landscape of new forms and places, designed with conviction, imagination and precision.

This volume presents **seven prospective visions for Greater Geneva** elaborated by a generation of committed professionals and researchers to inspire us as citizens with confidence to reinvent our lifestyles.

International consultation for Greater Geneva June 2018 – September 2020

Visions prospectives
pour le Grand Genève
Habiter la ville-paysage
du 21^e siècle



An initiative of Fondation Brailard Architectes



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Greater Geneva Consultation

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The seven teams that participated in the consultation

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Seven prospective visions for Greater Geneva

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The duty to take action!

Greater Geneva came about thanks to a strong, committed political will, grounded in the daily life of a population of more than one million people who share, not a border, but a common living area, one of the most beautiful in Europe. Between lake, mountains and countryside, we have inherited a magnificent territory where the quality of life is equalled only by the splendour of the landscape.

This conurbation does, however, face significant demographic, economic, social, political, planning and mobility challenges. We are obliged to envision and build this territory together, despite institutional differences. Demographic growth, as well as the positive economic trend for employment, raises many issues concerning resources and natural environments: land take, water and energy consumption, very high demand for mobility, new services, air and noise pollution, and loss of biodiversity.

For nearly two years, we have been working on an ambitious ecological transition strategy. Rather than have it be yet another programme, we wish it to be a breath of fresh air and bring about what we believe to be an absolute necessity today: the preservation of our natural resources and – dare we say it – our common future.

Our initiative is built on existing expertise. Together, we have designed several conurbation projects, created cross-border water and energy communities, overseen the construction of the Greater Geneva Greenway (a resounding success), ensured the development of the Léman Express, and so on.

But we must go further, with renewed and even greater ambition.

The question facing us is how to do better, faster and more efficiently, in the general interest and for the benefit of the population of Greater Geneva. The approach of Fondation Braillard Architectes, which was behind the initiative of the international consultation “Prospective visions for Greater Geneva – Inhabiting

the city-landscape of the 21st century”, has been a major boost to us in this perspective. The seven teams have offered us a wide range of explanations and solutions to make our cities and territories healthier and more resistant to extreme climatic movements and social and migratory phenomena; in short, better able to deal with the main factors that seem to be shaping our future. Above all, the teams defied us to think differently, questioned our preconceptions, renewed our way of envisioning and conceiving our public policies. This approach must be at the centre of our way of discussing and presenting the city of tomorrow. Our territory will be a success because of our ability to think outside of the box, to listen to divergent opinions and to demonstrate courage at every stage. Let us make it clear that this approach has been beneficial for the France-Vaud-Geneva conurbation.

We warmly thank the director and team of Fondation Braillard Architectes, the teams, the partners, and all those who were willing to take part in this great collective thought process. Your work will certainly contribute to our future, we thank you for it.

**Antonio Hodgers, State Councillor of the Canton of Geneva
President of Greater Geneva**

**Christelle Luisier Brodard, State Councillor of the Canton of Vaud
First Vice-President of Greater Geneva**

**Christian Dupessey, President of the Metropolitan District of French Geneva
Second Vice-president of Greater Geneva**

An essential cooperation

The United Nations Office at Geneva is delighted to have supported the Fondation Brillard Architectes consultation on the future of Greater Geneva, which, through the prism of ecological transition, has stimulated interdisciplinary reflection on subjects such as metropolitan forms and networks, or cross-border cooperation.

UN Geneva has supported this long-term project and the consultation process from the outset, through contributions and exchanges with all the stakeholders in the France-Vaud-Geneva region, in order to build a global vision that takes into account, in particular, the urban impact of the presence of international organisations in this cross-border area. It is encouraging, indeed essential, to see such initiatives devising strategies and policies for conurbations committed to achieving the seventeen UN sustainable development goals, with the aim of ensuring an energy and ecological transition that is both effective and sustainable. Indeed, 3.5 billion people currently live in cities, and there will be 5 billion by 2030!

International Geneva, with its unique ecosystem of highly diverse actors – international and non-governmental organisations, States, the private sector, academia and associations – holds a central place on the stage of multilateral dialogue. This led to the adoption of the Geneva UN Charter on Sustainable Housing in 2015 and the organisation of the Forum of Mayors in 2020. These multidisciplinary and multi-actor initiatives are essential for the implementation of sustainable development goals to build a zero-carbon society.

On behalf of the United Nations, I would like to thank all those who have reflected on this transition through the Greater Geneva Consultation and I salute the excellent Franco-Swiss cooperation, which is essential in many areas, especially in the health sector, as the current Covid-19 crisis is showing us. Today's challenges know no borders, so I have no doubt that this cooperation will be able to continue and inspire other cross-border regions in Europe and in the world.

Tatiana Valovaya, Director-General of the United Nations Office at Geneva



The Greater Geneva Consultation, a conviction, a method, a territory and an ecosystem of actors

What form will the Greater Geneva metropolitan area have in 2050? How are we going to house ourselves, work and get around in response to climate change? What will be the role of the architect, the urban planner and the landscape architect in a context of ecological transition?

The ambition of the international consultation for Greater Geneva, “Prospective visions for Greater Geneva – Inhabiting the city-landscape of the 21st century”, was to gather knowledge and strategic planning visions to generate evolution scenarios for the sustainable development of the France-Vaud-Geneva conurbation up to 2050. The new tools, methods and devices elaborated through this initiative are already leading to the emergence of innovative forms of housing, mobility, work and leisure, against the backdrop of the environmental emergency.

This consultation is a response to the call by United Nations Secretary-General Antonio Guterres for immediate action on global warming, and is being conducted in partnership with the United Nations Environment Programme (UNEP). Furthermore, it was launched in the wake of the commitments made by the international community at COP 21 and also falls within the framework of the Millennium Development Goals (MDGs), particularly the one entitled “Sustainable Cities and Communities”.

The operation is managed by Fondation Brailard Architectes¹ and was inaugurated at its initiative on 26 June 2018 as part of its multi-year culture and research programme, The Eco-Century Project®. It is supported by public and private partners on both sides of the border.

The objective of this international and interdisciplinary consultation was to obtain, at the conclusion of two years of uninterrupted and collaborative efforts, a coherent set of theoretical/conceptual and practical/operational productions at three scales: that of the territory as a whole, that of city and district, and that of architecture and the building.

The call for projects was based on the three pillars of sustainable development, namely the environment, society and the economy, embedding them in three fundamental questions:

- What planning principles favour biodiversity, improve the quality of ecosystems and preserve natural and agricultural areas?
- What concepts should be explored to enable the city of tomorrow to limit its impact on climate change while remaining resilient to it and its socio-economic consequences?
- What territorial tools must be developed to enable society and the economy to achieve stability and equity?

From the forty-four applications received, the steering committee selected seven, based on the assessments of the panel of experts. These seven projects, presented in the centre of this booklet, were designed and developed by multidisciplinary teams whose approaches cover a broad spectrum of the transitional project: biodiversity and nature, social solidarity, public spaces, mobility, work, housing, energy, waste, networks, daily practices, food, cross-border communities, etc.

Thanks to this project-driven research and its wide public dissemination, the France-Vaud-Geneva conurbation is redefining itself as a pilot territory and a crucible of ambitious solutions to design the future that our children deserve.

Panos Mantziaras, Director of Fondation Brailard Architectes

¹ I would like to thank my team, which worked tirelessly to make this enormous scientific, logistical and human challenge a success: Hélène Gallezot (assistant director), Kim Ramseier (secretariat), Mélodie Simon (graphics), Diane Henny (communications), Anne Veuthey and Anne-Laure Lepage (coordinators of the scientific project). I would also like to thank the members of the Fondation Brailard Board, whose support – morally and financially – was essential for this undertaking: Elena Cogato Lanza (President), Ariane Brailard, Isabelle Ducimetière-Brailard, Robert Cramer, Étienne d’Arenberg and Pierre Bonnet.

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Together towards transition – a new image emerges from the territorial puzzle

The territorial research conducted by the seven teams in the Greater Geneva area come at a turning point in territorial planning and will inform future studies, all of which are converging towards the same objective. One constant has emerged from this rich array of projects: the need to consider the territory as a system whose equilibrium must be preserved.

Ariane Widmer, Urban Planner, Canton of Geneva Planning Office
Marion Charpié-Pruvost, Head of Territorial Development, Pôle métropolitain du Genevois français

This consultation on the future spatial planning of Greater Geneva, *Inhabiting the City-Landscape of the Twenty-First Century*, brought together a broad panel of stakeholders. Professional practices were suspended for its duration to favour a joint thought process transcending borders and focusing on the search for new models.

Changing the paradigm through a joint and exploratory approach

The consultation responded to the need of the stakeholders of Greater Geneva to reconsider the orientation of their actions, on the basis of a new vision, adjusted to the challenges of the early twenty-first century. How can we guide and accompany the transformation of our territory when the world is in an ecological impasse? What responses can be given at the local level to mitigate our impact and adapt to climate change? How can we contribute to reorienting practices and changing models?

The studies conducted by the seven consultation teams tackled these questions freely, outside of any institutional framework. They have broadly encompassed the territory and rise above preconceived ideas. In response to the urgency of the issues and in line with major trends, they have proposed a reimagining of economic and societal models as a new framework for territorial planning. They have explored little-known fields, made sometimes harsh observations and developed innovative but contentious concepts: Geneva without an airport or as a circular city planned around of the outline of the new CERN accelerator.

Convergences and emerging themes for further development

Imagining a post-fossil future, the research conducted by the teams criss-crosses the territory of the Greater Geneva from seven different viewpoints. It yields an impressive diversity and quantity of proposals, applications and illustrations. In these territorialised explorations, convergences on certain themes clearly emerge and must serve us as clues pointing to the paths to be followed.

Greater Geneva, which encompasses a population of one million, is clearly understood and approached by all the teams as a cross-border metropolitan area. Depending on the different approaches to urban organisation, it is variously considered as a “polycentric metropolis”,¹ an “archipelago of local territories”,² or a “metropolis of villages”³ organised in a network of open spaces.

New approaches encourage us to think about the territory from the perspective of “energy”⁴ and the ecosystem. The understanding of rural areas is becoming more complex. What had been perceived and treated as a monofunctional territory is now being viewed as an area of multiple resources and uses. The soil and the subsoil, with their “networks of invisibles”,⁵ open up new fields of possibilities to be taken into account in territorial planning, in order to reclaim these “discredited fragments of the city-landscape”⁶ in which ecological issues crystallise. “The common and the shared”⁷ is a recurring theme in all the projects, which respond to the growing need for equity and solidarity and seek to develop a local approach consuming fewer resources. These values herald new lifestyles that emphasise the place of the collective in the functioning of society and call for the reorganisation and reappropriation of urban spaces.

Finally, experimentation, associated with participative processes, is proposed as a less costly and more flexible alternative, favouring both innovation and public support. Reclaiming what already exists, delving into its interstices, and revealing the “wild part of the territory”⁸ are other ways of taking a fresh look at areas that have been “damaged” and partly forgotten, and which have lost all connection with their environment.

A turning point initiated by a new generation of foresight initiatives

The results of the consultation resonate with the current concerns of stakeholders in the Greater Geneva metropolitan area. In order to find answers to the new challenges of ecological transition, there is now a broad consensus regarding the need to rewrite the founding narrative setting out the vision for the development of this living space.

In this context, various entities are developing, individually or collectively, a number of strategic initiatives: the new cantonal climate plans,⁹ the *Geneva 2030 Biodiversity Strategy*, the exploratory study *Carbon Neutrality in Geneva in 2050*, the territorial climate air and energy plans established by the French authorities, and the “zero net artificialisation” strategy are some of the approaches that will help to better guide the actions necessary for this transition.

These studies have a common goal: to better understand the effects of ongoing changes on our environment and our ecosystem in order to formulate appropriate responses. The evolutions they set in motion will take form on two scales and over two time frames: the political vision of the cross-border area



Towards an archipelago of local territories (PROJECT A TERRITORY OF RESOURCES)

in the short term, and the implementation of this vision in more local, medium- and long-term operational urban planning.

On the scale of the metropolitan area, the PACTE project¹⁰ responds to this first level of concern. It states the political ambition and is the basis for the actions to be taken to achieve these objectives. By involving as many local actors as possible in ecological transition, it should, in the short term, lead to the signing of a planning charter that can serve as a common basis for future initiatives.

On a more local scale, this ambition will be fulfilled in keeping with institutional contexts. The results could prompt revisions of the various master plans but also of the next generation of conurbation projects. It is within this framework that the *Territoire, la suite* (Territory, next step) scheme is being developed by the Canton of Geneva, to renew the vision of cantonal territorial development. It is based on a new ambition and new orientations, in response to ecological and societal challenges. The studies are being carried out in partnership with the stakeholders in Greater Geneva and will therefore provide a platform from which to pursue territorialised thinking on a wider scale.

All these ongoing and future initiatives will provide as many spaces in which to host and pursue the work and debates initiated by the consultation. The construction of the new territorial puzzle is now underway. Some pieces will be added, others may be replaced. The picture will become clearer as time goes by. But what we already know for certain is that it will be necessary to ensure that the “city” and “nature” succeed in cohabiting in a systemic logic that respects both resources and the living world. ■



The wild part of the territory
(PROJECT THE GREAT CROSSING)
Networks of invisibles
(PROJECT METABOLISING THE INVISIBLE)

Beyond borders

Crises offer opportunities for reassessment that stimulate the creativity and adaptability of our societies. This is clear to see in the profusion of concepts and courses of action proposed by the consultation teams, which opens the way to a profound change in building culture and practices, and perhaps even to a new way of thinking about architectural and constructive design.

Philippe Meier, architect, instructor HEPIA, President of FAI Geneva
Arnaud Dutheil, Director of the Haute-Savoie Council of Architecture, Planning and the Environment (CAUE)

A few weeks ago, in the midst of an unprecedented health crisis, the federal councillor Alain Berset stated: “The time of thinkers and writers must come”.¹ These words echo those of the Spanish writer Josep Ramoneda who, a quarter of a century ago, asserted the “need for a philosophical conception of the city in order to prevent it from being confiscated by planners and politicians”.² This was the spirit in which the international consultation on “Greater Geneva” took place: thinking coming before implementation. Transcending political and ideological borders, and leaving aside prejudices or preconceptions, the seven participating teams produced a wonderful response, which may well contain within it the seeds of profound change.

Foresight is necessary

One had to attend the presentation of the studies on that day in September 2020 to fully appreciate the scope of this collective process of reflection on the future of a region that is no longer a territory, but a city-landscape. From these ambitious designs and intentions, these revealing graphs, these passionate speeches, there emerged a glimmer of what the future evolution of our professions could be. Urban planners, architects, landscape architects or engineers all have to gain from studying this vast “reservoir of ideas”. Indeed, in the debate that took place, the purpose was not to lecture, but to draw lessons from a past that is still too present, and to initiate common thinking on how to build better.

In the long gestation process, the teams avoided two pitfalls that could have been easy options: first, the temptation to simply project from what already exists, to extend current climatic, consumerist, social or environ-

1 *Greater Geneva: A Common Land* (p. VII)

2 *A Territory of Resources* (p. XXXI)

3 *Soil and Labour* (p. XXXVII)

4 *Energy Landscape* (p. XXV)

5 *Metabolising the Invisibles* (p. XIX)

6 *The Great Crossing* (p. XIII)

7 *Energy Landscape*

8 *The Great Crossing*

9 For the cantons of Vaud and Geneva

10 Programme d'actions concerté pour la transition écologique du Grand Genève (Concerted action programme for the ecological transition of Greater Geneva), an interregional project

mental trends, and to dramatise these ongoing phenomena that are paralysing any action, given how imminent the collapse seems to be. Second, that of coming up with a big project presenting itself through a series of seductive images as the solution to future crises on the territory. From the analysis of the seven responses it is clear they remain at a conceptual level, which is perhaps the most suited approach in view of all the knowledge that has been encompassed by this immense study.

Breaks and continuity in practices

This consultation has produced a profusion of ideas and potential courses of action that combine the need to alter our current trajectory with an adaptation to changes that are already under way. Here, the urgency to create awareness does not necessarily imply a revolution that will do away with everything on which our domains of competence have been founded. Instead, the aim is to emphasise the human values that come to the fore in those “applied arts” practised on an everyday basis by the representatives of the construction world. Architectural design has had its moments of rupture – the Roman wall versus the Greek column, perspective versus medieval aggregation, the Modern Movement versus the Beaux Arts, and so on – but it has also had moments of continuum or slight variations within a strong period. It is on the fringes of these subtle articulations that the present moment is situated.

The climate question, a societal subject that has become highly sensitive for some, raises the spectre of a new battle between the Ancients and the Moderns, such as the one that spurred on Le Corbusier’s literary jousts at the beginning of the last century. All crises offer opportunities for reassessment that stimulate the creativity and adaptability of our societies. In the same way that our predecessors were able to assimilate the invention of metal and reinforced concrete in construction to come up with new constructive responses to the problem of housing, for example, in the near future it may no longer be a question of reasoning only in square metres or cubic metres, which generate costs, ratios, financial plans and construction schedules. On the contrary, we need to rewrite the “history of the project” to include a component in which materials, which are the foundation of our professions, no longer only generate *Stimmung*, light and shade, but also resources, energy or reuse and recycling. Following the example of the engineers of the last century, deep thinking on the economics of materials can be the source of new forms, far from the norms and margins that have sustained the frenzied consumption that has characterised the transition into this new millennium.

Architecture is a mode of thinking

These approaches must give rise to a new way of thinking about architectural and constructive design, albeit one that is still not fully formed. Invention is often fuelled by constraint and this consultation shows that there is still a world of ideas to be explored by professionals. This is the case of the soil for example, which serves as the basis for elaborating visions of the landscape in keeping with Vittorio

Gregotti or Luigi Snozzi’s conception of “*territorio*” or even with the architectural “*parti*”. It certainly has value beyond simply providing a geotechnical base to support the foundations of the built structure. As for the required densification, it implies emphasising public space as “the most precious asset” within a built environment where the “question of the landscape boundary crops up everywhere. In order to address this issue, architects must use all their senses”,³ in an emerging paradigm to be invented.

The objective therefore is to evolve together so as to assert a stance and not to hide behind untenable positions, to move towards a future that the teams in charge wish, in unison, to share. This is undoubtedly one of the only conditions required for a residential community to be able to live together in a small area, albeit one whose geographical beauty has been beyond dispute since Konrad Witz immortalised it one day in 1444 in his painting *The Miraculous Draft of Fishes*. A work that can (re)become the symbol of this sharing for the decades to come and reflect an “organic, moving society [that] can overcome tensions and come together...”⁴ ■



Konrad Witz, *The Miraculous Draft of Fishes*, 1444 (detail)

- 1 Alain Berset, Alexandre Jollien dialoguant avec Alain Berset: “Alexandre Jollien dialoguant avec Alain Berset: “Dans cette crise, on peut tisser le lien de la fraternité”, le temps.ch, published Thursday 24 December 2020, consulted 4 January 2021
- 2 Josep Ramoneda, “Qu’est-ce que la ville?”, in Jean Dethier and Alain Guiheux (eds.), *La Ville, art et architecture en Europe, 1870-1993*, Paris, Éditions du Centre Pompidou, 1994, p. 15
- 3 Günther Vogt, “Les frontières du paysage”, *TRACÉS* 11/2020, p. 25
- 4 Alain Berset, *op. cit.*

A living territory invents its ecological transition

The ecological transition of Greater Geneva will be achieved through a profound, radical and shared transformation of the current context.

