

An aerial photograph of a star-shaped fortification, likely a historical military installation, featuring a central urban area surrounded by a complex network of water-filled moats and green defensive bastions. The surrounding landscape includes green fields, a railway line, and a body of water in the upper right corner.

Next Generation Heritage

A Conceptual Exploration of Intergenerational Heritage Approaches in Rural Areas

Janssens, B.

This Master Thesis is written by:

Bente Janssens

MSc Metropolitan Analysis, Design and Engineering
Wageningen University & Research, Delft University of Technology

Under the supervision of:

Peter Pelzer

Delft University of Technology
Urbanism

Dirk Oudes

Wageningen University & Research
Landscape Architecture and Spatial Planning

July, 2025

This Master Thesis is written as part of the MSc Metropolitan Analysis, Design and Engineering (MADE MSc). This Master is a Joint Degree offered by Delft University of Technology and Wageningen University & Research, located at the Amsterdam Institute of Advanced Metropolitan Solutions (AMS Institute).



This Master Thesis contributed to the LDE Interdisciplinary Thesis Lab *The (Really) Green Heart, 2100*.

Centre for Sustainability
Leiden-Delft-Erasmus Universities

The picture on the front page is an aerial view picture of Naarden Vesting, The Netherlands. The picture is taken by Keith Jenkins and provided on <https://velvetescape.com/plane-views-naarden-vesting/>

Table of contents

Abstract	5
Preface	6
1. Introduction	7
1.1 Background	7
1.2 The Green Heart	9
1.3 Research Aim and Approach	9
1.4 Reading Guide	10
2. Theoretical Framework	11
2.1 Intergenerational Thinking and Sustainable Development	11
2.1.1 Intergenerational thinking	11
2.1.2 Sustainable development	11
2.2 Heritage and Cultural Landscapes	12
2.2.1 Heritage	12
2.2.2 Cultural Landscapes	13
2.3 Scope and Position of the Research	13
3. Methodology	15
3.1 Systematic Literature Review	15
3.1.1 PRISMA	15
3.1.2 Literature Search	16
3.1.3 Data Selection	16
3.1.4 Data Extraction, Coding & Clustering	18
3.1.5 Typology Development	18
3.2 Empirical Analysis	19
3.2.1 Speaking Cards	19
3.2.2 Applicability in Practice & in the Green Heart	19
3.2.3 Semi Structured Interviews	19
3.2.4 Revision of the Speaking Cards	20
4. Results	21
4.1 Systematic Literature Review	21
4.1.1 Literature Search and Selection	21
4.1.2 Emerging Themes from the Data	22
4.1.3 Intergenerational Heritage Typology	22
4.1.4 Descriptions of the Intergenerational Heritage Approaches	25
4.1.5 Key Findings of the Systematic Literature Review	35
4.2 Empirical Analysis	36
4.2.1 Speaking Cards	36
4.2.2 Applicability in Practice	36

4.2.3 Applicability in Green Heart.....	37
4.2.4 Revised Speaking Cards.....	38
4.2.5 Key Findings of the Empirical Analysis.....	39
5. Discussion	40
5.1 Interpretation of the Findings	40
5.2 Implications of the Study.....	41
5.3 Limitations of the Research	41
5.4 Suggestions for Future Research	42
6. Conclusion & Recommendations	43
Reference List	45
Appendix 1. PICOS Approach: Developing Search Terms	49
Appendix 2. Literature Used to Inform Approaches	50

Abstract

This thesis explores how intergenerational thinking can help identify and inform heritage approaches in rural landscapes in need of sustainability transitions. Although there is growing interest in the intersection of heritage and sustainability, little research is done about how intergenerational thinking can guide heritage planning in rural contexts. Through a systematic literature review, six intergenerational heritage approaches were identified and synthesized into a typology: Preserve & Protect, Shared Legacy, Heritage as Capital, Living Landscapes, Learning from Legacy, and Legacy by Design. Each approach has its own intergenerational function, vision on heritage, methods, and reflections.

To validate the typology, three expert interviews were conducted in the Dutch Green Heart: a rural area under many pressures. The interviews confirmed the recognizability and usefulness of the typology in practice. It opened up conversations and supported more conscious and well-informed decision-making about heritage in rural areas undergoing sustainability transitions. Based on the findings, the typology was refined: the economically focused approach was reframed to emphasize sustainability, and Legacy by Design was removed due to overlap with other approaches. However, the study confirms the importance of integrated and multifunctional approaches in heritage planning.

The research highlights that while intergenerational functions are often present, they are rarely made explicit. There remains room for a stronger and more conscious engagement with future generations in heritage thinking. This study provides a first step in exploring heritage from a more adaptive, future-oriented perspective.

Key words: Intergenerational thinking, heritage planning, rural landscapes, sustainability transitions, typology, spatial development, Green Heart (Netherlands), adaptive heritage, cultural landscapes, future-oriented planning

Preface

Writing this thesis has been a rewarding challenge and a valuable learning process. Central to my research was the question how we can better connect the past, present, and future in thinking about heritage and sustainable spatial development. More specifically, I explored how intergenerational thinking can inform decision-making about heritage in order to create more conscious long-term strategies.

This topic stemmed from a curiosity about the role of heritage in a fast changing world with many needs and demands for transformation. How can we honor the past in a way so that we also leave space for what is yet to come? This led to a conceptual puzzle. While this research is mainly theoretical, I also had the ambition to open up conversations in practice. I wanted to offer a new lens through which planners, policymakers, and designers may reflect more consciously on the role of heritage in sustainable spatial development.

Carrying out this research has challenged me to think critically, open minded, but also creatively. It has required diving into a large amount of literature, developing a typology to clarify different intergenerational approaches, and bridging theory with practice. I am grateful for the many perspectives, both academic and practical, that have shaped my thinking over time.

First and foremost, I want to thank my supervisors, Dirk and Peter, for their guidance and encouragement throughout this process. They challenged me to think critically, broaden my view, and make clear decisions, without steering me too much. Valuable, clarifying conversations and thoughtful feedback helped me move forward at every step. I could not have wished for better guidance in this process.

In addition, I am grateful to have been part of the LDE Thesis Lab *The (Really) Green Heart, 2100*. It was valuable and fun to work on a real-world challenge with other students from diverse backgrounds. In particular, I would like to thank Joran for coordinating and guiding this group project, which he did with great enthusiasm.

I would also like to express my appreciation to the people who took the time to speak with me during the interviews. These insights brought my research to life and helped connect the theory with real-world insights.

Furthermore, I want to thank Delft University of Technology, Wageningen University & Research, AMS Institute, and all the teachers involved in the MADE master program. I look back on these past two years with a lot of joy and carry the valuable knowledge with me in the future. I am also thankful for my study friends from the master. Yasmine, Tygo, Maaïke, Max, Robin, Stef, Julika, and Thijmen, you have taught me much, and we have shared many laughs along the way. The days spent at the AMS Institute during the thesis period were especially meaningful. All the brainstorming, complaining, joking, and motivational pep talks made the process a lot more enjoyable.

Lastly, I hope this thesis offers a small contribution to the broader conversation about how we care for our landscapes, our stories, and each other across time.

Bente Janssens

Amsterdam, July 2025

1. Introduction

1.1 Background

With accelerating climate change, loss of biodiversity and land degradation, it has become clear that decisions made today will have long-lasting consequences for future generations (United Nations, 2001; Olsson et al., 2001). Therefore, intergenerational justice is an essential component in addressing contemporary sustainability challenges. Intergenerational justice is a central principle in frameworks such as the Sustainable Development Goals (SDGs) and planetary boundaries, both calling for long-term ecological and social responsibility (Rockström et al., 2009; United Nations, 2015). Intergenerational justice focuses on the ethical obligation to manage the environment and resources in a way that ensures equitable access, quality, and opportunities to both present and future societies (United Nations, 1987; Brundtland Report, 1987; Ross, 2019). Intergenerational justice consists of intergenerational equity, which emphasizes the fair distribution of resources and opportunities between generations, ensuring that future societies are not disadvantaged by the actions of the present ones (Page, 2006; Weiss, 1992). The incorporation of intergenerational perspectives into decision-making is essential for maintaining climate and ecological resilience and for fostering economic and social stability for generations to come (Caney, 2019; Teodoro et al., 2022).

The Netherlands is known as a small country facing significant spatial challenges. The country is confronted with complex spatial challenges related to urbanization, climate adaptation, nature conservation, water management, and agriculture, that are all competing for limited space (Planbureau voor de Leefomgeving, 2021). Conditions for a healthy living environment are under pressure, and major decisions and transitions are required to ensure livability and sustainability, for now and in the future (Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2024). Scientists from Wageningen University & Research (2019) also emphasize that significant changes are needed to address major challenges such as the energy transition, sustainable agriculture, biodiversity restoration, urbanization, and climate adaptation. Scholars stress the need for long-term decision-making frameworks that extend beyond immediate economic and political cycles (Howarth, 1997; Tremmel, 2009).

Over the past few years, many policy makers and scholars in the Netherlands have developed numerous policy visions and programs focused on sustainable development for future generations (Baptist et al., 2019; Rijksoverheid, 2016; Ministerie van Economische Zaken en Klimaat 2020; Ministerie van Economische Zaken en Klimaat 2022; Delta Commissioner, 2024; Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2024). The newest Delta Program and the Voorontwerp Nota Ruimte explicitly address the importance of not shifting problems onto future generations, emphasizing the importance of intergenerational justice in the context of sustainable spatial development (Delta Commissioner, 2024; Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2024). They imply that by making choices today, problems can be prevented from being shifted to future generations, and highlight that the Netherlands faces major challenges in securing new certainties in the future. The motivation behind the vision of the Voorontwerp Nota Ruimte is to provide future generations with a high quality of life, with a safe, pleasant, and healthy living environment. One of the guiding principles of the strategy is the right to future generations: “We do not shift problems elsewhere or into future generations, and we strive for a fair distribution of benefits and burdens”.

The paragraphs above indicate that there is awareness of the importance of intergenerational thinking in addressing spatial sustainability challenges. Future-oriented strategies are needed to handle rapid changes in landscape due to changing needs. This leads to a challenge for nature conservation and cultural heritage, because at the same time there is a desire to keep traditional systems alive, as the

authentic and local sense of landscaping is highly valued (Peterson, 2005). Rahman et al (2018) express concerns about disappearing rural landscapes and the spread of new and emerging features in the landscape that have become a severe issue. They state that with rapid urbanization, the rural landscape is under constant threat of being converted to more valuable economic activities. Additionally, Rzeszotarska-Pałka (2024) states that evolving political, economic, and social landscapes present threats to the preservation of natural and cultural heritage. She indicates that historical landscapes reveal various social, economic, political transformations that create an identity of place, one which should be protected for future generations.

Representatives from nature conservation, cultural heritage, and many other fields have a desire to preserve cultural landscapes from the past (Peterson, 2005). Various scholars emphasize the importance of preserving cultural landscapes and heritage for future generations. According to Pulpón et al. (2023), agriculture has not only a productive function, but also a cultural one. It is rich in heritage that is the result of interaction between nature and people over time and it contains resources that form a legacy that must be preserved and transmitted to future generations. Havlíček et al. (2024) further argue that it is desirable to preserve and restore valuable landscape structures within rural landscapes. The future of cultural landscapes is a collective responsibility and needs continued commitment of preservation, in order to ensure that meaningful parts of our global heritage continue to enrich our lives and those of generations to come (Olivadese & Dindo, 2024). This involves actively safeguarding these landscapes for future exploration, learning, and inspiration. In light of the ongoing destruction of environmental and cultural heritage, the notion of intergenerational commitment has become an increasingly urgent and relevant issue (Salerno, 2018).

However, traditional preservation beliefs often clash with the transformative character of the necessary sustainability transitions that require innovation and change. According to Ducros (2017), contemporary societies struggle between honoring the past and developing the future. On the one hand, there is a growing desire to commemorate and preserve people, places, events, and objects from the past. At the same time, there is increasing pressure to break away from the past in order to create a future that is more just and sustainable for both people and the planet.

Several researchers call for new approaches to heritage in the light of contemporary spatial sustainability challenges. Olivadese & Dindo (2024) argue that as we move forward, the preservation of cultural landscapes will increasingly depend on our ability to innovate, adapt, and collaborate. Similarly, Peterson (2005) states that we need to improve our ability to develop dynamic concepts rather than concepts that regard landscape as something static. Sargent & Slaton (2015) add that current approaches to historic preservation will need to be adapted in order to continue to protect our cultural heritage with the same level of care that we expect today. They state that in attempting to anticipate the needs of a constantly changing future, preservationists need to plan for a range of eventualities, consider new strategies, and determine how these strategies can be tested.

