



# UNIVERSITY OF COPENHAGEN

## Changing Landscape Identities: A Case Study on the Effects of a Shifting Agrarian Lifestyle

**Practicing Interdisciplinary Field Research on the Environment**

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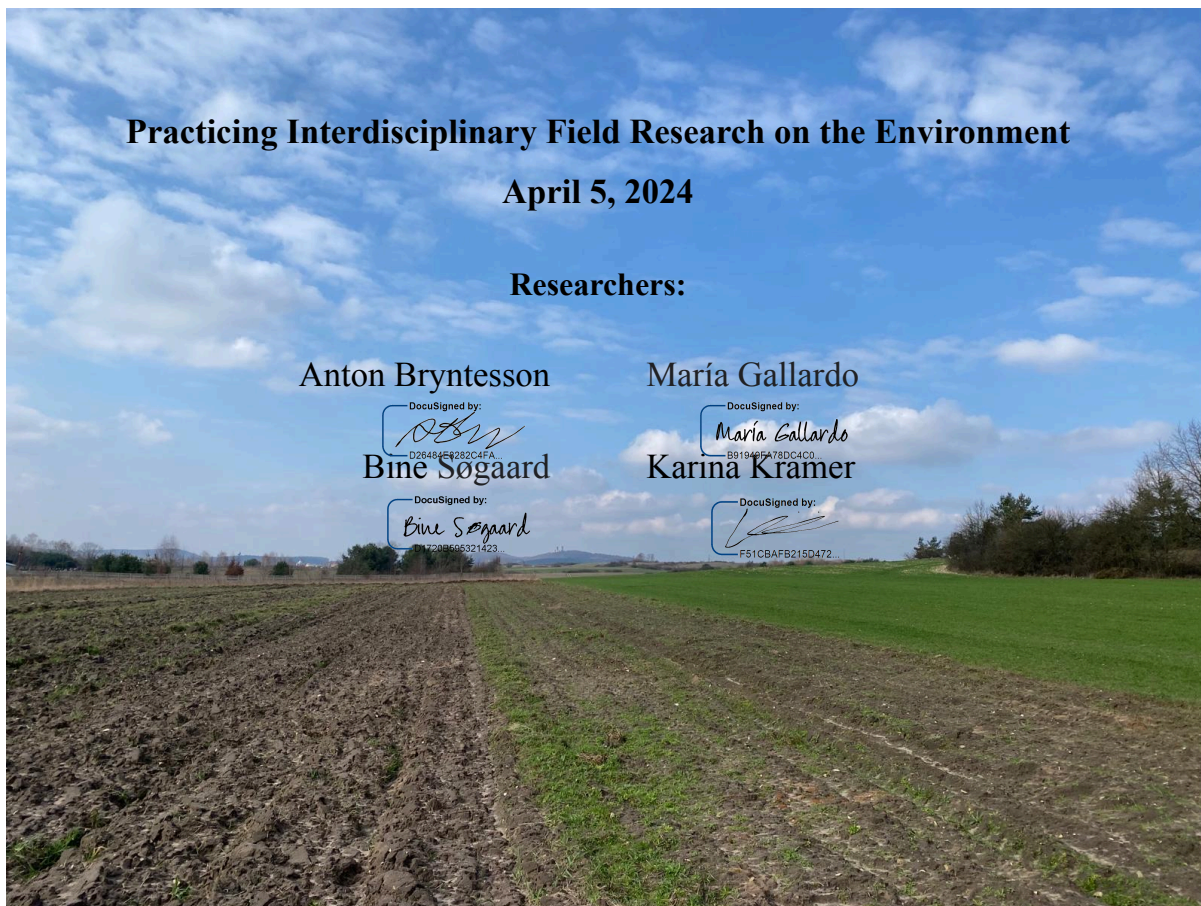
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## **Abstract**

The purpose of this study is to examine how landscape identity is formed within two villages of the Swietokrzyskie Voivodeship in Poland that have experienced rural gentrification, under the research question of *How does landscape identity change over time?* The concept of landscape identity is operationalised by spheres of perception, spheres of action and physical landscape. The empirical data was collected during 13 days of fieldwork with the members of the Koła Gospodyń Wiejskich (KGW) in Lipowica and Ostrów. The interdisciplinary data collection involved participatory mapping, walking interviews, landscape characterization and soil analysis. The analysis was based on Grounded Theory with sensitizing concepts pertaining to landscape identity theory. Our results show how a changing landscape brought up the feeling of solastalgia. As the population demographics changed, the landscape no longer supported the participants' perception of landscape and the desired activities. The participants mitigated these solastalgic feelings by engaging in the activities of the KGW, harvesting forest products, participating in religious celebrations and retaining small-scale agricultural practices such as gardening and keeping poultry. We found that the loss of sense of community that existed in the past agrarian lifestyle, hindered the mitigation efforts to fully hold on to a past landscape identity. The participants are left in a limbo between two landscape realities: the present and the past. This study therefore shows how special attention should be paid to how landscape identity is affected by rural gentrification processes and what effects it has on the sense of community.

**Keywords:** Landscape Identity; Landscape Characterization, Soil Testing; Participatory Mapping; Walking Interviews; Solastalgia; Tipping-Points; Landscape Changes; Sphere of Action; Sphere of Perception; Grounded Theory; Rural Gentrification

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Lastly, we would like to convey our thanks to the Lipowica Koła Gospodyń Wiejskich and the Ostrów Koła Gospodyń Wiejskich for their time and participation in the project. Not only was their participation invaluable, but the way in which they welcomed us into their villages was heartwarming.



Figure 0: Researchers and translators in Lipowica.

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## **1. Introduction**

The interest in landscape identity studies which connect the physical dimension of a place to the people that live there has grown over recent years (Butler et al., 2019). There is a growing body of literature that has been conducted on the importance of the physical environment on the creation of people's identity (Butler et al., 2019). Societal and cultural changes can also cause shifts in the landscape, and as such, the mutual character of this interaction has been explored in past studies (Loupa Ramos et al., 2016).

In this paper, landscape identity is understood as the interconnection between people and landscape. People's interaction with the landscape can be divided into two spheres; a sphere of actions and a sphere of perceptions (Loupa Ramos et al., 2016). The sphere of actions refers to a physical level of interaction between people and landscape, while the sphere of perceptions connects with the perceived character of a landscape and the emotional connection that people establish with it (Loupa Ramos et al., 2016). These spheres are shaped by the physical landscape and simultaneously shape it in return (Loupa Ramos et al., 2016). A perspective on change can be added to this interaction between landscape and people's identity; the moments in time when change occurs are referenced by Loupa Ramos et al. (2016) as tipping points that can happen both in the landscape or in people's perception towards it. Dossche et al. (2016) explores the concept of tipping points further through an empirical study, where change in landscape happened progressively through a shift from a rural intensive landscape to extensive land uses. Dossche et al. (2016) distinguish a nostalgic view; a connection to a landscape that only existed in the past. This connection to a no longer existing landscape and the consequent feeling of dislocation is framed in literature as solastalgia, "a form of homesickness one experiences when one is still at home" (Albrecht, 2006, p. 35). Similar to Dossche et al. (2016), a study conducted by Butler et al. (2017) also explores change in landscape within the context of landscape identity. However, in their case change occurred in an abrupt manner after one of the biggest forest fires in the history of Sweden. As the authors present, not only the physical landscape changed dramatically, but also the way in which landscape was perceived and experienced, setting a precedent for studies on natural disasters and its effects.

It could be said that all of the studies concerning landscape identity have in common a combination of subjective and physical aspects, which underlines the need for a holistic understanding of the landscape. As such, the existing studies have, as a starting point, the spatial characteristics of the landscape, then dive further into the subjective parts; how do

people perceive it?; what is the relationship between the people and the landscape?; have these perceptions and relationships changed? As further examples of this tendency, Eiter and Potthoff (2016) explore changes in the Norwegian mountainous landscape; Llewellyn et al. (2017) focus on how landscapes shaped by sustainable energy plants are experienced by locals in South Wales, while Storie and Külvik (2019) add to the field by focusing on how physical and cultural changes play a role in the building of a new landscape identity in a small Latvian community. All of these studies first establish an understanding of the physical landscape by looking at its past and current state, being yet another example of how the different dimensions of landscape identity are used on the practical level; first a spatial or physical component is laid down, which is followed by an analysis of the spheres of perception and action. Literature has given different names to these dimensions (e.g. Storie and Külvik (2019) refers to landscape and cultural changes, Dossche et al. (2016) relates the study to a spatial and an existential dimension, but as Stephenson (2008) concludes after her own literature review, all of these can be understood as parallel ideas.

An interdisciplinary approach is needed in landscape identity studies to fully understand the components of the concept. Within this, participatory approaches are of special value, as they give voice to the people inhabiting those landscapes (Stephenson, 2008). Some studies have been developed with these characteristics (Stephenson, 2008), though none under the perspective that our study area brings into the field; the specific circumstances of change undergone in the study sites leads to unique observations regarding the evolution of people's actions and perceptions towards the landscape.

The research presented in this paper was carried out in two villages from the south-east of Poland: Lipowica and Ostrów. Both villages have undergone landscape changes in recent years as a consequence of a shift away from an agrarian lifestyle. Women from the Koła Gospodyń Wiejskich (KGW) - in English being the Rural Women's Association - of each village were participants of the study, giving us a unique perspective on change, as most of the participants were of an older generation that have lived through these changes. Further details regarding the participants are given in Section 3.1.

The abandonment of an agrarian lifestyle happens within a general phenomenon of rural gentrification in Poland that started with the "educational boom" after the fall of the communist state in 1989 (Zwęglińska-Gałecka, 2022). The process of rural gentrification in Poland is defined by two simultaneous population movements; rural people moving to the bigger cities in search of education and employment and the middle-class moving from the cities to the countryside in search of peace and quiet and supported by a higher income. The

consequences of this process are seen in the economic, demographic, spatial, and perceptual fabric of rural villages (Zwęglińska-Gałecka, 2022). This process of rural gentrification is still ongoing in Lipowica and Ostrów.

This exchange of people and the transformation of the landscape under the post-communist rural gentrification phenomenon adds a new perspective to the field of landscape identity; as far as we know, no one has carried out a similar study under these circumstances, allowing us to add to the existing landscape identity theory. Therefore, our research problem is how these circumstances of rural gentrification and land-use change have affected the landscape, people's perception of the landscape and the relationship these people have with their surroundings through the activities they perform in our two study areas.

As such, our main research question is the following:

- *How does landscape identity change over time?*

We aim to answer our research question by looking specifically at how physical landscape, actions, and perceptions shape one another. This is achieved through the theoretical framework presented by Loupa Ramos et al. (2016). The model focuses on the interaction between people and landscape; they co-transform each other through societal changes that affect the landscape, and landscape changes that affect societies. As previously discussed, according to these authors people relate to the landscape through a sphere of actions and a sphere of perception, as seen in Figure 1, while changes in physical landscape affect the people and these two spheres. Through these dynamic interconnections, both people's identity and the landscape's character are shaped. Together, these two things build what is understood as landscape identity.

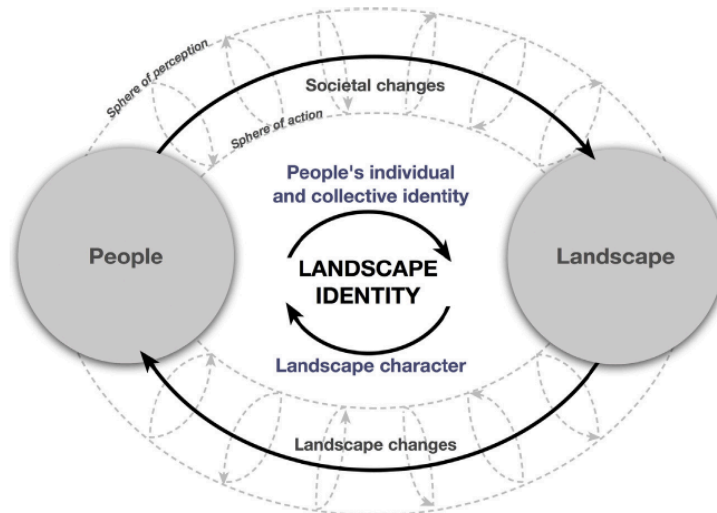


Figure 1: Transactional model of landscape identity as presented by Loupa Ramos et al. (2016)

The presented model is used to guide us in the construction of our interview questions and method prompts. Nevertheless, the data is mainly analyzed through grounded theory; meaning that the concepts presented by Loupa Ramos et al.'s (2016) framework are understood in this study as “sensitizing concepts” (Bowen, 2006). According to Bowen (2006) sensitizing concepts are those ideas that are used as guidance to structure a research project, but are not used as fixed categories in the analysis. Further details on grounded theory as an analysis tool is given in Section 4 of the report.

The following sections strive to answer the research problem, as stated through the research question. An overview of the study sites with a focus on their physical aspects is followed by a description of the applied methods, with later sections presenting the study's results, a discussion of findings that aims to build a theoretical understanding of how landscape identity is shaped over time, and a conclusion.

