LA STRADA DELLA VALLE

TOWARDS AN ALTERNATIVE STRATEGIC FRAMEWORK FOR THE RE-GENERATION
OF THE VALLEYS IMPERO AND PRINO IN THE PROVINCE OF IMPERIA, LIGURIA, ITALY.

Fig.1: Cover: Conclusion perception valleys. Source: by author with data from Repertorio Cartografico Regione Liguria. URL: http://geoportale.regione.liguria.it/geoviewer/pages/apps/repertorio/repertorio.html?id=r_liguri:D.1415.2012-12-21 (accessed 02.10.17).

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TOWARDS AN ALTERNATIVE STRATEGIC FRAMEWORK FOR THE REGENERATION OF THE VALLEYS IMPERO AND PRINO IN THE PROVINCE OF IMPERIA, LIGURIA, ITALY.

P5 report

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“(...) the transformation of the territory should be able to absorb mutations of uses and habits without losing its “soul”, its peculiar quality that really “makes the place”.”.

(Konferenz “Territories. Rural-urban strategies” 2017:165).

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PREFACE

This Thesis was written within the Urban Fabrics research group. Master of Urban Design in the faculty of Architecture of the Delft University of Technology (TU Delft) in the Netherlands.

This thesis tries to introduce a new planning entity. To give a new approach to a region in Italy. This research aims to show how rural areas can become a part of urban systems and be a contributor to their development.

How a balanced cultural landscape can contribute to mitigating shrinkage. Cultural Landscape in this thesis is seen as being a connector of values between human and nature, urban and rural, present and past.

The relation between research and design in this project is close. As for the author, design is not an object itself but the way of communicating results in form of maps, graphics etc.
Conclusions which are drawn out of the ongoing analysis try to give other insights into the topics gathered information and the relations between the different scales. Moreover, different design proposals for the concrete sight are making theories and solutions visible in space. The idea of introducing the valley as a new planning entity I consider also a new design and regional and local planning tool which helps to tackle the current problems and their complexity better in the region of Liguria.

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ACKNOWLEDGEMENTS

First of all, I would like to thank my mentors Luisa M. Calabrese and Marcin M. Dąbrowski for their always refreshing meetings, interesting insights into design and discussions about my ideas and topics. Going with you through happy times and dark times, with no clear horizon together was a great experience. Thanks!

Being able to speak to other experts within this faculty about my topic, questions and, at the first glance, unsolvable problems, was for me a great pleasure and I learned a lot. Thanks to Vincent Nadin, Friets van Loon, Erik Louw, Saskia I. de Wit and Ioana A. Ionescu who listened to my ideas and were helpful with their constructive and critical feedback, with stimulating discussions that brought me to new ideas.

A thank you goes to all the people from the region of Liguria who offered their time for inspiring interviews, material and valuable information. Special thanks goes to Anna Kunitz and Dino Biondi who evaluated my proposed final design projects.

A huge warm thank you to all my fellow Urbanism colleges who were there for me when I was lost or when I needed help with programs or just a Café break-chat. Just seeing that I was not the only one through this journey gave me a lot of support. Thanks. I hope we will not lose contact with each other.

Special thanks to Ipék for helping me in stressful times with my personal struggles and being always there to listen. Annelise who shared with me many hours in the library and always cheered me up. Reza for your patience before my presentations and giving me confidence in my work. Grace for helping me to have more faith in my work and giving me valuable feedback in graphics and in Photoshop fine-tuning's. Gereon for giving me help when I was again stacked in programs.

Flatmates Haji, Inés, Miquel and Stefan who shared with me my stressful time and made it possible that I could also enjoy life in between the lines.

Last but not least to my family, especially thanks to my sister Olga who helped me out when I needed a good picture of the sight and to my mum who shared with me ideas and to my dad who gave me support in difficult times.

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ABSTRACT

To grow a phenomenon of the globalized world. To prosper and to have a booming economy is a main goal of cities and their regions. But what about those regions which are badly connected because of their morphology? What about those which originated in the industrialization period and have not had the possibility to change? What is about those areas that no longer fit into the current economic framework?
Land abandonment and depopulation is a consequence of different factors. A phenomenon that not only has an impact on the environment and the socio-economic aspects but also has consequences for the landscape itself. (Lasanta et al. / Catena 149 (2017): 810). “Baldock et al. (1996) conclude that marginalization and land abandonment depend on the interaction between physical, environmental and socioeconomic factors. Therefore, it can happen everywhere, even in areas with a very high potential and in favourable socioeconomic situations in general.” (Lasanta et al. / Catena 149 (2017): 816).
So, what is the reason of land abandonment in Liguria? Is it the aging population and its population decline or the change of economy? Or is it because of the location itself, being a territory of transit? What are the internal and what the external reasons (Lasanta et al. / Catena 149 (2017): 816) for this ongoing abandonment?

In this thesis, the values of the rural and the ‘unreachable' countryside are gathered. In addition, they are used for a new model of development which focuses on cooperation between remote rural villages and the coastal cities. By linking spatial, social qualities, structures, and characteristics through the entity of the valley the author gives a new image to the countryside which valorises and shows by two small design proposals a new planning approach.

I

MOTIVATION

This research has a personal and academic motivation. Coming from a planning background I was always ashamed of having a detached house far away from an urban centre, in the Italian countryside. I have been taught that living out of the urban fabric means contributing to sprawl which means damaging the landscape and being unsustainable. Moreover, being grown up in this beautiful Italian landscape made me also sensitive towards the abandonment of those beautiful agricultural land which surrounded my childhood. Depopulation and abandonment in the villages and the countryside and the pursuit towards being modern, fancy, and attractive for tourists at the coastline urban centres, both current developments occurring in Liguria and both sides (countryside and coast) losing their stories and identities while becoming more and more superficial, gave me the motivation to analyse and research about the region Liguria, cultivating and rewriting stories for a future change.
Moreover, I observed that the focus in our planning field, the debates and the way of thinking were since recently always coming from the development of cities, focusing on urban growth and prosperity, from an economic perspective, this led me to question: what is about the countryside? Why does it become only a topic if we speak about ecological challenges, damage, or lack of resources? What would happen if we turn the debate around and make cities much more dependent from the countryside than it is acknowledged today? How can the rural change the urban?

Designing from the countryside with an aging society as a new challenge tool for a futuristic development of a region, a different approach, and a contribution to our current planning discourse. Using the valley as a new territorial entity for a new regional development which starts from the countryside and not from the coast, so bringing back the valley to the coast is my aim.

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Fig.2: Remote village Aurigo. Source: by author.





Fig.3: Infrastructure and Current port economy. Source: by author.

I

PROBLEM FIELD DEFINITION

This project brings together three components of shrinkage: aging society, abandoned land and 'drosscapes' from a former economy. It proposes a new way of redevelopment and regeneration of the region Liguria.
The region Liguria was since the past a region of destination especially from a greying society and northern people. The climate and its strategic position give many opportunities which if they are not coped and faced in an integrated way they turn to become burdens and problems. To mention here are especially the ecological problems which are regarding the water. The urbanized area covers just a small part at the coast, the land which can be used with high sufficiency is narrow. The main part is rural and composed of small villages which are not easy to reach. Spatial boundaries are emerging as a second fact to deal with in economic and social terms. The region must compete differently.
Currently, a privatization of land at the coast for tourism is taking place. The urban centres are trying to design concepts for development that are out of proportion and not made for this number of consumers and users. Moreover, complicated bureaucracy makes processes non-transparent and slow in terms of implementation.

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PROBLEM STATEMENT

Liguria has the highest population decline with -15.3% between 1971 and 2011 of the whole inner areas of Italy, especially the peripheral areas suffered with -41.4% the most as UVAL-UVER processed from ISTAT (see Fig.3, Table III.2 from: UVAL Issue 31 2014: 27), which could be the response of the de-industrialization process that occurred in this region. High population change and restructuring especially in the countryside took place. In the countryside are some areas which can be notated with a negative population exchange (ISTAT 2012), which means that depopulation took place. Moreover, the province Imperia has in Liguria the lowest (817,000 people) occupation rate but the highest rate of occupation in agriculture with 63,000. Dis-occupation rate is with 13,8% in 2014 the highest dis-occupation rate within Liguria (L'agricultura nella Liguria in cifre. CREA 2014:18). Moreover, one can see that with the climate change problems like huge dry summers where summer fires and water problems are the consequent are taking place since the last years. High precipitations which affects huge landslides and damages, especially in the space of recent abandonment of agriculture land take place. The lack of maintenance of typical agricultural terraces which stabilise and reduce the speed of water run of from winter precipitations and which gives fertility back to the land of this region can be notated. Without the maintenance, these terraces are collapsing and give space for erosion. The steepness of the slope (until 2000m above sea level) they are becoming a hazard for the coast as described in the research of Brancucci and Paliaga 2006. "(…) The abandonment of terraced agricultural areas results in a new interference with the geomorphological system: the lack of maintenance of a man-altered landscape implies the geomorphological system to gain the control back by means of erosion processes that cause land degradation. The final result is the increase of the geomorphological hazard with diffuse problems of instability and the raise of the solid transport in the rivers. In areas like Liguria territory this problem assumes a particular importance because of the strong and direct linkage between the hinterland and the coastline that is hardly urbanised. This strong linkage is caused by the peculiar morphology and by the climatic situation of the region. (…)" (Brancucci and Paliaga, 2006: 4).
Not only depopulation and agricultural land abandonment is a current problem of this region but also empty factories and glasshouses are a not yet faced issue and decorating this landscape.

Moreover, the tourism industry is growing with each year and leads to a new development of the coastal urban centres. This urban centre move their economy more and more towards tourism, making them depended on this economic sector. In the countryside, the problem of second houses which causes urban sprawl and at the same time has an impact on land consumption that creates a reduction of water permeability as Brancucci and Paliaga mentioned in their research 2006. As one can see in the table (Fig.4) the region Liguria is in the year 2004 on the fifth place with 685,44 cubic metres of cementation per Km2 of the net surface of its new construction of residential buildings. That provokes a huge sealing of the pavement and a reduction of space for agriculture land. Moreover, if the new construction of buildings is not regulated it destroys the compactness of the old structure.
Huge infrastructure projects are the main driving development forces of this region which underlines more and more Liguria's role as a territory of transit.
A preliminary own observation is furthermore that the villages in the valleys seem to act independently, competing for EU funds on their own. Each valley acts currently independent and the Municipalities are often not cooperating because of different political issues.

Fig.5: Comparison of new construction work between provinces of Liguria within the last ten years. Retrieved from: Liguria paesaggio. URL: http://www.liguriapaesaggio.it/TesiMeeting/001-013.pdf, page 11.

Population variation – percentage difference 1971 – 2011

	Hub	Inter-municipal Hub	Outlying	Intermediate	Peripheral	Ultra peripheral	Total
Piedmont	-18	19.3	18.5	-2.5	-27.6	-41	**-1.5**
Valle d'Aosta	-7.6	-	46.3	7	18.1	-	**18.2**
Lombardy	-17.1	10.3	39.4	8.2	4.5	-1.4	**13.6**
Trentino Alto Adige	9.7	-	42.4	24.3	15.9	13.9	**22.3**
Veneto	-7.7	31.2	38.6	15.9	11.3	-33.3	**17.8**
Friuli Venezia Giulia	-13.7	-	19.4	-5	-35.5	-	**0.4**
Liguria	-24.9	-5.8	4.3	-1	-41.4	-34.3	**-15.3**
Emilia Romagna	-0.2	24.5	35.5	14.9	-8.5	-52	**12.4**
Tuscany	-4.3	15.6	24	-1	-15.6	6.6	**5.7**
Umbria	13.3	9.5	32.1	7.9	5.2	-	**14**
Marches	5.9	15.2	37	-2.3	-7.5	-	**14.8**
Lazio	-1	36.2	67.7	59.1	11.2	-27.4	**17.3**
Abruzzo	6.9	42.5	42.5	-2.5	-23.9	-42.8	**12.1**
Molise	44.8	-	17.1	-18.3	-34.7	-46.9	**-1.9**
Campania	-10.6	38.3	45	3.7	-16.6	10.5	**14**
Apulia	3.1	15.3	26.7	17	-1.5	-9.5	**13.1**
Basilicata	25.2	-	57.6	1.9	-10.1	-22.1	**-4.2**
Calabria	2.5	8.6	17.2	-1.7	-18.2	-10.6	**-1.5**
Sicily	-2.7	5.6	63.2	7.3	-8.1	-21.1	**6.9**
Sardinia	-10.9	-	81.5	11.3	-4.5	13.9	**11.3**
North West	-18.7	9.1	31.4	2.9	-4.6	-4.8	**5.5**
North East	-4	26.1	35.2	15	2.1	2.6	**14**
Central	-0.5	20.8	37.4	29.3	-1.8	5.1	**12.8**
South	-1.6	33.2	35.9	5.1	-14.9	-10.5	**9.9**
Islands	-4.3	5.6	67.7	8.1	-7.1	-1.7	**7.9**
Italy	**-6.8**	**22.7**	**35.8**	**11.6**	**-8.1**	**-5.3**	**9.8**

Source: ISTAT data processed by UVAL-UVER – Population census 1971 and 2011

Fig.4: Table III.2 - Demographic trends in the Inner Areas within Regions. Source: UVAL Issue 31, Aree interne. A strategy for inner areas in Italy: Definition, objectives, tools and governance 2014: 27.

L'EDIFICAZIONE IN LIGURIA NEGLI ULTIMI 10 ANNI

	Fabbricati residenziali				Fabbricati non residenziali			
	Fabbricati	Metri cubi	Abitazioni	Ampliam. mc	Fabbricati	Metri cubi	Ampliam. mc
1997	383	370615	1223	124102	230	539851	178849
1998	344	558779	1378	88413	218	458776	129296
1999	354	540313	1479	80461	200	597927	127384
2000	527	615855	1503	66976	274	1246538	115041
2001	527	728869	1768	70549	248	968879	179364
2002	618	964537	2277	103655	245	1047414	329002
2003	690	886683	2163	160032	304	1857414	112905
2004	800	1147350	2820	166323	265	1213438	290648
2005	894	1209544	3108	171075	289	1140116	209703
2006	786	1033704	2553	166187	249	1247258	170782

ARTICOLAZIONE DELL'EDIFICAZIONE PER PROVINCE - PERMESSI DI COSTRUIRE

	Fabbricati residenziali				Fabbricati non residenziali			
	2000	2002	2004	2005	2000	2002	2004	2005
	Metri cubi	Metri cubi	Metri cubi	Metri cubi	Metri cubi	Metri cubi	Metri cubi	Metri cubi
Imperia	178969	362534	352727	376659	437398	302074	304910	280007
Savona	198255	217707	402553	341592	353860	326904	284989	242051
Genova	115404	237759	209632	216672	298571	270178	487430	471561
La Spezia	123227	146537	182438	274623	156709	148258	136109	146497
LIGURIA	**615855**	**964537**	**1147350**	**1209544**	**1246538**	**1047414**	**1213438**	**1140116**

L'INCIDENZA DEI CAPOLUOGHI
Permessi di costruire fabbricati residenziali nuovi (mc)

	2000		2002		2004		2005	
	capoluogo	altri comuni	capoluogo	altri comuni	capoluogo	altri comuni	capoluogo	altri comuni
Imperia	30421	148548	28653	333881	51238	301399	57739	318920
Savona	3492	194763	81239	136468	53185	349368	26993	314759
Genova	2646	112758	74474	162785	72538	137294	42386	174286
La Spezia	61253	61974	15831	130707	47809	134629	38931	235692
LIGURIA	**97812**	**518043**	**200197**	**764341**	**224660**	**922691**	**165889**	**1043657**

LE TENDENZE DI LUNGO PERIODO
Abitazioni in edifici ad uso abitativo per epoca di costruzione e per provincia

	anni1919	1919/1945	1946/1961	1962/1971	1972/1981	1982/1991	1992/2001	2002/2005
Imperia	35606	13275	26327	37959	25494	9781	5488	2876
Savona	37983	21228	36028	67749	34097	12769	6846	3228
Genova	122796	79554	118113	113467	39905	19008	6435	2171
La Spezia	31757	16765	21548	21734	14759	8253	5223	2093
LIGURIA	**228141**	**130822**	**202616**	**240909**	**114255**	**49791**	**23992**	**10368**

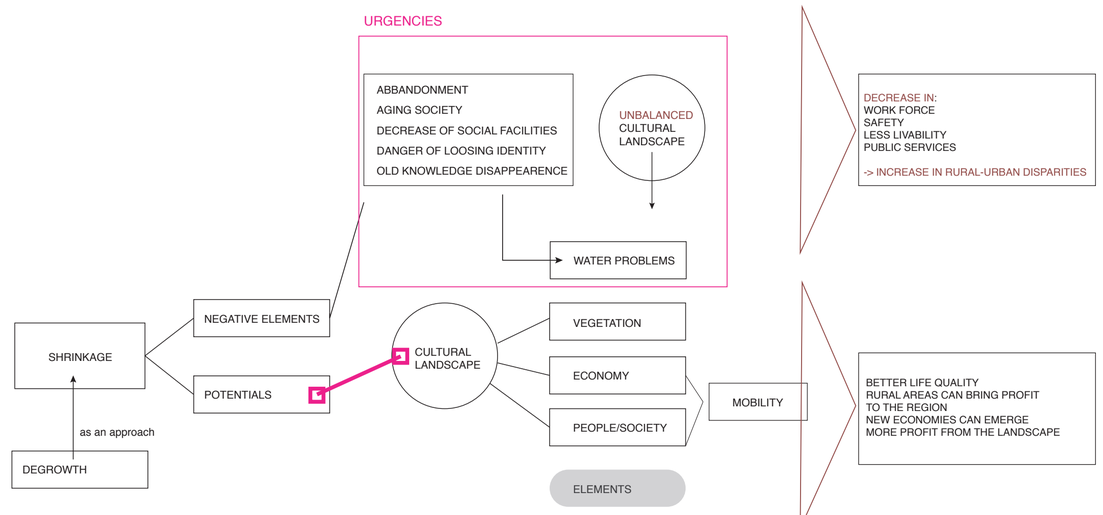


Fig.6: Connection between topics. Source: by author

I

HYPOTHESIS AND RESEARCH QUESTION

HYPOTHESIS

What if we take the valley as a new planning entity to design in the context of the region Liguria shrinkage?

A valley could become an effective way to rethink the current existing urban-rural relation. It may open up a more holistic and more sustainable regional development. It might challenge the perspective of the current shrinking region.

The hypothesis of this project is that the valley can be introduced as a new planning entity, which could guide a more inclusive and successful regeneration of a region because it binds two forces with its different values together: the countryside with its cultural and social values and the coast with its attraction, economic and higher infrastructural services (Fig.6). A valley could become an effective way to rethink the current existing urban-rural relation and would relieve the coast from its overloaded functionality.

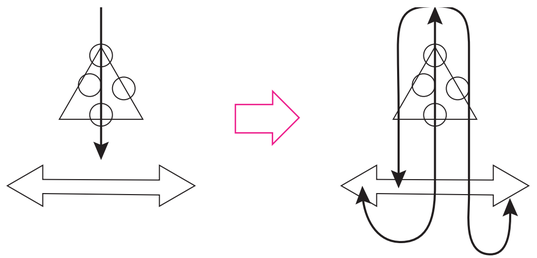


Fig.7: Changing current forces and focusing of the valley. Source: by author.

Research question

What alternative planning approach could be used for the Ligurian valleys to valorise the potentials of shrinkage and cultural landscape?

FROM THE SUB-RESEARCH QUESTIONS TO THE METHODS

THEORY

1.1. What is shrinkage and how does it affect planning and design on local scale?

1.2. What is cultural landscape and how can it be used to connect urban and rural in the context of shrinkage?

1.3. Can cultural landscape support de-growth strategies to use potentials of shrinkage?

CONTEXT

2.1. What are the current policies for shrinking regions?

2.2. What is Liguria's current landscape in natural, economic, and social terms?

2.3. How does shrinkage manifest itself in the region and in the specific valleys (spatially, socially, environmental, and economic)?

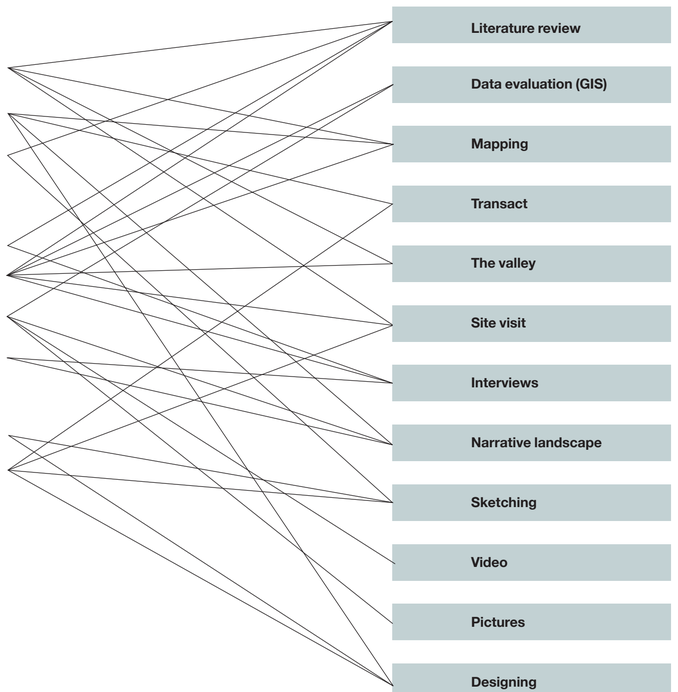
2.4. How is shrinkage perceived by the stakeholders and how is it dealt with?

DESIGN

3.1. How can a valley become a new entity of planning for shrinkage?

3.2. How can we design a region with a design proposal that is coming from the valley and not from the current urban fabric at the coast?

METHODS



I

RELEVANCE OF THIS RESEARCH

SCIENTIFIC RELEVANCE

This thesis is aiming to give some solutions proposals towards the development of rural areas with delicate landscape and complex historical development. By developing new tools to help to improve the link between urban design, planning and natural preconditions. Tools that support farmland in the 21st century to counteract new global changes in a more sustainable way, in such a form that achieves the European goal of sustainability by using the potentiality of the unique place and finding a new way of interrelating it into the coastal cities. Finding a new approach for a redevelopment of a region which comes from the countryside instead coming from the urbanized areas. With my design, I would like to find 'niches' of spatial interventions to support the urban-rural relationship. Because cooperation varies according to the geographical context, therefore the valley could become a new relevant entity to understand the current need in this region.
The EU distinguishes between functional and structural relations, as Zonneveld and Stead 2007, if one speak about rural and urban relations. As I could so far see the relation between rural and urban is not every-time mutual. The cooperation is often made from the urban perspective, where the rural part should compromise and find its connection to the urban. With this project, key-elements of the two valleys are analysed and brought out which can contribute to tighter rural-urban relations. By recognizing the potential elements within the site and combining them with the occurring phenomenon of shrinkage it contributes to a better understanding of how shrinkage can be addressed to regenerate a regional development.

This project tries to bring theories and methods into practice. Each project on local scale relates to regional aims. This interconnection will be achieved by a multiscale and multi-actor approach within each suggested project. To enable that small scale interventions have an impact on local scale but are also contributing to the regional aims of the region. The present work can be an example of how a new network between the local scale and the regional scale can be built and contribute to creating a backbone for a shrinking region.

SOCIETAL- ETHICAL RELEVANCE

Social cohesion between the coast and the 'back', the countryside, with its villages. Creating liveable spaces, where the aim is to maintain a certain liveability which means creating networks of social services that can be reached equally, where the balance between green-blue ecosystems and the build environment is in equilibrium. Where the economy is not stacked in old systems but renewed and on the current trend. Where digitalization and self-driving cars and other new upcoming changes are integrated in the existing system without destroying the current networks but where it is helping to grow even stronger together and helps to be more sustainable.

Ethically this project tries to address people with different social background and origins. The culture and the traditions of this valleys are respected and at the same time it aims to integrate and use those traditions for a new development. Where people from remote areas are not the ones who are left behind but are integrated in the planning system and social network of the valleys.

THE APPROACH

WHAT IS MY APPROACH IN THIS PROJECT?

The approach of this redevelopment is coming from the cooperation between different stakeholders. As a symbol but also as a concrete spatial entity the author is proposing the valley. To use the valley as a new entity for the regeneration of this region is a new opportunity on local and on regional scale. It offers a new way of seeing connections and it underlines the importance of cooperation between the rural and the urban. A new dialogue between the mountaineer areas and the coast is significant for a sustainable development in this region (see Fig.5).
Cultural landscape is the main connection between human activity and natural forces. This explains why this project uses the cultural landscape as tool to redevelop the region. As we cannot and we do not want to develop the region back to its historic roots and the author does not want to keep the region under a 'vacuum bell' or under conservation and does not want to treat the region as a museum. Inspired by the Japanese method of 'kintsugi', which means "golden joinery" (My Modern Met Team, April 25, 2017) and is an ancient art of repairing the fractures by merging fragments together with powdered gold, silver, or platinum or other fitting pieces, the focus of this project lies between the present and the historical elements and between different aspects of landscape uses. It is important to stitch together different components in an unusual way by focussing on the fractures. The interesting part is that we do not conserve the past, but by merging 'the old pieces' with new fragments, a new object is created. This approach of stitching and giving a new meaning or a new functionality to the landscape and the founded puzzle pieces within the region of Liguria regenerates spatial awareness.

RELATION BETWEEN RESEARCH AND DESIGN

The relation between research and design in this project is close. As for the author design is not an object itself but it's used to find new relations between topics and a way of communicating results in form of maps, graphics etc.
Conclusion which are drown out of the ongoing analysis try to give other insights into the topics, gathered information and the relations between the different scales. Moreover, different design proposals for the actual sight are making theories and solutions visible in space. The idea of introducing the valley as a new spatial planning entity I consider also a new design and regional and local planning tool which helps to tackle the current problems and their complexity better in the region of Liguria. Designing helped to bridge the small-scale interventions to the bigger regional scale development. It was the tool to gain new connections between occurring urgencies and new ideas.

I

INTRODUCTION

RESEARCH STRUCTURE

This research started on three columns. Theories and ideas regarding shrinkage, urban-rural relations, cross border relations, de-growth and European regional planning were read to understand the current debate about those topics. To understand the occurring phenomena in Liguria comparative case studies from Ireland, France, Germany as well as planning documents of the region itself were considered and analysed. A research about current planning debates in Italy was made to start to understand the policies, restrictions and the way of thinking in the Italian planning system. The main focus by revising the theories and concepts was on urban-rural linkages, shrinkage, de-growth and cultural landscape. Meanwhile reading different books, papers and internet based information the main problem field was set. In this process mapping first urgencies and valuable information about the region Liguria as well as thinking of possible future scenarios was the starting of this thesis. The sight visit with 33 interviews among experts from academia and praxis as well as local stakeholders of the sight helped to understand the complexity of the present.

By mapping with data from the region and local observations, with information gathered from interviews, own sketching, design thinking, film and photographs the strategy with its vision was developed. By mapping and researching the region and the valleys first impressions of key re- development projects were made. The ideas were than supported by the previous analysis and from the potentials and the urgencies of the sight. The projects and the strategy is based on general principles which became the backbone of the re-generation of this region.

Here the approach of Research by Design was carried out.
Within the key re-development projects for the chosen valleys design ideas and important recommendations are done and visualized. Within these projects different elements of shrinkage are used for a new development and water as the main issue in the regions urgency is integrated in the concepts.

The design and the ways these small projects are developed and approached reflects back on the cultural landscape and the perception and role of it in the 21st century. Moreover, it lays out how the phenomenon shrinkage can be seen and perceived differently from site to site. Also, the visibility of shrinkage is different on regional scale and between different parts on local scale.

current planning methods. About current scales of planning and how the valley could facilitate current situation of planning using current visible elements of shrinkage.

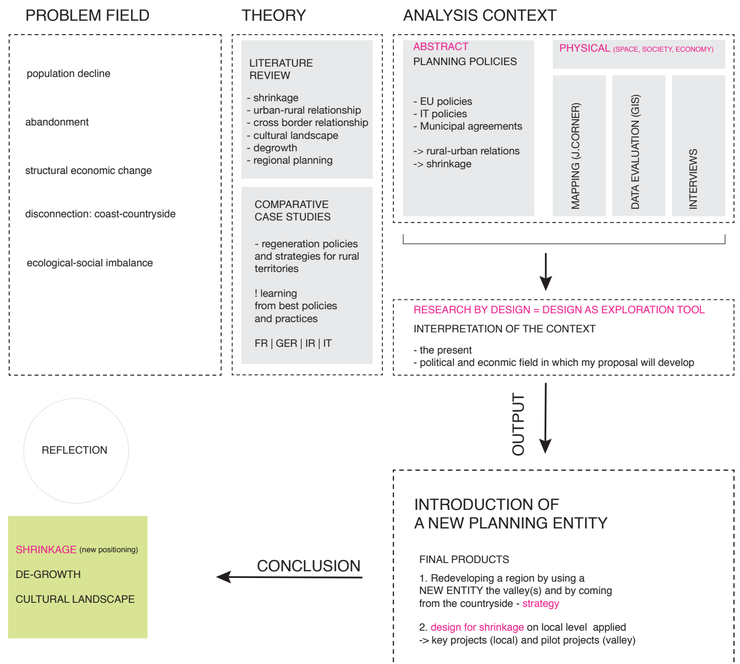


Fig.8: General overview of this research. Source: by author.

I

INTRODUCTION

THEORETICAL FRAMEWORK

Cultural landscape as tool to rethink 'shrinkage'.
Cultural landscape is a landscape where economic, ecological, aesthetic and cultural performances and conditions are in a balanced relation. Where the performance and condition can evolve constantly andareabletoservepeopleastheirhome.(Wöbsse:Kulturlandschaften als Objekte des Naturschutzes. In: Koarik, Schmidt, Sigel (Hg.), 1998). Especially in areas which are far away from urban centres it is important to rethink the area through the landscape. Understanding the occurring development of its vegetation and the current function of it helps to understand where weak points are. It gives a hint where we need to stitch fragments again together. Or where we need to find a new binding element which allows both forms (nature and human activity) to coexist without destroying or damaging each other. By fragments it is meant pieces of different soil usage or relics of the past. Elements that were caused by some interventions in the past or are part of specific usages or different pieces of nature.
To coexist and to collaborate becomes an important issue if we want to maintain the beauty of a cultural landscape.
"(…) Cultural landscapes are the result of consecutive reorganization of the land in order to adapt its use and spatial structure better to the changing societal demands. Particularly in Europe, history has recorded many successive and even devastating landscape changes, which have left barely any relicts today. (…)" (Antrop, 2005: 21). The landscape can show us how a system works, as mentioned before, but it can also give us an impression how different layers of spatial structures were or are placed over each other or next to each other. Environmental layers like particular forms of vegetation and spatial structures are important if we want to create a new sustainable and functioning binding element. We need to know what we bind together. The present as well as the historical layers are important to acknowledge. We should read and try to integrate them. Or we should make them evident by binding them together with a new concept or just being aware of them and reinterpret them and reform them. If we do not so, then we will create just new fragments which are lying next to each other without any relations. This would cost more and consume more infrastructure.

How is the cultural landscape becoming a tool for shrinkage in this project?

In this project, cultural landscape is not only the past or the forgotten ruins of a village. Cultural landscape is seen as the interaction between nature and humans. The present, the current emerging fragments, which are produced by the people who interact and form it as well as the nature does are also defined as cultural landscape as well as the old ancient terraces or water systems. The present and the past are both treated equally within the project and both connected with each other. The history is an important element to understand society, economy and environment and their relations. The author agrees with Antrop (2005) that history can teach 'forgotten lessons' (Antrop 2005, p.31) and helps us to maintain a high diversity and can guide us to a more sustainable management of the landscape itself. ("Landmarks and symbols are necessary ancestral roots. Also, they contain many forgotten lessons and landscape structure is crucial for the maintenance of diversity, both biodiversity and cultural diversity. These landscapes are a source of essential (barely studied) knowledge about sustainable management techniques." (Antrop, 2005: 31).)
Combining this perspective with the current state of shrinkage, cultural landscape becomes the part that combines current situations, the present with history. Which binds the present people with their surrounding and their daily life and performance in it.

The phenomenon shrinkage could be dealt differently maybe also more efficiently because the focus will be on the way people use the environment and about binding the element of shrinkage together to have new outcomes. This will mitigate some effects of shrinkage. With less people the focus of using the space is maybe reduced but the used space is in balanced with the inhabitants. Important hereby is that we care about the junctions, the parts that can increase risks. The rest which in that moment cannot be maintained could be rewildered and if the junctions will be still maintained, the rewilding can offer a potentiality in terms of natural habitat or tourism.

Cultural landscape as connector
Cultural landscape gives a connection through all the scales of space. It contains functions from the urban centres and functions from the rural side. Often those two worlds clash and extreme collisions are reminding us how important the use and the interaction between the countryside and the urban centres are. Or how important it is to accept both and find a way to reconnect them or bind them tighter together.

Why is it important to work on cooperation between urban and rural in such a situation?

On one hand, rural part is often the most affected part from shrinkage. On the other hand, on long term urban centres will get negative effects from those shrinking regions.

To experience the urban and the rural at the same time is typical for this region. One reason for that are the short valleys, which allow us to experience mountainous regions and urban centres at the coast within an average of just twenty minutes. In addition, the effect of shrinkage is, that people from the countryside commute to urban centres at the coast where more differentiated job opportunities can be found.
"To a rural household, however, the landscape of daily life includes both rural and urban elements. Rural-urban linkages are part of the local reality for household members carrying out the diverse tasks of producing income on and off-farm, maintaining a living space in the village, and going to local and even distant towns for shopping, marketing, work, and specialized services." (Douglass. (1998). A Regional Network Strategy for Reciprocal Rural-Urban Linkages: An Agenda for Policy Research with reference to Indonesia. Third World Planning Review. 20. Page 2-3).

De-growth concept as an approach to think differently in the planning world.
"(…) Usually, degrowth is associated with the idea that smaller can be beautiful. Ecological economists define degrowth as an equitable downscaling of production and consumption that will reduce societies' throughput of energy and raw materials (…)" (Schneider et al. 2010 In: Degrowth: A Vocabulary for a New Era' - Research & Degrowth (R&D)," n.d.). De-growth is a concept that goes hand in hand with small communities or villages, a small scale development.

The concept of De-growth highlights a different economic approach to our information world. Valorisation of what we have is important as well as producing for the own consumption and well-being, liveability. De-growth means also to detach from consumerism and our economic-orientated society. It could give back trust and confidence in the governance system. In the author opinion, De-growth could be interesting to look at if we redevelop a shrinking region. Especially the emphasis on sharing, conviviality, care and bottom up initiatives in the concept of de-growth is a valid and interesting approach that in inaccessible villages can be a strength on which one can built upon. The mentioned elements are used in this project. Areas with less people need to share and cooperate much more than in other areas.

Rural parts, where an aging society is dominating and just few young people are trying to live in those remote areas de-growth could become an attraction for a certain type of people. The different perspective of de-growth can attract specific communities which want to step out of our economy system.
This project aims also with different small key-development projects to start a new story and reconnect different fragments. This project area needs concrete projects which are transparent in its process and are demonstrating how collaboration between different private – public stakeholders can take place in such an area.
One can say 'de-growth' is about finding a different structure which serves new functions. The part of dealing with less and with perceiving the economic system differently on the level of cooperation and by having tighter relations could be a first way of rethinking the current structures of a shrinking countryside. We need to see current networks work, on what they are dependent on and where the weak points of it are to start to build up a new 'net' which can as a spidernet able to withstand exogenous forces. Which can integrate different activities and give new relations to it. It should be elastic, modifiable but also resistant in its form and function. The philosophy of 'de-growth' seems to fit quite well for small scale planning and to emphasize on a bottom up approach as the author saw so far.

The approach of coming from the rural which is pursuit in this project and …. The author tries to develop a tool where we start a development a region coming from the countryside and not from the overloaded urban centres. The quality lies in the particular landscape and the specific products, stories etc. which we find within the rural. Instead of running behind damage or problems which every year cost a lot

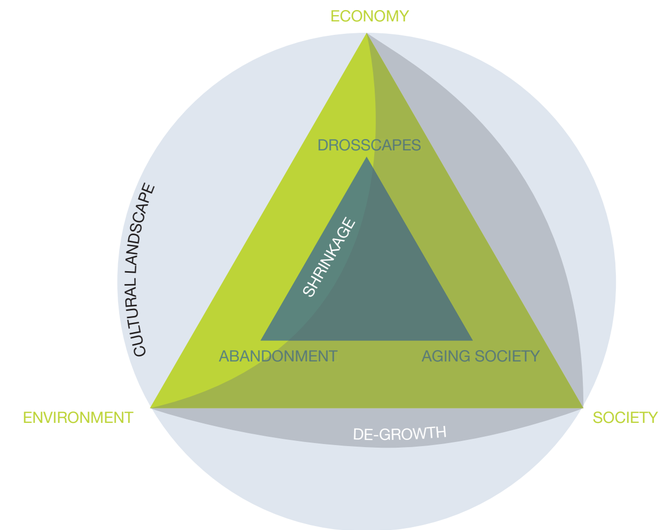


Fig.9: Topic relations. Source: by author.

of money we start to rethink the system which binds urban and rural together.

The valley is not only an ecological corridor and morphological space. The valley is not only an ecological corridor and morphological space but in this project, it will become a new planning entity. A new entity which facilitates new urban-rural linkages and gives to the phenomenon of shrinkage a new perspective.

The valley is formed by the erosion of the water. In this region, the water has a high declination and a short distance to its mouth into the sea. This phenomenon makes the landscape quite steep and difficult to reach. The valley has different functions.
It connects the urban areas at the coast with the rural, mountainous parts of the countryside. It collects the water and binds all the roads which are going to the villages together. It is the main corridor people use to move from the rural to the urban. It contains the main economic activity.

This project introduces therefore the valley as a new entity for regional development. As well as in other projects like the project "Llobregat Corridor" in Spain where the Universitat Politècnica de Catalunya (UPC) and the Massachusetts Institute of Technology (MIT) a joint research project about the river basin of Llobregat which researched about creating a regional development through the corridor of a river. This project focused on the cultural and industrial history of Catalunya, Spain, and valorised the values of the people and their local knowledge. The valley was used as a form with which new regional development was made. Mainly it was used the river as the binding part in their development concepts. The new aspect in this project is to define a valley as the planning entity where the municipal border gets less attention. The economic as well as the social activity and the environment are seen as one within the valley. Each valley has its own characteristics and develops also different projects which are stimulating a new development within the valley.

The opportunity in seeing the valley as a new planning entity is that it allows a better distribution of money and we could expect that with more corporation tasks the individualistic behaviour between different municipalities in one valley could disappears. The reason for that is that different municipalities must cooperate and are all responsible for the same corridor because they all use it the same way. Different politics of each municipalities with this new planning entity cannot slow down the processes or complicate the cooperation because they are seen as one valley. Moreover, bureaucracy could become less for one Municipality because it will be done by one entity instead of more and Municipalities can help each other better and the differentiation between small or big Municipalities disappear because the value of each village and the corporation itself will get more importance. The cooperation is underlined with the morphological space of interaction.

I

CONCLUSION

Landscape devastations as well as urban flooding which every year costs a lot of money for the region repairing damage.

- How can we reduce this phenomenon and use water in its positive constructive way to re-generate the region and make it more liveable?
- How can water become a connector and be used more sustainable in the everyday life?

Population decline in the remote villages an a high population change within the last years as well as a not completely faced industrial change in its landscape. Post-industrial landscape not really there.

- How can we make use of the current droscapes and relics of the history?
- How can we re-integrate them or use the fragments of the economic history for a new development?
- How do we re-integrate aging society and remote villages within a new system?
- How do we want to connect the economy of tourism with the current state of art of this territory?

Upcoming chapters will foster on the understanding of these phenomena by the analysis of the region and for a more close look on the territory within the scale of two valleys of the urban centre Imperia. This analysis is made through different scales by incorporating own observations and interviews.

I

LOCATION OF THE PROJECT

This research is about Liguria, an Italian region, located in the north-western part of Italy (see Fig.7-8). The place of interest is the region between the Mediterranean Sea in the south and the extensions of the Western Alps and the Apennines in the north-eastern part (Fig.9). This region is confronted with narrow space for development which can only evolve at the coast where the topography allows it (see topographical map Fig.9). Liguria's surface is 97.58% (equal to 5,276.65 Km2) characterized by mountain-hill areas and only 2.42% (13.05 Km2) can be described as lowland areas. (Gorziglia et al., n.d., p. 309). The lowland areas are located at the coastline. Therefore, the coastline is packed with all kind of different activities moreover, the pressure from global forces are pushing the coastal cities more and more towards a similar development neglecting the own identity.

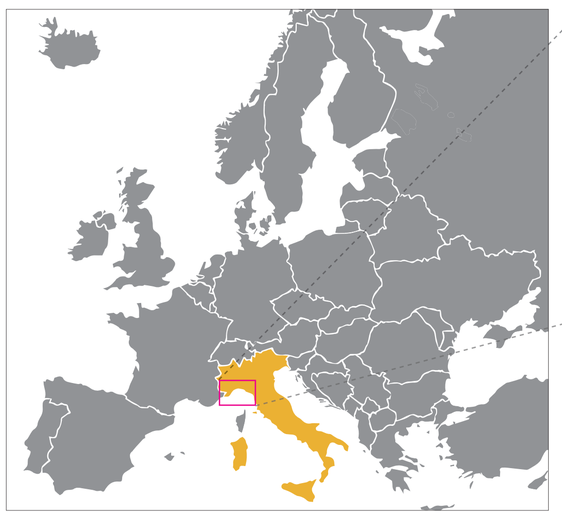


Fig.10: Location of this research within Europe. Source: by author

LIGURIA



Fig.11: The region is formed from 3 provinces (Imperia, Savona and La Spezia) and one metropolitan Region (Genoa). Source: by author.

The prevailing landscape is formed by the typical stone terraces which made it possible for agriculture usage and which prevent it from huge hydrological disasters.

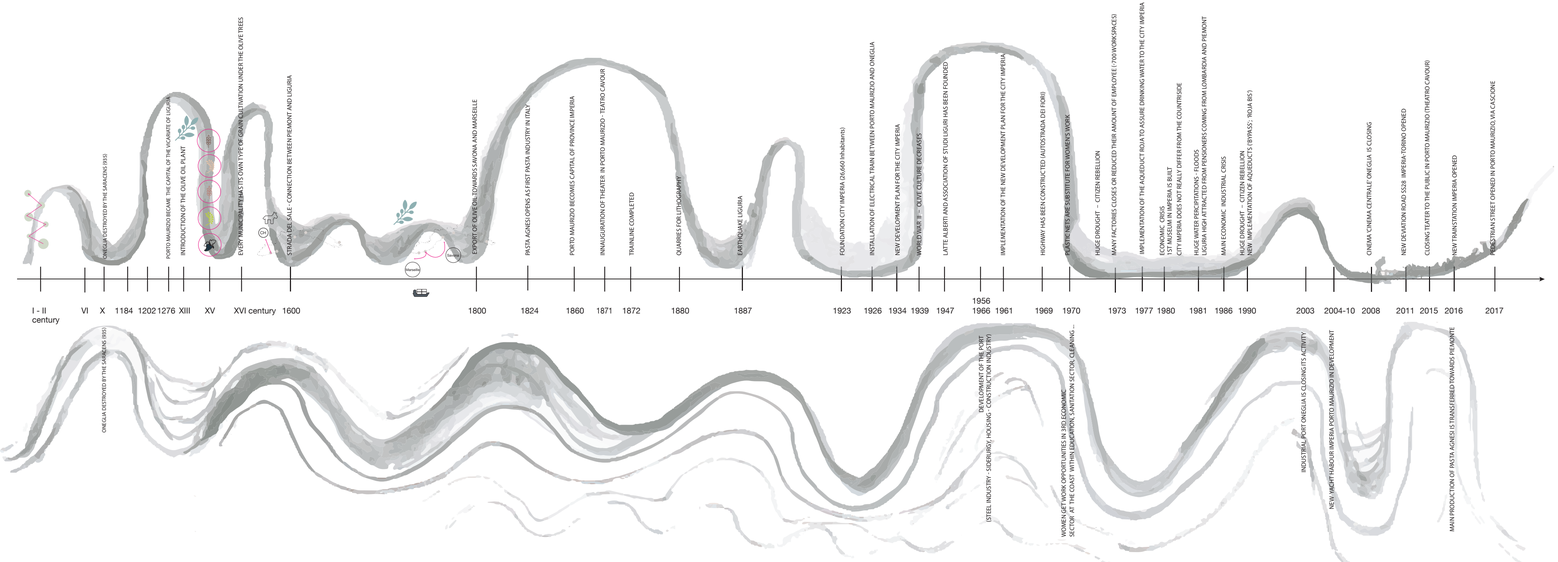


Fig.12: Topographical map of Liguria. Source: by author with data from: Estri, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community

I

02 HISTORY

TERRITORIAL DEVELOPMENT FROM THE VALLEYS AND THE SEA



The city Imperia was founded 1923 by Mussolini. Until today Imperia is divided into two districts: Porto Maurizio and Oneglia. Both are located 3 Km away from each other. Before the unification, Porto Maurizio was under the power of Genova and Oneglia was under the power of the Savoys. Porto Maurizio was the western conquered city of the Genome empire and was within the front line of the Savoys and French empire. The river Impero, which later gave the name to the city Imperia, was established as border between the two towns. The historic division is still recognizable in the architecture and in the mentality of the people. Until today people relate themselves specifically to one or the part of the city Imperia.

An insight into the cultivation is that before the olive tree was commercialized they planted under the olive trees different sorts of grain. Each village had his own grain or specific fruit. This particularity was cancelled by the commercialization of the olive oil. In the 1800, the olive oil started to be exported to Marseilles and other destinations.

With the industrialisation factories related to shipbuilding as well as food factories opened, mostly related to the olive oil production (quarries to get the stone to the print, steel industries for the packaging of the oil etc.). In the past, the specific olive oil which comes from the olive "Taggiasca", made villages became noticed because of their oil quality.

The end of the 19th century a new economy emerged. The flower economy. This led to emerging of greenhouses in the landscape. Especially the west site of Liguria was raising its economy towards flower plantations. Foreign botanic experts, florists settled at in this region, mainly at the western site, and introduced the economy of flower, herbs plantations. Many important parks and gardens were raising within the region, in some cases these spaces became own botanical laboratories. The temperate climate and the fertile soil contributed to this emerging trend. Being at the border with another nation France and the fact that the railway line was completed in 1872 the trading was facilitated. (Giacobbe. La floricultura nel Ponente Ligure. Sanremo promotion, n.d.).

From the start of the 70s the first industries closed or moved towards other Italian regions. This provoked a loss of around 700 work places.

Draughts brought the city to implement water bypasses from France and from Piemonte, which lies in the north of this two valleys, to secure a constant water supply to the urban centres at the coast. Nowadays in hot summers in the villages of the valleys they can be some days were the usage of water is only allowed in certain hours. The reason for the lack of water is that in summer the villages are populated from more people than in the winter. Summerhouses are full of tourists and all the swimming pools are filled. The extreme change of inhabitants within the small villages provokes a lack of water.

This new tourism industry creates new job opportunities. How can the region's history be integrated in the future development? How can the industries which contributed to its identity be reintegrated in the future development?

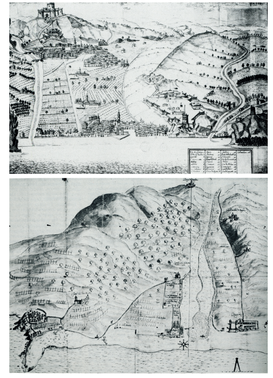


Fig.13: Quaini, Massimo. Carte e cartografi in Liguria. Sagep Editrice, Genova: 1986.

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HISTORY

TWO INDEPENDENT CITIES



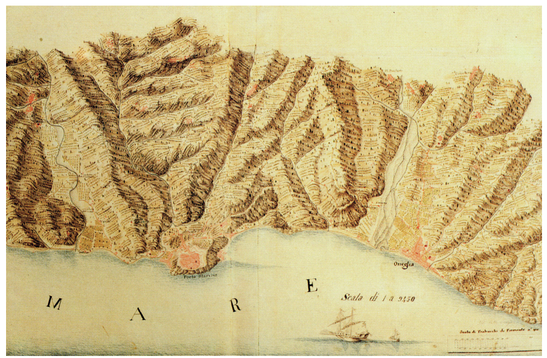


Fig.14: Homann, Johann Baptist, 1663-1724 retrieved from: http://mapy.mzk.cz/mzk03/001/049/847/2619270212/. Retrieved: 15.11.2017.



Fig.15: Homann, Johann Baptist, 1663-1724 retrieved from: http://mapy.mzk.cz/mzk03/001/049/847/2619270212/. Retrieved: 15.11.2017.

I

FIGURES AND FACTS

IMPERIA AS CITY AND AS PROVINCE

The province Imperia includes an area of 1 154.78km2. The province is composed of 66 Municipalities. In this province, there are living 215 130 residents (see Fig.15). The density is 186 inhabitants per Km2.

The urban centre Imperia has 42 154 citizens (ISTAT 01.01.2017) and is composed out of the urban centre Porto Maurizio in the west and the urban centre Oneglia in the east. Both urban centres are 3Km away from each other. Imperia extents on an area of 45.38Km2 (ISTAT 01.01.2017), we have a density of 929 inhabitants per Km2. Porto Maurizio is built on a hill with an ancient monastery and Oneglia expands within the river basin Impero. Both centres are at the coast and facing the sea. Oneglia is more an industrial city and has a commercial port instead of Porto Maurizio which has a more tourism based port.

Imperia has 48,76% of people between 30 and 65 years and 25,30% people above 65 years. The elderly is in majority. (Fig.17).

	Provincia/Città Metropolitana		Popolazione *residenti*	Superficie *km²*	Densità *abitanti/km²*	Numero Comuni
1.	Savona	SV	279.408	1.546,29	181	69
2.	*Città Metropolitana di* **GENOVA**	GE	850.071	1.833,79	464	67
3.	Imperia	IM	215.130	1.154,78	186	66
4.	La Spezia	SP	220.698	881,35	250	32
		Totale	**1.565.307**	**5.416,21**	**289**	**234**

Fig.16: Data: ISTAT , 01/01/2017 (ISTAT). Elaborated from: https://www.tuttitalia.it/liguria/98-province/numero-comuni/, accessed 30.04.2018.



Fig.18: SUIS Imperia. Citta'Imperia. Strategia integrata di sviluppo Urbano sostenibile del comune di Imperia. STRATEGIA INTEGRATA DI SVILUPPO URBANO SOSTENIBILE DEL COMUNE DI IMPERIA, page 4.



Fig.17: SUIS Imperia. Citta'Imperia. Strategia integrata di sviluppo Urbano sostenibile del comune di Imperia. STRATEGIA INTEGRATA DI SVILUPPO URBANO SOSTENIBILE DEL COMUNE DI IMPERIA, page 2.

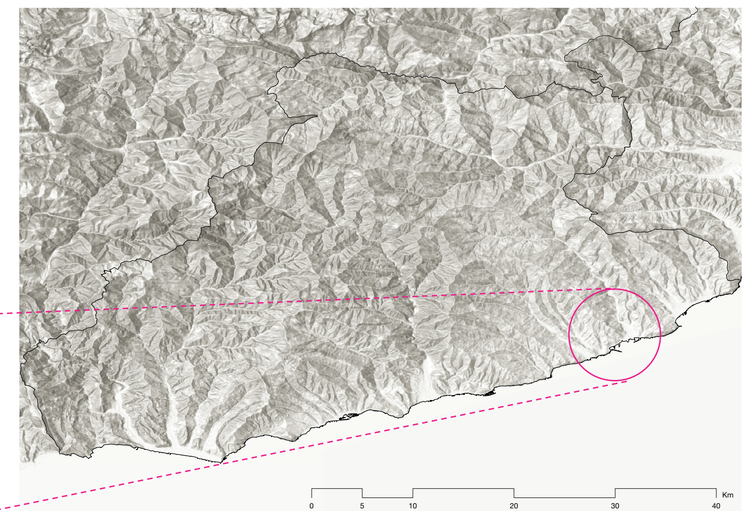


Fig.19: Province Imperia with the allocation of the city Imperia. Sources: Esri, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community.