Sylvain Ferretti, Director General of the Office of Urban Planning of the Canton of Geneva
Panos Mantziaras, Director of Fondation Brailard Architectes

At the time of writing, the planet is going through one of its worst crises since the last world war. A health crisis first of all, caused by the Covid-19 pandemic which has been raging for over a year now, causing added hardship for ever larger sections of the population who were already living in difficult economic and social conditions. Then there is a global environmental crisis, requiring an urgent change in our lifestyles. It is to this challenge that the Greater Geneva Consultation sought to respond, by anticipating the gravity of the situation.

This consultation, which was launched in the summer of 2018, came about as a result of a series of meetings: between a conviction and a territory, between women and men, and between a method and an ecosystem of partners. These meetings were motivated by the need to make a resolute and radical commitment to embracing the challenges and issues of ecological transition, which were emerging in public debate.

The conviction was – and remains – that our world, having fully entered the Anthropocene, must acknowledge the unsustainability of its development model and engage in a “radical transition”; first, to drastically limit our consumption of resources and our impact on the planet, and second, to develop the world’s resilience and anticipate future changes.

The territory in question is naturally that of Greater Geneva, a catchment area with a population of one million that is a latent crucible for cross-border experimentation. The chosen method was to award parallel feasibility study contracts, ambitious in terms of the questions being asked, the scale of the challenge and the number of teams solicited. The consultation partners included all those who have invested in this adventure, institutional, academic, professional and industrial representatives, sponsors, and of course the various teams, who are from different backgrounds but are motivated by a common desire to participate in a new social project.

After two years of intense work, workshops, talks, seminars and lockdowns, the seven selected multidisciplinary teams shared their visions of how to respond to the aspirations of Greater Geneva to become a model territory of ecological transition. The strategies they adapted were neither simple nor linear, isolated or mono-oriented. On the contrary, they were based on objective data, chosen on the basis of conceptual frameworks. These strategies intersected at multiple coordination meetings. They evolved and matured at each stage and the lines of research ultimately gave rise to a fully-fledged, multidimensional network, which only a cartography of the great projected landscape of the ecological transition will be able to represent.

We can attempt a first outline of this landscape, through four structuring challenges that apply richly and productively to the geography of Greater Geneva.

The soil as resource and project

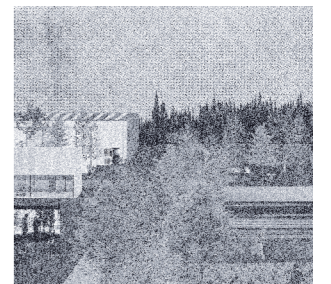
The soil is the beginning of human experience and the basis of the urban experience. Consequently, the question of the soil runs through the reflections of most of the teams at different levels and intensities: as a carbon sink, of course, but also as the basis of biodiversity, a source of nourishment and a common place for social, economic, educational and recreational activities.

Tilling the soil while preserving its organic richness, cultivating it in accordance with the principles of permaculture (permanent culture), stopping its over-consumption (zero net land take), sharing it with the living world, and highlighting its educational added value for younger generations are the main points emphasised by the three following teams: *Soil and Labour, Greater Geneva: A Common Land* and *A Territory of Resources*.

Energy and resources as pillars of transition

The objective of a decarbonised region in 2050 first of all raises the crucial issue of switching to 100% renewable energy sources. Even though the Canton of Geneva, thanks to the proactive efforts of Geneva’s industrial services (Services industriels de Genève, SIG), has already accomplished this major feat, with all energy consumed certified as renewable, this goal is yet to be achieved by the entire cross-border area. This shortcoming is addressed by the typo-morphological atlas of networks established by the *Metabolising the Invisible* team, as well as by the analysis of this catchment area as an energy landscape by the team of the same name. These studies lay the basis for a concerted future policy regarding the optimisation of each kilowatt-hour produced and consumed locally.

Furthermore, there is the question of radically reducing the consumption of all resources vital to urban life (water, food, rare metals, sand, etc.), without forgetting the imperative of a fully circular economy. Because kilowatt-hours cannot be eaten! If urban society continues on its current development trajectory, even a decarbonised economy risks draining and stripping bare the Geneva area (and the planet as a whole) of resources that humanity must learn to share with the rest of the living world.

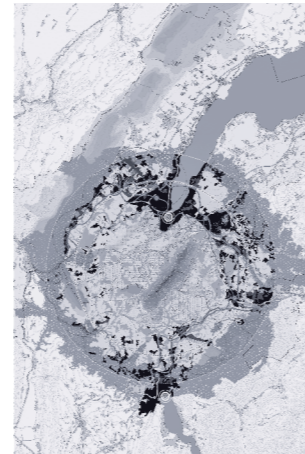


Cité-jardin Bardonnex 2050
(PROJECT GREAT GENEVA: A COMMON LAND)
An agropolitan development based on “weak structures”
(PROJECT SOIL AND LABOUR)

The call for a more sober urban lifestyle thus repeatedly characterises the teams' ambitions, through a resolutely simplified visual vocabulary: timber construction, moderate densities, hybridisation of programmes and uses, and radical transformations. Gone are the high-rise projects and urban extensions, new road infrastructures are no more, the focus now is on making surfaces more permeable, planting forests, or recycling and reusing wastelands: the urban domain is resetting the balance, sharing the biosphere with all its beneficiaries.

Infrastructures as the hidden side of the urban metabolism

Mobility in Greater Geneva remains – along with housing – one of the thorniest points, with more than 600,000 journeys per day in a territory of one million inhabitants. Infrastructure networks (including utilities) are consequently a central field of action for any transition strategy. First, to prepare an economy of movement and consumption (of time, space and resources). Second, to open up the scope of their hybrid, multidimensional and multi-functional uses. Thus, the *Geneva, Metropolitan Constellation* team explores the possibility of exploiting the residual energy of the future CERN particle accelerator and organising the territory around it, which could give rise to a multi-centric metropolis around the Salève. In the same vein, the *Metabolising the Invisible* team considers each network emergence as an urban fact and an opportunity for a project dedicated to public or collective use.



Cointrin airport 2050
(PROJECT ENERGY LANDSCAPE)
A polycentric metropolis around
the Salève (PROJECT GENEVA,
METROPOLITAN CONSTELLATION)

Social participation, a *sine qua non* for any change in lifestyles

Can sustainable development be achieved without citizens? Of course not. To undertake a transition through a project, and not through panic, one must address the profound effect on lifestyles, so that well-being can be indexed on the experience of sharing, exchange, tolerance and creative participation rather than on material consumption. This should be the case at each stage of this process which, more than simply sociological, takes on an anthropological character. The value of material and immaterial goods can only be reconsidered through a citizen dynamic that will seek its equilibrium in a reformed city-landscape. This was the main approach adopted by the *Great Crossing* team, which set out to achieve citizen recognition of the sensitive points of the Geneva area, and of the *Territory of Resources* team, which was interested in local initiatives.

These four sets of challenges constantly intersect, creating typo-morphological hybrids, new cooperation scenarios and potential alliances that are both obvious and courageous. They do so at all scales, from the territory to the individual building, also including the landscape. This was the stated objective of this consultation: to demonstrate that ecological transition is not possible without a profound, radical and shared transformation of the current context, which is the only hope of achieving the objective of a decarbonised society by 2050. ■

Seven prospective visions for Greater Geneva

Geneva, Metropolitan Constellation

Stefano Boeri, Stefano Boeri Architetti, with Michel Desvigne Paysagiste, Baukuh, Bollinger+Grohmann, Systematica

XLIII

Soil and Labour

Paola Viganò, Habitat Research Center – EPFL

XXXVII

A Territory of Resources

Nathalie Mongé, Apaar, with Sofies, 6t, Team Academy HES-SO

XXXI

Energy Landscape

Oscar Buson, Raum404, with Lorenzo Stieger and Sascha Roesler (Università della Svizzera italiana), Giulia Scotto (University of Basel), Lorenz Eugster Landschaftsarchitektur und Städtebau, Emch+Berger, Drees & Sommer

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Metabolising the Invisible

Marc et Matthias Armengaud, AWP office for territorial reconfiguration, Dieter Dietz and ALICE Laboratory – EPFL, with Topotek 1

XIX

The Great Crossing

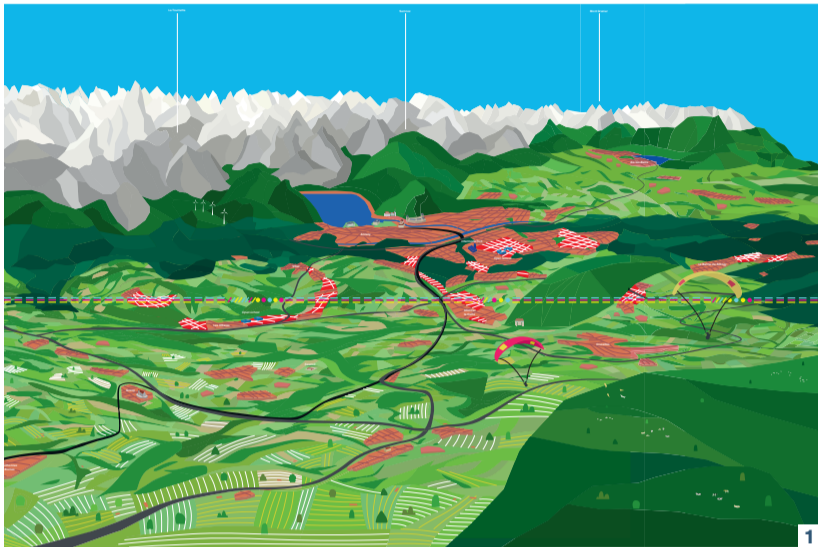
Franck Hulliard, Interland, with Bazar Urbain, Contrepoint, Coloco, Coopérative Équilibre, École urbaine de Lyon

XIII

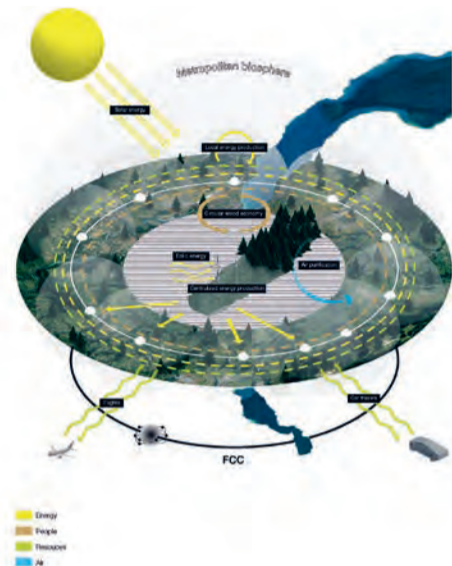
Greater Geneva: A Common Land

Milica Topalović and the Chair of Architecture and Territorial Planning – EPF Zürich, Florian Hertweck and the FHSE Master in Architecture – University of Luxembourg, with Raumbureau

VII



1 La constellation des implantations du Grand Genève sera composée de noyaux urbains de taille moyenne et petite, gravitant autour des deux pôles de Genève et d'Annecy. Le centre de cette constellation est le Salève.
The constellation of Greater Geneva settlements will be composed of medium- and small-sized urban nuclei, gravitating around the two hubs of Geneva and Annecy. The constellation has the Salève as its centre. (BAUKUH)



2 Le Grand Genève comme système orbital: la Biosphère métropolitaine.
Greater Geneva as an orbital system: the Metropolitan Biosphere. (EUGENIO MORELLO AND ERPINIO LABROZZI, LABSIMURB DASTU POLIMI)

Geneva, Metropolitan Constellation

Coming to terms with the crises that climate change has caused, the time has come to rethink the concept of cities and metropolises and come up with a completely different scenario.

It is important to return to the experience of urban spaces based on the logic of the self-sufficient neighbourhood. The model here is not the medieval village, but that of a metropolitan reality capable of connecting cities and small neighbouring centres in a functional way, through autonomous areas.

Cities must become archipelago metropolises even on a transnational scale.

To avoid the tragedy of the sprawl that has ruined European territories by turning them into out-of-control suburbs, we must imagine, more than ever before, urban life resettling in peripheral centres, re-inhabiting the small nuclei that had been towns in the past, thus guaranteeing a strong relationship with nature.

We propose a highly realistic project for Geneva based on the concept of an archipelago metropolis where the centre of the new Metropolitan Constellation is the Salève mountain, a place where biodiversity can flourish. This new Metropolitan Constellation will therefore have at its heart, not a city but a natural form, the quintessential habitat of both non-domestic species (chamois, deer, wolves, rodents, birds, etc.) and domestic species (cattle and sheep). It will thus become the first planetary manifestation of a co-existence no longer based on an authoritarian and aggressive anthropocentrism.

The archipelago metropolis is a useful image for it highlights the need to strengthen the functional self-sufficiency of the islands from which it is composed. Each is different, yet each participates in the same system of relationships. At the same time, this image emphasises the importance of a common identity, a “sea”, which in this case is formed by the corridors of ecological biodiversity. An archipelago metropolis extending at a regional scale comprises multiple urban aggregations, however it avoids any

further land take and restores fauna and flora to its crucial structural value.

Nature is no longer a sphere considered external to the city, homes and bodies, but (in the manner of a small virus inducing osmosis between human and non-human species), a vital sphere, constitutive of our daily life.

The new Greater Geneva conurbation will make its transnational natural environment the primary resource by which it emphasises its openness to the world. It integrates the broadest cultural and ethnic differences and becomes the world's first metropolis to embody the concept of *mondialité* (worldliness) that Edouard Glissant proposed as the future of urban coexistence, as a way of protecting a very strong cultural tradition and lucidly accepting the challenge of assimilation and cultural integration.

Mondialité is thus opposed to globalisation, since it consists in finding “a dimension of world-hood in every local space, a dimension of complexity of the world in every country, in every village, in every city ... and this *world* is a condition of contemporaneity that we have everywhere”.¹

These are key points for an open metropolis functioning as an archipelago of creative transnational communities where new jobs and skills emerge, thanks to a convergence of the most advanced technologies, international training centres, the headquarters of the leading multinational companies and a local network of research-and-development institutions.

The geographical constellation of the new Greater Geneva can become the model for a new form of metropolis, ready to face the challenges of the near future on Planet Earth.

This is an ambitious project that is only possible to implement in the rich, long-established cultural context of Geneva, cradled by large mountain ranges, hugging the shores of Lake Léman, and home to some of the giants of Western thought – from Calvin to De Saussure, from Starobinski to Corboz.

¹ Hans Ulrich Obrist, Asad Raza: *Mondialité: Or the Archipelagos of Edouard Glissant*, (Brussels: Skira, 2017)

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Fausto Curti, DASTU
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SAAS, Guillaume Yersin, local architect

Armin Linke, Photographer

Richard Sennett, Human Sciences, Economic and Social Issues

With:

Bollinger + Grohmann – Civil Engineering
 Martin Guinard-Terrin – Art Curator
 Angelo Giuseppe Landi – Heritage Conservation expert



La transition écologique et la croissance future du Grand Genève doivent être imaginées dans un contexte géographique plus large. La géométrie simple définie par le cercle de 100 km du futur collisionneur circulaire (FCC) fournit un excellent point de départ pour observer, comprendre et appréhender l'ensemble de la région. Cet énorme cercle maintient le Salève, c'est-à-dire la nature, au centre.

Greater Geneva's future growth and ecological transition must be imagined within a larger geographical context. The simple geometry defined by the 100 km circle of the future circular collider (FCC) provides an excellent starting point to observe, comprehend and take in the overall region. The enormous circle leaves the Salève, hence nature, at its centre. (STEFANO BOERI ARCHITETTI)

Genève, constellation métropolitaine

Face aux crises provoquées par le changement climatique, le moment est venu de repenser le concept de métropole et de proposer un nouveau scénario.

Il est important de revenir à l'expérience des espaces urbains inspirés de la logique des quartiers autosuffisants. Le modèle n'est plus ici celui du village médiéval, mais d'une réalité métropolitaine capable de relier les villes et les petits centres de quartiers, à travers des zones autonomes.

Les villes doivent devenir des archipels métropolitains, même à l'échelle transnationale.

Pour éviter la tragédie de l'étalement urbain qui a détruit les territoires européens en les transformant en banlieues hors de contrôle, il faut imaginer une vie urbaine qui, réinstallée dans les centres périphériques, occupera à nouveau les petits noyaux qui étaient autrefois des villes, et assurera ainsi une relation solide avec la nature.

Pour Genève, nous proposons un projet réaliste inspiré du concept d'archipel métropolitain avec, comme centre, la montagne du Salève, un lieu où la biodiversité peut s'épanouir, un espace naturel accueillant pour les espèces non domestiques et domestiques. Cette nouvelle *Constellation métropolitaine* incarnera ainsi pour la première fois une coexistence qui ne sera plus fondée sur un anthropocentrisme autoritaire et agressif.

L'image de l'archipel métropolitain met en évidence la nécessité de renforcer l'autosuffisance fonctionnelle des îles qui le composent. Chacune est différente, mais toutes participent au même système de relations. Elle met également l'accent sur l'importance d'une identité commune, la « mer », ici formée par des corridors écologiques. À l'échelle régionale, l'archipel métropolitain comprend de multiples agrégations urbaines, mais il évite toute nouvelle artificialisation du sol et redonne à la faune et à la flore leur valeur structurelle essentielle.

La nature n'est plus une sphère extérieure à la ville, aux logements et aux corps, mais (à la manière d'un petit virus induisant une osmose entre les espèces

humaines et non humaines) une sphère vitale, constitutive de notre quotidien.

L'environnement naturel transnational est une ressource essentielle pour développer l'ouverture au monde de la nouvelle agglomération du Grand Genève. De par sa diversité culturelle et ethnique, elle est la première métropole au monde à incarner le concept de *mondialité* qu'Édouard Glissant a défini comme l'avenir de la coexistence urbaine, une manière de protéger une tradition culturelle très forte et de relever avec lucidité le défi de l'assimilation et de l'intégration culturelle. La *mondialité* s'oppose à la mondialisation: elle vise à trouver une « dimension de mondanité dans chaque espace local, une dimension de complexité du monde dans chaque pays, dans chaque village, dans chaque ville... et ce monde reflète une contemporanéité que nous avons partout¹ ».

Ces éléments sont essentiels à une métropole ouverte, fonctionnant comme un archipel de communautés transnationales créatives, où émergent de nouveaux emplois et de nouvelles compétences grâce à la convergence des technologies les plus avancées, des centres de formation internationaux, des sièges des principales entreprises multinationales et d'un réseau local d'organismes de recherche et développement.

La constellation géographique du Grand Genève peut devenir le modèle d'une nouvelle forme de métropole, prête à relever les défis du futur proche sur la planète Terre.