## 2. Overview of the Study Sites

The Swietokrzyskie Voivoideship, as seen in Figure 2 , is one of Poland's 16 provinces (Polska Agencja Inwestycji i Handlu, n.d.). Located in the south-east of the country, it is home to the Swietokrzyskie mountains; translated to English as Holy Cross mountains. (Marshall Office of the Swietokrzyskie Voivoideship, 2021).



Figure 2: Map of Poland and its 16 voivodeships, with the Świętokrzyskie Voivodeship, coloured in red ([Polska Agencja Inwestycji i Handlu, n.d.](#))

As seen in Figure 3a, despite the Świętokrzyskie mountain range, elevations are usually not very high in the region (Topographic-map.com, n.d), with a highest point of 614 meters above sea level (Łysica mountain, Marshall Office of the Swietokrzyskie Voivodeship, 2021). According to the CORINE dataset, there are a wide variety of land cover and land use types in the Swietokrzyskie Voivodeship, as shown in Figure 3b (European Commission, n.d.). Some major features were shown to be *industrial or commercial units, mineral extraction sites, pastures, coniferous forest* and *mixed forest* (European Commission, n.d.).

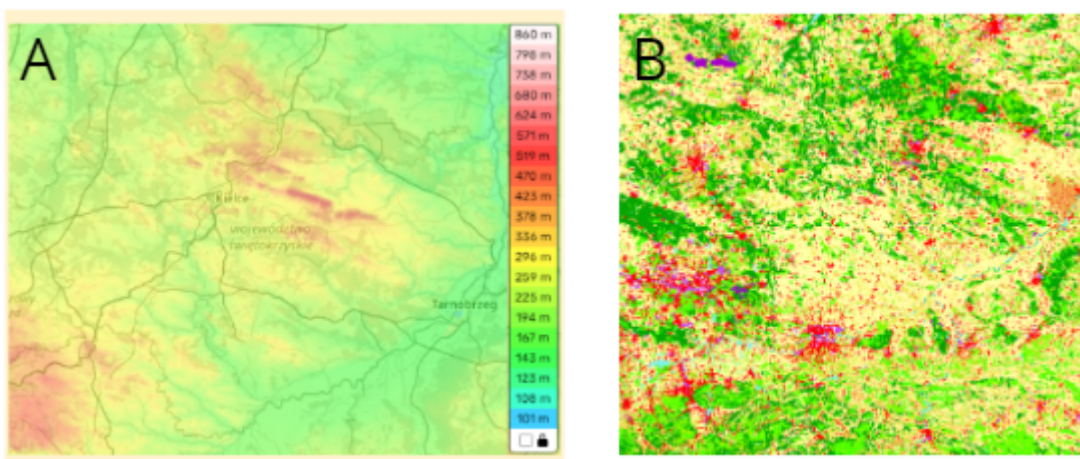


Figure 3a: Elevation map of the Swietokrzyskie Voivodeship ([Topographic-map.com, n.d.](#)); Figure 3b: Land cover and land use of the Swietokrzyskie Voivodeship ([European Commission, n.d.](#)).

As can be seen in Figure 4 (Geoportal, n.d.), our study focuses on two villages within the Świętokrzyskie Voivodeship: Lipowica and Ostrów. These two villages are located south-west of the province capital, Kielce. Lipowica has a population of 320, while Ostrów has a population of 610 residents (Lipowica, Świętokrzyskie Voivodeship, 2024; Ostrów, Kielce County, 2024). As presented by the participants of the study, both villages have a changing population as their children and grandchildren move to bigger cities for studies and job opportunities. In parallel, there is a “newcomers” phenomenon where people from the cities purchase or build houses in search of the so-called “rural tranquility” as part of the rural gentrification.



Figure 4: Lipowica and Ostrów shown on the map ([Geoportal, n.d.](#)).

According to the CORINE dataset, Lipowica’s most significant land cover and land use types are *discontinuous urban fabric*, *coniferous forest*, *mixed forest*, *pastures*, and *land principally occupied by agriculture with significant areas of natural vegetation* (European Commission, n.d.). It is similar in Ostrów, with the most apparent land cover and land use features shown to be *discontinuous urban fabric*, *coniferous forest*, *pastures* and *principally occupied by agriculture with significant areas of natural vegetation* (European Commission, n.d.).

A temporal scale was a significant feature within our participants’ dictations of identity and landscape. We sought to compare what land cover and land use currently look like in the two study sites with how it looked in the past. CORINE’s least recent version is from 1990, however the maps are not in-depth and are rather inconclusive. We therefore looked at the dataset from the Global Land Analysis and Discovery (GLAD), comparing their map from 2020 (being the most recent) with their oldest being from the year 2000. This acts

as a shortcoming as access to older datasets would have been ideal in order to reference the point in time spoken by the participants. It is important to note that the categories in this land cover and land use database are different from that of CORINE.

The land cover and land use map for 2020 in Lipowica shows that the area's predominant land cover and use is stable cropland, tree cover, and within the residential streets of Lipowica, *stable built-up* (Potapov et al., 2022). As per Potapov et al. (2022): "built-up land consists of man-made land surfaces associated with infrastructure, commercial and residential land uses" (p. 5). When comparing this map with that of 2000, one can see that the most dramatic change was regarding the stable built-up in the residential sections of Lipowica, which has grown over the last two decades (Potapov et al., 2022). Tree cover and stable cropland had nondescript changes over the years (Potapov et al., 2022) although the local forester stated that the forest cover doubled during the 1990s (A. Kot, personal communication, March 4, 2024). Regarding Ostrów, for the year 2020 there is apparent stable built-up in the residential area, as well as stable cropland and tree cover (Potapov et al., 2022). Despite no major changes regarding land cover and land use over the last two decades in Lipowica and Ostrów, eyewitness accounts by residents of the two villages can point to changes that satellite images and databases cannot.

### **3. Methodology**

#### **3.1. Participants**

The participants in this study were the members of the KGW of the two villages Lipowica and Ostrów. The two study areas were chosen from a list of KGW associations, with the factors leading to their choosing being distance to our permanent location, availability of the participants, and having an active membership of more than four members. KGWs are associations located across Poland, working to encourage the preservation of local culture through e.g. upholding cultural traditions, organizing activities for social interaction, and facilitating intergenerational components in their mission (Chmielewska, 2021). The purpose behind choosing KGW members as this study's participants was their roles as key cultural stewards of their respective villages. Additionally, these members were either born or have lived in their respective villages for many years, indicating that they have a deep and long relationship with the landscape. Moreover, the role of the associations in the local communities ensured that we could explore the communal aspects of landscape identity in contrast to solely individual perspectives. These factors are important as they help to form landscape identity, which will be further elaborated on in this paper.

### 3.2. Researchers

Each researcher comes from a different educational background, thereby creating a multidisciplinary team for this research project. Natural sciences and social sciences merged to create a dynamic team, with a wide variety of interests and expertise. As such, we carefully deliberated on how we could use our backgrounds to formulate a comprehensive research project, with methods applicable to each of our fields. An interdisciplinary project was the outcome of the group composition, as seen in this report.

Throughout the project we would prioritize the exchange of input and feedback. As such, everyone's voice was heard and respected, and the semblance of hierarchies had no opportunity to develop. Furthermore, to meet objectives and to adjust to time constraints during the analysis and writing process, we chose to divide the team and tackle different areas of the report. An overview of the breakdown can be viewed in Table 1. Throughout this process, meetings were regularly held to keep one another up-to-date and guarantee that the report was progressing as expected. Overall, the team dynamics can be summarized as respectful, supportive, and diligent.

Table 1: Overview of work distribution between the authors of this study.

Work Distribution		
Report Section	Main Author(s)	Contributing Author(s)
Abstract	Anton & Bine	All
Acknowledgment	Karina	All
Introduction	María	All
Overview of the Study Site	María & Karina	María & Karina
Methodology	Karina	María
Analysis	Karina & Bine	Karina & Bine
Results	All	All
Discussion	Anton & Bine	All
Conclusion	Anton	All

### **3.3. Overview of Methods**

For approximately two weeks our research team conducted a variety of methods. The methods consisted of two participatory mapping exercises, six walking interviews, 11 landscape characterization forms being filled out, and eight soil samples taken. Appendix A provides an overview of the methods carried out in this study.

We aimed to incorporate participatory elements in our study, and thus the participatory mapping exercises and some features of the walking interviews worked to achieve that. These two methods were also vital in answering our research questions, as the data we gained from them pertained to the relationship between the landscape and people's identity. Moreover, we envisioned our study to be a merge of natural and social science. The landscape characterizations and the soil sampling were henceforth brought into the study as our natural science methods. These methods also provided us with thorough knowledge of the landscape, such as how it currently looks and the driving factors behind its composition, as well as how it has changed when compared to the past, which aided in our aim to answer our research questions. It is important to note that the data acquired from the landscape characterizations and the soil sampling were used to build an understanding of the physical landscape, acting as a necessary groundwork for us to then understand the interaction between perception, action and physical landscape, as done in the aforementioned literature (Section 1 of the report). Therefore, the landscape characterizations and the soil sampling data are not heavily accounted for in the discussion section, but rather used as information to build the scenery.

### **3.4. Participatory Mapping**

As succinctly described by Duxbury et al. (2015), cultural mapping “promises new ways of describing, accounting for, and coming to terms with the cultural resources of communities and places” (p. 2). Inspiration was taken from cultural mapping methods; however, as it is not cultural aspects but landscape identity that aims to be studied through the exercise, the applied method in this study is referenced as participatory mapping. This method involved the participants drawing a map of their surrounding landscape using paper and markers (view Figures 5 and 6). The overall prompt given to them in order to initiate the exercise was *“We would like you to please draw a map of the surrounding area. You decide yourself how big the map will be based on what areas you visit often or that are important for other reasons. We can just add more papers if you want it bigger. You can start with this building [we are in].”*



Figure 5: Participatory mapping exercise in Lipowica.



Figure 6: Participatory mapping exercise in Ostrów.

The purpose of conducting the participatory mapping exercises was to get a depiction of the landscape and how the land was used by the participants. Moreover, the map acted as a

starting point for further methods; landscape characterization and soil sampling points were based on areas recognized as meaningful to participants during the mapping.

The participatory mapping exercises were conducted in both of our study areas. All four researchers attended the exercises, as well as two translators to facilitate dialogue between participants and researchers. Prior to the exercise, assigned roles were given to each of the four researchers in an effort to encourage organization and efficiency during the participatory mapping exercises. Roles included leader, secondary leader, map observer, and interaction observer.

In addition, prior to the first participatory mapping exercise the researchers drafted a guideline to be followed (view Appendix B), which included information on how to introduce oneself, how to describe the activity to follow, questions to be asked during the exercise and prompts to give. After initiating the exercise, the participants then were given time to draw the map while we asked them to elaborate what was being drawn and why it was being drawn. The exercise ended only once we observed that the drawing process was dwindling or once the participants indicated that they were finished.

We strived to include a bottom-up approach within our study, and these participatory mapping exercises allowed us to do that (Duxbury et al., 2015; Redaelli, 2015). Throughout these exercises, participants were given the opportunity to take control of the mapping and draw what they viewed as important to them, thereby creating a map that was essentially theirs. Additionally, mapping provided a visual dimension that facilitated communication and dialogue between all individuals present in these exercises (Duxbury et al., 2015; Nigel, 2010).

Despite the facilitation of intercultural dialogue through the mapping, one limitation to this method was the ratio of translators to researchers and participants. With only two translators during each of these participatory mapping exercises, dialogue and small interactions may have been lost. Moreover, the act of translating poses limitations, given that oftentimes words lose or gain meaning depending on the language used. Given that this study gave importance to stories and narrative rather than specific wording, this limitation should not have made a significant difference in our results. Lastly, it was common to see that some participants took a leading role in the process while others wished not to. Some participants' voices might have been more emphasized than others, impacting our results on answering how landscape and identity are co-created.

### **3.5. Walking Interviews**

We decided on using walking interviews rather than indoor semi-structured interviews as we wanted to have visual depictions of what was being told to us. We also expected that walking would trigger the participants' memories of important locations within the villages. As such, participants were asked to take us on a walk through their villages, stopping in places that were meaningful to them. Throughout the interviews, we would ask them to elaborate on points shown, with questions asked being viewed in Appendix C. The interviews lasted between 60 to 120 minutes. Moreover, they were conducted in both Lipowica and Ostrów, with four participants per village. In Lipowica, each participant was paired with a researcher and a translator, while in Ostrów two participants were paired with a researcher and translator.

The objective of conducting semi-structured interviews was for us to get an in-depth understanding of the relationship between the participants and the landscape. However, this method had limitations that must be addressed. Similar to the participatory mapping exercises, translating can be seen as a limitation, however as explained in Section 3.4, this limitation should not have made a significant difference in our results. Moreover, as walking was a central feature of these interviews, we were only able to explore places that were near our starting point. Some areas that were significant for the participants were not accessible, which therefore meant that they may have been missed through this method.