I

LOCATION WITHIN THE EUROPEAN CONTEXT

ECONOMIC CORRIDORS

"(…) Some suppose that the Blue Banana eventually must give way to the "Sunbelt" an arch-shaped axis in the southern part of Europe along the Mediterranean coast from Milan to Valencia (…)" (Hospers, 2003:76). Liguria is part of two European economic corridors. The region is on the edge of the so called Blue Banana corridor, and it is part of the European Sunbelt zone. The European coastal area Sunbelt zone is characterized by high soft location factors. Due to its good climatic conditions, this economic zone is characterized by the presence of tourism and agriculture as well as high-tech industries. (Hospers, 2003. Beyond the Blue Banana? Intereconomics 38, p.76–85.)

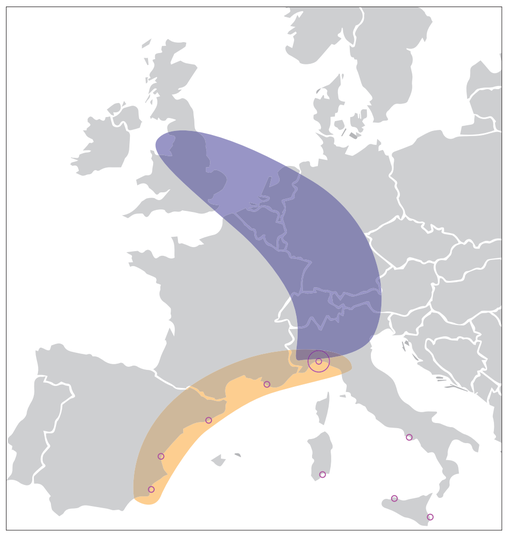


Fig.20: Source: by author



Fig.21: Source: by author

Connection to the North Sea from the Mediterranean Sea (from port Genoa to port Rotterdam via train)

"Blue Banana"

"Sunbelt"

Main Mediterranean ports

Since World War two and at least until the 1980s, Genova was the activator for the development of the so called "productive triangle", the area between Milano, Torino, and Genova, which stands for the most productive area of Italy since the country's unification in 1860. Due to its particular geographical Situation Genova is situated within a precipitous and narrow steep coast between the Apennines and the Mediterranean sea. Therefore, the city itself is shaped by dense urban structure and interwoven by infrastructures like tunnels, bridges, and railway bridges or stairs and elevators to connect the various parts of the city and its surroundings. The harbour of Genova represents one of the oldest ports of Europe. The crisis of the 1980s caused by the reorganization and outsourcing of the production to lower cost countries caused a radical transformation of Genova's harbour. Today it is Italians largest harbour and the most important container shipping point.

To facilitate the circulation of goods and men across Europe nine infrastructural routes have been strengthened and implemented in the European Union in 2014. One of the most significant of those interconnections is the Alps-Rhine corridor which links the Northern sea harbours of Antwerp - Rotterdam - Zeebrugge with the Mediterranean port of Genova. Interconnecting them with the productive regions of the Milano-Hinterland, Switzerland and the Rhur-Gebiet. The aim of this significant strategic plan is to enlarge and expand the infrastructural system of railway and freight traffic on rivers with the aim to relieve the road traffic of this highly frequented north-south corridor.

The implementation of the northern part between the Netherlands and the Gotthard- Basis tunnel which connects the Switzerland to Italy has been completed in 2016. The southern part of the Project is the weakness in this high interconnection plan.

Although the harbour of Genova has been aumenting its container shipping there is still missing a strong connectivity, to the inland especially regarding the railroads.

The connection between Genova's harbour and the productive areas between Novara, Milano and Alessandria have to be urgently developed. With the realization of this last part of infrastructural connection and with the increasing importance of the Mediterranean central hub and the relations to middle east and far eastern countries connected through the Suez Canal, the Alps-Rhine corridor might have significant importance for the European infrastructural planning of the future. ("Janus, Djalali," n.d. or, the Long Harbour. A project for the land and sea of Genoa.Rotterdamse Academievan Bouwkunst 2015. URL: http://www.amirdjalali.com/?/teaching/Janus/).

Liguria is located at the border to France and is the region of Italy through which cooperation on economic level and transnational level are made where Ventimiglia is the city on the border from the Italian side. (Fig.21).

"Cross-border cooperation operational programme: Italy – Maritime France" for Community assistance from the European Regional Development Fund (ERDF) under the European Territorial Cooperation objective in Italy and maritime France. (...) improving cooperation between border areas in the fields of accessibility, innovation, making the best use of natural and cultural resources, and the sharing of infrastructure and integrated services, so as to increase competitiveness at the Mediterranean, southern European and world levels. This strategy also seeks to ensure the cohesion of the geographical areas in question and encourage job creation and sustainable development. Particular effort will be given to improving telecommunications in mountainous or peripheral parts of the region, with the aim of bolstering the information society (...)". (Operational Programme "Italy – Maritime France" [WWW Document], n.d. URL http://ec.europa.eu/regional_policy/en/atlas/programmes/2007-2013/crossborder/operational-programme-italy-maritime-france, accessed 10.27.17).

Genova is positioned within the "productive triangle", economical triangle of Italy (Fig.8). This gives high opportunities for the region Liguria, in terms of new economic development and relations.

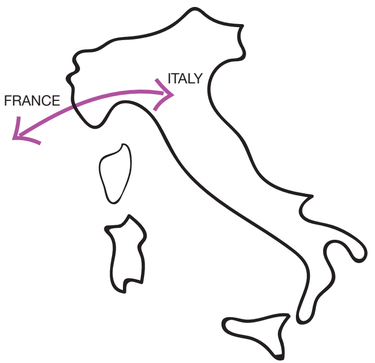


Fig.22: Liguria transnational context. Source: by author

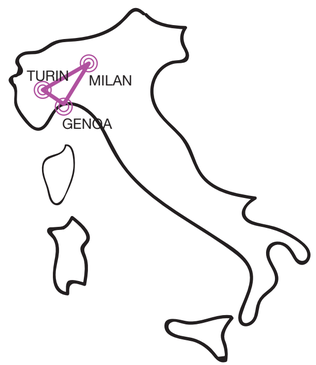


Fig.23: Liguria trans-regional context. Source: by author

I

SHRINKAGE

PROGNOSES FOR EUROPEAN CITIES

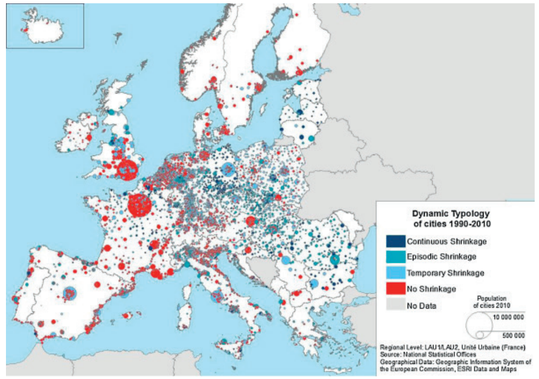


Fig.24: Source: Dynamic typology of European cities 1990–2010. Wiechmann and Wolf (2013).

Europe is facing a time of change in the countryside. The transition from agrarian production and industrial focus towards a knowledge and service based circle of production did not happen smoothly in every part of Europe "(…) where agriculture has become less labour intense and economic and employment growth has become progressively tertiarised, favouring larger urban centres." (ESPON policy brief 2017:3). There are many places, especially rural regions and industrial cities which did not change in the way of using their potentialities and are therefore left behind.

"(…) There has been a growing concern over the last two decades about conceptualizing the landscape and its changes and expressing through conceptual frameworks the complex interactions between drivers at multiple scales and the resulting patterns and changes in land use and land cover. (…)" (Bürgi, Straub, Gimmi, & Salzmann, 2010; Hersperger, Gennaio, Verburg, & Bürgi, 2010; Paquette & Domon, 2001; Stenseke, Lindborg, Dahlberg, & Slatmo, 2012 In: Pinto-Correia and Kristensen, 2013: 249).

Moreover, our consumer behaviour has changed towards more fine-grained sectors with a higher product value than in the past. Innovation and digitalization as well as the complexity of drivers and the different governance structures made a region more complicated to understand. The quick overlapping changes which are interwoven with the past and the different scales are creating a high complexity. We need to see the complexity of relations between global forces (e.g. socio-demographic change, climate change …) and local factors (e.g. land ownership, planning system) and try to understand it to find connecting points between those two drivers. Is it about finding the right connections and linkages between those two development forces that enable to develop in a more sustainable way?

Although the discussion about shrinking cities and the issue of shrinkage has been a topic on European policy agenda, the issue of rural shrinkage or shrinkage in its regional, as opposed to only urban dimension, has not be tackled with sufficient depth and, as ESPON policy brief reveals, there is no agreement on what regional shrinkage means (ESPON policy brief 2017:3).

But as we can see in the graphic (Fig.24) Europe is dealing with shrinking regions and cities which is especially characterized in the western part of Europe, mostly parts of Germany see (Fig.23)Map Wiechmann and Wolf (2013). Liguria is mapped as temporary and episodic shrinking region.

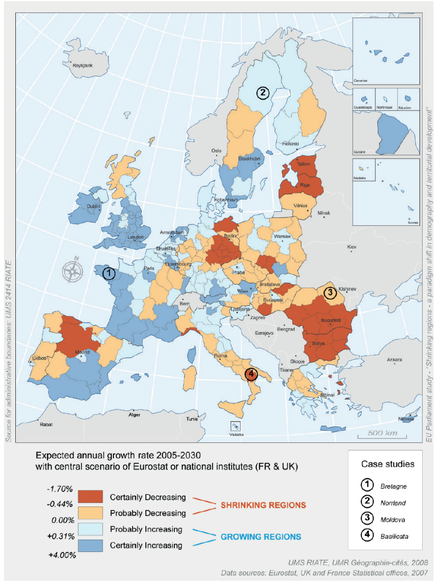


Fig.25: Typology of the 'shrinking regions'(2005-2030). Source: Dynamic typology of European cities 1990–2010. Wiechmann and Wolf (2013:).

In Europe, the phenomenon 'Shrinkage' is accordingly to the report the European Urban and Regional Studies 2016, it is in plural number within Europe and became a major planning issue within Europe.
How are we urban designers confronting 'shrinkage'? How do we integrate rural areas in our visions and strategies? Are elderlies and empty manufacture buildings part of it?

The cause and effects of 'shrinkage' are complex and often interrelated with other not visible processes. As the region, Liguria has some elements of shrinkage, this current topic will be faced within this project. To give an answer towards the attitude we need towards this phenomenon as well as to show how elements of shrinkage manifest themselves differently in each site. This makes the whole target within Europe more complicated and difficult to generalize and address. Therefore, a more local and place specific approach is needed.

I

RE-THINKING SHRINKING

FINDING VALUES IN SHRINKING?

Abstract
Andrew Copus (2012:1) describes that we presently see cities as engines of growth and rural territories as a spill over beneficiary. The countryside benefits from urban centres only as a trickle-down effect, that means that the countryside profits only from the drops of urban success the countryside profits and therefore the countryside is not seen as an active partner but as a passive one. But what would happen if we see it the other way around? Can cities become the beneficiary of the countryside and the countryside the engineer of growth?

In this essay, we argue that we urgently need to find 'niches' of spatial interventions in the countryside to strengthen rural-urban relationships. This research utilizes the notion of cultural landscape as a new tool and as a method to rethink the urban-rural relationship in the Italian context. In the following, the paper tries to combine different key elements that determine the process of shrinking related to the countryside and tries to define potentialities of shrinkage. Finding not only solutions for shrinkage of the countryside but also rethinking the occurring phenomenon from the perspective of de-growth, with acknowledging de-growth as a different approach. This paper concludes with critically questioning if the concept of de-growth can be a way out of the phenomenon of shrinkage. How can regions work independently without isolating themselves from the rest of the world and without losing the benefits of the world market?
Degrowth is proposed not as a solution for shrinkage but as a starting point to give another position or attitude towards the phenomenon of shrinkage. What are elements of shrinkage, de-growth and the landscape that can help us to redefine the relation between the countryside and the urban areas in a responsive, resilient and sustainable way?

Key words – shrinkage, cultural landscape, degrowth, European strategies, rural-urban relations

[1] Cultural landscape is a landscape where economic, ecological, aesthetical and cultural performances and conditions are in a balanced relation. Where the performance and condition can evolve constantly and are able to serve people as their home. (Pieritz, free translation from: Hans Hermann Wöbsse: Kulturlandschaften als Objekte des Naturschutzes. In: I. Koarik, E Schmidt, B. Sigel (Hg.): Naturschutz und Denkmalpflege. Wege zu einem Dialog im Garten. Vdf, Zürich 1998: S. 157-168.)

[2] "(…) Usually, degrowth is associated with the idea that smaller can be beautiful. Ecological economists define degrowth as an equitable downscaling of production and consumption that will reduce societies' throughput of energy and raw materials (…)" (Schneider et al. 2010 In: Degrowth: A Vocabulary for a New Era' - Research & Degrowth (R&D)", n.d.). Degrowth is about a new way of production which serves new functions.

1 Introduction
Europe is facing a time of change in the countryside. The transition from agrarian production and industrial focus towards a knowledge and service based circle of production did not happen smoothly in every part of Europe "(…) where agriculture has become less labour intense and economic and employment growth has become progressively tertiarised, favouring larger urban centres." (ESPON policy brief 2017:3). There are many places, especially rural regions and industrial cities which did not change in the way of using their potentialities and are therefore left behind.
"(…) There has been a growing concern over the last two decades about conceptualizing the landscape and its changes and expressing through conceptual frameworks the complex interactions between drivers at multiple scales and the resulting patterns and changes in land use and land cover. (…)" (Bürgi, Straub, Gimmi, & Salzmann, 2010; Hersperger, Gennaio, Verburg, & Bürgi, 2010; Paquette & Domon, 2001; Stenseke, Lindborg, Dahlberg, & Slatmo, 2012 In: Pinto-Correia and Kristensen, 2013: 249).

Moreover, our consumer behaviour has changed towards more fine-grained sectors with a higher product value than in the past. Innovation and digitalization as well as the complexity of drivers and the different governance structures made a region more complicated to understand. The quick overlapping changes which are interwoven with the past and the different scales are creating a high complexity.
We need to see the complexity of relations between global forces (e.g. socio-demographic change, climate change …) and local factors (e.g. land ownership, planning system) and try to understand it to find connecting points between those two drivers. Is it about finding the right connections and linkages between those two development forces that enable to develop in a more sustainable way?

To find possible answers towards this question we need to examine and understand the main changing trends in Europe. Main drivers of the transformation in Europe are social, demographic changes (aging, shrinking population, migration), technological change (Internet network) and environmental (climate) change. The focus of this essay shed some lights on the phenomenon of shrinkage, one current occurring process in Europe.

According to Silva Sousa and Paulo Pinho (2015:13), we can distinguish between the concept of forgotten cities as Hoyt and Leroux (2007) described - and the concept of shrinking cities. Forgotten cities are cities that supplied raw materials, engine or products to other regions and global forces. Shrinking cities as Silva Sousa and Paulo Pinho (2015: 13) describe are the cities which are caused by sprawl and which are connected to suburbanization, where they refer to North American cities. As Silva Sousa and Paulo Pinho (2015:15) states, shrinkage in the twenty-first century can be described by a global, structural and a multidimensional phenomenon, this can be revealed in the decrease of: population, economy and a decline of regional and national importance which can cause different problems of decay in the urban texture, ageing population, less employment opportunities and a decline of social services.

Although the discussion about shrinking cities and the issue of shrinkage has been a topic on European policy agenda, the issue of rural shrinkage or shrinkage in its regional, as opposed to only urban dimension, has not be tackled with sufficient depth and, as ESPON policy brief reveals, there is no agreement on what regional shrinkage means (ESPON policy brief 2017:3).

In the following, the paper tries to combine different key elements that determine the process of shrinking related to the countryside and tries to define potentialities of shrinkage.

2 Definition of shrinkage
Shrinking might be associated with decline. If we talk about shrinking, we somehow have a comparable entity from the past. This previous condition seems to be more prosperous than it is at the current state. The decline or decrease is mainly related to the depopulation. But shrinking cannot be generalized, it differs from region to region on how it is perceived and how it develops. Not every decline means a loss of opportunities and a loss of human capital. Often the decrease of population is used as indicator of shrinkage. "(…) depopulation is the symptom rather than the cause of shrinkage which results from a complex 'vicious circle' of interrelated economic and social factors (…)" (Shrink Smart 2009 in: ESPON policy brief 2017: 3).

3 Key elements of shrinkage
3.1 Abandonment
The decrease of population is caused by several factors such as lack of job opportunities as well as a misbalanced distribution of labour opportunities. People tend to live in the suburbs of prospering regions. The change in work allocation and change towards other sectors of productivity, make people move away from their original environment and creates abandonment.

3.1.2 Accessibility
Proximity to better job opportunities and the flexible society causes displacement, commuting people and dead public spaces in villages. For companies, it is beneficial to be settled closer to other similar institutions because they profit from spillover effects, the 'tacit knowledge' transfer, clients and the shared infrastructure. Is digitalization a paradox to commuting?
However, new technology and digitalization make it possible that the 'face to face' contact shifts towards a virtual contact and can mostly be solved via online platforms. The discussion about being close, proximate to others or accessible via infrastructure is more and more obsolete. It is thus a paradox that populations still tend to move towards big cities. The outcome of being flexible and not being bound to a place is provoking and exacerbating social displacement, but it could be turned around and be a method for people to remain in their inaccessible villages. Why are people still moving out or commuting if the technology is so far developed?

3.1.3 Social displacement
People may still be living there, but are not socially connected because their social life is related to their – more or less distant – work places. The separation between working and living has an impact on the social network in villages and creates empty spaces. Instead of liveliness and vibrancy on the 'piazza', the social place of a village, we are confronted with commuting people and desolate open spaces and streets.

3.2 Vacancy
3.2.1 Decline of built environment
Abandonment of the build environment, an element of shrinkage, can be seen as disadvantage for the appearance of regions and towns. Newcomers or new investors could be discouraged to invest in these areas because abandonment and decay do not look attractive for a future investment. And a so called 'downward spiral' occurs to the region.
Abandonment and decline can be seen as an opportunity for new development and can make space for new ideas. The old infrastructure can be used for other purposes what than leads to less money expenses for the new development. As Silva Sousa and Paulo Pinho (2015: 16) are addressing that decline can lead to 'perforated areas' which than can become a new possibility for planners (ibid, p.16).

3.2.2 Oversized and underused facilities as consequence
Although opportunities could emerge for a new development, the loss of people means also shrinkage of services and social infrastructures. Public facilities are often in function for a specific amount of people and under it they are not anymore profitable. Municipalities have to pay more for facilities and have a lower return rate due to the lack of residents. Pressure on substantial public budgets, reduced fiscal income, higher social costs and rising cost are on the agenda of shrinking municipalities. (ESPON policy brief 2017:6). High priority infrastructures like schools, medical centres or post offices tend to move towards higher ranged centres or more urbanized areas. And the remaining infrastructure gets underused and unsustainable for the remaining people.

3.3 The remaining society
What about the 'remaining' people in the countryside, in the rural villages? Who are they and what do they need?
Mostly the 'remaining' people are elderly, some farmers and the ones that cannot afford to move to the suburbs of the urban centres or are otherwise bounded to the rural territory. Additionally, there are foreigners, immigrants seeking for a better life in the 'idyll of the rural'.

Elderly require the most social infrastructures and they are left in the countryside with a small amount of social infrastructure. It is a paradox because those who need public transport, health care facilities the most is the aging population which remains left in the most inaccessible parts of the countryside. But there are also possibilities to cope with this phenomenon as we can see in Ireland. As the case study of Deirdre Heenan (2010:478) showed it is very important to address this social class which often suffers from loneliness and social exclusion, isolation. Elderly people are the ones who can contribute, as Deirdre Heenan (2010:489) describes, in strengthening social and local economic networks and are the best sources of knowledge transfer. Moreover, the voluntary work is a part which addresses people who have time and who can dedicate more time to it. Elderly people are always there and have passed a certain time frame in the village, valley, region. This status gives a feeling of trust and reliability which could be a good anchor for further development of those areas. Trust and reliability is a good starting point, a point to dock on for a new development in the countryside. That is confirmed by Jonathan Murdoch's study (Cloke et al., 2006:171-182). In addition, investment in human capital can also lead to a new development as the report of ESPON (2017: 8) claims. "Retaining older people in the workforce and making productivity-enhancing investments in human capital can also boost economic growth and job creation in rural regions." (ESPON policy brief 2017: 8).
Fiorenzo Ferlaino (2015:166 and based on a skype discussion) argues that the economic crises in Italy can be an opportunity for the countryside because it encourages people without a job in the urban centres to move back and revitalize the countryside. Not having a job opportunity in cities becomes worse than being in the countryside without a job, where you can have a higher quality of life even without a job. Without concrete planning tools and conducting this movement towards already existing empty spaces in the built environment, we are contributing to the effect of sprawl. If one here could intervene and use this new force and direct it towards the empty houses in the villages, it could be an opportunity for the opening of a new development.

Knowledge transfer as well as collaboration and exchange of information is facilitated where trust and mutual respect is on the agenda (Cloke et al., 2006:176). Jonathan Murdoch (Cloke et al., 2006:176) explains the innovation of rural places and fosters the development of new economic processes. As previously explained, 'trust' and the exchange of information is lost in rural areas. To help each other is well known in the rural areas especially in those which have the most difficulties in terms of accessibility and landscape formation. But networking is not so common in rural areas and we experience it more in urban areas, so newcomers who do not know the place and people are often the ones who are starting to network because of their lack of knowledge. A tight network creates a more resilient and stable environment and gives the local identity. *Could the 'newcomers' with their new point of view create different constellations and be the target group to connect the local network with the global?*

Moreover, the loss of people and the need of low cost workers for harvesting times, which cannot be anymore done by the greying society. This leads to foreign low cost immigration, which may imply that there are more migrants periodically then there are local people of the village. That affects negatively social coherence and can create segregation through the inhabitants (ESPON policy brief 2017:6). The loss of population can cause social fragmentation and displacement. This, however, if we find the right element to grasp on, can be turned towards a new network with the remaining people and become a new opportunity for external forces to dock on.

The loss of people can often be recognized after years of migration. The result of a loss of population density is vacancy in the build environment. The number of vacant buildings and derelict lands are one of the consequences of shrinking. The increase of vacancy and derelict land causes, as Silva Sousa and Paulo Pinho (2015:14) describes, a "shock" which creates a feeling of shame because of the perception of the remaining – the loss is related towards the perception of failure. This perception creates stigmatization and incites abandonment as well as a loss of a feeling of responsibility towards the environment left.

4 European approaches

4.1 Integrated rural development
The integrated rural development (IRD) is an approach which aims to connect local development to national development. It was introduced in the 1980s in Europe as a new planning approach to help the agricultural areas and the challenging rural identities as well as to cope with environmental concerns. It was a territorial approach which addressed coordination between sectors and the different levels of government of the countryside, which was especially used in the UK (Shucksmith, 2010). It was an essential territorial alternative promoting endogenous development which uses local know-how, from non governmental organizations and private actors and at the same time involves governmental strategies and stakeholders. As Shucksmith (ibid 2010:2) explains on EU level the IRD approach is embodied in the LEADER community initiative. This European approach is not only a territorial method but also as Shucksmith (ibid 2010:3) explains, a neo-endogenous development which means a combination of endogenous and exogenous approach. One of the nations that applied the LEADER program quite early (1991) was France. As Henry Buller (2000: 196f) explains the LEADER program or scheme "(…) has been innovative in its initial objectives, particularly those relating to experimental bottom-up approaches, to the establishment of local networks and to endogenous forms of development (…) [they] have provided frameworks for new and cross-sectoral actors-coalitions.' (Buller, 2000: 196). Moreover, Henry Buller claims that the LEADER development program has the danger that it shifts "(…) towards a more competitive territoriality in which access to funds becomes a major element." (Buller, 2000: 197). Furthermore, Henry Buller (ibid) claims that 'LEADER schemes' are often focusing on the rural whereas the relation between the 'rural and the urban areas' should be much more important to stabilize a territorial new development.

4.2 Spatial planning

The planning approach in our 21th century changed more and more towards a place based approach. Spatial planning is related to the social and physical construction of places which is continually produced and challenged. In addition, development is seen as a non-linear process and recognizes the different context of network society and the multi scalar governance (Shucksmith, 2010: 6). The European spatial planning development perspective as Shucksmith (2010:12) explains is still seeing the rural as leftovers and the rural remains a separate entity from the urban node. Our planning policies are always related to help regions that are in decline to get again on track and to arise a new economic growth. As Andy Pike et al. 2010 claims to improve spatial disparities is less on the policy agenda than a growth orientation and an orientation towards a reinforcement of potentials (Andy Pike et al. 2010:1262). Speaking about regional development we are always thinking in terms of growth and prosperity.
Is there another approach or another perspective to see shrinkage and rural development in Europe?
Can degrowth be an instrument, a method to help shrinking regions? Or are shrinking villages maybe in a way applying degrowth ideas to survive?

5 New way of dealing with shrinkage

5.1 Degrowth a matter of perspective
Many people at the first glance think if we speak about degrowth that it is the opposite of growth, something negative that leads to decline. But it is not it is a new way of thinking about growth. "(..) In the first phase of the degrowth debate in the 1970s, the emphasis was on resource limits. In the second phase, starting in 2001, the driving force was the criticism of the hegemonic idea of 'sustainable development'. (…) The English term 'degrowth' was 'officially' used for the first time at the Paris conference [2008 sic!], marking the birth of an international research community. (…) Degrowth signifies, first and foremost, a critique of growth. It calls for the decolonization of public debate from the idiom of economism and for the abolishment of economic growth as a social objective. Beyond that, degrowth signifies also a desired direction, one in which societies will use fewer natural resources and will organize and live differently than today. 'Sharing', 'simplicity', 'conviviality', 'care' and the 'commons' are primary significations of what this society might look like. (…)" (D'Alisa et al., 2015).
One can say 'degrowth' is about finding a different structure which serves new functions. This part of degrowth could be a first way of rethinking the current structures of a shrinking countryside. We need to see current networks work, on what they are dependent on and where the weak point of it are to start to build up a new 'net' which can as a spider net withstand other forces and can integrate different activities, relations in it. It should be elastic, modifiable but also resistant in its form and function. The philosophy of 'degrowth' seems to fit quite well for small scale planning as the author so far saw. The new philosophy of growth could be helpful to stabilize the current network with new forms of jobs and to think society differently. As Murdoch (2000:417) explains if we are speaking about networks they have to be context related and the idea of network helps us to link the exogenous and endogenous forces with each other and important is not the network itself but the linked "(…) objects and relations that flow through them" (Murdoch 2000:417) are the relevant parts of the network. Can economy exist without growth?

The emphasis on sharing, conviviality, care and bottom up initiatives in the concept of degrowth is a valid and interesting approach that in inaccessible villages can be a strength on which one can built upon. The different perspective of degrowth can moreover attract specific communities which want to step out of our economy system. But one can see this approach critical in the aspects of the relationship towards the urban centres. Without taking care about the global systems and closing towards the exogenous forces of development will fostering the separation and division between the countryside and the urban centres. Degrowth could turn aside regions which have problems of abandonment and will not contribute to solve the current problem of decay and aging society. The danger could be that degrowth might easily encapsulate a specific target group from the surrounding, so that means that degrowth is a new way of living, maybe also more sustainable but on long term it does not has any answers of how to embrace change and new upcoming trends and global effects that are a result of the global growth. As J.C.J.M. van den Bergh (2011:889) claims another weak point of degrowth is that the degrowth strategy does "(…) not represent strategies which guarantee an effective reduction of environmental pressure or a transition to a sustainable economy. (…) gives much weight to the scale of the economy or consumption, and underestimates or even neglects the role of composition and technical change." (J.C.J.M. van den Bergh 2011:889).

The degrowth concept maybe makes spaces more liveable and environmental sustainable but it is not interacting with the rest of the world. These limitations, which the author sees in the concept of degrowth, can be solved from the view of the cultural landscape, a landscape that serves both forces, the urban and the rural.

5.2 Cultural Landscape
Landscape can be seen as the medium between regional and local scales. Landscape can help integrate the different planning approaches and ongoing structural phenomena. As the European Landscape convention declares landscape should become the program under which cooperation through regions and different scales are established.
Nature and the landscape itself changes with the change of its use through people and climate change or its environmental change. Both, the natural forces and human activity are always interfering with each other which enhance two qualities "(…) in a cultural landscape: fragility and resilience. (…)" (Farina, 2000: 314).
Cultural landscape is seen as the binding element between the countryside and urban centres. Both approaches, the endogenous as well as the exogenous need current local elements and the specific landscape to be successful. One could argue that at this point the binding role of a cultural landscape rises in its importance. "(...) Cultural landscapes are the result of consecutive reorganizations of the land in order to adapt its use and spatial structure better to changing societal demands. (...)" (Antrop, 2005:22). Because the cultural landscape is "(…) the expression of the dynamic interaction between natural and cultural forces in the environment." (Antrop, 2005: 22) and because "(…) landscapes are a source of essential (barely studied) knowledge about sustainable management techniques." (Antrop, 2005: 31) we need to see and use its potential.

Cultural landscape gives a connection through all the scales of space. It contains functions from the urban centres and functions from the rural side. Often those two worlds clash and extreme collisions are reminding us how important the use and the interaction between the countryside and the urban centres are.

Cultural landscape is the expression of sustainability, it offers multifunctional landscape which maintains a bunch of cultural and economic diversities as well as it is home for many natural species. The link towards degrowth is that cultural landscape is mostly based on production systems that supply local markets. The more it is used for over dimensioned productions it collapses in its diversity and soon falls out of its own balance. As Almo Farina (2000:317) wrote "Cultural landscapes survive only in isolated regions, where people are distributed sparsely, and they play a major role only in less-developed regions (such as the uplands of Mediterranean basin) and in some developing countries." (Farina, 2000: 317).
To compare the relation between the economic capital and the natural capital and the change in their relation is explained quite well by Almo Farina (2000:319) who describes the change as following: in the past, the interplay between them was preserved by the cultural capital which than created the cultural landscape but nowadays the global landscape sees the cultural capital only as a filter for the economic capital and the natural capital. Presently, as Almo Farina claims, the natural capital became a source which we use for economic purpose where the exchange between natural forces and human forces is out of balance.

5.3 Form follows function
Form follows function means that the function determines the form. This statement is taken from an article of the Urban studies 2012 which analyses the distinctive approaches between morphological and functional polycentricity which enables a region to a different network density or to take advantage of more remote flows (Burger and Meijers, 2012:1127–1149).
Where the function doesn't change there the form will not change. Transforming this into space we can see that in nature the valley occurs because of the water flow, or because of a specific kind of erosion, because of a natural geological phenomenon. Or a person which wants to cultivate the land and want to create a fertile land, which is safe from geological erosion, forms, builds terraces which are than the form that comes out because of its determined functionality from the human. Translated into theory we could say if we change the perception on the countryside or on a shrinking villages/ town, means that we will establish a new function for it and with this a new form of development could arise. Nature and the landscape itself changes with the change of its use through people or natural forces as climate change with its following environmental change. Both, the natural forces and human activity are always interfering with each other. (Farina, 2000:314). Change in society, economy and nature gives us the possibility to adapt or to find a new way of handling with something, so to give it a new function that than creates a new form.

6 Conclusion
We need to change policy paradigm which is often orientated towards growth, as we can see that the actual financing of the European structural funds 2014-2020 engages in goals of being smart, inclusive and sustainable in growth of regions, cities. (Schlappa 2017:162).
Dealing with shrinkage means accepting it and trying to find a new way of development that could also be to do nothing against it. According to the ESPON policy brief and the EU Shrink Smart project there are three different possibilities how a region can deal with shrinking regions. First is to accept shrinking without any interventions. To see the problem without interfering. Secondly to reverse the trend of decline into growth and thirdly to allow shrinkage but deal with its consequences by redefining policies and investment decisions in a more holistic, spatial differentiated and proactive approach. (ESPON policy brief 2017:7).
Mainly it is about stimulating the endogenous potentialities of a region or the acceptance to turn shrinkage into an opportunity and create new ways of governance and innovative approaches that can bring results. Networking between public and private, creating partnerships between them to connect the global, exogenous force to the local need. To improve the quality of life for the ones who are left with small interventions. Moreover, in those shrinking regions it is about the governance system and about the visions and aims a region has.

Degrowth can be seen as another approach to address depopulation and as a tool to reinforce identity of villages. Moreover, as far as the author understood the concept of degrowth is only applicable on a small scale and the question if economy can exist without growth is still doubtful. The degrowth concept maybe makes spaces more liveable and environmental sustainable but it is not interacting with the rest of the world. These limitations, can be seen in the concept of degrowth and they might be solved from the view of the cultural landscape, a landscape that serves both forces, the urban and the rural. We need only to find agreements on the collaboration and cooperation between different scales, actors and governance systems. We need to reinterpret the existing human capital in those declining regions and use it in a different way that allows us a new cooperation between the local, space based approach and the governmental, economic outsider view.
New approach of this research paper is that the limitations which one can find in the concept of degrowth can be tackled and solved by the cultural landscape itself if we use it as the tool which connects the different elements again. On which we can cooperate and integrate different stakeholders and engage people, so it becomes the base of discussion and commitment. Even regions where a high human capital is present are declining.

I

CONCLUSION

De-growth concept allows to look at the economic, social and environmental performances from different perspectives. It can be used to find different structures which serve new functions.

This allows for a reinterpretation of landscape and its possible new functions within the different present manifestation of shrinkage in the region Liguria. Cultural landscape is the connector between nature and human activity. The question is: How to accommodate shrinkage by accommodating it within a system of new relations and multi-scalarity?

For a region to be able to respond to change it is important to be able to react and be flexible and open for change. A dynamic balance instead of stagnation keeps the region and each space alive.

Engaging actors from different scales and different fields make the process difficult but at the same time fruitful and more sustainable and less wasteful with resources.

Flexibility and adaptability within the current planning system are the main challenges this region must face.

ANALYSIS

- Water
- Vegetation
- Mobility
- Society
- Economy
- Vacancy

II

WATER

REGIONAL SCALE

The rivers determine steep and narrow and strongly engraved valleys. As the space between the mountains (on average up to 700-800m) and the coastline is relatively narrow. Consequently, the course of the rivers is short. Most of the rivers have their spring in the Alps and or are part of the water system from the river Po. The rivers have a contained water flow during the year but during rainy seasons they are increasing in their water flow significantly. (Gorziglia et al., n.d., p. 309).

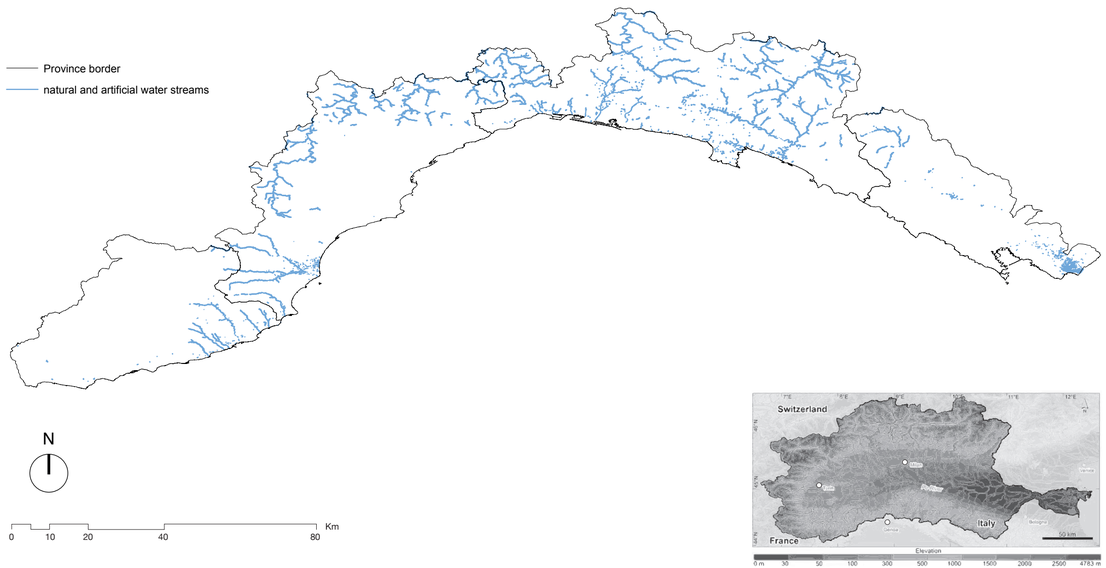


Fig.26: Source: by author with data from Repertorio Cartografico Regione Liguria. URL: http://geoportale.regione.liguria.it/geoviewer/pages/apps/repertorio/repertorio.html?id=r_liguri:D.1415.2012-12-21 (accessed 02.10.17).

Fig.27: Po basin. Modified by author. Source: T.Q.Viet, ITT, Data European Environmental Agency, ESRI, SIVA-GIS, USGS (accessed 02.10.17).

WATER-RISK ON REGIONAL SCALE

Water a main urgency in this region. Huge precipitations in winter and dry summers are a burden on the region Liguria. In summer, villages in the countryside need to get water from the local fire brigade or need to close the water accessibility for the hours during night. In winter, huge precipitations cause flood risk in urban centres at the coast and landslide risk within the countryside. The water run-off within the countryside often create landslides in recent abandoned agriculture land. The flooding at the coast is often caused because in urban centres the river has no space to expand. Not only the water from the river which comes from the countryside causes the flooding but also the water which emerges due to sealed pavements and surfaces like roofs is increasing the amount of run-off water within the urban areas.

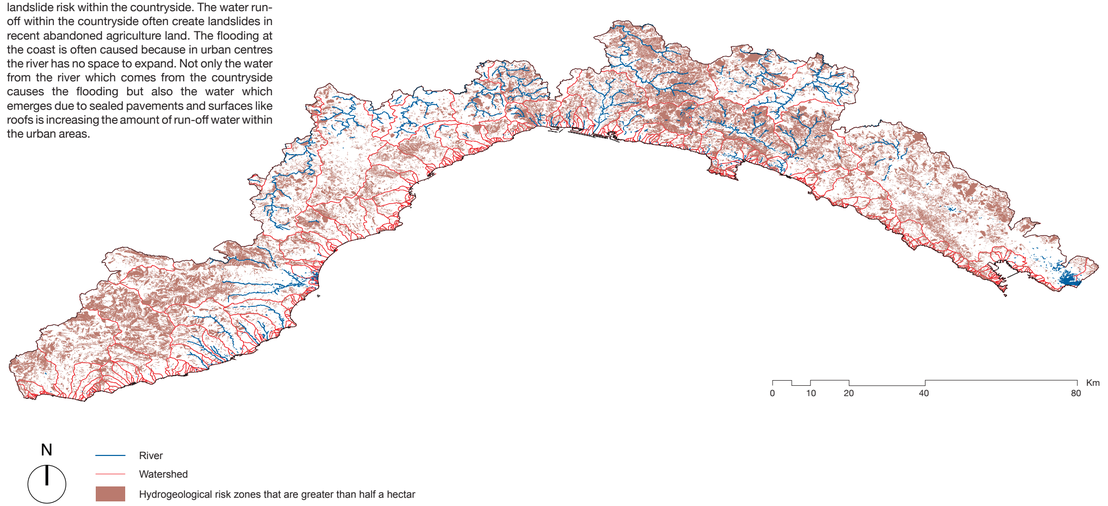


Fig.28: Source: by author with data from Repertorio Cartografico Regione Liguria. URL: http://geoportale.regione.liguria.it/geoviewer/pages/apps/repertorio/repertorio.html?id=r_liguri:D.1415.2012-12-21 (accessed 02.10.17).

II

WATER

FROM THE SPRING TO THE SEA

Looking at the rivers and their formations we can divide them into four different parts. The first part is characterized by its natural flow mostly surrounded by woodland. The water flow in this part is quite constant during all seasons. The rivers in this part are formed with characteristic deep pools (Fig. 29 and 30) which emerge because of the height difference and the different flow speed.

The second part is characterized by a high presence of reed and it is often surrounded by horticulture gardens.

The third part is the part which passes through the periphery of the urban centres. The river is crossed by the highway or the river bank is adjacent to industrial areas or to horticulture land. The watercourse in this third part is almost empty of water in summer, just a small water stream flows downwards to the estuary of the river. The third part and the fourth part of the rivers are the parts where the water passes over the shore. These parts are the parts which are mostly under flood risk because they are the parts which are mostly embedded into the urban areas. The vegetation in this part covers the whole river bank as there is mostly no water flowing.

The fourth part of the river Prino is extremely limited between buildings and each year a flooding can be recorded. The river bank is artificially made and the water is restricted to a certain width. The river Impero in comparison has in this part a much wider river bank which allows the river to flow more widely.

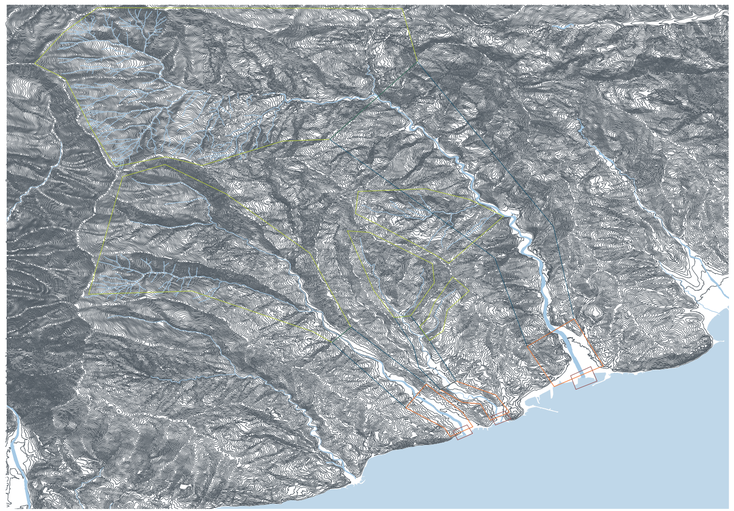


Fig.29: Source: by author with data from Repertorio Cartografico Regione Liguria. URL: http://geoportale.regione.liguria.it/geoviewer/pages/apps/repertorio/repertorio.html?id=r_liguri:D.1415.2012-12-21 (accessed 02.10.17).





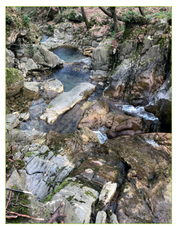


Fig.30: First part of the river. Characterized by deep pools and a constant water flow during the whole year. Source: by author.



Fig.31: First part of the river. Source: by author.

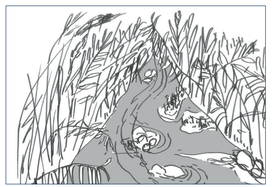


Fig.32: Second part of the river. Source: by author.



Fig.33: Third part of the river. Source: by author.

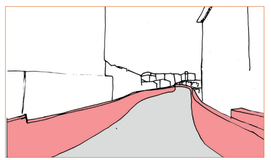


Fig.34: Fourth part of the rivers. Source: by author.



Fig.35: Second part of the river. Source: by author.



Fig.36: Third part of the river. Source: by author.

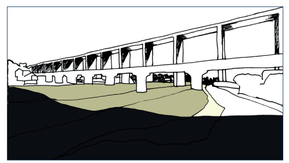








Fig.37: Fourth parts. Source: by author.

II

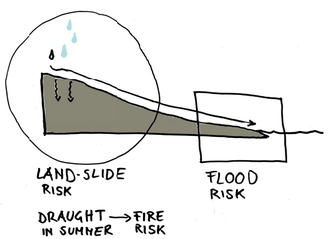
WATER

RISK ZONES AND ABANDONED OLIVE GROVES

Landslide is a huge risk which is provoked by water run-of on not stable soil. This can have many reasons. Often the recent abandoned land is evoking landslides. From the map (Fig.37) we can extract that the most risk zones are prevailing in the countryside along water streams or in parts of abandonment. As we can see in the pictures (Fig.39-41) the water seeks its ways when former canals are closed. The main landslide struggles happen in the countryside. As the whole landscape is built on human made terraces if one terraces collapse because of no maintenance other terraces collapse as well, like a 'domino effect'.
The landslide is on the one hand caused because of no maintenance or abandonment. On the other hand, it is happening because of the characteristic soil formation in this region. The ground is steep and geologically folded towards the Alps which causes pieces that are easy to slide apart.

The region Liguria as the survey of Gorziglia et al. (n.d, p.314) showed had a total of 7,513 landslides on the entire regional territory between the year 2001 and 2005. The surface affected by the phenomenon of instability of the slopes covers over 424 km2, equal to a fraction of about 8% of the overall extension of the regional territory. (Gorziglia et al., n.d., p. 314).

In the urban centres, we have the main problem of flooding. As the urban fabric is quite dense in some parts of the city the river does not have enough space to spread.



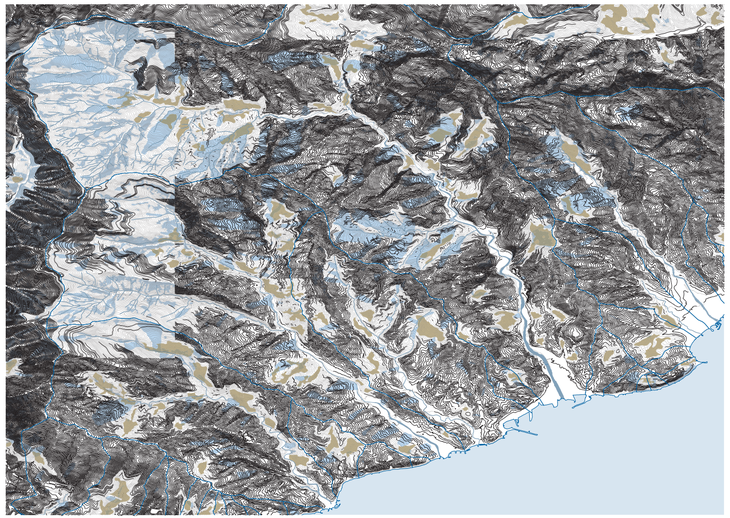
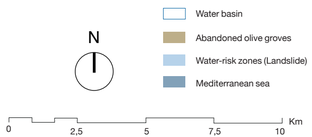


Fig.38: Source: by author with data from Repertorio Cartografico Regione Liguria.
URL: http://geoportale.regione.liguria.it/geoviewer/pages/apps/repertorio/repertorio.html?id=r_liguri:D.1415.2012-12-21 (accessed 19.12.17).
Fig.39: Conclusion of different kind of water problems in the region. Source: by author.



DAMAGE WITHIN THE COUNTRYSIDE



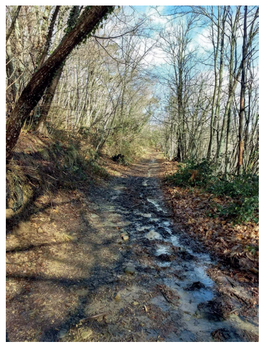




Fig.40: Pelassa, 2018,03, 07.
Fig.41: Pelassa, 2018,03, 07.
Fig.42: Sky Tg24: Maltempo in Liguria: frane e case crollate in provincia di Imperia. 26th November 2016, retrieved 9th October 2017.

II

WATER

HOUSES IN WATER-RISK ZONES

Most residential houses within water risk zones are found within the countryside (Fig.42). By calculating the number of residential houses per total existing houses in each Municipality one can see that the urban centres have a higher number of total houses which are under risk than the countryside (Fig.43). This indicates that to reduce the flood in urban centres, at the coast, we need to care about the water management in the countryside. Moreover, we need to drain the water from the sealed surfaces into catchment cisterns to get rid of one part of the run-of water in urban centres.

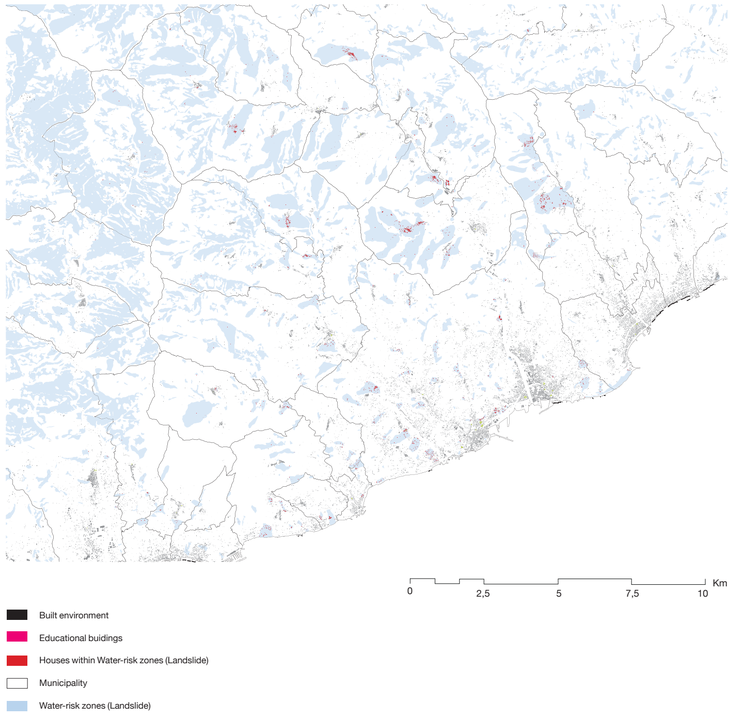


Fig.43: Source: by author with data from Repertorio Cartografico Regione Liguria. URL: http://geoportale.regione.liguria.it/geoviewer/pages/apps/repertorio/repertorio.html?id=r_liguri:D.1415.2012-12-21 (accessed 02.10.17).

AMOUNT OF HOUSES WITHIN EACH MUNICIPALITY WHICH ARE WITHIN A WATER-RISK ZONE

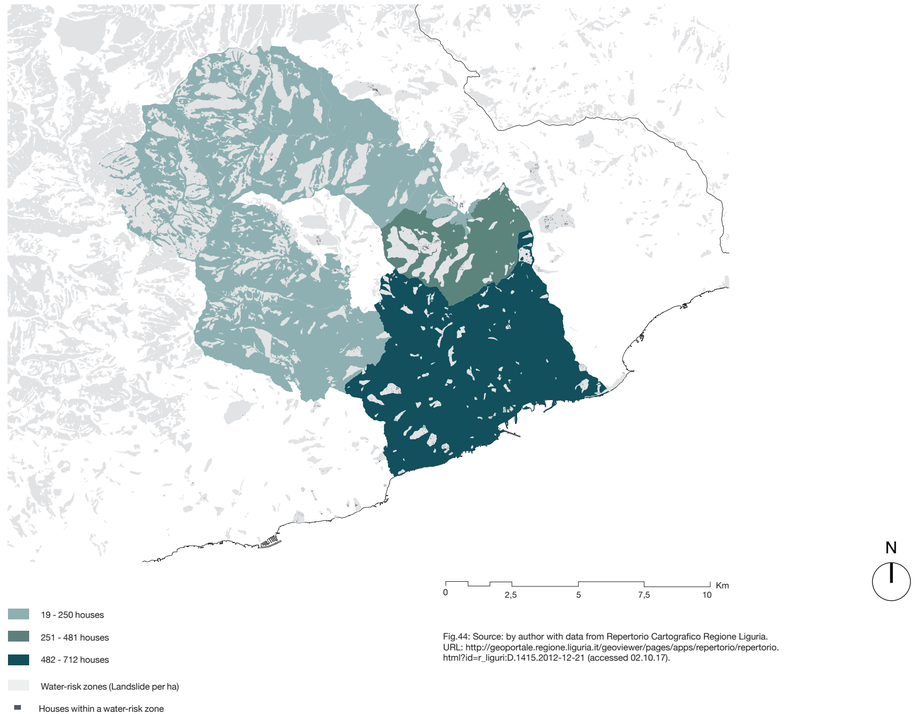


Fig.44: Source: by author with data from Repertorio Cartografico Regione Liguria. URL: http://geoportale.regione.liguria.it/geoviewer/pages/apps/repertorio/repertorio.html?id=r_liguri:D.1415.2012-12-21 (accessed 02.10.17).