Ce projet ambitieux ne peut être mis en œuvre que dans le contexte riche et bien ancré de Genève qui, avec les grandes chaînes de montagne qui l'enveloppent et les rives du lac Léman qui l'embrassent, est le berceau de plusieurs grands hommes de la pensée occidentale – de Calvin à Saussure, en passant par Starobinski et Corboz.

¹ Hans Ulrich Obrist, Asad Raza, *Mondialité: Or the Archipelagos of Edouard Glissant*, Bruxelles, Skira, 2017

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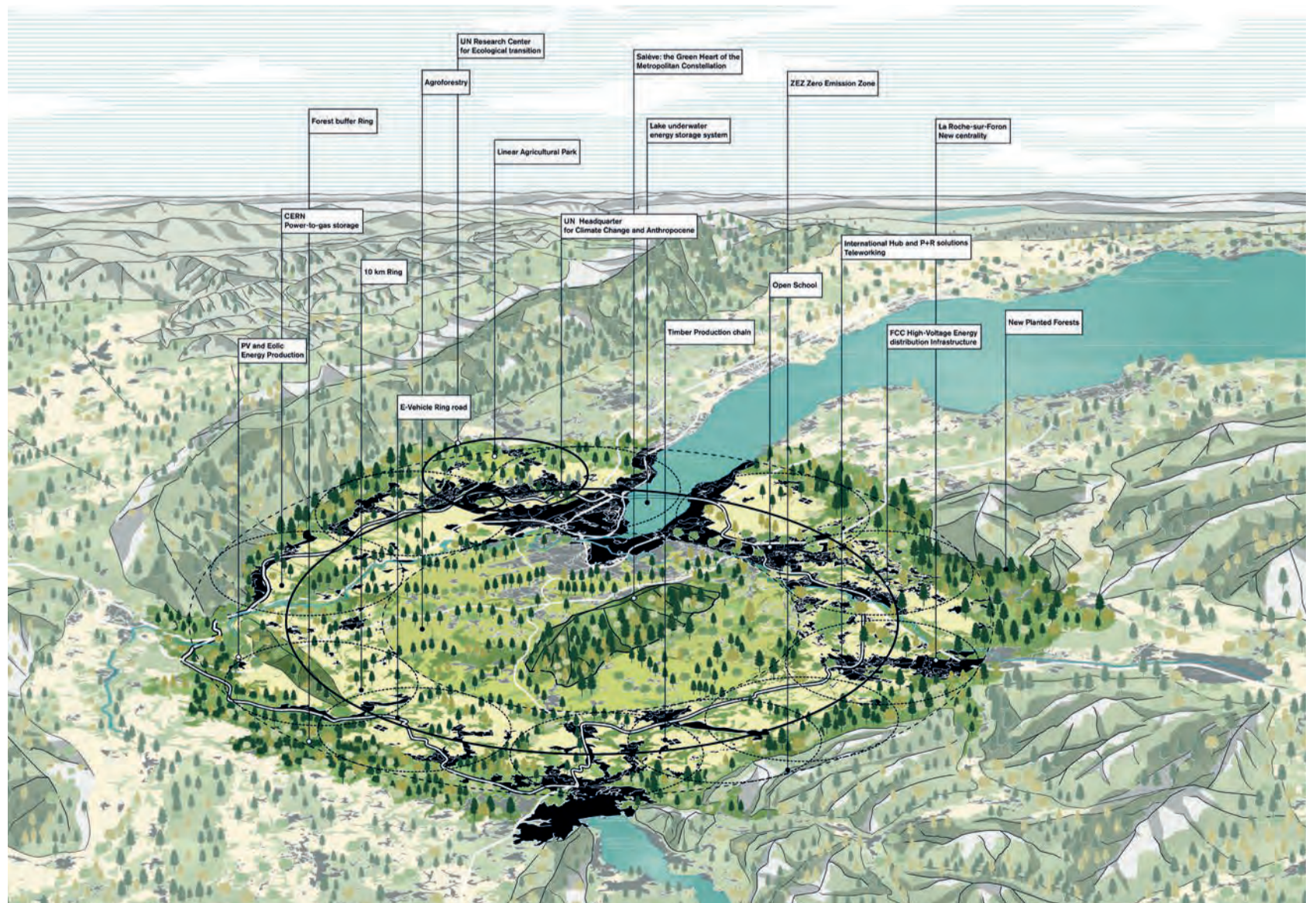
Armin Linke, photographe

Richard Sennett, sciences humaines, questions économiques et sociales

Avec:

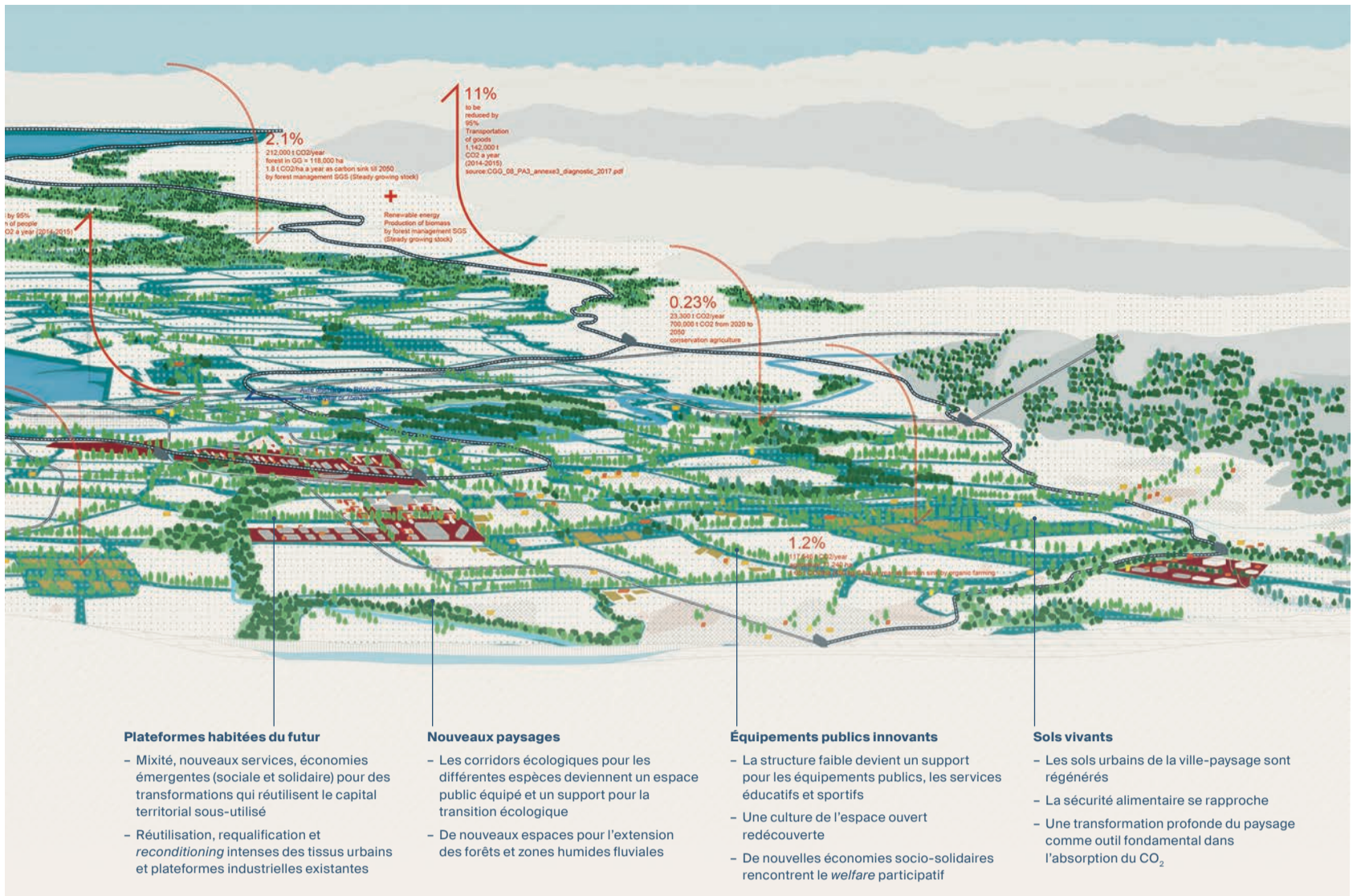
Bollinger + Grohmann – Génie civil
Martin Guinard-Terrin – Commissaire d'exposition

Angelo Giuseppe Landi – Expert en conservation du patrimoine



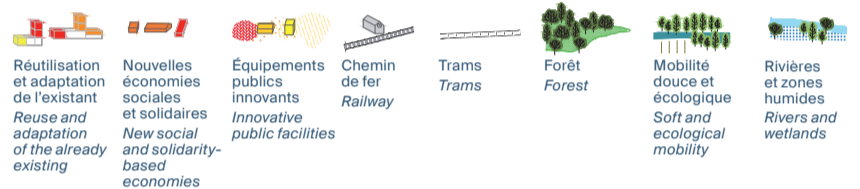
La nouvelle métropole qui s'étend de Genève à Annecy, intense et polycentrique, sera bordée par une suite continue de bois et de jardins forestiers. Les pôles urbains seront séquencés par une succession de champs agricoles à usage public. Au centre de la métropole se trouve le Salève, le noyau naturel de la constellation urbaine.

The new polycentric and intense Metropolis, spanning from Geneva to Annecy, will have a continuous sequence of woodlands and forest gardens at its edge. The urban hubs will be sequenced by a series of public-use agricultural fields. At the centre of the Metropolis stands the Salève, the natural nucleus of the urban constellation. (AXO)



Coupe territoriale et métabolique (détail): à travers cette grande coupe, nous synthétisons les stratégies qui alimentent notre vision.

Territorial and metabolic section (detail): through this large section, we summarise the strategies that nourish our vision (HRC - LAB-U 2020)



Soil and Labour. Transition, a new biopolitical project

Soil and labour are key factors in interpreting a metropolitan condition that must deal with the three dimensions of transition – ecological, socio-demographic and economic – in the context of Greater Geneva, a cross-border area marked by strong contrasts on both sides of the border. Our proposal envisions a space of continuity and merged networks (*the weak structure*); reinforces the principles of spatial and social self-determination (*the subject-territory and the metropolis of villages*); and sets up incremental processes of mitigation and adaptation to climate change (*soils for climate!*). The convergence of these strategies and projections outlines a both reformist and radical process of transition that is based on the already existing.

“Weak structures” assist the traditional “strong structures” and organise a territory that is inhabitable and productive in all its parts, capable of appreciating the variety of urban and landscape forms. These structures are an opportunity to rethink the spatial and political project of Greater Geneva, decentralisation, territorial balance and horizontal relations beyond centre and periphery.

Weak structures appeal to categories that have been marginalised in cities, such as water, soil regeneration, biodiversity, and the decentralised social and solidarity economy. The collective nature of this space, very much a “special zone” of the transition project, is at the heart of our vision: a space of continuity guaranteeing the functions of ecosystems, as well as an opportunity for collective experimentation of innovative practices in common space. New productive, social and solidarity cycles are then organised in relation with the weak structure, as well as with public amenities, which jointly become drivers for the redefinition of the “peripheries” of Greater Geneva (in the Pays de Gex, for example, which lacks care services, or in Chablais, which has a shortage of collective spaces). New synergies are emerging: industrial platforms are being rethought in terms of ecological continuity on a territorial scale and of mixed functions; local economies based on food production and

reconditioning (extending the lifecycles of objects) are being developed at the same time as “presential”, tourist and cultural economies.

The horizontal nature of the weak structure also has repercussions on the strong structure. In fact, the proposed transport and mobility model is not just about raising inhabitability levels (e.g. with the reopening of the Pays de Gex railway line), it also makes it possible to rethink the parameters of well-being in a heterogeneous metropolitan area. Investment in the development of new public transport lines to complement the existing network in the French part of the territory is not only motivated by the need to “rebalance” mobility conditions. It also highlights the need to promote local forms of work by capitalising on digital technology among other things, and by adapting to the territory rather than the other way round.

The proposed prototypical spaces, in which the weak structure is the most strategic component, show the various ways in which soil and labour are combined through activities that create value, whether ecological, economic or social.

They offer the prospect of growth that will make it possible to rethink and adapt existing spaces as well as the content of the biopolitical project that lies ahead. This will involve the renewal of territorial forms as well as the transformation of daily experience and living together in Greater Geneva, a pioneer of transition and a twenty-first-century city-landscape.

Habitat Research Center – EPFL

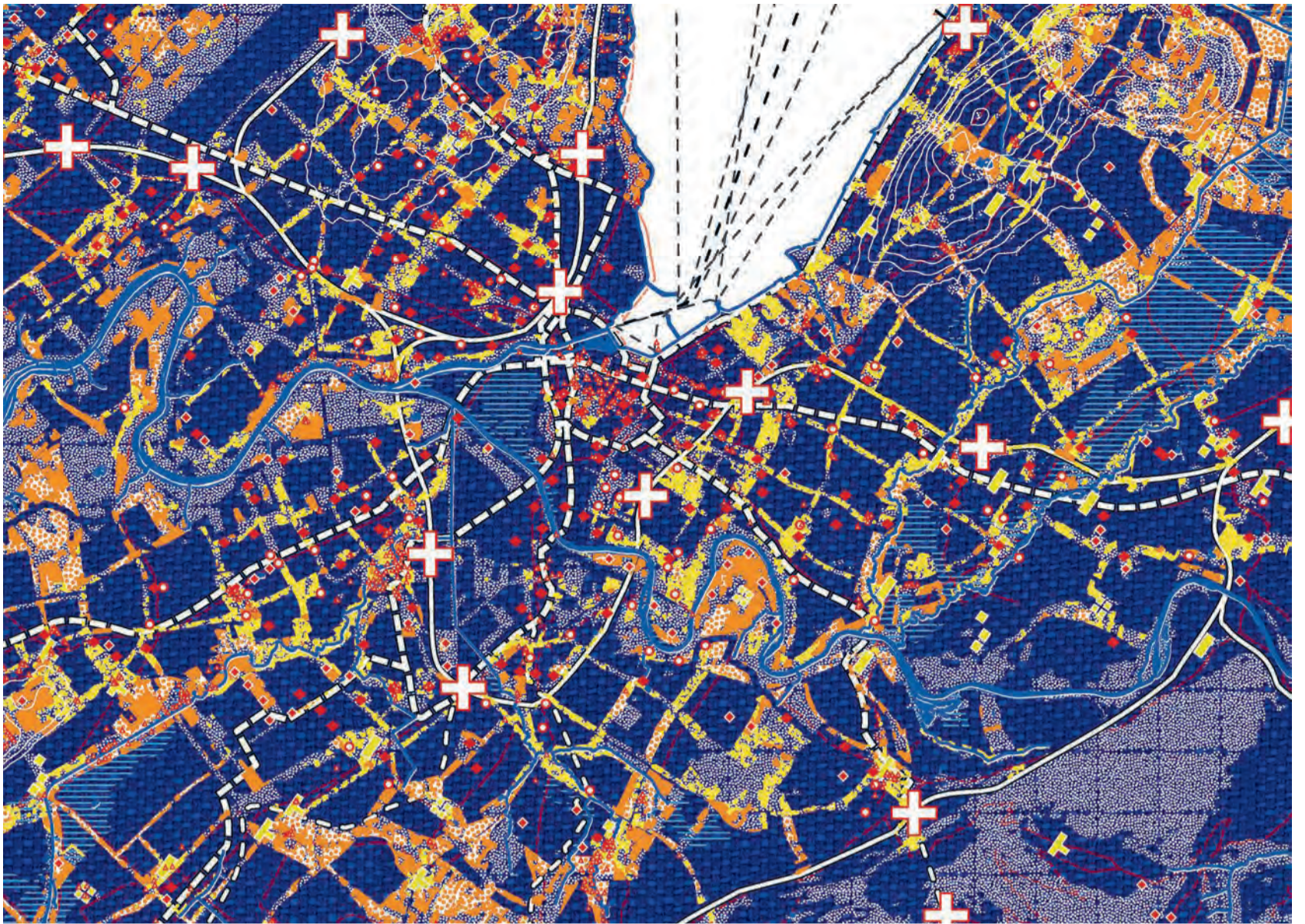
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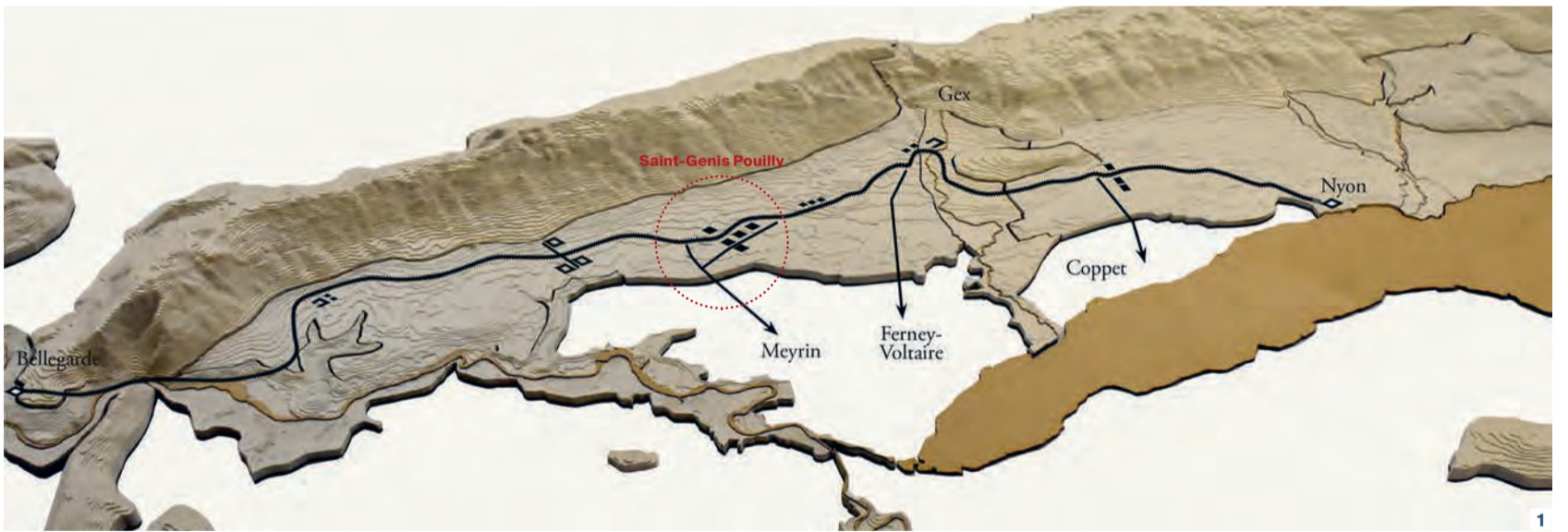
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Structures fortes et faibles : espaces cruciaux du projet de transition et leviers d'autres projets prototypiques qui s'appuient sur cette « structure portante » en l'interprétant localement. Un Grand Genève habitable au centre comme en périphérie.