### **3.6. Landscape Characterization**

In order to examine how the physical landscape shapes the landscape identity, one must gain a visual understanding of the identified landscape. The landscape characterization method aimed to do exactly that: describe and categorize the visual elements of the landscapes identified during the participatory mapping exercises and walking interviews. Therefore, once arriving to the identified area, two or more researchers would observe the land and begin filling out a form with landscape characteristics.

There are several abstract categories and variables within the landscape characterization form. This acted as a limitation, as it was up to the researchers filling out the form to determine how "secure" or "united" the landscape in question was. Abstract data can be unreliable, leading to results that might be questioned. However, to lessen the influence this might have on our study's results, we used investigator triangulation to ensure that the characterizations were as unbiased as possible. There was always more than one researcher

filling out a form, therefore guaranteeing deliberation regarding the abstract portion of the form.

A total of 11 landscape characterizations took place within the approximate two weeks of field study. Five landscape characterizations were conducted in Lipowica, while six were conducted in Ostrów. Not all locations were tested for soil. Out of the 11 points in which landscape characterization was carried out, only eight are presented in the results section of this report, as for their relevance to answer the project's research question. We followed the landscape characterization form created in 2002 by the Countryside Agency and Scottish Natural Heritage (Swanwick, 2002). The framework was supplemented with variables that suited the landscapes observed. Categories within the forms include topography, hydrology, patterns, scales, and how we might have perceived the landscape.

### **3.7. Soil Analysis**

Soil not only can be viewed as part of the landscape but also as a factor which shapes it. Soil allows us to gain a deeper understanding of why certain agricultural practices were used and why certain crops may have thrived while others did not. With this understanding, we can use soil data to further explore the landscape and the influence it has on people's landscape identity.

Areas for soil testing were determined in collaboration of the four researchers, and were based on the participatory mapping exercises and walking interviews. Soil sampling was conducted in the same manner in all of the sampled sites. Samples were taken in three different points aimed to be representative within each site, and later combined to create one average soil sample. This procedure might introduce a shortcoming to this method as we did not adjust our sampling strategy to address soil site variability. According to Boone et al. (1999), "variance increases with size of area sampled..." (p. 4). Our soil sampling sites differed in size, yet we did not modify our procedure. As a result, this might have an effect on the overall soil results.

## **4. Analysis**

We sought to use grounded theory when examining the data collected from the participatory mapping exercises and walking interviews. This entails analyzing data and identifying theory after the data collection has begun. In other words "a grounded theory is derived inductively through the systematic collection and analysis of data pertaining to a phenomenon" (Bowen, 2006, para. 2; Strauss & Corbin, 1990). Transcriptions of the audio

recordings of both methods were transcribed and coded. We used this inductive analysis approach to identify emerging themes within the transcriptions, later grouping them into codes. When doing grounded theory it is important to reflect on the position of the researchers to minimize the effects that preconceived notions could have on the coding. This approach necessitates a constant eye on the positioning and bias of the researchers. Because the analysis springs from the researchers' interpretation of the data it is necessary to constantly examine the positioning of the researcher. We did this by writing down our expectations and preconceived notions before we even entered the field. In the first round of coding we split up, so that two researchers did their own coding without coordinating. We wanted to avoid blindspots in the analysis, by doing this researcher triangulation. Before we started the coding we wrote our expectations and preconceived codes down to 'clear our minds.' This also served to keep the coding as close to the material as possible (Birks et al., 2015).

Regarding the soil testing, once arriving at the University of Copenhagen we conducted tests to analyze texture (Thien, 1979), pH, carbon, phosphorus and nitrogen content (Anderson & Ingram, 1994). Soil texture provides information regarding soil type through particle size (Thien, 1979), while pH, phosphorus, nitrogen and carbon content correlate to general soil fertility (Anderson & Ingram, 1994), which are especially interesting when focusing on the suitability of soils for agricultural activities.

## **5. Results**


### **5.1. Landscape Characterization**


The landscape characterization method allowed us to get an understanding of the physical landscape of both study sites, as well as gather data from specific locations. The list of viewpoints where landscape characterizations were conducted is presented in Table 2. It must be noted that only the viewpoints relevant to our findings were included in Table 2, with four viewpoints irrelevant to our discussion not included. Soil testing was carried out in the shown viewpoints (Table 2). An overview of the conducted landscape characterizations are presented in Table 3.



Table 2: A list of the viewpoints studied through the landscape characterization method. The fourth column titled *soil testing* indicates if soil samples were taken in that specific viewpoint.




Landscape Characterization Viewpoints			
Viewpoints (VP)	Title	Location	Soil Testing
VP2	Forest Lipowica	Lipowica	Yes
VP3	Participant's field	Lipowica	Yes
VP4	Participant's back garden	Lipowica	Yes
VP5.1	Meadow	Lipowica	Yes
VP5.2	Old pasture	Lipowica	Yes
VP6	Forest Ostrów	Ostrów	Yes
VP8	Abandoned agricultural land	Ostrów	Yes
VP11	Agricultural land	Ostrów	Yes

Table 3: Overview of the conducted landscape characterizations. The date the characterization was conducted, the landscapes' key characteristics, a written description and an image of the identified viewpoint are included in the table in order for a detailed description to be made of each area.

Landscape Characterization Results				
Viewpoint	Landscape Characterization Date	Key Characteristics	Description	Image
Viewpoint 2: Forest Lipowica	6/3/24	<i>Rolling topography, large coniferous and small deciduous</i>	<i>Forest with medium distance between the trees. Tall pine trees, 25m. Lots of luminous green moss and lichens. Needles on</i>	

		<p>forest, with enclosed, active, unified and colorful visual aspects</p>	<p><i>the forest floor. Parts of the forest was full of brambles and branches this way and that. Wheel tracks form a forest road, does not look like it is used often. Small deciduous trees on one side of the road...</i></p>	
<p>Viewpoint 3: Informant's field</p>	<p>7/3/24</p>	<p><i>Undulating and broad valley topography, with settlement, cemetery, field systems, fences, fields, dirt roads and mixed woodland as a few of the dominant landscape elements. There was an active, large, and open visual aspect to the land</i></p>	<p><i>Grey plough field with tufts of grass peeking out. To the right of it a fresh green grassland and then forest with birch and pine. At the end of the grassland, where the terrain slopes upwards, lies a scattered collection of limestone. On the left a meadow with withered flowers and grass, then a newly built "mountain house" and behind it a forest. Directly ahead after the plough field lies the cemetery with scattered trees. In the background rolling hills with arable land and shrub/trees in the divide. On the horizon a tall hill covered in forest and at the top Checiny castle.</i></p>	

Viewpoint 4: Informant's back garden	7/3/24	<p><i>Steep topography, with settlement, fences, fields, orchard and grassland as a few of the dominant landscape elements. There was an intimate, active, enclosed and colorful visual aspect to the land</i></p>	<p><i>In front of us there is a small rectangular agricultural plot enclosed in a fence. On one side of the field there are garden and farming tools dispersed along the ground, with the other side including small trees (an orchard?), with houses behind. Further away there is a wide expanse of grass field with a line of trees in the distance, and behind us are houses, fences, and the main road</i></p>	
Viewpoint 5*: Meadow & Old pasture * includes viewpoint 5.1 and viewpoint 5.2 given that these viewpoints were part of the same landscape	7/3/24	<p><i>Flat topography, with water meadows, grassland, mixed woodland, isolated trees, and a pond as a few of the landscape elements. The viewpoint includes a broken, muted, diverse, vacant and open visual aspect</i></p>	<p><i>We are sitting with our backs towards the forest, at the end of the slope where the trees end. There is a big field in front of us, surrounded by forest (distant on the right side, closer on the left). There is water to the left side, looks like a big puddle (flooded?). The distant forest, and the one to our backs, are coniferous with some scattered trees along the border of the meadow. The left far end of the visible field is the old pasture</i></p>	

Viewpoint 6: Forest Ostrów	12/3/24	<i>Undulating topography, mixed woodland, with vacant, constrained and colorful visual aspects</i>	<i>Forest, tall coniferous trees, some smaller trees in between. Lots of moss, some trash on our way. Relatively close to houses even if we don't see them. Path to our front and left</i>	
Viewpoint 8: Abandoned agricultural land	12/3/24	<i>Undulating topography, with fences, settlement, urban, fields, rough grassland, and isolated trees being key characteristics of the area. Visual aspects include a broken, diverse, active, interrupted and colorful area</i>	<i>White and salmon coloured houses on one side, while fields are on the other (with a road separating most of the houses from the fields). There is a clear line separating the abandoned field from the ones that are well-kept. The abandoned one has isolated trees and vegetation sprouting from the ground while the well-kept field appears to have been mowed with green grass present</i>	
Viewpoint 11: Agricultural land	12/3/24	<i>Flat topography, with settlement, urban, fields, grassland, mixed woodland and isolated trees being key characteristics of the area.</i>	<i>Leftover wheat from the harvest is still present in the field, with small stubbs of wheat peeking out from the ground. There is another field (pasture?) to its right, some trees around this crop land (very scattered). Road next</i>	

		Visual aspects include a <i>weak, diverse, muted, vacant, fragmented and open area</i>	<i>to it and four big houses (perhaps the owners of the land?). Round pack of straw close to where I'm standing, with some more further to the left on what I consider to be the boundary of the field, covered in plastic (23 in total). Some forest in the distance in front of me, and some hills to the left very far away (the castle is on top of one)</i>	
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## 5.2. Soil Tests

Soil samples were taken from eight different locations, as listed in Table 2. This section presents the results for texture, pH, phosphorus, nitrogen, carbon and organic matter content for those points, while connecting them to broader soil and geological information of the area. Therefore, a small discussion regarding soil results is included in this result section. We acknowledge that including a discussion within the results section of a report is not a standard practice. However, we considered it necessary, as having a deeper understanding of the soil results at this point of the report allows us to be able to interlink them in the discussion section with the landscape characteristics and themes brought up from the coding.

Poland contains a wide variety of soil types, as seen in Figure 7 (Zintegrowana Platforma Edukacyjna, n.d.). Proper rendzina soils (in purple in Figure 7) are one of the predominant soils in the region; they are described as relatively poor soils, however they are still used by Polish farmers. Arable proper rendzina soils in low elevations are classified as IVb-V soils (Kabala, 2018): type 4 and 5 soils are very limiting for agricultural purposes, and usually restricted for pastures or forestland cover (US Department of Agriculture, 2007). Moreover, an abundance of limestone rock fragments is noted. (Kabala, 2018).

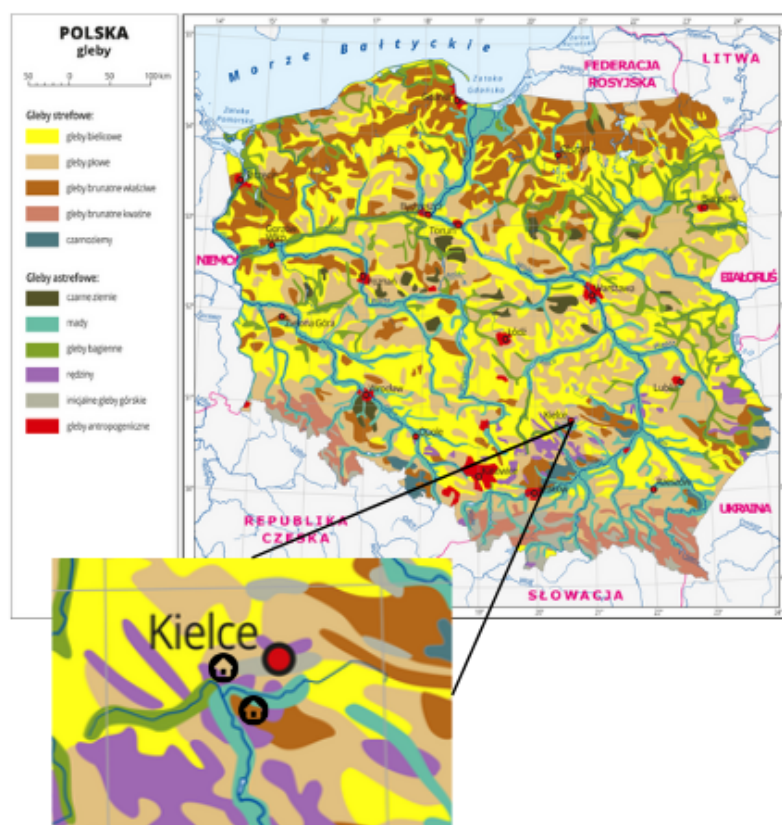


Figure 7: Map of soil types in Poland, with a close up of the study region. Lipowica and Ostrów appear marked with a house symbol, next to the Voivoideship capital city Kielce ([Zintegrowana Platforma Edukacyjna, n.d.](https://zintegrowana.pl/)).

The soil results for texture, pH and phosphorus content are presented in Table 4. Nitrate content was measured but has been excluded from the report as it does not give information about fertility at the time of the year when the samples were taken due to its runoff during the winter season.