This raises a critical question: how can we protect the heritage of tomorrow in a landscape that is already changing today? The literature offers few concrete answers on how heritage should be addressed in the light of intergenerational thinking. The debate involves fundamental choices about what we want to preserve, adapt, or let go of. In this field of tension, thinking about heritage gains on a new urgency: for whom are we preserving, and with what vision of the future in mind?

1.2 The Green Heart

The Green Heart (het Groene Hart, in Dutch) is an example of a region where many complex and sensitive challenges come together in an area where space is scarce. It is a rural area within the highly urbanized Randstad of the Netherlands that faces major spatial challenges. The coordinating body of the Green Heart stresses that climate change, land subsidence, and declining biodiversity cause the area to run up against natural, legal and financial limits (Coördinatiebureau Groene Hart, 2024). The organization argues that only significant changes and transformations can enable the Green Heart to respond effectively to these issues, and to offer opportunities to make and maintain the area livable and vital for future generations. Janssen et al (2022) also highlight that land subsidence, biodiversity decline, high emissions, and economic pressures require changes in landscape use in the area.

The region contains various cultural values and heritage elements. Kooij (2010) argues that the area is valued as a unique cultural landscape, characterized by its peatlands, open pastures, and historic settlements, shaped by centuries of human intervention. According to the coordinating body of the Green Heart, characteristic traditional farmhouses, historic village centers, and numerous windmills contribute to the authentic Dutch charm of the area, making it attractive to both residents and visitors (Coördinatiebureau Groene Hart, 2024). The region also maintains a sense of tranquility compared to the surrounding urban hectic. In a future vision, the organization stresses that the area should remain rural and open, preserving its relative calm and cultural-historical value (Coördinatiebureau Groene Hart, 2024).

These multiple interests make sustainable development in the Green Heart a sensitive topic and bring difficulties for implementing the sustainable transitions needed to address the area's diverse spatial challenges. However, engaging with heritage could help build societal support for these transitions within this politically sensitive region (Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2024).

The required spatial transitions, combined with the cultural value of the Green Heart, make this region a suitable case study for exploring the role of heritage within the context of complex spatial transitions. Heritage may offer valuable opportunities to support sustainable transitions in the area, and it is essential to reflect on how we can understand, approach, and apply heritage through the lens of intergenerational thinking. In this way, the Green Heart can serve as a practical setting for an ethical exploration of heritage, that will not only be relevant to this region, but also to other areas in the Netherlands and over the world.

1.3 Research Aim and Approach

The aim of this thesis is to explore how intergenerational thinking can serve as an analytical lens for understanding and informing heritage in rural landscapes undergoing sustainability-driven spatial transitions. While the concept of intergenerational thinking is frequently referenced in the context of sustainability and policy, its application within heritage remains vague and often abstract. This exploratory research seeks to clarify and conceptualize this application by developing a typology of intergenerational heritage approaches. In doing so, it aims to inspire new ways of thinking about heritage by engaging with its potential role in guiding meaningful transitions in times of change. The aim of this exploratory research is not to assess different approaches and give strong advice, but to take a first step in thinking about heritage in a new and future-oriented way. It aims to create awareness, inspire, spark conversations, and encourage more research on the field of intergenerational thinking and heritage.

The typology functions as a conceptual tool that makes different intergenerational perspectives on heritage more visible and discussable. It is designed to support policymakers, spatial designers, and heritage professionals in critically reflecting on long-term value, landscape change, and the role of future generations. The typology is first constructed through a systematic literature review and subsequently

validated through expert reflection. Through interviews, the practical and institutional application of the typology is tested, as well as its relevance to the context of the Green Heart, an rural area under many pressures and in need of a sustainability transition. Moreover, based on these practical insights, the typology will be revised and adjusted to improve its practical application. Ultimately, the typology aims not only to offer conceptual clarity, but also to spark conversations and provide direction for future-oriented heritage decision-making in times of sustainability transitions.

The following research questions are formulated to guide the research:

How can intergenerational thinking help identify and inform heritage approaches in rural landscapes in need of sustainability transitions?

SRQ1: What intergenerational approaches to heritage can be identified in academic literature, and how can they be synthesized into a typology relevant to rural landscapes?

- Objective: to identify and synthesize rural intergenerational heritage approaches found in existing literature.
- Output: a typology of intergenerational heritage approaches, structured by core vision on heritage, intergenerational function, applications and methods.

SRQ2: To what extent is the typology applicable and meaningful in practice, particularly in the context of the Green Heart: a complex rural area in need of a sustainability transition?

- Objective: the assess the practical relevance and usability of the typology in the context of Green Heart.
- Output: insights into the typology's practical application and a revised typology.

1.4 Reading Guide

Chapter 2 details the Theoretical Framework that outlines the key theories and concepts that inform this research. Chapter 3 explains the Methodology of the research, consisting of two parts: the systematic literature review and the empirical analysis. Chapter 4 continues with the results of the literature review and the empirical analysis, closing with a revised end version of the intergenerational heritage typology. Chapter 5 details the Discussion, including interpretations of the findings, limitations and implications of the research, and suggestions for future research. The Conclusion (Chapter 6) answers the research questions and provides the key take aways of the research.

2. Theoretical Framework

This chapter outlines the key theories and concepts that inform this research. Central themes that will guide this research are intergenerational justice, sustainable development, and heritage. By exploring these concepts and their underlying theories and principles, this chapter provides a theoretical lens to research how intergenerational thinking can inform heritage in the context of sustainable challenges.

2.1 Intergenerational Thinking and Sustainable Development

This sub-chapter will define underlying concepts and theories of intergenerational thinking and sustainable development.

2.1.1 Intergenerational thinking

Intergenerational thinking provides an ethical and conceptual framework for making long-term decisions in landscape and resource management. Central in this perspective is the idea of intergenerational justice, which means that current generations have a moral responsibility to preserve the resources and conditions that allow future generations to lead their lives in the same quality as we do today (Ross, 2019; Weiss, 1992; Tremmel, 2009). As Page (2006) argues, future citizens are vulnerable stakeholders, as they cannot represent themselves in present-day decision-making but are directly affected by the outcomes. In landscape planning, this challenges how choices of today may shape or limit ecological conditions in the future.

Weiss (1990) provides three key principles of intergenerational equity. These include the conservation of options, quality, and access. These principles emphasize that future generations should not only still have access to cultural and ecological assets but should also have the freedom and capacity to engage with them meaningfully. Caney (2019) adds on this that future generations have a right to an ecologically and culturally rich landscape, meaning that cultural heritage should be treated as a shared inheritance. Thus not just a legacy of the past, but a promise to the future.

From a more practical point of view, Jonas (1984) formulates the precautionary principle, which encourages contemporary societies to avoid actions that cause significant risks for future societies. In this way, intergenerational thinking requires not only protecting what exists, but also critically assessing which futures we make possible and impossible through decisions we make today.

2.1.2 Sustainable development

In the last decades, intergenerational ethics inform sustainable development practices. The Brundtland Report (1987) defines sustainable development as “meeting the needs of the present without compromising the ability of future generations to meet their own needs.” This bridges ecological responsibility and social justice, and has informed major global frameworks, including the Sustainable Development Goals (SDGs) (United Nations, 2015). More recent conceptualizations, such as the doughnut economy (Ross, 2019) and the planetary boundaries framework (Rockström et al., 2009), extend this thinking by linking environmental boundaries to social foundations. These conceptualizations recognize that sustainability is not only about ecological limits, but also about cultural, economic, and spatial structures that influence human well-being over the long term.

Within the spatial landscape context, this calls for the need to balance the demands of present users with the stewardship of long-term values. Geels’ (2002) theory of sustainability transitions illustrates that change in systems of infrastructure, governance, and cultural norms are needed to reach this balance. However, this transition should not only be seen as a constraint, but as an opportunity to rethink societal

values, spatial development, and communities connections with their historical and ecological roots (Haworth, 1997).

Sustainable development and intergenerational thinking form a critical lens through which heritage in transition rural landscapes can be understood. It broadens the view on heritage from a passive legacy of the past, to a more active component in shaping long-term, just, and resilient futures.

2.2 Heritage and Cultural Landscapes

This sub chapter explores existing literature on heritage, cultural values, and cultural landscapes. The aim is not to define the concepts, but to explore the great variety of views and approaches in this topic.

2.2.1 Heritage

According to UNESCO (n.d.) “Heritage is our legacy from the past, what we live with today, and what we pass on to future generations. Our cultural and natural heritage are both irreplaceable sources of life and inspiration.” Therefore, UNESCO seeks to contribute to the identification, protection, and preservation of cultural and natural heritage, which is captured in the international treaty in 1972 (UNESCO, 1972). Article 1 states that cultural heritage includes monuments, groups of buildings, and sites which are of outstanding universal value from the historical, aesthetic, ethnological, art or science, or anthropological point of view. Article 2 formulates that natural heritage includes natural features, geological and physiological formations, and natural sites of outstanding universal value from the point of view of science, conservation, or natural beauty. The treaty is focused on conservation, preservation, and protection of these remarkable spaces.

In article 2 of the text of the Convention for the Safeguarding of the Intangible Cultural Heritage, UNESCO (2003) additionally defined intangible cultural heritage as “the practices, representations, expressions, knowledge, skills that communities, groups and, in some cases, individuals recognize as part of their cultural heritage. This intangible cultural heritage, transmitted from generation to generation, is constantly recreated by communities and groups in response to their environment, their interaction with nature and their history, and provides them with a sense of identity and continuity, thus promoting respect for cultural diversity and human creativity”.

Harrison (2010) acknowledges the distinction of heritage in natural and cultural heritage as a common way of classifying the concept. He refers to cultural heritage as “those things manufactured by humans”, and to natural heritage as “those which have not been manufactured by humans”. Additionally, Harrison elaborates on another distinction that aligns with the concepts of tangible and intangible heritage. He states that “practices of heritage are customs and habits which, although intangible, inform who we are as collectives, and help to create our collective social memory”. Moreover, he describes that “we use objects of heritage alongside practices of heritage to shape our ideas about our past, present, and future”. However, pressing contemporary social, economic, political, and environmental issues, provoke a tension between conservation and adaptation. Several scholars stress the need to reexplore the concept of heritage so that it can be connected more productively to these challenges (Harrison, 2012; Olivadese & Dindo 2024; Peterson, 2005; Sargent & Slaton, 2025).

Smith (2006), Lowenthal (1985), and Olivadese & Dindo (2024) also recognize heritage as a socially and politically influenced concept that is constantly revised and interpreted in the context of contemporary values and societal needs. Lowenthal (1985) examined the different approaches to preservation of cultural heritage and discovered that intangible heritage is valued as much as the tangible. Smith (2006) questions that heritage must be preserved because of inherent importance. He argues that the value of heritage is not captured into physical objects or places, but rather that these physical elements are used to translate

the values of different communities into something tangible. Lowenthal (1985) discusses that looking after heritage is challenging, since values of contemporary society differ from those of previous societies. Future generations will also have different value sets and this rises question about who decides what is considered heritage and how it adapts to changing contexts.

2.2.2 Cultural Landscapes

While heritage is often imaged in terms of tangible and intangible elements, such as monuments, artifacts, or traditions, there are also broader views that include a spatially embedded understanding of heritage. This involves shifting the focus from heritage elements and objects to cultural landscapes.

Cultural landscapes reflect the ongoing interaction between humans and their environments, including both material and immaterial dimensions. Salerno (2018) puts them as “the result of the combined work of man and nature,” while Sardaro et al. (2021) points out their relational character: landscapes are shaped by, and given meaning to, the communities that live in them. Peterson (2005) criticizes object-centered heritage practices as having a tendency to provide stereotypical or inflexible views of the past. He argues that what he refers to as a landscape-first approach should begin with establishing local landscape character and authenticity, before assessing which elements has historical value. This approach addresses landscape as a frame, where heritage values are shaped in. In line with this, Olivadese & Dindo (2024) also speak of the dynamic nature of cultural landscapes as being “living archives” that record the evolution of cultural identities and environmental care. These archives include material heritage, such as architecture and land use forms, as well as immaterial practices and knowledge systems. Above all, they are not static legacies but adaptive cultural systems connecting the past and the future.