Strong and weak structures: crucial spaces for the transition project and drivers for other prototypical projects based on this "bearing structure" by interpreting it locally. A Greater Geneva that is equally inhabitable in the centre and the periphery. (HRC - LAB-U 2020)



1 Figures territoriales-urbaines émergentes : Pays de Gex. Emerging territorial-urban figures: Pays de Gex. (HRC - LAB-U 2020)

2 Réouverture de la ligne ferroviaire Bellegarde-Nyon. Reopening of the Bellegarde-Nyon railway line. (HRC - MA1_2019, EPFL. P^o P. VIGANÒ, T. PIETROPOLLI, Q. ZHANG - G. RAVERA, T. NAKAMURA)

3 Un développement agropolitain à partir de la structure faible. An agropolitan development based on weak structure. (HRC - MA1_2019, EPFL. P^o P. VIGANÒ, T. PIETROPOLLI, Q. ZHANG - G. RAVERA, T. NAKAMURA)



L'image collective qui émerge est une agglomération pensée en quartiers, tournée vers son territoire ressource et favorisant le partage et les communs.

The collective image that emerges is that of a conurbation conceived in terms of neighbourhoods, connected to its resource territory and favouring sharing and commons. (APAAR & IRENE GIL)

A Territory of Resources, reconfiguring the existing and revealing the commons

A *Territory of Resources* seeks to accompany the ecological transition of Greater Geneva. The conurbation we aspire to is one that is aligned with the resources of its territory. It favours a logic of proximity thanks to a *Territory of Resources* generating new forms of production and habitat that give pride of place to commons.

The collaborative process brought together many people from varied fields of expertise. This played a fundamental role in the development of the project and allowed for the emergence of a collective image of the territory. The three laboratories we set up – *neighbourhood*, *new village*, *alpine pasture* – are a concrete application of this process. In order to reinvent our vision of the territory, our team identified four complementary goals that served to chart a course for the development of Greater Geneva.

Towards more commons. The philosophy of the commons is an essential value. It fosters mutual aid and sharing, while reducing needs in terms of energy and space. One application of this idea, for example, could be to collectively cultivate a plot of land.

Towards an archipelago of local territories. The archipelago of local territories refers to a resizing of the territory to new scales of life and organisation that are closer to inhabitants. In these micro-territories, new levels of decision-making and responsibility will emerge, and a better distribution of density will be possible.

Towards a bioregion. The ambition of a regional entity, which we could describe as a bioregion, is based on the idea that urban planning is not only concerned with the city, but also with the territory in which the latter is embedded. The landscape, its connectivity, its countryside and its green urban network are considered as resources. More than just a setting in which people live, the landscape is useful, living and energised by local production. The bioregion contributes freshness, biodiversity and resilience to the territory.

Towards an alterfunctionalism. In our view, ecological transition takes place at the heart of what already exists and ordinary situations. It cannot be exhaustively planned but must preserve spaces of freedom where certain practices and transitory uses can be implemented over time and according to inhabitants' needs. The reconfiguration of our environment therefore incorporates reversibility and the concept of multifunctionality. Let us take inspiration from natural ecosystems that interact and co-construct. As Sébastien Marot points out, "each component must perform several functions and each function is performed by several components".¹

The *Territory of Resources* we envision re-enchants what already exists to foster new ways of living and functioning that do not harm our environment.

¹ Team interview with Sébastien Marot, August 2020

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Contrées Ressources, reconfigurer l'existant et révéler les communs

Les *Contrées Ressources* visent à accompagner le Grand Genève dans sa transition écologique. L'agglomération que nous souhaitons est en adéquation avec les ressources de son territoire. Elle favorise une logique de proximité grâce à des *Contrées Ressources* constitutives de nouvelles formes de production et d'habitat faisant la part belle aux communs.

Le processus de collaboration a rassemblé de nombreuses personnes concernées, de compétences variées. Il joue un rôle fondamental dans l'élaboration du projet et a fait émerger une image collective du territoire. Les trois laboratoires – voisinage, nouveau village, alpage – sont une application concrète de ce processus. Afin d'appréhender notre territoire d'une manière nouvelle, notre équipe a relevé quatre caps complémentaires qui permettent de définir le fil conducteur pour le développement du Grand Genève.

Vers plus de communs. La philosophie des communs est une valeur essentielle. Elle permet l'entraide, le partage, tout en réduisant les besoins en énergie et en espace. Il peut s'agir, par exemple, de cultiver collectivement une parcelle.

Vers un archipel de territoires locaux. L'archipel de territoires locaux désigne un redimensionnement du territoire pour de nouvelles échelles de vie et d'organisation plus proches de leurs habitants. Dans ces micro-territoires, de nouveaux niveaux de décision et de responsabilité verront le jour, une meilleure répartition de la densité sera possible.

Vers une biorégion. L'ambition d'une entité régionale que nous pourrions qualifier de biorégion repose sur l'idée selon laquelle le sujet de l'urbanisme n'est pas uniquement la ville mais bien le territoire dont elle est le cœur. Le paysage, ses connectivités, ses campagnes et son maillage vert urbain sont considérés comme des ressources. Bien plus qu'un cadre de vie, le paysage est utile, vivant et dynamisé par une pro-

duction locale. La biorégion apporte fraîcheur, biodiversité et résilience au territoire.

Vers un alterfonctionnalisme. Pour nous, la transition écologique s'opère au cœur de l'existant et des situations ordinaires. La planification ne doit pas être exhaustive; elle doit garantir des lieux de liberté où certaines pratiques et usages transitoires pourront prendre place dans le temps et en fonction des besoins des habitants. La reconfiguration de notre environnement incorpore donc la réversibilité ainsi que la notion de multifonctionnalité. Inspirons-nous des écosystèmes naturels qui interagissent et se coconstruisent. Comme le souligne Sébastien Marot, «chaque élément doit remplir plusieurs fonctions et chaque fonction est remplie par plusieurs éléments»¹.

Les *Contrées Ressources* que nous percevons réenchangent l'existant pour faire émerger des nouveaux modes de vie et un fonctionnement autre qui ne nuisent pas à notre environnement.

¹ Entretien de l'équipe avec Sébastien Marot, août 2020

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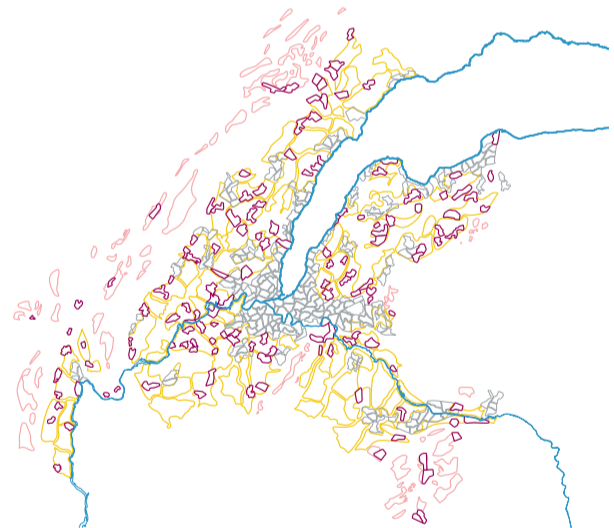
Team Academy HES-SO

VERS PLUS DE COMMUNS



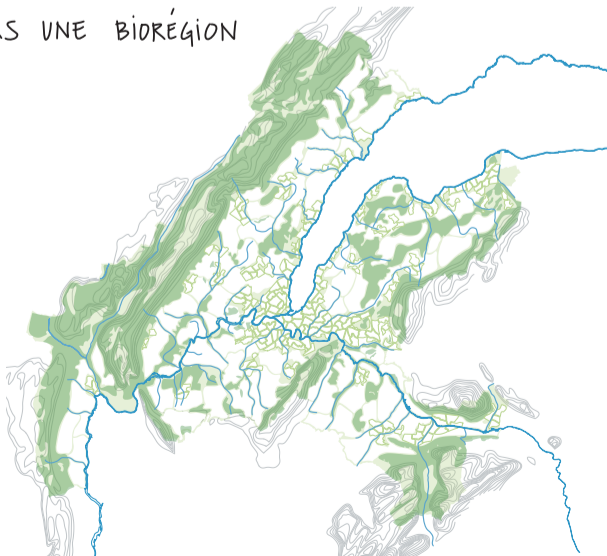
Towards more commons

VERS UN ARCHIPEL DE TERRITOIRES LOCAUX



Towards an archipelago of local territories

VERS UNE BIORÉGION



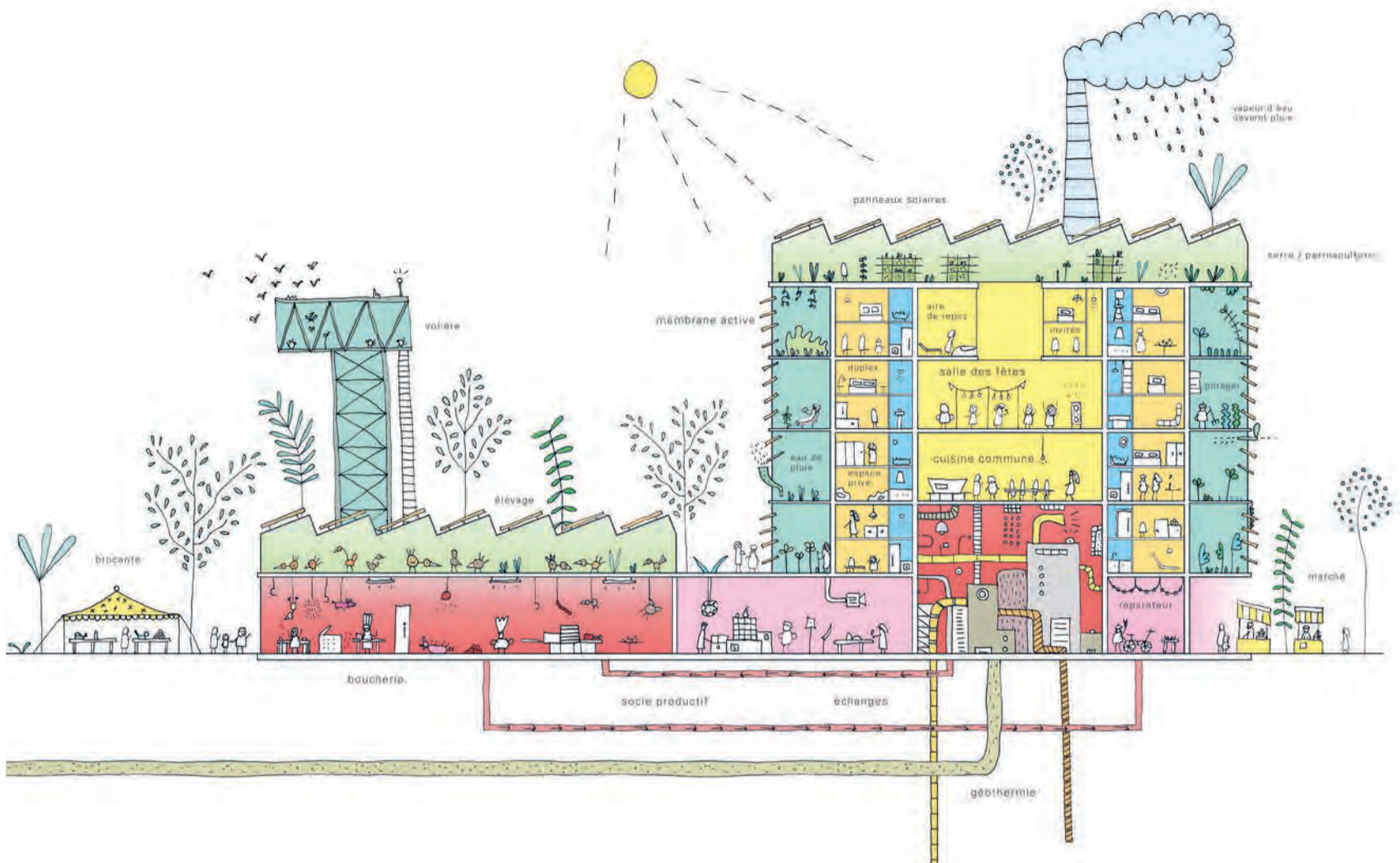
Towards a bioregion

VERS UN ALTERFONCTIONNALISME



“CHAQUE ÉLÉMENT REMPLIT PLUSIEURS FONCTIONS,
CHAQUE FONCTION EST REMPLIE PAR PLUSIEURS ÉLÉMENTS”

Towards an alterfunctionalism (APAAR & IRENE GIL)



La typologie de la conscience est mixte, productive et vivante. Elle intègre production d'énergie, espace de travail et de production, toiture active. Un système de membranes successives permet l'optimisation du référentiel énergétique du bâtiment.

The typology of awareness is mixed, productive and living. It integrates energy production, work and production space, and active roofing. A system of successive membranes optimises the building's energy benchmark. (RAUM404)

Energy Landscape

Our team proposes a reading of Greater Geneva, the focus of which is the energy-landscape relationship in this territory, and in particular the current dependence on oil.

Modernity has gradually detached Humanity from the Earth by promoting a comfort linked to the conquest of the infinite spaces of the Universe. The most striking manifestation of this is the extraction of fossil fuels which, by their incredible power, have certainly made it possible in a very short period to achieve a level of comfort unequalled in history, but which are also linked to the degradation of natural environments and biodiversity.

This question was considered in a multidisciplinary approach, from the perspective of the spatial and social impact of energy in the landscape of Greater Geneva, where approximately 67% of the energy consumed is of fossil origin. The approach was inspired in particular by Reyner Banham's "four ecologies"¹: it brings together the natural forces, lifestyles and man-made infrastructures of a specific territory. The results of this exploratory work demonstrate the need **to move from a culture of the individual to a culture of commonality and networking, in terms of energy production, distribution and consumption.**

At the level of regional strategies, this means implementing a certain number of measures: slowing down to place the pedestrian at the heart of the mobility system, cultivating a dialogue with the context by creating synergies, but also promoting different practices, notably through an architecture that breathes, connects with and integrates the living world. At the architectural scale, a more detailed typological study was carried out to propose what we have called a typology of awareness. The context in which the consultation took place led the team to reflect on **an urban project that is utopian in some ways, but which has the ambition to show an alternative to the classic modern consumerist logic.**

In January 2020, our final proposal illustrated a possible path of transition, a step-by-step move

towards oil-free energy landscapes for Greater Geneva. Along this path, which meandered among many other possible routes, propositions included a slight reduction in the volume of passengers at Cointrin airport by 2030 and its closure by 2050, but also the development of new forms of mobility. The evolution of certain social practices was also described, as well as an increase in the catastrophic events that were already featuring daily in world news.

Six months later, a microscopic virus plunged us headfirst into a pandemic world, where freedom of movement has been restricted and the global economy slowed down, revealing the physical limits of human development. This prompted us to **provide a more radical illustration of the potential for a true transition project.** Already, during the research on the post-oil city, we had identified the airport as the most opportune site for a radical change. Imagining Cointrin airport as a residential site means finding new ways of living in a different society. A district structured by clean energy and climate networks, which promotes a city of short circuits, a city that is healthy and inhabitable, productive and qualitative, deeply linked to its energy landscape. Living in Cointrin also means completely changing the paradigm on mobility by transforming a non-place for more than 17 million passengers a year into a biodiversity-rich environment for 30,000 new residents and workers. Transforming the Cointrin site into a new district of Greater Geneva means eliminating the biggest consumer of fossil fuels from the landscape, saving agricultural land from new property developments, offering a space to experiment with new ways of living and giving the site the chance to produce clean energy and absorb CO₂.

¹ Reyner Banham: *Los Angeles: The Architecture of Four Ecologies* (New York: Harper and Row, 1971)

Raum404

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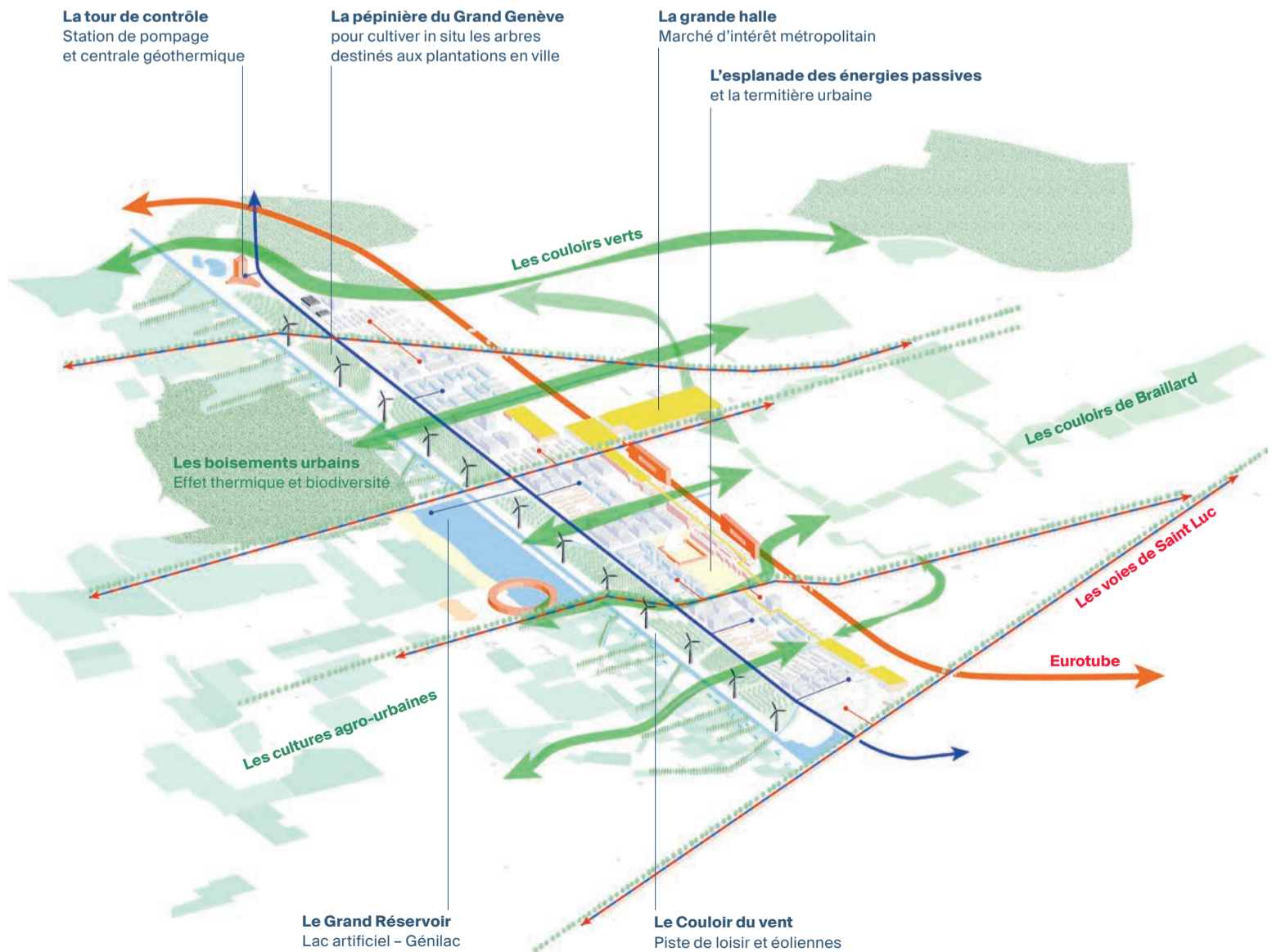
Thiébaud Parent



Aéroport de Cointrin 2020
Cointrin airport 2020 (NICOLAS SEDLATCHEK)



Aéroport de Cointrin 2050
Cointrin airport 2050 (RAUM404 - BIG PICTURE)



Principes d'aménagement climatique du site de l'aéroport de Cointrin, géothermie et lac artificiel, pépinière urbaine, voies de Saint Luc pour la mobilité douce et la distribution énergétique, coopératives, marché d'intérêt métropolitain, etc.

