

Graduation Plan

Master of Science Architecture, Urbanism & Building Sciences



Graduation Plan: All tracks

PERSONAL INFORMATION	
Name	Patrick Tobias Maurer
Student Number	5384915

STUDIO		
Name / Theme	Planning Complex Cities	“Planning Complex Cities graduation projects investigate planning schemes, governance arrangements, and civic engagement in regions and urban areas, how these influence the transformation of spatial structures and how they can be enhanced to achieve more sustainable spatial outcomes” (Complexcitiesstudio).
Main mentor	Verena Balz	Spatial Planning & Strategy, Department of Urbanism, Faculty of Architecture and the Built Environment, Delft University of Technology.
Second mentor	Alexander Wandl	Section of Environmental Technology and Design, at the Faculty of Architecture and the Built Environment, Delft University of Technology.
Argumentation of choice of the studio	<p>At the very beginning of the academic year, master students are confronted with the choice of a specific graduation studio. Each studio has a different focus and uses different approaches for research and design. At the moment students have to pick a studio, most of the graduation projects are not more than abstract ideas. Making the correct choice remains challenging as it is rather challenging to imagine how the graduation project will develop over the academic year. On the other hand, taking the decision early also has its benefits. It leads the student to a much more balanced reaction, which means that (s)he will pick the studio that fits best the Graduation work and the studio that suits more personal interests and ambitions. Following this concept, the studio that I chose was the Planning Complex Cities studio (PCC). I am convinced that the studio will help me develop the</p>	

	<p>graduation project and teach me the skills needed as the professional I want to become. To quote Roberto Rocco: “we like to see you applying what you have learned here at TUD on your home country”, that is precisely what I had in mind from the very beginning. My personal goal is to use the methods and notions learned at TUD concerning planning, policy-making and stakeholder engagement to develop a regional strategy for a resilient future agri-food sector in Tuscany.</p>
--	---

GRADUATION PROJECT

Title of the graduation project	Certified Future, A strategy for sustainable and resilient rural development, the case of Tuscany
---------------------------------	---

GOAL

Location:	Region of Tuscany, Italy.
-----------	---------------------------

The posed problem,	<p>The Tuscan agri-food sector is unsustainable. Practices such as intensive farming and other polluting activities progressively consume natural resources. Resources that are strongly needed in the future to sustain the agricultural system against the threats of climate change. The most exposed parts of the system are the ones that already practice traditional and sustainable agriculture. Geographical indication (GI) certificates protect these farming activities and guarantee stable market placement. Nevertheless, they are difficult to access, especially for small farmers who cannot afford the high assessment costs and a non-predictable profit range. The progressive abandonment of small farmers could lead to a chain reaction. It could cause a transition towards intensive farming practices and increased deployment of natural resources. These effects could lead to the total collapse of environmental flows and the agri-food system in the near future.</p>
--------------------	--

Research questions	<ol style="list-style-type: none"> 1. (Main question),- How can Geographical Indications become spatial planning instruments that have positive consequences on resilience and sustainability of the Tuscan agri-food system? 2. (Sub-question),- Who are the actors involved in the Tuscan agri-food system, and what role do they play?
--------------------	---

	<p>3. (Sub-question),- To what extent are Geographical indications contributing currently to sustainability and resilience in the agri-food system?</p> <p>4. (Sub-question),- What strategies are needed to transform Geographic indication certifications into spatial planning instruments?</p>
	<p>The main goal is to transform GIs from market tools to spatial planning tools that can create positive outputs for the improvement of sustainable and resilient farming practices. This goal can be translated into specific design results. These design outcomes will support each other, and only together they will be able to complete the picture.</p> <ol style="list-style-type: none"> 1. The first design outcomes focus on giving as much investigative information to the reader as possible. The method of spatial investigation comprehends a set of maps that depict the current situation and communicate criticalities and the most vulnerable areas. Sharing the analytical findings with a robust design is crucial to emphasise the importance of the topic. 2. The second outcome is an extensive list of recommendations for policymakers. The list is generated during the reflection after the process of the analytical framework. The conclusions drawn from the different methods used to unfold and answer the research questions are essential to build up a list of strengths, weaknesses, potentialities, and threats. From there, a list of organisational principles is formulated. 3. The third design output has the main goal to show the possibilities the list of principles offers in a set of scenarios. Each scenario will include at least one of the previous set recommendations. Scenarios are never a hundred per cent precise but can strongly influence communication to explain trends. 4. The fourth and final outcome is the proposal of a policy strategy that aims to give exact directions on how the GIs should change in their political-economical structure. This policy development plan follows the list of recommendations, focusing on those that have shown the highest beneficial outcomes in the scenario observation.