A specific type of landscape that contains much cultural value are rural landscapes, which holds deep layers of human nature interaction, agricultural knowledge, and place-specific traditions. Havlíček (2024) defines historical cultural landscapes as those formed by long-term, sustainable land use, often without machinery. These landscapes are not only acknowledged as historical records, but also as archives of sustainable agricultural management that preserve biodiversity and landscape character. Ciona & Granata (2016) draw a distinction between rural and urban landscapes, with the rural landscapes being a complete environmental system, consisting of agricultural practices, food production, and traditional architecture. Similarly, Rahman (2018) emphasizes that rural landscapes are shaped by both natural resource use and cultural expressions. In this way, rural heritage forms both a material and symbolic expression of human existence over time. Pulpón et al. (2023) states that agriculture carries a cultural function itself, by shaping heritage through the long-term co-evolution of human practice and landscapes.

Knights (2014), further expands the idea of heritage by proposing the idea of cultural ecosystems, in which cultural value intersects with ecological functions and services. Knights (2014) describes that cultural ecosystems have many kinds of value: aesthetic, recreational, ecological, and historical. In this way, heritage is integrated within broader environmental systems that include both cultural meanings and ecosystem services, such as biodiversity, water regulation, or agricultural productivity.

2.3 Scope and Position of the Research

The overview above shows that there are endless views of heritage, values, cultural landscapes. This study therefore does not define these concepts, but rather explores different approaches. Exploring these approaches through intergenerational thinking, offers a new perspective. This provides future oriented perspectives that considers how different heritage approaches can reflect responsibilities over time. Through this lens, heritage is not only a legacy from the past, but a tool for ethical reflection that can give direction to sustainable spatial development. While acknowledging the close relation to tangible and intangible heritage, the scope of this research is limited to just tangible heritage. Moreover it focusses not

on urban landscapes, but only on rural areas. The consideration for this decision is the limited time that is available for this research.

This research is theoretically positioned at the intersection of heritage studies, intergenerational justice, and sustainable spatial development (figure 2.1). While heritage has often been approached as a spatial or cultural-historical concept, the ethical dimension of how heritage relates to future generations remains underexplored. Similarly, intergenerational thinking is increasingly present in sustainability literature, but its application within heritage theory is still limited. This research contributes to existing knowledge by conceptually linking heritage to intergenerational ethics and sustainable spatial development. It builds on fundamental theories from political philosophy, environmental ethics, and heritage studies to create a framework through which heritage can be explored as a future-oriented, just concept.

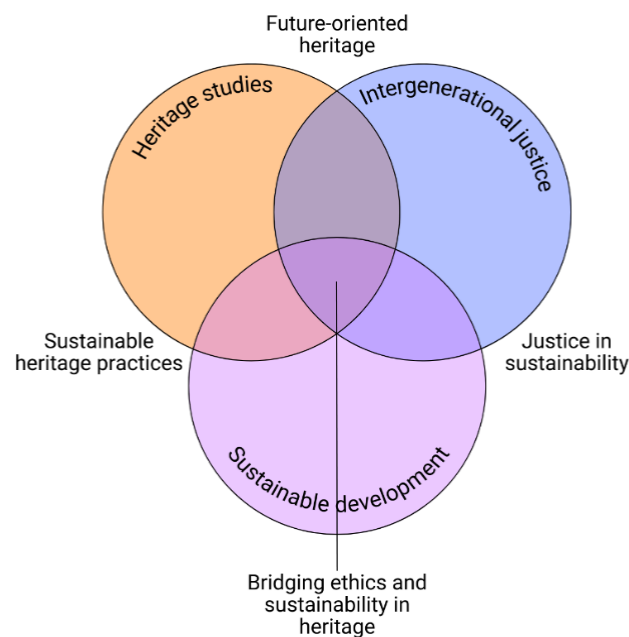


Figure 2.1: Theoretical framework.

3. Methodology

The methodology is composed of two parts: a conceptual and an empirical analysis. In the conceptual analysis, a systematic literature review is conducted to select, analyze, and synthesize relevant literature in order to design a typology of intergenerational heritage approaches. In the empirical analysis, the applicability of the typology is tested through expert interviews. These interviews explore the practical and institutional application, as well as the application to the context of the Green Heart, a complex rural area in need of a sustainability transition. Each part of the research contains its own research question, method, objective, and output as shown in figure 3.1 below. This chapter elaborates the research design.

Research question	How can intergenerational thinking help identify and inform heritage approaches in rural landscapes in need of sustainability transitions?	
Analysis	Conceptual analysis	Empirical analysis
Sub-research questions	SRQ1: What intergenerational approaches to heritage can be identified in academic literature, and how can they be synthesized into a typology relevant to rural landscapes?	SRQ2: To what extent is the typology applicable and meaningful in practice, particularly in the context of the Green Heart: a complex rural area in need of a sustainability transition?
Methods	Systematic literature review	Expert interviews
Objective	To identify and synthesize rural intergenerational heritage approaches found in existing literature.	To assess the practical relevance and usability of the typology in the context of the Green Heart.
Output	A typology of intergenerational heritage approaches, structured by core vision on heritage, intergenerational function, applications, and methods.	Insights into the typology's practical application and a revised typology.

Figure 3.1: The research design of this thesis, consisting of a conceptual and an empirical analysis. Each analysis has its own sub-research question, method, objective, and output. Together, they inform the main research question.

3.1 Systematic Literature Review

The conceptual analysis of heritage from an intergenerational perspective is aimed at answering the following sub-research question: *What intergenerational approaches to heritage can be identified in academic literature, and how can they be synthesized into a typology relevant to rural landscapes?* To answer the sub-research question, a systematic literature review was conducted. The literature search and selection followed the PRISMA structure (Liberati et al., 2009; Moher et al., 2010). After the screening and selection, a manageable number of articles remained for the analysis (Moher et al., 2010). From the selected studies, relevant data was extracted, coded, and thematically clustered. After this, the data was synthesized in a typology of intergenerational approaches to heritage in transitioning rural landscapes. This chapter explains the methods conducted for this conceptual exploration.

3.1.1 PRISMA

Systematic reviews should be reported fully and transparently to allow readers to assess the strengths and weaknesses of the research (Liberati et al., 2009). To ensure this, this research followed the PRISMA Statement. The aim of the PRISMA Statement is to improve the reporting of systematic reviews (Moher et al., 2010). PRISMA was initially designed for research in healthcare interventions, however, it can be used as a basis for reporting systematic reviews of any types of research (Moher et al., 2010). PRISMA helps to ensure transparency and understanding of the processes adopted and the limitations of the information presented in systematic reviews of different types (Liberati et al., 2009). The PRISMA flow diagram will help structure the literature searching and selection.

3.1.2 Literature Search

For the literature search, a defined but complete search query was needed to extract literature from available databases. To formulate this query, the sub-research question was first divided and translated into relevant scientific concepts and then into specific search terms. The PICOS approach, as described in box 2 in the paper of Liberati et al. (2009), was used for this process. Possible synonyms from different disciplines are included for each concept. Appendix 1 elaborates the PICOS approach and presents the final search terms.

During the search process, it became clear that very few peer-reviewed articles explicitly connect intergenerational thinking, heritage management, and sustainability transitions in rural contexts. Rather than interpreting this as a methodological limitation, this scarcity itself indicates a conceptual gap in the literature. This thesis aims to fill this gap by synthesizing intergenerational approaches to heritage and exploring their relevance in the context of rural landscape undergoing sustainability driven transitions.

Combining all four concepts (heritage management, rural landscape, sustainability transition, and intergenerational approaches) in one single search query, thus resulted in a very specific search query. Although sustainability transitions are a key contextual focus of this research, including this concept as a strict search term resulted in too few resulting records. Therefore, relevant literature was first identified based on broader concepts of heritage management, rural landscapes, and intergenerational thinking. To ensure that the context of sustainability transitions was included in the analysis, this concept was evaluated in a later stage of the literature search process during the screening and full-text analysis. These considerations for not explicitly including the context of sustainability transitions in the search query, resulted in the following search query:

("heritag*" OR "place-based value*" OR "places-based identity" OR "historic* value*" OR "cultural value*" OR "traditional knowledge") AND

("rural landscape*" OR "agricultural landscape*" OR "cultural landscape*" OR "historical landscape*" OR "rural area" OR "agricultural area") AND

("intergenerational*" OR "thinking across generations" OR "long-term thinking" OR "future generation*" OR "future-oriented planning" OR "long-term thinking" OR "temporal justice" OR "anticipatory governance" OR "future thinking" OR "environmental stewardship" OR "future strategies")

3.1.3 Data Selection

After the identification of the records through the literature search, a few steps were taken to determine which studies were included in the synthesis. The PRISMA flow diagram template in figure 3.2 summarizes the study selection process and includes the following steps (Liberati et al., 2009):

- Identification of records through database searching.
- Abstract and title screening of the identified records for broad relevance.
- Full-text screening of potentially relevant studies based on eligibility criteria.

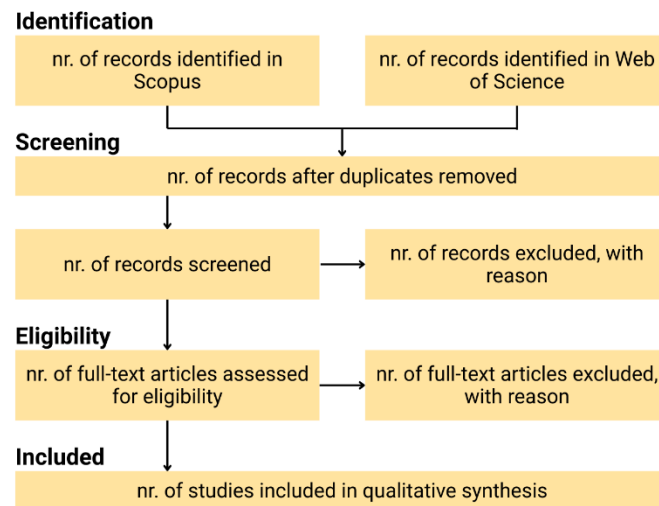


Figure 3.2: The PRISMA flow diagram template summarizes the literature identification, screening, and selection process.

Using the query, records are identified in both the Scopus and Web of Science databases. All types of documents were included in the search. In Scopus, the search terms were searched within the article title, abstract, and keywords. In Web of Science, the search terms were searched within the abstract. Duplicates were removed. During the first screening phase, all remaining records were assessed based on their title and abstract to determine preliminary relevance. The following screening criteria were applied:

- **English text:** the study is written in English.
- **Intergenerational approach:** the study includes a reference to intergenerational thinking, long-term responsibility, or future generations.
- **Rural/agricultural context:** the study focuses on rural or agricultural contexts.
- **Tangible cultural heritage:** the study discusses concepts related to tangible heritage management or cultural landscapes.

Studies that clearly did not meet these broad criteria, were excluded from further full-text analysis. When a study did not meet all criteria, but still seemed relevant in informing the typology, the study was included for the full-text analysis.

After the first screening phase, the full text of the remaining studies was assessed based on a set of eligibility criteria. These criteria were designed to ensure conceptual and contextual relevance for developing a typology of intergenerational heritage management in rural areas. The following eligibility criteria were required to include studies in the synthesis:

- **Intergenerational focus:** The study explicitly or implicitly addresses intergenerational values, responsibilities, or approaches within the context of heritage management.
- **Tangible heritage:** the research concerns cultural, historical, or landscape heritage that includes tangible elements.
- **Conceptual or theoretical contribution:** the study is conceptual or theoretical, or contains discussions of frameworks, models, or strategic approaches relevant to heritage management in (transitioning) rural landscapes.
- **Typological relevance:** the study offers insights that support the development of a typology of intergenerational heritage approaches in (transitioning) rural landscapes.

- **Rural or agricultural context:** the study focuses on rural, agricultural, or comparable settings in which cultural and natural/environmental dimensions intersect.
- **Spatial or landscape component:** the study engages with spatial planning, land use, landscape transformation, or the role of heritage in territorial development.
- **Change and transition:** the study addresses processes of change, transition, or adaptation in rural or cultural landscapes, even if not explicitly framed as sustainability transitions.

When studies met all the eligibility criteria, they were included for the synthesis.