Table 4: Results for texture, pH and phosphorus content and for the tested locations.

Soil Analysis Results				
Sample Names	Location	Texture	pH	Phosphorus Content (mg P per kg soil)
VP2	Forest Lipowica	Loamy sand	5,51	0
VP3	Informant's field	Loamy sand	7,38	16,61552249

VP4	Informant's back garden	Loamy sand	7,78	74,50124259
VP5.1	Meadow	Sandy loam	6,12	0
VP5.2	Old pasture	Sandy loam	5,83	10,94459122
VP6	Forest Ostrów	Loamy sand	5,36	1,135718165
VP8	Abandoned agricultural land	Sandy loam	8,23	5,784312214
VP11	Agricultural land	Loamy sand	6,04	16,73997494

The observations on texture point predominantly to loamy sand or sandy loam soils. Sandy soils have low water retention capacity and high nutrient washing. High levels of organic matter can counteract the last one. The obtained pH values are generally higher than the tendencies across Poland (see Figure 8) (ESDAC, 2010), which could be explained with the presence of limestone in the area, as can be seen in Figure 9 (Polish Geological Institute, n.d.).

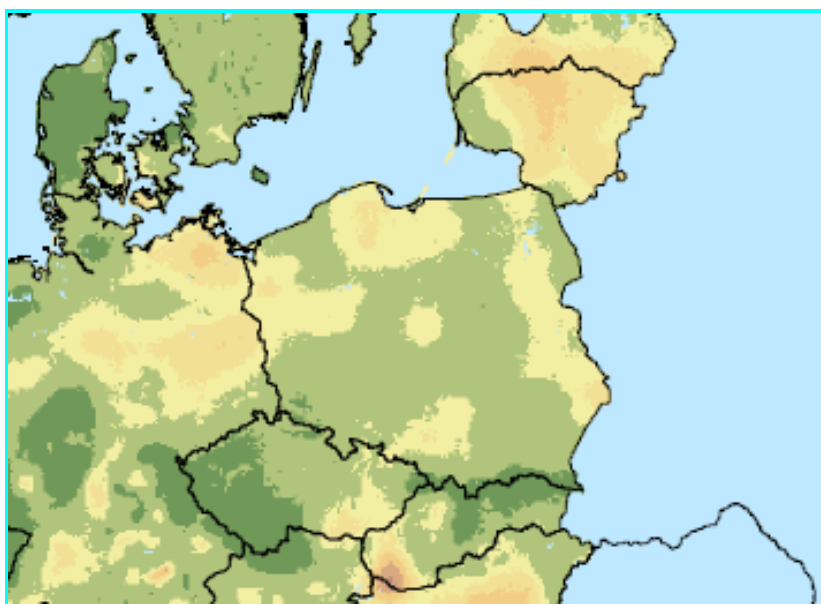


Figure 8: Estimated pH values for Poland, where the light green indicates 4,5-5,5 ph while yellow areas range from 5,5, to 6 pH ([ESDAC, 2010](#)).

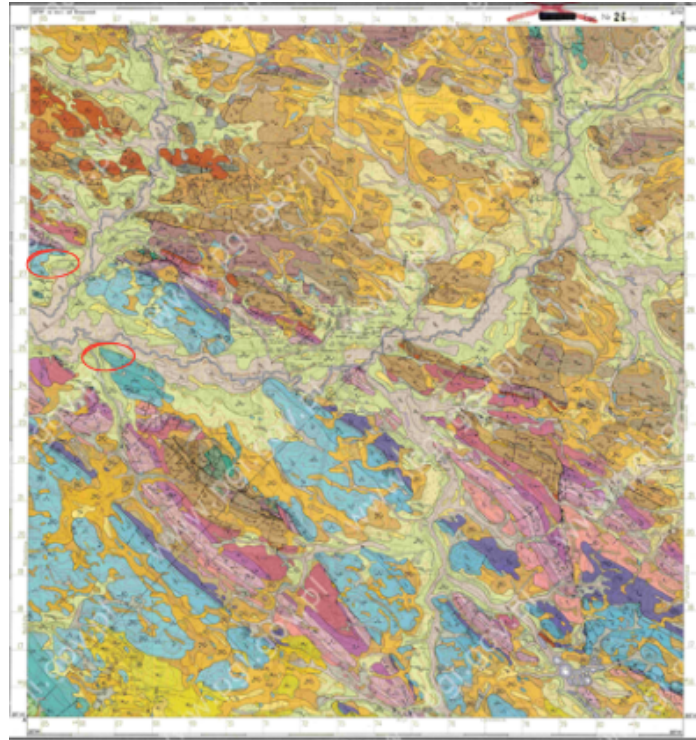


Figure 9: Geological map of the Lipowica and Ostrów area. Lipowica and Ostrów's approximate locations are marked in the map with a red circle. The blue coloured areas indicate presence of limestone ([Polish Geological Institute, n.d.](#)).

Alkaline soils relate to less phosphorus availability as it precipitates as calcium phosphate (Hopkins et al., 2005). In our data we don't see excessively low levels of phosphorus, but they are low enough to be limiting. In VP3, for instance, the phosphorus content is around 16,6 mg P/kg soil. According to Figure 10, cereals could be cultivated with this level of phosphorus, however for potatoes or sugar beet, phosphorus addition through the application of fertilizer would be needed (Recena et al., 2022).

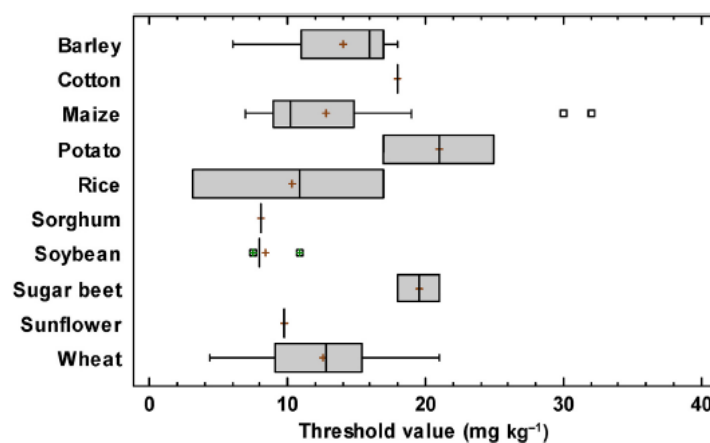


Figure 10: Phosphorus threshold value for different crops (Recena et al., 2022).

The results for nitrogen, carbon and organic matter are presented in Table 5. Nitrogen levels were under the detection levels in many cases, and when not, showed to be very low. The same could be argued for carbon content and organic matter. This, together with the sandy character of the soils which enhances water and nutrient washing, points towards relatively poor soils that could be quite limiting for agricultural activities.

Table 5: Results for nitrogen, carbon and organic matter content for the tested locations. When %nitrogen <0,1%, the result in the table appears as “-”, as those nitrogen concentrations fall under the detection limit of the laboratory equipment.

Table of soil analysis results				
Sample Names	Location	Nitrogen Content (%)	Carbon Content (%)	Organic Matter Content (%)
VP2	Forest Lipowica	-	0,5	0,86
VP3	Informant's field	-	0,58	0,9976
VP4	Informant's back garden	-	1,18	2,0296
VP5.1	Meadow	0,14	1,83	3,1476
VP5.2	Old pasture	0,28	3,02	5,1944
VP6	Forest	-	0,64	1,1008
VP8	Abandoned agricultural land	0,2	2,24	3,8528
VP11	Agricultural land	-	0,74	1,2728

### 5.3. Grounded Theory Coding

The categories that emerged through our grounded theory coding can be seen in the table below (view Table 6). Using the sensitizing concepts “spheres of action,” “spheres of perception” and “physical landscape,” we identified several inductive codes and sub-codes that guided our analysis. After having identified the codes and making sure our data was

saturated by them, we started looking at the relationship between the codes. These relationships varied in importance and informed our final theory of the fieldsite. Below are some of the significant relationships between codes.

- Preservation of tradition ↔ Sense of community AND Emotional connection to landscape
- Perception of changes in the landscape ↔ Past AND present activities in the landscape
- Changes in landscape ↔ Perception of care for the landscape AND Past and present recreational activities

In general terms, we identified a process of societal change in the fieldsite that brought with it changes in landscape, specifically the abandonment of an agrarian lifestyle caused neglect and later transformed the landscape. These changes in the landscape separated the physical landscape from how our participants perceived it and the types of activities done in the landscape. The loss of many of the activities centered around small-scale agriculture has caused our participants to feel disconnected from the village community. Our participants expressed deep sorrow over the loss of what was before a very closely connected community.

Table 6: Codes from grounded theory analysis on transcriptions and notes taken from walking interviews and participatory mapping.

Codes			
Sensitizing Concepts	Inductive Codes	Sub-Codes	Quotes
Spheres of Action	Preservation of Tradition	Singing	<p><i>“Afterwards, they sing to us. They sing loud and clear and sway easily, they know the lyrics by heart.”</i></p> <p>(Notes from mapping in Lipowica)</p>

			<p><i>"She had a wonderful day because she and the whole association were singing there. ... There was an event with opening the park. So it was like a huge, huge party."</i> (Lipowica interview 1)</p>
		Dancing	<p><i>"It was a place where the young people... they would just dance with the accordion on the bridge. It was a really happy time."</i> (Ostrów interview 2)</p> <p><i>"St Jon is a traditional celebration, but what they did was making the wreaths and putting them in the river ... partying, dancing in the meadow. Everyone dances in the meadow."</i> (Ostrów mapping)</p>
		Food	<p><i>"And then she is doing Christmas pierogi but she cannot start doing them before their kids and grandkids come because they want to do this with her. It's family tradition."</i> (Ostrów interview 1)</p> <p><i>"There is like this tradition that they are going with the food, near this cross ... every family [brings a] the basket with the food and ... they're going to this cross. And then the priest is coming to them."</i> (Lipowica interview 3)</p>
	Religious Activities	Mary shrines	<p>[Asks how she's feeling when she's coming to the shrine]</p> <p><i>"So she feels very well. She's catholic, actually now she's got time at this age. So it's a very important event because they leave all their duties, responsibilities and go to the shrine at 7pm and gather to pray."</i> (Lipowica interview 4)</p> <p><i>"So there is a tradition, it happens every year on the second day of Easter. Men from this village gather on the other side of the village. ... They go through the village singing songs about Jesus' resurrection, like typical ones. And everyone comes out of their houses and gives money to them."</i> (Lipowica interview 2)</p>
		Celebrations	<p><i>"Crop party happens at the end of summer. It's a celebration for the end of harvest, as to thank God</i></p>

			<i>for the crops."</i> (Mapping Ostrów)
	Management of Landscape	Land ownership	[Asks if the forest is private or public] "Private. This is the private one... <i>There is not such a thing here where someone is forbidden to do something in the forest. And there is a lot of private forest but also a lot of community forest."</i> (Ostrów interview 2)
		New construction	[Asks how she feels about the fields being abandoned?] "... <i>There's gonna be solar panels in the fields of this guy. They will be super big.</i> " [Asks about her thoughts on the solar panels?] "I don't know because I don't have any clue on solar panels." (Ostrów mapping)  "So it's growing because when the pastures were here actually these were pastures and fields and now we can see houses. These are new houses" (Lipowica interview 4)
	Past Activities in the Landscape	Agricultural activities	"Before they used to have fields, everyone, their own cattle, their own pigs. ... They were self-sufficient. Yeah, for example if someone had too much potatoe they just sold it to neighbors or even to the communism shop. So for example, his parents didn't have a field, so to have food, they went to a farmer ... and collected potatoes, they helped and ... they didn't get money, but they got for example 200 kilograms of potatoes." (Ostrów interview 2)
		Recreational activities	"In the old firefighters' place, on every Saturday, there was a party. And also the older people were partying. They come from the fields, when they do every work they have to wash up and go and party. Every Saturday." (Ostrów interview 2)
	Present Activities in the Landscape	KGW	[Asking how they get crops for the flower crown] "So there are no fields with crops in this village, so they have to go to different ones outside of Checiny and of course, in beforehand they just call the farmers... in this village, the soil is poor, nothing grows"