II

WATER

WATER CATCHMENT IN THE COUNTRYSIDE



Fig.46: Pictures of abandoned cisterns. Source: by Olga Pieritz



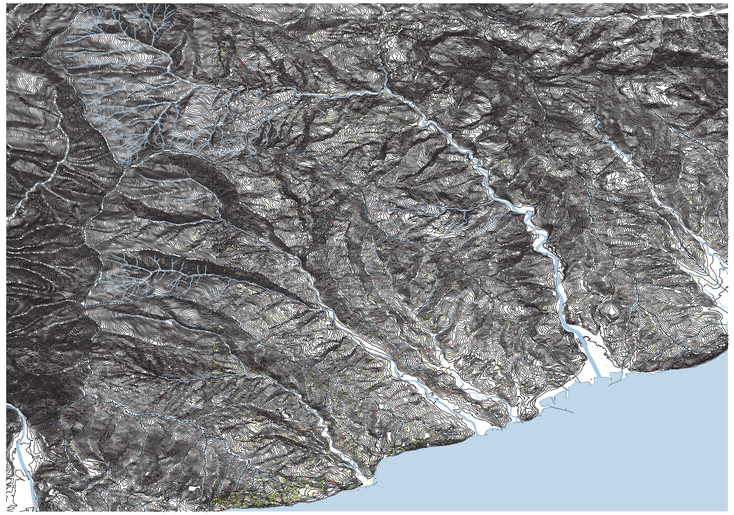


Fig.45: Source: by author with data from Repertorio Cartografico Regione Liguria.
URL: http://geoportale.regione.liguria.it/geoviewer/pages/apps/repertorio/repertorio.html?id=r_liguri:D.1415.2012-12-21 (accessed 02.10.17).

0 2,5 5 7,5 10 Km

water streams
Watershed
Highlines (every 10m)
water cisterns
general water butt
Mediterranean sea

N

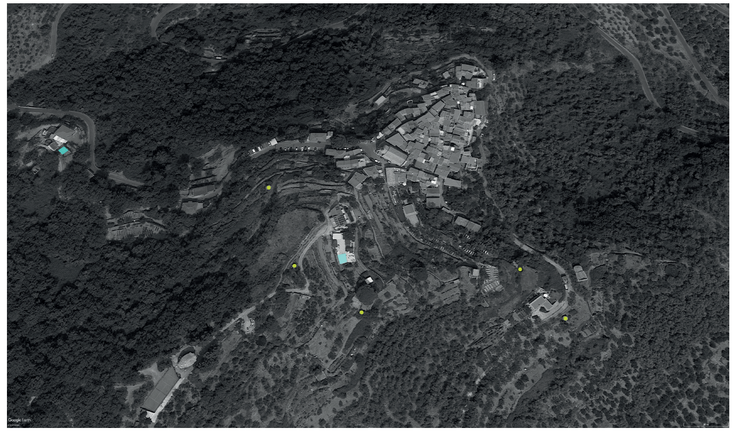
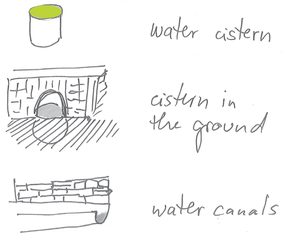


Fig.47: Source: by author with image from Google Earth.
Fig.48: Sketch of different water catchment elements. Source: by author



In the whole countryside, we can find different kinds of water catchment cisterns.

There can be found: cisterns which are derelicts from a past water irrigation systems, cisterns that are under ground and incorporated in a stone wall, cisterns which are closed and others that are open. Not only the form is different but also how the water is caught. Some have their water supply from a close spring (Fig.49) others are filled from a tube which comes from a river with the function to build up water pressure for irrigation purposes.

Many of these cisterns, if they are not near by a spring or to cultivated gardens are abandoned and covered from brambles and other typical spontaneous vegetation. Because of the evaporation, they can be found empty and unused in the landscape. (See Fig. 45, 48).

The still open and with water filled cisterns are often used from helicopters to extinguish occurring fires in dry summer periods or still for irrigation purposes.



Fig.49: Source: by Olga Pieritz



Fig.50: Source: by Olga Pieritz

II

WATER

IRRIGATION PATHS

The vegetation in this two valleys as well as within the region is extremely diverse and rich in species. The close relationship between nature and human activity was since the past always present. The important issue is to maintain this close relation to avoid a production of fragments and unrelated parts within the landscape. Being careful about the edge between new and old is helping to avoid damage.

Making the environment understandable and readable gives a chance to develop relations and attachment to it. This provokes that the environment will be perceived and used differently. But "(...)A central characteristic of complex organism is the existence of interlinked structures that ensure certain stability and enable the permanent flow of energy, material, and information. Many of these structural networks (...) ensure the vitality of the landscape today, as well as its ability to change, grow, and transform. (...)" (Weber and Internationales Doktorandenkolleg Forschungslabor Raum, 2016: 297).

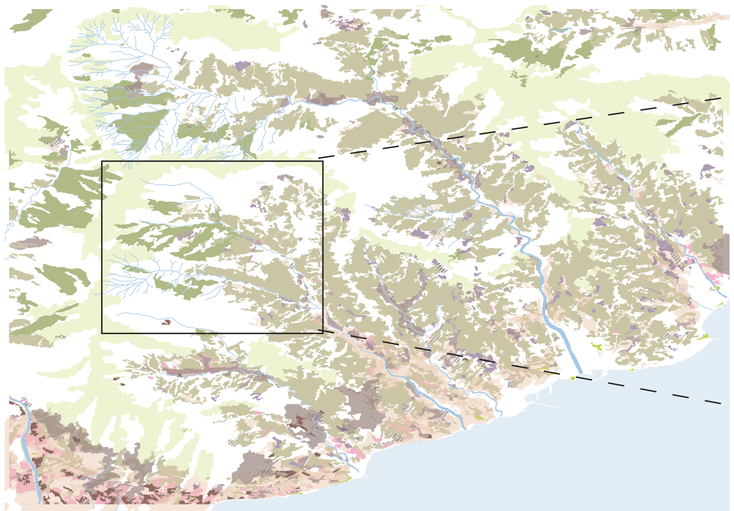


Fig.51: Source: by author with data from Repertorio Cartografico Regione Liguria. URL: http://geoportale.regione.liguria.it/geoviewer/pages/apps/repertorio/repertorio.html?id=r_liguri:D.1415.2012-12-21 (accessed 02.10.17).

0 2,5 5 7,5 10 Km

N

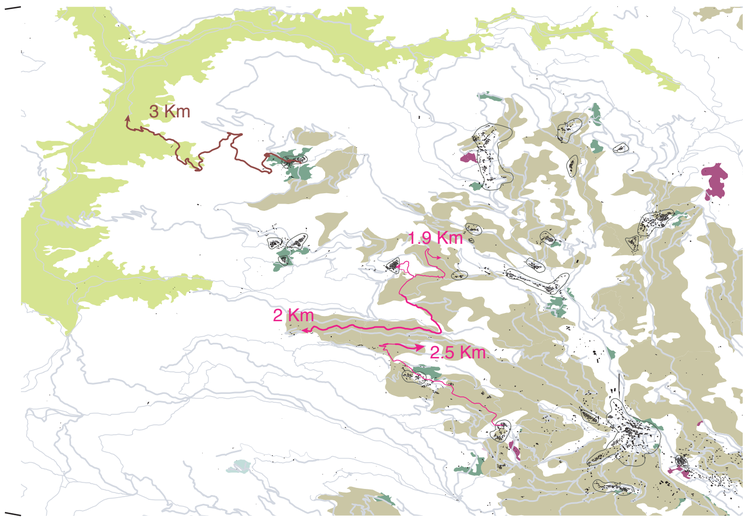


Fig.52: Source: by author with data from interviews and Repertorio Cartografico Regione Liguria. URL: http://geoportale.regione.liguria.it/geoviewer/pages/apps/repertorio/repertorio.html?id=r_liguri:D.1415.2012-12-21 (accessed 02.10.17).

0 1 5 Km

N

farmer's route to his agriculture land
shepherd route to grassland for the animals
roads
natural pasture land and high altitude prateries
olive groves
horticulture land
vine yards

What does it mean being farmer in this territory?
By speaking with different farmers about their agricultural land and about their daily life it came out that a farmer on average has to travel 2 Km to get to their cultivated land.

Moreover, if you ask a farmer what his profession is, he answers: "Vado in campagna" this means I am going into the countryside, or into the land. So, the emphases here is not on the profession but on the verb going.

This steep landscape constrains people to move a lot. Another effect is that it is difficult for a farmer to be efficient in such a territory. People have their land sparse in different parts of the valley. The reason for that is that the inheritance of land is fragmenting the parcels of land a farmer has.

A common phenomenon today is that farmer who wants to be sufficient are renting land of their neighbours if they do not have the time to cultivate it. In this way, they enlarge their number of nearby parcels. Moreover, to get support from the agricultural chamber you need to have a certain amount of land (at least 6ha land or if you cultivate dop products you need 3ha, information is based on the interview). With this policy, Liguria is trying to reduce the phenomenon of parcellation and makes sure that a certain profit can be expected.

II

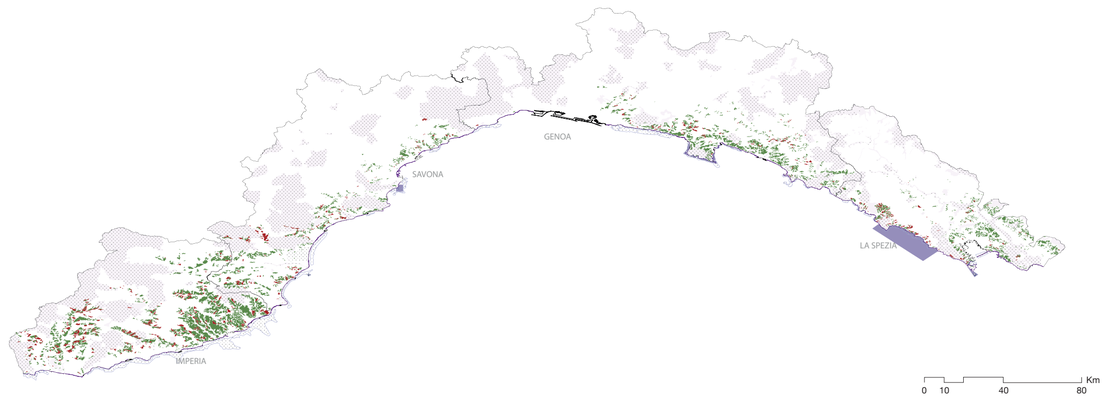
VEGETATION

WOOD LAND



In the region, Liguria over the past years an increase of woodland was recorded. Forest has two sides, one is the positive site of trees, which hold the ground and make land fertile but on the other hand, it can also suppress native plants and become invasive.

Fig.53: Woodland according to the land cover map 2015. Source: by author with data from Repertorio Cartografico Regione Liguria. URL: http://geoportale.regione.liguria.it/geoviewer/pages/apps/repertorio/repertorio.html?id=r_liguri:D.1415.2012-12-21 (accessed 02.10.17).



The region of Liguria has made an important contribution to the European protected Natura 2000 areas. In the territory of Liguria, one can count 125 'Siti di Importanza Comunitaria' (SIC) (99 are terrestrial and 26 are marine) and seven 'Zone di Protezione Speciale'(ZPS).

The difference between SIC zones and ZPS is that the ZPS are territories that are immediately incorporated into the European Natura 2000 network and the SIC zones are zones which are under special surveillance and are evaluated from the EU to be incorporated into the Natura 2000.

The region Liguria has in total 140 000 ha of protected terrestrial areas and around 7 000 ha marine protected sites. (http://www.natura2000liguria.it/sicLiguria.htm, accessed: 20.01.2018).

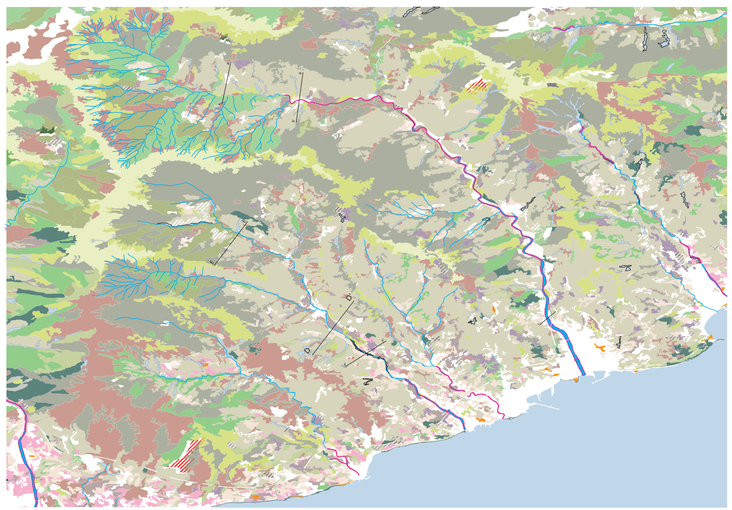
We can also see in Fig.53 how the cultivation of olive trees is distributed in the region. One can see that the province Imperia stands out with its olive cultivation. Moreover, abandoned olive groves are also part of the territory.

Fig.54: Source: by author with data from Repertorio Cartografico Regione Liguria. URL: http://geoportale.regione.liguria.it/geoviewer/pages/apps/repertorio/repertorio.html?id=r_liguri:D.1415.2012-12-21 (accessed 02.10.17).

II

VEGETATION

GENERAL OVERVIEW



CULTIVATED LAND
- vineyard
- vineyards and olive tries mixed
- abandoned vineyards and or other types of permanent crops (not olive groves)
- olive groves
- abandoned olive groves
- stable grassland
- coltural systems and complex parcels
- prevalent agricultural crops with presence of natural spaces
- Horticulture open or in greenhouses or under cover with plastic materials
- Chestnuts
- River basins with abundant vegetation
- River basins with low vegetation

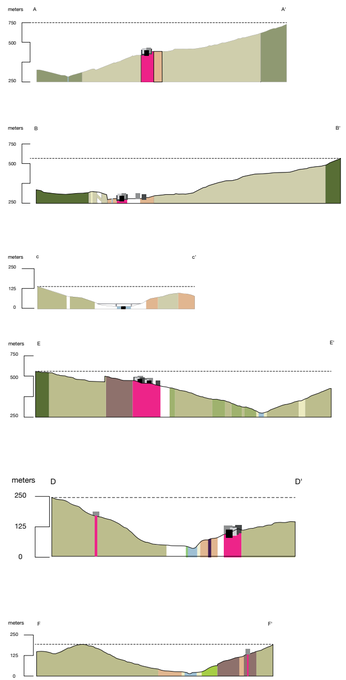
NEW VEGETATION
- Woodland and arbustive vegetation - areas in evolution
- Areas of fire demage
- pioneer and invasive woodland

MACCHIA MEDITERRANEA
- heath land and scrubland
- natural pasture areas and high altitude prateries
- vegetation sclerofille
- xerofile woodland (quercus...) and mixed thermofile woodland
- mesofilo (fagus ...)
- Igrophilous species (waterplants)

CONIFER FOREST
- conifer woodland

Fig.56: Forms of vegetation. Source: by author with data from Repertorio Cartografico Regione Liguria. URL: http://geoportale.regione.liguria.it/geoviewer/pages/apps/repertorio/repertorio.html?id=r_liguri:D.1415.2012-12-21 (accessed 02.10.17).

The vegetation of this two valleys can be described as following:
The cultivated agrarian land is found mostly near to the settlements. They are than followed by the olive groves which are on the southern slopes until around 600m above sea level. The river basins are mostly by reeds plants and spontaneous vegetation.
The northern slopes are mostly covered by overgrown wood land which are often chestnut trees (Castanea sativa) mixed with Beachwood land (Fagus sylvatica). More on the hill the typical 'Macchia Mediterranean' follows. This Macchia is also mostly on the southern and arid slopes. High natural pasture areas and altitude prairies we find on the hill, those are sparsely used from shepherds for their animals and where this is abandoned or not used as pasture land, the Macchia takes over. The soil is mostly based on the prevalence of clay. (Gorziglia et al., n.d., p. 318).



BROADLEAF WOODLAND
OLIVE GROVES
BUILT ENVIRONMENT

XEROFILE WOODLAND (QUERCUS...) AND MIXED THERMOFILE WOOD
OLIVE GROVES
ABANDONED OLIVE GROVES
COLTURAL SYSTEMS AND COMPLEX PARTICLES
REPAIR VEGETATION
BUILT ENVIRONMENT

OLIVE GROVES
COLTURAL SYSTEMS AND COMPLEX PARTICLES
RIVER VEGETATION
WATER

XEROFILE WOODLAND (QUERCUS...) AND MIXED THERMOFILE WOOD
CHESTNUTS
REPAIR VEGETATION
OLIVE GROVES
WOODLAND AND ARBUSTIVE VEGETATION AREAS IN EVOLUTION
PREVALENT AGRICULTURAL CROPS WITH THE PRESENCE OF NATURAL SPACES
WATER
BUILT ENVIRONMENT

PIONEER AND INVASIVE WOODLAND
REPAIR VEGETATION
OLIVE GROVES
COLTURAL SYSTEMS AND COMPLEX PARTICLES
VINEYARDS
WATER
BUILT ENVIRONMENT

REPAIR VEGETATION
OLIVE GROVES
PREVALENT AGRICULTURAL CROPS WITH THE PRESENCE OF NATURAL SPACES
STABLE GRASSLAND
COLTURAL SYSTEMS AND COMPLEX PARTICLES
WATER
BUILT ENVIRONMENT

Fig.57: Sections on different levels of the valleys. Source: by author

II

VEGETATION

AGRICULTURE LAND RELATED TO HUMAN ACTIVITY

Historically both valleys (valley Prino and valley Impero) were cultivated. Horticulture land can be found along the river basins. The villages are elevated and aligned to the south. Occasionally you can also find villages which are established along the river or at important economic corridors.

A single household within a village does not necessarily have its horticulture land next to its house but often as one can see in Fig.58 distant from it. It seems that sometimes the agrarian, fertile land had priority and the villages were placed on spots that were not so opportune for cultivation. The olive tree instead is planted through all the extension of the hill. Often as you can observe in the sections (Fig.56 on page 57) the olive groves are touching the edge of the village. Then horticulture and complex farming parcels start.

Moreover, as the picture shows (Fig.61) the terraces do not end with the cultivated land but they continue to the ridge of the mountain.

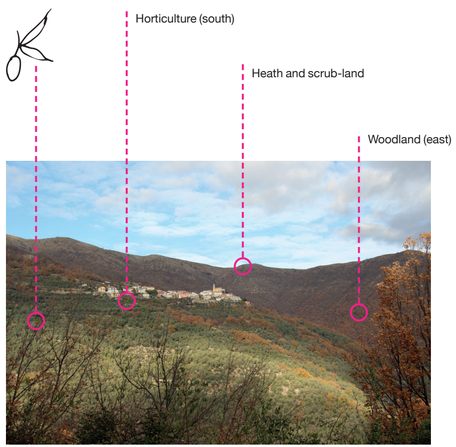


Fig.58: Tavole, valley Prino. Source: by author.

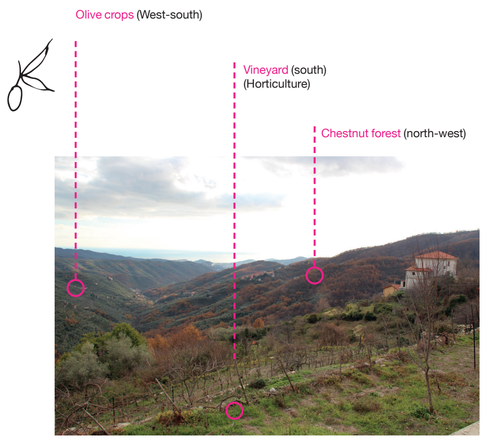


Fig.59: Valley Prino. Source: by author.

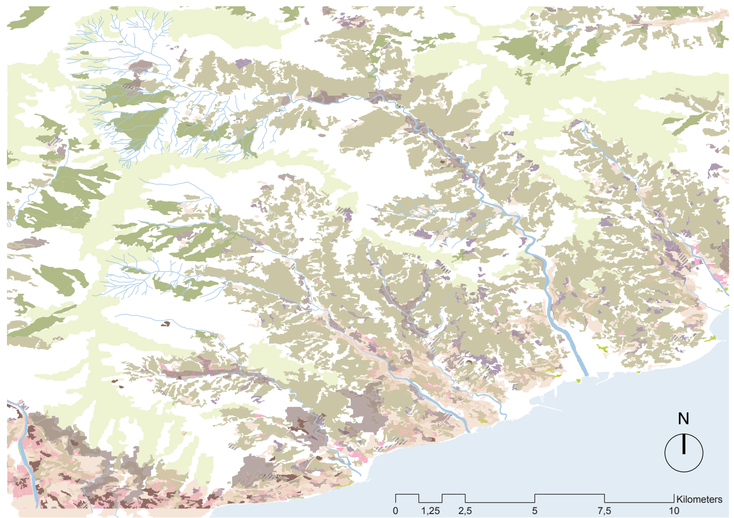


Fig.61: From humans transformed land. Source: by author with data from Repertorio Cartografico Regione Liguria. URL: http://geoportale.regione.liguria.it/geoviewer/pages/apps/repertorio/repertorio.html?id=r_liguri:D.1415.2012-12-21 (accessed 02.10.17).



Fig.62: Source: by Olga Pieritz.

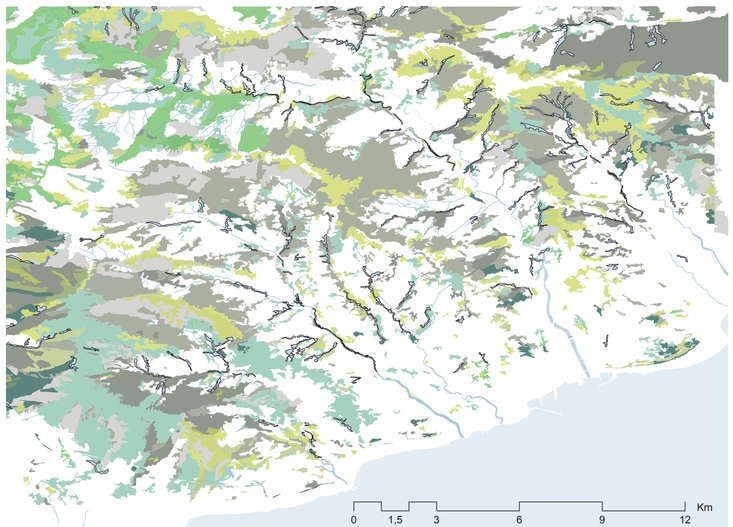


Fig.60: Historical map from 1650-55. In: Gibelli; Rugafiori. Storia d'Italia. Le regioni dall'unità a oggi. La Liguria. 1994: 125.

II

VEGETATION

WOODLAND AND OTHER VEGETATION TYPES



stable grassland

NEW VEGETATION
- Woodland and arbustive vegetation - areas in evolution
- Areas of fire demage
- pioneer and invasive woodland

MACCHIA MEDITERRANEA
- heath land and scrubland
- natural pasture areas and high altitude prateries
- vegetation sclerofille

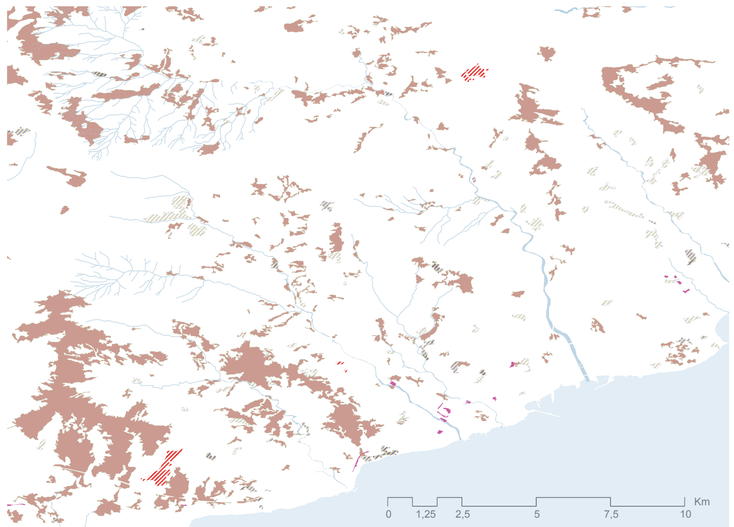
- xerofile woodland (quercus...) and mixed thermofile woodland
- mesofilo (fagus ...)
- Igrophilous species (waterplants)

CONIFER FOREST
- conifer woodland
- mixed woodland

Fig.63: Wood land. Source: by author with data from Repertorio Cartografico Regione Liguria. URL: http://geoportale.regione.liguria.it/geoviewer/pages/apps/repertorio/repertorio.html?id=r_liguri:D.1415.2012-12-21 (accessed 02.10.17).

N

ABANDONED LAND AND SPONTANEOUS VEGETATION



- abandoned vineyards and or other types of permanent crops (not olive groves)
- abandoned olive groves
- Woodland and arbustive vegetation - areas in evolution
- Areas of fire demage
- pioneer and invasive woodland

Fig.64: Wood land. Source: by author with data from Repertorio Cartografico Regione Liguria. URL: http://geoportale.regione.liguria.it/geoviewer/pages/apps/repertorio/repertorio.html?id=r_liguri:D.1415.2012-12-21 (accessed 02.10.17).

N

II

VEGETATION

VEGETATION WITHIN WATER RISK-ZONES

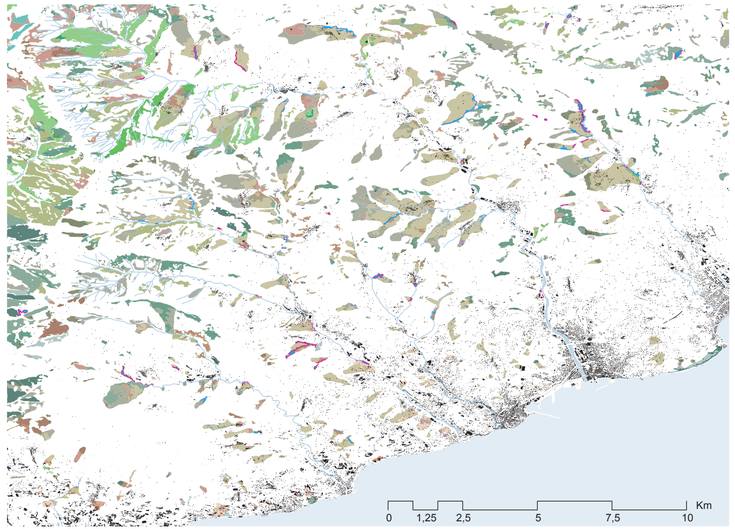
The typical for this region so called 'Macchia Mediterranea' is a stable vegetation that is flowering through the whole year. If this composition of different high plants with different flowering times is not disturbed from human influence it forms a dense regenerating vegetation structure. Not only the amount of different plants but also other factors such as location, inclination, geology and soil structure contribute to make the mosaic of the Mediterranean ambience extremely complex. Typical of this vegetation is the oak tree which was in the period of the second world war extremely cut down to produce coal. Furthermore, chestnuts trees were planted, which originally were not part of the Macchia Mediterranea, for aliment purposes. (Interreg, Alcotra, San Lorenzo. From: http://turismovallesanlorenzo.com/de/natura/vegetazione/, accessed 05.05.2018).

The human influence and the occurring climate change made the vegetation change and adapt. Moreover, the intensive cultivation of olive oil trees creates a monoculture which enhances soil erosion. (Interreg, Alcotra, San Lorenzo. From: http://turismovallesanlorenzo.com/de/natura/vegetazione/, accessed 05.05.2018).

We can find a still quite intact Mediterranean vegetation ambience in the valley of San Lorenzo. This valley is also under protection and under surveillance of the European Natura 2000 network.

Vegetation cultivated or spontaneous is important to avoid landslides. The region itself is characterized by a high erosion factor. Plants are retaining water before it comes to the ground and absorbs water with their roots. This affects a reduction of water run of. Moreover, they are needed for fresh air circulation and especially within valleys they can provide wind corridors which can cool down the coastal urban centres. The urban heat which emerges because of a high percentage of sealed ground can be reduced by parts of open land with wild vegetation and green corridors.

"(...) In towns and cities situated in valleys, it is important to create corridors to allow cool air to flow in from green hills at night. (...) These green-blue structures serve explicitly to buffer water, enhance the quality of the air and lower the air temperature. (...)" (Pötz, 2012: 260-272).



CULTIVATED LAND
- vineyard
- vineyards and olive tries mixed
- abandoned vineyards and or other types of permanent crops (not olive groves)
- olive groves
- abandoned olive groves
- stable grassland
- coltural systems and complex parcels
- prevalent agricultural crops with presence of natural spaces
- Horticulture open or in greenhouses or under cover with plastic materials
- Chestnuts
- River basins with abundant vegetation
- River basins with low vegetation

NEW VEGETATION
- Woodland and arbustive vegetation - areas in evolution
- Areas of fire demage
- pioneer and invasive woodland

MACCHIA MEDITERRANEA
- heath land and scrubland
- natural pasture areas and high altitude prateries
- vegetation sclerofille
- xerofile woodland (quercus...) and mixed thermofile woodland
- mesofilo (fagus ...)
- Igrophilous species (waterplants)

CONIFER FOREST
- conifer woodland

Fig.65: Vegetation in landslide zones. Source: by author with data from Repertorio Cartografico Regione Liguria. URL: http://geoportale.regione.liguria.it/geoviewer/pages/apps/repertorio/repertorio.html?id=r_liguri:D.1415.2012-12-21 (accessed 02.10.17).

II

MOBILITY

ROADS AND THEIR DESTINATION

In the region Liguria, we have three main connections towards Torino and Milano, the economic triangle. The main infrastructure concentrates at the coast. (Fig.68).
The private transport is quite high in the region of Liguria. (See modal split of Genoa and Savona, Fig. 66-67). A possible answer for the high percentage of car usage is the topography. People are quicker and more independent with the use of their own car. The bus has a low frequency within the countryside. Furthermore, one has to change several times and has to wait for the coincidence of the other bus which goes to the remote villages. Moreover, a bus which comes from the congested coast is often in delay which causes additional waiting time for the bus which comes from the countryside.
The region itself tries to introduce the bike as an alternative mode of transport. This is only partly doable because of the steepness of the valleys. Maybe the introduction of e-bikes could solve the problem of the slope.

Roads in this region Liguria are managed on different levels and have different authorities. There are roads which are in the competence of private company, like the highway which is managed by Anas S.p.A. Additionally, there are roads managed by the nation, the province and roads which are managed by the Municipalities. And on the small scale if we see at the hiking paths they are in the competence of the Municipality or sometimes also from private associations or they lie half within private and half within public competence.

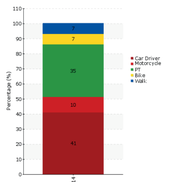


Fig.66: Modal split Savona. Retrieved from: TEMS - The EPOMM Modal Split Tool.

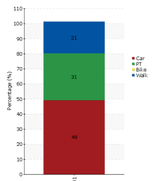


Fig.67: Modal split Genova. Retrieved from: TEMS - The EPOMM Modal Split Tool.

The bus stop. Without any protection to the road, just a small bus stop sign indicates the stop.

A white line indicates the two lane street.

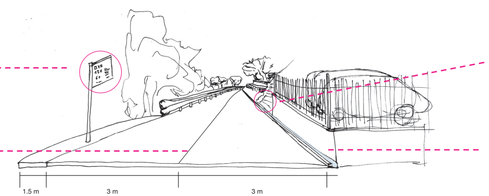
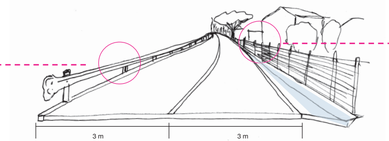


Fig.68: Primary roads. Source: by author

Massive crash barrier defines the space of the street and makes sure no car is ending up in the river.



The edge between the historical path and the primary road. Edge crumbles because of abandoned agriculture land above the street. The edge condition between old and new, between different functions.

Rigid concrete wall which separates the street from the parking lot. Edge is clear and sharp. Gully in between of approximately 40 cm.

Houses are facing the street, only a wooden fence is separating the residential houses from the street.

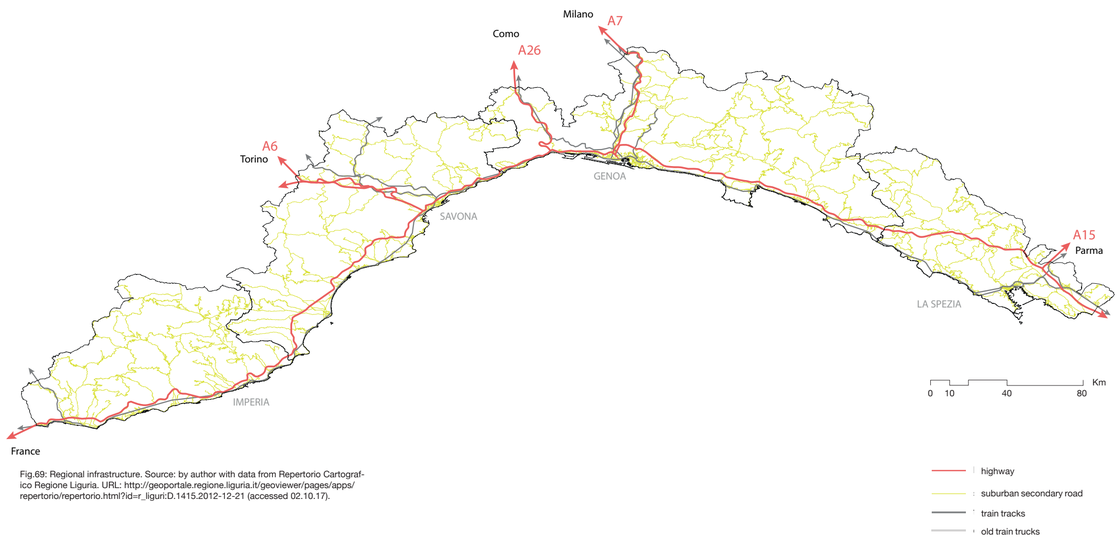


Fig.69: Regional infrastructure. Source: by author with data from Repertorio Cartografico Regione Liguria. URL: http://geoportale.regione.liguria.it/geoviewer/pages/apps/repertorio/repertorio.html?id=r_liguri:D.1415.2012-12-21 (accessed 02.10.17).

II

MOBILITY

ROAD CONNECTIONS

The main problems we have regarding infrastructure is the congestion at the coast. These traffic congestions are mainly within rush-hours. When people from the countryside go to the coast for work and vice-versa when people from their working space in the urban centres go back home in the countryside. Not only congestions are a problem at the coast but also parking issues are mentioned from the inhabitants.

At the coast by offering different transportation modes, like separate bike lanes, a transport hub where people can change into the public transport mode we could decrease congested urban centres. Moreover, we could make sure that the public transport has priority within the modes and therefore it is more useful for the inhabitants to switch to public transport within the urban centres.

Fig.69 shows how the road systems expand into the countryside in a linear and vernacular way. Each village and house is reached by a road. Furthermore, one can see that in the past there were much more connections between the villages. Going on food in the past was much common and it was also easier to make direct connections. Today we can often see that parallel to the roads we have often an ancient path.

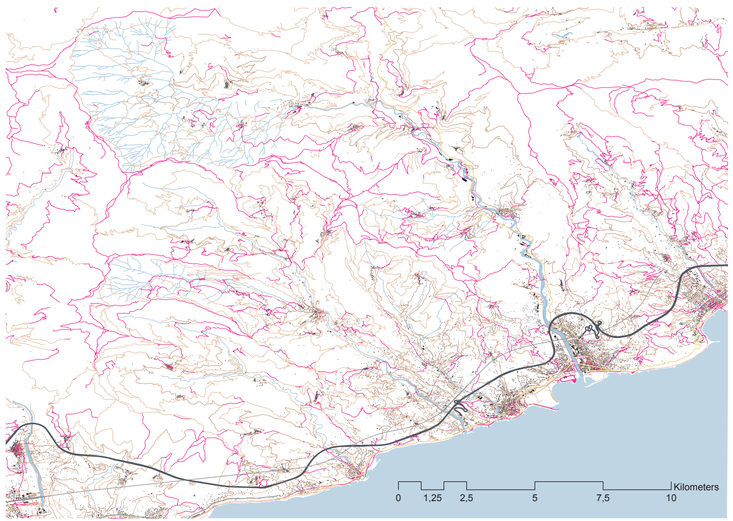
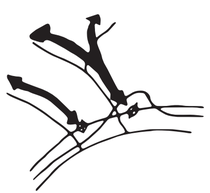


Fig.70: Infrastructure. Source: by author with data from Repertorio Cartografico Regione Liguria. URL: http://geoportale.regione.liguria.it/geoviewer/pages/apps/repertorio/repertorio.html?id=r_liguri:D.1415.2012-12-21 (accessed 02.10.17).
Fig.71: Sketch of main movement of people. Source: by author.



Public transport in rural areas is often quite difficult to afford. We have fewer people which make a high bus frequency less convenient. Here we have the balancing act of demand and supply.
In the chosen two valleys, the public transport is regulated by bus. Imperia has one train station which was realized in 2016. Before this single train station, the urban centre Porto Maurizio and the urban centre Oneglia had an own train station. The train line was at the coast. The current line is now within the suburban area of Oneglia which make the accessibility for the people of Porto Maurizio a bit more complicated.

A possibility for rural areas would be to make more use of sharing and of private arranged transport.
In urban centres, we need to give public transport the priority especially at traffic lights. This could cause less delay from the public transport which comes from the urban centres.



Fig.73: Former train line at the coast. Source: by author.



Fig.74: New train line within Oneglia. Source: by author.

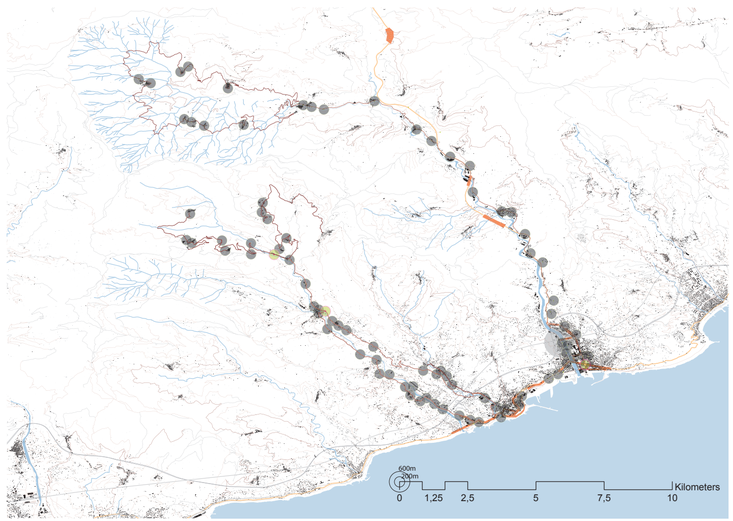


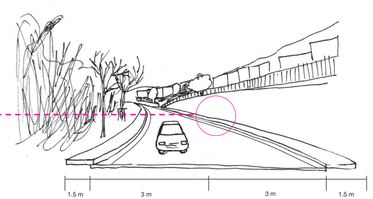
Fig.72: Public transport and main congestion areas. Source: by author with data from Riviera Trasporti and from Repertorio Cartografico Regione Liguria. URL: http://geoportale.regione.liguria.it/geoviewer/pages/apps/repertorio/repertorio.html?id=r_liguri:D.1415.2012-12-21 (accessed 02.10.17).

II

MOBILITY

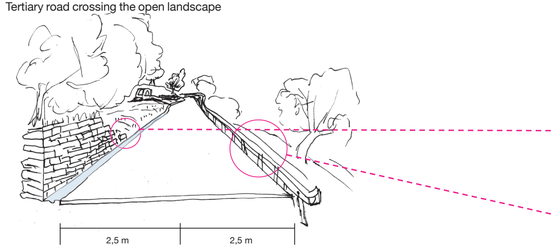
ROADS

Secondary road



The edge. Rigid concrete wall separates the sidewalk appear unfriendly and monotonous.
Two lane street without markings on the road.

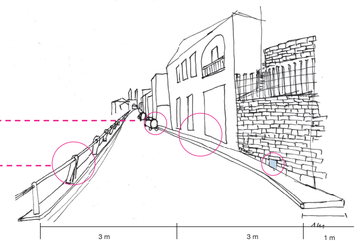
Tertiary road crossing the open landscape



Non-rigid edge between maintained agriculture land and maintained. By huge rainfalls this edge could become to a landslide risk and fall on the street.

Crash barrier defines the end of the road and makes sure that no car ends up into the terraces.

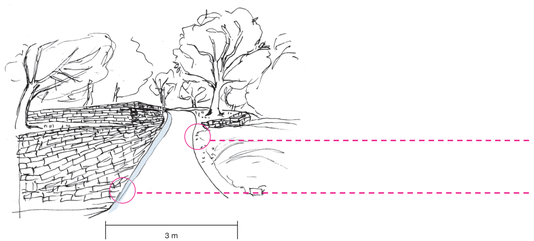
Tertiary road crossing a village



Parked cars make the two lanes large street narrow to a one lane road. This is typical for a tertiary road.

Decent crash barrier defines the space of the street and makes sure no car is ending into the river.

Foot path through cultivated olive groves



The edge. The edge condition between old and new, between cultivated and abandoned.

Water drainage at the edge of the intact terrace.

Fig.75: Road border conditions and current water drainage. Source: by author.

All maps on the right are based on Data from: Repertorio Cartografico Regione Liguria. URL: http://geoportale.regione.liguria.it/geoviewer/pages/apps/repertorio/repertorio.html?id=r_liguri:D.1415.2012-12-21 (accessed 20.10.2017).

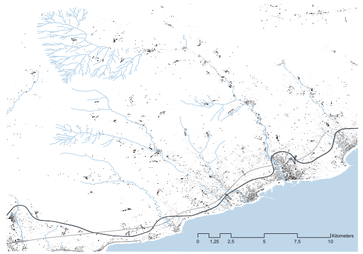


Fig.78: Highway and train line. Source: by author

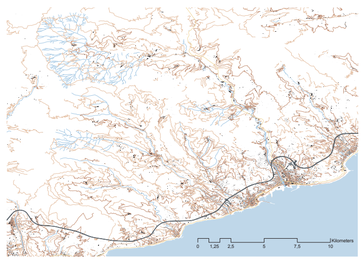


Fig.79: Primary and secondary roads. Source: by author.



Fig.77: Highway crossing the landscape. Source: by author.



Fig.80: Primary, secondary and tertiary roads. Source: by author.

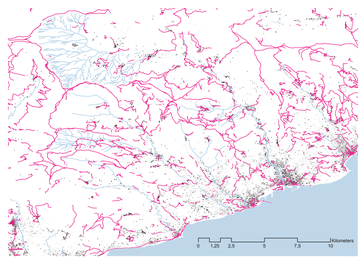


Fig.81: Food paths. Source: by author.



Fig.76: Trainline in front and highway back. Source: by author.

II

SOCIETY

SAMPLE OF THE PRESENT POPULATION

Within this project, there were made 33 interviews with different stakeholders. This thesis tried to cover people from different planning authorities, different scales as well as different inhabitants from both valleys and with different backgrounds and professions. Additional the author tried to ask questions which covered all three categories.

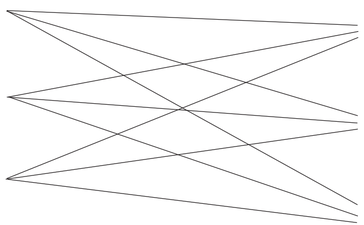
- The environment
- The economy
- The society - the social life

CATEGORIES FOR SURVEY

ENVIRONMENT

ECONOMY

SOCIETY



INTERVIEWED PEOPLE

Professionals
practice (privat, public)
academia

Local stakeholders
ConfIndustria
Industries

Inhabitants
People of the valleys

SOCIETY - ECONOMY

When talking with people about the valley in which they live and about their work brought to some interesting insights how the territory is perceived in terms of economy.

Question that was asked to inhabitants regarding the economy were:
1. What do you like most about your profession?
2. What did you observe in the last 3-5-10 years?
3. What trend can you observe?
4. How did your village change? How did your way of working change?
5. Where do you see yourself in 10/20 years?
6. Or things you think we use them differently
7. Do you want to stay?
8. a.) If yes, what makes you stay?
9. b.) If not, where would you like to go?
10. How do you see the city Imperia? What relations do you have to it? When e.g. do you go to the city? Why? How?
11. What are your ideas about the occurring emptiness?
12. How does vacancy affect your daily life?
13. Does it influence your work?

To local stakeholders from an industry following questions were asked:
1. How do you see your firm embedded in the region?
2. Why did you choose this location for your business?
3. Is your location relevant to your production? On what are you dependent?
4. What is your contribution to this region? Valley?
5. How many employees do you have? And where do they live mostly? Are they living close by or are they traveling from far away?
6. Where do you deliver to? What is the radius of your customers?
7. Do you cooperate with other firms in this region?
8. What do you use most to sell your products? (Internet, car, face to face contact, railway …)
9. How do you advertise your firm?
10. Did your clients change over time?
11. Where do you see your firm in 20 | 50 years?

And to 'ConfIndustria' (Italian employers' confederation) of the province Imperia:

1. What are recent projects that are taking place in the province of Imperia? Or in the region?
2. How do you see the relationship between economy, society, and landscape?
3. How do you see the economic situation? Which trend do you observe?
4. How do you see the relationship coasts and hinterland?

Speaking to main stakeholders and inhabitants showed me how different the perception in those to valleys are. People from the valley Prino were mentioning the loss of people and about how the countryside lost its qualities. The abandonment of land and with its aging society makes the land poor. That leads to that if someone wants to start something he or she must start from zero which makes it much more difficult. The countryside loses its point where someone could start a new business or ideas.

"The products which one retained had more value (...) Once the villages were carriers of products, today the cities are bringing, delivering the products. (...)" (Mauro, 65 retired).

"Now it's the pensioners who make countryside to an income, the young people move out and work especially in the public apparatus of the urban centres (...)" (Albertina, Dario, self-employed).

In the valley Impero instead, the inhabitants were not experiencing loss or abandonment but instead growth and seeing young people moving towards the villages and restructuring houses. One reason for this, that was mentioned, was the still low property prices in the countryside. Moreover, I figured out that only data about shrinkage can differ from the actual perceived image. As one interviewed person told me it depends from place to place how the situation is. Often there are many residents and sometimes places seem inhabited but that is only in the summer when the tourist is there and in the winter the villages seem empty.

"(...) On the one hand, the villages are repopulated by those looking for a lower rent compared to coastal countries, by reviving and retraining moderately. On the other hand, especially for the historical centres, the interest from central and northern Europeans continues to restore properties and re-qualify them, maintaining their identity. The two things seem to be joined in the possible trigger of a virtuous circle. We have noticed it above all in Borgomaro and Lucinasco. (...)" (Nicola, Sonia, farmer, and employer).

"(...) It depends on the place, where I live there are many holiday homes and the country is almost completely inhabited (not abandoned), there are villages where it is worse with many abandoned houses, so it depends on the place where you are. (...)" (Daniele, engineer).

Asking about the urban centre Imperia to see how the rural is related to it the messages were different. People also told me the city Imperia is a provincial town, not an urban centre which made me reflect and I understood that in the facilities it offers it cannot be called really an urban place.

"The economy in Imperia is more seasonal, as the demand for products." (Alberti, Imperia).

Moreover, a lack of connection between the municipality and traditional industries was claimed by an entrepreneur with a traditional family based Milk packaging industry in the valley of Impero. The person referred that they do not get any support from the Municipality even though they are a traditional company from this valley.

"The municipality in this does not help and gives no support for us." (Alberti, Imperia).

The inhabitants perceived the city Imperia as a collector, as a place to which the whole life is connected to and not as an urban centre but as a defect of the countryside.

"(...) The city Imperia is a collector. Shop for groceries, meet friends, eat out. Here and there are also some activities that offer products from the hinterland. As if it were a small commercial outlet. (...)" (Nicola, Sonia, farmer - self-employed and employer).

"The city Imperia is the defect of the countryside - it's provincial and has not developed the services of a city (...)" (Albertina, Dario, self-employed).

"(...) Imperia does not exist, it only exists Porto Maurizio and Oneglia, two completely different cities which were unified (...)" (Magliani, author, and inhabitant).

"(...) All my life remains concentrated on the city Imperia (...) I am doing every morning 15min traveling to go to work by car. (...)" (Riccardo, teacher).

"(...) Imperia has lost the characteristics of a country and has never had the characteristics of a city. The few which could characterize it as urban, it had lost them over the years: Theatre, Multipurpose hall, for years the Naval Museum was closed (...)" (Natalino, farmer).

II

SOCIETY

ENVIRONMENT

The main message asking professionals, local stakeholders, and inhabitants about the environment was the landscape itself with its unique products. Moreover, people mentioned the silence and the still intact form of the villages as an important characteristic from the valley Prino. In many interviews, it has often been mentioned that unique products and the special environment are not really used as marketing in the production. Additionally, the difficulty of the territory was mentioned as a hazard for new entrepreneurs and young people to start something new.

A small excerpt from the transcribed interviews:

Professionals
practice (private, public)

"(…) The most damaged part of the land is mostly those which have recently been abandoned (…) you need to know where and how the consequences of those phenomena appear (…)" (Dino B., Anna K.).

"(…) Now, we are working on a project which focuses on the invasive woodland in Liguria of the recent years. In this case, we are searching for how this happens and why (…)" (Dino B., Anna K.).

"(...)Many villages were born within the Roman colonization. (...)" (Anna K.).

"(...)On the topic water and on the topic street there could be done a research and a whole research (...)" (Sonia Z., province Imperia).

"(...) The villages were built where the ground was not fertile (...)" (Mayor Prelà).

academia
"(…) There is no valorization of the environment." (Bobbio, Architect Genova).

Local stakeholders
ConfIndustria
industries

"(…) The industries should try to bind their products more to the territory(...)" (Paolo D.P., ConfIndustria).

Inhabitants (people of the valleys)

"To be more linked to the territory means to know the history of the territory. (...) Today, on one hand, you valorise the territory and on the other hand, you exploit it. (…) As we have not taken care of the territory, now we have nothing. If a person wants to start a farm he has to start from scratch which is in our environment much more difficult as in a flat land (...)" (Mauro, 65 retired).
"The stone houses are a charm and especially the valley of the river Prino is harmonic, still original. In this valley, the villages are still compact units and are not immersed in the sprawl of new houses." (Albertina, Dario, self-employed).

"We are fascinated by the peculiarities that make it different from any other: the steep terrain and transformed by man; being between the mountain and the sea; the mild climate; being little known, often by its own inhabitants; not yet having been completely discovered by tourists (inland); the crops. We are proud that every single, small village has its own festivals and traditions, often based on traditions of remote origins." (Nicola, Sonia).

"The origin makes us effectively related to the territory, but bound to a single village." (Nicola, Sonia).