3.1.4 Data Extraction, Coding & Clustering

After deciding what studies were included in the synthesis to create a typology, relevant data needed to be extracted and clustered to inform the typology. The first step was to extract relevant data. For each study, relevant information was highlighted and placed in a data-extraction document in Excel. Information that was relevant included:

- Titel, author, publication year
- Relevant core concepts
- Descriptions of intergenerational approaches to heritage
- Definitions of heritage
- Theories or frameworks
- Values (such as long-term thinking, visions on time frames, desires, responsibilities)
- Context (such as rural, landscape, transition, sustainability issues)
- Actors included

The extracted data was coded with the aim to recognize and identify patterns and repeated concepts. By inductive coding, the data extractions were read line for line to label meaningful terms, definitions, examples, and statements. Inductive coding was used to ensure flexibility and an open attitude towards new insights. The labels summarized and indicated the main theme of each data extraction.

The coded data was grouped in over coupling approaches by seeking connections and overlap between the codes. The codes were clustered based on e.g. shared values, attitude towards heritage, time horizon, actors involved, intergenerational values, and aim. Each group was eventually given its own approach name. This was an iterative process of revisiting the available data over and over, until suitable overarching approaches were formulated.

3.1.5 Typology Development

The resulted clustering was translated to clear approaches with characteristic features. For each approach in the typology these features were described. The features are:

- Name of the approach
- Core vision on heritage
- Intergenerational function
- Applications and methods from the literature (including a few illustrative examples)

The approaches were displayed in a table where the features form the columns. The resulting framework presents the typology that can be used to support reflection, dialogue, and strategy development for heritage in spatial planning contexts.

3.2 Empirical Analysis

The empirical analysis of this thesis is aimed at answering the following sub-research question: *To what extent is the typology applicable and meaningful in practice, particularly in the context of the Green Heart: a complex rural area in need of a sustainability transition?* To assess the practical relevance of the developed typology of intergenerational heritage approaches, semi-structured interviews with heritage experts were conducted. The aim of the interviews was to test both the practical and institutional application, as the application to the context of the Green Heart, a complex agricultural area in need of a sustainability transition. Moreover, the empirical findings provided practical insights that informed the revision and improvement of the typology.

3.2.1 Speaking Cards

In order to make the approaches more accessible to discuss, the typology was translated into speaking cards. Each speaking card represents one approach, with the corresponding core vision on heritage and the intergenerational function. Adding a symbol made the approach more recognizable. These cards made the subject easier to discuss both in the interviews and in practice. It was in fact the intention to open conversations with the approaches.

3.2.2 Applicability in Practice & in the Green Heart

The first aim of the expert interview was to explore the applicability of the typology in institutional and professional practice. This objective focused on whether the typology supports professionals in thinking differently about heritage by opening up new conversations. Additionally, whether it provide direction on discussions and decisions. Moreover, if it helps policy makers and designers to reflect more consciously on long-term value and future generations when making decisions about heritage.

The second aim was to evaluate its relevance within the specific context of the Green Heart, an agricultural landscape undergoing a complex sustainability transition. The second objective assessed whether the typology resonates with the specific challenges and opportunities of the Green Heart. This is a relevant test case, as much of the existing literature on intergenerational heritage approaches is situated in shrinking regions, where landscapes are being abandoned or degraded. In contrast, the Green Heart is facing transition pressure in a context of preservation, intensification, and climate adaptation.

3.2.3 Semi Structured Interviews

The two objectives were discussed in three interviews with heritage experts from different organizations. For this analysis, organizations of different scale levels were selected. This included a national, a regional and a local oriented organization. The interviewees all have expertise in heritage and have worked or are working on projects related to the Groene Hart. Table 3.1 shows the different interviewees. For ethical reasons, the names and specific functions of the interviewees are not shown. This allowed them to remain anonymous and speak freely. The interviews were semi-structured. The following two main questions were central with accompanying example questions:

1. Is the typology applicable from your field of work?
 - a. Do you recognize the approaches and terminology in the typology?
 - b. Do you miss any approaches?
 - c. Do you think it is useful for discussions about spatial planning and heritage?
 - d. Do you think it gives direction in discussions about heritage?
 - e. Do you think it can inspire people to look at heritage in new ways?
 - f. Do you think it helps to reflect more consciously on long-term value and future generations when making decisions about heritage?

- g. Do you have recommendations for improvement of the typology?
- 2. Is the typology applicable to discussions or projects specific in the Green Heart, a complex agricultural landscape in need of a sustainability transition?
 - a. Do you think these approaches are applicable in discussion and decisions about the Green Heart?
 - b. Do you think the Green Heart may have an additional approach that is not present in the typology?
 - c. Do you think the typology is useful in the specific context of the Green Heart?
 - d. Do you think the difference of shrink and growth areas may result in a different typology?

Table 3.1: Experts interviewed for the empirical analysis

<i>Expert number</i>	<i>Expertise</i>	<i>Organization</i>
1	Heritage & climate change, Green Heart	Rijksdienst voor het Cultureel Erfgoed (RCE) (National Cultural Heritage Agency)
2	Heritage, history, Green Heart, policy	Coördinatiebureau Groene Hart (Coordination Office Green Heart)
3	Landscape architecture, heritage, Green Heart	Vechtplassencommissie (Vechtplassen Committee)

3.2.4 Revision of the Speaking Cards

In the last step of the empirical analysis, the speaking cards were revised and sharpened based on the interview insights. This allowed for improved practical applicability and usability of the cards in the specific context of rural areas in need of sustainability transitions, such as the Green Heart. The design of the cards were adjusted based on these refinements.

4. Results

This chapter presents the results of the conceptual and empirical analysis that are conducted as described in the methodology (Chapter 3). In the first part, the output of the systematic literature review is shown, with as highlight the intergenerational heritage typology. In the second part, the results of the expert interviews from the empirical analysis are displayed. This entails a reflection of the practical applicability of the typology and a revised version of the typology.

4.1 Systematic Literature Review

This sub-chapter outlines the results of the systematic literature review. First, the resulting articles from the literature search and selection process are displayed. Then, the emerging intergenerational heritage approaches from the data extraction, coding, clustering, and synthesis are shortly introduced and demonstrated in the typology. Furthermore, the approaches are described, by elaborating on the core vision on heritage, the intergenerational function, examples of applications and methods from the literature, and finally a short reflection.

4.1.1 Literature Search and Selection

The literature search in the databases resulted in a total of 153 records. Figure 4.1 summarizes the literature search, screening, and selection processes. After the identification of records in the databases of Scopus and Web of Science and removal of duplicates, 123 records are left for the title and abstract screening. After screening on language and connection to intergenerational thinking, tangible cultural heritage, and rural landscapes, 61 articles are left for the full-text screening. For the full-text screening, the eligibility criteria as displayed in the data screening methodology (Section 3.1.3) are used. During this screening, 53 articles are excluded, resulting in 10 studies to inform the typology on intergenerational heritage approaches in agricultural landscapes. The database that details the screening process, can be requested from the author of this thesis.

In total, 10 studies are selected for the synthesis. Although this is a relatively limited amount of studies for a literature synthesis, it reflects the still limited amount of available literature on the specific intersection of heritage and intergenerational thinking in rural areas. However, these studies offer a rich and divers starting point for a first conceptual exploration of this thematic intersection, and form a solid base for the creation of a typology on intergenerational heritage approaches in rural areas.

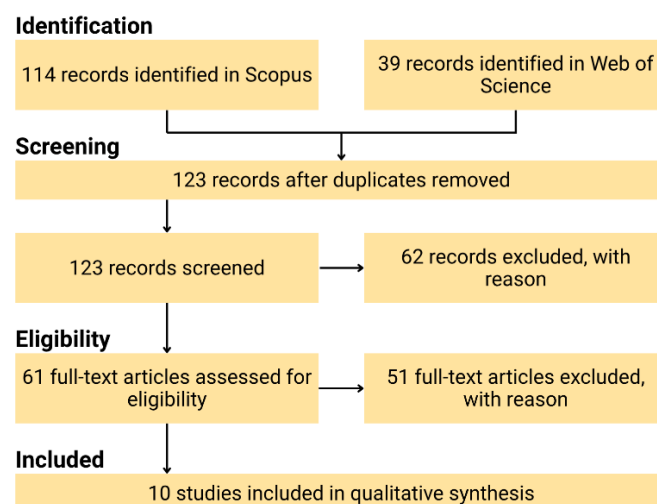


Figure 4.1: The PRISMA flow diagram summarizes the literature search, screening, and selection process.

The resulting studies are primarily theoretical and conceptual researches, which are valuable in informing the conceptual typology. However, also some more practical oriented (case) studies are available, which is valuable in displaying specific methods and examples. Topics include: intergenerational narrative in landscape preservation (Knights, 2014), bio-cultural model for biodiversity conservation (Watve & Chavan, 2020), far-sightedness revitalization (Salerno, 2018), landscape perception and awareness (Guilién-Peñafiel et al., 2024), indigenous biocultural lens and more. These diverse topics offer a rich variety of intergenerational perspectives on heritage to inform the typology.

4.1.2 Emerging Themes from the Data

While coding, analyzing, and clustering the data extractions of the included studies, six different preliminary intergenerational heritage themes emerge: preservation & documenting, participatory & community, ecologically, educational & awareness, economic & tourism, and integrated & development based. These data of the six themes form the basis for the typology and will each inform a unique approach. The themes are respectively linked to the following approaches: Preserve & Protect, Shared Legacy, Living Landscapes, Learning from Legacy, Heritage as Capital, and Legacy by Design. The synthesized typology is presented and described in the next section. De dataset detailing the process of inductive coding and clustering into themes can be requested from the author of this thesis.

4.1.3 Intergenerational Heritage Typology

Table 4.1 presents the final typology of intergenerational heritage approaches in rural landscapes. The approaches include: Preserve & Protect, Shared Legacy, Living Landscapes, Learning from Legacy, Heritage as Capital, and Legacy by Design. Each approach is distinctive in its core vision on heritage and its intergenerational function. Moreover, each approach has its own applications and methods. Appendix 2 provides an overview of what literature informed each approach.

Table 4.1: Typology of intergenerational heritage approaches in rural landscapes

<i>Approach</i>	<i>Core vision on heritage</i>	<i>Intergenerational function</i>	<i>Applications and methods</i>
Preserve & Protect	Heritage as an object of protection, preservation, and documentation	Safeguarding tangible heritage for transmission to future generations	Legal protection, restoration, documentation, UNESCO status, monument care, national labeling and recognition programs
Shared Legacy	Heritage as shared responsibility and ownership	Knowledge exchange and community bonding across generations	Bottom-up initiatives, embedded in local context, co-creation and participation, decentralized governance, indigenous methods
Heritage as Capital	Heritage as an economic resource	Current and future generations benefit from heritage through (sustainable) valorization	Labelization, sustainable tourism, valorization, tourism-oriented use, World Heritage branding, adaptive reuse of historical buildings
Living Landscapes	Ecology and biodiversity as heritage	Continuity of ecological and cultural values across generations	Biodiversity Heritage Sites, bio-cultural monitoring, indigenous stewardship systems, nature-culture connection, valuation of ecosystem services
Learning from Legacy	Heritage as a learning tool	Raising heritage awareness among current generations and educating future generations with heritage values	Co-design workshops, intergenerational knowledge transfer, storytelling, raising awareness, experiential learning activities, co-learning programs
Legacy by Design	Heritage as a catalyst for integrated development	Transfers dynamic cultural, ecological and social values to future generations as a living resource	Rural revitalization, SDG alignment, biocultural models, heritage-led regeneration, values-led planning frameworks

Before elaborating on the different approaches and their characteristics, figure 4.2 shows how the approaches relate to each other. The approaches are placed in the graph, based on their intergenerational function and core vision on heritage. On the y-axis there is a division from implicit to explicit intergenerational functions. On the x-axis there is a division from a traditional view of heritage to more broad, innovative, and transformative views of heritage. In the following paragraphs, the positions of the approaches in the graph will be explained shortly to offer a first overview of the different approaches. In the descriptions of the approaches further in this section, there is explained more in depth what all this exactly means.