		Gardenin g	<p>[Asking how she feel when she's in her own land/garden] "<i>Joy. ... She's happy she's waking in the morning. She's going to her chickens. She's going to her rabbit. And this is her passion.</i>" (Lipowica interview 3)</p> <p><i>"So for example, there are no cows but almost everyone is growing something in their gardens, and some still grow things in the fields. They have like chickens and rabbits"</i> (Lipowica mapping)</p>
		Forest	<p>[Asks if he enjoy the forest] "<i>He loves it. He has a grandson that he takes out picking mushrooms. Like Anton, Antoni. They are collecting berries and they are collecting specific mushrooms</i>" (Lipowica mapping)</p>
		Recreati onal activities	<p><i>"So she's baking rolls with berries. It's her favorite activity. She has to go for picking berries at least twice or thrice a year, like twice or three times a year. But it's far away. But always her children can drive her, and she's making rolls. And also she's making berry juice in a jar for winter, and she still has some juice."</i> (Lipowica interview 2)</p> <p><i>"There's only one river, "black nida". He fishes there, people go kayaking there, in the season everybody goes kayaking, there's lots of companies with kayaks in summer. They also swim."</i> (Ostrów mapping)</p>
Spheres of perception	Emotional Connection to Landscape	Nostalgi a	<p><i>"We will go to the river because there was really an attractive place in the past. You could go there with your husband and then also with your kids."</i> (Ostrów interview 2)</p>
		Pride	<p><i>"She is happy and proud of being here. When there is a lot of tourists, students like this come and they want to know more about them. She is happy if it grows and brings more good reviews."</i> (Lipowica interview 1)</p>
	Perception of Changes in the Landscape	Negative	<p><i>"And here, the next abandoned house. It was beautiful. And there was someone who wanted to buy it. But the daughters of the old owner they, cannot have a compromise and talk about what to</i></p>

			<p><i>do with things after the parents [died]. And in the time when they cannot go into the conclusion the house is going into the ruins.”</i> (Ostrów interview 2)</p> <p><i>“The most important thing it’s to not throw the the garbage there because people do that. People don’t care about the forest and the nature and they throw all the garbage there.”</i> (Lipowica interview 1)</p>
		Positive	<p><i>"She says this garden is beautiful. Of course it used to be a field as well."</i> (Lipowica interview 4)</p> <p><i>"Here we have the path for the walkers and for the bikes, and she thinks that this park is really beautiful" "In the summer everything is green here. The grass is green and all of this looks really nice."</i> (Lipowica interview 3)</p>
	Perception of Care for the Landscape	Locals	<p><i>“Cleaning of the forest. Her granddaughter was really happy to go and clean the forest. All the habitants gather and they all clean the forest. That’s a really nice job.</i> <i>On the 21st of March, they will also do it. They are gathering and cleaning the forest.”</i> (Lipowica interview 1)</p>
		Newcomers/tourists	<p><i>"So, he said that he saw he saw children [littering] and he even told the parents and they were like, no I don't care. So just around the bus stop, they collected four bags of rubbish."</i> (Ostrów interview 1)</p>
	Sense of Community	The old days	<p><i>“She was really surprised when she moved in here that on Sundays after midday the people were going on the streets, they were walking, they were talking with each other, sitting on some stones, spending time together. They were the life of this village on this street.”</i> (Ostrów interview 2)</p>
		Today	<p><i>“Before children used to gather in groups, like spend time together and now she thinks it’s worse, that they are just at home alone. Not with other kids.”</i> (Lipowica interview 4)</p>

			<p><i>"Why did you decide to make the association in Lipowica?</i></p> <p><i>So something could happen so they could meet so they would not just sit, sit in the home. Show people that we can integrate, we can do something for community."</i></p> <p>(Lipowica interview 3)</p>
Physical landscape	Past Landscape	Farm land	<p><i>"Every other person in the village was a farmer. They had a lot of field, it has changed a lot since he was little."</i></p> <p>(Ostrów mapping)</p> <p><i>"Yes, so in the past, you know almost each house had cows and they had the one big pasture there and they went with the cows and they went with them to the field to the pasture."</i> (Lipowica interview 3)</p>
		Forest	<p><i>"So for example in the forest there weren't even small branches because people were collecting them to burn them to warm their houses because they couldn't afford coal, but right now there's everything in the forest."</i></p> <p>(Lipowica interview 2)</p>
	Present Landscape	New settlements	<p><i>"There was about 60 [houses] now it's about 200. First it was only the first zone of houses, then it was the second and now the third is starting to develop. Housing areas"</i></p> <p>(Lipowica mapping)</p>
		Abandoned land	<p><i>"Okay so many of the fields are abandoned. Nobody does anything. ... It's not something lucrative. It doesn't pay off now. Especially if you have little fields, small fields"</i></p> <p>(Ostrów interview 1)</p>
		Forest	<p><i>"So ... they walk all around the place, but this is a new forest. and it was naturally a forested."</i></p> <p>(Lipowica interview 4)</p> <p><i>"This blue house is hers. After the house, her husband grow the forest and look how beautiful it is already. Even mushrooms are already there."</i></p> <p>(Ostrów interview 2)</p>

## 6. Discussion

The following discussion is based on the stories told by the participants of the study, when nothing else is mentioned.

### 6.1. The Good Old Days

The changes in landscape identity are a product of changed perception, action, and physical landscape. Therefore, a description of the past landscape and people's relationship to the land will be presented to contrast with present relationships. The past landscape and the relations to it is described almost identically in the two villages.

The participants told a story of an agrarian past where most activities related to small-scale agriculture. Close to all families owned land that was used for growing grains, potatoes, tobacco, and vegetables such as carrots, pumpkin, and zucchini. Most families had cows, pigs, geese, chickens, and horses. There were common pasture lands where specific villagers were responsible for caring for the animals during the day. This is an example of community collaboration that was important for the self-sufficiency of the villages. Another example of collaborative self-sufficiency was their systems of trading products and workforce with each other.

Self-sufficiency involved the community collaborating to utilize all parts of the land. A participant points this out, while contrasting the present: "*Nobody cultivates the land now, and before each part, each centimeter was cultivated.*" (Interview 4). In Ostrów, they gathered each Spring to remove rocks from the fields that were then used to build houses or roads (Interview 6). Moreover, participants in both villages described how they helped in the fields during their childhood. This exemplifies their dependency on the land for their subsistence and past way of life. This dependency was moreover strongly connected to the wider community: the relationship with the land was made possible because of the collaborative way of living. Therefore, their sense of community played a key role in shaping their landscape identity.

The forests also played a role in their way of living. The participants' relationship with the forests involved them collecting mushrooms, berries, birch juice, pine cones, and other forest products used for cooking. Some of the participants told us how they used to sell mushrooms and berries in larger towns (Mapping Lipowica). The forests were regularly cut and lacked branches as this was collected as firewood.

The sphere of action, as part of their landscape identity, is tied to activities based on the necessity to use the land for subsistence. This does not imply that the relationship with the

land was solely practical, rather the participants expressed positive emotions tied to their past relation with the land: *“In past times everyone would help each other. For example, when you had to make some field work, it was like today we are doing this here, today we are doing this in another place... And it was like really nice, they were laughing in the fields...”* (Interview 6).

The expressions of landscape identity are strongly tied to a nostalgic description of how life in the villages used to be. We were told stories of how they played in the fields and forests and how they were *“... escaping from home. You know, prison...”* to go swimming or ice skating on the river together (Ostrów Mapping). The fields, meadows, and rivers were also used for traditions, celebrations, and other festivities. Stories about harvest festivities, catholic traditions of blessing the fields, and how they sang and danced in the meadows and by the river were shared: *“... [we] would just dance with the accordion on the bridge. It was really happy time.”* (Interview 6). They continuously described it as happy times where the community was connected, showing nostalgia for “the good old days.”

When the participants described their childhood and younger years, they portrayed a community with a strong landscape identity. The community was strongly linked to the landscape based on subsistence, tradition, and leisure. Their landscape identity was not only based on the practical relationship with the land but also an emotional relationship. Compared to today, both the landscape and the relationship to it, have changed.

## **6.2. The Present Relationship with the Landscape**

The starkest difference between the past and the present is the move away from the agrarian lifestyle, including a rural gentrification process. In Lipowica, most agricultural land has been reshaped into forests or housing areas. In Ostrów the agricultural land is generally afforested, abandoned, turned into settlements or bought by one of two big land owners. The land owners are using the land for pig farming, corn fields and are leasing it out to solar panel companies. Neither of the villages included fields in the participatory maps they drew, suggesting that the fields aren't important in their lives today.

The participants in both villages repeatedly stated that *“...in this village, the soil is poor, nothing grows,”* (Mapping Lipowica) also connecting the poor soil with the new housing areas: *“Yeah the soil was not fertile. They were using the land typically to grow, but they changed it to housing areas”* (Mapping Lipowica). In Ostrów, the soil was said to be sandy and full of stones. This is in accordance with our soil results; the presence of limestone rock fragments in proper rendzina soils, our own texture observations pointing to sandy soils,

and the low levels detected for nitrogen, carbon and organic matter, which are all key for plant growth and therefore limit the soil suitability for farming. This indicates that the soil characteristics have contributed to the move away from the agrarian lifestyle.

The participants expressed dissatisfaction regarding the lost connection to the land, but stated that it's not profitable: *"It is a little sad because in the past, every small part of the land was used for agriculture. And now it is not profitable."* (Interview 6) Although the communities have moved away from their agrarian past, they still relate to the landscape on both a practical and emotional level. Most of the participants have chickens, some have ducks or rabbits, and the majority have vegetable gardens. Although this is on a much smaller scale, the perception of the land as important still remains. A participant describes the relationship with her land as *"... [the field] is her passion... Maybe not passion, but [I] love it. This is [my] life."* She later states *"[we] are farmers..."* (Interview 4). Although the soil might be of poor quality, they keep on cultivating the land on a small scale. This is an important point, even though an agrarian lifestyle is no longer a part of their lives, they are holding on to practices and perceptions of themselves that preserves their past landscape identity.

The same preservation of traditions has been observed in their collection of forest products. They are upholding the tradition of utilizing forest products, something which has been passed down through generations. However, when compared to the past we see that the forest products and the cultivation of crops are now done solely for recreational reasons rather than out of necessity. An example of this is the fact that they don't use firewood for heating anymore, something that was visible during the forest characterization viewpoint 2: the forest is full of brambles and branches.

The dependence on the forest has therefore dwindled. However, this does not imply that the forests are less important for them on an emotional level. We repeatedly met expressions of appreciation for the forest, with a participant expressing her feelings of picking mushrooms as *"Wonderful! [I] love going to the forest,"* while Participant 6 stated that *"... you are going into the forest and the air is different!"* (Interview 4)

The practical connection to the old pasture lands and meadows have changed; they now appear to be abandoned as was described by the villagers and our landscape characterization. Still, the participants were expressing positive feelings of taking walks there, alone or with family members. This leads us into a topic that will reappear: the relationship with the landscape may still be present, but it is on a new basis. Not only as their activities on the land is based on recreation rather than on a basis of subsistence, but also because the relationship has changed from communal to more individual. They are

cultivating their plots individually, picking the forest products individually or with their closest friends. As will be further discussed, the participants are expressing how others in the community are secluding themselves, but they also consider themselves as living a more individual life compared to the past: *“So when I was a child, we used to visit each other very much, but as it is now, in general, we don't meet each other”* (Interview 4). These activities can therefore be described as ways to mitigate their disconnection with the landscape although it doesn't include the sense of community that was an important aspect of their past landscape identity.

As described, there have been many changes in the two villages. Despite that, some places that are emphasized as important for the villagers have seen less change, namely the Churches and the shrines. The Churches are located in the neighboring villages for both Lipowica and Ostrów. Despite the distance to their villages, the participants included it in their maps and spoke about it repeatedly. This can be seen when a participant stated that *“[I] feel really really well. There's like something lacking when [I] don't visit church.”* (Interview 3). However, it is yet another example of how the sense of community is getting fragmented as exemplified in the same interview: *“They go there every Sunday, but there are fewer and fewer people coming.”* (Interview 3)

When discussing the sense of community and its implication on the landscape identity, one can see that both villages have gone through what Zwęglińska-Galecka (2022) calls a process of rural gentrification, although it is more evident in Lipowica, where the village has expanded from having about 60 houses to over 200 during the participants' lifetime (Mapping Lipowica). Ostrów are experiencing a mix of new settlements and old houses being abandoned. The perception of the changing landscape was repeatedly described in connection to the emerging groups in the villages, namely newcomers, tourists and the younger generation. These perceptions will be described below.

### *The Newcomers*

In both villages, the participants described newcomers as an important part of the development of their villages. The participants expressed dual feelings of the newcomers. On the one hand, the participants expressed a sense of pride as the expansion of the villages is proof of the place being attractive, as expressed by a participant: *“She's very happy that the village is attractive to people. That they want to live here”* (Interview 4). It confirms their own perception of the village and can be argued to strengthen their landscape identity.

Moreover, the newcomers are also linked to the general modernization of the villages, with examples being the construction of a new shop in Lipowica and of modern houses.

On the other hand, the newcomers are described as different and individualistic. Participants from both villages (although more significantly in Ostrów) are describing the newcomers as secluding themselves from the general community: *"It's a problem that we don't know them. They don't socialize, they isolate each other. [We] don't even know their names. So it's bad"* (Mapping Ostrów). They also describe the seclusion as a physical act that is connected to the degradation of the community: *"This is how their village is dying. They just showed how they put the fence around them..."* (Interview 6). The participants are repeatedly describing how the sense of community has been damaged, which they in turn contrast with a romanticized idea of the old days where the landscape connected the community.