"(...)I do not consider myself as an inhabitant of the valley. I do not have any relationship to this place, only sentimentally and aesthetically (...) I love the stone which when it is broken is dark and with time, in the sun, it takes the colour of baked bread. I love the olive trees and the harsh smells of the countryside - figs, brambles, thyme - but I live them as a tourist could live them. From a cultural point of view, then, I write books that have at the centre of Sanremo and its cosmopolitan, corrupt and worldly environment." (Riccardo, teacher Imperia).

"I like the tranquillity of living in the valley Prino (...)" (Alex, 27, self-employed).

"(...) I am proud of the 'cathedrals of the olive trees' as Boine called them. The bones of the dry-stone walls, which are collapsing at the moment. (...)" (Marino, writer).

"(...)I like the built environment that is connected to agriculture(...) These areas, although it might miss the cultural lifelines, is still really beautiful with its climate and happily not that industrialized." (Pierangela, farmer).

SOCIAL LIFE

When talking with people about their lives and their thoughts about their village and valley different insights were given. From a young farmer, who complained about the bureaucracy which adds load on his shoulders as farmer. To the changed values within our society. The talk and exchange between me and the interviewed people was covering many topics, elements to which I did not had such a detailed insight before.

The village seemed to have changed its function. The village, according to an interview, was like a big family. Today they claim it is more used as a sleeping place and every inhabitant does its own business in it. The silence is appreciated and wanted from the inhabitants but for newcomers it seems one of the difficult elements they have to cope with.

Small excerpt from the transcribed interviews:

Professionals
practice (private, public)

"(…) The problem is that the SAO (specialized part on agriculture) tends to fractionize. (…) In Liguria, the size of an agriculture farm arrived to a 3000 m2 - this size is the size until which a company could handle its specialization in agriculture and could live with its income. (.) At the coast the residential pressure and tourism economy took over and had repressed agriculture land. This was the economic boom of the 60s and 70s (...) There has been a huge cementation (...)" (Dino B., Anna K., region).

"(...) In history the personal, individual costs were not quantified. The life of a human being and the human force of building a house e.g. had a higher value because the value of the house was given to their children. Moreover, in Liguria, they did not have other options. (...)" (Anna K., region).

"(...) The inhabitants are all at the coast (...) the car has always been the preferred transportation medium." (Sonia Z., Province Imperia).

"(...) Once one who had a piece of land was in good conditions, well (...) There is no future if we forget about the past. We need to remember the identity of a place and the values which have been grounded, which were the human relationships and the different festivities (...)" (Mayor Dolcedo).

"(...) Every village has its own programs and festivities (...) favouring the need of the elderly, the social interconnection is important in those abandoned villages (...) the extinguished lights in the villages remind me of shrinkage(..)" (Mayor Prelà).

academia

"(…) The coast was a place especially for woman, it was a place that gave them a work opportunity and which emancipated them (1950) The countryside instead was rougher and more populated from the men. (...) The population is such aging that the region is dependent on immigration(...)" (Palumbo, social studies university Genova).

"(...) In Liguria one can live well, the climate is good and the countryside you still pay less for the ground. (...)" (Bobbio, Architect).

Local stakeholders
ConfIndustria
industries

"(...) At the moment the utility creates the service, so the need creates the service. But in my opinion, the need should come after the service and not the other way around." (Paolo Della Pietra, ConfIndustria).
"(...)The consumption of milk is falling, because there are many substitutes and consumption is fashionable." (Alberti, Industry, valley Impero, Imperia).

Inhabitants (people of the valleys)

"(…) The village Valloria in the last years had experienced a depopulation but it had also a revaluation of the territory. (…) I would live here my whole life. The beautiful thing to live in a village is the confidence and I love the tranquillity that you have in it. (...) Today we do not have anymore the necessity to help ... but within one valley you still help if there is a need. (...)To live and to work became so difficult, that everything you do becomes a tragedy. (...) There is no system with which things could become easier or better (...) The bureaucracy gets more and more complex and difficult to understand. (...) As a farmer, you do not have that time to spend with bureaucracy (...)" (Roberto, 34 years, farmer).

"(...) There are no confidence forces (...) only frustrating experiences." (Camilla T., architect).

"We got a lot of trust and support from the inhabitants (...) Many people were participating in our project SWITCH, the reuse of old buildings". (...)Human resources in our time are difficult to get (...) we need to take human capital into account. (...)" (Progetto SWITCH Imperia, architects).

"(...) The relation between people within the village was different (...) The village was experienced like a big family (...) One day every door was open (...) if someone needed help everyone helped each other without judging (...) But people were categorized on their behaviour (...) Today everyone has more wealth but the relationship is lost. (...)" (Mauro, 65 retired).

"We have a transversal society in the village (...) Once the community stood on a social dependency. (...)People no longer know silence, for them silence means loneliness. But silence is part of a village and of the countryside (...) People have a need for guidance (...) school does not help autonomy and then there has not been a renewal in the school education." (Albertina, Dario, self-employed).

"(...)The thing I am proud of is that many young people continue the tradition of the Ligurian dialect." (Alex,27, gas station, self-employed).
"(...)The villages became commuter towns. The village became the house of others. (...)" (Marino, writer).

"(...)I like the solitude that you can find (...) The silence of the winter days." (Pierangela, farmer).

"(...) I like the minimalistic history or the story of the people who made this place(...)The village became again to be more populated but as a commuting town. (...) I have never thought to live somewhere else. (...)" (Natalino, farmer).

"(...) To help each other reciprocally is been lost, one of the many reasons is the high amount of bureaucracy that we have. (...)" (Pierangela, farmer).

"(...) In the valley today there are young people which are not from this valley, who start working in the agriculture sector. The community accepts them but there is still the fear of the foreigner. the other" (Pierangela and Natalino, farmers).

"(...) I travel normally at least once a week to Imperia. I just go there for necessaries like basic needs or for bureaucratic things. I move with the car. (...)The young generation is missing in those valleys. The ongoing abandonment is not only affecting the villages but also the people who live there. They feel to be eradicated, without roots. Without culture and knowledge." (Pierangela, farmer).

"(...) The young generation cannot anymore afford houses in the countryside because the prizes are getting higher also in the countryside." (Natalino, farmer).

II

SOCIETY

AGING AND UNEMPLOYMENT

Liguria has the highest population decline with -15.3% between 1971 and 2011 of the whole inner areas of Italy, especially the peripheral areas suffered with -41.4% the most as UVAL-UVER processed from ISTAT (see Fig.82. Table III.2 from: UVAL Issue 31 2014: 27), which could be the response of the de-industrialization process that occurred in this region. High population change and restructuring, especially in the countryside, took place (Fig.81). In the countryside are some areas which can be notated with a negative population exchange (Fig.82, ISTAT 2012), which means that depopulation took place. Moreover, the province Imperia has in Liguria the lowest (817,000 people) occupation rate but the highest rate of occupation in agriculture with 63,000. Dis-occupation rate is with 13,8% in 2014 and the highest disoccupation rate within Liguria (L'agricultura nella Liguria in cifre. CREA 2014:18). (Fig.85).
Figure 81 gives us also a prediction for the year 2030 which shows clearly a continuation of strong greying society. One reason for this phenomenon could be that the region Liguria is within the Mediterranean 'sun-belt' zone. The temperate climate and the closeness to the sea make the region still attractive for retired people.

AGING SOCIETY

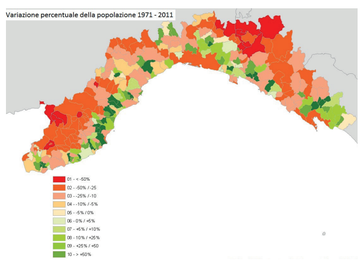


Fig.83: Source: Mappe e tabelle relative alla classificazione Aree Interne 2012. Retrieved from: http://www.agenziacoesione.gov.it/it/arint/Cosa_sono/t; retrieved 29.09.2017

SITUATION 2005 PREDICTIONS FOR 2030

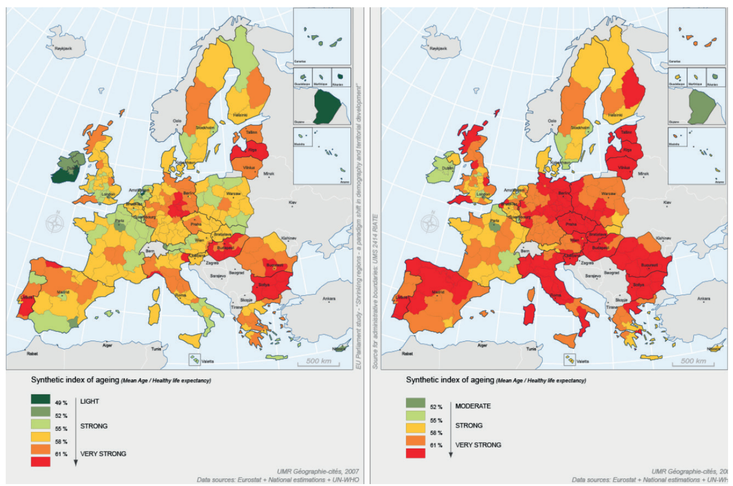


Fig.82: Indicator for sustainable demographic development in the European regions. Source: Shrinking regions : a paradigm shift in demography and territorial development - Think Tank [WWW Document], n.d. URL http://www.europarl.europa.eu/thinktank/en/document.html?reference=IPOL-REGI_ET(2008)408928 (accessed 31.10. 2017).

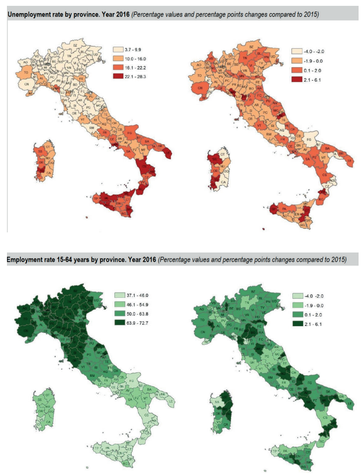


Fig.86: Unemployment and Employment compared 2015-2016. Source: Istat, 10th March 2017. Labor market. An integrated picture: Fourth quarter of 2016. URL: http://www.istat.it/en/files/2017/03/EN_labour_market_final_short_final_Q4-1.pdf?title=Labour+market+-+10+Mar+2017+-+Full+text+and+methodological+note.pdf (accessed 16.03.2018).

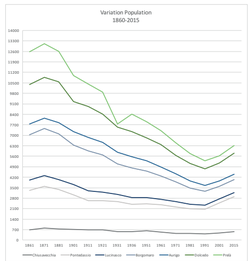


Fig.87: Population development of the different municipalities of the two valleys in the province of Imperia from 1861 to 2015. Source: made by author from Data of Comuni Italiani. URL: http://www.comuni-italiani.it/008/012/statistiche/popolazione.html, retrieved 20.12.2017



Fig.85: Abandoned house in Village. Source: by author

Table III.2 - Demographic trends in the Inner Areas within Regions

	Population variation – percentage difference 1971 – 2011						
	Inter-municipal						
	Hub	Hub	Outlying	Intermediate	Peripheral	Ultra peripheral	Total
Piedmont	-18	19.3	18.5	-2.5	-27.6	-41	**-1.5**
Valle d'Aosta	-7.6	-	46.3	7	18.1	-	**16.2**
Lombardy	-17.1	10.3	39.4	8.2	4.5	-1.4	**13.6**
Trentino Alto Adige	9.7	-	42.4	24.3	15.9	13.9	**22.3**
Veneto	-7.7	31.2	38.6	15.9	11.3	-33.3	**17.8**
Friuli Venezia Giulia	-13.7	-	19.4	-5	-35.5	-	**0.4**
Liguria	-24.9	-5.8	4.3	-1	-41.4	-34.3	**-15.3**
Emilia Romagna	-0.2	24.5	35.5	14.9	-8.5	-52	**12.4**
Tuscany	-4.3	15.6	24	-1	-15.6	6.6	**5.7**
Umbria	13.3	9.5	32.1	7.9	5.2	-	**14**
Marches	5.9	15.2	37	-2.3	-7.5	-	**14.8**
Lazio	-1	36.2	67.7	59.1	11.2	-27.4	**17.3**
Abruzzo	6.9	42.5	42.5	-2.5	-23.9	-42.8	**12.1**
Molise	44.8	-	17.1	-18.3	-34.7	-46.9	**-1.9**
Campania	-10.6	38.3	45	3.7	-16.6	10.5	**14**
Apulia	3.1	15.3	26.7	17	-1.5	-9.5	**13.1**
Basilicata	25.2	-	57.6	1.9	-10.1	-22.1	**-4.2**
Calebria	2.5	8.6	17.2	-1.7	-18.2	-10.6	**-1.5**
Sicily	-2.7	5.6	63.2	7.3	-8.1	-21.1	**6.9**
Sardinia	-10.9	-	81.5	11.3	-4.5	13.9	**11.3**
North West	-18.7	9.1	31.4	2.9	-4.6	-4.8	**5.5**
North East	-4	26.1	35.2	15	2.1	2.6	**14**
Central	-0.5	20.8	37.4	29.3	-1.8	5.1	**12.8**
South	-1.6	33.2	35.9	5.1	-14.9	-10.5	**9.9**
Islands	-4.3	5.6	67.7	8.1	-7.1	-1.7	**7.9**
Italy	**-6.8**	**22.7**	**35.8**	**11.6**	**-8.1**	**-5.3**	**9.8**

Source: ISTAT data processed by UVAL-UVER – Population census 1971 and 2011

Fig.84: Source: UVAL Issue 31, Aree interne. A strategy for inner areas in Italy: Definition, objectives, tools and governance 2014: 27.

II

ECONOMY

REGIONAL SCALE

Liguria is characterised by small and medium sized economies. (The European House – Ambrosetti. Liguria 2022, 2017: 116f).
In the region of Liguria companies linked to the economy of the sea are compared to the other sectors in Liguria and compared to other Italian regions the highest (Business Journal Liguria, May 2018). The blue economy is the highest income within Liguria at the moment. In the last quarter of 2017, the food industry and high tech industry were showing a positive increase (Banca d'Italia: Economie regionali. L'economia della Liguria.Aggiornamento congiunturale, November 2017).
Moreover, as one can see from the map on the following page, one can see that the territory is still full of greenhouses which are derelicts of a former economy. Furthermore, quarries are in the territory which are reused for industrial and agriculture purposes or transformed into residential areas or even abandoned and reconquered from nature.

The economy of Liguria has always had a very close link with its territory. On the one hand, it has bound the productive activities to cohabit with the steep slopes behind the mountains and on the other hand its economic horizons opened to the prospects of the sea connections. (The European House – Ambrosetti. Liguria 2022, 2017: 118). High-tech industry, ship-building industry and logistics are seen as the futuristic main manufacturing prospects for the future in Liguria. (The European House – Ambrosetti. Liguria 2022, 2017: 118).

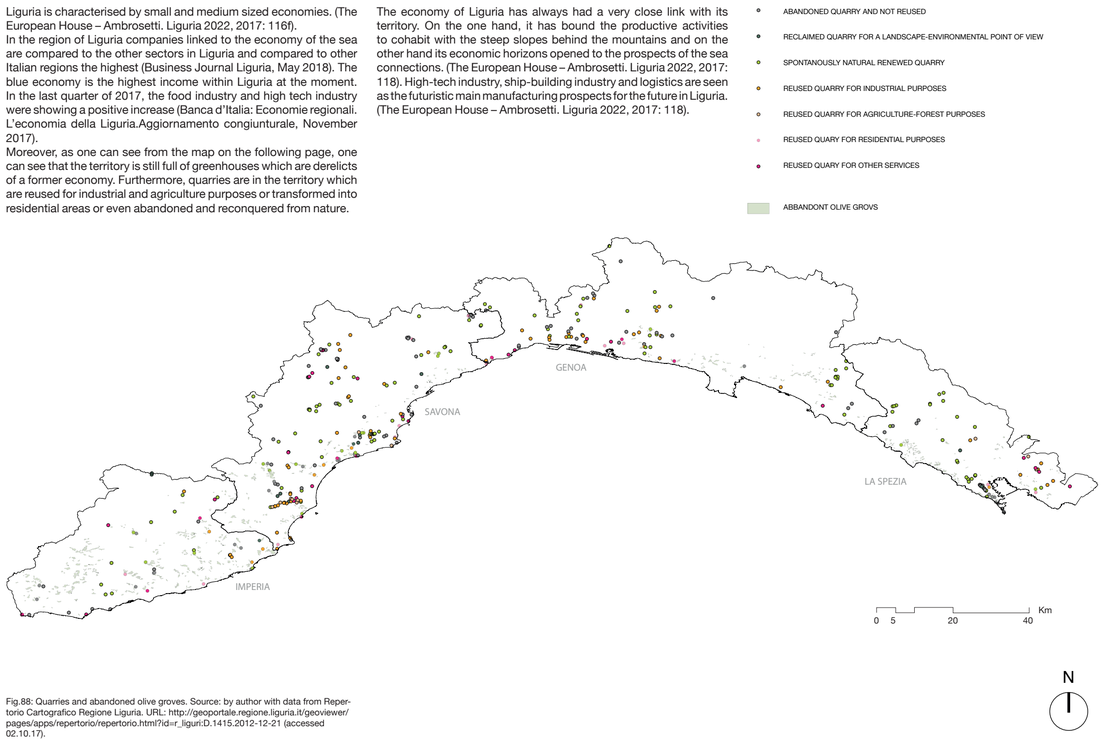


Fig.88: Quarries and abandoned olive groves. Source: by author with data from Repertorio Cartografico Regione Liguria. URL: http://geoportale.regione.liguria.it/geoviewer/pages/apps/repertorio/repertorio.html?id=r_liguri:D.1415.2012-12-21 (accessed 02.10.17).

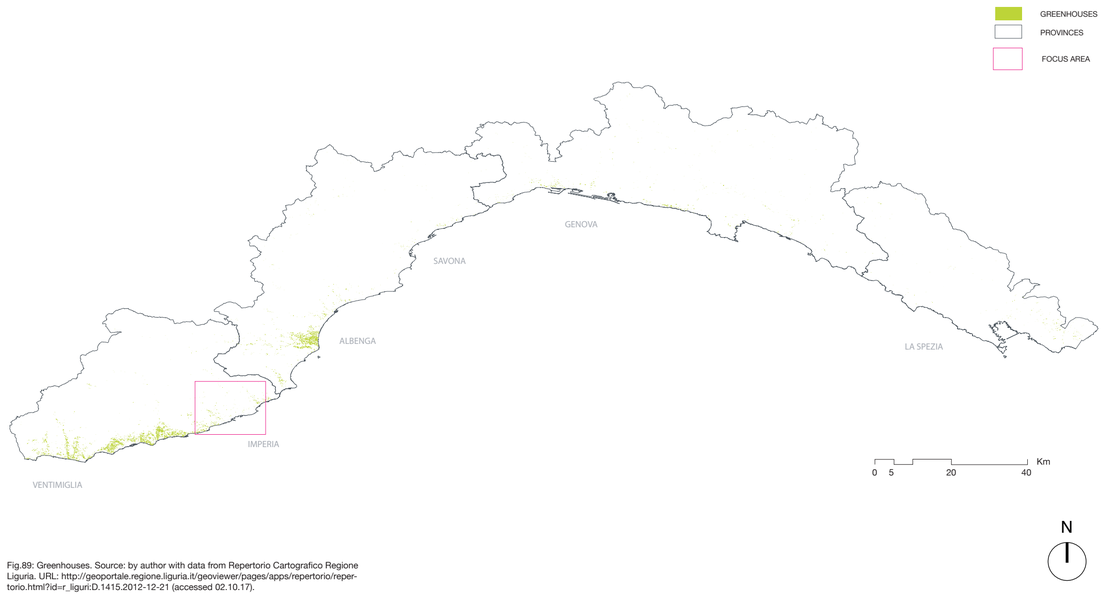


Fig.89: Greenhouses. Source: by author with data from Repertorio Cartografico Regione Liguria. URL: http://geoportale.regione.liguria.it/geoviewer/pages/apps/repertorio/repertorio.html?id=r_liguri:D.1415.2012-12-21 (accessed 02.10.17).

II

ECONOMY

ECONOMIC HISTORICAL DEVELOPMENT

“Already in the first half of the 1800s with the agricultural crisis, the phenomenon of transoceanic emigration had begun in our region [Liguria (sic!)] that [a (sic!)] few decades later would involve many other rural situations, and in the same period in Sampierdarena, in the Genoese hinterland, the first modern factories were built (...) the start in Italy of the “industrial revolution” (Bisio et al., 2004: 27).

“Before World War I (...) most heavy industry was concentrated in the Milan-Genoa-Turin industrial triangle. (...) During the 1950s Italy’s per capita income rose more than it had during ninety-year span from 1861 to 1950. (...) When Italy was liberated in 1945, more than 40 percent of the Italian labour force was employed in agriculture; by 2005 only 3.9 percent was so employed, compared with 30.6 percent in industry and 65.4 percent in the service sector. (...) was accompanied by massive movements of people from rural areas to cities – from southern Italy to northern Europe. These migrations had far-reaching implications for the Italian economy and society. (...)” (Hancock et al., 2014: 326). Nowadays this triangle is still important, many people are commuting from Liguria to Milan and Turin. Especially the Jung generation is moving to those cities for work or university. So those three cities are the main driving forces.

Until today the region Liguria represents with the port of Genova (Genoa) also the European gateway between European North and the Far Eastern countries, export and import towards Italian main economic centres (Milan, Turin) and towards the rest of Europe. “(…) Today Genoa ranks as the premier port in Italy in terms of total throughput (over 50 million tons), and amongst the top Mediterranean container gateway ports (approximately 2.1 million teus). Genoa’s proximity to Italy’s major industrial and consumer centres in northern Italy (both Milan and Turin are just 150 km away), as well as to the primary manufacturing centres of Central Europe, such as Bale (Switzerland), Munich (Germany) and Vienna (Austria), make the port an ideal southern gateway for trade to and from Europe, and the natural hub for Far East trade. (…)” (Port of Genoa [WWW Document], n.d. FRUIT LOGISTICA. URL: http://www.virtualmarket.fruitlogistica.de/de/Port-of-Genoa,p1438352 (accessed 10.22.17)).

“Almost contemporaneously the Ligurian Riviera was established as a touristic destination for the elite that increased the presence of foreign travelers, supplanted only in the period after the Second World War by the plundering tourism of second houses, anticipating a phenomenon that will bring destruction to many Italian coasts. (...)” (Bisio et al., 2004: 27). The prevailing landscape is a cultural landscape with a key role in this region, it is formed by the typical stone terraces which make it fertile and which prevent it from huge hydrological disasters. But in the recent 20 years, this region is shrinking in its population, which means landscape abandonment and hydrological instability that arises the social costs for the whole region.

After World War II Italy had a huge industrialization period and a connected economic growth (“Materiali Uval” from Issue31 2014:14).

This phenomenon was taking place in all kind of towns, independently from its size or location and it happened on different levels of intensity. It was a territorial model of “widespread polarization” (“Materiali Uval” from Issue31 2014:14). A poly-centric organisation started and a scattered landscape with minor towns and complicated history of economic and demographic decline started.

1980 a vast de-population started in Italian regions and since 1970 negative population growth has been registered, where the region Liguria with -15,3% shows the worst record within the Italian regions as the Public Investment Evaluation Unit (UVAL) and UVER reported 2014 (“Materiali Uval” from Issue31 2014:19). A large part of Italy remained unused with a large amount of territorial capital. In Liguria, residual spaces of agrarian and industrial economies – leftovers from the booming economy that Italy had after World War II, can be found. They are empty and are derelicts embedded in the landscape. Italian planning system gave more attention to the macro scale and the growth itself, so towns on a smaller scale, within not growing regions or territories were left beside and territorial degeneration took place, a decline in its citizenship and an aging population. Although de-industrialization a new territorial competitiveness arises especially in the sector of tourism.
That leads towards a main development at the coastal towns. They offer space for this client and its related industry. Liguria as a coastal region does the same but it has only narrow space between the mountains and the Mediterranean Sea.

The coast is quickly overloaded with its different functions. Sprawl into the countryside with new, dispersed settlements occur, which covers the hills towards the mountains like a carpet, a tissue. “(…) The irrational consumption of soil deletes the identity value of a place, creating hybrid and undefined suburban spaces, full of unexpressed potentialities but empty of content, which need to be reinvented and reorganised to become one of our land resources and not a problem. (…)” (Tucci, Giorgia, Mediterranean Landscapes In: Territories. Rural-urban strategies 2017: 227).

Where are the old villages standing in relation to the mentioned current development?

1. Past



2. Present



3. Possible future



Fig.90: Movement of goods and people, first understanding and observation. Source: authors own interpretation

Annotation to Fig.88:

1. Past: Mutual exchange of materials and products between coastal cities and the countryside towns. Interdependency. Moreover, people from different regions were helping each other in harvesting time.

2. Present: One direction of interaction. Direction towards the coast. Most economic axis is on the coastline itself. Towns in the countryside are competing for European funds and new strategic development to attract more inhabitants, tourists, and economic growth.

3. Possible future, scenarios:
Scenario 1: an independent network of villages that support each other and create together a sustainable growth and which are the other extreme growth of the coast development. In this scenario, the villages should be quite strong to exist and not been left behind or collapse.

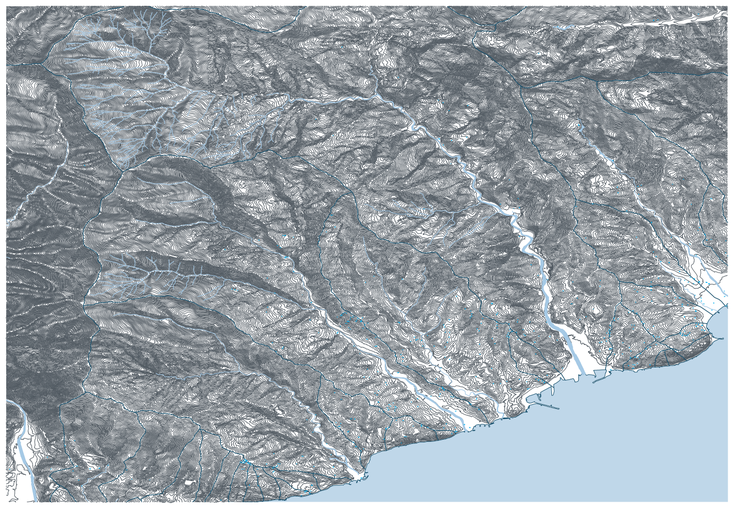
Scenario 2: exchange of networks and flows between coast and villages. More complex and more interdependent from each other. Developing the region coming from the countryside and its valleys as a territorial unit. This scenario is the more desirable on which is followed in the design. Being more in a cooperation and exchange is seen as a more prosperous and sustainable way of development for this region.

II

ECONOMY

TOURISM THE NEW ECONOMY

Tourism became one of the main economies in Liguria. This can be seen also in the following map (Fig.89) which shows the registered swimming pools in the analysed valleys. To have a swimming pool on your ground makes the value of your property higher. The map clearly shows that those swimming pools are mostly distributed in the suburban area of the urban centre Imperia. In the area which was built during the construction boom of Liguria in the years 2000 and 2005 (La crescita dell'edificazione. https://www.istat.it/dati/dataset/20080804_01/, accessed 20.01.2018). Secondary houses instead of the renovation of old structures within the built environment were the trend. Those houses are turned into farmhouses 'Agriturismi' or Bed and Breakfast for rent in the summer period. (De Forcade, 2017: 3).



Water Streams
Watershed
Highlines (every 10m)
Swimming pool/ open butt

0 1,25 2,5 5 7,5 10 Km

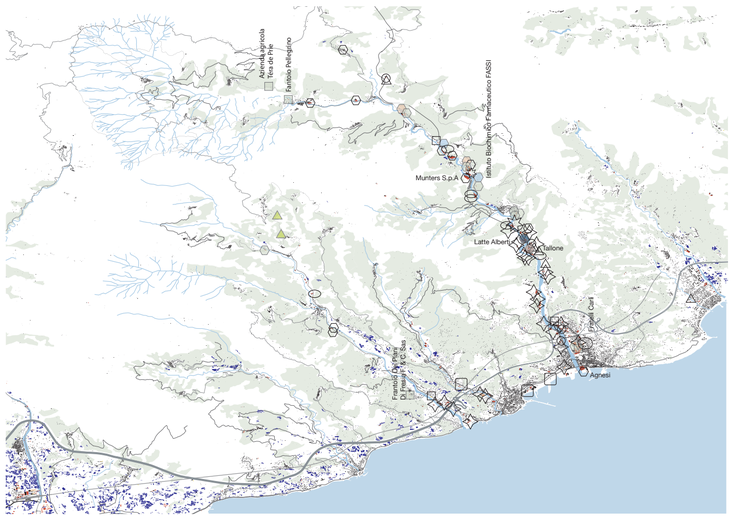
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Fig.91: Swimming pools. Source: by author with data from Repertorio Cartografico Regione Liguria. URL: http://geoportale.regione.liguria.it/geoviewer/pages/apps/repertorio/repertorio.html?id=r_liguri:D.1415.2012-12-21 (accessed 02.10.17).

Both valleys differ extremely in the economies they contain. The valley Prino has mostly agrarian manufactures, related to the production of olive oil. The amount of still cultivated olive groves in this valley is also higher than in the valley Impero.

In contrast to the valley Prino, the valley Impero has a higher variation in the economies it contains. Although a high amount of olive oil related industries can be found here as well, an important pharmaceutical industry, food production industries, packaging and transportation-related industries can be registered. One could say that the valley Impero has a high amount of the secondary sector as well as tertiary sector. In contrast to this valley, Prino has its economy mostly in the primary sector.

A – Agriculture, forestry and fishing
agriculture olive oil based
olive groves
B – Mining and quarrying
B – Mining and quarrying (not anymore in use, naturalized)
C – Manufacturing
pharmaceutical manufacturing
manufacturing olive oil
manufacturing Milk
F – Construction
G – Wholesale and retail trade; repair of motor vehicles and motorcycles
H – Transport and storage
I – Accommodation and food service activities
J – Information and communication
K – Financial and insurance activities



0 1,25 2,5 5 7,5 10 Km

N

Fig.92: Economies. Source: by author with data from Repertorio Cartografico Regione Liguria. URL: http://geoportale.regione.liguria.it/geoviewer/pages/apps/repertorio/repertorio.html?id=r_liguri:D.1415.2012-12-21 (accessed 02.10.17).

II

ECONOMY

SUB-URBAN MANIFESTATIONS AT THE RIVER

Along the rivers especially in the valley Impero we can find many shopping malls. Cheap shopping centres are characteristic of Italian sub-urban areas. They look all quite similar and are basically related to the street.

The question here is how does the city cope with this emerging trend? What can the city do to keep small businesses alive?

Small entrepreneurs in urban centres have to fight against the cheap prizes. The only way out in my opinion is to give advantages for local entrepreneurs to settle their companies there. The local manufacturers should focus much more on their originality and rely on customers' relation to traditional products. The interview with Alberti, head of the traditional milk company Alberti, explained that there are customers who buy their products because they know the products for years. Customers buy not only because of the cheap price but also because of a good and long experience with the product. This fact behaviour is mostly seen in the food production but it could help especially in the traditional food industries to keep producing their product.

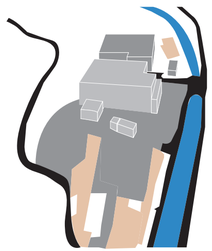
Figure 91 shows the relation between industry, road, and river. From the analysis of those shopping malls, it quickly came out that they are mostly related to the street and have their back to the river. Or they are surrounded from the street. The vegetation, as well as the water, has no relation to it.

The map (Fig.92) is a personal conclusion to the former analysis. It shows clearly how the human activity relates to its surrounding. One can see that the valley Impero is much more related to the street and the corridor. The valley Prino instead seems to be more open to the surrounding environment and therefore larger in its appearance.

Shopping malls valley Impero. Shopping malls are located at a primary road. Back towards river. No relation to each other and no relation to vegetation or river visible.



Supermarket valley Prino. Located between streets. River is suppressed under the street and has no relation to it. Huge space consumption by the parking lot. Sealed ground that accelerates the hydrological run of.



Shopping mall valley Impero. Only accessible from the street. No relations visible.



Fig.93: Different arrangements of shopping malls within the valleys. Source: by author.

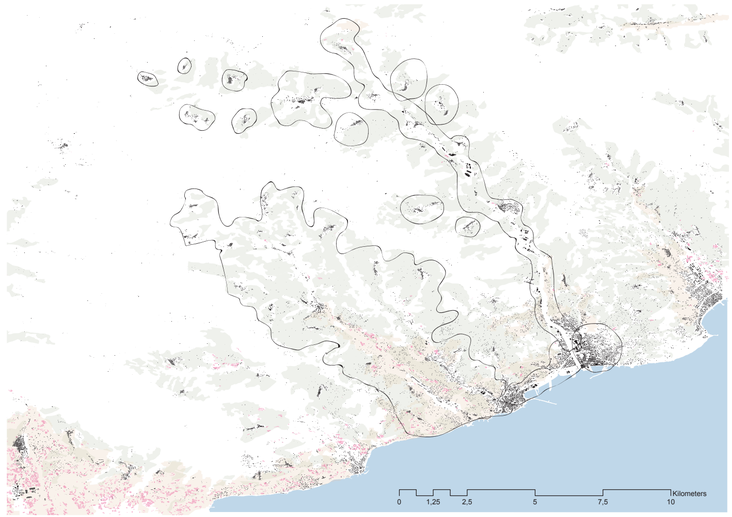


Fig.94: Valleys and the relation to their surrounding. Source: by author with data from Repertorio Cartografico Regione Liguria. URL: http://geoportale.regione.liguria.it/geo-viewer/pages/apps/repertorio/repertorio.html?id=r_liguri:D.1415.2012-12-21 (accessed 02.10.17).

Conclusion of valley orientation

Cultural systems and complex parcels

Greenhouses

Built environment

N

II

ECONOMY

DROSSCAPES IN THE LANDSCAPE

These pictures show empty industrial buildings. One can find them from the urban centre to the countryside. From a glass industry to a steel industry, to a concrete industry to an old ship manufacture to empty mills, farmhouses, to empty greenhouses, empty water cisterns all is findable in the Ligurian landscape. Within the villages, itself we mostly find empty residential housings and often empty buildings from former education facilities.











Fig.95: Droscapes in the Province of Imperia. Source: all pictures on this page are made by author

ABANDONMENT - DROSSCAPES

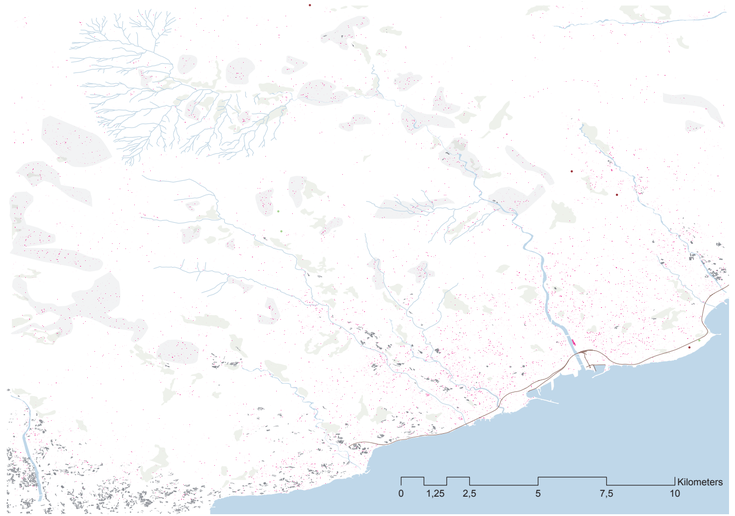


Fig.96: Droscapes. Source: by author with data from Repertorio Cartografico Regione Liguria. URL: http://geoportale.regione.liguria.it/geoviewer/pages/apps/repertorio/repertorio.html?id=r_liguri:D.1415.2012-12-21 (accessed 02.10.17).

II

ECONOMY

PROVINCIAL ECONOMIC FOCUS

In the province of Imperia there are two main economic focus points. The Parco Roja which is next to the border with France and is localised in the valley of the river Roja. The valley Impero which is the provincial connection towards Turin and therefore offers a good opportunity for economic growth. The new Parco Roja, a small economic centre, will be established on a historical railway property, which was never in usage (Mayor of Ventimiglia). And within the valley of the river Prino, where, as the director of ConfIndustria told, will be established a high-tech IT main centre. (Fig.99).
Moreover, the province sees the future planned bike lines as an opportunity for a new economic development and as a touristic attraction.
Currently, we find olive oil production related industries (picture below) as well as construction industries like sand quarries (see picture below).

Interview answers:

"(...) There is no specialisation and valorisation anymore (...)" (Director of ConfIndustria Imperia).

"The utility comes from the service. They (entrepreneurs, inhabitants etc.[sic!]) should learn that utility comes from the service and not the other way around. (...) We need more specialized labour." (Director of ConfIndustria Imperia).

"Big industries have taken the values from outside of the province, they have not focused on the product itself which starts from the raw material of the countryside." (Director of ConfIndustria Imperia).



Fig.97: Agnesi. Pasta manufacture, Oneglia. Source: by author.



Fig.98: Soap manufacture. Prelá, in valley Prino. Source: by author.



Fig.99: Sand quarry. Icems, construction manufacture. Oneglia. Source: by author.

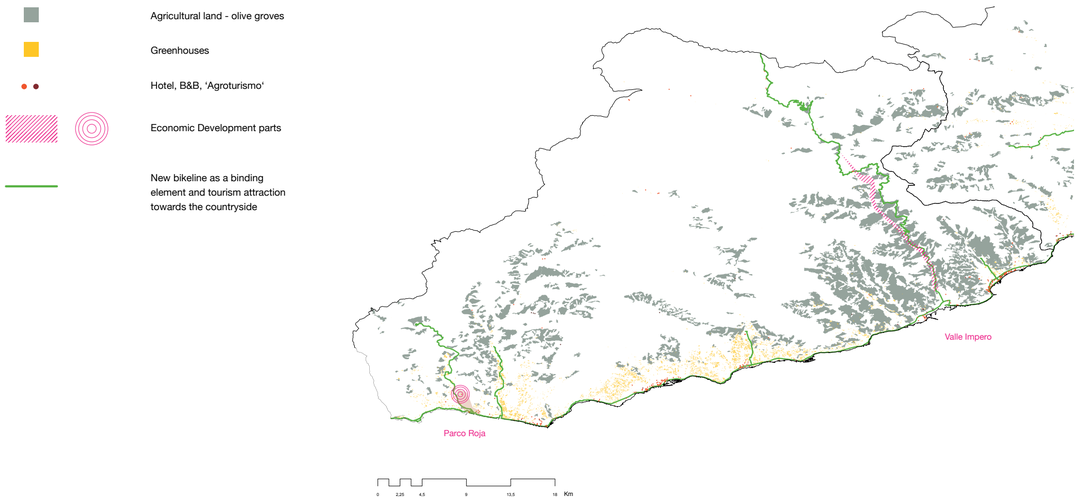


Fig.100: Economic opportunities within the Province Imperia. Source: by author with data from Repertorio Cartografico Regione Liguria. URL: http://geoportale.regione.liguria.it/geoviewer/pages/apps/repertorio/repertorio.html?id=r_liguri:D.1415.2012-12-21 (accessed 02.10.17).

II

ECONOMY

STAKEHOLDERS

The analysis of the local stakeholders was done through research and interviews but it is only a glimpse of the present stakeholders of the two valleys. What one can identify is that the most entrepreneurs are on Municipality level and are basically traditional food processing factories which are mainly related to the production of olive oil.

Moreover, some big companies are settled in the valley like Munters (energy efficient air treatment and climate solutions manufacturer) or CT Laboratorio Farmaceutico (pharmaceutical company) both players also on a national scale. 'CLAS pesto' (a leading company in the production of Private Label Pesto) which are on the local scale but are on the national and regional scale quite good represented. Private-public institutions play also an important role like Coldiretti or CIA. They are an association which is in between farmers, small agriculture firms, and the region.
But we have also institutions which are more related to planning instruments and who are individuals who have different responsibilities, depending on which department they are. Mostly they are private-public associations. An example of that is the 'Contratti fiume', which is an agreement between different individuals and are related to the management and use of water, in land planning and environmental protection. As one can see they are generally located on the national scale but each region has its own association which is in charge of the water management and are contributing to the local development scale.

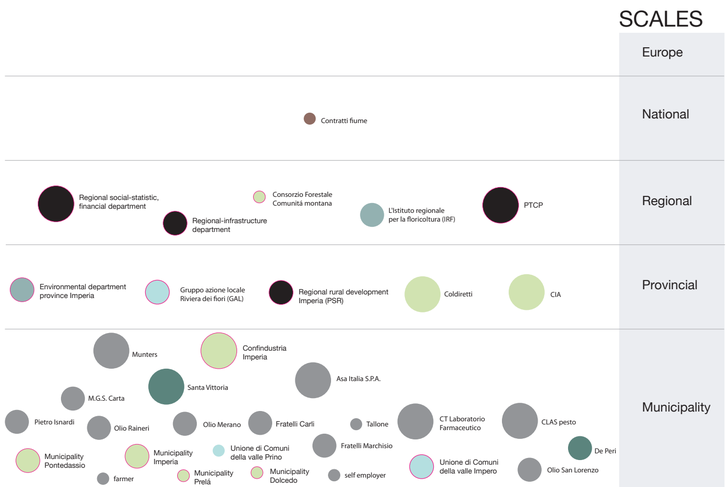
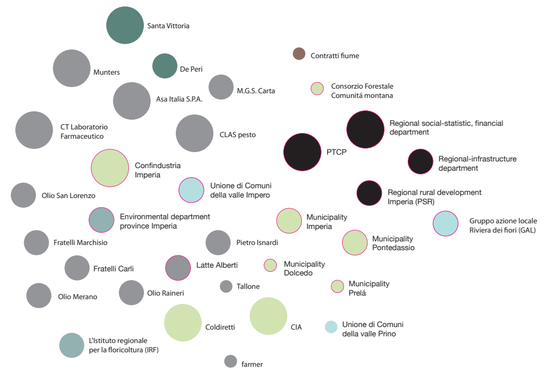


Fig.101: Source: by author



PTCP= Pianificazione Territoriale urbanistico regionale

Fig.102: Source: by author



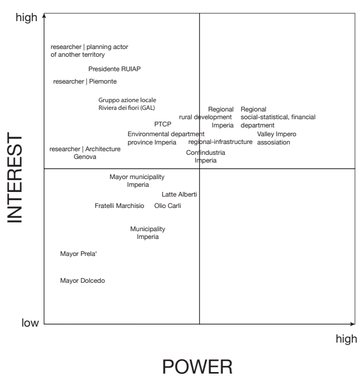


Fig.103: Source: by author

II

GOVERNANCE

REGIONAL MAIN AIMS INTERPRETED

The region divides the territory into two parts, the coast and the countryside (Fig.103). Aims are to diminish the cancellation of the past at the coast and to create better conditions for the social texture and the competitiveness of the countryside. The region tries to attract tourists to the countryside, by promoting diffused green tourism. Moreover, the region wants to give subsidies for the maintenance and economy of forest and green energy, which should contrast the phenomenon of abandonment and should help with the current hydrological problems, aridity, and erosion or landslides. Furthermore, they want to renovate the urban fabric of the region, which is still 40% of the buildings are still on the energy standard of the first years after World War 2 (PTR n.32 November 2014), regarding actual European energy standards.

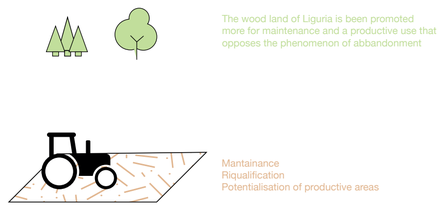


Fig.104: Source: by author with information of regional development plan Liguria.

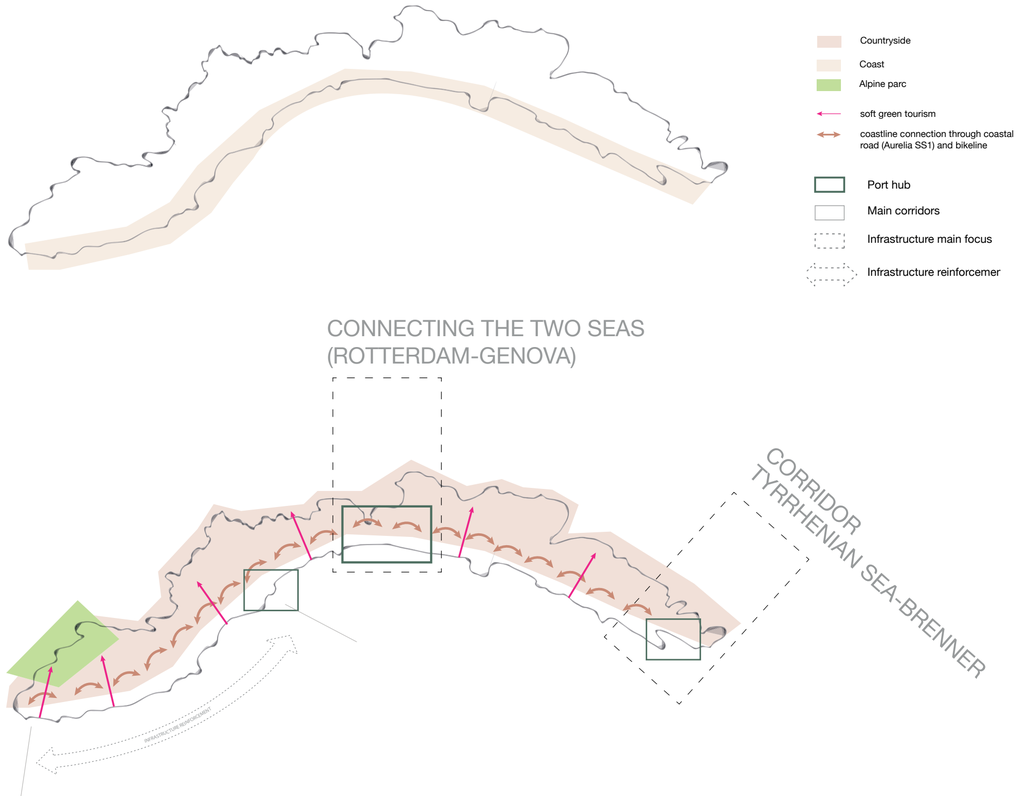


Fig.105: Interpretation of the main aims of the region Liguria. Source: by author.

II

GOVERNANCE

PROVINCE IMPERIA

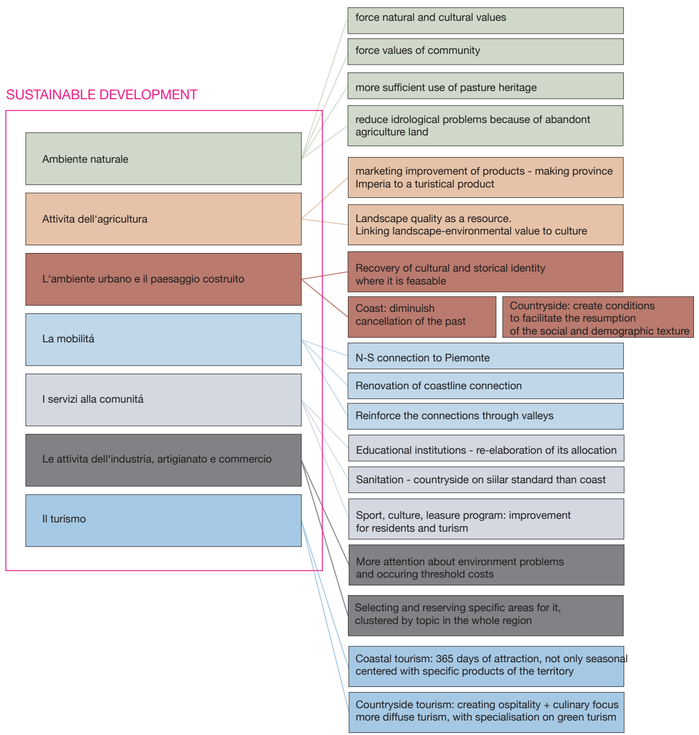


Fig.106: Source: by author based on the current Development plan of the province Imperia

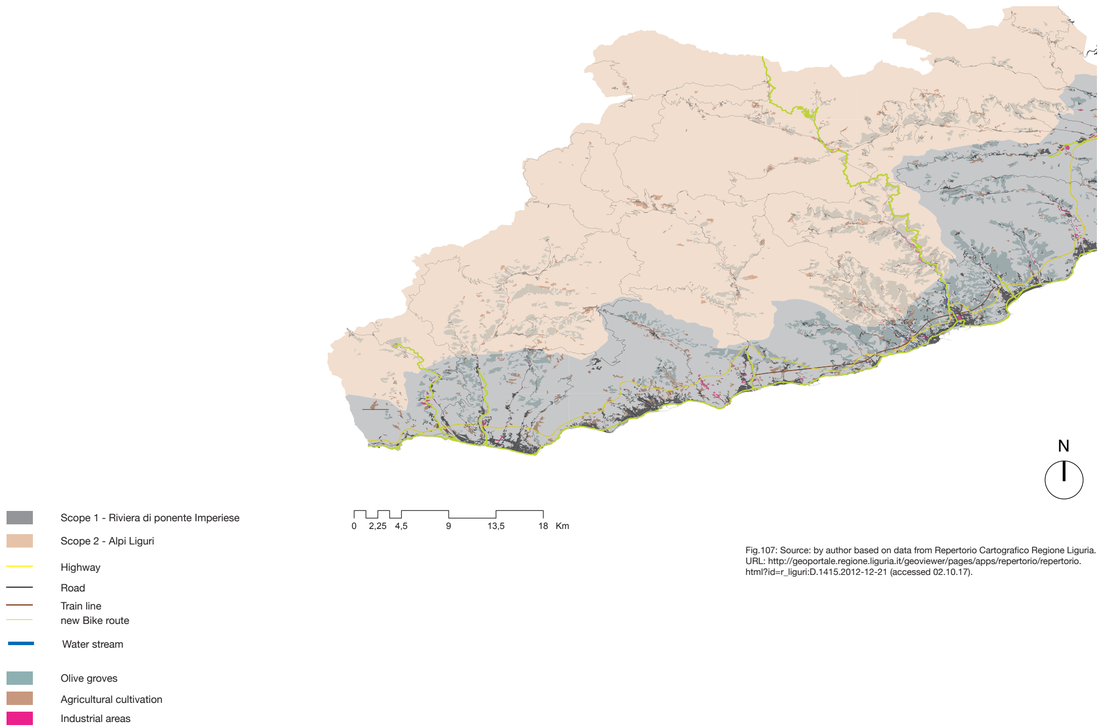


Fig.107: Source: by author based on data from Repertorio Cartografico Regione Liguria. URL: http://geoportale.regione.liguria.it/geoviewer/pages/apps/repertorio/repertorio.html?id=r_liguri:D.1415.2012-12-21 (accessed 02.10.17).

II

GOVERNANCE

POLICIES AND RESPONSIBILITIES

Since 2014 the region has been restructured and they reshuffled it into three provinces (Imperia, Savona and La Spezia) and one metropolitan Region (Genova). So, the provinces get less power attributed. The provinces must develop only the PTC, which is the provincial urbanistic coordination plan. The Municipalities must provide every seven years a PUC which is an urban development plan which has to be approved from the region and the national department.
Furthermore, there are the GAL a private-public local association where in Liguria exist five: GAL "Riviera dei Fiori", which is in Imperia, GAL "Valli Savonesi", in province of Savona, GAL "Agenzia di sviluppo Genovese", in the countryside of Genova, GAL "Verdemare Liguria", which focuses on two mountain areas in the countryside of Genova, and the GAL "Provincia della Spezia, located in La Spezia. All five local associations are developing the SSL, a local development strategy, which is related to the specific location. Those action groups are half private and half public and are under the LEADER program in Europe. The infrastructure is managed from a separate institution which makes the cooperation more complex. (see detailed structure in Fig.107).