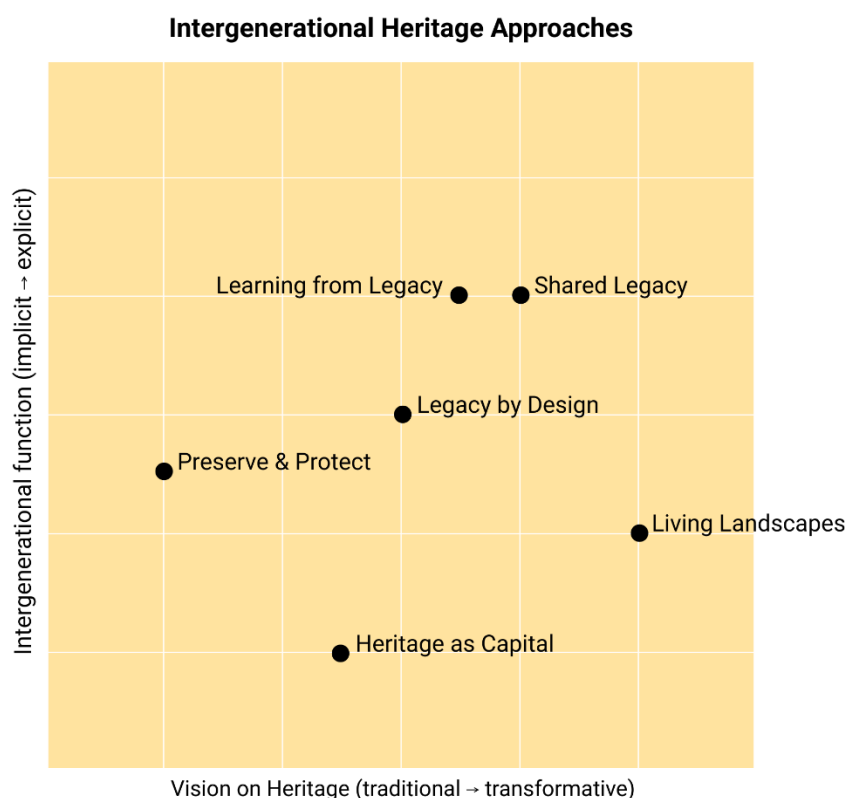


Figure 4.2: The international heritage approaches placed in a graph, based on their intergenerational function and core vision on heritage.

At the bottom on the graph, the approach Heritage as Capital is placed. The intergenerational function of this approach is very implicitly present. Engagement with intergenerational thinking is limited to the practical idea that heritage must be preserved and transmitted to future generations. Moreover, it is mainly focused on present day needs and desires for economic development instead of possible future ones. The core vision on heritage is somewhat traditional, since it focused on the preservation and transmission of the physical, cultural landscape elements how they are. However, it also offers a broader view by combining the conservation objectives with opportunities for economic development.

The approach Preserve & Protect has a slightly more explicit intergenerational function. Mainly the ethical motivation to transmit the heritage to future generations is explicitly mentioned. However, this remains at emphasizing this responsibility, without further reflection on which values could be important for future generations. The core vision on heritage in approach is therefore also very static and traditional. It focusses

on historical landscape elements that should be protected the way they are at all costs. Only if this really does not seem to work, more attention will be paid to mitigation and more adaptive ways of conservation.

The Living Landscapes approach, on the other hand, offers a way more broad view on heritage. This approach includes an extreme broad vision, in which ecology and biodiversity are viewed as heritage. This is where the idea of preserving historical landscape elements as they are is abandoned, offering an innovative perspective. Also in this approach, the intergenerational function is implicitly present. There is a motivation to preserve these natural values and to transmit them to future generations, but there is limited reflection offered on the actual possible wishes or needs of future generations. Moreover, there is a strong focus on the wishes of contemporary communities.

The approach Legacy by Design is positioned in the center of the graph. The intergenerational function is more focused on future flexibility, however, there is still not very explicitly reflected on possible values and wishes of future generations. It is focused mainly on territorial development for the benefit of contemporary communities. In this approach, heritage is slightly more broadly applicable and interpretable than in Heritage as Capital, as it is viewed as a central process in sustainable development. However, it is still centered around the idea of keeping heritage elements as they originally are, but then in combination with using them for possible other integrated purposes.

The Learning from Legacy approach, stretches the vision on heritage slightly more. It views heritage as something that is freely interpenetrative and can be given different meanings by different people. It is not only focused on historical objects, but also on other values such as indigenous knowledge and practices. The intergenerational function is explicitly present in this approach. There is much attention for intergenerational knowledge transmission to future generations. However, the focus is on a relatively short time span, by focusing on knowledge exchange between contemporary young and old generations.

The same goes for the Shared Legacy approach. Here, there is a focus on intergenerational communication and dialogue, and the creation of participatory systems that enable flexibility and openness for future generations. This makes the intergenerational function explicitly present. However, the reflection on values of future generations is limited, and the approach is focused on contemporary community bonding. Similarly as in Learning from Legacy, the vision on heritage in Shared Legacy is dynamic. This approach emphasizes that the value and perception of heritage depends on its context and setting. Moreover, its interpretation changes over different generations and by different communities.

What is striking about the graph is that it does not show an approach with a traditional view of heritage and an explicit intergenerational function. Does that mean that these factors contradict each other? That an explicit intergenerational function requires a broader view on heritage? In addition, there is still room in the graph for approaches that have a strong explicit intergenerational function. This requires recognizing and guaranteeing flexibility for the future, with space and possibilities in which future generations can make their own choices and determined their own values.

4.1.4 Descriptions of the Intergenerational Heritage Approaches

This section elaborates on the different approaches of the intergenerational heritage typology (Table 4.1). For each approach the following aspects are described: core vision on heritage, intergenerational function, applications and methods, and reflections and tensions.

Preserve & Protect

Core vision on heritage

The approach Preserve & Protect views heritage as a material and symbolic legacy that must be carefully safeguarded and passed on. Heritage needs to be documented, protected, preserved, and even restored. Important in this approach is continuity, authenticity, and integrity (Esposito & Cavelzani, 2006). As Sargent & Slaton (2015) define: “Integrity is the ability of a property to convey its historic significance.” Heritage is seen as irreplaceable carrier of values, traditions, narratives, memory, and identity. Therefore, it should be safeguarded for future generations by means of documentation, legal protection, and restoration to avoid loss (Sargent & Slaton 2015; Watve & Chavan, 2020). For the restoration, it is crucial to use historically accurate materials and practices. As Esposito & Cavelzani (2006) say, “all conservation treatments must respect the existing fabric and maintain authenticity in materials, design, workmanship and setting.” The central aim of this approach is to ensure continuity by maintaining integrity and visibility of tangible heritage elements, such as buildings, landscapes, and monuments. Sargent & Slaton adds on this the importance of maintenance of “integrity of setting, feeling, and association”.

A well-known international framework that connects to this approach is the World Heritage List from the World Heritage Convention that aims at the conservation of “Outstanding Universal Values.” These values are assessed based on cultural and natural criteria and carefully documented and managed (Esposito & Cavelzani, 2006). They emphasize: “The primary management responsibility is to conserve and protect the ‘outstanding universal values’ for which the landscape was inscribed.” Sargent & Slaton (2015) emphasize that it is important to prevent irreversible loss: “We are faced with the possibility that these places, once lost, will cease to exist unless we keep their personal stories and meaning alive.”

Intergenerational function

What makes this approach intergenerational is the ethical and moral responsibility it assumes between past, present, and future. This includes ensuring continuity and respect for past generations and transmitting cultural values to future generations. Knights (2014) explains: “the intergenerational contract imposes an obligation on us to preserve (and, where necessary, restore) and pay respectful attention to the objects, traditions and environments that our predecessors valued.” If we fail to do so, it may cause harm: “in destroying the cultural ecosystems that they created [...] we end their narrative in a sorrowful way” (Knights, 2014). More focused on the ethical obligation to future generations, Ducros (2017) positions heritage preservation in the same triangle of “conservation, continuity and legacy” as sustainable development. He frames heritage as a non-renewable resource that must be transmitted to future generations.

While there is a clear emphasis on ethical stewardship to past and future generations, this approach has a static perspective on heritage. It is focused on the careful safeguarding and transmission of values and structures. However, it does not highlight principles of flexibility, reinterpretation, or decision opportunities for future generations.

Applications and methods

Typical applications and methods within this approach include:

- Legal protection of historic and cultural values (Watve & Chavan, 2020)
- Inventorying and documentation of cultural values (Esposito & Cavelzani, 2006; Sargent & Slaton, 2015)
- Restoration using historically accurate materials and techniques (Knights, 2014; Esposito & Cavelzani, 2006)
- World Heritage designation (Esposito & Cavelzani, 2006)
- Disaster and climate risk preparedness (Salerno, 2018; Sargent & Slaton, 2015)
- Replication, relocation, and elevation of structures (Sargent & Slaton, 2015)
- Conservation of traditional cultural ecosystems (Knights, 2014)
- National labeling and recognition programs to promote cultural sustainability (Ducros, 2017)

An example comes from Knights (2014), who outlines the restoration of traditional coppice woodland. Restoring this landscape does not only bring back ecological functions but also honors the lives and narratives of past generations who lived in close relation with these landscapes. Moreover, Salerno (2018) cited the Handbook for Conservation and Management devoted to World Heritage Cultural Landscapes that provides guidelines for risk assessment and emergency planning to protect heritage from different hazards and pressures on heritage. UNESCO is engaged in the conservation, restoration, and protection of cultural landscapes with “outstanding universal values” by inscribing the landscapes on the World Heritage List (Esposito & Cavelzani, 2006). Sargent & Slaton (2015) describe the documentation and relocation of vulnerable structures in coastal millages to mitigate rising sea levels.

Reflections and tensions

While this approach provides strong continuity and helps safeguard cultural structures and values, it also raises question in the face of changing landscapes, climate, and environmental goals. A tension that arises in this approach is the balancing between the moral obligation to preserve and the practical need to change. Climate change challenges the feasibility of maintaining physical integrity. As Sargent & Slaton (2015) note, preservationist need to adapt strategies to support resilient systems “that anticipate change, heal themselves, and have the ability to reorganize [...] even under radically changed circumstance. [...] Critical cultural components of resilient systems are flexibility, adaptability, and versatility.”

Prevention for loss is not always possible. This leads to current generations to make decisions on which aspects of heritage to protect and how. These decisions include trade-offs in integrity, such as choosing for documentation rather than physical conservation (Sargent & Slaton, 2015). Sargent & Slaton (2015) note: “there are some aspects of integrity that are more important than others,” and they acknowledge acceptable degrees of loss. These decisions aim to prevent total loss. However, making these decisions, close off certain options for future generations, raising the question who gets to decide what is worth keeping and how.

Shared Legacy

Core vision on heritage

In the Shared Legacy approach, heritage is seen as a collective asset that belongs to and is shaped by communities. Heritage is not something that is defined and managed by institutions or experts, but it is a shared responsibility. This approach includes bottom-up involvement and community empowerment. As Ducros (2017) explains, it puts “local people’s involvement over curators’, experts’ or politicians’” and

empowers them to use heritage to “utilizing their heritage to construct identities of communities, sites, places and individuals.”

Next to bottom-up governance, shared decision-making, and community participation, this approach recognizes the importance of locally embedded and traditional knowledge and perspectives. Marshall et al. (2022) describes how Traditional Owners and scientific experts together manage heritage by combining “traditional and scientific knowledge systems”. Communities care for the physical landscape, but also for the meanings and stories to be passed on the future generations (Guillién-Peñafiel et al., 2024; Reihana et al., 2023).

The aim of this approach is not only to safeguard heritage and meaning, but also to make it inclusive, meaningful, future-oriented. In this way it can strengthen community bonds. This is achieved by participatory mechanisms and decentralized governance structures (Watve & Chavan, 2020).

Intergenerational function

The intergenerational function in the Shared Legacy approach is practical and socially focused. It is focused on the continuity of cultural knowledge, practices, and community responsibility across generations. This approach contributes to the intergenerational obligations by transmitting heritage by shared experiences and participation across generations.

Guillién-Peñafiel et al. (2024) describe how heritage “has been transmitted through different generations, enriching the social fabric and strengthening community ties.” Moreover, Reihana et al. (2023) describe how Māori communities co-create shared visions and frameworks to guide decision-making. They aim to “provide community discussions” and strengthen “connection to place.” This provides space and flexibility for new generations to participate in shaping their environment, culture, and identity.

Co-creation with different generations promotes intergenerational communication and dialogue. Amaro & Oliveira (2019) explain a specific intergenerational co-creation. In their project older and younger generations together design playful and game-based heritage experiences. Older generations bring traditional heritage knowledge and younger generations bring technological skills and curiosity. Marshall et al. (2022) also describe how younger rangers in Kakadu work together with Traditional Owners, so that western science and indigenous knowledge can be combined in preservation.