### *The Young Generation*

Similar thoughts are expressed about the younger generation. From one standpoint, the participants expressed that they are happy about having children in the villages. Meanwhile, young people were also described as secluding themselves from the community and landscape by indulging in technology. This is contrasted with the participants' own childhood where they were connected with the landscape: *"Now children are spending time in front of the computer. And so when she was younger, they were coming here, family, playing matches. And they were swimming in the river."* (Interview 2)

Furthermore, it was emphasized that young people are leaving the villages to study or work in cities: *"Young people don't stay, there is a lot of abandoned land. A lot of young people were just going to the bigger towns, because they wanted to have a better life. That's why [the land use] has changed a lot..."* (Mapping, Ostrów). In this quote, the participants are even drawing a connection between the abandoned land and the fact that the young people are leaving, consequently stating that the changing landscape identity is partly an effect of the younger generation leaving.

Lastly, the youth are described as littering in nature. The participants' disapproval towards this action as well as their description of the incidents indicates, firstly, their view of youth as disconnected from the land and secondly their own connection to the land as they are passionate about protecting it.

### *The Tourists*

The positive descriptions of the tourists are in line with the statements made about the newcomers: the participants are generally happy that their villages are perceived as attractive. However, the disruption of the peace, as well as the lack of consideration for the village that is experienced through e.g. littering, are described as issues.

Moreover, the tourists can be understood as symbolizing a general alienation from the land as the participants once knew it. Both the newcomers and the tourists are described as coming to the village to escape the city life for peace, quiet and fresh air. These are traits of the landscape that the participants share an appreciation for. However, as discussed, the participants are connecting the landscape with the sense of community, a connection that the newcomers, the younger generation and the tourists do not share. Therefore, as these groups may enhance the participants' sense of pride over the village, they are challenging the sense of community as a part of the landscape identity. The landscape identity of the participants can be described as fragmented, where parts of it remain, while other parts are outdated in the current landscape.

### **6.3. Solastalgia: Longing for a Past Landscape**

When our research participants talked about the past life in the villages they conveyed a strong nostalgia for a lifestyle that no longer exists. Their memories contain a romanticization of the past and these memories are mapped on the landscape as a longing for a lost way of life. In their telling of their stories of childhood life, the landscape as it was is contrasted to how it is now. The traces of the old way of life are still visible in the landscape, which can be seen in Ostrów, where crumbling farm houses and overgrown fields induce this feeling of nostalgia and loss in our participants. The development in Lipowica as well as the influx of new inhabitants hides these more obvious signs of degradation, but at the same time highlights the loss experienced by our informants. The nostalgia expressed in both villages is related to the activities of an agrarian way of life that brought with it a feeling of a closely connected community and relation to landscape. Today, these activities are not practiced to the same degree anymore and our participants describe a fragmented community.

This nostalgia related to a changing landscape has been conceptualized by Glenn Albrecht in the 2006 article *Solastalgia*. Solastalgia is used to describe the spiritual, emotional and mental health challenges that are the consequences of a changing landscape. Solastalgia conveys the existential threat that is characterized by a landscape that no longer correlates with the landscape identity of the people living in the landscape. It is closely tied to

what Galway et al. (2019) terms “cherished landscape,” meaning a place that specific people have meaningful and emotional ties to. When a cherished landscape undergoes unwelcomed changes it elicits a feeling of losing control and existential threat. In this way solastalgia describes the distress experienced by people when the development of landscape cuts ties with a specific way of life based on emotional and spiritual bonds to place. (Albrecht, 2006) (Galway et al., 2019)

Although much of the literature on solastalgia refers to changes in landscape caused by climate change, destructive extractive practices or catastrophic weather events we find the term useful in describing the specific nostalgia experienced by our research participants (Galway et al., 2019). In Lipowica and Ostrów the changes were subtle and gradual, and are not the result of sudden flooding or forest fires. Rather it comes from a change in lifestyle following modernization and the consequent neglect of the landscape. The changes experienced in our villages are part of a broader rural gentrification that has taken place across Poland since the fall of communism as described in the introduction (Zwęglińska-Gałecka., 2022).

The process of rural gentrification is still ongoing in Ostrów. The many abandoned farm houses and fields serve as a constant reminder of what has been lost for our research participants and elicits strong feelings of solastalgia. One participant describes the slow process of decay and rural gentrification with the words “This is how [our] village is dying” (Ostrów Interview 2). Even though new people are moving to the village and rebuilding the houses, their village as they remember is eroding.

In Lipowica the development in recent years has seen almost all of the old farm houses renovated and many new settlements constructed on old farmland. Still, our participants cannot relate to the new inhabitants’ way of life and they identify themselves in opposition to them. One participant describes the new houses as “*like [in the] cities, elegant*” and in contrast describes her own house as “*a country one*” (Lipowica interview 3). These perceptions of the new inhabitants show how the process of rural gentrification has changed the villages to such a degree that our participants are left with a feeling of solastalgia, that is a loss of the close relationship with landscape that defined their childhoods.

Our informants are mediating these solastalgic feelings by engaging in activities that retain symbolic aspects of their past lives. Their solastalgia is mediated by engaging in the activities of the KGW, retaining certain activities such as gardening, and spending time in the forests around the villages. More specifically, the KGW plays an important role in mediating

the negative feelings following the development in the villages through the upkeep of traditions such as singing traditional songs, dressing in regional dress, cooking traditional food, dancing and making traditional decorations for special occasions. In Figure 11 we can see KGW members participating in a performance. Engaging in these activities is a way of connecting to their past, but more than that also serves to recreate the sense of community that was lost. The relationships that our participants form through the KGW plays a part in alleviating the sense of loss they are experiencing. When asked about their relationship to her fellow members in the KGW one research participant relays it this way: *"When she's lonely she can go there and meet other people. They are just good friends. They visit each other in their houses"* (Lipowica Interview 1).



Figure 11: Members of the KGW in Ostrów in 1986, including some of our participants.

In this way the KGW functions as a place to meet and create community in the villages that no longer have the sense of community that the agrarian lifestyle offered. The KGW is itself a remnant of the past and our participants are clear that it is mostly for the older generation nowadays. In the past the KGW was more active and in Ostrów our participants have been a part of the association since their youth. The picture above shows some of our participants dancing as part of the KGW. However, the rural gentrification that has taken place in both villages has caused a change in lifestyle that does not allow the

younger generations to participate in the KGW. When asked why their children are not members of the association one participant says *“they don’t even think about it. My daughter is 56, she doesn’t even think about it because she doesn’t have time. She has her job, works in a hospital”* (Mapping Ostrów). This again shows how the rural gentrification has introduced a different way of life to the villages. A way of life that is less centered around participation in communal activities and emphasizing a more individualistic way of life.

In the activities of the KGW there are a lot of symbolic representations of the agrarian past and they invoke it in many of their activities. In fact, in Ostrów and Lipowica we were shown songs which were written by the KGWs about the villages. The lyrics of these songs recount life in the village as it was previously and they wax nostalgic about this loss (see Figure 12).

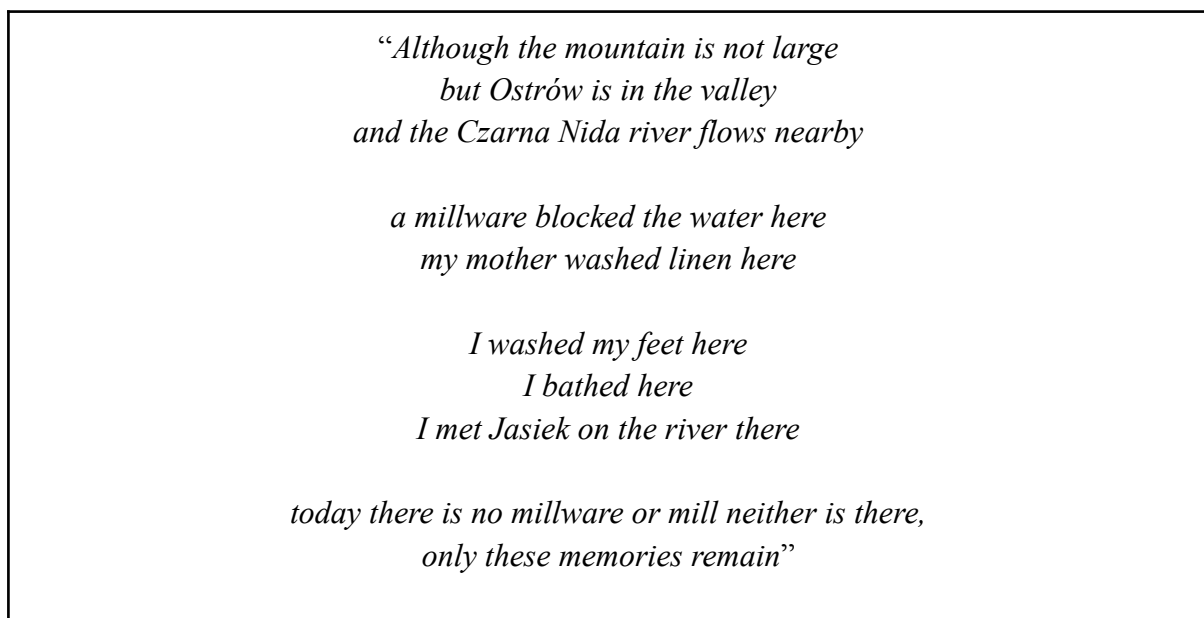


Figure 12: Song written by a member of the KGW in Ostrów and performed for us on one of our visits.

In both of our first meetings with the participants they talked about the work they were doing in creating flower decorations for the upcoming easter celebrations. These decorations, as well as those for other celebrations, included paper flowers and grain and as such retained the symbolic representation of past agrarian life (view Figure 13). The grain, although no longer a practical necessity, still has an important symbolic function in connecting the celebrations with past traditions. Therefore, a product that has previously played an important role in their lives as small scale family farmers has lost the connection to everyday life and serves merely as an invocation of a lost way of life. When asked about the

importance of the grains in these celebrations one participant said “*they are for farmers. The grains are really important. They are like food and food for the animals. For all the year.*” (Interview Lipowica 3). These statements show how their relationship with the crops and therefore the landscape relies on a way of life that our participants no longer practice to a great extent.



Figure 13: Grain and paper flower crown made for harvest celebration by the members of the KGW in Ostrów.

#### **6.4. Between Two Tipping Points**

When changes occur in either physical landscape or people's perception and relationship with landscape it is conceptualized as a tipping point in the framework of landscape identity. If one changes but not the other they may cease to correlate and cause a break in landscape identity (Dossche et al., 2016). In Lipowica and Ostrów it becomes clear how the interconnected changes in lifestyle and landscape characteristics is a tipping point from which our informants can no longer relate to the landscape in the same way. Their understanding of the landscape as based on agriculture and as a communal good that everyone should take care of is disrupted by both the neglect and the new developments characterizing the villages. It is clear that the changes have severed the close ties to landscape

that our participants experienced in the past and therefore their landscape identity no longer fits with the landscape as it is today. This disruption is the cause of the nostalgia and solastalgia that our informants experience.

Landscape identity is constantly negotiated and our participants are finding ways to recreate their relationship to the landscape. This sustained relationship is especially centered around activities such as cultivating in their own plots, harvesting forest products, engaging in the KGW and the church. However, they cannot completely reconcile their perception of the landscape with the current physical landscape. They are still perceiving it as an agricultural landscape although in decay. Based on our participants' stories, the newcomers however have a very different view on the landscape. For the newcomers, the landscape represents tranquility and an escape from the city. Therefore the natural succession in the old fields as well as the change in the style of the houses are not in conflict with their landscape identity. The activities they engage in as well as their perception of the landscape is in equilibrium with the physical landscape.

It becomes clear then, that as the population demographics change, a tipping point will occur in the population's relationship with the landscape that will once again reconcile people, place and perceptions.

### **6.5. Stuck in a Limbo - Mediating the Landscape Identity**

Loupa Ramos et al. (2016) explain changing landscape identities as a process that involves landscape changes as well as changing actions and perceptions. Our study shows how rural gentrification leads to changing actions (moving away from the agrarian lifestyle), which in turn changes the landscape. This shift of landscape identity is resisted by holding on to activities that are linked to a past relationship with the land. Continuing cultivating in smaller plots, utilizing forest products and preserving old traditions that link to the past are all understood as mitigation efforts. These are efforts that aim to avoid adjusting the landscape identity to the current physical landscape.

The mitigation is done on a practical scale (actions) to preserve old perceptions of the relation to the land. These perceptions are challenged as the sense of community has decreased as an effect of the “secluding newcomers” and the loss of the communal agrarian lifestyle. The decreased sense of community is hindering the possibility to sustain the past landscape identity as the former has been shown important in shaping the latter. Neither has the landscape identity reached the tipping point where it has aligned with the present landscape. Mitigation efforts, on the one hand, and the individualistic relations to the land on

the other, can be understood as keeping the landscape identities in a limbo between the past and present realities.