Climate planning principles for the Cointrin airport site, geothermal energy and artificial lake, urban nursery, Saint Luc road network for soft mobility and energy distribution, cooperatives, market serving metropolitan area, etc. (RAUM404)

Energy Landscape

Notre équipe propose une lecture du Grand Genève dont la focale est la relation énergie-paysage de ce territoire, et notamment sa dépendance actuelle au pétrole.

La modernité a peu à peu détaché l'Humanité de la Terre en prêchant un confort lié à la conquête des espaces infinis de l'Univers. La manifestation la plus éclatante en est l'extraction d'énergies fossiles qui, par leur puissance inouïe, ont certes permis en un laps de temps très court d'atteindre un confort inégalé dans l'histoire, mais sont aussi liées à la dégradation des milieux naturels et de la biodiversité.

Cette question a été abordée dans une logique pluridisciplinaire sous l'angle de l'impact spatial et social de l'énergie dans le paysage du Grand Genève, où environ 67% de l'énergie finale consommée est d'origine fossile. Cette approche s'inspire notamment des « quatre écologies » de Reyner Banham¹: il met en relation les forces naturelles, les modes de vie et les infrastructures anthropiques d'un territoire spécifique. Les résultats de ce travail exploratoire montrent le besoin de **passer d'une culture individuelle à une culture des communs et de mise en réseau, aussi bien au niveau de la production que de la distribution et de la consommation d'énergie.**

À l'échelle des stratégies régionales, il s'agit de mettre en œuvre un certain nombre d'actions: ralentir pour mettre le piéton au cœur du système de mobilité, dialoguer avec le contexte par la création de synergies, mais également promouvoir des pratiques différentes, notamment à travers une architecture qui respire, connecte et intègre le vivant. À l'échelle architecturale, un travail typologique plus fin a été mené pour proposer ce que nous avons appelé une *typologie de la conscience*. Le contexte dans lequel la consultation s'est déroulée a amené l'équipe à réfléchir à **un projet urbain, utopique par certains traits, mais qui a pour ambition de montrer une alternative à la logique consumériste moderne classique.**

En janvier 2020, notre proposition finale illustre un chemin possible de la transition, un pas à pas vers

des paysages de l'énergie du Grand Genève affranchis du pétrole. Au cours de ce chemin qui serpentait parmi de nombreux autres possibles, il était question de la légère réduction du volume de passagers de l'aéroport de Cointrin à l'horizon 2030, de sa fermeture à l'horizon 2050, mais aussi du développement de nouvelles mobilités. L'évolution de certaines pratiques sociales y était également décrite, ainsi que l'augmentation des événements catastrophiques qui rythmaient déjà, quotidiennement, l'actualité mondiale.

Six mois après, un agent microscopique nous a fait plonger la tête la première dans un monde où la liberté de mouvement s'est vue restreinte et l'économie planétaire ralentie, révélant les limites physiques du développement humain. Nous avons alors souhaité **offrir une illustration plus radicale des possibles pour envisager un vrai projet de transition.** Déjà, lors de la recherche sur la ville post-pétrole, nous avons identifié l'aéroport comme le site le plus opportun pour un changement radical. Concevoir de vivre sur le site de Cointrin, c'est faire face à de nouveaux modes de vie dans une société différente. Un quartier structuré par des réseaux climatiques et énergétiques propres, qui promeut une ville des circuits courts, saine et habitable, productive et qualitative, profondément liée à son paysage énergétique. Vivre Cointrin, c'est aussi changer complètement de paradigme sur les mobilités en transformant un non-lieu pour plus de 17 millions de passagers par an en un milieu riche en biodiversité pour 30 000 nouveaux habitants et travailleurs. Transformer le site de Cointrin en un nouveau quartier du Grand Genève, c'est éliminer du paysage le plus grand consommateur d'énergies fossiles, sauver des terres agricoles de nouvelles opérations immobilières, offrir un espace pour expérimenter des nouvelles manières de vivre et donner la chance au site de produire de l'énergie propre et absorber du CO₂.

¹ Reyner Banham, *Los Angeles: The Architecture of Four Ecologies*, New York, Harper and Row, 1971

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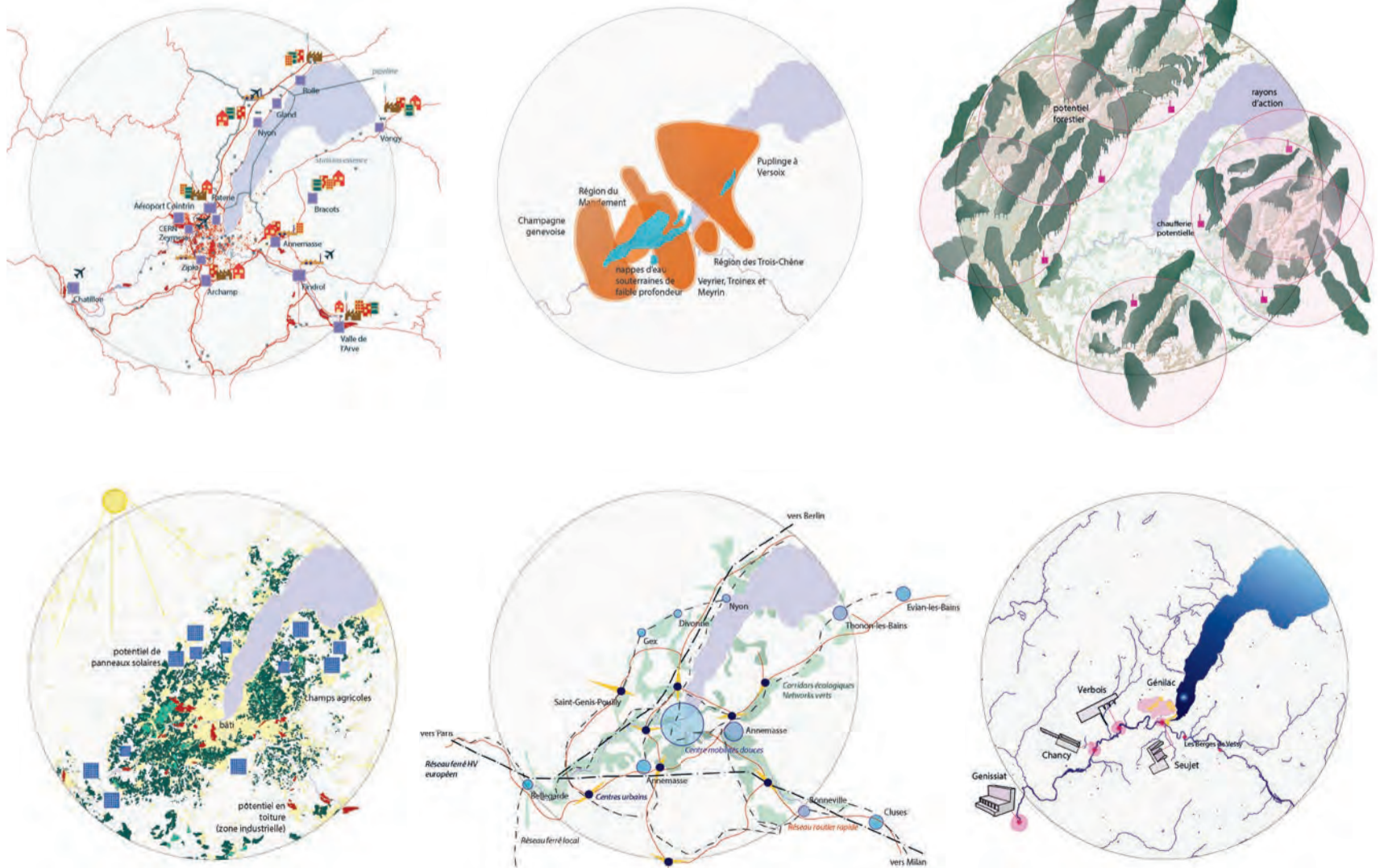
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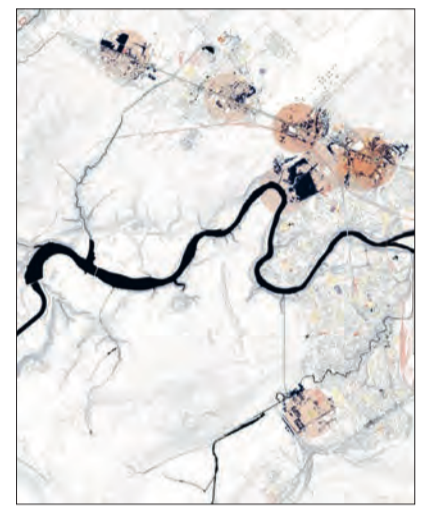
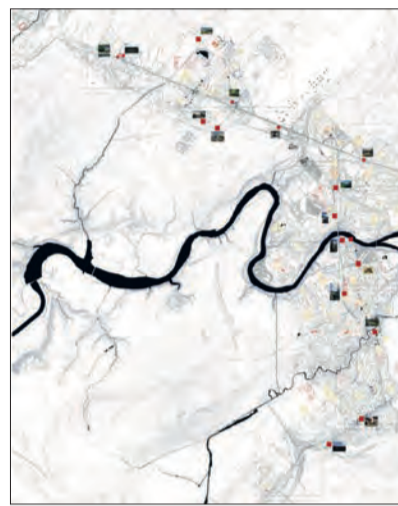
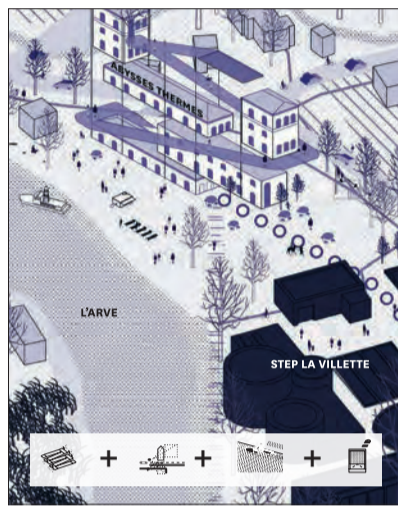
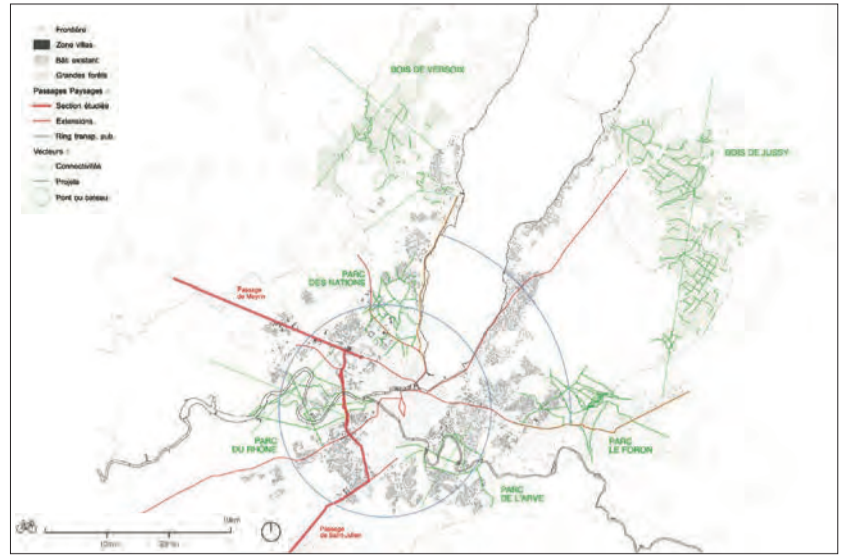
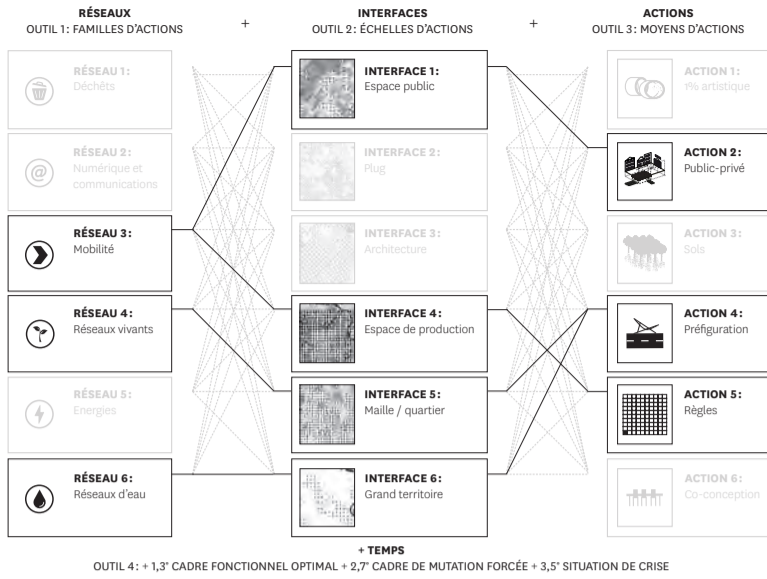
Drees&Sommer

Thiébaud Parent



Dans le sens de lecture, la géographie du pétrole, la géographie du sous-sol, la géographie du vivant, la géographie du soleil, la stratégie mobilité, la géographie de l'eau.

Left to right, geography of oil, geography of the subsoil, geography of biomass, geography of sunlight, geography of mobility, geography of water (RAUM404)



Plan guide, proposition d'une matrice de conception stratégique sur des emprises de réseaux. Ici, entre Annemasse et Genève, dans une zone inondable, la station d'épuration de Villetta approche de l'obsolescence. Création d'un parc hybride: programme culturel, accueil de populations fragiles, structure flottante.
 Framework plan, proposal for a strategic design matrix based on lands used by networks. Here, between Annemasse and Geneva, in a flood zone, the Villetta wastewater treatment plant is nearing obsolescence. Creation of a hybrid park: cultural programme, hosting of vulnerable populations, floating structure. (AWP 2020)

Diagramme du Réseau Vivant. Le projet du Réseau Vivant propose des ensembles de vecteurs, qui sont organisés autour de cinq narrations – Parc Paysage, Passage Paysage, Transport Public, les Grandes Forêts, et Îlot-îlot. Ces dispositifs articulent des potentialités environnementales à transformer en initiatives et projets.
 Diagram of the Living Network. The Living Network project proposes sets of vectors, organised around five narratives – Park Landscape, Passage Landscape, Public Transport, Great Forests and Cluster-Cluster. These devices articulate environmental potentialities to be transformed into initiatives and projects. (ALICE-EPFL 2020)

Metabolising the Invisible, forecasting networks

The AWP agency has assembled an interdisciplinary team to address the ecological transition of Greater Geneva through the underestimated role of networks: water, waste, energy, transport, logistics and digital, these technical and natural systems that structure all land uses, and whose ramifications reach deep into the area's hinterland. Largely invisible, they mobilise colossal investments that users are barely aware of. However, these networks are dimensioned according to criteria that are threatened by the climate crisis. By rethinking them now, they can become vectors of the ongoing ecological transition. Adopting a complementary approach, in partnership with the AWP project, the ALICE laboratory at EPFL is exploring the concept of *Living Network*, focusing on the transformation of natural networks and the landscape into a medium for new spatial and social dynamics.

Networks emerge in precious territorial situations: on the underside of cities, in relation to large structuring landscapes. A close study of Greater Geneva shows that the metropolitan area has turned its back on the natural strengths of its site and that it lacks room for manoeuvre in relation to the different realities of its territory. The necessary evolution of technical and natural systems is an opportunity to create new liberating margins. **The network-based approach makes it possible to envisage a new systemic grid in harmony with the landscape**, for example by accepting the risks of flooding or the consequences of more frequent droughts.

Adaptation and resilience. On the one hand, it is important to capitalise on the major technological potential that lies in merging networks that are currently managed independently whereas they could act in synergy (mutualisation, recovery, transfer, compensation, etc.). On the other hand, the networks must be reintegrated into the natural logics they have ignored or compromised (drainage basins, water tables, season factors, ecosystems, etc.). In the long term, the aim is to **rebalance the ecological basis of the territory in favour of relocated and integrated**

utilities. These objectives also reflect a desire to overcome the contradictions resulting from the border effect of Greater Geneva (duplicated infrastructures, contradictory strategies, lack of cooperation). A new networks paradigm, one that is more flexible and responsive, must be invented through innovations in cross-border cooperation.

A framework plan for a transition from the current network is proposed. It sets common objectives, the first stages of which are a succession of localised pilot projects, capable of having a strong impact on the major indicators. This framework plan identifies vectors for major projects such as large natural sites (Rhône) or the PACA (Périmètres d'aménagement coordonnés d'agglomération, coordinated urban development zones that serve as intermediate levels of governance between the conurbation and the municipalities). Networked territories seem to be the quickest and most efficient starting point: cantonal roads, technical installation sites, railway brownfields, energy distribution infrastructure and so on. When added up, these lands account for 10% of the territory! They are public and largely adaptable, which offers considerable leverage for action. **The aim is not to fill these "gaps", but to "metabolise" them through a series of pioneering projects in order to bring about an overall rebalancing of Greater Geneva's metabolism.**

1 Metabolise: to target the beneficial components of a resource using sorting, transfer and guidance tools. A process of revaluing territorial resources (invisible resources) that are ignored by a system that is poorly adapted, since it is over-characterised by spending. This process implies new modes of analysis to identify the vectors of revitalisation. For example, one no longer speaks of void in the usual sense (a void to be filled), but as a resource contributing to the general balance. A void is not to be considered as a "neglected resource" but a "super-resource" that is much more efficient than other exhausted or counter-productive resources.