In this way, the Shared Legacy approach promotes intergenerational dialogue and ensures future generations are considered and involved. Intergenerational thinking here means passing on responsibility, knowledge, and a sense of belonging. In this way, communities can care for their heritage over time.

Applications and methods

Common methods and tools associated with the Shared Legacy approach include:

- Co-developed heritage strategies that reflect local values (Ducros, 2017; Salerno, 2018)
- Participatory, decentralized governance structures for collaborative decision-making (Watve & Chavan, 2020)
- Participatory mapping and documentation of cultural values (Watve & Chavan, 2020; Reihana et al, 2023)
- Workshops and public co-design processes in heritage interpretation (Ducros, 2017)
- Heritage as identity-building in place-making and landscape interpretation (Salerno, 2018)
- Legal empowerment and local monitoring mechanisms to support landscape stewardship (Watve & Chavan, 2020)
- Intergenerational co-creation in game-based heritage experiences (Amaro & Oliveira, 2019)

- Integration of indigenous and western methodologies in conservation programs (Marshall et al., 2022; Reihana et al., 2023)

A clear example is the participatory declaration of Biodiversity Heritage Sites (BHS) in India, which requires collaboration between community members, local administrations, and experts to recognize and protect cultural landscapes (Watve & Chavan, 2020). Similarly, Ducros (2017) highlights heritage initiatives where “people have opportunities to intervene in construction through workshops,” reinforcing their stake in shaping the meaning and future of a site. Moreover, Amaro & Oliveira (2019) describe the co-creation of playful and game-based heritage experiences.

Reflections and tensions

While this approach is focused on inclusion and local empowerment, it also raises certain challenges. Power imbalances, uneven participation, or lack of capacity can make democratic heritage governance complicated (Gao et al., 2021). As Esposito & Cavelzani (2006) note, effective communication becomes essential “when so many players are involved.” A tension lays on the balance between broad participation and efficient decision-making. As Salerno (2018) notes, bottom-up processes require time, dialogue, and coordination of many opinions. This may complicate implementations and planning.

Another concern relates to shifting baselines and perceptions across generations. Younger generations may not recognize the loss of cultural values as they never experiences the higher values from the past. Reihana et al (2023) states: “what is yet to be considered is how to mitigate shifting baselines across the generations, and whether that matters. This raises questions about how to maintain continuity and meaning of values across generations.

Furthermore, this approach aims to involve younger generations in heritage decisions. However, is this a good representation of future generations? It remains difficult to represent future generations that are not yet born. There lays a challenge in including long-term interests of generations who cannot yet speak for themselves in participatory decisions.

Living Landscapes

Core vision on heritage

The approach Living Landscapes expands the concept of heritage by including ecological components such as ecosystem services and biodiversity in our legacy. It recognizes the interdependence between ecological integrity and cultural continuity. As Watve & Chavan (2020) state, “Biological diversity has been the basis of human existence on planet earth. Local communities have learnt to use, manage and respect it over centuries. [...] This is our true heritage passed from generation to generation.” They provide the concept of Biodiversity Heritage Sites, which “accept biodiversity as a form of heritage, which sets in apart from other types of Protected Areas.” Similarly, Reihana et al. (2023) introduce bio-cultural approaches that considers “a whole forest system and its capacity to reflect significant values.” This calls for a shift from “people centric” to “nature centric” goals and outcomes. This includes an Indigenous view on stewardship, where natural systems are respected and cared for as cultural and spiritual assets (Reihana et al., 2023). The aim of this approach is to protect healthy natural areas, ecological values, and biodiversity, both as ecological needs and as essential components of heritage. This includes a “vision of the world living in harmony with nature” (Reihana et al., 2023) and a “strong connection of humans with mother nature” (Watve & Chavan, 2020).

In the Living Landscapes approach, the intergenerational function is mainly expressed in the moral responsibility to preserve ecological systems for future generations. This is reflected in the desire to

protect biodiversity, ecosystem services, and healthy environments over the long term. Watve & Chavan (2020) explain that this can be done by the selection and identification of Local Biodiversity Heritage Sites, “which will be a true legacy left by present generations for the future global citizens.” They continue that these landscapes are managed with the aim “to preserve the genes, species, ecosystems and the ecosystem services for future generations.” They illustrate the example of the protection of sacred groves in India. These landscapes are not only being conserved for their ecological value, but also because they “demonstrate ecological prudence, a value that needs to be culturally transferred to the future generations” (Watve & Chavan, 2020). The sacred groves are viewed as living legacies, that show the connection between humans and nature, and this connection must be maintained in the future.

Similarly Reihana et al. (2023) describe how the environment provides resources and well-being today, and that in return, it must be protected so that future generations can also benefit from it. They mention the indigenous Māori concept of *whakapapa* that “has an exception of reciprocation of which the provision of the resources is to be nurtured and sustainably used, in order to provide for future generations.” In the articles of Reihana et al. (2023) and Watve & Chavan (2020), there is a emphasis on present-day stewardship and living in harmony with nature, and that these values must be maintained in the future. They link ecological care to long-term sustainability and thinking.

Applications and methods

Green Heritage can be supported through a wide range of ecological and policy tools that emphasize integration of nature and culture:

- Designation of Biodiversity Heritage Sites (BHS) based on ecological and cultural value (Watve & Chavan, 2020)
- Community-led sacred grove protection that preserves biodiversity (Watve & Chavan, 2020)
- Biocultural monitoring tools that connect ecological indicators with local knowledge systems (Reihana et al., 2023)
- Use of Indigenous stewardship systems such as *kaitiakitanga* for environmental guardianship (Reihana et al., 2023)
- Monitoring forest health with cultural indicators such as bird species (Reihana et al., 2023)
- Place-based conservation strategies focused on cultural connection to nature (Reihana et al., 2023)
- Valuation and safeguarding of ecosystem services (Watve & Chavan, 2020)
- Incorporation of biodiversity values into legislation and policy frameworks (Watve & Chavan, 2020)

For example Watve & Chavan (2020) describe an example of the practice of designation of Biodiversity Heritage Sites (BHS) in India, which protect areas based on ecological and cultural significance. These areas often include sacred groves. These are traditionally protected forests that support rare species, while also maintaining cultural practices (Watve & Chavan, 2020). As an OECM (Other Effective Conservation Measure), they preserve not only habitats and species, but also the associated culture of careful use of nature. The cultural protection of nature has ensured the survival of endangered species, hydrological functions, and intact old-growth vegetation, while also embodying values that future generations can inherit, both ecologically and morally (Watve & Chavan, 2020).

Reflections and tensions

The Living Landscapes approach expands the concept of heritage by including ecosystems, biodiversity, and natural values. This ecological focus responds to urgent environmental challenges, however, it also raises some critical questions. When we label nature as heritage, do we reinforce its cultural significance,

or do we stretch the concept of heritage so far that it risks losing its cultural value? Who decides which values are preserved and what is passed on as 'heritage'?

For example, Knights (2014) notes that rewilding and ecological restoration sometimes disregard traditional cultural landscapes, risking a loss of historical identity. The inclusion of biodiversity as heritage, as seen in the Biodiversity Heritage Sites, reflects a shift in priorities (Watve & Chavan, 2020). It equates ecological, cultural and historical values, but this can blur boundaries. Is heritage still about shared histories, meanings, and identities, or does it become an instrument for nature conservation policy?

Moreover, the approach seems to be the result of the desire of present (indigenous) communities to live in balance with nature, framing conserved landscape as a “a true legacy left by the present generations for the future global citizens” (Watve & Chavan, 2020). However, to what extent are future generations truly considered? By preserving the ecosystems based on today's priorities, their preferences, needs, or visions are assumed to be the same as the ones from current generations. In this way, the intergenerational function in this approach overlaps with the motivation and desires of the current generations. Thus, is this approach really rooted in intergenerational thinking?

Learning from Legacy

Core vision on heritage

In the Learning from Legacy approach, heritage is viewed as a source of knowledge and cultural memory. Awareness and education can contribute to the transmission to future generations. Learning from Legacy is not just focused on the preservation of heritage, but also is about understanding, appreciating, and engaging with our heritage. Guillén-Pañefiel et al. (2024) argues “for individuals to commit themselves to the care and transmission of heritage, it is first necessary that they know, understand and value it.” Ducros (2017) continues “we must educate people. We must make the past re-live and be visible, and be appreciated.”

Heritage does not just include physical objects that must be preserved, but as something that can be interpreted and communicated. It enables people to understand the past, find identity in the present, and make conscious decisions about the future. In other words, heritage is an educational tool that can be used to build awareness, strengthen cultural identity, and stimulate stewardship. Guillén-Pañefiel et al. (2024) explains, “educational work with these elements from an early stage is essential to promote the connection with the local environment, foster environmental awareness and preserve the local culture.” Cultural identity is something that depends on awareness and engagement. As Esposito & Cavelzani (2006) note, “awareness is a precious instrument of educational empowerment and identity recognition and pride.” The goal of this approach is to create opportunities for people to learn about heritage and to connect with it in meaningful ways. This creates a sense of responsibility to preserve the heritage.

Intergenerational function

The intergenerational function in the approach Learning from Legacy is reflected in the idea that heritage must be understood valued, and transmitted to future generations. This can be done by awareness raising and educating current and future generations. Esposito & Cavelzani (2006) stress that there is a “lack of awareness and general education about World Heritage values.” Marshall et al (2022) state that: “teaching the next generation became critical as many old people were passing on and there were fears that this knowledge would be lost.” Moreover, they explain how national programs bring together younger and older generations: “getting families, old people and the young back to Country [...] supports intergenerational exchange of knowledge, maintaining culture and connections to kin, Country and language.”

Similarly, Reihana et al. (2023) explain how young generations learn about traditional knowledge from older aboriginal generations by the “sharing of knowledge through the generations from the sharing of tribal practices of living and being.” Moreover, Reihana et al. (2023) explain the indigenous concept of “taonga tuku iho” as “treasures passed down to us from our ancestors.” Moreover, Amaro & Oliveira (2019) try to enhance intergenerational knowledge exchange by co-creating with young and old generations. “The LOCUS project [...] supports playful intergenerational engagement in creating and exploring cultural contents and learning about cultural heritage.”

The intergenerational knowledge transfer can take place through experiential learning. For example, Guillén- Peñafiel et al. (2024) describe educational programs where young generations engage with and learn about heritage by visiting rural cultural landscapes and experiencing traditional practices. The study shows that “the methodologies and activities best valued by students are those that involve a direct visit to the natural environment and that offer a sensory experience.” Moreover, Watve & Chavan (2020) describe how cultural landscapes can function as “open laboratories for nature education,” helping young people develop ecological understanding.

Applications and methods

Strategies and tools within the Learning from Legacy approach include:

- Co-design workshops with different generations for heritage interpretation and knowledge transfer (Amaro & Oliveira, 2019)
- Ecomuseums and living history sites (Ducros, 2017)
- Heritage education programs in schools and public spaces (Watve & Chavan, 2020)
- Experiential learning activities such as guided visits, workshops, and sensory encounters with local heritage (Guillén-Pañefiel et al., 2024)
- Storytelling for intergenerational knowledge transfer between younger and older generations (Marshall et al., 2022; Reihana et al., 2023)
- Using Local Biodiversity Heritage Sites as open laboratories for education at schools (Watve & Chavan, 2020)
- Playful gamified heritage experiences (Amaro & Oliveira, 2019)
- Use of the World Heritage Label to raise awareness and strengthen identity (Esposito & Cavelzani, 2006)
- Co-learning programs for rangers, park staff, and aboriginal people for heritage conservation (Marshall et al., 2022)

For example, the World Heritage logo is next to a conservation label, also an awareness-raising and cultural empowerment instrument. It helps communities connect pride and identity to the landscapes they inhabit (Esposito & Cavelzani, 2006). Furthermore, programs like LOCUS aim to bring younger and older generations together in heritage creation, experience, and learning (Amaro & Oliveira, 2019).

Reflections and tensions

The Learning by Legacy approach is focused on awareness, education, and direct knowledge transfer between older and younger generations. Marshall et al. (2022) emphasized the importance of teaching the next generations to prevent knowledge loss when older people are passing. This makes it explicit intergenerational, but mainly between current living generations. This raises the question: what about the future generations? How can we ensure that knowledge is not only transferred to younger generations, but is also available and meaningful for generations further in the future?