In sum, as I could see that municipalities have not updated their development plans and each of them works with a different old version, for example Imperia is still working with a plan which has been approved in the year 1999, so now they are all busy with constructing their development plans, which then have to be proved from the region. Each municipality also lacks people who have the knowledge and capacity to develop such a plan. As we have 67 municipalities in Imperia one can imagine how this projected to the whole region Liguria means, also bureaucratically. This slows down the development.
The proposal of this thesis is, therefore, to focus on each valley which contains differently sized villages within different municipalities. The junction of the municipalities within a valley will help those municipalities with fewer capacities and knowledge and will bring more capacities in development to all of them. The same is for the water system and the vegetation within a valley. The overall context of both elements seems also more understandable if we consider the scale of a whole valley.

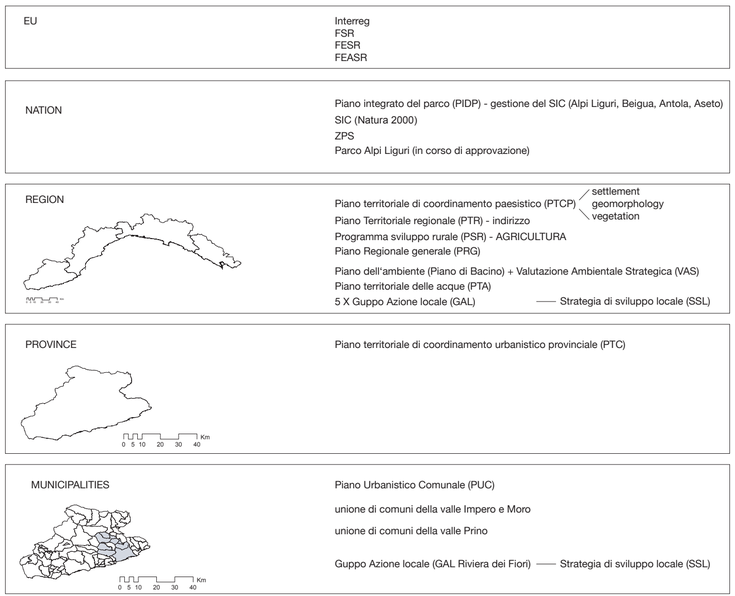
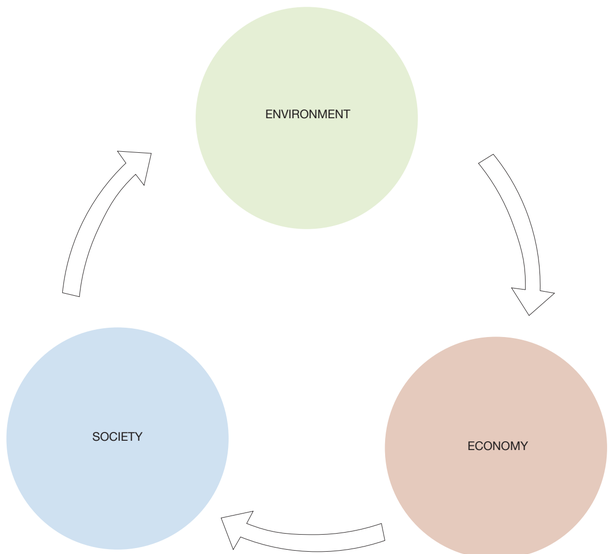


Fig.108: Different policies and planning tools ordered to the different level of power. Source: by author

II



Force natural and cultural values

More sufficient use of pasture heritage

Reduce idrological problems because of abandoned agriculture land

Landscape quality as a resource.
Linking landscape-environmental value to culture

More attention about environment problems and occuring threshold costs

Recovery of cultural and storical identity where it is feasable

Coast: diminuish
cancellation of the past

N-S connection to Piemonte

Renovation of coastline connection

Reinforce the connections through valleys

Selecting and reserving specific areas for it, clustered by topic in the whole region

Coastal tourism: 365 days of attraction, not only seasonal centered with specific products of the territory

Countryside tourism: creating ospitality + culinary focus with more diffuse turism, with specialisation on green turism

Marketing improvement of products -
making province Imperia to a touristic product

Security for people and cultural heritage - hydraulic and geological risk

Force values of community

Educational institutions -
re-elaboration of its allocation

Sanitation -
countryside on siilar standard than coast

Sport, culture, leasure program: improvement for residents and turism

Countryside: create conditions
to facilitate the resumption of the social and demographic texture

CONCLUSION

The provincial and regional planning aims are to cope with urgencies like the aging society, the occurring water risk, the rural decline - the problem of being disconnected, the erasure of the past at the coast and the link between rural and urban. Potentialities are evaluated and considered to be reinforced and used as a tourist attraction. They are used to create an identity and valorise the unique qualities of this region.

The connections between the different elements, potentialities, and urgencies were not found in the planning documents and strategies. Additionally, the separation between countryside and coast was still present in the planning approach. Moreover, water, which in the planning documents is just mentioned in the context of risk, in this project is taken as a quality to harness. Water becomes the territorial connector in this vision, as an element which will become much more present as a positive aspect within the daily life of the inhabitants. In the countryside, water will be collected and drained. Closer to the urbanised areas at the coast the water will be made accessible to the inhabitants and be part of the city

II

OPPORTUNITIES

WHERE TO INTERVENE

By overlaying most of my analysis, I found out that the point where the most things are overlapping key points emerge. In comparison to the ideas I suggest for the regeneration of this two valleys, it can be seen that the gateways are positioned at the two points of this valleys where the most topics come together.
The rural landscape presented itself during the analysis rich of different stories, elements which create a quite complex system. The countryside presents itself with a lot of diversity in its vegetation, human activities, and historical fragments.
The urban centres are packed with functions and historical fragments, but all seems compressed and out of context. The differentiation and variations that we have in the countryside do not exist.

So, what if we take the richness we still can find in the countryside and bring it to the coast, to the urban centres?
This project tries to use the values of the countryside to give the urban centre more stability and more uniqueness. Coming from the countryside would turn the current planning approach around and question if we always need to plan from the urban.

The with identity, spatial qualities and stories enriched landscape of the countryside will become the backbone of the coastal centres. The countryside could provide a lot of local identity from each valley. This quality can be used as a strength for the re-development of the region.

By seeing the countryside as one unity with the urban centres at the coast we could contribute to a more sustainable and balanced development.

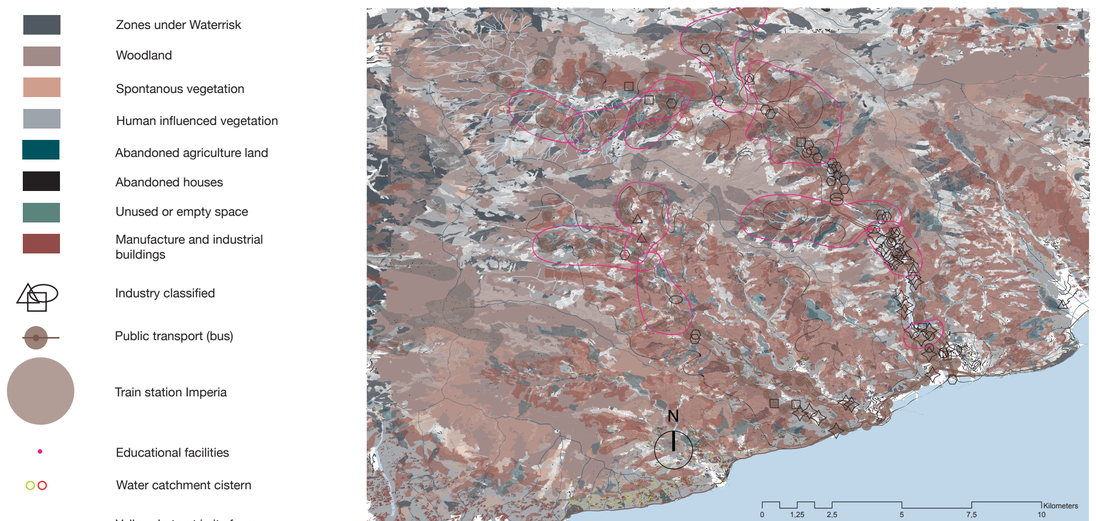


Fig.109: Source: by author based on data from Repertorio Cartografico Regione Liguria. URL: http://geoportale.regione.liguria.it/geoviewer/pages/apps/repertorio/repertorio.html?id=r_liguri:D.1415.2012-12-21 (accessed 02.10.17).

- Design principles
- Vision
- Strategy
- **Conclusion**

- Projects for the regeneration of the valley Impero
- and Prino
- Boxes and field of intervention:
  Mobile box - a participatory tool
  Event Box - Participate and Start the project
  Encounter - meeting space

- Key re-development projects:
  Education - awareness
  Multi culture centre - awareness for the other
  Green - Local Food production
  Gateway prela' - A life Museum
  Gateway - observatory
  Water management: retention, deviation and collection
- **Conclusion**

- Financial plan

III

DESIGN PRINCIPLES

MANUAL TO DESIGN THIS REGION

For a sustainable development of this region, one should take special attention to the edge. The edge between: the street and the water, the vegetation and the build environment, the build environment and the water, the agriculture land and the uncultivated land, the urban centres and the sea, the mountains and the villages, the inhabitants and the tourists, the industry and the vegetation, the industry and the water, the industry and the village or urbanised area.

The following principles are considered in each strategic development project and are the main guiding line in the vision of the valleys of the region Liguria:

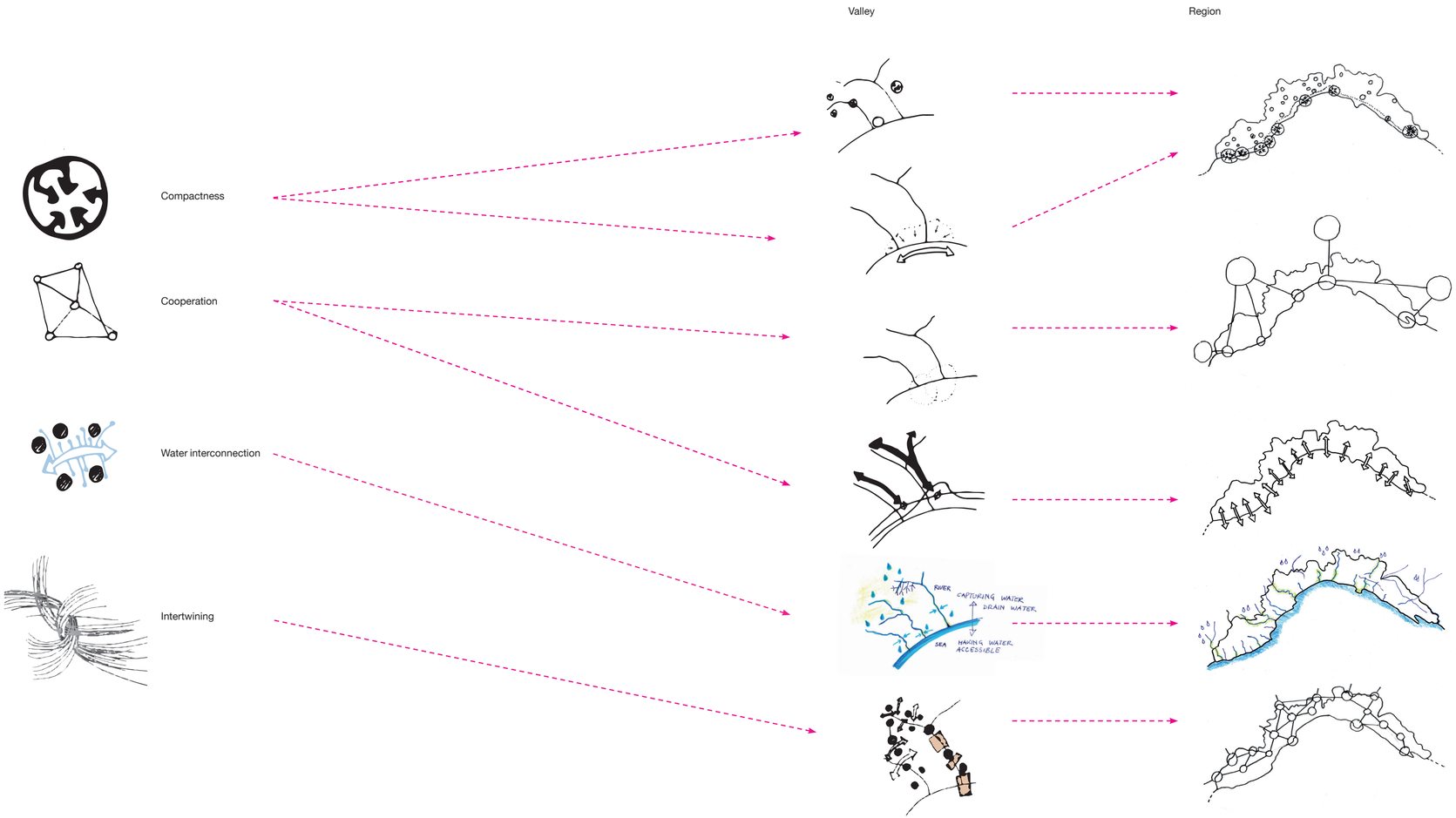
Compactness: maintaining existing villages compact without sprawling out but using the empty spaces for new development.

Cooperation/Exchanging: cooperation between villages and between rural and urban areas. Horizontal and vertical cooperation between different departments of government.
Exchange of knowledge and craft between urban-rural and between valleys.

Waterinterconnection: water should be considered in each design and intervention within the territory. Water is seen as a territorial connector. That means that water connects on one hand side people together and on the other side it connects villages with each other. It formed the valleys and is, therefore, the main element of each valley. This should become more present to people. So, water should be integrated into the daily life of the inhabitants.

Intertwining: Means to bind and twin elements of the environment together. Different vegetation with each other, trying to avoid monoculture and extensive agriculture. Moreover, it means also to connect different departments together for example road department with the water-management department and the environmental department.

These main principles will be applied on the scale of the valley and on the local scale within the designing part.



III

VISION

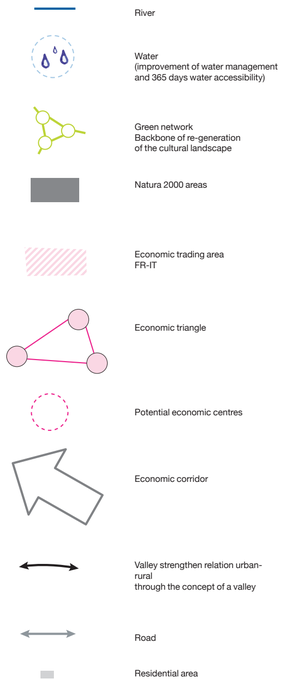
REGION

The vision for the region Liguria is mainly to rebalance the cultural landscape. To bring back the equilibrium between nature and human activity. If the region is within a certain balance than certain problems like droughts, floods as well as landslides will be reduced. On regional scale, synergies are created between different elements. One can talk about re-stitch the edges. The important spatial framework which should be applied to the region is the entity of the geomorphological entity of a valley. This specific region needs to re-stitch the countryside to the coast.

The effect of rebalancing by re-stitching will provide new job opportunities and fosters the economic system. The new emerging job opportunities are more related to the specific environment which means that with the qualification of the labour can immediately apply their knowledge on the spot. People will gain a closer connection to the environment which will bring the effect that the region over time more young families will establish themselves within the countryside. The vision re-evaluates values and forgotten activities and establishes new meaning to it. It will put parts of the cultural landscape into the spotlight or create new connections between different natural parts, that the landscape and its meaning will change. The green-blue structure will be classified into three categories: high, medium and low maintenance. These three categorisations are offering different amount of jobs. For the high maintenance areas, approximately 610 555 job opportunities will be created.

Thinking in a new entity gives also the opportunity of widening up cooperation and exchange forms. The valley becomes the driver for regional development. This affects new corporations and a different way of managing the whole region. New exchanges and corporations between different projects within the region are made. The backbone for this cross-provincial and cross-border cooperation will be mainly based in first place on the green-blue structure. By the green-blue structure, it is meant the water relations between the countryside and the coast as well as the structure of the environment. The protected green areas will become a whole network instead of being scattered over the region. The particular landscape (with its villages, vegetation, water, and inhabitants) and its unique will attract a certain type of tourism which evaluates the values of it. By seeing the beauty and the region's specific values offers also to accept parts of the countryside to be rewilded or abandoned. The important thing about this acceptance is that the region still repairs edges so that the parts are not lying apart and for its own but are integrated within the whole concept. The main infrastructural corridors are kept, strengthened and connected stronger in the way they are connected to the system surrounding them. On the local scale, the traffic will be reduced by providing different transportation modes and by applying small-scale interventions and methods.

On governance level, this vision allows more simplicity and more transparency in the bureaucratic system. This will be done partly by the new planning entity 'the valley" which will cover the gap between the region and the municipalities. Moreover, EU policies and funding will be used on different scales and will give a wider benefit to the project itself and the local scale. Trigger down effects are implied but also bottom-up initiatives will be held and evaluated differently. The region will take two valleys as its testing case from which more projects will start within the other parts of the region.
Moreover, national and international relations are strengthened which will enhance private-public relations.



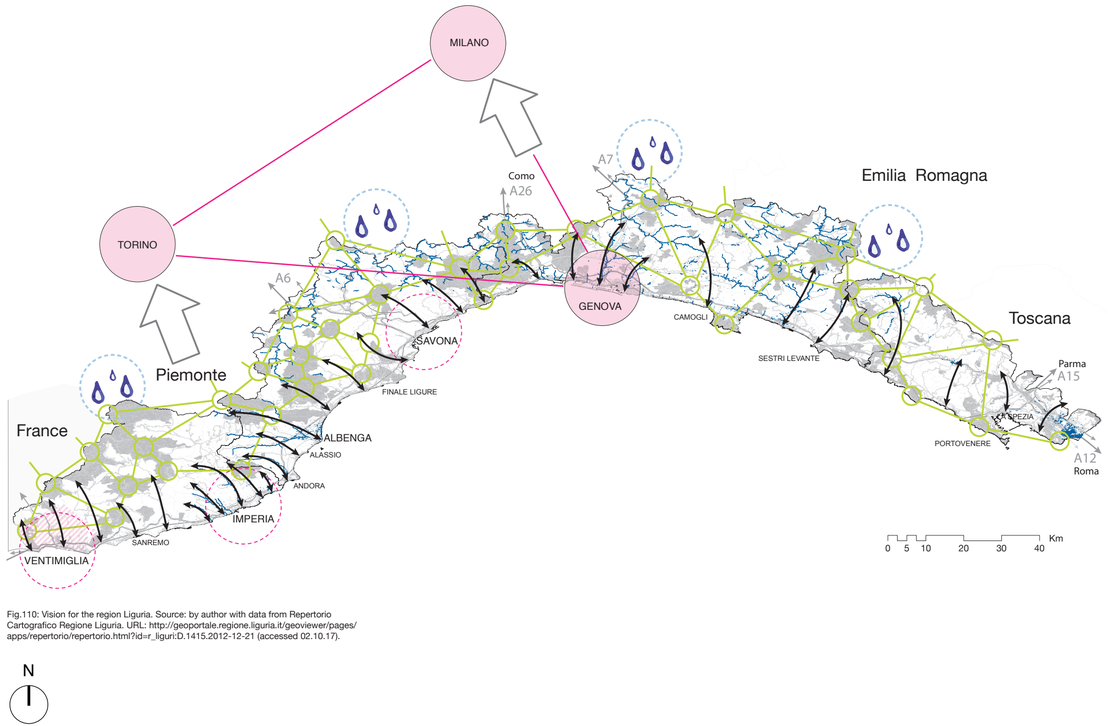


Fig.110: Vision for the region Liguria. Source: by author with data from Repertorio Cartografico Regione Liguria. URL: http://geoportale.regione.liguria.it/geoviewer/pages/apps/repertorio/repertorio.html?id=r_liguri:D.1415.2012-12-21 (accessed 02.10.17).

III

VISION

VALLEYS

The chosen two valley function as a case study for the new regional development. They show how the valley can become the driver of regional development: how to maximize potentials of cultural landscape and how to cope and reinvigorate depopulation and other symptoms of shrinkage.

The vision for the two valleys is composed of five key development projects which are proposed for the regeneration of the two valleys. They are anchor points for the development. The projects start from a spatial (or physical) implementation on a human scale. This is important to show inhabitants that ideas can be transformed into concrete projects which are interwoven into the reality making processes more transparent and more understandable.
The projects themselves are flexible and can be also done in other empty buildings or in a completely different way depending on the feedback of inhabitants. The main important thing is the process of the projects themselves and the way they are embedded into the surrounding area. Cooperation and exchange is a main part of this vision. The projects show how through cooperation and exchange of information, knowledge and physical man craft projects can become much wider in their function and contribution to the place itself. Moreover, invisible synergies are becoming visible and other forms of cooperation will be drawn. The projects and the overall vision incorporates human resources and potentials within people of this two valleys.
The two valleys are responding to each other within different levels of development.

With each project on small scale, it is paid specific attention to the edge. Within the valleys, itself following principles are applied to maintain liveability and identity or characteristics of the area itself.

The main goals are:

- Be **compact** in the urban environment to avoid the occurring sprawl. Within the villages, it means that we need to concentrate on the emptiness within the built environment avoiding new second houses out of the villages. This means also no new road constructions within this fragile landscape. It means coping with the infrastructure that is present and tries to treat it as a fragment of the landscape and paying attention to the edge. Compactness means also to raise the variety of vegetation which covers the 'in between'. In between means the parts between the built environment - the villages. With compactness means also that the act of sharing facilities like infrastructure or mobility comes along, especially a good solution to prevent new implementations in the landscape and to help those villages which are only composed of few people.
-
- **Densify** around the existing industries in the valley Impero. This vision is pointing out certain areas where similar industries which should be mostly related to the economy of food. The industries who make local corporations and connections will get a support from the province Imperia. A second intensification will be done in the valley Prino. There the focus lies on the food production within new horticulture zones and greenhouses.

- **Cooperate** with one-another. The action of cooperation is in addition to the fact of cooperating symbolized by using the valley as the driver of this regional development. This new territorial entity gives also a better understanding of cooperation. By cooperation, the vision aims to strengthen the relation between 'the rural' (or the countryside) and urban areas (or the coast). Not only in terms of space cooperation is done but in all terms of flows and stakeholder engagement. Through 'round tables', workshops on the spot etc. people get to understand the need for cooperation. The exchange will be done on different levels and in different phases of the development of this two valleys. Water management is one important issue where cooperation should be done. In the analysis, one could see how much flood is concentrated at the coast which is related to the bed water management in the countryside. By coping with water management through water retention and deviation in the countryside we can face the problem of floods at the coast as well as the draughts which are most relevant for the villages, farmers from the countryside.

- **Connect.** The connection between the two valleys is done through human capital and human knowledge and experience which is needed in within the key development projects. Out of these projects, much more connections and networks between the two valleys are created. Moreover, the economy is a strong tight between the two valleys. As the valley Impero will develop more towards a manufacturing economy and will be based more on the secondary and tertiary sector and the valley Prino in this vision will focus more on the primary sector and the valorisation of the raw material they need to cooperate and exchange goods.

- **Intertwine.** Intertwining different elements with each other. Green-structures, especially in water risk zones with land-slide the need to intertwine with the bigger green corridors and water structures, will help to keep a tight but also elastic network which can respond to the occurring problems sustainable. The water becomes a territorial connector.

The vision defines two gates to raise awareness before entering a new area. The gateways are literally geographic points which full-fill the role of opening the door to another area and at the same time they are an edge of different corridors or movements. For example, the gate in Valle Impero is at the edge of two different movements, one is the regional economic corridor to Torino and the entrance of the rural part - the last villages of this valley. The gate in Prelá in the valley Prino is more a gate or a door to the last villages in this valley. The role is more educational and to function as a guide for visitors who enter the last part of the valley.

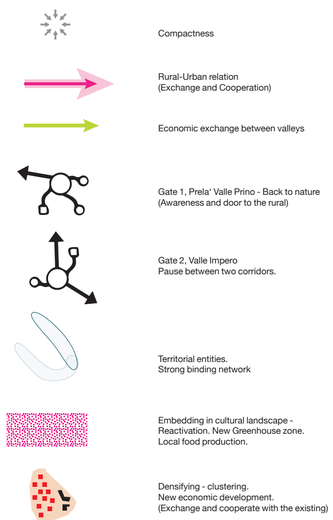
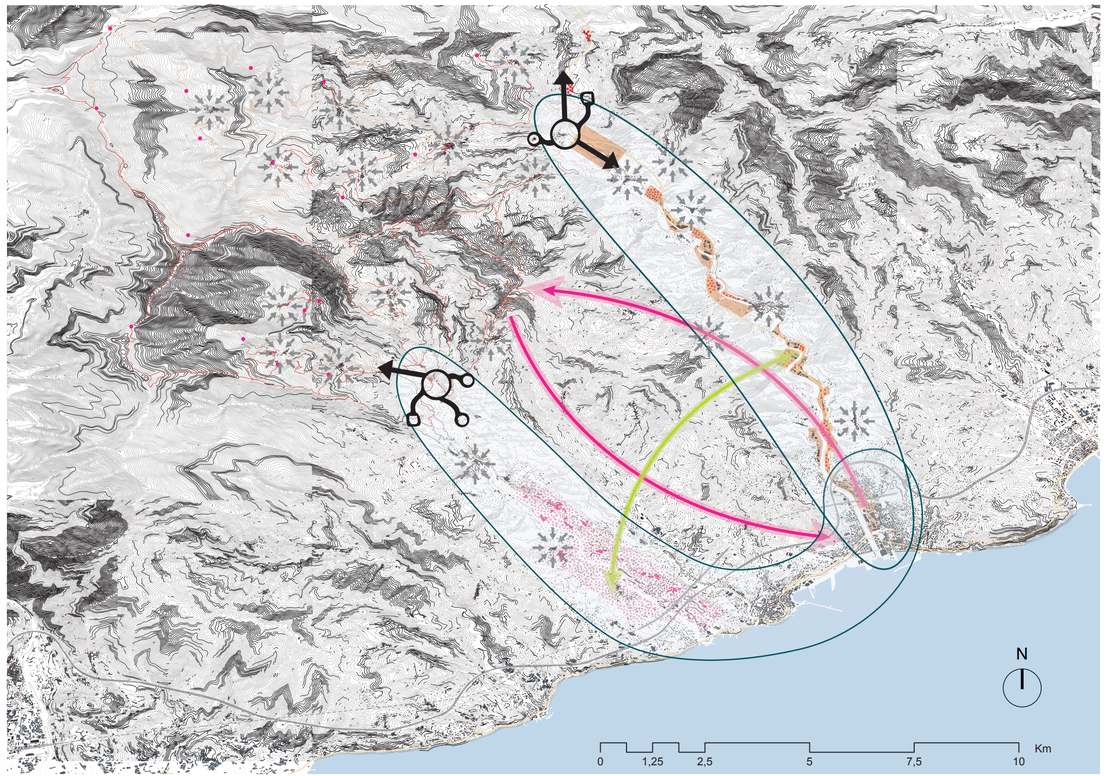


Fig.111: Vison for the scale of two valleys. Source: by author with data from Repertorio Cartografico Regione Liguria. URL: http://geoportale.regione.liguria.it/geoviewer/pages/apps/repertorio/repertorio.html?id=r_liguri:D.1415.2012-12-21 (accessed 02.10.17).



III

STRATEGY

VALLEYS

The strategy for the first two valleys within the region Liguria is composed out of different 5 main key re-development projects which will become the motor of the regeneration of the valleys and in future could become pilot projects for the region. All these five projects are related to each other and are creating synergies which are physical but also processes of cooperation and exchange of knowledge. These projects are suggested for five concrete places in the valleys but they could also be applied somewhere else. Important is that the principles are respected and applied within the process of each project. Each project is related to the local conditions of the chosen place and is addressing a specific theme. Project 1 is called 'Education - awareness' and it will become an educational institution which is the motor of different other projects and will be a motor to bind the countryside tighter with the coast. This project is recommended to be first implemented. Project 2 is named 'Multi-culture centre' the purpose of this project is to focus on awareness for the other. This means to work with different cultures and backgrounds of inhabitants. Project 3 is called 'Green - Local Food production'. As the title implies this project focuses mostly on local food production and in a second phase it contains also educational purposes and social inclusion. And then project four and five are the gateways. The gateway in Prelá, valley Prino is related to the historical agriculture and will perform as a 'interactive-museum' and an exhibition about the villages and its old road network. And the gateway in the valley Impero is more an observatory and a gateway which is focused on two infrastructural corridors.

Another important element in this strategy is the participatory tool called 'mobile box'. This participatory tool is a simple transparent box which should be easy to build and disassembled in every place within this two valleys.

Under the re-development project of the region Liguria, the region Liguria chooses within the province of Imperia two valleys. The valley Prino and the valley Impero are declared as starting point to test the new regional development concept. Why does the region choose the province Imperia? The province Imperia is the province which is located next to the France border which allows future international network and it has also the economic corridor in it which allows testing a tighter connection to the Italian economic triangle. After declaring the province Imperia as the test case, it will also designate an autonomous team which is responsible for the whole process and to this group the "Gruppo di Azione Locale' (GAL "Riviera dei Fiori") which is currently on the spot with different projects which are financed by them and still have their program until 2020. This from the region composed group will start with the participatory tool 'mobile box' which has the task to go from village to village in each valley to gather votes for three representatives for economy/society, environment, and infrastructure in each village. After the collection of votes, the autonomous group will compose a consortium for each valley (see Fig.56).
The formed consortium will meet. The ideas of the key re-development projects will be presented and discussed in front of the consortium in a 'Pecha Kucha' format. After discussions and the feedback of the consortium, project locations will be decided and information days for the key re-development projects will be fixed within the group.

The key re-development projects start with a stable box which this time will remain and be a signal for the starting of the project. The box will give the start with an event where stakeholders which are needed for the project to be evolved and stakeholders who might be interested in the project are invited. Also, civil society can participate and maybe other stakeholders will appear at the event from which has not been thought of yet. After this festival, similar events each project will start with the interested stakeholders to meet frequently and get the project started. At the same time, the stable five established boxes will host interesting events and conferences regarding the single topics, bringing knowledge and experiences together. This will help the project to evolve and be a unique key re-development project. Moreover, in regular time slots, the project team will open its doors to the public to make sure that the whole process will be transparent and that inhabitants can give input to the process and the ideas.
As each project started the consortium got from the region the task to make sure that each village establishes space which will provide a space for farmers of the village to show their products and give so more value to them. This pace has to be established within each village and has to be weather safe and public accessible. It should provide electricity, a toilet, space to expose different products and should give space for meetings and events. This rooms will be used by the consortium to meet once a month and moreover, it will become a community centre for the village. This community room will be the space of communication between exogenous forces and endogenous forces, a showroom of the village.

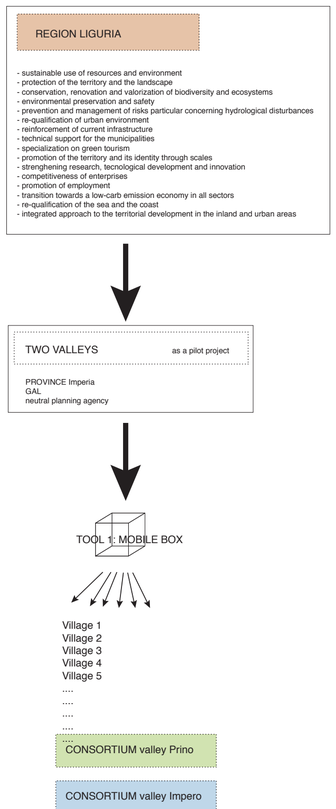


Fig.112: The start of the strategy. Source: by author.

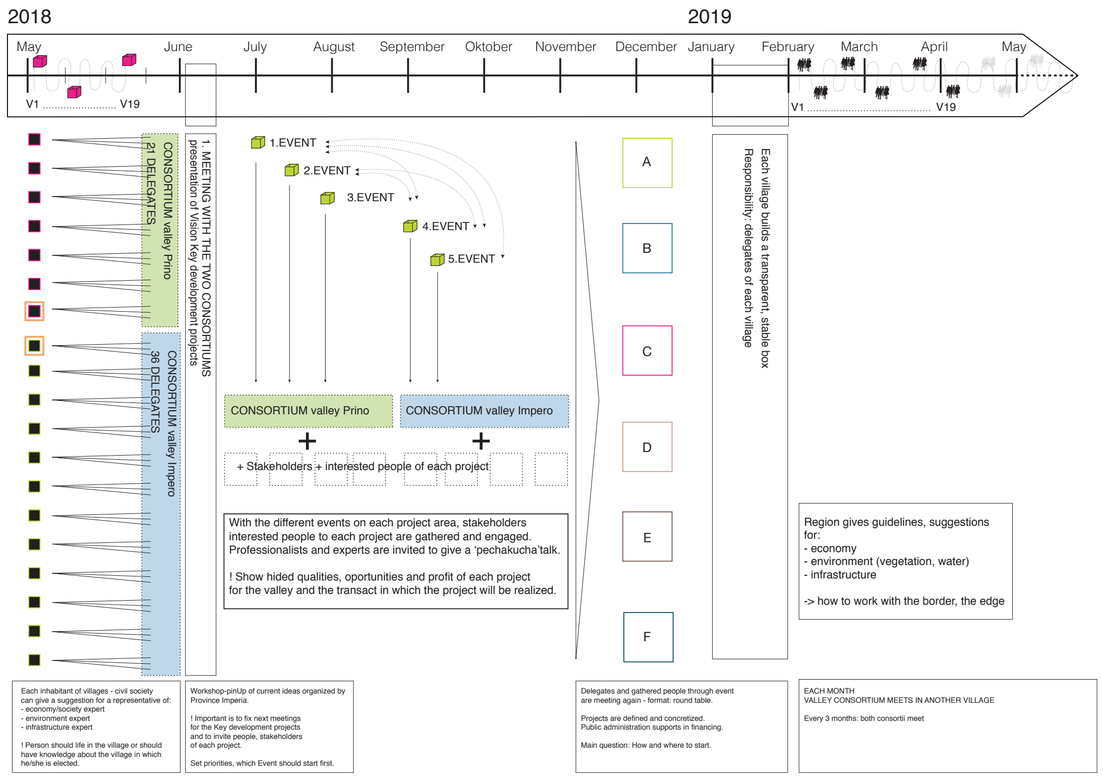


Fig.113: Detail process graphic for the first year. Source: by author.

III

STRATEGY

2018-2040

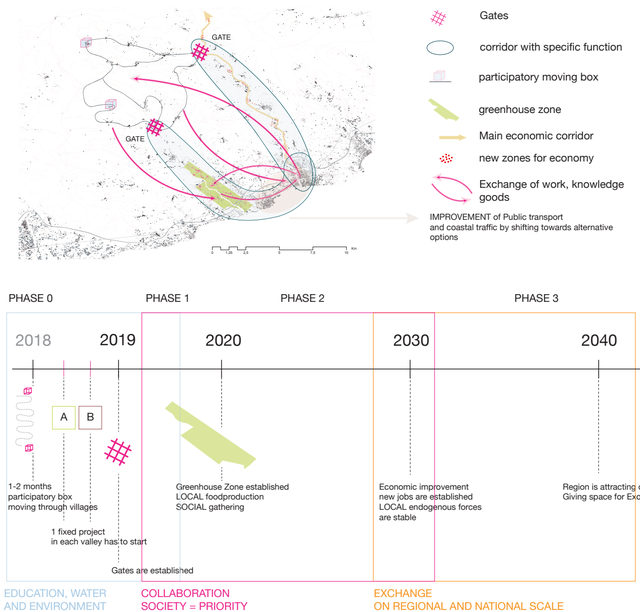
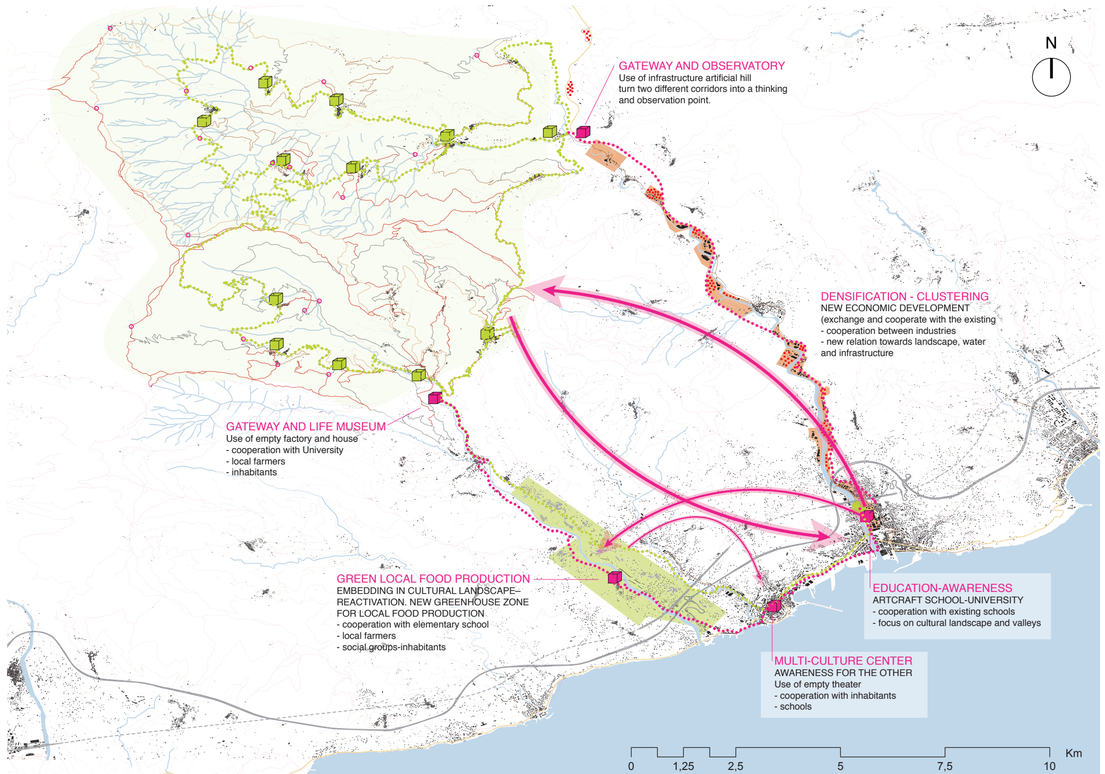


Fig.114: Phasing of strategy. Source: by author

The strategy of the re-development of this two valleys will be phased into four phases which have different foci.
The first phase is phase 0. In this phase, the main attention is on education, water management, and environment carefulness. This phase consists of the election of the consortium, the initiation of at least one key re-development project in each valley and the foundation of the gates to the rural. The assumed time is approximately one year.
The next phase, phase 1 starts in 2020. In this phase, the attention is on the collaboration and exchange between projects. Priority will be the society. The production of local goods will be the main focus. Food will bring people together and will be the topic of meeting 'the other' and the threshold of the foreigner will start to be reduced. Moreover, with the single projects, a funding program will be laid out to request support from different European funds and support will be asked for the next period 2020-2040. The last phase starts 2030 here the focus is on branding and going more regional and national. This means products and production is established and the region starts to start next development projects. The two valleys in the province of Imperia are providing new jobs and new economies are established. The valleys in this state are able to embrace exogenous forces and are stable in their local production.

Fig.115: Vision for the scale of two valleys. Source: by author with data from Repertorio Cartografico Regione Liguria. URL: http://geoportale.regione.liguria.it/geoviewer/pages/apps/repertorio/repertorio.html?id=r_liguri:D.1415.2012-12-21 (accessed 02.10.17).



III

CONCLUSION

The vision is constructed by different key-development projects. The aim of these projects is to reactivate human capital and to re-evaluate resources and values that the valleys have. Hidden potentialities are made visible. The key-development projects formulate new approaches and possibilities for cooperation by creating new engagements and pointing at the forgotten potentialities and the unforeseen opportunities. The projects thus allow for using local resources, rehabilitate them and make them visible.

The key-development projects are flexible in their timing. They give new opportunities to combine different stakeholders and scales together to reach a sustainable re-generation of the two valleys. They can start at the same time or by an incremental implementation. They all activate the function of the local cultural landscape and bring water close to the inhabitants in different ways. Moreover, they use the identified elements of shrinkage and re-connect them to the surrounding by taking the edge as the connecting part between ecologies and human activities. Finally, they reconnect the countryside with the coastal urban centres of Oneglia and Porto Maurizio.

THE VALLEY AS DRIVER FOR REGIONAL DEVELOPMENT

- MOBILE BOX - ENGAGE
- EVENT BOX - PARTICIPATE AND START THE PROJECT
- ENCOUNTER - MEETING SPACE
- HAND-CRAFT SCHOOL-UNIVERSITY
- MULTI-CULTURE CENTRE
- Green - Local Food production
- GATEWAY PRELA'
- GATEWAY OBSERVATORY

III

DIFFERENT KIND OF INTERVENTIONS

BOXES AND FIELD OF INTERVENTION

In this design, there are three different boxes which are mainly different spaces for engagement and participation of stakeholders. The first box is called 'mobile box - engage' and is the first box which is starting the whole process of engaging and getting into contact with local stakeholders. This box, as further in the document described, is seen at the beginning of the process like an election box which moves from village to village until the end of each valley. The second box is called 'event box' and will remain at each project site as long as the project needs to be fully executed. The period that each 'event box' will remain at the project site will be different for each project. The time depends on the time each project needs to evolve. The last used box, called 'encounter-meeting space' is a local to physical built environment related space that must be provided by each village to ensure a space to meet and to engage as well as represent the particularities of each village. This space must be provided by each village and will last forever and will be transformed to the needs of the community of each village.

To summarize this strategy operates with three different typologies of boxes, one which participates and moves, one that engages and will be installed temporally and one that is physically implemented within each village and reuses empty space in the built environment. The three boxes are not only different in their appearance and function within this whole process but are also been used at three different times and are representing different phases of the strategy.

- The **'mobile box'** represents the first phase, engaging, and getting attention from different local stakeholders.
- The **'event box'** is introducing the second phase within this strategy, the phase where concrete projects of interventions will start and become visible.
- The **'encounter-meeting space'** is introducing the third phase where the villages are creating their own spaces to engage newcomers, tourists and will form their own community which will help especially remote villages to re-generate and become a part of a whole area of new development. This phase starts at the same time as the first projects in the valleys start. (Fig.116).

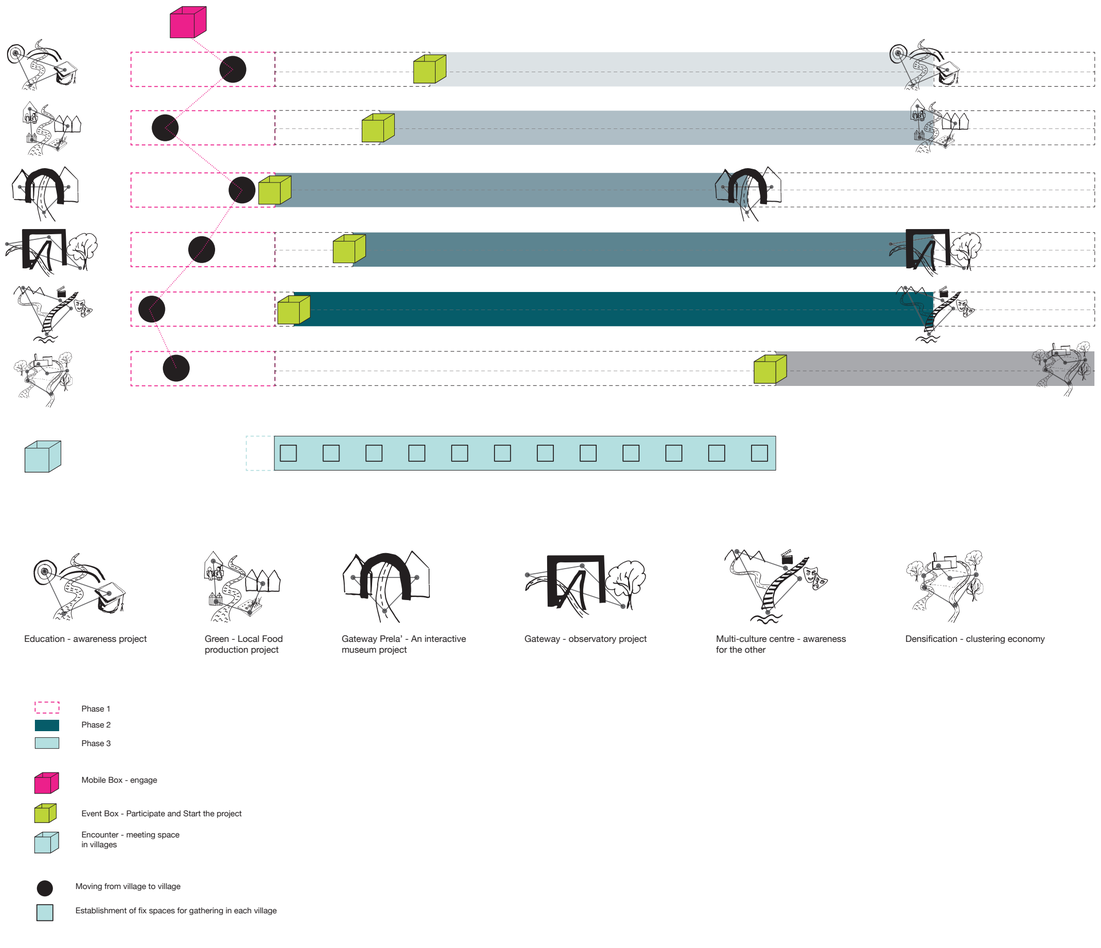


Fig.116: Phasing of 'boxes'. Source: by author.

III

MOBILE BOX - ENGAGE

Moving Box a participatory tool

The whole process is guided by a participatory 'mobile box' which is moving from village to village.

The 'mobile box' is a temporary space which will be placed in the local environment to engage with inhabitants and stakeholders. It must be able to be installed on every occasion and to be removed at any time easily without a huge effort. This created space is made of transparent material to emphasize also physically on the transparency of this development process. With this bottom-up approach, one can succeed to have a good first engagement with the inhabitants. Important is to be as transparent as possible and to show understanding for the people which are the ones who are filling the space with meaning and relevant stories. This pop-up space gives the possibility to be more transparent towards the inhabitants. Moreover, the engagement with remote villages can be more elaborate and can be physically seen. Giving attention to the rural part is one step to bind the rural again closer to the urban. Inviting the community to participate and to collaborate helps to strengthen partnerships and be more welcomed with new ideas for the regeneration of those two valleys.

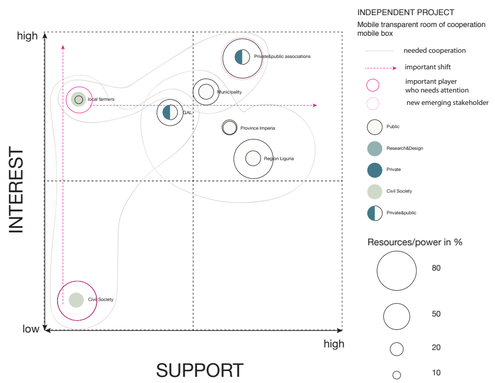


Fig.117: Stakeholder engagement. Source: by author



Fig.118: Collage of 'Mobile box' in different villages. Source: by author with people from www.skalgubbar.se

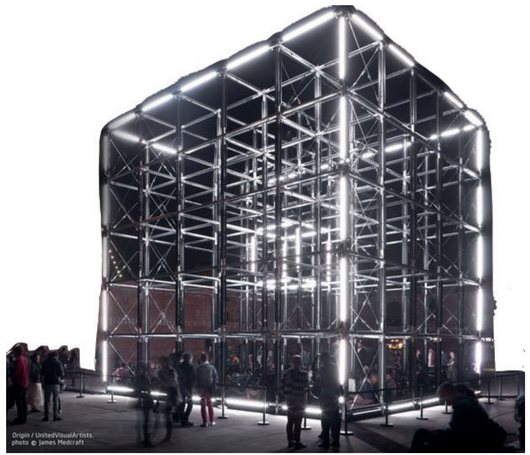
III

EVENT BOX - PARTICIPATE AND START THE PROJECT

ENGAGING AND STARTING WITH A BOTTOM UP APPROACH

The ‘event-project start box’ is important when key-development projects are being started. It is needed to make the sign of the start-visible. Additionally, the event brings stakeholders together and helps in networking and by building a project group which will be formed out of the civil society, the public sector and experts in each field.

Events with different topics and workshops regarding the project will take place in the project space. The event-project start box will be a point of reference in the whole process for each specific project.

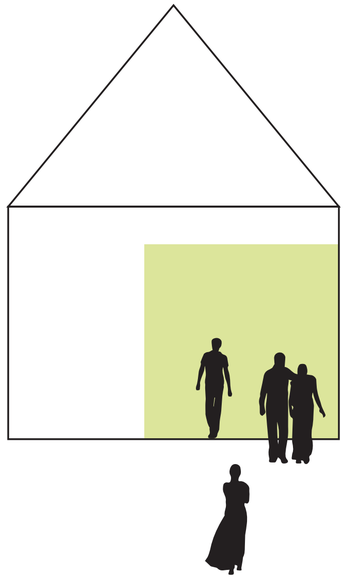


ENCOUNTER - MEETING SPACE

NEW ENCOUNTER SPACE AND ROOM FOR NEW CONNECTIONS

On long-term, each village should provide a space which is available for meetings, gatherings, workshops. It also gives space to allow inhabitants to present and sell their products. A space for the valorisation of their life.

This room forces the sense of community and is needed especially for rural areas with a high amount of elderly and scattered society. Newcomers and tourists can see the products of the village and can get into contact with the local inhabitants. One can say that this space offers room for the exchange and connection between endogenous and exogenous forces. Space or room for new networks.



III

KEY RE-DEVELOPMENT PROJECTS

Education - awareness

This project is located on the other side of the new train station Imperia. It is placed on the other side of the river Impero in Oneglia. This project is located within an old concrete industry building which closed 1973 (Riviera24 news. Source: http://www.riviera24.it/2011/02/a-imperia-e-scattata-la-bonifica-dellex-italcementi-area-in-stato-di-abbandono-dal-1973-104397/). The building was realized in 1900. Before that, it was an explosive munition stock.

The building after being in property of Italcementi was given 50% to an Italian bank 'Banca Popolare di Lodi' and 50% to other investors from Lombardia, another region in Liguria (Riviera24 news. Source: http://www.riviera24.it/2010/12/imperia-sopralluogo-questa-mattina-allex-italcementi-per-dar-via-a-lavori-di-bonifica-amianto-98856/).
The whole abandoned area is approximately 30 000 m2 big. (Focus Imperia. Source: http://www.focusimperia.it/la-storia-dellitalcementi/).
In the year 2015, the city Imperia cleaned the space from asbestos and removed polluting materials from the area. (Focus Imperia. Source: http://www.focusimperia.it/la-storia-dellitalcementi/). There were different plans for this area but until now it is still a beautiful wrack within the city of Oneglia.

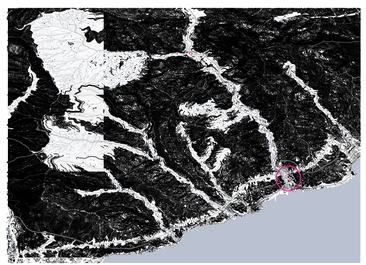
This building will be transformed into a Hand-craft School-University. With this project will on one hand side be a connector between the countryside and the coast and give space for new knowledge and interaction between stakeholders and on the other hand it gives space to the river.