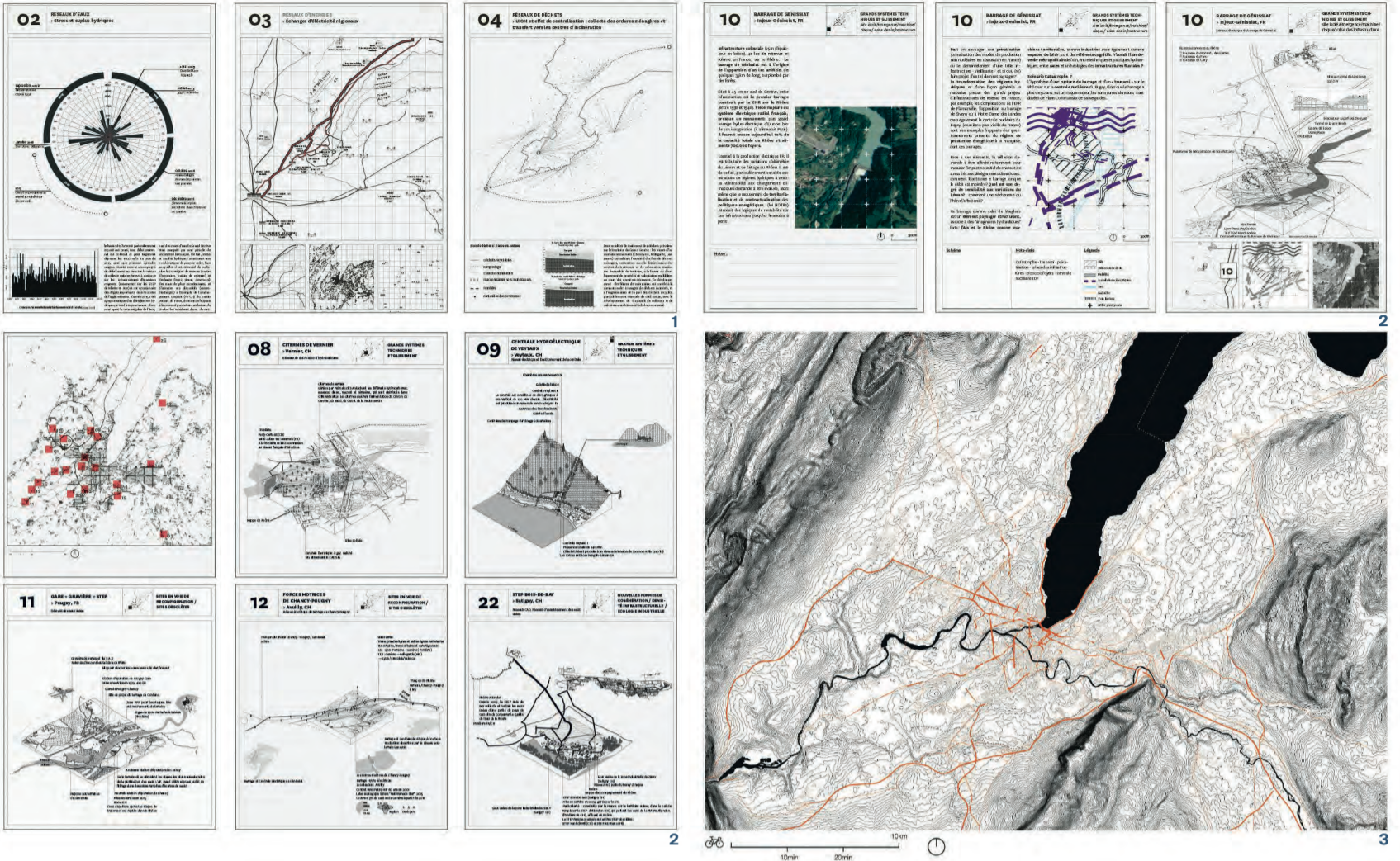
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 Project team: Bérénice Gentil (project manager), Charles Bouscasse, Etienne d'Anglejan, Julie Barut, Jennyfer Dos Santos Vidal, Chloé Barbas, Anatole Poirier, Rachel Rouzaud, Kristina Cirovic, Lulua Al Ajami, Clarisse Protat, Alexia Bezain

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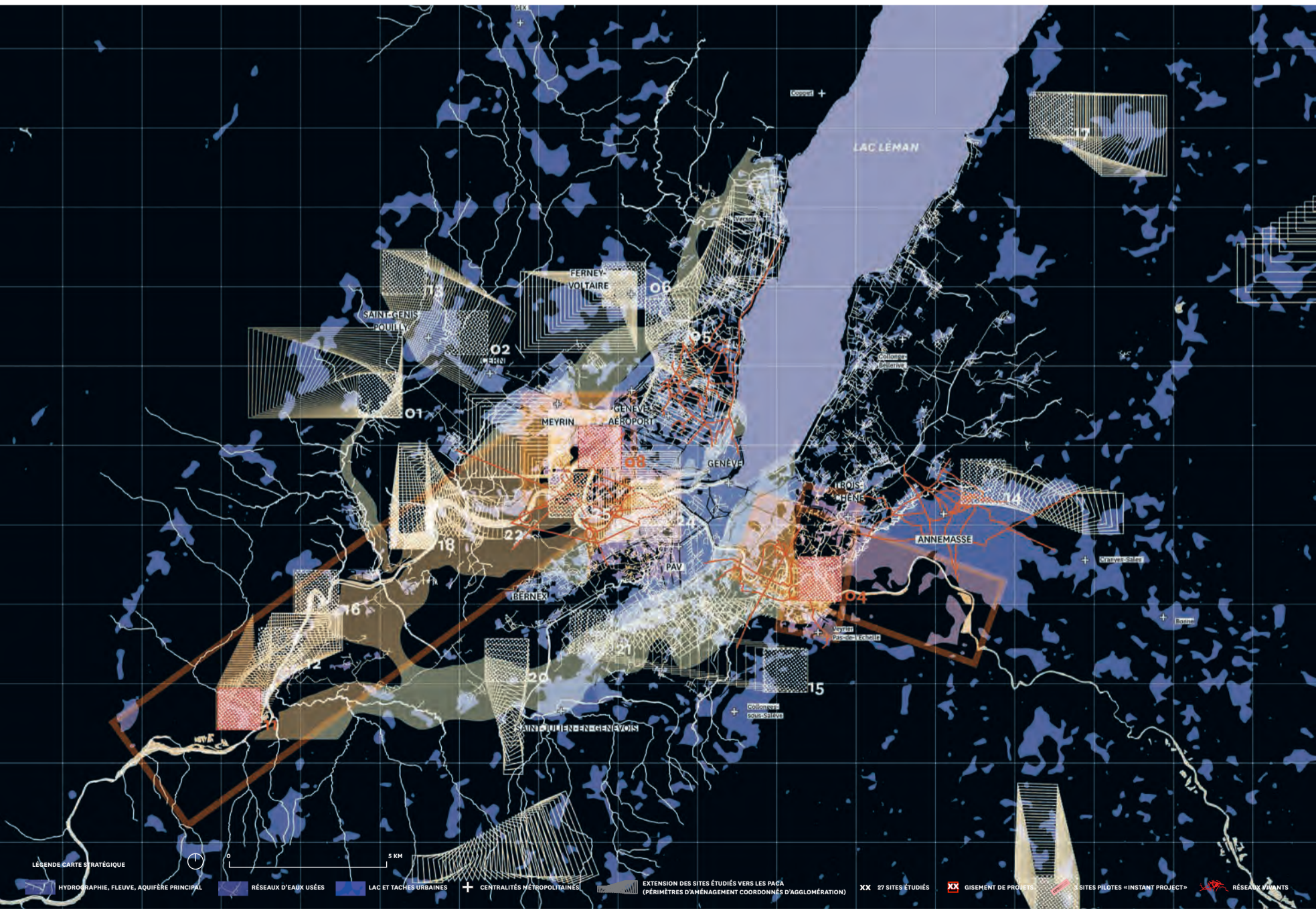
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 Stefan Kaegi, artist, Rimini Protokoll



- 1 Pages extraites de l'Atlas Thématique des réseaux.
Pages extracted from the Thematic Atlas of networks. (AWP 2019-2020)
- 2 Échantillonnage de 22 émergences de réseaux dans des contextes stratégiques forts: stations de traitement des eaux usées ou de pompage d'eau potable, centres de tri ou d'incinération de déchets, zones d'enfouissement, barrages hydroélectriques, plateformes multimodales, data centers.
Sampling of twenty-two network access points in strong strategic contexts: wastewater treatment units or drinking water pumping stations, waste sorting or incineration centres, landfill areas, hydroelectric dams, multimodal platforms, data centres. (AWP 2019-2020)

- 3 Le réseau routier structurant genevois suit historiquement une logique radiale centre-périphérie. Il s'agit d'axes pratiquement rectilignes reliant la frontière franco-suisse au centre-ville de Genève. Ces axes traversent toutes les couches du territoire et constituent le support principal de la mobilité régionale. Données SITG.
Geneva's structuring road network has historically followed a radial centre-periphery logic. It consists of roads running more or less straight from the French-Swiss border to the centre of Geneva. These roads pass through all layers of the territory and are the main vectors of regional mobility. SITG data (ALICE-EPFL 2020)



Carte des 27 sites stratégiques du Grand Genève des réseaux. Ils pourraient devenir des situations pionnières de la transition écologique: des accélérateurs ou ralentisseurs, des espaces de compensation ou de porosité, de production ou d'inaction volontaire...

Map of the twenty-seven strategic sites of the Greater Geneva networks. They could become pioneering sites for ecological transition: accelerators or decelerators, spaces of compensation, porosity, production or voluntary inaction, etc. (AWP 2020)

Métaboliser les invisibles, prospective des réseaux

L'agence AWP a réuni une équipe interdisciplinaire pour aborder la transition écologique du Grand Genève à partir du rôle sous-estimé des réseaux: eaux, déchets, énergie, transport, logistique, numérique, ces systèmes techniques et naturels qui structurent toutes les occupations du sol, et dont les ramifications s'enfoncent profondément dans les arrières du territoire. Largement invisibles, ils mobilisent des investissements colossaux dont les usagers n'ont guère conscience. Mais ces réseaux sont dimensionnés selon des critères menacés par la crise climatique. Les repenser dès aujourd'hui, c'est leur permettre de devenir vecteurs de la transition écologique en cours. De manière complémentaire, le laboratoire ALICE de l'EPFL a exploré la notion de *Réseau Vivant*, en mettant l'accent sur la transformation des réseaux naturels et du paysage, comme support de nouvelles dynamiques spatiales et sociales.

Les réseaux émergent dans des situations territoriales précieuses: à l'envers des villes, en relation avec les grands paysages structurants. L'étude approfondie du Grand Genève démontre que la métropole a tourné le dos aux puissances naturelles de son site et qu'elle manque de marge de manœuvre face aux différentes réalités de son territoire. La nécessaire évolution des systèmes techniques et naturels est une opportunité de créer de nouvelles marges libératrices. **L'approche par les réseaux permet d'envisager une nouvelle maille systémique qui se réconcilie avec le paysage**, par exemple en acceptant les risques d'inondation ou les conséquences des sécheresses croissantes.

Adaptation et résilience. D'une part, il faut valoriser le potentiel technologique majeur de mise en réseau des réseaux, qui sont aujourd'hui gérés en silos étanches alors qu'ils pourraient agir en synergie (mutualisation, récupération, transfert, compensation...). D'autre part, il faut réinsérer les réseaux dans des logiques naturelles qu'ils ont ignorées ou com-

promises (bassins versants, nappes phréatiques, saisonnalités, écosystèmes...). Il s'agit, à terme, de **rééquilibrer l'assiette écologique du territoire en faveur de fonctionnements relocalisés et intégrés**. Ces objectifs s'inscrivent aussi dans une volonté de dépasser les contradictions issues de l'effet frontière du Grand Genève (infrastructures doublons, stratégies antinomiques, déficit de coopération). Un nouveau paradigme des réseaux, plus souple et réactif, est à inventer au travers de nouvelles coopérations transfrontalières.

Un plan guide pour une transition depuis le tableau de bord des réseaux est proposé, qui fixe des objectifs communs, dont les premières étapes sont une succession de projets pilotes situés, capables d'agir avec force sur les grands indicateurs. Ce plan guide identifie des vecteurs de projets majeurs comme des grands sites naturels (Rhône) ou les PACA (Périmètres d'aménagement coordonnés d'agglomération, échelons de gouvernance intermédiaire entre l'agglomération et les communes). Les territoires de réseaux semblent être le point de départ le plus rapide et efficace: routes cantonales, emprises des installations techniques, friches ferroviaires, axes de distribution d'énergie... L'addition de ces fonciers atteint 10% du territoire! Des fonciers publics et largement mutables, qui proposent un levier d'action considérable. **Il ne s'agit pas de remplir ces «vides», mais de les «métaboliser»¹ au fil d'une série de projets pionniers initiateurs d'un rééquilibrage global du métabolisme du Grand Genève.**

¹ Métaboliser: cibler les composants bénéfiques d'une ressource avec des dispositifs de tri, transfert et guidage pour contribuer à l'équilibre général. Un processus de revalorisation de ressources territoriales ignorées (les invisibles) par un système inadéquat, puisque sur-caractérisé par la dépense. Ce processus suppose de nouvelles grilles de lecture, pour identifier des vecteurs de revitalisation. Ainsi, on ne parle pas de vide dans le sens habituel (vide à combler), mais en tant que ressource contribuant à l'équilibre général. Le vide ne serait pas un «aliment négligé» mais un «super-aliment», bien plus efficace que d'autres ressources épuisées ou contre-productives.

AWP agence de reconfiguration territoriale, mandataire

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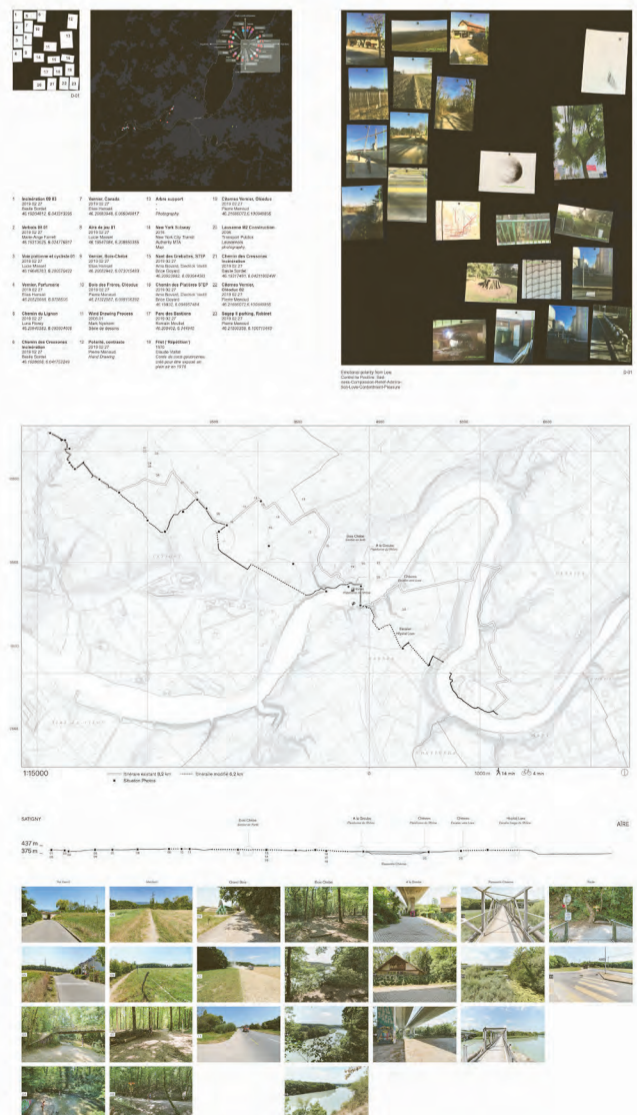
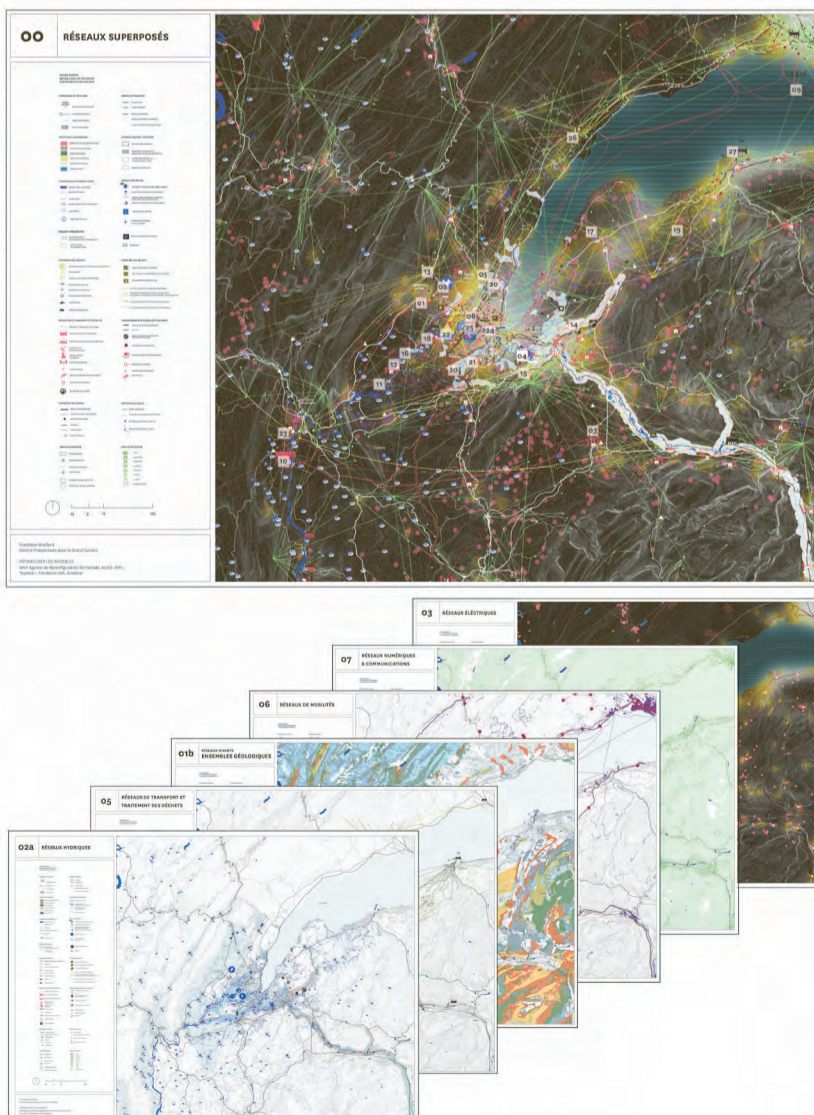
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AIA environnement - Simon Davies
Alto Step - Gautier Reynaud, Isabelle Andorin
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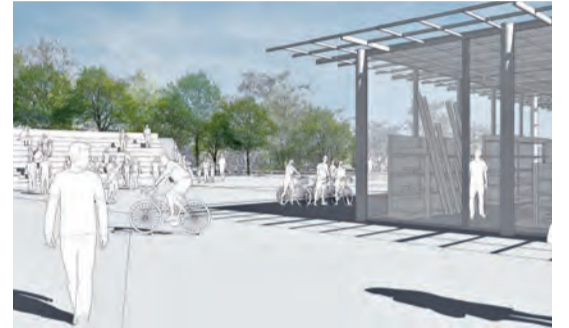
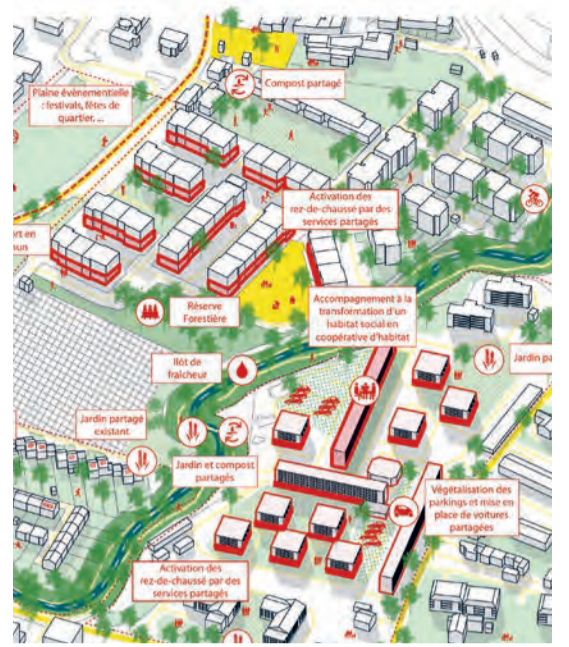
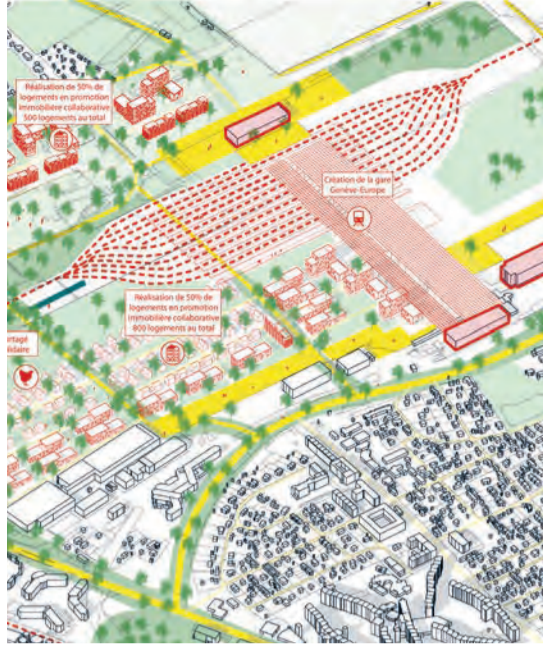
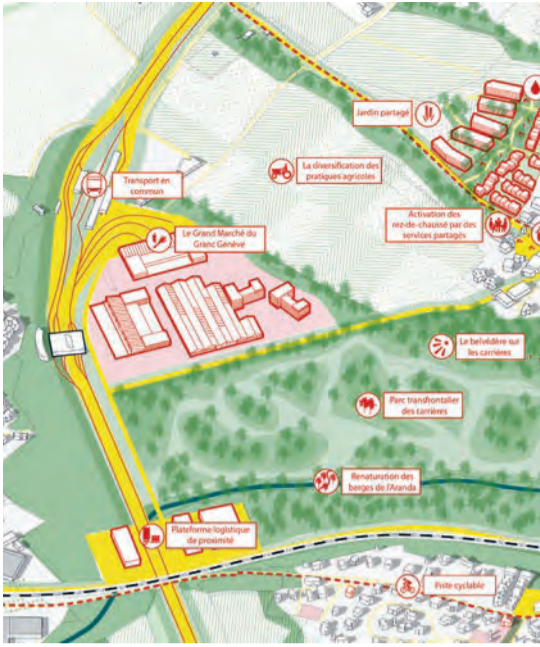
Experts:

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Marc Schneider, Schneider Verkehrsplanung AG
Paul Schneeberger, Union des villes suisses
Jeanne Della Casa, L-architectes
Stefan Kaegi, artiste, Rimini Protokoll



Cartes extraites de l'Atlas Géographique des réseaux du Grand Genève: réseaux vivants, eaux, déchets, énergies, transport et logistique, numérique et communication.
Maps extracted from the Geographical Atlas of Greater Geneva networks: living networks, water, waste, energy, transport and logistics, digital and communication. (AWP 2019-2020)

Documents extraits de l'Atlas Poliphilo, outil de lecture des paysages de réseaux explorés par les étudiants de l'EPFL, à travers la compilation de matériel principalement collecté *in situ*.
Documents extracted from Atlas Poliphilo, a tool for reading the networked landscapes explored by EPFL students, through a compilation of material collected primarily in the field. (ALICE-EPFL 2019)



L'agropôle d'Archamps-Bardonnex, vers une re-territorialisation des circuits de production alimentaire au service d'un tiers-territoire, qui accueille un Grand Marché et un centre de R&D sur l'agriculture et l'alimentation.
The Archamps-Bardonnex agro-hub, towards a re-territorialisation of food production circuits at the service of a third territory, which hosts a large market and an R&D centre on agriculture and food.

L'aéroport de Genève, vers une transformation en gare ferrée interconnectée avec le maillage grande vitesse européen et le réseau des mobilités douces et des transports collectifs à l'échelle locale.
Geneva airport, towards a transformation into a railway station connected to the European high-speed network and the local soft mobility and public transport network.

La zone franche de Thônex-Vallard, vers un éco-forum contributif sur le réemploi et un espace transfrontalier démonstrateur d'une expérimentation de la circularité et du partage dans les quartiers existants.
The Thônex-Vallard free zone, towards a contributory eco-forum on reuse and a cross-border space showcasing an experiment in circularity and sharing in existing neighbourhoods. (INTERLAND)

The Great Crossing, in search of singular ecologies

Our team proposes to seek out the “singular ecologies” of the cross-border metropolitan area.

To realise this ambition, over the course of 2019 we undertook a major crossing, both physical – through the metropolitan territory – and metaphorical – through the themes of ecological transition. Starting from the hypothesis that a culture of circularity, consultation and cooperation has existed for a long time in the France-Vaud-Genève territory, an initial survey of successful citizen initiatives enabled us to distinguish several series of transitional “objects”, “subjects” and “projects”. Thanks to a systematic exploration of the latter through collective on-site walks alternating with roundtable discussions of the surveyed actions, we identified three conditions defining the singular nature of the said ecologies: “the experimentation cluster”, “the cross-border passage” and “the catchment area”.

Four fields of reference also guided the exploration.

The first concerns the **rewilding of natural and anthropogenic processes** – by assessing the “wild part” of the territory that must be preserved in order to survive. The structural ecological crisis requires us to shift our thinking from offsetting to resetting: in terms of metabolism, biodiversity or health, concepts which eco-urbanism must henceforth seek to promote, emphasising the intimate bond between man and the rest of the living world. This means implementing measures to give the territory a potential to regenerate wasteland or fallow land, to reconvert sites with undefined uses, and to grant a new identity to land that is difficult to access or deliberately ignored.

The second explores **territories of inhabitation**. The aim in this case is to ensure that a type of housing can no longer be designed without taking into account the transitional effects that it may produce on the land in terms of decarbonised or shared mobility, short supply chains, energy, material or information consumption, or the diversification of common spaces. Residents’ cooperatives, as a contributory model for property development and the promotion

of know-how, demonstrate in particular an “ecological” and “transitional” legitimacy that fosters meaning and hospitality.

The third is to systematically **establish a contractual basis for exchanges**. Here, we are referring to the need to reinvent new forms of reciprocity agreements between stakeholders when it comes to managing material, decision-making or energy exchanges pertaining to the ecology: charters, values, common rules, private or public accreditations, recommendations or expert opinions, etc. This is the condition for rigorously redefining what the “common good” is or is not in a given situation, and for anticipating, through the project, a future normative framework.

The fourth advocates **the invention of a third scale**, one that is oblique, intermediate or transversal, in other words a scale that is never given but always to be constructed or reconstructed, according to the local and circumstantial situation of the project. There is no universal recipe for implementing transition, but projects to be carried out, on concrete, embodied and well-differentiated territories according to the “singular ecology” and the “resilient value chains” that characterise them.

Thus, the work opens onto – but does not conclude on – **three demonstration projects**, which are an opportunity to experiment with three realistic fictions. The latter were elaborated by directly convening the concerned stakeholders and by more systematically investigating the real conditions of transitional change in the three territories: the Archamps-Bardonnex agro-hub, the Geneva-Europe airport and railway station, and the Thônex-Vallard free zone.

Interland

Franck Hullaard, Alizée Moreux

Bazar Urbain

Nicolas Tixier, Charles Ambrosino

Contrepoint, projets urbains

Pascal Amphoux

Coloco

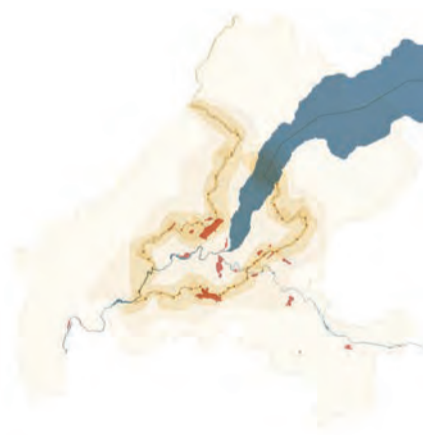
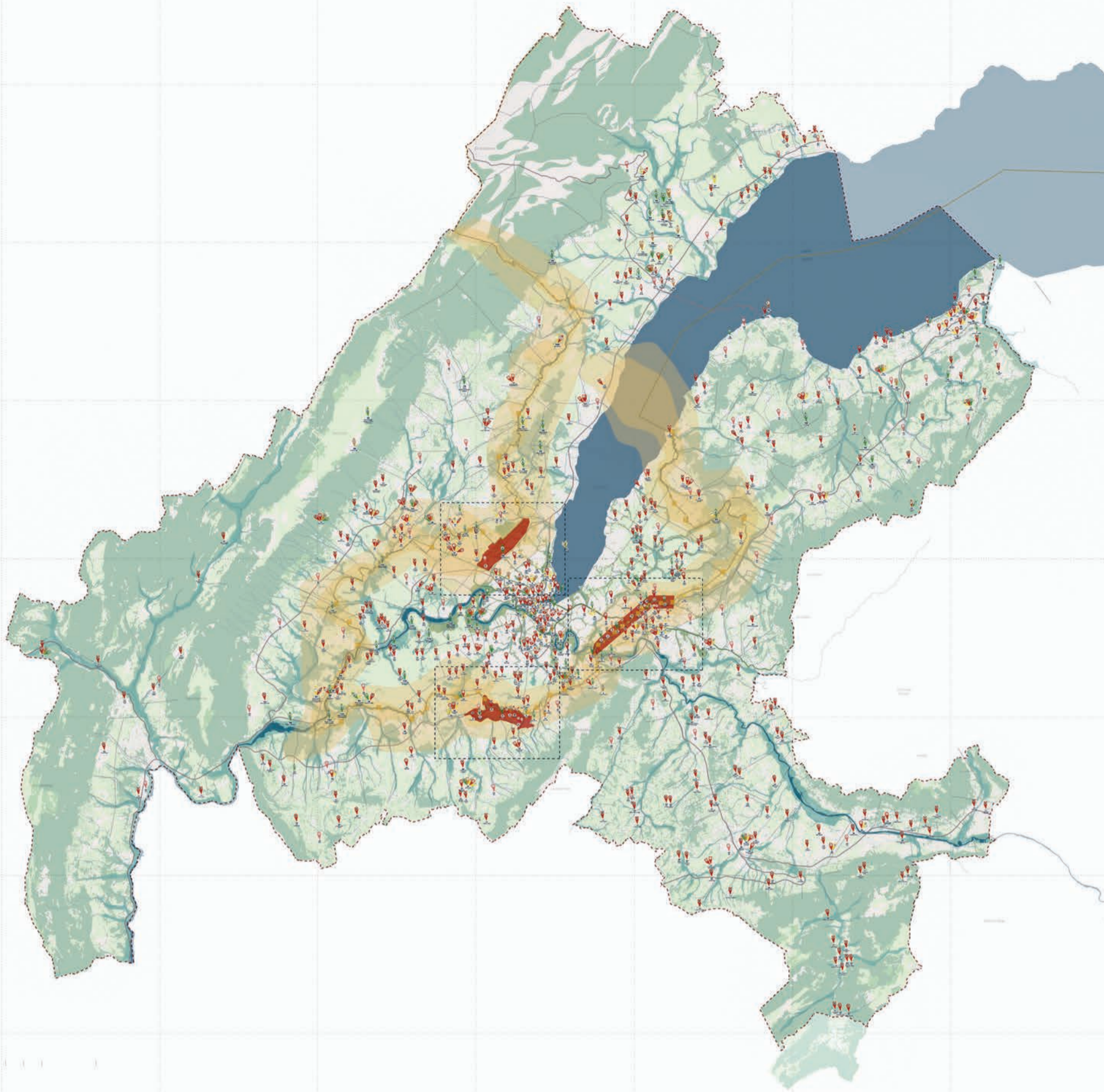
Miguel Georgieff

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Benoît Molineaux, Uli Amos

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LA PART SAUVAGE

LE TERRITOIRE DE L'HABITER

LA CONTRACTUALISATION DES ÉCHANGES

L'ÉCHELLE TIÈRCE



Une matrice transitionnelle pour expérimenter par le projet les écologies singulières sur trois territoires démonstrateurs: l'agropôle d'Archamps-Bardonnex, l'aéroport et la gare de Genève-Europe et la zone franche de Thônex-Vallard.

A transitional matrix to experiment with singular ecologies through the project on three demonstration territories: the Archamps-Bardonnex agro-hub, the Geneva-Europe airport and railway station, and the Thônex-Vallard free zone. (INTERLAND)

La grande traversée, à la recherche des écologies singulières

Notre équipe propose de partir à la recherche des «écologies singulières» de la métropole transfrontalière.

Pour mettre en œuvre cette ambition, nous avons effectué au cours de l'année 2019 une grande traversée, à la fois physique – du territoire métropolitain – et métaphorique – des thèmes de la transition écologique. Partant de l'hypothèse qu'il existe depuis longtemps sur le territoire franco-valdo-genevois une culture de la circularité, de la concertation et de la coopération, une première collecte d'initiatives citoyennes heureuses nous a permis de distinguer des séries d'«objets», de «sujets» et de «projets» transitionnels. Leur exploration systématique a permis, au cours d'une alternance de marches collectives *in situ* et de tables de discussion des actions collectées, d'identifier trois conditions de singularité des dites écologies: «l'îlot d'expérimentation», «le passage transfrontalier» et «le bassin-versant».

Quatre champs de référence ont par ailleurs guidé l'exploration.

Le premier concerne **le ré-ensauvagement des processus naturels et anthropiques** – en prenant la mesure de la «part sauvage» du territoire qu'il faut préserver pour survivre. La crise écologique structurelle nous oblige à passer de l'usage de notions compensatoires à celui de notions refondatrices: de métabolisme, de biodiversité ou de santé, que doit désormais chercher à promouvoir un éco-urbanisme porteur du lien intime qui unit l'homme au reste du vivant. Celles-ci recouvrent notamment l'ensemble des actions que l'on peut mettre en œuvre pour redonner au territoire un potentiel de régénération de friches ou de jachères, de reconversion de sites aux affectations non déterminées, et de symbolisation nouvelle de terres peu accessibles ou délibérément méconnues.

Le deuxième explore **les territoires de l'habiter**. Il s'agit ici de faire en sorte qu'un type d'habitat ne puisse plus être conçu sans prendre en compte les

effets transitionnels qu'il peut produire sur le terrain des mobilités décarbonées ou partagées, des filières courtes d'approvisionnement, des consommations d'énergie, de matière ou d'information, ou encore sur celui de la diversification des espaces communs. Les coopératives d'habitants, comme modèle contributif de promotion immobilière et de valorisation des savoir-faire, témoignent en particulier d'une légitimité «écologique» et «transitionnelle» porteuse de sens et d'hospitalité.

Le troisième systématise **la contractualisation des échanges**. Nous pointons cette fois la nécessité, pour gérer des échanges matériels, décisionnels ou énergétiques à finalité écologique, de réinventer des formes inédites de contrats de réciprocité entre acteurs – chartes, valeurs, règles communes, labels privés ou publics, recommandations ou avis d'experts... C'est la condition pour redéfinir, inlassablement, ce qu'est ou ce que n'est pas le «bien commun» en situation, et pour préfigurer, par le projet, un cadre normatif à venir.

Le quatrième promeut **l'invention d'une échelle tierce**, oblique, intermédiaire ou transverse, autrement dit une échelle qui n'est jamais donnée mais toujours à construire ou reconstruire, en fonction de la situation locale et circonstancielle du projet. Il n'y a pas de recette universelle pour mettre en œuvre la transition, mais des projets à mener, sur des territoires concrets, incarnés et bien différenciés selon «l'écologie singulière» et les «chaînes de valeurs résilientes» qui sont les leurs.

Ainsi le travail s'ouvre-t-il, pour ne pas conclure, sur **trois projets démonstrateurs**, qui sont l'occasion d'expérimenter autant de fictions réalistes... Celles-ci ont été élaborées en convoquant des acteurs directement concernés et en enquêtant plus systématiquement sur les conditions réelles de mutation transitionnelle des trois territoires: l'agropôle d'Archamps-Bardonnex, l'aéroport et la gare de Genève-Europe, la zone franche de Thônex-Vallard.

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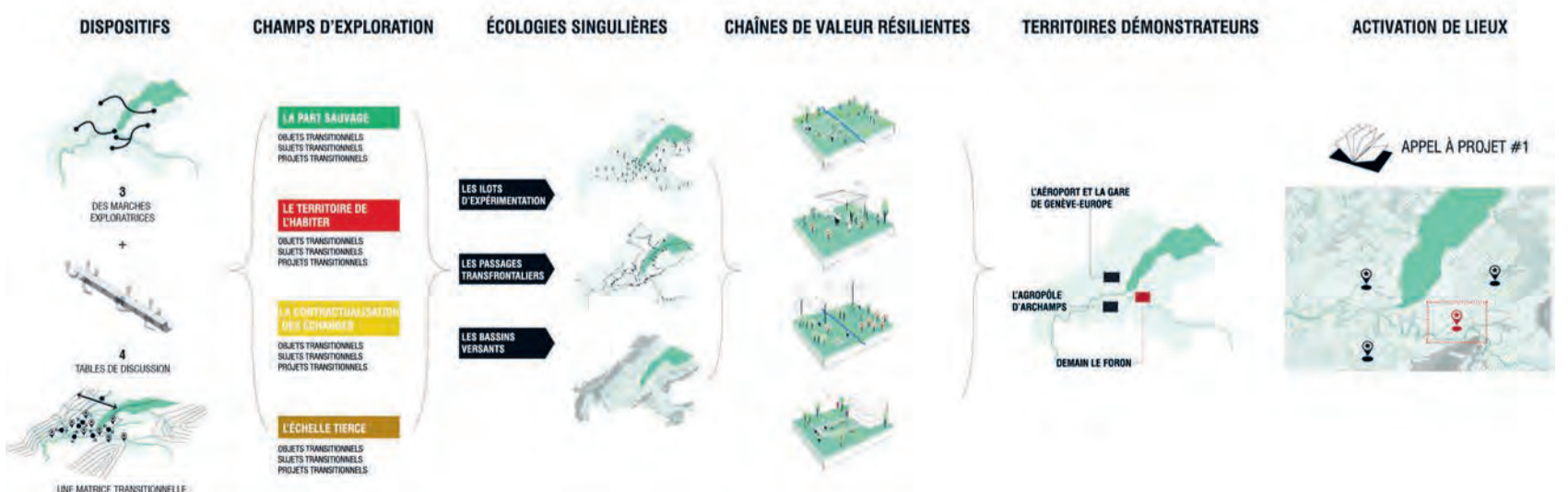
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«La grande traversée», une démarche d'hybridation des thèmes de la transition au travers de marches exploratoires et de tables de négociation, à la rencontre des habitants et pour une activation des lieux.