Furthermore, is knowledge transmission and raising awareness enough? Guillén-Pañefiel et al. (2024) state “the knowledge and understanding of heritage and its environment is the first step to value it and become involved in its conservation.” Knowledge alone does not guarantee actions, and this approach does not reflect on what the steps after this first step of understanding should be. However, this approach offers opportunities to interpretation and flexibility. By focusing on experiential learning and exploration of heritage, it can be reimagined by future generations. Allowing them to find their own ways and meanings.

Heritage as Capital

Core vision on heritage

The approach Heritage as Capital views heritage as a resources that holds both symbolic and economic value. For this reason, it is not only something to be preserved, but also something that can be actively used to support local economies. This can be done through place branding and tourism. As Ducros (2017) explains, “heritage constitutes a symbolic capital, that through its contribution to the rural tourism industry, becomes an economic resource.”

This approach combines heritage conservation with economic development, by integrating cultural and economic goals. As Salerno (2018) states, “conservation policy should not only address the protection of buildings or artworks, but also consider the whole place’s economic situation.” According to Ducros (2017), “tourism is one sector where economic and cultural sustainability meet.” Ducros (2017) explains how protection strategies such as territorial labalization and ecomuseum practices, can help with valorization of heritage in fragile eras. “Their approach to landscape is holistic, linking nature and cultural in their rural regeneration project where local tangible and intangible heritage is volarized through preservation and restoration initiatives” (Ducros, 2017).

Thus, the aim in this approach is twofold. On one hand the conservation of cultural heritage, and on the other hand the generation of economic benefits to sustain local areas. This makes heritage a “value-adding activity” as Esposito & Cavelzani (2006). They continue: “Tourism should be regarded as a positive influence on management of cultural landscapes and, of managed correctly, will build support for the conservation of cultural and natural heritage and provide income to assist those living in or managing the landscape.”

Intergenerational function

The intergenerational function in the Heritage as Capital approach, is mainly implicit and practical oriented. In this approach, there is no emphasis on explicit moral obligations to future generations. It assumes that preserving and valorizing heritage today will contribute to long-term benefits. As Ducros (2017) states, sustainability means “preserving and valorizing the resources we have already [...] to be economically viable and have a future, as a community, as a village.” In this way, intergenerational thinking is reflected in the idea of community continuity and future viability of local regions.

The goal is not only to preserve heritage for its cultural values, but to ensure that it remains meaningful and viable for future generations through its economic potential. However, the intergenerational lens here is mainly driven by present day needs and desires to revalue inland and fragile landscapes (Ducros, 2017; Salerno, 2018). Moreover, it assumes this leads to economic and cultural continuity on the long-term, without explicitly reflecting on the rights and preferences of future generations. As Salerno (2018) notes, there lays a challenge in how to integrate “new and different visions capable of taking responsibility for these territories that tend to be excluded from the spotlight of tourism.”

Applications and methods

The Heritage as Capital approach includes strategies that connect conservation to economic value creation, such as:

- Territorial labalization and ecomuseums to develop heritage tourism (Ducros, 2017)
- Cultural tourism development by creating attractions, experiences, and narratives linked to heritage (Esposito & Cavelzani, 2006)
- Heritage based economic revitalization in fragile villages with economic decline (Salerno, 2018)
- Development of playful and tech-based heritage experiences, such as interactive storytelling (Amro & Oliveira, 2019)
- World Heritage branding to increase visibility, tourism, and funding (Esposito & Cavelzani, 2006)
- Combining preservation and utilization in heritage restoration, such as adaptive reuse of historical buildings (Salerno, 2018)

For example, in the Ecomusée d'Alsace, Ducros (2017) describes how village houses are preserved and transformed into interpretive experiences. Visitors engage with a created “sense of place,” transforming the site into a performative and economic landscape, where heritage transmission and economic development go together hand in hand.

Reflections and tensions

This approach offers promising opportunities in combining heritage conservation and economic development. However, these practices also raises tensions and questions. Firstly, there is a risk of commodifying heritage than can lead to the loss of authenticity. When focusing to much on marketable elements that are interesting to attract tourists, this can have a negative impact on historical and cultural values. As Ducros (2017) states, “labelization is as much about the quest for visibility and recognition” as it is about identity, which may pressure to present heritage in appealing ways. Moreover, economically focused development goals may shift the attention away from less marketable heritage elements. In this way, conservation may become dependent on the potential of economic utilization, instead of the intrinsic cultural or historical value of heritage. Lastly, intergenerational obligations are rarely explicitly mentioned in this approach. Economic sustainability benefits future generations, but it is not reflected who decides which heritage should be preserved and how flexibility is ensured for future societies to choose their own priorities. Also in this approach, the question whether the approach is really rooted in intergenerational thinking arises.

Legacy by Design

Core vision on heritage

The Legacy by Design approach views heritage as a catalyst for sustainable and inclusive territorial development (Ducros, 2024). It builds on the idea that heritage is not static, but a transformative process that can align past, present, and future needs “as steward of the past, and catalyst for the future” (Ducros, 2024). Watve & Chavan (2020) add on this that it is rather about “the interpretation of heritage as a process than as a product” and that “*heritageisation* as a social process can become a transformative process, that can aid conservation, sustainable management and inclusive development.”

Instead of preserving cultural assets just for their historical value, this approach puts heritage and culture at the center of sustainable development. Ducros (2017) states that “development includes culture, and cultural diversity is one pillar of sustainable development.” Salerno (2018) and Guillén-Peñafiel et al. (2024) explain that heritage can support revitalization of neglected and abandoned rural areas. Guillén-

Peñafiel et al. (2024) state that “in rural areas, heritage-based tourism can play an important role in counteracting population decline, economic hardship and the loss of trades and traditions”. Salerno (2018) proposes starting from “a values-led strategy involving people, mobilizing economies, and incorporating technologies.” This can be reached by integrating, economic, social, environmental, and cultural sustainability goals, with “valuation from an environmental, social, cultural, educational and recreational perspective” (Guillén-Peñafiel et al., 2024). Ducros adds that “heritage-making cannot be separated from sustainable development policies as they overlap in their core transmission ideology.”

Intergenerational function

The intergenerational function of the Legacy by Design approach lies in its future-oriented interpretation of heritage. Instead of focusing just on preserving the physical objects, this perspective views heritage as a dynamic process that helps in shaping sustainable futures. For example, Watve & Chavan (2020) explain how “the real strength of the concept of Biodiversity Heritage Sites, is a broad definition and flexibility in the criteria that protects the dynamism of bio-cultural values, making it most suitable for sustainable futures.”

This approach acknowledges that we must keep evolving heritage to remain relevant across generations. Salerno (2018) emphasizes the importance of “practical actions that would permit us to leave future generations an inheritance of areas and landscapes shaped by the work and knowledge of previous generations.” In this way, heritage is not only focusing on values of the past, but also on the transmission of values, knowledge, and meaning in a way that enables adaptability in the future. Ducros (2017) contributes to this with his statement that cultural heritage should be seen “as much as a steward of the past as catalyst for the future of rural territories.” In this way, heritage is used to strengthen social cohesion and provide long-term visions that benefit current and future generations. Moreover, the integration of sustainable development and heritage planning allows next generations to enjoy not just preserved places, but more resilient and livable territories. Was Watve & Chavan (2020) explain, “it is this positive value which will be based onto future generations rather than just physical artefacts.” By seeing heritage as a process instead of a fixed object, it acknowledges different interpretations of heritage and ensures flexibility for the future, ensuring a meaningful, adaptive, and inclusive legacy.

Applications and methods

This approach includes integrative methods, where heritage is integrated in spatial, social, and environmental, economic, and cultural goals for territorial development:

- Revitalization of “not outstanding” rural areas through heritage-based development (Salerno, 2018)
- Use of heritage labels and eco-labels to boost visibility and sustainability (Ducros, 2017)
- Alignment of Sustainable Development Goals and heritage conservation (Watve & Chavan, 2020)
- Heritage-driven rural revitalization projects (Ducros, 2017)
- Community-driven heritage projects for place-based regeneration (Ducros, 2017)
- Creation of mixed-used and multifunctional heritage spaces that combine conservation with innovation (Ducros, 2017)
- Values-led planning frameworks that link heritage conservation to social and economic goals (Salerno, 2018)
- Biocultural conservation models, such as Biodiversity Heritage Sites (Watve & Chavan, 2020)

For example, the European Commission’s ARCADE Project places heritage at the center of sustainability agendas by aligning landscape, culture, and quality of life (Ducros, 2017). Similarly, Salerno (2018) calls

for strategies that combine conservation with innovation. Moreover, Watve & Chavan (2020) explain how Biodiversity Heritage Sites integrate ecological and cultural goals to combine heritage conservation with sustainable rural environments.

Reflections and tensions

The Legacy by Design approach enables flexibility and open options for future generations. However, intergenerational obligations are not often explicitly mentioned. The focus is mainly on the revitalization of territories in the present, focusing on current economic, social, and environmental needs and with the assumption that future generations will benefit from the resulting sustainable and thriving places as well (Salerno, 2018).

The integration of environmental, economic, social, and cultural goals leads to great complexity. Watve & Chavan (2020) emphasize that heritage values are dynamic and evolving. The integration of heritage conservation in sustainable development requires balancing many competing current and future interests, values, and needs. Moreover, this approach does not detail how to monitor or include future values. How can development plans remain open to reinterpretation? Still, viewing heritage as a process instead of a product (Watve & Chavan, 2020), helps ensuring flexibility and adaptability in the future. This interpretative perspective may help preserve place for change and reinterpretation in a changing world.

4.1.5 Key Findings of the Systematic Literature Review

After the literature search and selection, articles were found to inform the synthesis of intergenerational heritage approaches. This contained a limited number of articles, indicating that there is still few research conducted in the intersection of intergenerational thinking and heritage in rural areas. However, there were enough articles to inform a useful synthesis and create a typology of intergenerational heritage approaches.

The synthesis led to six different approaches, each with their own intergenerational function, core vision on heritage, and applications and methods. The resulting approaches include: Preserve & Protect, Shared Legacy, Heritage as Capital, Living Landscapes, Learning from Legacy, and Legacy by Design (Table 4.1). The approaches vary from an implicit to an explicit intergenerational function and a traditional to a new, broader view on heritage.

Critical reflections on the approaches show, among other things, that the intergenerational function does not always seem to be strongly present. In addition, it raises discussion about the question 'what is heritage?' and whether the concept is stretched too far in some approaches. An explicit intergenerational function and a broad view on heritage do not seem to go hand in hand. There is no approach that combines these two. This may indicate that in order to achieve an explicit intergenerational function, a broad view of heritage is needed. There seems to be room for approaches with a more strong explicit intergenerational function. Do these even exist, or does this call for creating new ways of thinking and working?

4.2 Empirical Analysis

This sub-chapter outlines the results of the empirical analysis. First, the practical speaking cards illustrating the intergenerational heritage approaches from the typology are demonstrated. Next, the results of the expert interviews conducted are described in two parts. One focusing on the evaluation of the practical and institutional application, and one on the application to the context of the Green Heart, a complex rural area in need of a sustainability transition. Finally, the typology is adjusted based on insights from the experts.

4.2.1 Speaking Cards

The intergenerational heritage approach (table 4.1) is translated into a set of practical speaking cards (figure 4.3). Each card presents one approach by displaying the name, corresponding core vision on heritage, and intergenerational function. These cards are designed to make the typology more accessible and easier to discuss, both during interviews conducted for this research and for discussion in practice. They can be printed and used as a tool to guide and inspire conversations about spatial development, heritage management, and sustainable transitions. The cards are intentionally concise and simple, so that the cards serve as conversation starters and leave room for interpretation. Users who wish to explore the approach more in depth, can read more about them in chapter 4.1.4 of this thesis.