The whole project starts with a new bridge from the new train station Imperia towards this building. The bridge is appropriate in different ways: first, it allows an access to the water through all the days of the year also when the river has more water in the basin. A bridge also allows the vegetation to grow naturally without being destroyed or influenced by people. Moreover, with the bridge, the design follows the sequences of bridges which are found in this transect (see Fig.111).

This project is initiated with students from the existing Industrial hand-craft school (Ist.Prof.Di Stato Per L'Industria E L'Artigianato Ipsia 'G.Marconi'), the Municipality Imperia and the consortium group of the valley of Impero and other public and private stakeholders, which were gained at the participatory event at the beginning of the whole process.



Fig.119: Pictures. Source: by author



NEW TRAIN STATION IMPERIA

NEW PEDESTRIAN CONNECTION BRIDGE

OLD CONCRETE INDUSTRY

EXISTING INDUSTRIAL HAND-CRAFT SCHOOL

OLD TRAIN LINE

Fig.120: Transect. Source: by author with data from Repertorio Cartografico Regione Liguria.

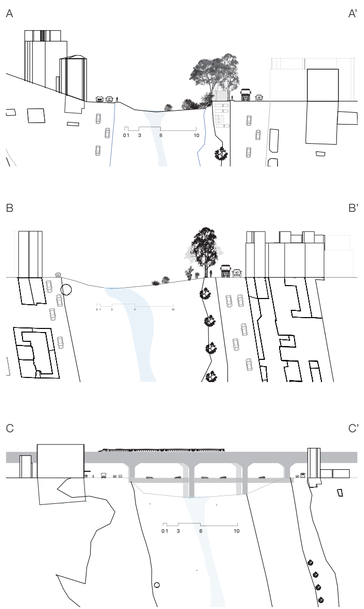


III

KEY RE-DEVELOPMENT PROJECT: EDUCATION AWARENESS

SECTIONS HAND-CRAFT SCHOOL-UNIVERSITY

Before:



After:

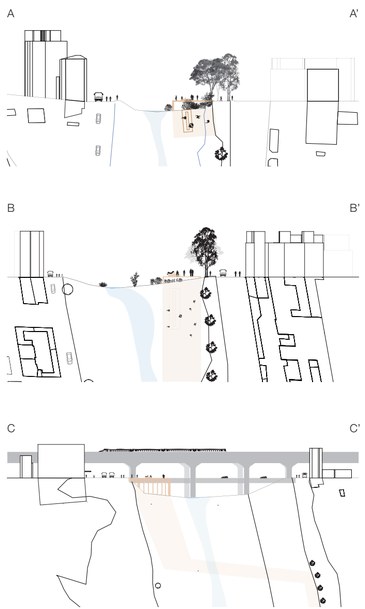


Fig.121: Sections. Source: by author

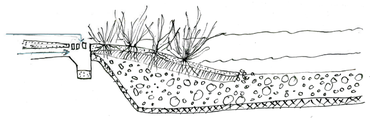


Fig.123: Section of water management of the river. Source: by author with information from: (Pötz, 2012: 442 f.).

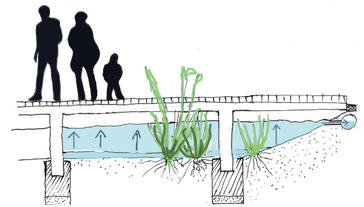


Fig.124: Relation between water and human activity. Symbol for cultural landscape. Source: by author with information from: (Zimmermann, 2011:347 ff.)

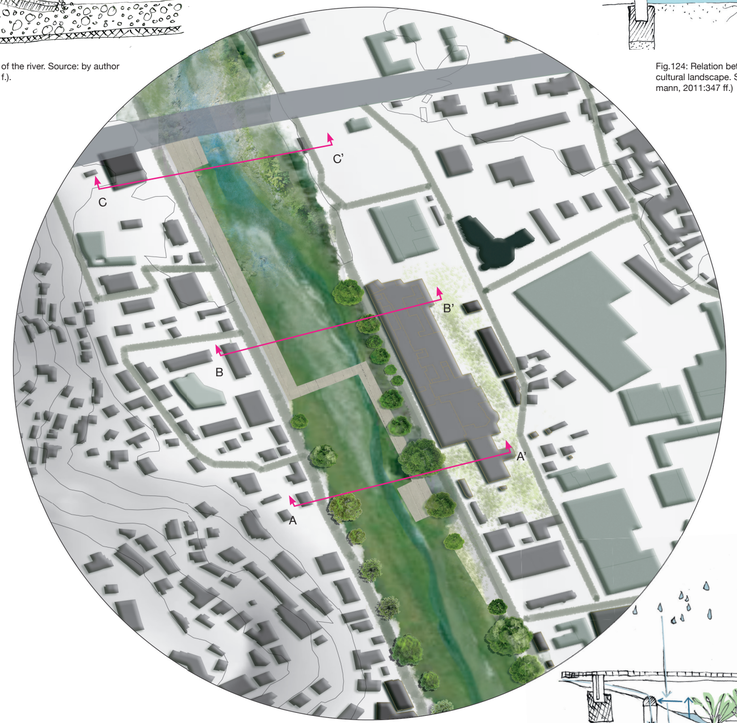


Fig.122: Zoomed Transect. Source: by author with data from Repertorio Cartografico Regione Liguria.

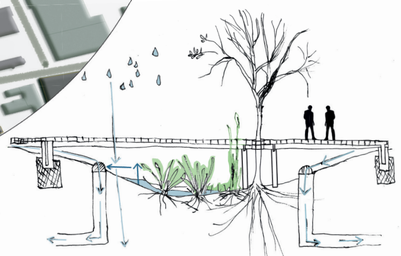


Fig.125: Relation between water management and human activity. Symbol for cultural landscape. Source: by author with information from: (Watson and Adams, 2011:114).

III

KEY RE-DEVELOPMENT PROJECT: EDUCATION AWARENESS

HAND-CRAFT SCHOOL-UNIVERSITY - STAKEHOLDERS AND POLICIES

The Hand-craft school University is in the centre of a potential new development area in Oneglia. It is facing the river and connected to the main train station of Imperia via a new designed bridge. The closeness to the train station will be in the future development essential because expert from other parts of the region will have a good access to this institution. The building itself is embedded in a zone where different food manufacturer are located like 'Olio Carli' or 'Olio Isnardi' or 'Pasta Agnesi' etc. This location offers an opportunity to cooperate with other institutions and give the students of this school not only an insight and a learning program about the management of the countryside but also about the valorisation and re-qualification of products from the countryside.

Important from the beginning of this process is that a strong cooperation between the existing Industrial handcraft school (Ist.Prof. Di Stato Per L'Industria E L'Artigianato Ipsia 'G.Marconi') and the Municipality is made. Secondly, the building owners must be convinced of the idea and their interest should be increased. This can be done by the first intervention the connecting pedestrian bridge which will increase the value of this place. The river will become accessible and the building will be easily reachable coming from the train station. Moreover, the traffic will be regulated differently, so that the road which passes next to the building is only used by public transport and by bike-pedestrians.
If they cannot be convinced the Municipality has to provide them with another offer and buy the building itself. Another possibility is that in the participatory project launch and festival new private investors could show interest in the project and ideas itself and be willing to buy or rent it. The building owner needs high compensations or a high interest to be on the boat of this project. Furthermore, the Municipality Imperia should be supported financially by ConfIndustria (Italian employers' confederation) for this project. As the project, itself accomplishes to teach new employees for the economic market, the Italian employers' confederation will have profit in some years from it and could invest in this project.

The Municipality has to ensure to the Bus company 'Riviera dei fiori' a new parking lot. The author suggests placing the parking lot next to the station Imperia, on the other side of the river. Or next to the highway entrance of Imperia-Oneglia. So that the parking lot can be used as the access to the river and as the place for the designed 'project event-information-box'.

Important for the engagement is here also the University of Genova, the more regional importance this project becomes the more the building owner will be willing to be on the sight of the new project idea.

The main process will be led by the elected consortium of valley Impero and the neutral group with GAL and the city Imperia.

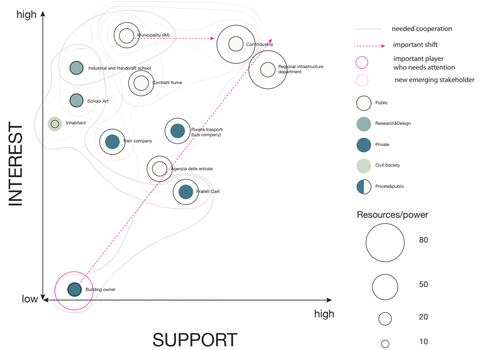
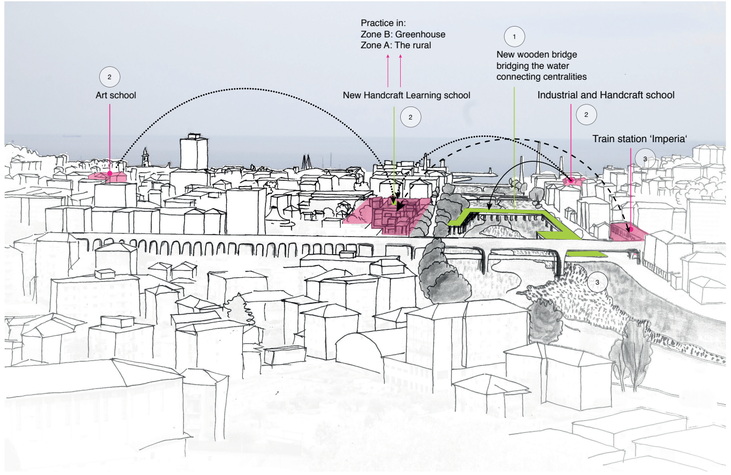


Fig.126: Stakeholder engagement. Source: by author



1 COOPERATION AND ENGAGEMENT

LOCAL SCALE
Students from Industrial and Handcraft school
('Ist.Prof.Di Stato Per L'Industria E L'Artigianato Ipsia 'G.Marconi')
Imperia are engaged with bridging the water.
-> making the green and the water again accessible

regeneration of old railway becomes a cooperation project under the name 'more green into the city'

REGIONAL SCALE
Cooperation with the **University of Genova** is made.
Engagement of the **agriculture regional institute**
('Centro regionale di sperimentazione e assistenza agricola').
Regional Water management is collaborating.

2 SKILL AND LABOUR:

LOCAL SCALE
Students from Industrial and Handcraft school
('Ist.Prof.Di Stato Per L'Industria E L'Artigianato Ipsia 'G.Marconi')
and Art school are engaged for the development of the new handcraft school.
Knowledge from the rural part is been integrated in the education

- the rural area becomes the space for practice and knowledge enrichment
PROJECT 3 'GREEN AND LOCAL' and the GATES are the main projects which has to be done by the students

REGIONAL SCALE
Cooperation with the **University of Genova** is made.
Engagement of the **agriculture regional institute**
('Centro regionale di sperimentazione e assistenza agricola').
Regional Water management

3 FLOW OF KNOWLEDGE AND PEOPLE

REGIONAL SCALE

Experts for watermenagement and agriculture field are coming via train, because of the good connection to give seminars and lectures in the new University.

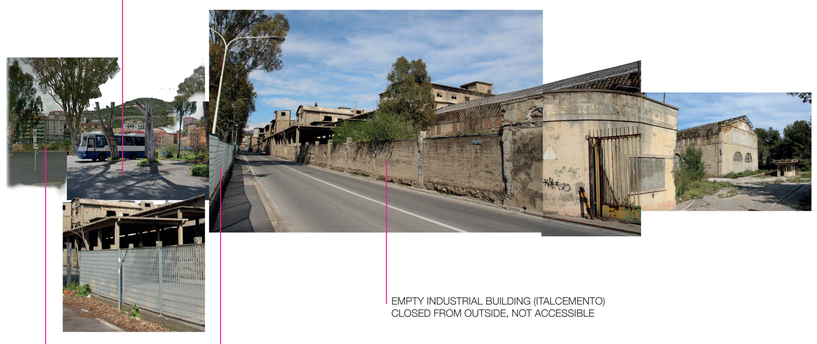
-> project becomes regional and international

Fig.127: Actions and cooperation to do. Source: by author

III

KEY RE-DEVELOPMENT PROJECT: EDUCATION AWARENESS

BEFORE



AFTER





This project offers phases with different intervention types.

Phase one contains small simple bottom-up interventions which can be done easily at the beginning of the project. A few examples of small events are: closing the road between river and building from transport on one Sunday and organize a street festival. This event can be done several times with different mottos, like painting the street or grilling on the street or giving space for a farmer's market or for a music night under the stars or some school performances. With these events, one can start to bring the quality of this street back. It will also raise attention to the surrounding physical space, like the waterfront and build environment. Moreover, as there is no traffic one can use the whole street and stroll and pay more attention to other things than in daily life.

Within a second phase, we can have more project-related events. To regenerate the water, for example, could be one event. Regenerating the waterfront by planting trees and all kind of local vegetation. A second project which goes more into the project itself is to start with bridging the water. When the bridge is done, an inauguration can be planned. As the bridge is built more events can take place on the bridge, an example is a water festival.

The third phase is incorporating more planning and negotiations with stakeholders and other authorities. The event here would be to open the empty industry to the public with an event. In this building, after it is secured for the public could become a place for different events before the Architectural competition for the building starts.

Fig.128: Collages. Source: by author
Fig.129: Impression after intervention. Source: by author with people from www.skalgubbar.se

III

KEY RE-DEVELOPMENT PROJECTS

Multi culture centre - awareness for the other

This project will be developed within the closed theatre 'Teatro Cavour' which was built in 1871 and was closed in 2015 because of insecurity of the building substance. The building is located in Porto Maurizio and is since 2017 embedded in a pedestrian zone. It is opposite to a cultural cinema 'Cineforum' and next to a covered local food market (See section Fig. 129).

This location is particular because it is between two corridors, the road which goes down to the sea – to the coast and the road which will bring you to the countryside - the mountain. In Italian, you could say, it contains the street of the sea 'La strada del mare' and the road of the mountains 'La strada della montagna'.

Why is this project seen as important?
The street Via Cascione in which this theatre 'Teatro Cavour' is located has a high number of immigrants. There are many shops that closed down in this street, especially small hand-craft shops. The fear towards strangers, 'the others', is a huge topic in these valleys. Thus this project proposes to focus on the society and its conviviality. To have success it proposes to start the engagement with others through food and events with different cultural topics to give insight into other food traditions and cultural festivities. By doing so the other or the stranger can also show its proudness and knowledge about its traditions and festivities. To engage people, children often are the connecting part. Schools of the surrounding should be an initiator of festivities, small performances in this square.
This project provides a temporary stage which will be placed in front of the theatre to give space for improvisation and workshops between different cultures. These performances are mainly organized by schools but inhabitants can also use the stage for their own workshops, celebrations or ideas which are related to culture. After the restoration of the theatre performances can be made also inside of the building and become more a more regular project long-term.

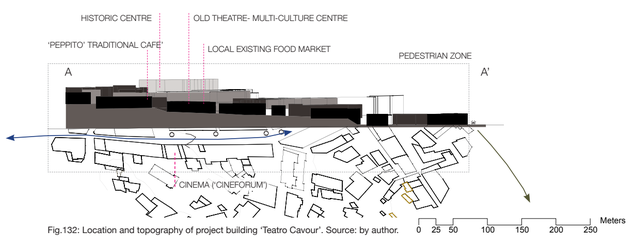
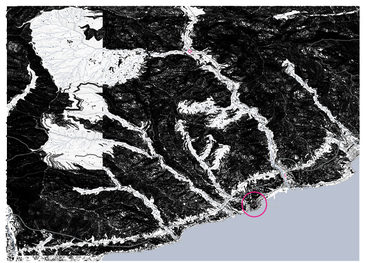


Fig.132: Location and topography of project building 'Teatro Cavour'. Source: by author.



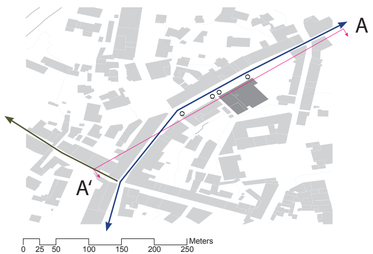


Fig.131: Source: by author

Road to the mountains - 'la strada della montagna'

Road to the sea -'la strada del mare'



Fig.133: Transect. Source: by author with data from Repertorio Cartografico Regione Liguria.

III

KEY RE-DEVELOPMENT PROJECT: MULTI CULTURE CENTRE

AWARENESS FOR THE OTHER. STAKEHOLDERS AND POLICIES

This project starts as the other project in Oneglia with the installation of the CIV (Consiglio di Indirizzo e Vigilanza) which is responsible for the safety of this building and who closed the buildings because of public security reasons. Through the events, money will be raised and funds from the EU which were recently gained through the program of Fesr will be used to open again the theatre. Within this proposal, the theatre will not become a traditional theatre but it will get more a social role attached. It will become more a culture centre was gratis social workshops can take place and schools use the facility as performance or training/practicing area.
Furthermore, from the other project in the countryside workshops about herbs can be done. This would bring the rural experience to the children and the citizens. Moreover, fresh vegetables from the new fields and greenhouses of the next described project will be used for cooking sessions in public on the stage. Different cultures can make cooking sessions with their traditional dishes and show to the other what the specialty is. Also, the covered food market is contributing to provide fresh vegetables to these sessions. Workshops with food that cannot be sold anymore are used to show and make awareness about wasted food.

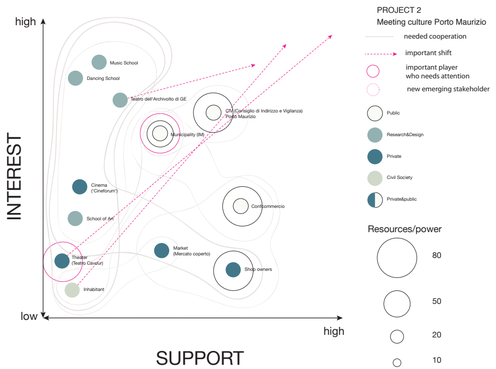
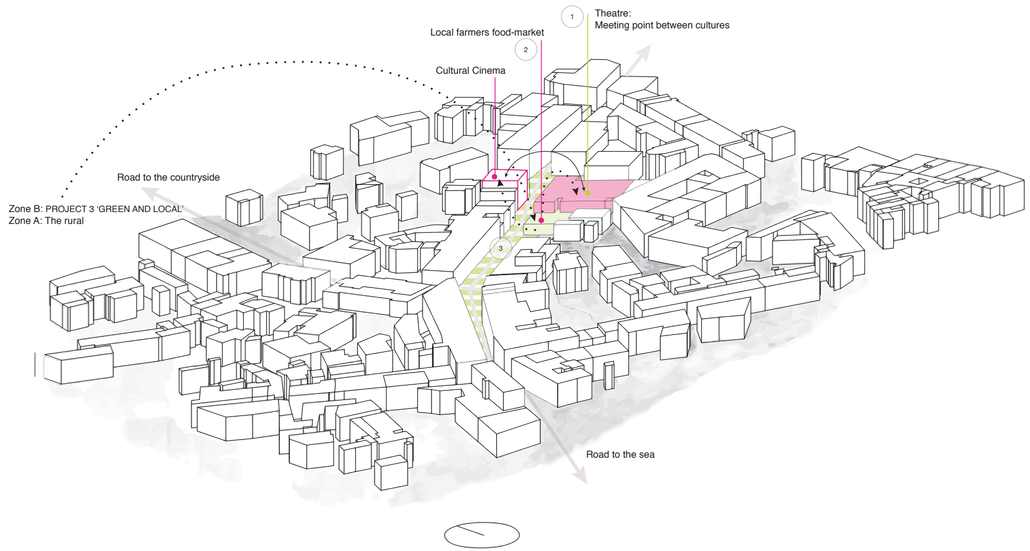


Fig.134: Stakeholder engagement. Source: by author



1

2 LOCAL GOODS AND AWARENESS

LOCAL SCALE

Vegetables from PROJECT 3 'GREEN AND LOCAL' are used for cooking events from different food cultures
-> integration of people from different countries

Produced vegetables from PROJECT 3 'GREEN AND LOCAL' are sold on the market
-> 1/3 of the money goes into maintenance of the rural

3 COOPERATION AND ENGAGEMENT

LOCAL SCALE

Cooperation between farmers market, theatre and cinema events are strengthen

The street becomes the space of interaction

Schools are using the reopened theatre for performances and exhibitions

-> Children = tool to get different people from different countries together.
-> first step towards lowering the 'fear' of the other

Fig.135: Source: by author

III

MULTI CULTURE CENTRE - AWARENESS FOR THE OTHER

BEFORE-AFTER



Fig.136: Teatro Cavour and via Cascione before. Source: by author.



Fig.137: Teatro Cavour and via Cascione after. Source: by author.

Figure 135 shows how through a performance outdoor stage the street will become livelier. How people will not only run through the street but will stop and watch or listen or even if it is a workshop participating. To get adults together we need to make programs with children which will automatically bring the parents together. It is also important to focus on other cultures like Turkish festivities or Tunisian or Chinese or Indonesian festivities. Through cooking workshops of different nationalities and initiated from different inhabitants will make people curious about the other. Through food and cultural events, this key re-development project will face the community and make the city more liveable.

Figure 137 shows how the existing market can make the whole pedestrian zone colourful. It must be added that this farmers market is not only special because of its products from the countryside and the new agriculture zone but because it adds a value to the whole road. Mainly it offers vegetables with nearly 0 Km of travel distance, which increases the quality of the products.



Fig.138: Teatro Cavour and via Cascione before Source: by author.



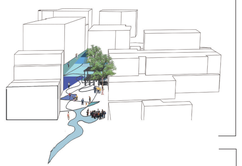
Fig.139: Teatro Cavour and via Cascione after. Advertisement of performance in tthe theater. Source: by author.



PHASE 1: SMALL BOTTOM UP WORKSHOPS IN PUBLIC SPACE



PHASE 2: SMALL BOTTOM UP ARTEVENTION OF PUBLIC SPACE



PHASE 3: REOPENING SPACE THEATER AGAIN OPEN TO THE PUBLIC

In this project, one can also be phased into different stages of events.

The first phase is based on small street events and a special focus in this key project is made on food. Cooking with others and preparing food festivals will help to gather different cultures together as a first step.

A second phase is in building a stage on the street that allows performances and workshops throughout the whole year. This stage can be booked from different stakeholders. This stage is a prophase of the third phase. The third phase incorporates the renovation and reopening of the theatre 'Teatro Cavour'.

This project provides a temporary stage which will be placed in front of the theatre to give space for improvisation and workshops between different cultures. These performances are mainly organized by schools but inhabitants can also use the stage for own workshops, celebrations or ideas which are related to culture.

III

KEY RE-DEVELOPMENT PROJECTS

Green - Local Food production

This project is not focused on a specific building but on an area. We are in the Municipality of Piani. This part could be considered of being still part of the suburban zone of the urban centre Imperia, the part of Porto Maurizio. In the landscape, one can find some unused or only partly used greenhouses facing southern. In between we can see extensively used soil for horticulture in the past, now it appears as follow land from former agricultural utilization which now slowly recovers from its unrestricted use.

This area consists of two different cultural landscapes one could say. One is the old, traditional cultural landscape which is placed on the left side of the river Prino and one is the new cultural landscape which is on the right sight of the river Prino. The cultural landscape which the author forehead called new cultural landscape seems to be out of balance because it was only used and consumed instead of giving something back to nature. The built environment is also different, huge more family houses are placed within it and roads are cutting through the landscape.
The old traditional cultural landscape which is defined as the village Piani and its surrounding gardens at the riverside will be re-connected to the other landscape on the other side of the river Prino. This will be done through a program of interaction. In June 2012 in the Italian newspaper 'La Stampa' residents of the so-called 'Case popolari', social housing, claimed they were forgotten from the Municipality and that space would experience decay caused from no maintenance. (http://www.lastampa.it/2012/06/07/edizioni/imperia/i-residenti-delle-case-popolari-ai-piani-prigionieri-del-degrado-9STRbUAzZl8Chx5Ajz3OvL/pagina.html, accessed 15.05.2018).

Planned for this transect is a project where new forms of biological agricultural cultivation forms can be tested. It will become a place where farmers can see and apply knowledge of more sustainable horticulture. This will be a new greenhouse zone and will be located where nowadays a camping place is located (see Fig.139). A combination with sustainable tourism will be applied as well. This new greenhouse zone is approximately 100 to 150 meter away from the local elementary school Piani. This closeness offers the possibility to the school to easily introduce gardening in its education at school.

On the other side of the river, a market square is suggested where people of the social housings can meet and buy fresh vegetables from the weekly open market. Moreover, behind the social housings on the hill, the abandoned land will be recovered from its extensive use in the past and will be prepared and transformed into new agriculture land which can also be rent from the residents.



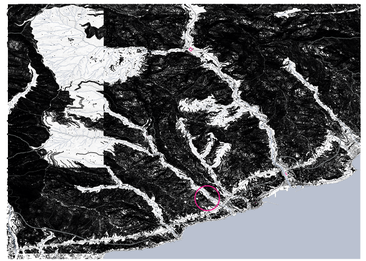


Fig.140: Source: by author



Fig.143: Pictures. Source: by author



Fig.141: Pictures. Source: Google Earth



Fig.142: Pictures. Source: by author

SOCIAL HOUSING

CAMPING ZONE

NEW MARKET SQUARE

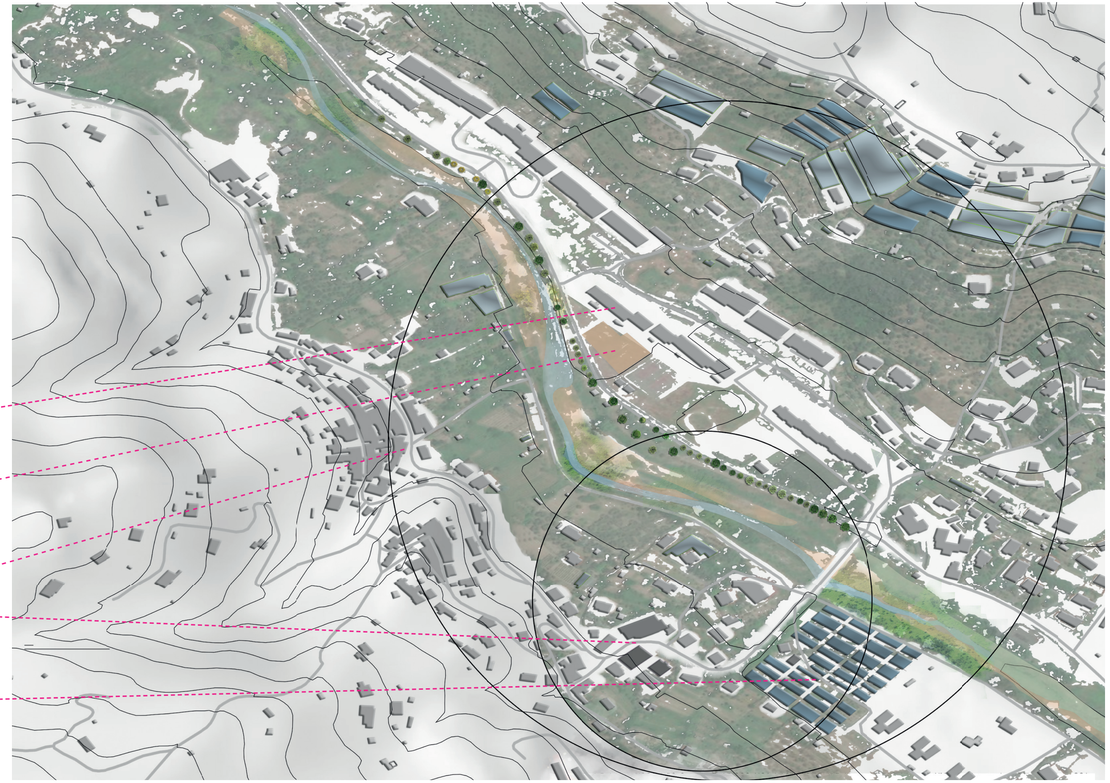
PRIMARY SCHOOL PIANI

VILLAGE PIANI

NEW GREENHOUSE ZONE, FORMER CAMPING AREA

N

Fig.144: Transect Green-local. Source: by author with data from Repertorio Cartografico Regione Liguria.



III

KEY RE-DEVELOPMENT PROJECT: GREEN - LOCAL FOOD PRODUCTION

GREEN - LOCAL FOOD PRODUCTION

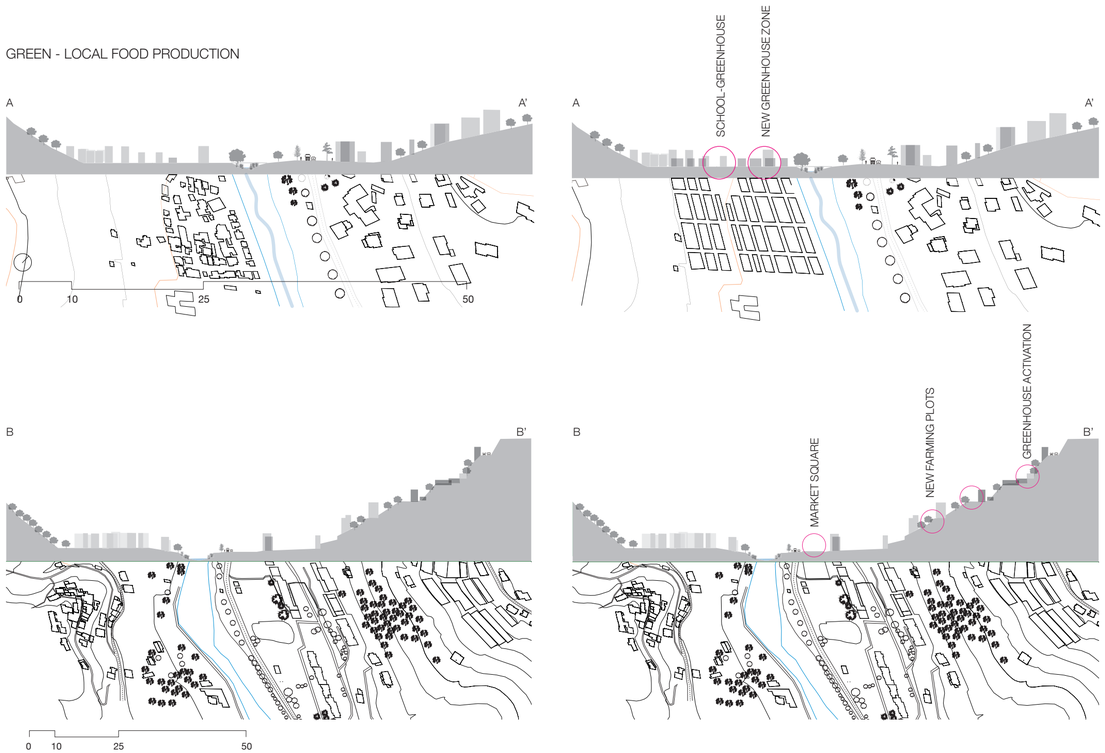


Fig.145: Sections. Source: by author with data from Repertorio Cartografico Regione Liguria.

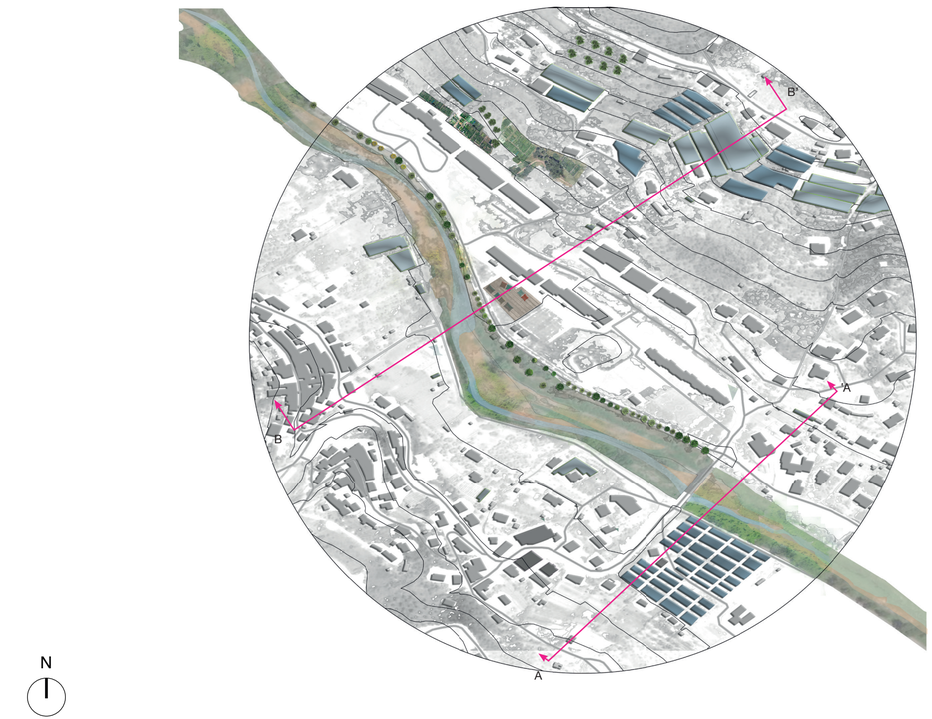


Fig.146: Zoomed transect. Source: by author with data from Repertorio Cartografico Regione Liguria.

III

KEY RE-DEVELOPMENT PROJECT: GREEN - LOCAL FOOD PRODUCTION

GREEN - LOCAL FOOD PRODUCTION. STAKEHOLDERS AND POLICIES.

This process is initiated and accompanied by the students of the new Hand-craft school University in Oneglia. The project starts again with an 'Event-festival participatory box' to point the start of the project out and to have a space to communicate with interested stakeholders and get feedback from the inhabitants. It makes also the process more transparent and more visible for the inhabitants. Curating the process is still the group composed with the elected consortium of Val Prino, the neutral planning institution and the GAL (see explanation strategy).
In this process is important that the inhabitants are getting more interest in transforming this transect in a horticulture-food production experimentation field. Private investors should be convinced in this new way of integrating agriculture in living and to have them on the sight of this project because especially in the beginning this project needs money to be able to be quickly successful on the regional scale and national scale. The centre of regional experimentation and agricultural assistance should be invited and to be convinced to gain interest in the project and support this project. As farmers should be involved in this new farming experience they should get some support to gain the process and help with knowledge.

This agriculture land is preserved for the students of the new University, this transect is one part of where the students learn how to deal with such a landscape. How water can be caught and drained better and how biological farming can be on long-term much more profitable than normal inorganic agriculture.

Students with farmers and experts are also responsible for preparing the community gardens and the rent-able gardens behind the social housings on the hill and the school garden for the children of the Primary school Piani (see Fig.66).

The vegetables which are produced within this zone are sold on the eventually new emerging market square or used for cooking events in the Culture centre in Porto Maurizio. The main part of this production goes into the Mensa of the schools of these valleys. This is a starting process of change in school and in the landscape, itself.

1/3 of the money which is earned by the sale of the vegetables is used for the maintenance of the landscape, with a high attention to the more rural, inaccessible parts of those two valleys. The funding from Europe and other given money goes mostly into the new technology and the speakers and organized workshops.

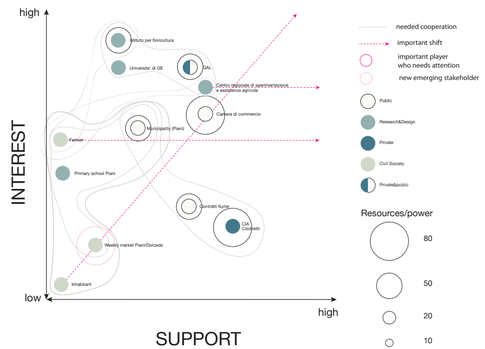
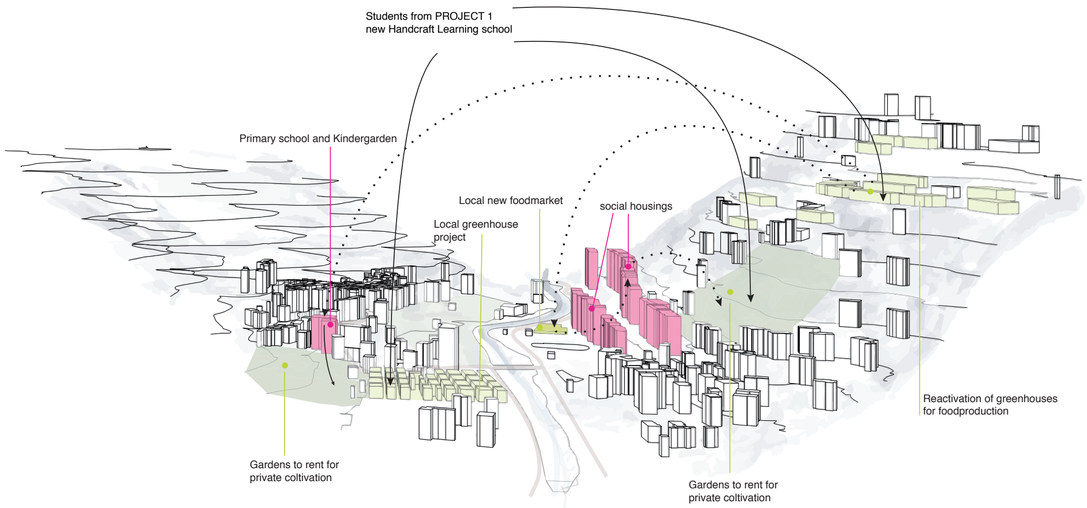


Fig.147: Stakeholder engagement and cooperation. Source: by author.



1 SKILL AND LABOUR:

LOCAL SCALE
Students from PROJECT 1, the handkraft school in Oneglia, valley Impero are engaged with redeveloping the abandont greenhouse zones with new techniques and methods for local food-production.
Farmers from the valley Prino are part of this process. Knowledge of how to cope with this landscape as well as historic methods are taught.

REGIONAL SCALE
Cooperation with the **University of Genova** is made.
Engagement of the **agriculture regional institute** ('Centro regionale di sperimentazione e assistenza agricola').
Regional Water management is collaborating.
Institute for floriculture ('Istituto per floricultura') is engaged.

2 COOPERATION AND ENGAGEMENT

LOCAL SCALE
Students and farmers prepare parcels for community gardens and for educational purposes in elementary school Piani.
School and **Inhabitants** are partecipating.

REGIONAL SCALE
New educational program for schools will be deveoped. From the field to the plate.

3
4 LOCAL GOODS AND AWARENESS

LOCAL SCALE
Produced vegetables are used for the mensa in all schools of the valley Prino.

-> rise of awareness about local food and its producers

Vegetables are used for cooking events in PROJECT 2 CULTURAL GATHERING or other cultural events.

Produced vegetables are sold on a new emerging market in the Municipality of Piani and on other markets.

-> 1/3 of the money goes into mantainance of te rural

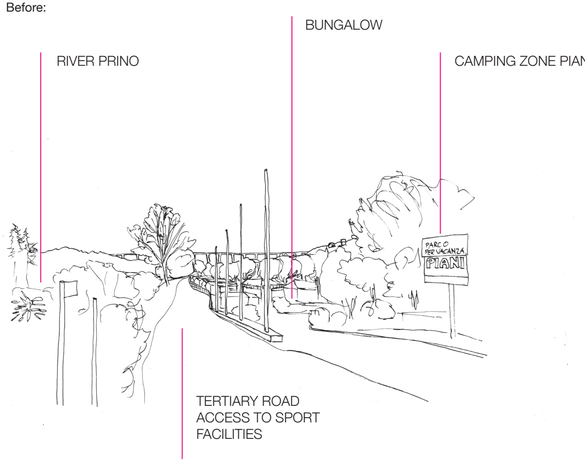
Fig.148: Transect Green-local food production. Flow map: who does what when? Source: by author.

III

KEY RE-DEVELOPMENT PROJECT: GREEN - LOCAL FOOD PRODUCTION

GREEN - LOCAL FOOD PRODUCTION

Before:

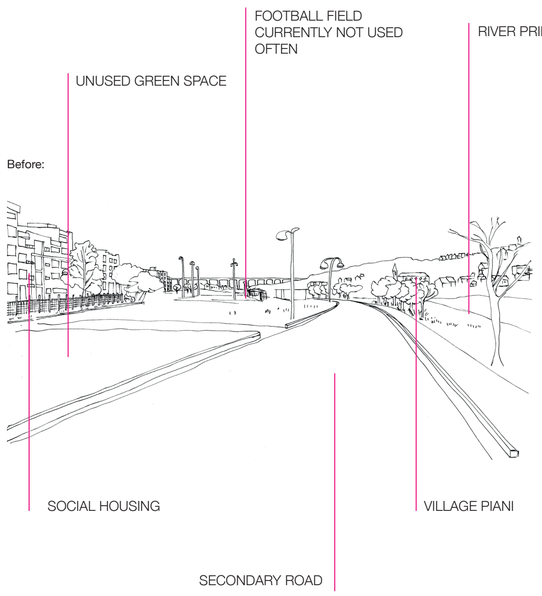


After:



Fig.149: Transformation of Camping space into a new horticulture-greenhouse project. Source: by author.

Before:



After:

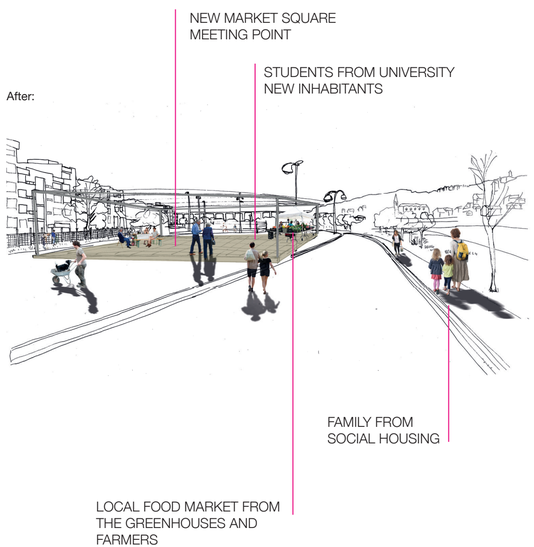


Fig.150: Social housings and new emerging local market square. Source: by author.

III

KEY RE-DEVELOPMENT PROJECTS

GATEWAY PRELÁ - AN INTERACTIVE MUSEUM

This project is developed for the empty manufacture building and for an empty farmhouse at the entrance of the village Prelá. The composition of these buildings and the location make it possible to make an interactive museum out of this space. This space will turn into a gateway that gives an impression of the villages, stories, and traditions of the rural. This project aims to be an interactive showcase of the history. This means people can come to see at this point how old agriculture traditions evolved and how border conditions are and are treated as well as where hiking paths are or festivities will happen in the villages.

This gateway gives space for awareness. At this gateway workshops, regarding traditional agriculture practice are made as well as historical exhibitions for on oil production. Villages can expose themselves in this gateway but also use it as a meeting point or workshop space.

The chosen space offers space for exhibitions, museum and life experience.









Fig.151: Pictures. Source: by author

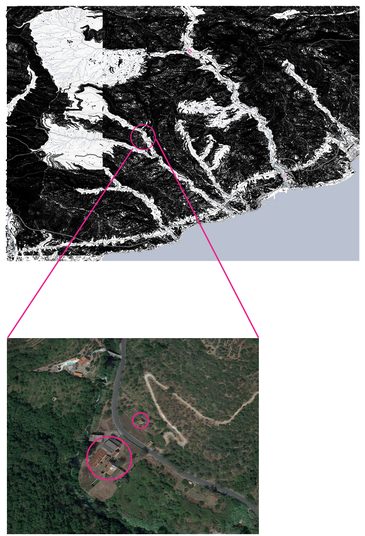


Fig.152: Google Earth. Source: by author



Fig.153: Transect. Source: by author with data from Repertorio Cartografico Regione Liguria.

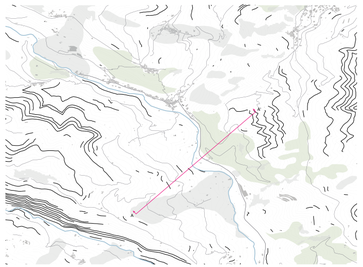
III

KEY RE-DEVELOPMENT PROJECT: GATEWAY PRELA'

GATEWAY PRELÁ - AN INTERACTIVE MUSEUM

Now Dolcedo is the main spot or node between rural and urban. A village before Prelá. As in this project, the emphasis is to reintegrate the rural to the urban the author chose Prelá as the gateway, one village more into the rural part of the valley Prino.

This project Gateway Prelá is a more local oriented project. It will mostly give the possibility for newcomers to understand the rural part. To give suggestions on what to visit and how to read the history, the landscape and the people living there. It is a point of awareness towards the rural. The project incorporates abandoned buildings and agriculture land into an open-air interactive museum of the past. Over time the role of being an awareness-information point is turned into a point where people can learn about historic practices. Over time this place becomes a space to learn about old agriculture techniques and become the point where rural and urban activities will meet and respond to each other needs.



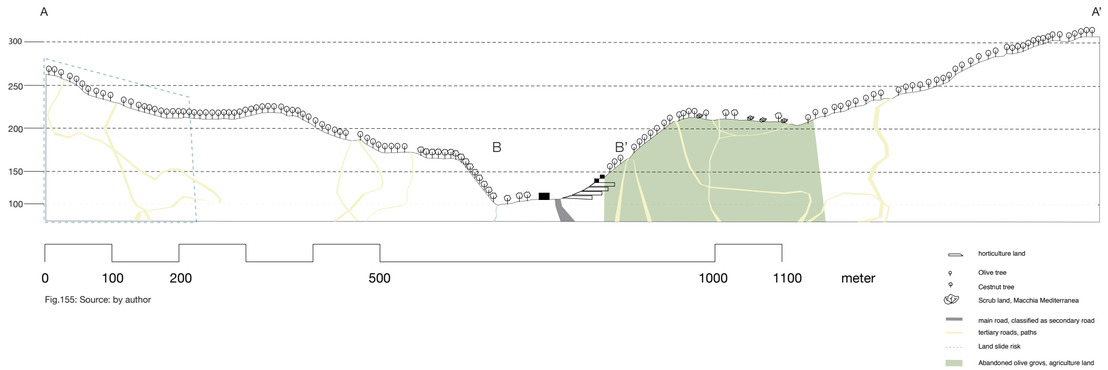


Fig.155: Source: by author

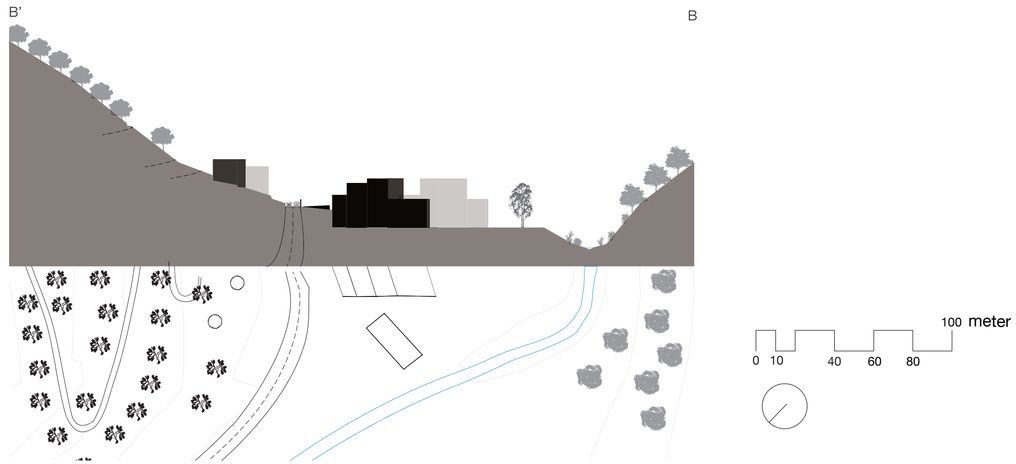


Fig.156: Source: by author

III

KEY RE-DEVELOPMENT PROJECT: GATEWAY PRELA'

GATEWAY PRELA' - AN INTERACTIVE MUSEUM. STAKEHOLDERS AND POLICIES.

The gateway Prelá is initiated by the students of the industrial and hand-craft school as well from the new started University and the local farmers of Prelá and the valley Prino. In this process, it is important to raise the interest of local farmers and the advantage of joining the project should be visible. The owner of the agricultural land above the street and the owner of the factory need a lot of attention and need to be convinced by this idea. The value of this project has to be emphasized. Tightening regional players with local stakeholders vertically and horizontally tightening private investors with the public is important for this project (see Fig.155).
With the corporation of students, farmers invited experts and existing associations (Fig.155) the abandoned factory will be turned into a museum of traditions, history of the olive oil production etc. as well as a reserved space for changing exhibitions which can be made by local inhabitants of the valley. (Fig.156). Moreover, an overview of the current villages will be there with a description of the currently happening interventions and a detailed map of the existing hiking paths.
On the other side of the street, an 'interactive-museum' will be established where old traditional agricultural methods are demonstrated and taught. The old farmhouse will be used to show how people lived in former time and to expose old agrarian utensils. Moreover, the entrance to one hiking route is located at the chapel and functions as a gate to a historical footpath.

Why is this project aiming to have an 'interactive-museum'?

An 'interactive-museum' offers the possibility to get in close contact to history and holds workshops about how to transform the vacant abandoned land into a new cultivated one. Important is here that the different stakeholders learn how to deal with the edge of abandoned and cultivated, how to catch or drain water in a way that it is not destroying the landscape and to learn about how vegetation can help to catch water and to reactivate land into a fertile land. The old and the new, as the abandoned and the cultivated, will be intertwined instead of existing next to each other.

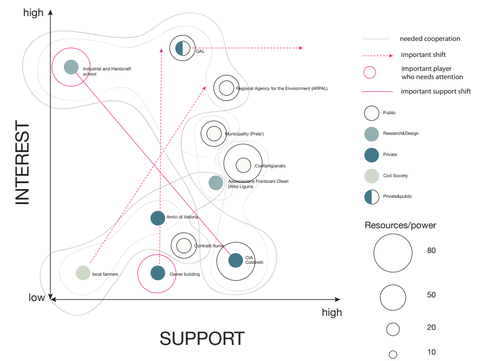
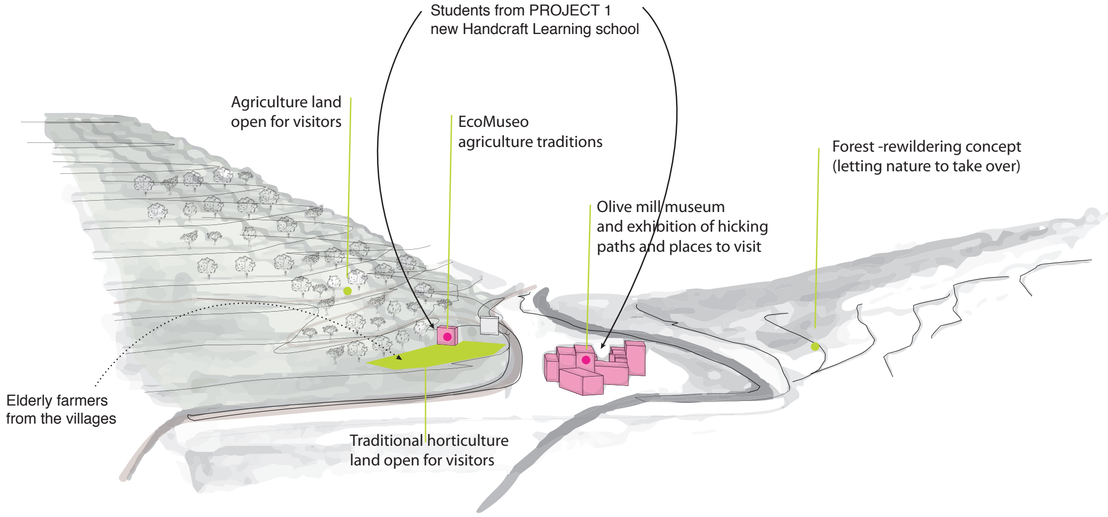


Fig.157: Cooperation and stakeholder engagement. Source: by author



1 START OF THE GATE

LOCAL SCALE
Students from PROJECT 1, the handkraft school in Oneglia, valley Impero are engaged with redeveloping the abandont greenhouse zones with new techniques and methods for local food-production.
Farmers from the valley Prino are part of this process. Knowledge of how to cope with this landscape as well as historic methods are taught.
GAL as local support for awareness.