PROCESS

Method description

(Method/Aim)

1. **Case study analysis:** “Case studies can be used to explain, describe or explore events or phenomena in the everyday contexts in which they occur. These can, for example, help to understand and explain causal links and pathways resulting from a new policy initiative or service development”(Yin RK., 2009). In this research, the purpose of the case study analysis is to find previous examples of regional and national scales that have tackled sustainability and vulnerability issues using sustainable and resilient agricultural practices.
2. **Policy analysis:** The method of policy analysis consists of a deeper understanding of how regulation around the topic is structured. The step is necessary to define weaknesses and blind spots that can be used and shaped to own needs. “Policy Analysis and Policy Options Analysis are related methodologies designed to evaluate either existing or potential policies in terms of their ability (or potential ability) to achieve the stated policy goals. This method aims to Recognise the problems persisting in the political nature of GIs and their high costs for assessment.
3. **Statistical analysis:** Statistical analysis means investigating trends, patterns, and relationships using quantitative data. It is an important research tool used by scientists, governments, businesses, and other organizations. To draw valid conclusions, statistical analysis requires careful planning from the very start of the research process. Statistical analysis does not look for an answer in words but for numbers and effective data. The goal of such analysis is to draw a personal observation and understanding of what the statistics mean for the own research. Finding possible strategies to preserve the existing influence of GIs on the market. In addition, evaluate policies that facilitate the transition to sustainable farming by lowering the assessment costs and improving dedicated investments.

4. Literature research: “A literature review is an excellent way of synthesizing research findings to show evidence on a meta-level and to uncover areas in which more research is needed, which is a critical component of creating theoretical frameworks and building conceptual models” (Snyder H., 2019). With a target-specific literature review, it is possible to either demonstrate that GIs are positively contributing to the sustainability and resilience of agri-food systems or that there is a consistent lack of research concerning the topic.

5. Stakeholder analysis: “Stakeholder analysis is a process that enables analysts to identify how various parties are likely to be affected by proposed government actions. It relies upon valid scientific techniques to identify likely impacts of the action, identify relevant stakeholder groups, and gather data about how these groups are likely to be affected. Analysts supply this information to decision-makers and stakeholder groups to assist in identifying potential adjustments to proposed actions as a means of mitigating adverse impacts and increasing the likelihood that the actions will be implemented efficiently and effectively”(Babiuch W., Farhar B., 1994). The stakeholder method remains one of the most crucial methods in spatial planning. Recognising the different actors, their positions in the power/interest matrix, their attitude towards the project and the possible conflicts that could arise; all this will enable the possibility to create an engagement strategy to stimulate higher participation in spatial planning processes.

6. Interviews and surveys: Using interviews and surveys as a method is very often underestimated. Especially nowadays, thanks to digital communication accessible to almost everyone, this method has become fundamental. Only through interviews and surveys targeting specific interests groups it is possible to achieve social inclusion in spatial planning processes. The goal of this method is to produce data that deals with the topic in-depth and in detail. Both surveys and interviews can help to build a dataset capable of showing different trends and

patterns. Information is needed to establish appropriate strategies to increase the awareness of consumers of the socio-ecologic benefits brought by GIs.

- 7. Research by design:** Design is a very suitable approach for these types of problems because it makes creative jumps in thinking and solving possible. This way, unprecedented solutions and inventions through design innovations come into reach” (Roggema R., 2008). The aim of this method is to experiment with different design solutions and compare them in different phases of the research. This method gives the research the possibility to create a feedback loop between design and analytical research, one informing the other and being able to achieve a higher number of findings.
- 8. Spatial investigation:** The spatial investigation method “is a process of GIS data interpretation, exploration and modelling, from acquisition to understanding results. The aim is to translate quantitative data obtained with previous analysis to spatial information. With the help of digital mapping software such as GIS. The distribution of different farming typologies on the region, their footprint, the involved underground water resources and ecological niches can be identified and used to understand more consistently the current situation.
- 9. Scenario-building:** Very largely used to foresee climate change effects, it can also be used to observe the effects of planning decisions. Even if, in the second case, the scenario is unable to include unpredictable changes, it can offer a pretty insight into what could be the cause-effect process. “The process of scenario building should raise awareness of uncertainties, risks and constraints which could be encountered in the future. The awareness of such factors helps to improve strategy development because scenario building allows switching mindsets from only one possible future towards thinking about a number of possible alternatives” (Widler S., 2005). This is why the research aims to demonstrate and communicate with this method the consequences of applying rules of GI’s concerning natural preservation to all farmers included in the GI boundary.