## **7. Conclusion**

This study has sought to discern how landscape identity changes over time in villages that have experienced rural gentrification. We have studied two villages in south-eastern Poland that have experienced a move away from an agrarian lifestyle in the post-communist era.

With the help of landscape characterization and soil testing we got a deeper understanding of the characteristics of the study areas. Walking interviews and participatory mapping exercises with the KGW members has been the basis for understanding the past and present relationship with the land. The qualitative material was coded and analyzed using ground theory combined with Loupa Ramos et al. (2016) framework of landscape identity based on spheres of perception, spheres of action and changing landscape as sensitizing concepts.

Our study concludes that the changed landscape, based on a move away from the agrarian lifestyle, is resisted by the participants through mitigation efforts. They try to hold on to their past landscape identity by preserving traditions and activities that are linked to the past way of living. The efforts to preserve their perception of an old landscape identity is hindered by the lost sense of community in the villages. The rural gentrification includes the new settlements on old agricultural land where the “newcomers” seclude themselves from the community. The lost relationship with the past agrarian way of life also includes the end of a collaborative way of living from the land. The effect is that their mitigation efforts are based on individual landscape identities, rather than the past communal ones. Instead of either accepting the new landscape or fully mitigating their landscape identity to cohere the old landscape, the participants end up in a limbo between two identities.

The effects of rural gentrification on landscape identity is a rather undiscovered subject that deserves more attention. Our study has limitations in both scope and focus which further research could address to get a more comprehensive understanding of the subject. Our study is limited in focusing on only one group in the villages. Adding perspectives of the younger generations and the newcomers could strengthen the understanding of the divisions and commonalities in landscape identities. How do newcomers and young people identify themselves differently in the landscape compared to the older generation? It would moreover be interesting to study the effects of the changing political and economical systems as a

consequence of the fall of the Soviet Union, on the landscape identities. Is there a connection between the observed move to more individual communities and influence of western politics? What role does EU policies have on rural landscape identity? Further research in landscape identity studies could provide other perspectives that aid in tackling such significant questions.

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## Appendix A

### Overview of Applied Methods

Method	Location	Name	Number of Iterations	Number of Participants	Notes
Participatory Mapping	Lipowica and Ostrów	Mapping Lipowica and Mapping Ostrów	2	16	One participatory mapping exercise was conducted in each village, with 8 participants in each exercise
Walking Interviews	Lipowica and Ostrów	Lipowica Interview 1, Lipowica Interview 2, Lipowica interview 3, Lipowica interview 4, Ostrów interview 1, and Ostrów interview 2	6	8	Four walking interviews were conducted in Lipowica with four participants; Two walking interviews were conducted in Ostrów with four participants
Landscape Characterization	Lipowica and Ostrów	VP2 VP3 VP4 VP5.1 VP5.2 VP6 VP8 VP11	11	N/A	Five landscape characterization forms were filled out in Lipowica; Six landscape characterization forms were filled out in Ostrów
Soil Analysis	Lipowica and Ostrów	VP2 VP3 VP4 VP5.1 VP5.2 VP6 VP8 VP11	8	N/A	Five soil samples were taken from Lipowica; Three soil samples were taken from Ostrów

## Appendix B

### Guide for Participatory Mapping

Hi everyone,

Before anything, we wanted to thank you so much for having us here, we are so happy with the opportunity!

I am María and I come from Spain

(+ intro others)

Anton, Bine, Karina and I are studying at the University of Copenhagen, and we are doing a project to study culture and landscape. We would love to know about what you do in your area and the stories you have.

We now want to do an exercise with you that Anton will explain. The exercise will take around 2 hours. First, we wanted to ask you if it is okay for you if we record the meeting and take some pictures for our study. The University of Copenhagen has this standard form on how personal data is processed, it would be nice if you could sign it as participants in our study.

1. Explain what we will do today
  - a. First we will ask for some basic information about you and your village.
  - b. Then you will draw a map of the surrounding area.
  - c. Then you will start map out what you are doing in different areas.
  - d. Lastly, we will ask you to tell us more about some of the areas on the map and what you are doing in these areas.
  - e. Any questions?
2. Ask for info about the informants:
  - a. What is your name?
  - b. Are you from (this area)?
  - c. Yes → How far back is your family from here?
  - d. No → When did you move here and why?
  - e. How long have you been a member of the association?
  - f. Do you know how old Lipowica is?

3. (Lay sheet out and distribute markers, crayons, and any other writing tools to participants)
4. Mapping
  - a. The map doesn't need to be pretty! We are interested in your stories about places :)
  - b. Say prompt: *"We would like you to please draw a map of the surrounding area. You decide yourself how big the map will be based on what areas you visit often or that are important for other reasons. We can just add more papers if you want it bigger. You can start with this building"*
  - c. Give participants 20-25 minutes
5. Next, say prompt: *"Now please write down what you do in the different areas using post-it notes and place them on the map where they take place. Activities can include small everyday-things to bigger traditions or events"*
  - a. Give participants 20-25 minutes
6. Ask them to choose or choose for them: activities with the following criteria:
  - a. Day-to-day
  - b. Special occasion
  - c. Your grandparents did
  - d. In nature
7. For each identified activity, ask the following questions:
  - a. *Tell us a story where you were doing this activity*
  - b. *When would you do this activity*
  - c. *Can you elaborate on what you do during this activity*
  - d. *Do you do this in a group or on your own?*
  - e. *How often do you do this activity?*
  - f. *Do you want to tell us why this place is important to you?*
  - g. *Why do you visit this place? Why are you doing this activity?*
  - h. *Has this place changed overtime? Has this activity changed over time?*
8. Ask for general changes of the land
9. Ask about areas that they might didn't include in the map

## Appendix C

### Interview Guide

<p><b>Introduction:</b></p> <p>This interview will be recorded and we will use it for a paper as part of our masters at Copenhagen university. It will not be published. We will only use your first name and if you wish we can anonymise you completely.</p> <p>We will take a walk in the town and ask you to make a route of the areas that you want us to see. We would like you to stop in the places that are meaningful for you or that you have stories to tell us about. This interview should take approximately one hour.</p> <p>We are interested in hearing your relationship, history and view of the land.</p> <p>ON TAPE - Ask for consent for recording, taking pictures and using the interview in our report.</p>	
<p><b>Research Questions:</b></p>	<p><b>Interview Questions:</b></p>
<p><b>Basic Info about the Informant</b></p>	<ol style="list-style-type: none"> <li>1. What is your name?</li> <li>2. Are you from (this area)?               <ul style="list-style-type: none"> <li>- Yes → How far back is your family from here?</li> <li>- No → When did you move here and why?</li> </ul> </li> <li>3. How long have you been part of the KGW? Why did you become a member?</li> <li>4. What is it you like about living in Lipowica?</li> <li>5. Are there any places that are especially important to you? How so?</li> </ol>
<p><b>Relationship</b></p>	<ol style="list-style-type: none"> <li>1. Are there any old stories/myths about this area?</li> <li>2. What do you normally do here?</li> <li>3. Who do you do it with?</li> <li>4. How does it make you feel?</li> <li>5. What time of the year do you come to this place the most?</li> <li>6. Are there any traditions or special holidays connected to this place?</li> <li>7. Do you collect anything here that you use? like fruits, flowers...</li> </ol>
<p><b>Emotions</b></p>	<ol style="list-style-type: none"> <li>1. Is there a specific feeling you get</li> </ol>

	<p>when you come here? Sensations?</p> <ol style="list-style-type: none"> <li>2. What stands out to you about this view?</li> <li>3. What do you like to do that reminds you of your childhood?</li> <li>4. Why did you include this area in our route today?</li> </ol>
<b>Change/Future</b>	<ol style="list-style-type: none"> <li>1. What has changed here since you moved to the village? (What has changed since a potential ancestor lived in the village?)</li> <li>2. What things look the same?</li> <li>3. How do you think your grandkids will connect with the land (similar or different to you)?</li> <li>4. How do you feel about the increased urbanization trend of the area?</li> <li>5. What do you envision for Lipowica in the future? (What are the obstacles to get there? Is that the direction you are heading in?)</li> </ol>
<b>Wrap Up</b>	<p>Thank you for taking us on this walk and for your time in answering our questions. We are going to wrap up now. Is there anything else you would like to add before we do?</p>

## **Appendix D**

### **Synopsis**

Practicing Interdisciplinary Field Research on the Environment

### **Synopsis**

Anton Bryntesson, Bine Søgaaard Buhr, María Gallardo, Karina Kramer

February 23, 2024

Study Area: Poland, Świętokrzyskie voivodeship, [specific village]

Supervisors: Abrha Teklay Abay, Andrea Landi, Agnieszka Kałmykow-Piwińska

## Introduction

### **Cultural Identity**

Cultural identity encompasses a feeling of belonging and being in the right place. It relates the individual to their wider context and dictates what it is possible to do and not to do. Increasingly, within academia it is recognized that relation to land and landscape plays a role in constructing cultural identities. The connection between landscape and identity has been the foundation for landscape studies and has influenced many other academic disciplines. This relationship has important implications for the management of landscape, showing us how to react to a changing landscape and climate. (Egoz, 2019)

To better understand this process of creation and how landscape is involved, it is useful to conceptualize cultural identity as the stories people tell about themselves. Although identity is a very slippery concept, we can operationalize it through narrative analysis, because narratives of identity are expressions of what, where and how people make meaning of their lives. By exploring how and where our informants express and perform their culture, we get closer to understanding how practices in place become traditions and habits and ultimately cultural identities. We are especially interested in how space and narrative interconnect and co-creates a coherent expression and feeling of identity and will focus our study on narratives, practices, and spaces of cultural creation. We still need to develop our conceptual framework fully. As such we are currently doing a literature review to get a better understanding of how to proceed with this form of fieldwork. (Brace, 2003) (Butler et al., 2019)

### **Research Problem**

Over many centuries, Poland's national identity has been carefully shaped. However, a recent phenomenon poses a threat to it. Globalization, as defined by Rosenmann et al. (2016) is an emergence and agglomeration of economies, cultures, and other relevant factors, that have the potential to shape identity, especially, local ones (Rosenmann et al., 2016). In addition, the economic system falling under globalization has been shown to have profound impacts on the environment, with this system encouraging the pollution of the environment, the depletion of natural resources and the loss of biodiversity, thereby changing landscapes over time (Ehrenfeld, 2003).

This is clearly seen in the context of Poland, where landscape transformation - as a result of human activity - has been an obvious occurrence over recent years (Deslatte et al.,

2022). As this study takes its point of departure in the interconnectedness between landscape and cultural identity, the effects of globalization will inevitably affect this interconnected relationship. This study does not aim to investigate this effect, rather it aims to explore and analyze the dynamics in this relationship. To better understand these dynamics, is a vital first step to understanding the cultural effects of landscape transformation and vice versa.

As such, this is a case of *the relationship between cultural identity and land* (Lund, 2014). To study this, we will analyze the physical environment in [study area] and the local perception of this relationship. More specifically, the participants of the study will be members of the local Polish Women's Rural Association - in Polish Koła Gospodyń Wiejskich (KGW). The KGW will be studied as they act as cultural stewards. Spread all across Poland, the local groups work to preserve local culture by e.g. maintaining cultural traditions, creating activities for social activation, promoting handicraft products and agrotourism, and enhancing intergenerational integration (Chmielewska, 2021). Although the local members of KGW can't be seen as strict representatives of local perceptions, they are purposefully chosen because of their tight connection to local culture, thereby hopefully being able to display some of the dynamics in the co-creation of the landscape and cultural identity.

We believe our research can add an interesting perspective to cultural identity and landscape intertwining studies. In this specific study design, social science methods and natural science methods are interlinked to study a co-creation phenomenon that requires a multidisciplinary perspective.

Our main research question is the following:

1. How are landscape and cultural identity co-created?

For the purpose of the study, the question was subdivided into:

1. How is local cultural identity expressed?
2. How are the landscape and the local cultural identity shaping each other?

## Methods

### Participatory Mapping

The participatory mapping in this study will include two levels: landscape mapping and cultural mapping. Three to four members of the KGW will be invited to first map out the physical landscape in the study area. The women will be asked to map out the physical spaces and how the landscape is practically utilized. This information will be analyzed through grounded theory and contrasted with landscape characterisation (see below) to create a deeper understanding of land use. (Kvale et al., 2008)

Following, the participants will be asked to map out how and where culture is being practiced in the study area (using the same map). Cultural mapping is a participatory approach used to get an overview of how cultural identity is connected with the physical space (Nigel, 2010). They will be given a prompt similar to: *“Map out areas where you practice culture. Write down or draw how the culture is practiced in each area.”* (see appx. 3) This could include areas where festive events are taking place, religion is being practiced, where traditional food is grown or processed, or areas used for recreational purposes. A conversation about why different areas are used in the way they are will be introduced during or after the mapping.

The map will create knowledge about the relationship between space, practices, and cultural identity (addressing questions 1.1. and 2.2., see appx. 1). Further, the map will be a starting point for the landscape characterization (subsequently addressing question 2.1, see appx. 1). The areas that will be assessed in the landscape characterization will be linked to natural areas that are mapped out as culturally important. This enables an analysis of how characteristics of the environment shape cultural practices and the other way around.