REGIONAL SCALE
Engagement of the **agriculture regional institute** ('Centro regionale di sperimentazione e assistenza agricola').
Regional Water management is collaborating.
Institute for floriculture ('Istituto per floricultura') is engaged.

2 KNOWLEDGE - LEARNING ABOUT THE PAST

LOCAL SCALE
Schools use the Eco Museum as a place to show the history of agriculture to their students.
Tourists are using this place as their gate towards the place, the rural villages.
Workshops are made on the spot.

REGIONAL SCALE
Associazione Frantoiani Oleari (Aifo) Liguria are sustaining and supporting the Eco Museum.
Regional Agency for the Environment (ARPAL) as financial support

Fig.158: Flow map - who intervenes where. Source: by author

III

KEY DEVELOPMENT PROJECT: GATEWAY PRELA' - A LIFE MUSEUM

BEFORE-AFTER



Fig.159: Before-after. Source: by author.







Fig.160: Before-after. Source: by author.

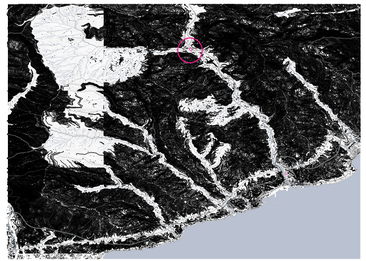
III

KEY RE-DEVELOPMENT PROJECTS

Gateway - observatory

The gateway in the valley Impero is placed strategically in between two corridors. The economic corridor which goes to Torino and the corridor which is reaching the last villages of this valley. In comparison to the other gateway in Prelá, it is more oriented towards the regional scale. It is allocated within one main regional economic corridor.

This project on one hand emphases on this two important connections by suggesting the observatory box. On the other hand, it copes with land-sliding by planting special trees, shrubs which are retaining the soil and catch a first part of the rain run of. This shrubs and plants should be part of the Mediterranean Macchia, to add value and give also some knowledge to tourists and other inhabitants who are passing through this gateway. This observatory box is seen from the main roads and is highlighting the entrance to the last villages of the valley Impero. This recommended installation is also interesting from the point of view of European funding. It should show how European funding can be scaled down much more into the local scale and be used more sustainable.



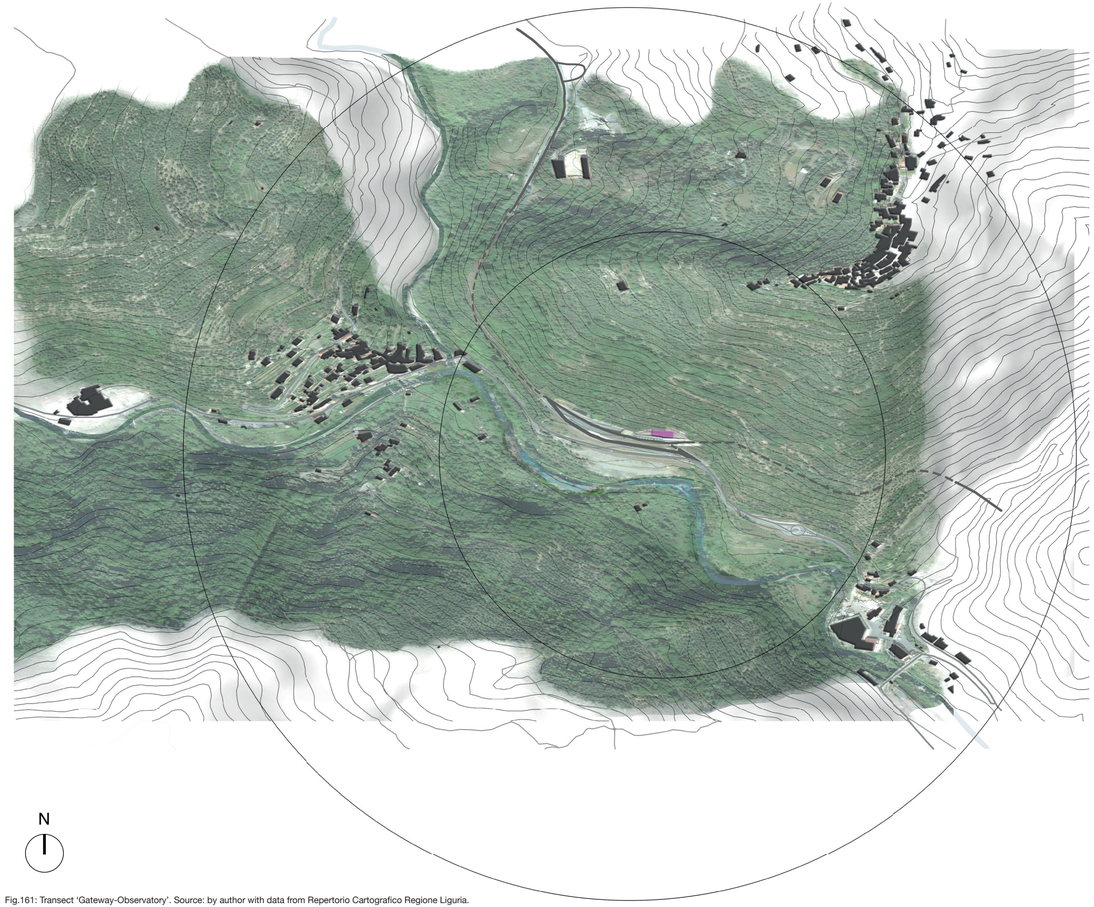
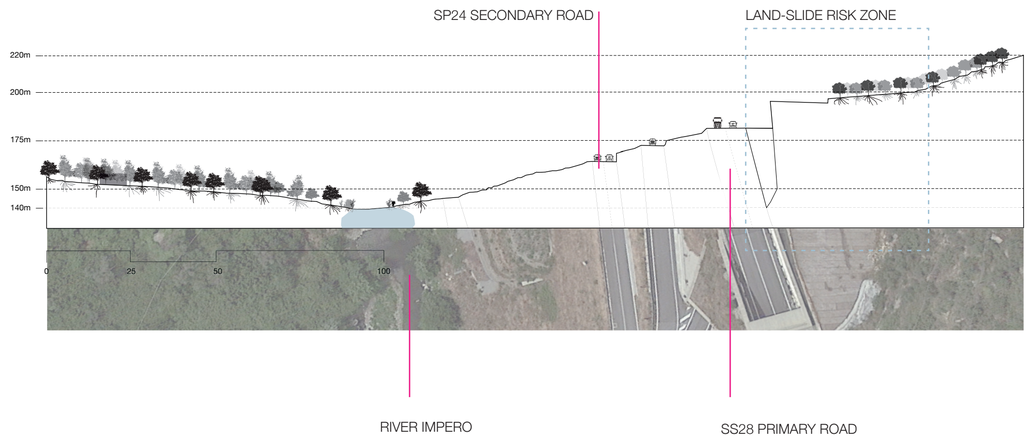


Fig.161: Transect 'Gateway-Observatory'. Source: by author with data from Repertorio Cartografico Regione Liguria.

III

KEY RE-DEVELOPMENT PROJECT: GATEWAY - OBSERVATORY

GATEWAY - OBSERVATORY.



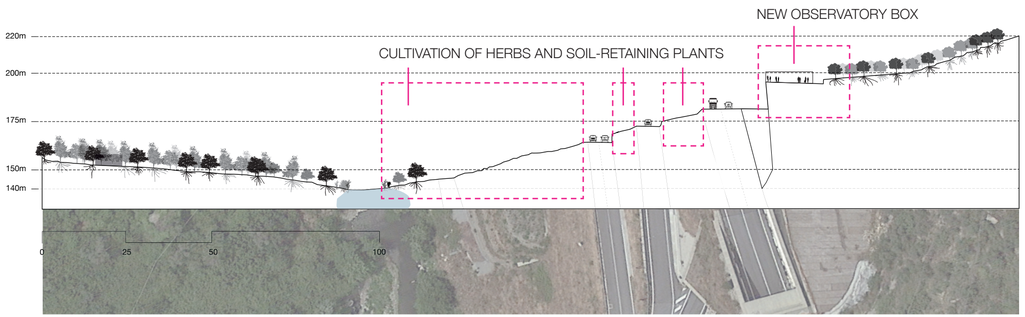


Fig.162: Section BEFORE - AFTER. Source: by author with image from Google Earth

III

KEY RE-DEVELOPMENT PROJECT: GATEWAY - OBSERVATORY

GATEWAY - OBSERVATORY. STAKEHOLDERS AND POLICIES.

In this project ‘Gateway - observatory’ the local farmer will be cooperating with the infrastructure department of the province Imperia. This ensures that the infrastructure department gets the local knowledge from the farmer where and how the water runs off. So, they can profit both from the new infrastructure construction. An important player in this project is also the region Liguria as it is within the economic corridor. Support and distribution of funding from the region Liguria are expected. The farmer has a low interest as the agriculture land around this node seems abandoned but by developing a new image with the transformation of the land towards a cultivation of herbs and aromatic plants it could become a new economic branch. The installation of the observatory gives the farmer also the feeling of being important and part of the ecological system.

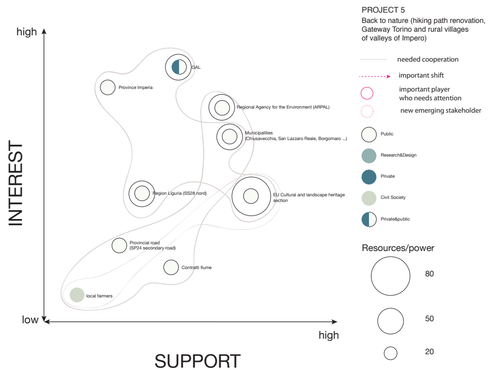
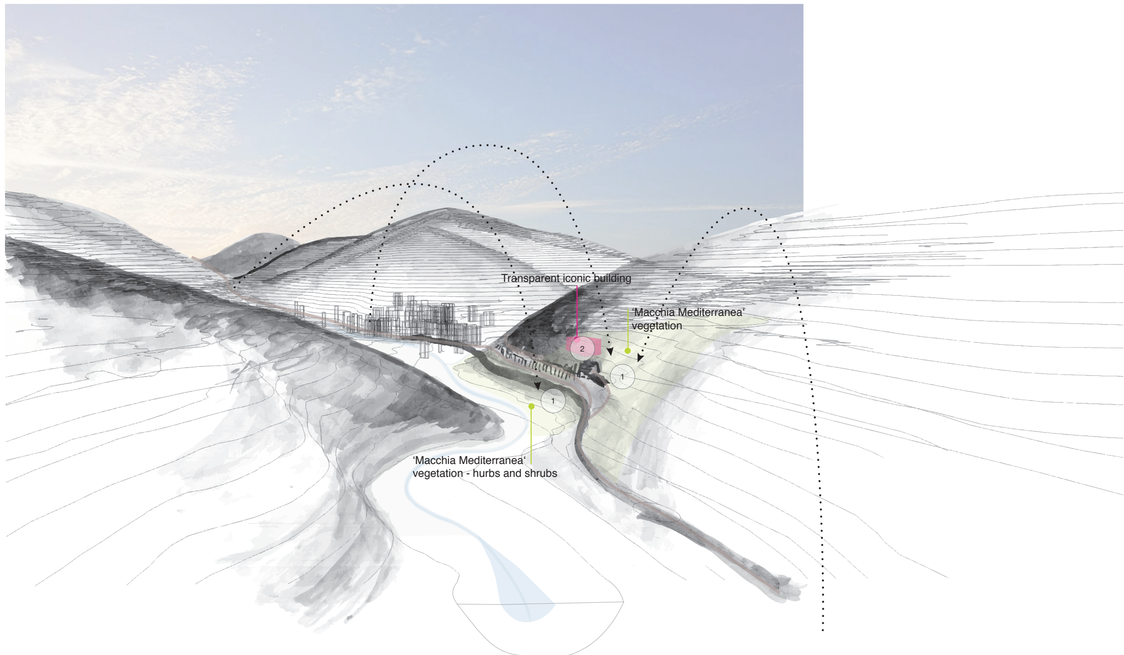


Fig.163: Stakeholder engagement. Source: by author



1 SKILL AND LABOUR

LOCAL SCALE
Students from project 1, the handcraft-school university in Oneglia are engaged with planting ‘Macchia Mediterranea’ vegetation, typical herbs in the abandoned land and to stabilise the soil.
Farmers from the villages are part of this process and helping in understanding the place.
Knowledge of how to cope with this landscape as well as historic methods are taught

REGIONAL SCALE
Cooperation with the **University of Genova** is made.
Collaboration with the regional and provincial **road department**.
Regional Water management is collaborating.

2 AWARENESS

LOCAL SCALE

Visible **iconic transparent building** on the top of different road networks, build from the winners of an announced landscape-architecture competition.**Observation** of the typical vegetation of this region.
More consciousness about this point of being a gateway to the rural and to an important economic corridor for the region Liguria. This research can be an example of how a new network can be built and contribute to creating a backbone for a shrinking region.

REGIONAL SCALE
A **showcase** for combining different edges, elements, and departments of different scales together.
Expert and touristic attraction.
Educational purpose about the typical vegetation of this region and a new water drainage system combined with the road system.

III

KEY RE-DEVELOPMENT PROJECT: GATEWAY - OBSERVATORY

BEFORE-AFTER

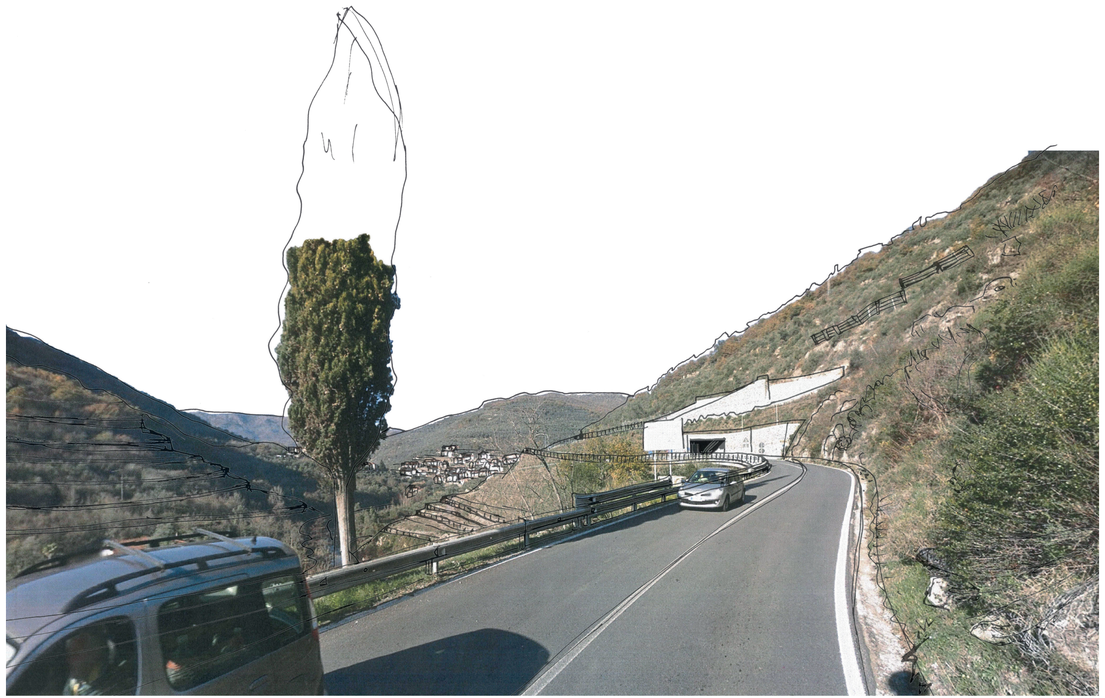


Fig.164: Situation before. Source: by author with image from Google Earth.



Fig.165: After intervention. Gateway - Observatory. Source: by author with image from Google Earth.

III

POCKETS FOR NEW ECONOMIC DEVELOPMENT

DENSIFICATION AND CLUSTERING

This project is addressing the valley Impero and is giving a policy how new economies should align with the existing. This project offers pockets along the river and roads of the valley, where new economies can be established. Important within this project is that the economies established in the predefined pockets give something again back to the surrounding environment. Within the established clusters industries need to cooperate and to share the infrastructure. The aim is to densify in the defined pockets and cluster within the pockets. The physical proximity of different stakeholders gives more possibility to cooperate and gives opportunities to exchange ideas and expertise.

Clustering in this context means not only to share infrastructure facilities, knowledge and ideas but also to create a new relation to the surrounding landscape. The emphasize lies in making a connection to the local physical environment.
For example, a new industry which settles within this defines pocket needs to provide something for the environment, like repairing a part of the typical terraces aligning on the opposite hill or giving money for a new water management system to decrease the landslide risk. Also by giving the produced heat to the heating system of the next village would be innovative and moreover be something which increases sustainability.

Small intervention to get the industry more involved in the environment is planned. An example is to bridge the water to connect to industry pockets with each other and use the green space for recreation for the workers and the customers. A current indoor playground should be reversed towards open space and give the opportunity to learn about nature and its characteristic.
Moreover, the sealed pavement and parking lots for the customers should allow different usages and allow water infiltration and catch water underground. The caught water than could be used for cooling of the industries and for the irrigation of farmers' agriculture land. The catchment would decrease the amount of water which in rainy seasons that is running through the river.



Fig.166: Pictures. Source: Google Earth street-view (accessed 15.06.2018).



Fig.167: Transect industry. Clustering and densifying. Source: by author with data from Repertorio Cartografico Regione Liguria.

III

NEW ECONOMIC DEVELOPMENT

DENSIFICATION AND CLUSTERING

In the process of establishing pockets for an industrial densification, it is important to look at the edges and the current stakeholders which are there. We need to be careful with the edges of different uses and start to emphasize the relation between the different zones.
In some declared zones a negotiation with the local farmers need to be done. The interest of collaboration should be achieved with the current farmers. Moreover, some pockets are being declared as green pockets and are important for the regeneration of nature.
The alignment with the 'Contratti fiume' aims has to be done to avoid conflicts. Therefore, the collaboration with the local group of the program 'Contratti fiume' should be done. This will provide a more sustainable development and facilitate the development of these pockets. Moreover, a cooperation between ConfArtigianato, ConfIndustria and the Municipality has to be drawn. The alignment of municipal, provincial, and regional programs and the current economic stakeholders' associations have to be done to get the best result and avoid the suburban sprawl of industries along the river Impero. The designated pockets could in a further process be defined with a specific economic topic. This would allow that the industries in one pocket can divide their infrastructural facilities easily and can reduce their external expenses. Moreover, this allows a higher specialisation in the economies and can provide space for innovative new economies.

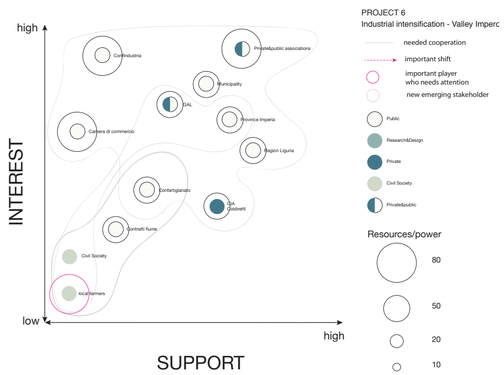


Fig.168: Stakeholder engagement. Source: by author

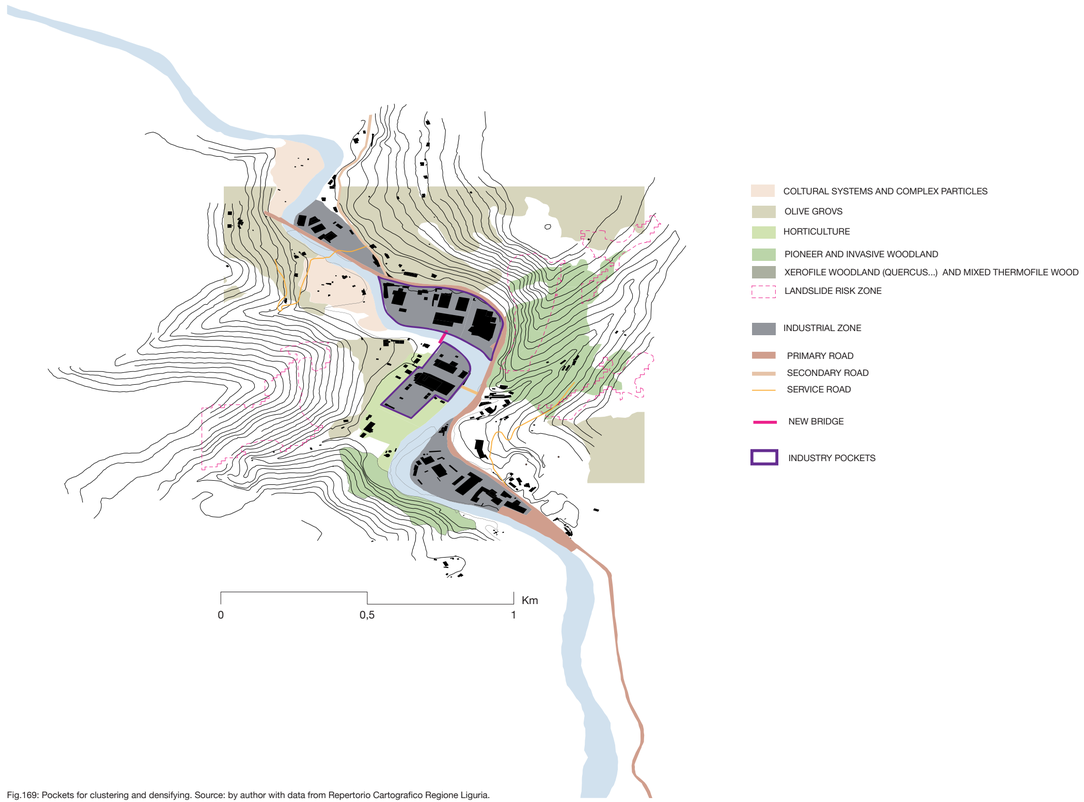


Fig.169: Pockets for clustering and densifying. Source: by author with data from Repertorio Cartografico Regione Liguria.

III

KEY INTERVENTIONS WITHIN THE RURAL

Water management: retention, deviation and collection

Especially in the 'rural area' there will be a high attention to water management. The 'rural' will be the part where the students from the new University will practice and learn.

We can distinguish between parts where water needs to be drained, parts where old water canals should be repaired, parts where it just must be guided into a river or stream and parts where water has to be stored in basins for the dry periods. As the main infiltration happens in the natural parts which in this case the rural abandoned parts are we need to focus here to get a higher infiltration and to get the most water away in form of storage. These methods allow us that the water downhill in the urban area, where the most flood at the moment happens, will have less water running off on the surface. As the infiltration of water in urban areas is only 10%, the deep infiltration 5% and whereas in a natural landscape, the deep and shallow infiltration is 25% (Watson, 1986).
This project recommends some crucial points within the rural part which should be solved first (see red circles in Fig.171). The pointed-out points are relevant because roads and landslide zones come together which will be a higher risk for the accessibility of the remote villages.

As mentioned before one should decide on the spot if either water must be drained or caught in cisterns. This has to be discussed with a hydraulic engineer and an expert in this landscape. There the students with their professors and invited experts are needed. As far as the author understood there will be some roads which should be elevated and to get a 1-2% of inclination against the hill (see Fig.170). Or two gullies must be constructed, one at the hillside and one at the slope side (see Fig.169). Then the amount of water run-off must be calculated to decide which thickness the tube should be, which brings the water either into a nearby river or into a cistern to collect it for dry seasons. The rainwater will be step by step integrated into the grey water system of the villages. Moreover, it will be used to irrigate the agricultural land.

In the urban centres, the water run-off has also to be tackled. This can be done by deviating water which runs of from roofs or other surfaces into storage containers which then will be purified or immediately used for the grey-water in households. Moreover, along the rivers drainage systems under the ground catch the water and deviate it into the sea or in cisterns.

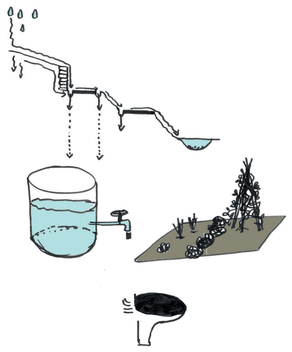


Fig.170: Water management. Rainwater usage. Source: by author

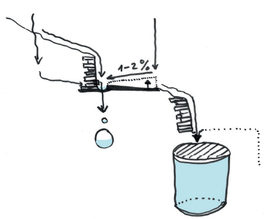
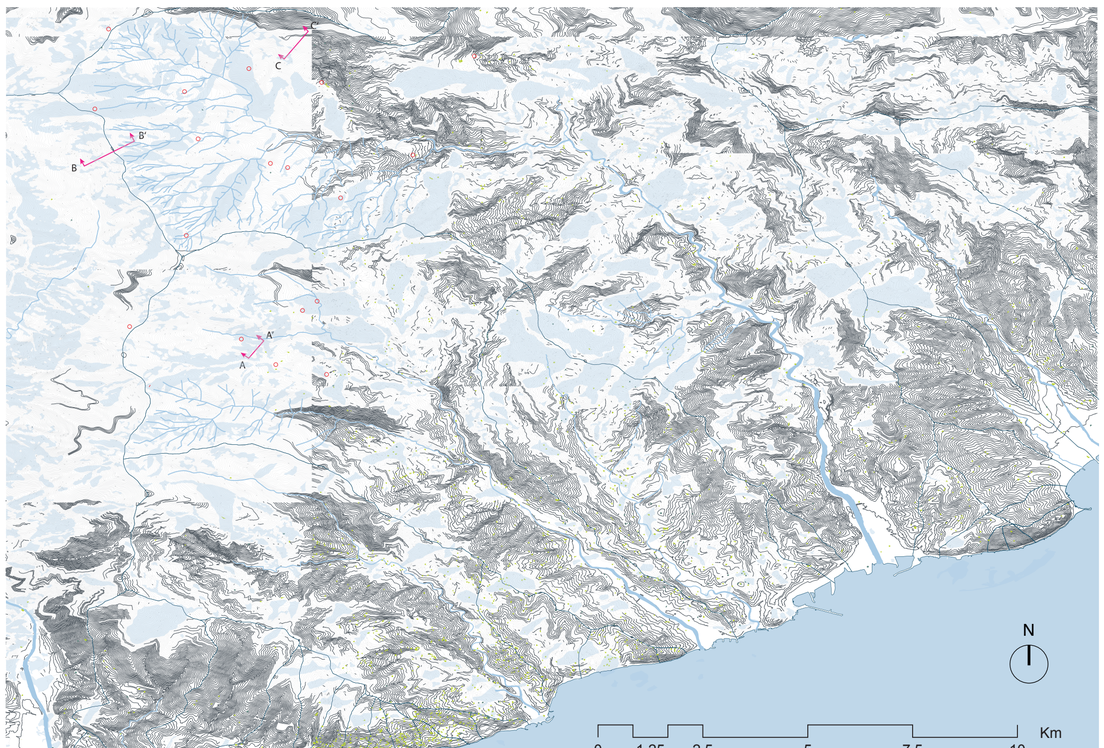


Fig.171: Water management. Drainage and retainment. Source: by author



Water Streams
Watershed
Highlines (every 10m)
Water cistern
General water butt/ cistern
Intervention strongly recommended
Land slide risk

Fig.172: Water management. Source: by author with Data from Repertorio Cartografico Regione Liguria. URL: http://geoportale.regione.liguria.it/geo-viewer/pages/apps/repertorio/repertorio.html?id=r_liguri:D.1415.2012-12-21 (accessed 02.10.17).

III

KEY INTERVENTIONS WITHIN THE RURAL

Water management: retention, deviation and collection







Fig.173: Street conditions Tavole. Source: Google Earth, accessed on 19.05.2018.

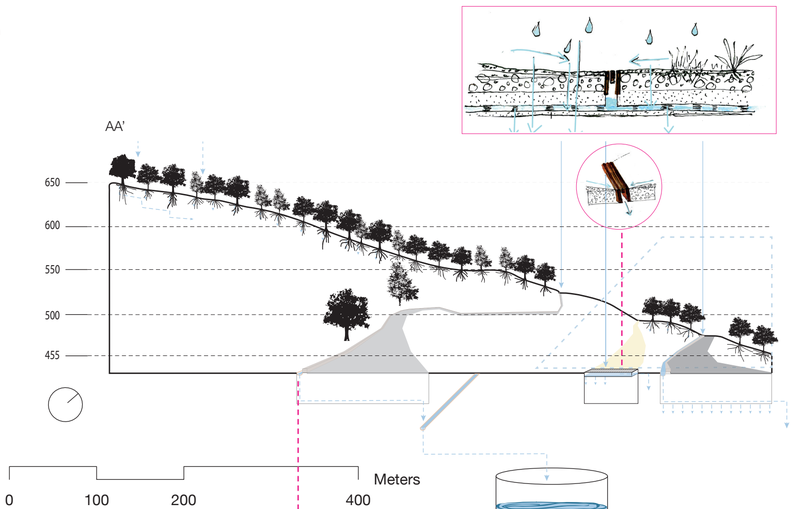


Fig.174: Section AA', Tavole. Source: by author

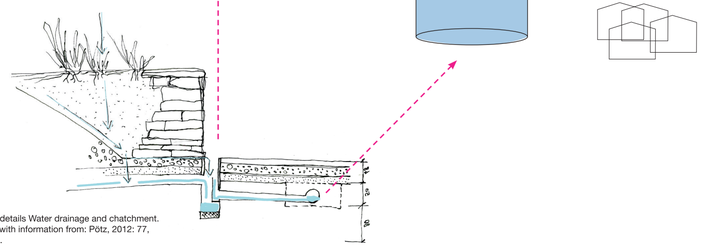
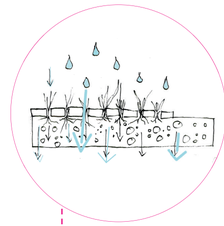


Fig.175: Technical details Water drainage and chatchment. Source: by author with information from: Pötz, 2012: 77, 102, 300, 407, 414.



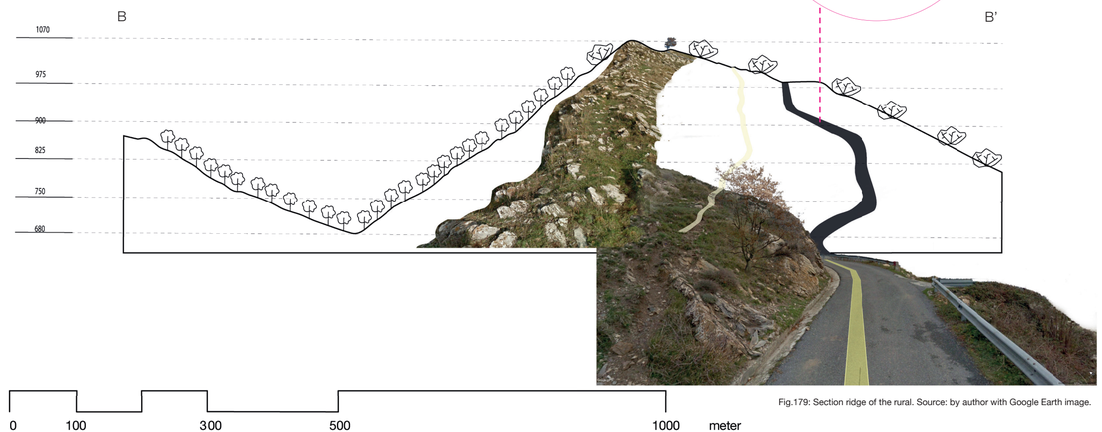


Fig.179: Section ridge of the rural. Source: by author with Google Earth image.

Fig.176: Section BB', Mountain ridge. Source: by author



Fig.178: Street condition. Source: Google Earth, accessed on 19.05.2018.

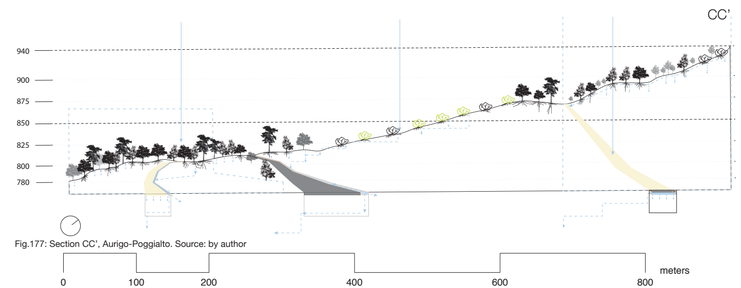


Fig.177: Section CC', Aurigo-Poggialto. Source: by author

CONCLUSION

All key-development projects are related to each other in the sense that stakeholders from one project often collaborate with the other projects or get the products from the other project. The best result we get if they all are interrelated and intertwined with each other through different flows or just through the landscape itself.
The connector between the projects and their current issues is the water. The water management and the way water is reopened, reused and redefined within the projects and the reintegration within the daily life of the inhabitants connects all the projects together.

On long term, the projects attract young and interested people so that they revitalize the two valleys. On short term, they relate the existing inhabitants within a new frame. So, re-framing and reconnecting will be the first occurring phenomenon.

Emptiness, abandonment and social issues are used for the new design within this two valleys. The question may arise if these projects can be successful also with few people. As the projects can all be realized with just a few interventions and be expanded later, they can also be implemented by few people. Additionally, through the cooperation of schools and young professionals and the regional support, the implementation in the countryside will be facilitated.

The connection between first interventions to make qualities visible and long-term strategies with a higher participation rate for new interested people, make those two valleys become a catalyst for the development of the whole region Liguria. The projects within the valleys are in first place trying to make values visible and step by step they are becoming integrated into the daily life of the inhabitants and giving space for a new connection to the landscape and the place itself.

III

FINANCIAL PLAN

BUDGETS AND POTS TO GET MONEY FOR THE PROPOSED KEY RE-DEVELOPMENT PROJECTS

While expecting a financial support in the implementation of the strategy from the involved stakeholders this section outlines the EU programmes from which this strategy could apply additionally. The strategy is in line with several EU programmes, which may provide additional financial leverage for the strategy.

This financial plan 2020-2027 is based on the previous plan 2014-2020. This thesis suggests some differentiations within the thematic objectives and in the priority axes of intervention.
As the still operating financing plan in the new regional Operational Program (OP) Liguria will also focus on TO1, TO2, and TO3 but will have some changes in the last two sections.
The still ongoing Operational programs now are:
TO1, 'Strengthening research, technological development, and innovation',
TO2, 'Improving access to information and communication technologies, as well as their use and quality',
TO3, 'Promoting competitiveness of small and medium-sized enterprises'.
TO4 which is focusing on 'Supporting the transition toward a low carbon emission economy in all sectors' - which here is related to the urban centres from its budget 13.4% is been used for the implementation of strategies for inland areas.
TO5, 'Promoting adaptation to climate change, the prevention and management of risks' is consuming 10.70% of the OP for actions that are reducing hydrological risks.

To support the strategy, one would recommend that the ERDF ROP for Liguria for 2021-2027 adjusts its thematic focus in order to match more closely to the proposed strategy. The incorporation of the new planning entity would be one of the main additional changes. In addition to that the occurring greying society and industrial relics will be a second important change. One objective is, therefore, to emphasize on industrial transition.

The developed strategy suggests following changes in thematic objectives and priorities in the new OP 2020-2027. It conveys to combine the old operational points TO4 with TO5. And to introduce the rural-urban cooperation as an objective with the priority axis of actions which are based on strengthening the cooperation between coast and inland areas. So TO4 is containing TO5 of the previous regional Operational Program Liguria, under which actions for the reduction of hydrological risks were incorporated into the thematic objectives of TO1+TO3.
And TO5 will contain actions which focus on industrial transition and the phenomenon of aging. (See table, Fig. 181).

The budget for the year 2020- 2027 we can assume that the region Liguria will need more or less a similar amount of money as in the period 2014-2020. So, we are speaking about roughly €390 000 000.
The province Imperia can be assumed to get approximately around €98 136 310 budget for the re-development.

The aim of the current Operational Program Liguria is also to create a more integrated funding system for the inland areas (Summary Operational Program Liguria, p.4). For this time frame 2017-2020, there are established four specific areas which cover the main mountainous areas of this region. In the new program 2020-2027 the valleys will be implemented as operational areas.

For the key re-development projects the European fund ERDF department will be applied, from there now still ongoing projects are financed like Interreg A and IV C. For the project 'Hand-craft school-University' this could be a format to get funding from.
This could be funded from ERDF under the regional programme (propose a thematic priority for that programme that would fit). Interreg is also ERDF, but it is for cross-border and cross-national projects.
Under the LEADER program, the public-private cooperation group GAL got this year €4 657 500, which could be expected for the next program round as well. Especially the project 'Green-local' will fall under the aims of it. Especially the aim of local production and bottom-up processes this will fit.
Moreover, under the European rural development program, which this period got €309 000 000, the project 'Gateway Prela' - an interactive museum' could apply there for funds.

This thesis sees in the EU cohesion program a huge potential to apply for Liguria for a support in projects which relates to rural and aging society.

On local scale events organized by the ProLoco of the villages as well as institutional events will sustain small interventions, workshops, and ideas. Furthermore, Municipalities of the two test sites, valley Impero and valley Prino, are recommended in this new program to invest in the upcoming projects. They should approximately invest 5-10% of their taxes into the suggested projects and upcoming educational events.

THE OP ERDF STRATEGY OF THE LIGURIA REGION
2014-2020 BY THEMATIC OBJECTIVES AND PRIORITY AXES OF INTERVENTION

THEMATIC OBJECTIVE SELECTED	PRIORITY AXES OF INTERVENTION
TO1 Strengthening research, technological development and innovation	Axis 1 Research and innovation
TO2 Improving access to information and communication technologies, as well as their use and quality	Axis 2 Digital agenda Axis 6 City
TO 3 Promoting competitiveness of small and medium-sized enterprises	Axis 3 Competitiveness of enterprises
TO4 Supporting the transition toward a low carbon emission economy in all sectors	Axis 4 Energy Axis 6 City
TO5 Promoting adaptation to climate change, the prevention and management of risks	Axis 5 Environment preservation Axis 6 City

Fig.180: Operational program Liguria 2017-2020. From: https://www.regione.liguria.it/component/publiccompetitions/document/8688.html?view=document&id=8688%3Apor-fesr-2014-2020-inglese&Itemid=4360, page 6).

RESOURCE DISTRIBUTION BY THEMATIC OBJECTIVE

TO1	**80,000,000.00**	20.38%
TO2	**41,000,000.00**	10.44%
of which on the Urban Agenda	5,000,000.00	
TO3	**135,000,000.00**	34.39%
TO4	**79,000,000.00**	20.13%
of which on the Urban Agenda	18,000,000.00	
TO5	**42,000,000.00**	10.70%
on the Urban Agenda	17,000,000.00	
TECHNICAL ASSISTANCE	**15,545,240.00**	3.96%
TOTAL PROGRAMME (€M)	**392,545,240.00**	100%

RESOURCE DISTRIBUTION BY PRIORITY AXIS

AXIS 1 RESEARCH AND INNOVATION (TO1)	**80,000,000.00**	20.38%
AXIS 2 DIGITAL AGENDA (TO2)	**36,000,000.00**	9.17%
AXIS 3 BUSINESS COMPETITIVENESS (TO3)	**135,000,000.00**	34.39%
AXIS 4 ENERGY (TO4)	**61,000,000.00**	15.54%
AXIS 5 ENVIRONMENT PRESERVATION (TO5)	**25,000,000.00**	6.37%
AXIS 6 CITY	**40,000,000.00**	10.19%
TO2	5,000,000.00	
TO4	18,000,000.00	
TO5	17,000,000.00	
TECHNICAL ASSISTANCE	**15,545,240.00**	3.96%
TOTAL	**392,545,240.00**	**100.00%**

Fig.181: Operational program Liguria. Resource distribution of 2017-2020. From: https://www.regione.liguria.it/component/publiccompetitions/document/8688.html?view=document&id=8688%3Apor-fesr-2014-2020-inglese&Itemid=4360, page 6, accessed March 2018).

THE OP ERDF STRATEGY OF THE LIGURIA REGION
2020-2027 BY THEMATIC OBJECTIVES AND PRIORITY AXES OF INTERVENTION

THEMATIC OBJECTIVE SELECTED	PRIORITY AXES OF INTERVENTION
TO1 Strengthening research, technological development and innovation	Axis 1 Research and innovation Axis ... Inland areas Axis 6 City
TO2 Improving access to information and communication technologies, as well as their use and quality	Axis 2 Digital agenda Axis ... Inland areas Axis 6 City
TO 3 Promoting competitiveness of small and medium-sized enterprises	Axis 3 Competitiveness of enterprises Axis ... Inland areas Axis 6 City
TO4 Cooperation between coast and inland areas	Axis 4 Energy Axis 5 Environment preservation
TO5 Industrial transition and dealing with aging society	Axis 1 Research and innovation Axis 5 Environment preservation Axis ... Inland areas Axis 6 City

Fig.182: Operational program Liguria 2020-2027. Source: by author with reference to: https://www.regione.liguria.it/component/publiccompetitions/document/8688.html?view=document&id=8688%3Apor-fesr-2014-2020-inglese&Itemid=4360, page 6).

REFLECTION - CONCLUSION

IV

REFLECTION - CONCLUSION

The project ‘La strada della valle. Towards an alternative strategic framework for the regeneration of the region Liguria through the valleys Impero and Prino’ addresses, on the one hand, the gap between regional and local scale, which came out through the analysis of the region Liguria. On the other hand, it tries to understand how the ecological system and the urban system interact with each other. This interest arose from the analysis of the region. Missing links resulting in environmental risks and human problems were found on different scales. Shrinkage is one of the main topics on the European agenda along with the question “how do we plan for rural areas and urban centres”. Do we emphasise the rural areas’ future or do we only plan for the urban treating the hinterland as less important? This is a question that inspired the research as part of this thesis and later led to addressing issues of aging society, abandonment, and shrinkage reappeared in my area of interest.

With this project, I wanted to explain why coming from the ‘rural’ or countryside, can be a strength for some regions within their regional planning agenda. The approach of introducing a new planning entity, ‘the valley’, gives me the possibility to address the spatial, environmental and planning issues in a more inclusive and holistic way.

On the one hand, the project revolves around the valley as a design entity. The method and scale I used to analyse the relation and interaction between economic, environmental and social issues in this region, is, on the other hand, an important product of this thesis. The valley became the entity of planning and the territorial entity in which design projects were made in this project, but at the same time, it was also the method and scale used to analyse the relation and interaction between economic, environmental and social issues in this region.

The design proposal is related to a specific place but also considers the bigger picture. The proposed design principles (compactness, cooperation and exchanging and intertwining) evolved through the analysis. On top of the standard analysis through mapping and statistical analysis, the data for this project is comprised of subjective exploration of the area and 33 qualitative interviews conducted during the visit, providing original empirical material to support the research and design.

Why did I choose those two valleys and not others?

One reason was the attachment to this place, being raised in the valley Prino and having experienced change during my nearly 27 years of seeing it passing through different times. Having an insight into the daily life as Kate Unsworth (2016) with her thesis did, gives you a quicker understanding of the processes and complex systems of the place. Being aware of what happens behind the scene is an important ability which one can develop through a time of experience and of research. I used my knowledge of the place but at the same time also used my parallel to the ability to step out of the role of being a former inhabitant rational, detached design as taught at the Faculty of Architecture. Having the ability as a designer to step aside having a critical look at a problem or a situation and finding a new way to give a red line through the complexity of processes of this place and region was important but also difficult in this project. Sometimes it is good not to have too much insight into the place to get new ideas or other thoughts. In my process, I often worried that my ideas in the real world will only rarely happen. But having the ability to dissemble complexity and to re-link, re-join it again within in the small scale with the design proposals ideas gave me again hope and were the driver of my thesis.

Therefore, I see myself more as a mediator, facilitator and a designer who shows the complexity and who reassembles pieces, fragments to a whole picture with proposing design key re-developing projects and interventions on a local scale. One important goal within this thesis is to make even the farmer of a remote village understand what the new developing projects can contribute to them and to make them interested in cooperation and in engagement within the process of regeneration. To get acceptance and interest in the new design ideas and cooperation ideas between rural and urban as well as between different departments, stakeholders would be a sign of success for my project.

Moreover, not being involved in the region as a stakeholder gives me the possibility to show new connections that seem impossible to the local stakeholders in the first place. Furthermore, I can provoke and give new images to the place without being afraid of having political problems. My credibility and the trust I gain by having been a local inhabitant who experienced the same daily life as the others give me credibility and trust within local inhabitants. Being involved in the place but at the same time not being involved in the local system gives me more ability to come up with new ideas and imaginary utopia and pictures.

Connection to the design studio: What is the relation to the research group-studio?

Dealing with shrinkage as an occurring trend in Europe and at the same time thinking of different approaches to respond to this topic links this thesis to the research group Urban fabrics.
Moreover, coming from a regional planning Bachelor I wanted to gain knowledge about the design part on a local scale. Being specific and concrete on a local scale and stepping out of general Master planning method was a further wish by starting this thesis in this research group. Furthermore, I learned how to use my abilities as efficiently and in the best way, I could. I learned to explain my ideas on paper, by representing them and in the end, I learned to be proud of my achievements.

In addition to these practical skills, I also chose Urban fabrics studio because I saw how important it was for the chosen region to understand the complexity of such a fragile region. In the whole thesis the relationship between environment, society and economy dictated my research. Each element I analysed until the small scale and I was impressed how you can follow one element through all the scales and even in the small scale the relations between the elements are visible and can be experienced. Studying phenomena relates my thesis to this research group. Moreover, I understood how designing within an early stage can be used as a tool to discover relations between elements.

Early in the process of my analysis concrete design ideas and intuitions came out. Looking back on these early ideas and dreams some of them carried over into my final design. More specific and elaborated of course but still based on intuitions I got during my analysis. This showed me how we can design at the same time we analyse. This was not my intention at the beginning but looking at my diary of thoughts I can see how first ideas which came through my mind while I did my interviews and analysis, became the most significant products at the end. In the first stage of the process, the design was an end product to me, a completed picture made during the final months of the thesis. Towards that end, however, I came to understand that design is the way we communicate. At the beginning of this thesis process for me the design was an end state, a complete picture but with the end of this thesis, I more and more understood that design is the way we communicate. Designing starts at the beginning.

Concluding the design process the author sees designing as something that stimulates the process consciously and subconsciously. ‘Research by design’ can be an approach which can inspire and bring new questions for your design. By designing one takes the gathered research conclusions but also can make a design and conduct questions for new research from it. With a design, one can engage with stakeholders, stimulate new ideas but also connect different research outcomes with each other. Important in this whole process is the mutual exchange. Moreover, remaining critical about solutions and results from your own analysis and design as well as taking a step away from your research and design and reflecting critically about it remains important within the whole process.

Assessment of Methods:
I started with learning the program ArcGIS to find the most vulnerable parts in the region and to find relations and correlations between the urban fabric, the economy, the natural environment, and the society within the two valleys of interest; Furthermore, to make classifications of shrinkage and to find specific elements and spaces in the chosen valleys where shrinkage manifest itself. Overlaying and combining different elements gave me places of my interventions and for a more detailed research.

Looking back, I can say that during the thesis I developed my own methods and tools to understand, to process and to visualise the complexity and the present of those two valleys. The tools I developed were mostly seeing the valley as a physical entity in which different processes of the different scales are exchanging and interrelated. Another tool was to understand the mutual exchange between nature and human activity. The whole process was based on zooming in and out and incorporating own observations with observations and stories of local stakeholders. Visualizing in the small-scale mostly with hand drawings ideas and new flows of goods, people and natural forces I constructed a new network and model for the two valleys. The valley became the area of analysis in this project and at the same time a strategical planning entity where key re-development projects were placed to regenerate these two valleys. This territorial approach offered me the opportunity to get closer to present conditions of those two valleys and mirrored regional occurring phenomena which were misleading on a local scale. The territorial approach is defined in this thesis as a local bottom-up approach which starts with key re-development projects within a given physical space. The physical space, in this case, was the valley.

The strategy in this project seeks to recommend important key re-development projects to reactivate the rural-urban relations as well to strengthen a local network. These suggested projects will become pilot projects if they attract enough attention on the scale of regional politics. These projects will initiate other projects within the region which will become a domino effect.

To get a critical feedback and to receive feedback about the feasibility of the ideas, the projects were sent to regional and local stakeholders. Being close to reality gave me and gives me motivation within my process. Giving it to read to other experts from the site gave me an idea where I should improve the readability and where I might name things in a different way. The feedback was surprisingly good, especially from the regional stakeholders. They gave their comments on each project and for the project ‘Green-local food production’ they told me that the part with re-generating old, abandoned spaces they would support with the regional rural strategic program (PSR). Also, the local production and the close relationship of the products to the producers of the local scale was appreciated. Moreover, the ‘Gateway Prelá – life museum’ was considered a good project as it uses the existing emptiness and re-generates a value on local and on an environmental level. The project ‘Multi-culture centre’ was seen as an interesting start, especially considering that the local market I am proposing to develop as the main motor of bringing local food to the inhabitants was appreciated. A 0Km travel time project for goods has embraced the emphasis on a more direct relationship with the local reality was pointed out. The ‘Gateway- Observatory’ was not really understood by the stakeholders and seemed to make confusion about the purpose of it.
The local as well as the regional stakeholder both found the moving box as an interesting start to improve and make engagement through the valleys. This project was enhancing the creative thinking of the stakeholders and the region proposed to associate it with the social system of the valleys and seeing the box on a moving vehicle like the typical ‘Ape’ a tricycle vehicle.

The local stakeholders did not fully understand my design ideas but the ‘mobile box’ was understood and seen as an interesting part for the valleys. “(…) we liked it because it creates a connection in the territory, something that is missing: there is too much division and individualism, while it is necessary to unite to obtain more lasting and profound results. And then the idea of creating a mobile box in the area is interesting. Here too, we talk a lot about re-launching the Val Prino (valley Prino) ... maybe your work can be shared by other people and become a starting point for a comparison. (…)” (Natalino and Pierangela).
Being invited by them to present my ideas as a starting point to launch the new redevelopment of the valley Prino ….

Project transferability:
Different small-scale projects are suggested for specific sites and spaces in the valleys but they are also considering that they could be applied somewhere else. The important thing by doing so is that certain principles (compactness, cooperation, intertwining, and knowledge exchange) and attitudes have been followed and implemented in the projects. The whole strategy is based on a from civil society elected consortium which is composed of their local people. This ensures that the projects remain local and close to the inhabitants. This bottom-up approach is wanted and will be applied throughout the whole projects. Engaging local stakeholders and at the same time having the bigger picture in mind and the complex depending systems in mind makes this project special. The multi-scalarity and the multi-actors approach (as opposed to top-down and clustered actors approach) and the emphasis on the dynamic balance between economic, environmental and societal elements make this project distinctive.

Relevance:
This thesis aims to propose some solutions towards the development of rural areas with a delicate landscape and complex historical development, by developing new tools to help to improve the link between urban design, planning and natural preconditions. Tools that support farmland in the 21st century to counteract new global changes in a more sustainable way, in such a form that achieves the European goal of sustainability by using the potency of the unique place and finding a new way of interrelating it to its context. It strives to find a new approach for a redevelopment of a region which comes from the countryside instead coming from the urbanized areas. With my design, I found ‘niches’ of spatial interventions which support the urban-rural relationship and are key points for an inclusion of the UN sustainability goals. Because cooperation varies according to the geographical context, therefore the valley becomes a new relevant entity to understand the current need in this region. The valley becomes the territory where theory and sustainability goals become translated into space and concrete projects.