	<p>10. Scenario analysis and maximisation: Complementary to the Scenario-building method, the Scenario analysis and maximisation method focuses on assessing the built scenarios to pre-established evaluation scales. These are taken from literature to analyse how the outcome of a scenario will have impacts on the chosen site and what are the possible outcomes that remain unseen on a map.</p>
Literature and general practical preference	<p>Key Literature:</p> <ol style="list-style-type: none"> 1. Zisidis O., 2014. Do PDO and PGI foodstuffs have value added to stakeholders?. Wageningen University & Research. 2. Fondazione Qualivita, 2017. The european GI system, the italian model and the case of Aceto Balsamico di Modena PGI Food & Wine products with Geographical Indication. Qualivita. 3. MIPAAF, 2000. Mipaaf -Riconoscimento della denominazione di origine controllata dei vini "Arcole" ed approvazione del relativo disciplinare di produzione. 4. Fellmann T., 2012. The assessment of climate change-related vulnerability in the agricultural sector: reviewing conceptual frameworks. Pablo de Olavide University. 5. Group of Chief Scientific Advisors, 2020. Towards a Sustainable Food System. European Commission. <p>General practical experience to consult:</p> <ol style="list-style-type: none"> 1. https://www.naturparke.at/startseite 2. https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_it 3. https://ec.europa.eu/food/horizontal-topics/farm-fork-strategy_it 4. https://www.fao.org/geographical-indications/projects/promote-geographical-indications-as-a-tool-for-sustainable-rural-development/en

REFLECTION

What is the relation between your graduation (project) topic, the studio topic (Planning complex cities), your master track (U), and your master programme (MSc AUBS)?

Studio relation:

“The basic starting points of graduation projects in Planning complex cities studio are observations of disparities and conflicts arising from the distribution of spatial resources across communities and territories. Those propositions may concern formal institutions embodied in e.g. legal and regulatory planning frameworks, policy delivery mechanisms, obligatory cooperation between governments, or formal distributions of power. Propositions may also concern informal institutions, e.g. the voluntary engagement and participation of communities and non-governmental organisations in planning processes, invisible power distributions, planning and governance cultures and traditions, or even ideologies. During Planning Complex Cities graduation projects, the interrelations between spatial and institutional circumstances are elaborated in-depth. Conclusions from projects typically recommend institutional change and demonstrate how this can lead to new spatial development patterns, by means of design” (Complexitiesstudio). This description, given by the graduation studio, fits very well with the approach taken by the graduation project. It first looks into disparities and conflicts arising from the current agri-food system and then analyses the context of formal and informal institutions and the role they play. Concluding with a set of recommendations that induce institutional change and the creation of new spatial development trends.

Master track and programme relation:

There is a strong relationship between the master track, master programme and the graduation project as many notions used to develop the graduation project were taken from knowledge collected during the first academic year. In Msc1 and 2 I started cultivating an interest in agricultural processes, including rural development, market trends, social aspects, and many more. Especially in Q3, I managed to collect and enrich my knowledge about the agri-food sector as I worked with the team on a strategy for agricultural circularity for Zuid-holland. During the literature research made for this quarter, I came across the definition of Geographical Indications. I was already quite familiar with the term, but it never seemed to be a relevant spatial planning tool till that point. At that moment, I thought that transforming the GI's from simple economic-politic tools to planning policies could be an efficient solution adaptable to the Tuscan situation, as to others, to find a way to push the agri-food sector towards sustainable development.

What is the relevance of your graduation work in the larger social, professional and scientific framework?

Scientific:

The graduation research provides a valuable insight into the structure of Geographical indications. The topic is well researched already, and many scientific papers can be found concerning it. Still, the research has two main weaknesses. The first one is that there are too many different researches. None of them contains a precise summary of all the other aspects of the certifications (the papers tend to focus on a specific field of interest). Secondly, the most researched topic of these certifications is the economic nature, while matters such as their impact on spatial outcomes and planning processes are still necessary for further clarification. The research is so with filling a knowledge gap. On top of that, the graduation work integrates innovative methodologies to

elaborate the topic and demonstrates the applicability of dutch methods to a central Italian environment.

Social:

The whole economic system benefits from the certifications and, with it, also the social aspects. Besides financial stability, which guarantees a higher quality of life and affects social well-being, the social relevance of the graduation work includes many other topics that can be considered as leading elements for beneficial outcomes. To clarify this position, a few examples are made. First, the graduation work tackles the issue of participation and awareness of the consumers in the agri-food chain. Demonstrating the importance of their choice might lead them to consume more consciously. This will have at the same time positive impacts on health implications caused by higher consumption of qualitative and local products in the daily diet. Another example could be the preservation of traditional practices and the entire landscape that shaped the territorial image. This has a high social relevance as the Tuscan landscape presents very high values of social identity.