An advantage of the method is its participatory nature where the participants in a group have the opportunity to lead the direction towards what they consider important. Mapping cultural practices physically, rather than asking through interviews, can simplify intercultural dialogue. (Nigel, 2010)

### Retrospective Photovoice

Retrospective photovoice is a participatory method where the participants (members of the KGW) will display photos that show their relation with their own culture. The participants who take part in the cultural mapping will be given a prompt similar to: *“Send us pictures (preferably taken by yourself) of places, activities, or objects that reflect local tradition*

*and/or culture.*” (see appx. 3). When the photos have been selected, a conversation will be held about why the photos were chosen, how they relate to their cultural identity, and what these places, practices, or objects mean to them. The conversation will be open to enable both explicit and implicit details of the pictures. The pictures will be mapped out on the cultural map to further the connection between culture and space.

The method will be used to answer question 1.1. and 1.2. (see appx. 1) and contribute with a deeper understanding of how the participants relate to their own culture on both a practical and emotional level. (The Howard League for Penal Reform, 2016)

### **Autoethnographic Photovoice**

The postmodern turn in social science research highlights the collaborative nature of fieldstudies and autoethnographic methods are used to understand the position of the researcher in relation to the field as well as capturing data that is created in the interaction between researcher and participants. Autoethnographic data allows the researcher to experience and relay the field in a bodily and empathic manner. During the time of the field study, we will continually make fieldnotes as part of the research, however, we wanted to include a more visual method to capture our experience in the field as well as the material and landscape components of cultural identity. We are calling this autoethnographic photovoice and will focus on the materials of culture such as tools, place representations, food, plants, and clothing as well as mapping the photos onto the landscape. (Adams et al., 2021)

### **Semi-structured Interviews**

Semi-structured interviews will be conducted as part of the interrogation of the cultural identity in the study area. The interviews will be focused on three aspects of cultural identity: the performance of cultural identity through specific actions, the spaces that these actions take place in, and the narrative of identity that is created around these activities.

The interview guide will be divided into 4 research questions with a section of interview questions for each. Firstly, we are interested in gathering some basic demographic information about the participants such as marital status, membership of the KGW and how long they have lived in the local area. Next, the informants are asked to free-list all activities that they take part in within the KGW and subsequently follow-up questions are asked that encourage a narrative description of the activities. The narrative description is important because it reveals the temporal and spatial elements, but also because at a basic level humans

create meaning through storytelling. By relating stories of their engagement in the KGW the informants will reveal how these activities are meaningful in relation to their cultural identities. (Kvale et al., 2008)

The third and fourth research questions are used to zoom out from the individual experiences within the KGW and focus on the informant's perception of the importance of the KGW in Checiny and how it is related to gender. This will also allow the informants to reflect on the general function of KGW as cultural stewards. The semi-structured interview will address sub-questions 1.1, 1.2, and 2.2 (see appx. 1).

Two approaches will be used in the analysis of the semi-structured interviews, Grounded theory coding and narrative analysis. Grounded theory is a deductive approach to coding that allows the internal logic of the fieldsite to dictate the categories of analysis. The aim of this coding is to create codes that allow a comprehensive description of the field and that moves from descriptive categorisation to increasingly theoretical categories. Researcher triangulation in the coding will create a more valid interpretation of the data. (Kvale et al., 2008)

### **Landscape Characterization**

An obvious step when trying to make sense of how cultural identity and landscape shape each other is first to understand how this landscape looks.

The landscape characterization method, as integrated in our project, aims to describe the traits of the different landscape units defined in the participatory map, from a natural science perspective. The study area will not be bigger than a village and its close surroundings; the specific site is still to be determined, as it will depend on the KGW selected as participants of the study.

Taking as a starting point the general climate and altitude of the area (with possibility to complement the latest with elevation differences as part of the landform), the following variables will be assessed, as extracted from Simensen et al., 2018:

- Land cover
- Presence of buildings and infrastructure
- Landform: elevation, slopes, etc.
- Hydrography: presence of rivers or other hydrographic units
- Vegetation: presence of trees, woody shrubs, crops and grasses combined with an overview of their spatial distribution.

The methodology to follow will be visual assessment. The results will potentially be contrasted with available information from the area, as satellite images and databases on land cover and vegetation types. Satellite images can provide useful information before going into the field, as an overview of land cover, vegetation or hydrography that can be complemented with our observations in the field (e.g what type of crops are grown, how croplands look at the time of the year we'll be there, or more precise notes on type of vegetation).

The resulting map will be overlapped with the one created through the participatory mapping method, therefore merging the listed biophysical variables with a socio-cultural dimension (identity of the place, use as designed by participants) and the women's landscape perception. By doing this, we aim to develop a holistic analysis of the factors determining the different landscapes identities in order to answer question 2. *"How are the landscape and the local cultural identity shaping each other?"* (see appx. 1).

### **Soil Analysis**

Soil analysis in this study comes as part of our aim to understand the landscape characteristics. Soil can be understood not only as a landscape component but also as a determinant factor to shape it. If for instance we direct our focus to agriculture, soil quality and fertility restrict agricultural yields and the type of crops that can be grown. Parallely, and by understanding agricultural practices as part of cultural identity, we could trace a link between soil and cultural identity, through soil's role on what kind of agricultural practices are developed.

The variables to analyze will be soil texture and bulk density, as soil quality indicators, and pH as a soil fertility parameter. Soil texture gives information about the kind of soil we are dealing with, and bulk density connects to how adequate different land uses are to the specific land. Soil pH or soil acidity is an interesting indicator that complements the observations on land use and vegetation, as being strongly related to nutrient availability. For all three variables, the analysis will be carried after finalizing the fieldwork and back on the KU laboratories.

## Sampling Strategies

### **Sampling: Social Science Methods**

The sampling strategy for all social science methods will be the same (although sampling size slightly differs). Out of convenience and feasibility, the study area (village) will be based on the following criteria: 1) the proximity to Chęciny; 2) the local group needs to be active; 3) the local group needs to have enough members for our study. If we don't find a KGW group that have enough members who are willing to participate, we will include other informants in the village through snowball sampling (starting from the local KGW group).

The choice of having members of the KGW as participants is based on the rationale presented in the introduction. Our study is a case of the relationship between cultural identity and land. Rather than sampling randomly, we chose a purposeful sampling based on the KGW members' tight connection with local culture. The (mainly) qualitative nature of the study does not aim to reach statistical generalizability. Rather, the local KGW group and their relation with the landscape are being treated as a relevant and purposeful case of the general co-creation between local cultural identity and landscape in rural Poland.

### **Sampling: Natural Science Methods**

In the case of the landscape characterization, the samples to analyze are the landscape units defined through the different land uses described in the participatory map. As for the soil analysis, the goal is to collect samples from different plots that act as a representation for different land uses. As few plots are selected as representation for a "population" of plots pertaining to the same land use category, the sampling strategy can be understood as clustered sampling. Within each of the plots, few replicates will be taken so that then an average can be calculated.

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## Appendices

**Figure 1. Data Matrix**

Main Research Question		How are landscape and cultural identity co-created?		
<b>Definitions:</b>		<p><b>Local identities:</b> Cultural identities linked to place as expressed by the informants. We are focused on the following markers of cultural identity: place, narrative of identity and actions.</p> <p><b>Koła Gospodyń Wiejskich:</b> Polish women's rural association, who are our informants (KGW).</p> <p><b>Cultural identity:</b> <i>to be defined according to the theoretical framework</i></p> <p><b>Physical environment:</b> <i>to be defined according to the theoretical framework</i></p>		
<b>Informants:</b>		<b>Women of the Koła Gospodyń Wiejskich located in xxxx.</b>		
<b>Sampling Strategy and size</b>		<p><b>Semi-structured interviews:</b> 5 informants Snowball starting with gatekeeper</p> <p><b>Photovoice and participatory mapping:</b> 3 informants Snowball starting with gatekeeper</p> <p><b>Auto-ethnographic photovoice:</b> All researchers will participate</p> <p><b>Landscape characterisation and mapping:</b> Samples= landscape units defined through the participatory map</p> <p><b>Soil sampling:</b> Clustered sampling</p>		
Questions	Sub Questions	Data Required	Data Collection Methods	Data Analysis
1. How is local cultural identity expressed?	1.1. How are local cultural identity narratives expressed by the KGW in [study area]?	Women's narratives on the relationship between their lives and identities	<ul style="list-style-type: none"> <li>- Semi-structured interviews</li> <li>- Photovoice</li> <li>- Participatory mapping</li> <li>- Autoethnography</li> </ul>	<p>Semi-structured interviews: Grounded theory coding and narrative analysis</p> <p>Photovoice: Grounded</p>

			c photovoice	<p>approach to coding, content analysis through NVivo</p> <p>Participatory mapping: Content analysis</p> <p>Autoethnographic photovoice: TBA</p>
	1.2. How do the cultural activities performed by the local association shape their identity?	Description of the activities in KGW and the cultural significance behind these activities.	<ul style="list-style-type: none"> <li>- Semi-structured interviews</li> <li>- Photovoice</li> <li>- Participatory mapping</li> <li>- Autoethnographic photovoice</li> </ul>	Semi-structured interviews: See above
2. How are the landscape and the local cultural identity shaping each other?	2.1. What are the attributes of the physical environment in the [study area]?	Landscape characteristics and soil properties	<ul style="list-style-type: none"> <li>- Landscape characterisation-mapping</li> <li>- Soil sampling</li> <li>- Autoethnographic photovoice</li> <li>- Participatory mapping</li> </ul>	<p>Landscape characterisation-mapping: Comparison with participatory map</p> <p>Soil sampling: Lab analysis</p> <p>Autoethnographic photovoice: See above</p>
	2.2. How do the KGW in [study area] describe the connection between the physical environment and the cultural practices exercised in the area?	Women's description of the relation between land characteristics and land use	<ul style="list-style-type: none"> <li>- Semi-structured interviews</li> <li>- Participatory mapping</li> </ul>	<p>Semi-structured interviews: See above</p> <p>Participatory mapping: See above</p>

**Figure 3. Methods Guide**

<b>Photovoice</b>
-------------------

Prompt: “*Send us pictures (preferably taken by yourself) of places, activities, or objects that reflect local tradition and/or culture.*” (explain how culture and tradition should be understood with the help of the theoretical framework)

Conversation about the pictures. Leading prompts:

“*Why did you take this picture?*”

“*How does it link to your identity and culture?*”

“*Can you tell us something about the place of the picture?*”

### **Participatory Mapping**

#### Landscape mapping

Prompt: “*Please draw a map of [village] and the surroundings. Include both man-made and natural elements.*”

Follow-up question:

- If you would have drawn the map 20 years ago, what would be different?

#### Cultural mapping

Prompt: “*Map out how different areas are being used in the village and surrounding areas. Also, map out if you have specific traditions or recurring events that are tied to specific places*”

Follow-up questions:

- Do you have local legends tied to specific areas?
- Are any areas specifically important for local culture?
- If you would have drawn the map 20 years ago, what would be different?

To get their thought process going: “*areas linked to food, recreational spaces, cultural places, festive moments etc*” Places you meet with other people, that you take your kids or places you only go at specific times of the year.

Semi-structured Interview-guide	
<b>Intro:</b> This interview will be recorded and we will use it for a paper as part of our masters at Copenhagen university. It will not be published. We will only use your first name and if you wish we can anonymise you completely.	
Research questions:	Interview questions:
<b>Basic info about the informant</b>	What is your name? How old are you? What is your occupation? Are you married? Do you have kids? Are you from (this area)? <ul style="list-style-type: none"> <li>- Yes → How far back is your family from here?</li> <li>- No → When did you move here and why?</li> </ul>
<b>What is the role of the association in local society?</b>	How long have you been a member of the association? Tell us about the first activity you participated in. Why did you become a member in the first place? Do you have family members that are also a member of KGW? → Who? How many times a week do you go? What activities do you take part in? *Let them list each activity and write it down, then ask about individual activities: <ul style="list-style-type: none"> <li>- For each activity mentioned:</li> <li>- At what time of year does it take place?</li> <li>- What do you do?</li> <li>- Who takes part?</li> <li>- Where do you do it?</li> <li>- Is it typical for (place)?</li> <li>- What food do you eat? <ul style="list-style-type: none"> <li>- who prepares it?</li> <li>- Where do you get the</li> </ul> </li> </ul>

	<p>ingredients from?</p> <p>- What is special about this activity?</p>
<p><b>How does the identity of the association relate to the identity of the general community?</b></p>	<p>How many people from (place) take part in your activities?</p> <p>Why is it important to have the KGW in (place)?</p>
<p><b>What are the gender dynamics in safekeeping traditional identity?</b></p>	<p>Why is it only women in the association?</p> <p>How do you see the role of women in keeping your traditions going?</p>

Figure 4. Timeplan of Fieldwork