The EU distinguishes between functional and structural relations, as per Zonneveld and Stead 2007, if one speaks about rural and urban relations. The relation between rural and urban is not mutual every time. The cooperation is often proposed from the urban perspective, where the rural part should compromise and to find its connection to the urban. In urban centres we can find more vulnerable people as in rural parts but those this mean that we close our eyes to the rural parts?
Moreover, the Sustainable Development Goals from the UN-Habitat agenda 2030 conclude that cities are the element which connects all sustainability goals together which brings to the new urban agenda.
With this project, ‘La strada della valle. Towards an alternative strategic framework for the regeneration of the region Liguria through the valleys Impero and Prino’, I contribute in finding key-elements which can help to bind rural with urban tighter together and give an answer to the occurring phenomenon of shrinkage in the region of Liguria. Sustainability with the integration in the local system of the two valleys was a high priority by developing the key re-generation projects of the chosen two valleys.

Reflection on the UN habitat sustainable development goals 2030 in relation with the suggested projects for the two valleys:

Reflecting on the sustainability goals of the UN habitat and evaluating them through the suggested key re-development projects I came to the following reflection:

The sustainability goal to offer **‘Adequate housing’** focuses on urban centres and on providing adequate housings, mostly related to informal settlements and slums – this goal is, therefore, more related to globalized big cities. With the region Liguria I have to still provide adequate housing but more important I am confronted with emptiness, drosscapes and old built environment. Therefore, my question for this first goal is: what about emptiness and ‘drosscapes’ which for Europe is essential to re-think. The region Liguria has a lot of built environment which are on the standards of World War two and need to be improved on the current ‘0 emission’ standards. Moreover, the focus in Liguria should lie on regenerating empty derelict buildings and industries and on concentrating on compactness.

Good public transport systems are contributors to connect and integrate people and reduce disparity and therefore contribute to sustainability. Safe, for all accessible and affordable transport systems, are on the agenda of sustainability. To this goal, the re-integration of the new implemented train station of Imperia is acting in this term of sustainability. Until now, the new train station is still apart from the urban system and inaccessible for both urban centres. The development of a bridge which reintegrates the station into a pedestrian accessible urban fabric and creates a new potential urban development area. This connection through the pedestrian bridge over the river creates not only a better accessibility for pedestrians but also new public spaces and better access to a public good. Moreover, a better accessibility of the rural will be assured through public transport which is partly organized by local communities of the villages. The author criticises at this point the shortage of public good

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within rural areas. The affordability of public goods in relation to the number of users is always a common problem in those areas.

Question: how can these public goods become more affordable? The author's opinion is not to cancel those goods only because of the affordability but to search for new ways of coping with those emerging costs. A solution is to connect those goods close to local communities and find a feedback effect which can increase opportunities for the urban centres.

The two designed gateways are contributing to the **world heritage** goal by emphasising on the natural heritage and by being a place to teach awareness towards the environment of this region which is special because of its closeness to the Alps and the mountain streamer of the Apennines. They fully accomplish the idea of the world heritage goal and are a learning point and an attraction point for tourists, a point to interact and expose own products and qualities for inhabitants and new job opportunities for employers. Civil society, private ownership, and public good are interrelated within those two gates. It is also a spot where different planning scales (from macro to micro) come together and need to engage and interfere with each other.

Disaster preparedness goal is tackled within each project. Environmental catastrophes which in this region are based on floods in urban centres and landslide and fire in the countryside provoking human vulnerability/harm. With the engagement of the countryside and a better water management in the whole countryside area I reach with my project less water run-off which will have an impact on the urban centres at the coast. A better handling of storm-water within the countryside reduces the quantity of run-off within the rivers and on the surface, that achieves the coast. Moreover, within the built environment and along river banks a through a new water management, in the form of retention, deviation and collection through new tubes and permeable surfaces the floods are mitigated. Not only water and risks of climate change are solved through these projects, but also economic imbalance can be addressed through new job opportunities that actions aiming at improving water resilience could generate.

The risk reduction goal goes hand in hand with being prepared for natural disasters. Mitigating and adapting to change within the region will be a new challenge. Being resilient, having the ability to change within a system, that means also relating to the landscape and the surrounding networks. More interrelation, connections in a system can make a system more adaptable and resilient. The tight connection with the countryside gives the urban centres a better backbone and stability in terms of economic performance as well as in being more resilient and sustainable on long-term.

The goal of **public space** in coastal regions is one of the main issues. Coastal areas often face privatisation of space by the tourism industry. Accessibility to the waterfront is an urgent topic. Moreover, as the sustainability goal claims, private and public spaces should be in a mutual exchange and complement each other. This increases the vitality of a space and should increase the economic outcome of a place. Additionally, by making the riverbank accessible and by enhancing the green network structures this project contributes to more accessible green, open spaces for public use and a more inclusive for everyone accessible approach. Heat islands can also be reduced by new green networks which are connecting the countryside with the urban centres. With the planned design, new green urban structures are emerging and a more inclusive and resource efficiency will be reached by using empty spaces in the urban fabric and by reactivating the urban-rural relations.

To evaluate the last sustainability goal of the New Urban Agenda, which mainly deals with the **construction of sustainable and resilient buildings** by using local products and local labour craft, the designed projects relate to the re-use of resources and are enlarging the life cycle of buildings and materials. As the key re-development projects are all using existing structures and mostly developed in currently empty buildings they all contribute to a sustainable redevelopment. Furthermore, by developing a University within the empty concrete industry I contribute not only to reuse of resources but I also create and provide opportunities for young people to further education, new employment opportunities. As the University focuses on the landscape and engineering, the students will use the countryside as their side of intervention and of learning. With this, it can be coped that a tight relation and understanding of the rural system are developed and new relations are created between the coast and the countryside.

Societal-ethical relevance:
This project strives to establish social cohesion between the coast and its hinterland, the countryside, with its villages. It aims to create liveable spaces, where the aim is to maintain a certain liveability which means creating networks of social services that can be reached equally, where the balance between green-blue ecosystems and the built environment is in equilibrium. These should be places where the economy has not stagnated in old systems, but is renewed and remains adaptable to the changing trends. Where digitalisation and self-driving cars and other new upcoming changes can be integrated into the existing system without destroying the current networks but adding to the growth, strength, and sustainability of the region. From the ethics perspective, this project tries to address the challenges faced by people of different social background and origins. The culture and the traditions of these valleys are respected and at the same time, it aims to integrate and use those traditions for a new development. A development path in which people from remote areas are not the ones who are left behind but are integrated into the planning system and social network of the valleys.

Limitations of the project:
The region and its problems and emerging connection could be studied in more depth. In the analysis part, I had to stop at some point as I did not have the time to go more into detail. I also reached the perspective of the engineer for some parts of my analysis which brought me to my limitations. Further research could have been done on the different elements of shrinkage to see where on European level concrete policies or agendas could be suggested, as well to better connect these policies to the local level. A more general agenda for other regions with similar problems, could not be developed on the basis of the single case study covered in the thesis.

Reflection on the research questions:

Theory:
1.1. What is shrinkage and how does it affect planning and design on a local scale?

1.2. What is cultural landscape and how can it be used to connect urban and rural in the context of shrinkage?

1.3. Can cultural landscape support de-growth strategies to use potentials of shrinkage?

The initial questions regarding the theory and current concepts and policies can be answered as follows:
Shrinkage is in short terms a reduction often related to economic change and a loss of people and as consequence a demographic change. Each region or territory which suffers under shrinkage has other elements of shrinkage which are dominating. In the case of Liguria, the main element which is prevailing are abandoned manufacture buildings and in the villages a loss of people. The phenomenon shrinkage affects planning and design on local scale differently. The main burdens are that with fewer people public goods become more expensive and not any more affordable for Municipalities. A loss of liveability in shrinking regions is often the result. Therefore, at this point, we need to change in the planning system and try to find affordable solutions which can still provide to the remaining people a liveable place. Engaging local still available actors, making the remaining network strong and resilient can help to find a new way of reintegrating it into another prospering region. At this point, the concept of de-growth could be integrated into the way a shrinking region could develop. That means that a region could also focus on being not related to growth and consumption but being related to more small and exclusive development with new concepts of living.

The question of what cultural landscape is was answered, too. It is the element which combines natural forces and human activity without destroying each other's performance. It is the binding element between nature and human activity. If the cultural landscape is within a dynamic balance than we will see a beautiful performance and choreography on the stage. And the spectator will see both actors contributing to the image of the dance and both using the stage equally. It will be always a giving and taking, a releasing and a tightening. Consequently, the cultural landscape becomes the tool that connects urban and rural performances together. It helps also to understand the complex system of the region or place specific occurring shrinkage of the region better. Thus, the cultural landscape does not only help to give a better understanding of the interrelation between urban and rural systems but it also allows for a more space-bounded approach and helps to define specific elements which can help to re-generate a shrinking region. As the cultural landscape is seen as a binding element, we can say that it supports de-growth strategies to use the core, place-specific elements, of shrinkage and will help to reshuffle those elements to new opportunities for a new development which will be much more adaptable to change than what de-growth approach offers.

Context:
2.1. What are the current policies for shrinking regions?

2.2. What is Liguria's current landscape in natural, economic, and social terms?

There are many recommendations for shrinking regions. There is, for example, the ESPON program from the EU which supports the reinforcement of the effectiveness of EU Cohesion Policy and other sectoral policies and programs. ESPON is addressing shrinkage and is providing territorial evidence, transfer, observation, tools, and technical assistance for such regions.

On the European level ESPON is about recommending for the restructuring of shrinking regions but still, those regions although it is forecasted, concrete action come often when it is too late. The main message to cope with such phenomenon is to create projects in those regions which have a high multi-scalarity effect and which are embedded into and well connected to other adjacent regions or nations. Exchange and sharing of knowledge through nations with similar problems remain important. Moreover, a support on a local scale and within the governance system of shrinking regions can help to overcome shrinkage or re-generate a new development which can be related towards shrinking smart or growing towards a new flourishment. Important is not to reduce in the qualities of services. One can reduce the amount of services but the offered services should still be maintained on a high level of quality and specialisation. Shrinkage should not mean to freeze and leave regions behind but it means to keep going with the remaining systems. This will help also in future to have good starting points where regions can develop a new opportunity. It saves also money on long-term and will help to maintain a certain liveability within the shrinking region. Seeking for sustainability and equity although in those regions are shrinking should be on the priority list of the regional and local leaders.

The particularity of Liguria's landscape is that the different historical layers are still visible and understandable. Different identities of each valley and villages are still visible as well as the different meanings, roles of the urban coastal centres. Disparities can be seen in the economic development which causes the effect of shrinkage in this region. Different stages of regeneration and stagnation of economies can be found as well as emerging new economies related towards IT services and tourism can be found. The relation to the spatial existing framework is partly missing which affects that the dynamic and the place-based economy is not there. As the region seems to have its strengths in the local products and the local economy, the unrelated economy and not this leads to being out of context which contributes to a not place-bound local economy, with no trickle-down effects.

2.3 How does shrinkage manifest itself in the region and in the specific valleys (spatially, socially, environmental, and economic)?

The manifestation of shrinkage is in each valley different. The common part is that one will find drosscapes within the landscape and remote villages with less than 20 people or broken old infrastructures and savaged gardens or houses. Although infrastructures which are unmaintained and a lack of public goods within the countryside are not conducive to a liveable environment. The main qualities the region still has and offers is the landscape with the different villages with their own stories of success and failure. The different views towards the sea and the different local festivities, customs, dialects, and beliefs. The urban centres mostly agglomerated at the coast, also with different stories and urban fabric that are being neglected more and gradually transformed into one standard urban centre.

2.4. How is shrinkage perceived by the stakeholders and how is it dealt with?

Based on the interviews and own observation I can say that the perception in each village and each valley about the occurring phenomenon is different. Depending on their job, their current environment, their daily life, the stakeholders interviewed described the valley as prospering or declining. Moreover, the relation to the place and its history for the stakeholders was revealed to be important. This can be linked with the historical development of the city Imperia. As mentioned in the chapters before, the junction of the urban centres Oneglia and Porto Maurizio was quite late what still influences the behaviour of the planning department and the stakeholders in it and their actions.
Municipalities have not enough references and knowledge to learn how to deal with an aging society and a shrinking countryside. Some are developing their own, local solutions to cope with inaccessibility. These small place-based solutions are often bounded to an invention of a certain person which means that the solution lacks in long-term performance and in being adaptable towards a changing system. Thus, everything is bounded by local systems and is depending on certain models making the system weak and vulnerable.

Design
3.1. How can a valley become a new entity of planning for shrinkage?

3.2. How can we design a region with a design proposal that is coming from the valley and not from the current urban fabric at the coast?

The design is made for two specific valleys. It is close to the specific location and to specific found elements of shrinkage like aging society, drosscapes and abandoned agriculture land. The site-specific approach is consciously done as it allows to design more with the potentialities and weaknesses identified. It can be more focused on the core issues which can provide a more long-term sustainable approach and vision of development. The integration of the design in the current system will be facilitated by this way. Not only the suggested key re-development projects are contributing to more cooperation and network-based development, but also the valley as physical space of interaction helps to foster tight networks and responsibilities.

By emphasising the specific treasures and jewels of the countryside, one gives attention to the rural and underpins that each urban centre is related differently to it and has therefore different relations to it. Urban centres still profit from it in different terms (economic, social and environmental). Therefore, by showing the variety of the countryside with its particularities the urban centres can profit from and get a uniqueness. This could improve that each urban centre instead of competing to become a tourist attraction and modern they could start to compensate each other. By bounding the countryside to the urban centres at the coast with the mitigation of the specific physical space competitions on the base of being more sustainable and more unique with their countryside valleys, the region will reach a higher liveability.

APPENDIX

- Literature
- References
- Sketches
- Maps
- Thoughts - Diary

V

LITERATURE

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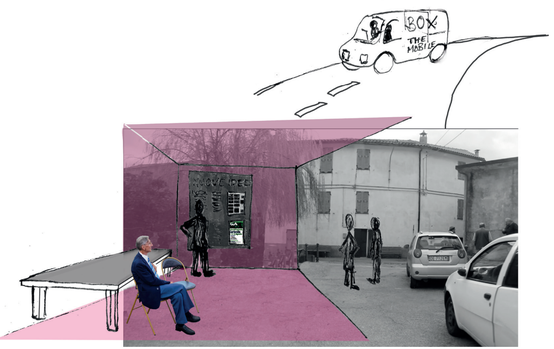
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V

SKETCHES - MAPS - DRAWINGS

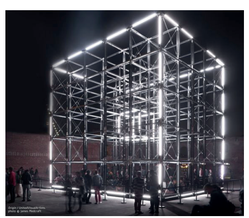
MATERIAL FROM THE PROCESS

MOBILE, PARTICIPATORY BOX





STABLE EVENT BOX -
PROJECT START BOX





ENCOUNTER - MEETING SPACE

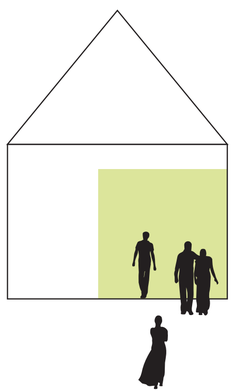


Fig.183: Source: by author with people from www.skalgubbar.se, accessed 2018.
Fig.184: www.museummakers.co.uk/ Source: citizen power(1/2)
Fig.185: Origin/UnitedVisualArtists. Source: PhotoDJ.Medcraft
Fig.186: Origin/UnitedVisualArtists. Photo © J.Medcraft. Source: https://i.pinimg.com/564x/df/ec/9e/dfec9ef48f692f35e0ddb-5b7737d6012.jpg

MOBILE, PARTICIPATORY BOX





Fig.187: Lot-Ek Uniqlo Popup store. Source: https://375gr.wordpress.com/tag/edificio/page/1/
Fig.188: Moving Icon by Kalhöfer-Korschildgen. Source: https://www.frameweb.com/news/moving-icon-by-kalh

V

BRIDGES

REFERENCE PROJECTS





Fig.189: Shanghai Houtan Park. Turenscape. In: Archdaily, 1st May, 2011. Retrieved from: URL: https://www.archdaily.com/131747/shanghai-houtan-park-turenscape, accessed 22.05.2018.





Fig.190: Tianjin Qiaoyuan Park by Turenscape Landscape Architecture. In: Landezine. Retrieved from: URL: http://www.landezine.com/index.php/2011/03/tianjin-qiaoyuan-park-by-turenscape-landscape-architecture/10e-turenscape-landscape-architecture-bridge-park/?mobify=0 , accessed 22.05.2018.

V

GREENHOUSE - LOCAL FOOD PRODUCTION

REFERENCES FOR LOCAL FOOD PRODUCTION





Fig.191: Thailand urban farm. Retrieved from: URL: https://www.domusweb.it/en/news/2016/05/20/integrated_field_urban_farms_.html.
Fig.192: Interior rendering of the aquaponics systems producing fruits and vegetables. Scarponi, Antonio. Retrieved from: https://www.designboom.com/architecture/antonio-scarponi-rooftop-farming-urban-industrial-06-14-2014/.





Fig.193: Edible Schoolyard / Work AC. Cilento, Karen. In: Archdaily, 21st January, 2010. Retrieved from: URL: https://www.archdaily.com/47183/edible-schoolyard-work-ac?ad_medium=gallery.

V

LIFE-MUSEUM

REFERENCES







Fig.194: Ecomuseo Colombano Romean URL: https://luoghi.italianbotanicaltrips.com/ecomuseo-colombano-romean/
Fig.195: Bardonecchia Etnographic Museum https://www.vallesusa-tesori.it/en/luoghi/bardonecchia/museo-civico-etnografico

GATEWAY-OBSERVATORY

REFERENCES





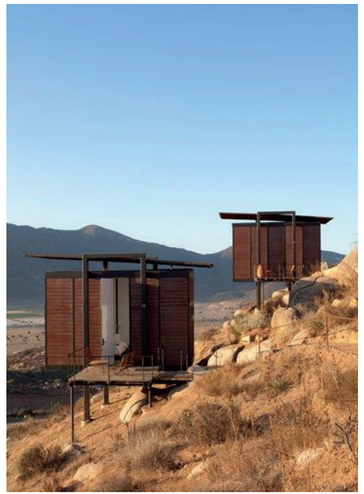


Fig.196: http://www.standaard.be/cnt/DMF20130510_108?pid=2464155
Fig.197: TreeHotel: The Cabin. In: LivingPursuit. Retrieved from: URL: http://livingpursuit.com/post/136685972373/treehotel-the-cabin?utm_content=bufferbe723&utm_medium=social&utm_source=pinterest.com&utm_campaign=buffer
Fig.198: https://www.pinterest.de/offsite/?token=420-73&url=https%3A%2F%2Fi.pinimg.com%2Foriginals%2F58%2Fc7%2F55%2F58c755b855c9dab34ced58c5eaeb0ff7.jpg&pin=475833516874766657&client_tracking_params=CwABAAAADDU0NTU4MDA3NjI4OQA

V

DIFFERENT PROPOSED ACTIVITIES FOR EACH PROJECT

SHORT AND LONG TERM ACTIVITIES

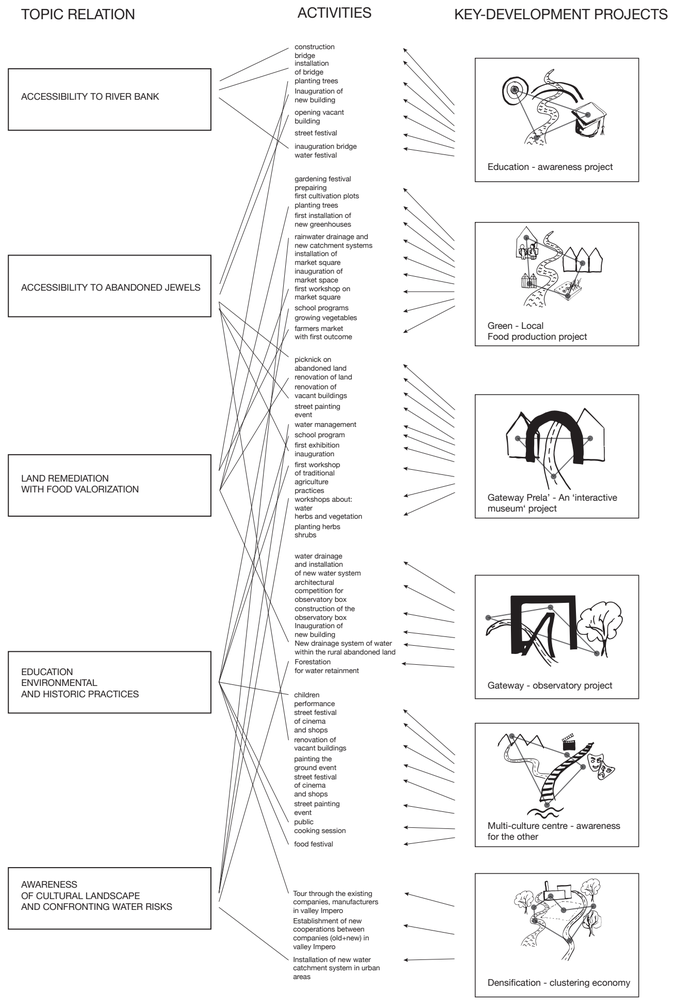


Fig.199: Source: by author.

V

IDEAS AND SKETCHES BY AUTHOR

THE VALLEYS AND THEIR PERFORMANCE - VALLEY PRINO

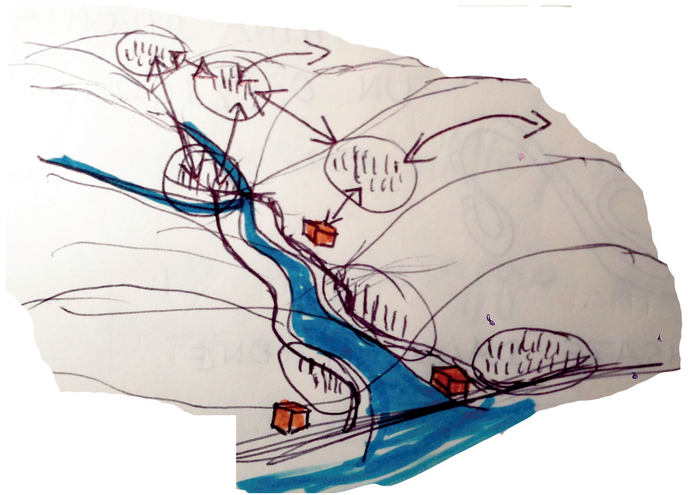
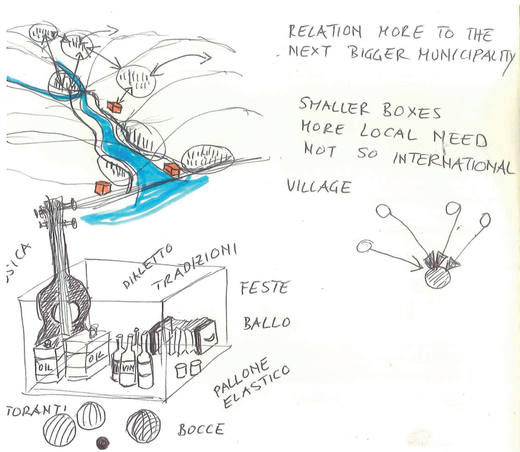


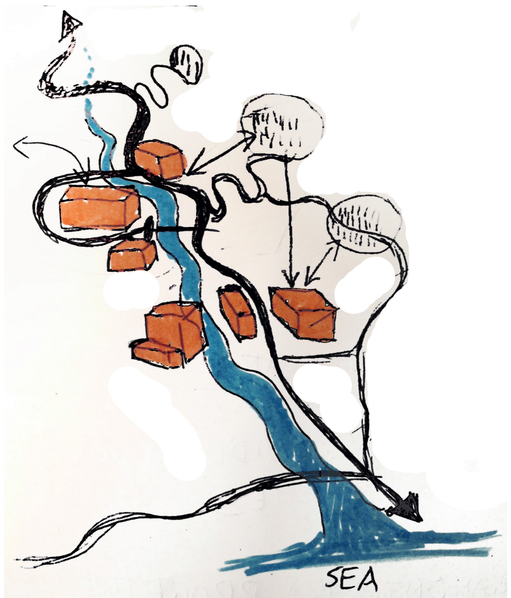
Fig.200: Valleys, design ideas. Source: by author.





V

THE VALLEYS AND THEIR PERFORMANCE - VALLEY IMPERO



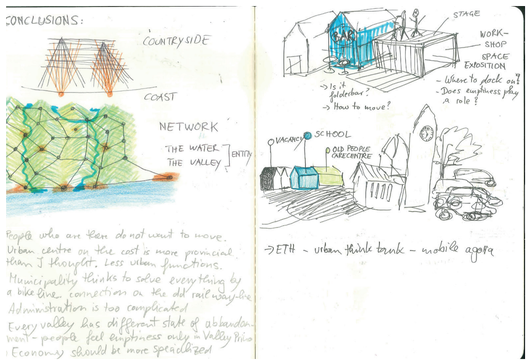
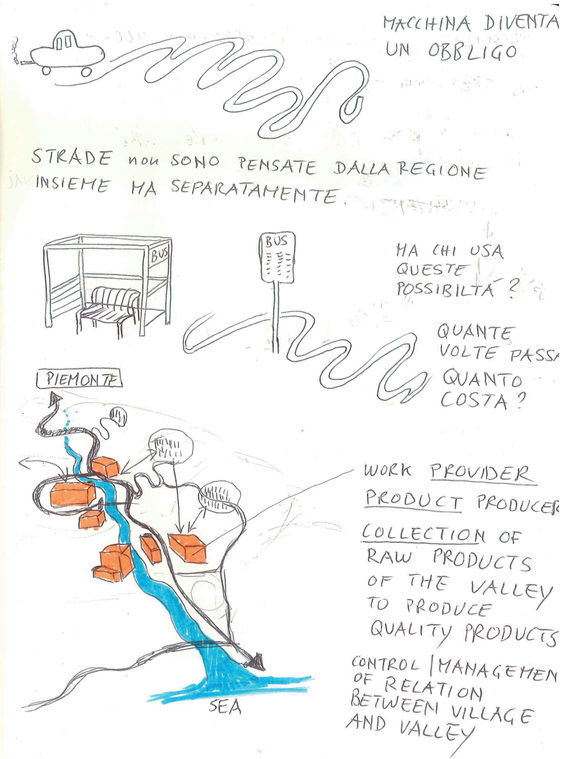
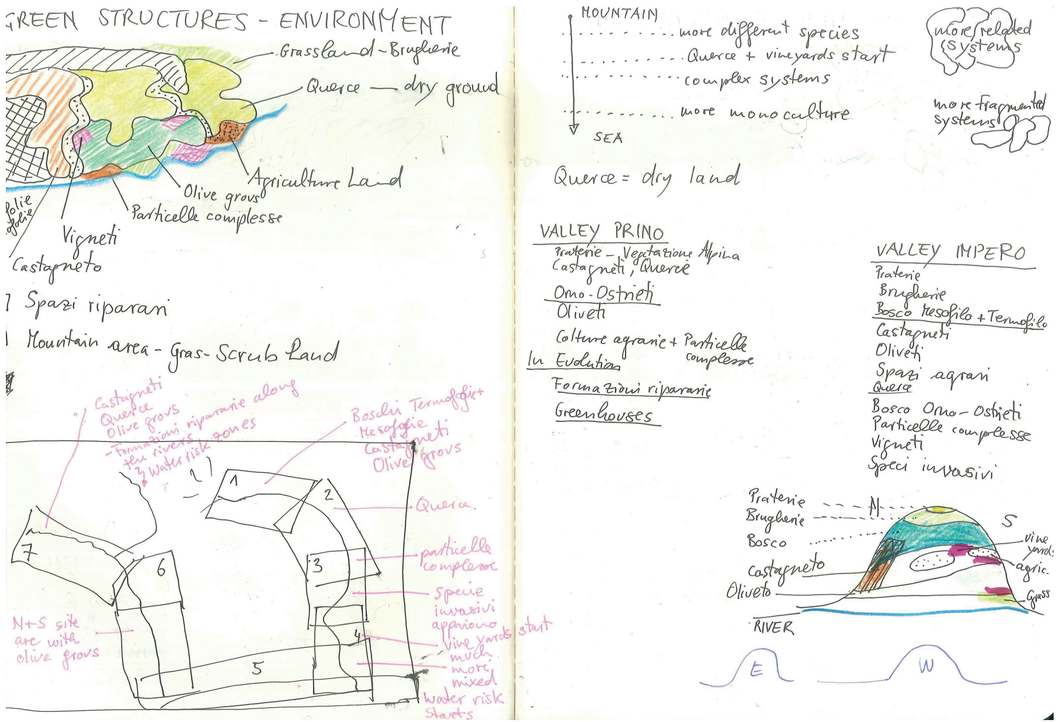


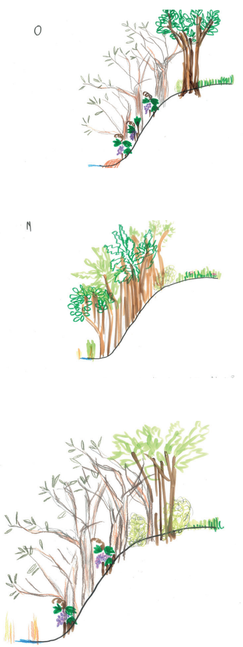
Fig.201: Valleys, design ideas. Source: by author.

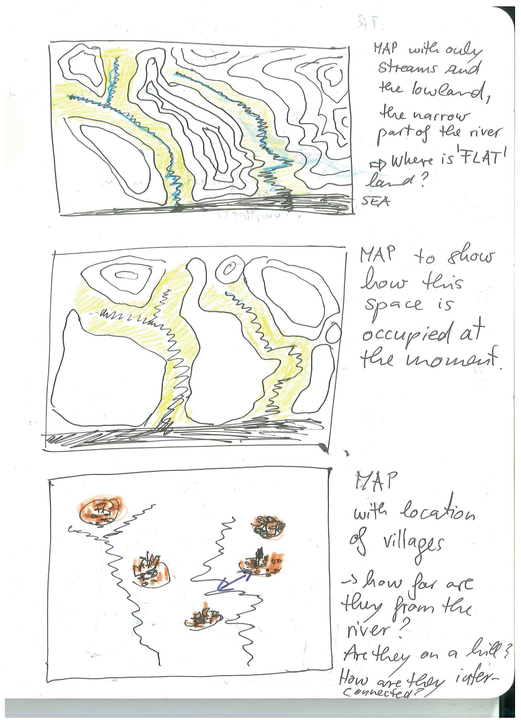




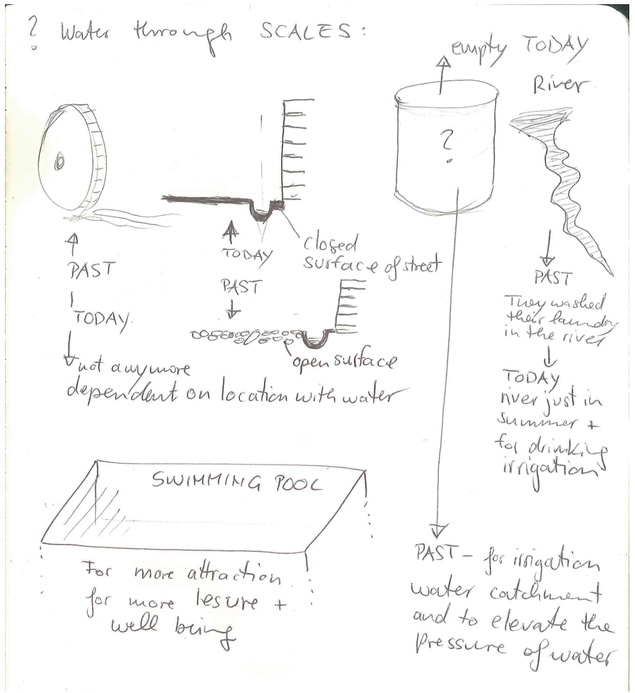
V

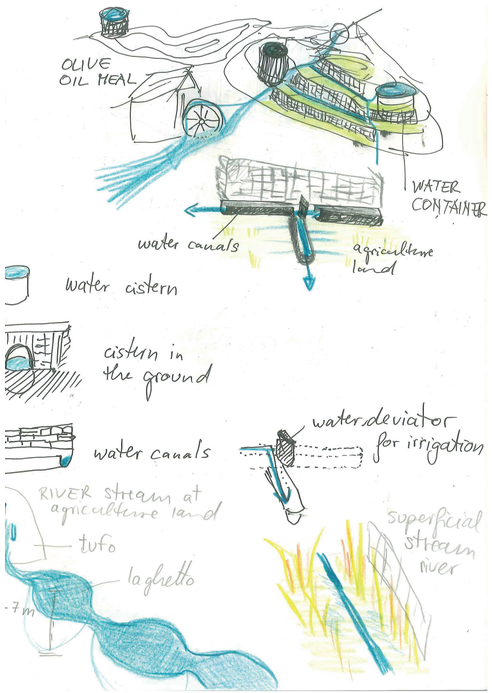

GREEN STRUCTURES - ENVIRONMENT
Grassland - Brughiere
Querce — dry ground
Olive grous
Agricultural Land
Particelle complesse
Vigneti
Castagneto
7 Spazi riparani
1 Mountain area - Gras- Scrub Land
Castagneti
Querce
Olive grous
Formazioni riparie along fiu rivers
Water risk zones
Boschi Termofilie+ Mesofilie
Castagneti
Olive grous
Querce
particelle complesse
specie invasivi
Vine yards
more mixed
Water risk starts
N+S site are with olive grous
start
MOUNTAIN
more different species
Querce + vineyards start
complex systems
more monoculture
SEA
more related systems
more fragmented systems
Querce = dry land
VALLEY PRINO
Praterie - Vegetazione Alpina
Castagneti, Querce
Orno - Ostrieti
Oliveti
Colture agrarie + Particelle complesse
In Evolution
Formazioni riparie
Greenhouses
VALLEY IMPERO
Praterie
Brughiere
Bosco Mesofilo + Termofilo
Castagneti
Oliveti
Spazi agrari
Querce
Bosco Orno - Ostrieti
Particelle complesse
Vigneti
Specci invasivi
Praterie
Brughiere
Bosco
Castagneto
Oliveto
N
S
vine yards
agric.
Grass
RIVER
E
W

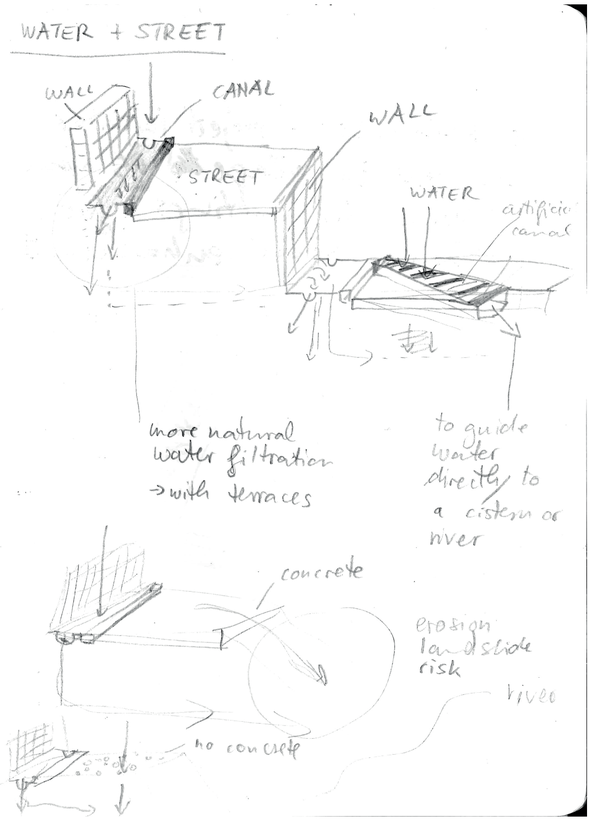

O
N
W


MAP with only streams and the lowland, the narrow part of the river
⇨ Where is 'FLAT' land?
SEA
MAP to show how this space is occupied at the moment
MAP with location of villages
→ how far are they from the river?
Are they on a hill?
How are they inter-connected?

V

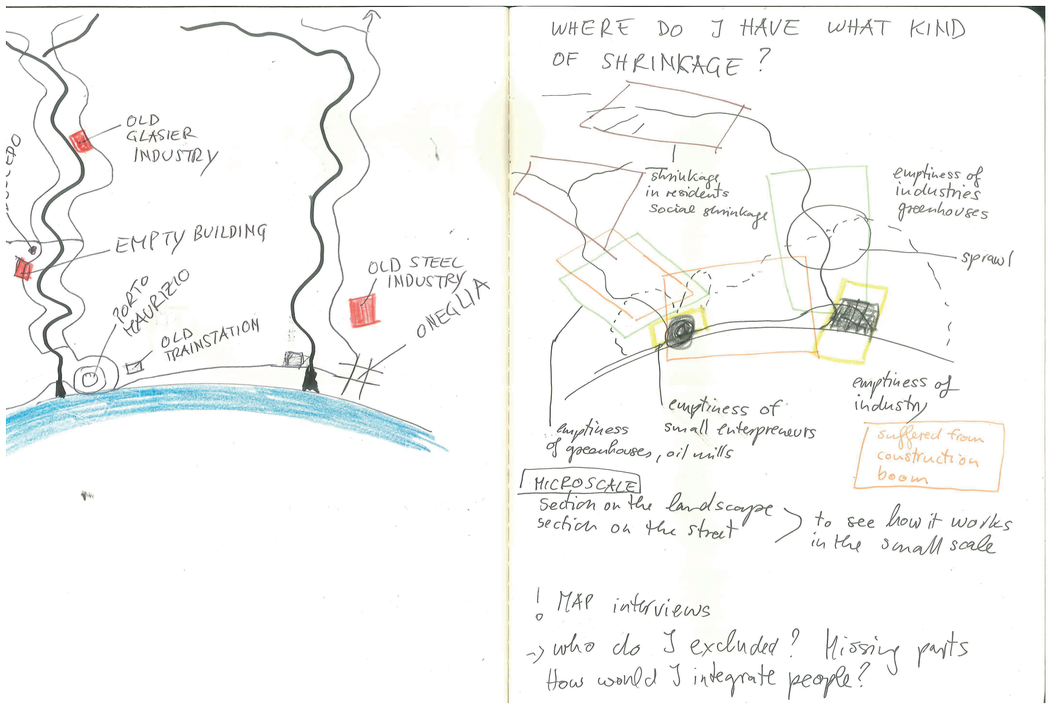

? Water through SCALES:
empty TODAY
River
?
PAST
TODAY
Closed surface of street
PAST
TODAY
open surface
not anymore dependent on location with water
PAST
They washed their laundry in the river
TODAY
river just in summer + for drinking irrigation
SWIMMING POOL
For more attraction for more lesure + well being
PAST - for irrigation water catchment and to elevate the pressure of water


OLIVE OIL MEAL
WATER CONTAINER
water canals
agriculture land
water cistern
cistern in the ground
water canals
water deviator for irrigation
RIVER stream at agriculture land
tufo
laghetto
-7m
superficial stream river

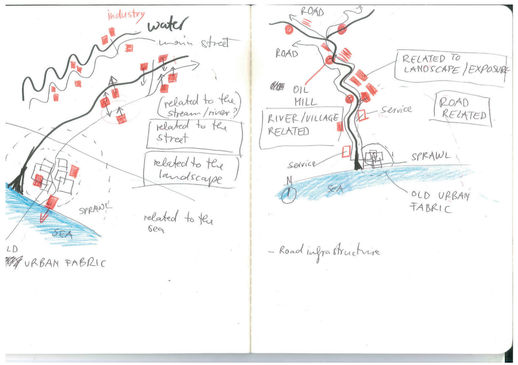

WATER + STREET
WALL
CANAL
WALL
STREET
WATER
artificial canals
more natural water filtration
→ with terraces
to guide water directly to a cistern or river
concrete
erosion landslide risk
river
no concrete

V

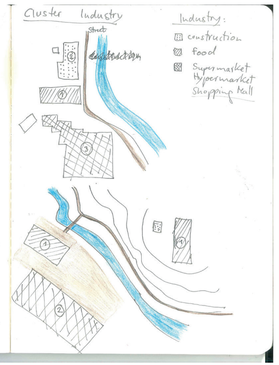
UNDERSTANDING ELEMENTS OF SHRINKAGE WITHIN THE VALLEYS



UNDERSTANDING INDUSTRIES AND THEIR RELATIONS

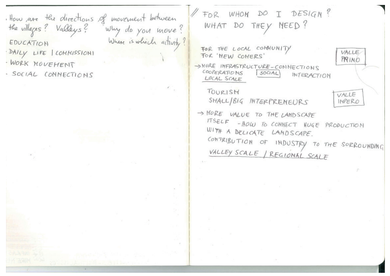


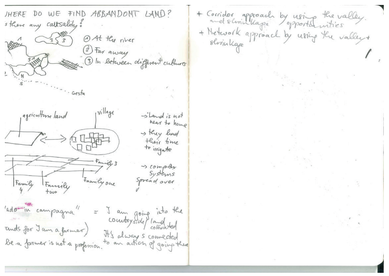


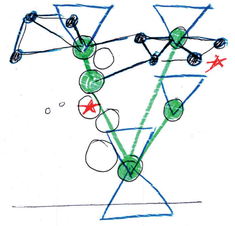


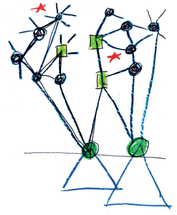
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THOUGHTS

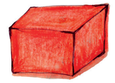


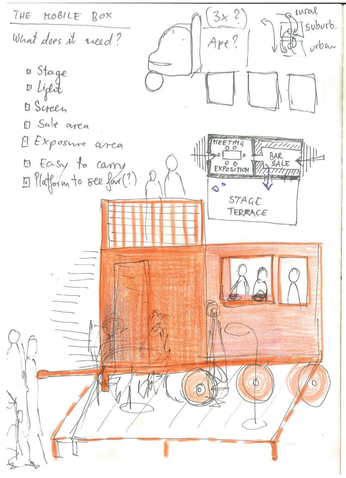


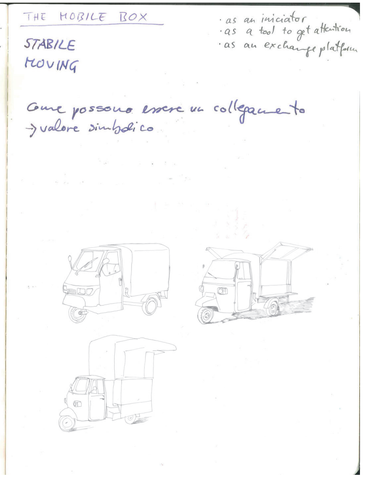




THE MOBILE BOX

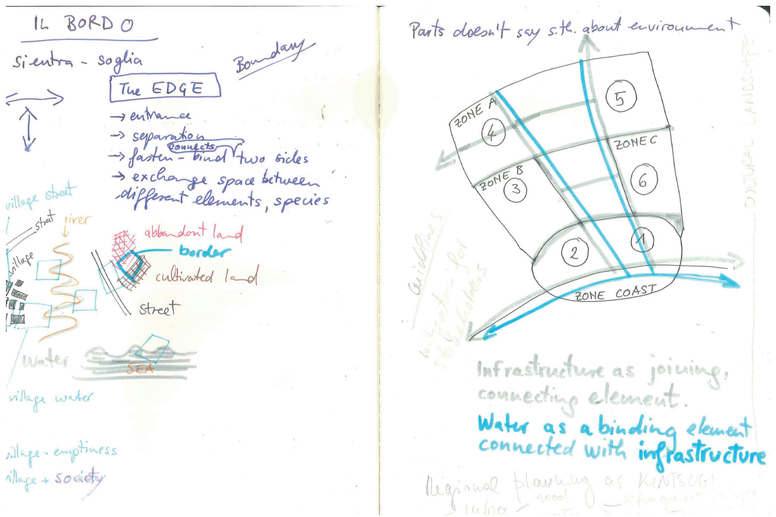


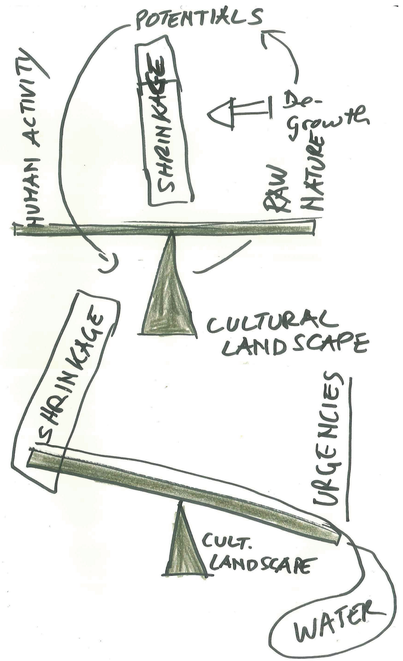




V

THE EDGE AND THE VALLEYS



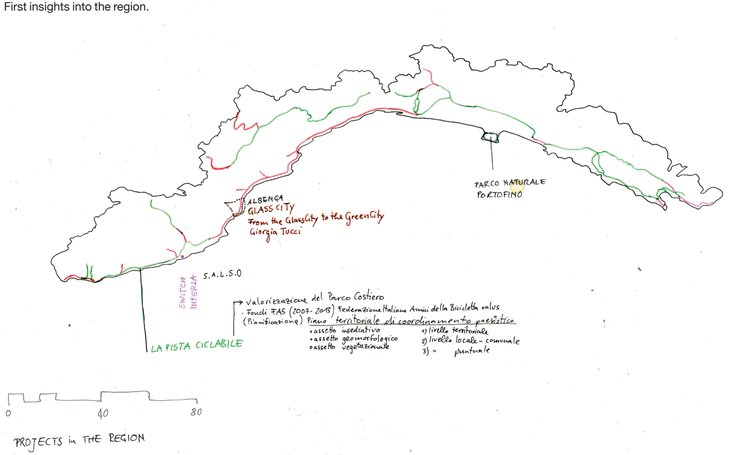


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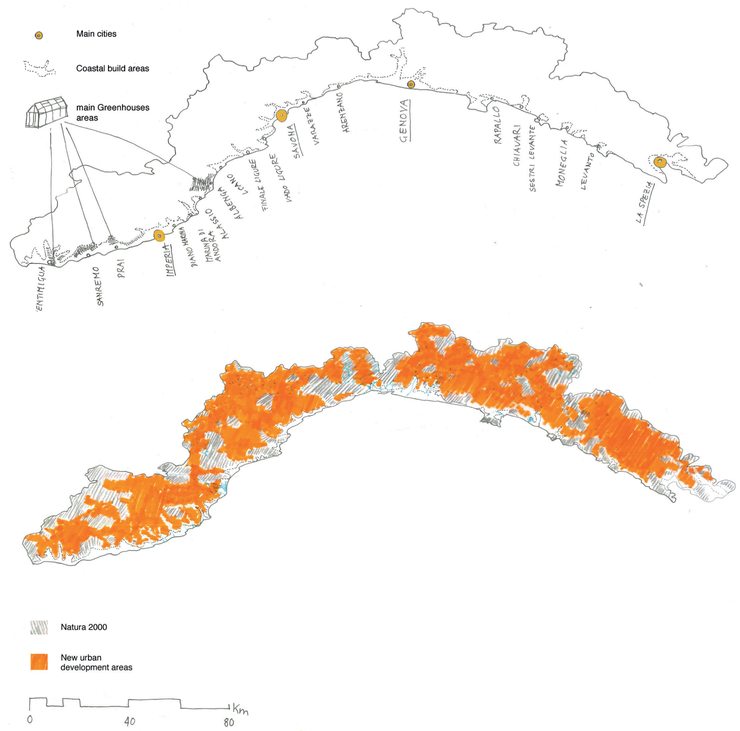
CURRENT PROJECTS IN LIGURIA

LOCALISING CURRENT PROJECTS IN THE REGION

First insights into the region.



MAIN CITIES, MAIN BUILD AREA AND GREENHOUSES IN LIGURIA



GIVING LIGHT TO THE BACK, THE COUNTRYSIDE OF LIGURIA

What if the coastline becomes only a territory of transport, culture and tourist attraction and the countryside the main point of reference for living and working?

V

EXTREME SCENARIOS

WHAT IF?

Three first extreme scenarios:
1. What if we let the nature overtake the cultural landscape back?

2. What if we facilitate new development around empty, abandonment factories, drosscapes?

3. What if we the villages of the countryside become self-sufficient?
What if we give the abandonment to immigrants and strangers?
What if we change the way of communication between the valleys and the coastline?

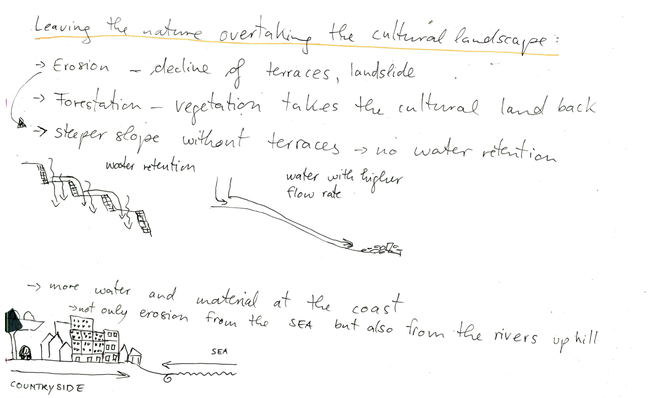


Fig.202: Scenario 1. Source: by author.

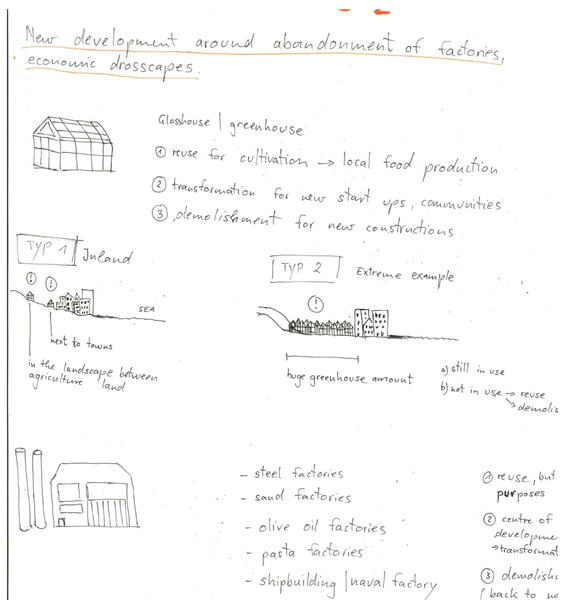


Fig.203: Scenario 2. Source: by author.

V

EXTREME SCENARIOS

WHAT IF?

Change of social structures. New commuting of people.

(1) Retired worker + immigrant | foreigner
↳ helpful hand for social services + restauration | of cultural landscape
Knowledge transfer

(2) Villages become self-sufficient (villages) communities
- people from metropolitan cities come back to the rural areas (MILANO, ROMA, TORINO, NIZZA, GENOVA)
→ new way of working
→ new use of old structures

(3) Coastline becomes the area for tourism | main public infrastructure | Art + culture

(4) Changing communication



- By reusing the old connection over the
=> RESTAURATION
- By doing togheter, a vision, contribu
to one another → new network
VIA NEWSPAPER - JOURNAL → COORDINAT

Fig.204: Scenario 3. Source: by author.

DIFFERENT CALCULATIONS

WATERRISK AND VEGETATION