"The great crossing", a process hybridising the themes of transition through exploratory walks and roundtables, meeting the inhabitants and activating places. (INTERLAND)



La nouvelle figure urbaine – en réalité un nouveau type de ville qui émerge à l'échelle régionale – donne forme à un paysage plus équitable, polycentrique, autosuffisant et régénérateur, constitué de terrains bâtis et non bâtis.

The new urban figure – in effect, a new kind of city which emerges at regional scale – dissolves the centre-periphery dichotomy, giving shape to a more equitable, polycentric, self-sufficient and regenerative landscape, composed of both built and unbuilt lands. (TEAM GRAND GENEVE ET SON SOL, 2020)

Greater Geneva: A Common Land

Our prospect for Greater Geneva approaches the urgency of socio-ecological transition through the problematic of land, understood in its manifold expressions – as an ecological structure, as appropriated and regulated territory, and as a symbolic landscape of specific places and identities. The central hypothesis is that the currently asymmetric region should be transformed into more equitable, ecologically balanced and polycentric city-landscape, in which the built and the unbuilt environments, in all their diversity, are productively interwoven. Herein, a successful transborder governance will be crucial. We envision a determined effort toward a new deal for socio-ecological transition based on the overhaul of the current property and governance arrangements on all levels through the idea of commons: **from individualism and rentiership in agriculture, real-estate, transport and other urban domains, toward the development and promotion of common and cooperative governance arrangements and models.**

The prospect for Greater Geneva is organised in the form of a Charter which operates along two axes. The first axis elaborates five sets of urban strategies: *Cité naturelle* addressing the protection of nature areas and resources; *Cité agricole* promoting regionalisation of food system on the principles of agroecology; *Cité de proximité* elaborating strategies for the decentralisation of services and working opportunities across the region; *Cité partagée* setting precedents for new communal and collective practices; and *Cité cyclique* setting out approaches to circularity of material and energy flows. These urban strategies can be deployed at various scales, from regional and urban to architectural.

The second axis of the Charter describes seven territories of potentials in the region, that should serve as basis for future land-use decisions. The built-up and the unbuilt lands throughout the region ought to be harmonised with each other, and any further competition among land uses avoided. The reframing of the land use questions tackles specific potentials

and problems of Greater Geneva, from regeneration and retrofitting of obsolete fossil infrastructures to the loss of valuable agricultural land to construction, particularly in French Geneva. The seven territories of potentials are: *Bi-national metropolis*, *Global-local territories*, *Post-fossil infrastructures*, *Agri-landscape rooms*, *Metropolitan countryside*, *Vital streams and canopies*, and *Mountain parks*. Derived from numerous fieldwork expeditions with students in the region since 2016, the territories of potentials have been elaborated through urbanistic and cartographic analysis and synthesis. The Charter also offers a programmatic outline with agendas for design and governance at various scales, and over thirty design case studies for various sites across the region.

Thus, a new urban figure, which balances social and environmental needs and qualities, becomes possible. **The new urban figure – in effect, a new kind of city-landscape which emerges at regional scale – dissolves the centre-periphery dichotomy, giving shape to a more equitable, polycentric, self-sufficient and regenerative landscape.** In contrast to a master plan, the proposed territorial strategies are flexible, and able to respond to various and unpredictable scenarios of growth and shrinkage. While the external boundaries of the future city-region would be demarcated by the silhouette of the *cuvette genevoise*, its development would take place internally, within the figure.

In a continuous dialogue among citizens, administrations, political bodies, international institutions such as the UN and CERN, and representatives of the economy and civic movements, the strategies of the Charter can be spatialised and concretised, making Greater Geneva a European frontrunner in becoming a sustainable, emission-free and resilient metropolis.

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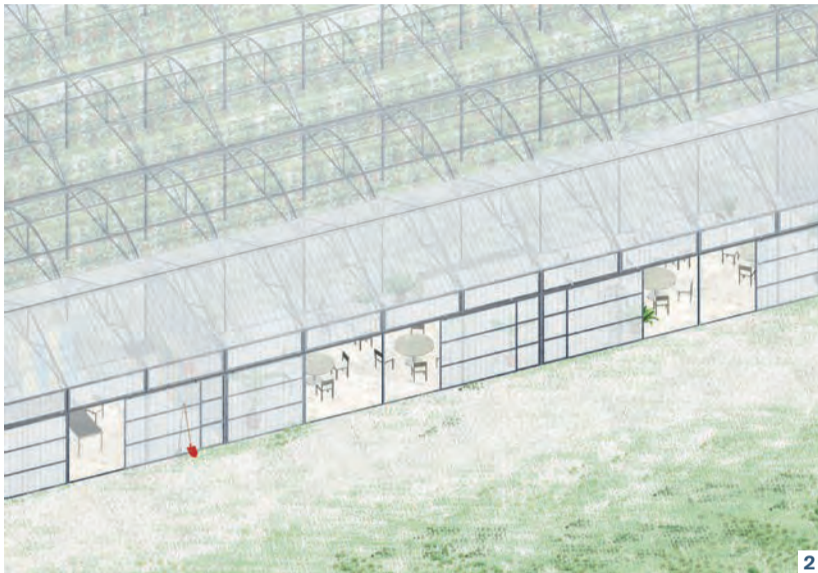
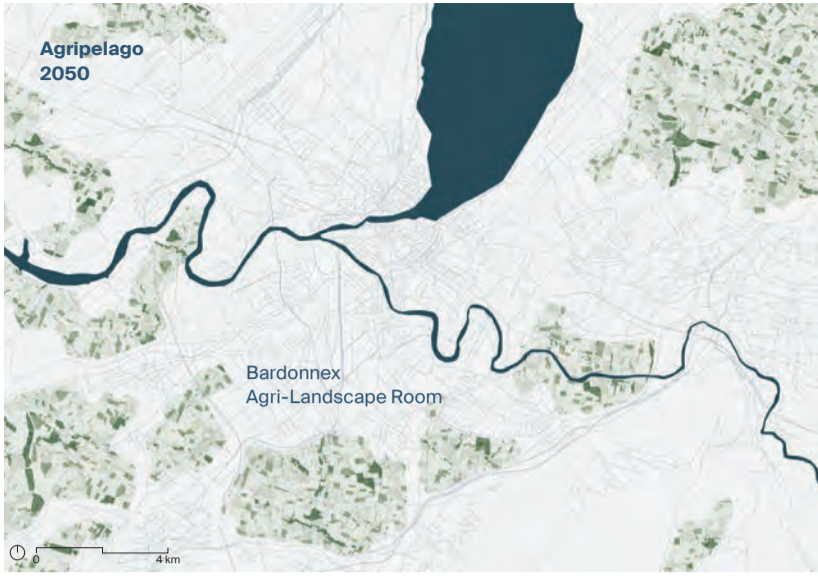
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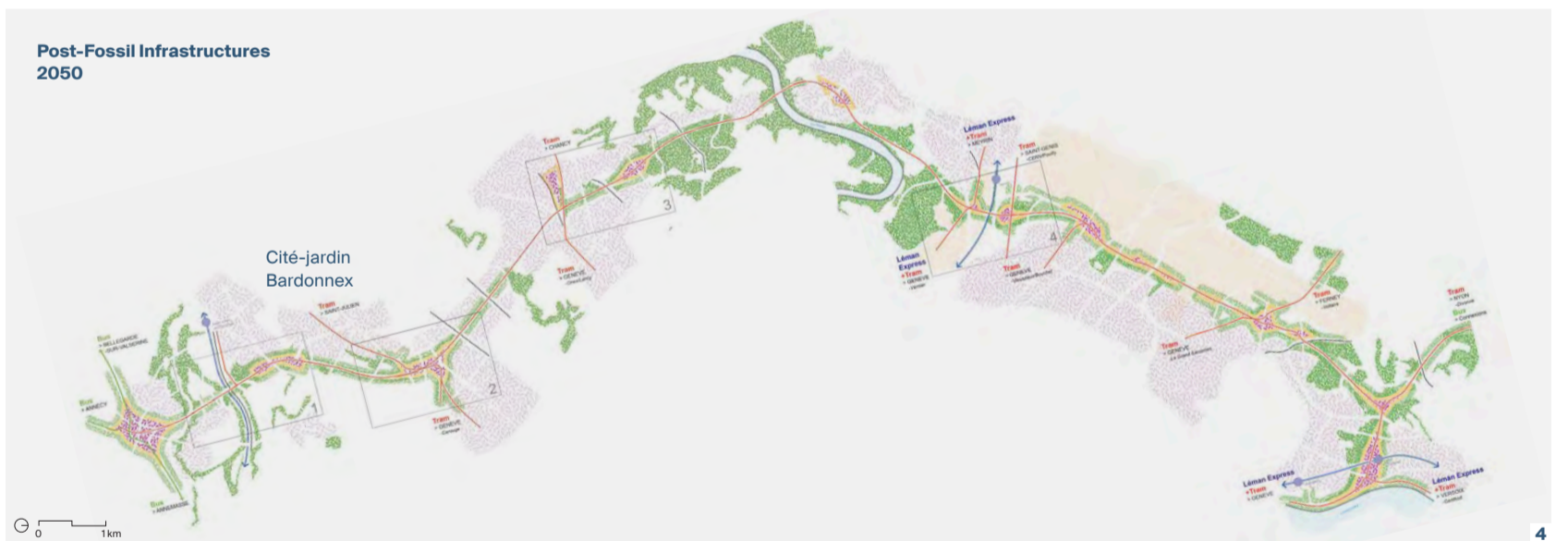
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Dr Thomas Gibon
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1 En 2050, les terres agricoles de Genève formeront un «agripel» régional de nouveaux commons publics et productifs.
In 2050, agricultural lands of Geneva will form a regional "agripelago" of public and productive commons.

2 Serres abandonnées transformées en salle communale.
Abandoned greenhouses will be transformed into a communal hall.

3 Vivre le paysage public productif.
Public spaces of the city will extend into the cultural and productive landscapes. (1-3 ETH ZÜRICH ARCHITECTURE OF TERRITORY, STUDENTS O. BURCH, S. STIEGER, 2017)



4 En 2050: transformation des autoroutes en boulevards urbains.
In 2050: transforming existing motorways into urban boulevards. (UNI LUX MASTER IN ARCHITECTURE, 2019)

5 Cité-jardin Bardonnex 2050.
Garden City Bardonnex 2050. (UNI LUX MASTER IN ARCHITECTURE, 2019)

6 Un jardin de 30 m² par logement.
30 m² garden per housing unit. (UN CINQUIÈME / ÉTIENNE DELGADO, 2020)

Grand Genève: un sol commun

Nous abordons l'urgence de la transition socio-écologique à travers la problématique du sol, entendu dans ses diverses expressions – structure écologique, territoire approprié et réglementé, et paysage symbolique de lieux et d'identités spécifiques. L'hypothèse centrale repose sur la transformation d'une région actuellement asymétrique en une cité-paysage plus équitable, plus équilibrée au plan écologique et polycentrique, dans laquelle s'interconnectent de manière productive les environnements construits et non construits. Dans ce contexte, une gouvernance transfrontalière efficace est cruciale. L'effort doit être soutenu en faveur d'une transition socio-écologique fondée sur la révision des dispositions actuelles en matière de propriété et de gouvernance à travers l'idée de biens communs: **passer de l'individualisme et du système de rente dans l'agriculture, l'immobilier ou le transport, au développement et à la promotion de modèles de gouvernance communs et coopératifs.**

Cette vision prospective prend la forme d'une Charte qui fonctionne selon deux axes. Le premier élabore cinq ensembles de stratégies urbaines: la *Cité naturelle* porte sur la protection des zones et ressources naturelles; la *Cité agricole* promeut la régionalisation du système alimentaire selon les principes de l'agroécologie; la *Cité de proximité* élabore des stratégies de décentralisation des services et des opportunités de travail locales; la *Cité partagée* crée des précédents pour de nouvelles pratiques collectives et mutualisées; enfin, la *Cité cyclique* définit des approches de circularité pour les flux de matières et d'énergie. Ces stratégies urbaines peuvent être déployées à différentes échelles – régionales, urbaines et architecturales.

Le deuxième axe de la Charte décrit sept territoires de potentiels, base des futures décisions d'aménagement du territoire. Les terrains bâtis et non bâtis devraient être harmonisés entre eux pour

éviter la concurrence dans l'utilisation du sol. Cette nouvelle approche prend en compte les potentialités et les problèmes spécifiques du Grand Genève, de la régénération et de la modernisation des infrastructures fossiles obsolètes à la perte de terres agricoles précieuses au profit de la construction, en particulier dans le Genevois français. Ces sept territoires sont: la *métropole binationale*, les *territoires globaux-locaux*, les *infrastructures post-fossiles*, les *espaces agro-paysagers*, la *campagne métropolitaine*, les *cours d'eau et canopées forestières vitaux*, et les *parcs de montagne*. La Charte propose également des éléments de programme avec des agendas de conception et de gouvernance à différentes échelles, ainsi que plus de trente études de cas.

Ainsi se dessine une nouvelle figure urbaine qui équilibre les besoins et les qualités sociales et environnementales. **Cette figure – en réalité un nouveau type de ville-paysage qui émerge à l'échelle régionale – dissout la dichotomie centre-périphérie et donne forme à un paysage plus équitable, polycentrique, autosuffisant et régénérateur.** Contrairement à un schéma directeur classique, les stratégies territoriales proposées sont flexibles et capables de répondre à des scénarios de croissance et de décroissance variés et imprévisibles. Les frontières extérieures de la future ville-région étant délimitées par la silhouette de la cuvette genevoise, son développement se ferait à l'intérieur, au sein de cette figure.

Dans un dialogue continu entre les citoyens, les administrations, les organes politiques, les institutions internationales, telles que l'ONU et le CERN, et les représentants de l'économie et des mouvements citoyens, les stratégies de la Charte peuvent être spatialisées et concrétisées, imposant le Grand Genève comme un pionnier européen d'une métropole durable, résiliente et zéro émission.

École polytechnique fédérale de Zurich, Chaire d'architecture et d'aménagement du territoire

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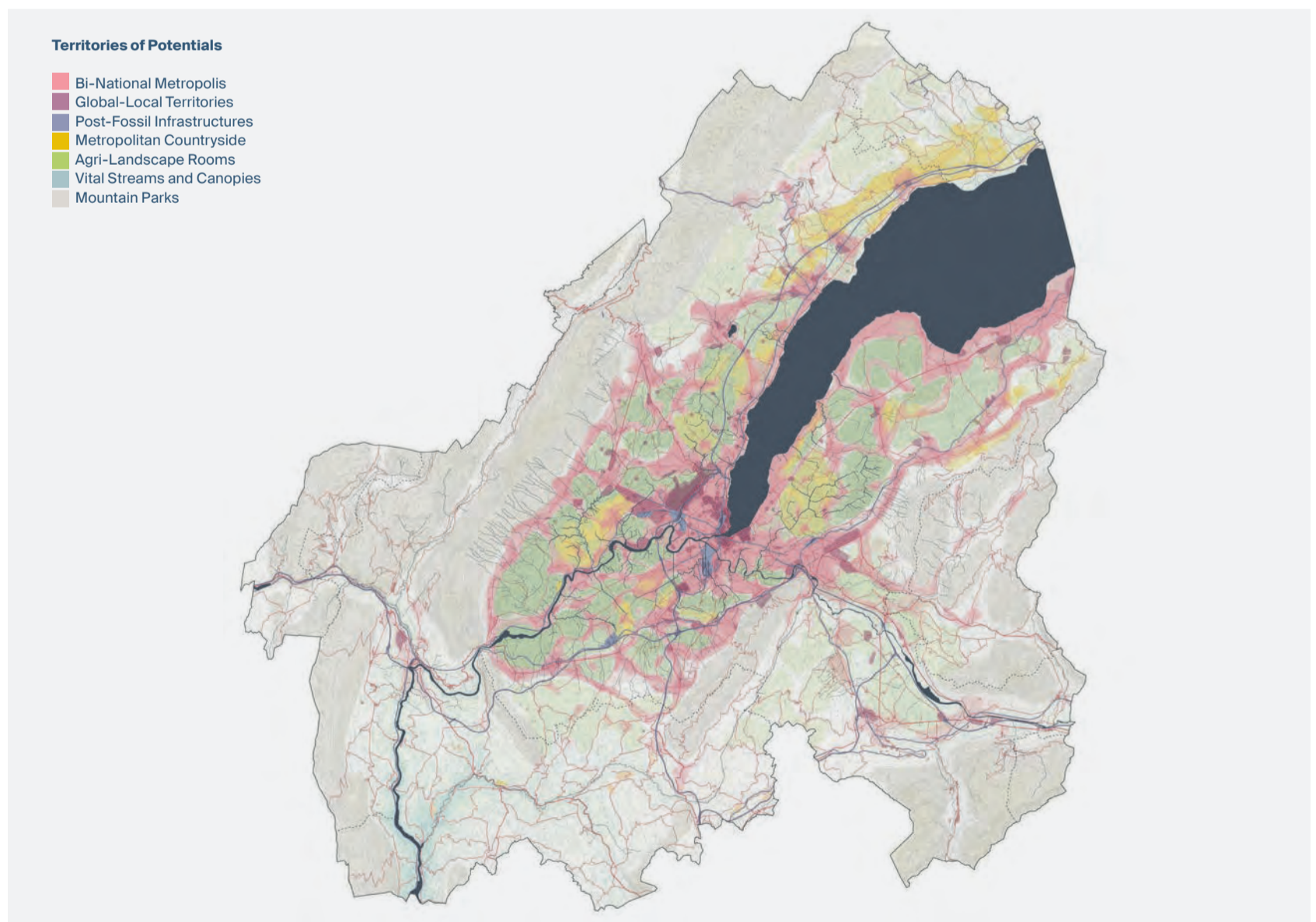
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Territoires de potentiels urbains pour la région genevoise en 2050. Le plan décrit la future stratégie d'aménagement d'une région polycentrique, équitable et écologique.

Territories of urban potentials for the Geneva region in 2050. The plan outlines the future land use strategy leading to a polycentric, equitable and ecological region. (TEAM GRAND GENEVE ET SON SOL, K. KOSTKA, N. KATSIKIS, 2020)