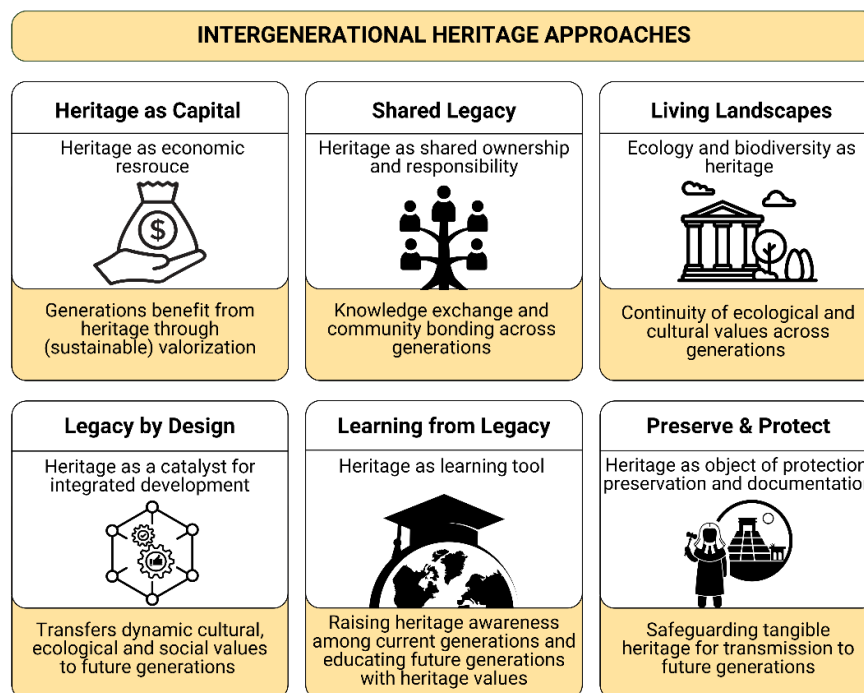


Figure 4.3: Speaking cards illustrating the different intergenerational heritage approaches. Each approach has its own name, symbol, vision on heritage, and intergenerational function.

4.2.2 Applicability in Practice

In three interviews with a national, regional, and local organization (Table 3.1), the practical applicability of the speaking cards is discussed. All interviewees indicate that they recognize the different approaches on the cards. As soon as they see the cards, they engage with all of them and have a lot to share about them, indicating that the approaches and used terminology seems recognizable for them at first observation. Moreover, they seem to serve as conversation starter, since the interviewees start to think out loud and explain things they recognize from their own work field. For example, the employee of

Coordination Office Green Heart (expert 2) engages with the Learning from Legacy approach by explaining: “There must always be a foundation of heritage so that you can relate to it and learn about it. You can only be careful with it or consciously deal with it if you know it.” About the Legacy by Design approach, she notes that heritage is not only a valuable and powerful argument for spatial developments, but also in holding back certain developments. She gives an example: “The Ronde Hoep is the Rembrandt of the polder art. Noone dares to touch it.”

Moreover, all interviews indicate that the cards will help open up conversations in their working field. The employee of the National Cultural Heritage Agency (expert 1), explains: “The typology could definitely be helpful to open up conversations. Heritage is often forgotten in discussions. It is not always included in future-oriented perspectives.” Similarly, the employee of Coordination Office Green Heart (expert 2) adds: “Some approaches are obvious, the other invite reflection and conversation. For policymakers and designers, the cards are really interesting.” The Vechtplassen Committee member (expert 3) agrees with this: “The speaking cards give direction. Civil servants have limited knowledge about the area. The cards may help with opening conversations and gaining knowledge about the topics.” However, the Vechtplassen Committee member emphasizes that just opening up conversations alone is not enough. “Having conversations and ideas are important, however, it is crucial that the right people are taking part of the conversations.”

The interviewees have some recommendations to improve the speaking cards. Two interviewees both express the importance on identity and intangible heritage. The employee of the National Cultural Heritage Agency (expert 1) notes: “I miss a focus on identity and intangible heritage. These are valuable carriers of identity. Think of festivals and flower parades. People attach great value to these.” The employee of Coordination Office Green Heart (expert 2) similarly states: “Identity is important. Immaterial heritage is also a broader view on heritage.” The employee of the National Cultural Heritage Agency (expert 1) notices something from the Heritage as Capital approach: “The dollar sign stands out. Our organization tries to avoid capitalizing of heritage.” Furthermore, according to the employee of Coordination Office Green Heart (expert 2), “Legacy by Design is a combination of Heritage as Capital, Shared Legacy, and Living Landscapes.” The Vechtplassen Committee member (expert 3), similarly states that there are two approaches to heritage: “The first one is focused on knowledge, the second one is focused on dating to think broadly and not be scared of change. Not all change is negative. Integrative thinking is important in this.” This also indicates that Legacy by Design is a combination of several approaches.

Lastly, the interviewees raise some additional questions and reflections when looking at the cards. The employee of Coordination Office Green Heart (expert 2), reflects on the intergenerational functions on the cards. “The intergenerational function can be further elaborated. For example, in the Heritage as Capital approach, is growth only for future generations, or also for current generations?” Moreover, she expects there to be tensions between the Heritage as Capital and Preserve & Protect approach, and also between the Living Landscapes and Preserve & Protect approach. “Is ecology and biodiversity really still heritage?” The Vechtplassen Committee member (expert 3) similarly states that the Living Landscape approach raises discussion on what is heritage. These reflections align with the questions raised in the tensions and reflections parts of the results from the systematic literature review.

4.2.3 Applicability in Green Heart

Since the approaches are mainly based on literature on shrinking areas, in the interviews is checked whether the speaking cards can also be applied in the context of the Green Heart: a complex urban area under many pressures and that requires a sustainability transition.

All three interviewees indicate that the speaking cards are applicable and useful in the context of the Green Heart. The employee of the National Cultural Heritage Agency (expert 1) notes: “Heritage in de Green Heart

is complex. The typology helps to open up conversations about how to give the future a voice.” He adds: “Also in the Green Heart, this conceptualization helps to start conversations and prevent heritage from being overlooked in discussions and decision-making.” The employee of Coordination Office Green Heart (expert 2) recognizes the approaches in the Green Heart: “All the approaches are present in the Green Heart. I recognize them all. It covers the load.” The Vechtplassen Committee member (expert 3) also considers the cards valuable in the context of the Green Heart: “Knowledge and expertise is getting lost in the Green Heart. This makes it difficult to make well informed and conscious decisions. We try to inform civil servants. The cards could help with this.”

When asking explicitly if the employees explicitly about the difference of shrinking areas and the Green Heart, they do not think the difference in these context matters much for the approaches. The employee of the National Cultural Heritage Agency (expert 1) explains: “The Green heart is not necessarily a shrinking region. In fact, new housing is being built. So in terms of housing, there is no decline. However, there is a loss of values, which could be seen as a form of shrinkage, or at least it shares similarities with shrinking regions.” Moreover, the employee of Coordination Office Green Heart (expert 2) notes: ‘Shrink areas mainly know economic and tourism approaches. The Green Heart is no shrinking area, however new revenue models are being explored. Making the areas comparable.”

Lastly, the interviewees recognize the combination of approached or the Legacy by Design approach in the Green Heart. The employee of Coordination Office Green Heart (expert 2) notes: “In the Green Heart the card of integrated development is often drawn by policy makers and designers.” The Vechtplassen Committee member (expert 3) similarly notes: “The Green Heart knows many layers that must be integrated.”

4.2.4 Revised Speaking Cards

Recommendations and critical notes from the interviewees inform small adjustments in the speaking cards. The revised speaking cards are displayed in figure 4.4. The biggest adjustment is the removal of the Legacy by Design approach. This approach is removed, since it is actually a combination of (almost) all other approaches. In the result of the systematic literature review, there was already some overlap visible between this one and the other approaches, since integrated development is about combining different (development) goals. The Legacy for Design approach is in this way not distinctive enough. The interviewees confirm this overlap. However, they emphasize the importance of integrated approaches and stacking functions, which is possible by combining approaches. Furthermore, the former Heritage as Capital approach is adjusted to make it less related to capitalization. The name is changed to Profiting from the Past. Moreover, the symbol with the dollar sign is replaced, and the corresponding vision is changed from ‘Heritage as economic resource’ to Heritage as economic driver. Additionally the brackets around ‘sustainable’ are removed, so that more emphasis is placed on the importance of a sustainability in this approach.

A number of other reflections invite further adjustments, however these require more in-depth research first. For example, the importance of intangible heritage and identity was often mentioned, and it was even suggested that this form a separate approach. The importance of intangible heritage was also mentioned in the results of the systematic literature review. However, more research needs to be done on this topic, since the scope and literature search of this study was initially focused on intangible heritage.

In addition, questions are raised about whether all approaches really have an intergenerational function and whether these should possibly be elaborated on. In addition, the discussion about what heritage actually is, is mentioned. Are we stretching the concept too far with Living Landscapes? These reflections also came to the results in the systematic literature review. These are big questions that require more in-depth research, so that well-considered and substantiated adjustments can be made.

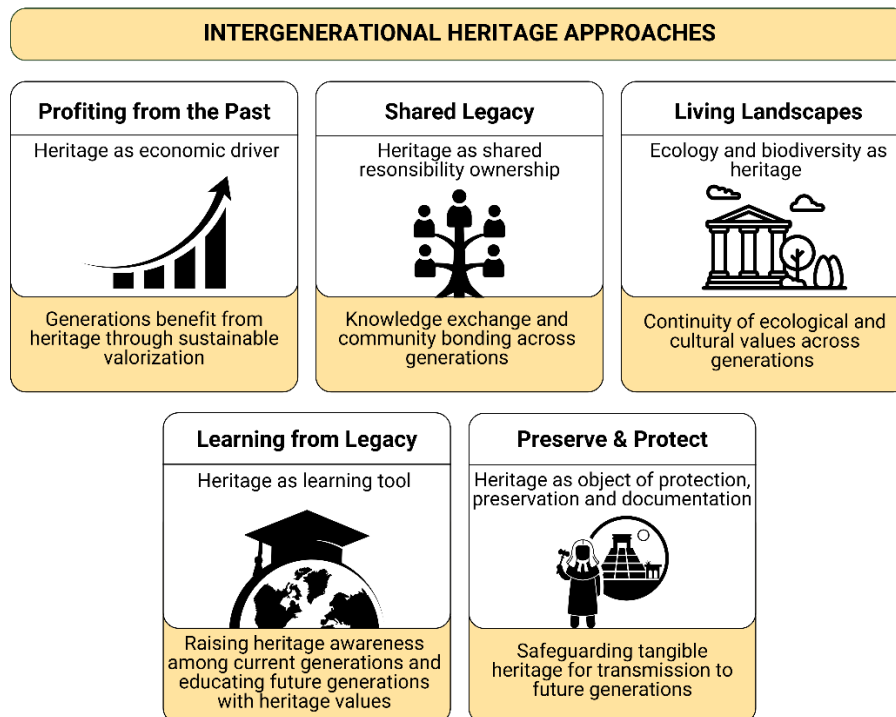


Figure 4.4: Revised speaking cards illustrating the different intergenerational heritage approaches. Each approach has its own name, symbol, vision on heritage, and intergenerational function.

4.2.5 Key Findings of the Empirical Analysis

The interview results show a lot of recognition and acknowledgement of the approaches on the speaking cards. The interviewees recognize the approaches and the terminology used. They agree that the cards opens up conversations and help to make more conscious and well-informed decisions about heritage. They also find it applicable in the specific context of the Groene Hart: a complex rural area under many pressures that requires a sustainability transition. The speaking cards appear to be useful in practice on a notional, regional, and local level.

However, a number of reflections also emerged, which largely also correspond with previously found results of the systematic literature review. A number of adjustments have already been applied based on these reflections. For example, the Legacy for Design approach has been removed, since it forms a combination of (almost) all other approaches and is not distinctive enough on its own. However, stacking functions and combining approaches for integrated developments remains important. In addition, the card of the approach Heritage as Capital has been redesigned, so that there is less emphasis on capitalizing of heritage, and more emphasis on sustainable use of heritage for economic purposes. Other reflections that require more in-depth research concern discussions on the intergenerational functions of the approaches, and the importance of intangible heritage and identity.

5. Discussion

5.1 Interpretation of the Findings

The result of the relatively limited number of 10 studies after the literature search and selection, reflects a still limited amount of available literature in the specific intersection of heritage and intergenerational thinking in rural areas. However, since the studies were selected based on seven eligibility criteria, the studies offered a rich and diverse starting point for a first conceptual exploration in this thematic intersection. Six intergenerational heritage approaches could be identified from the literature, namely: Preserve & Protect, Shared Legacy, Heritage as Capital, Living Landscapes, Learning from Legacy, and Legacy by Design (Table 4.1). Each approach is distinctive in its core vision on heritage, intergenerational function, and applications and methods. The large variation in approaches indicates that heritage can be interpreted in many ways, can have different functions, and can therefore also be used in many ways in spatial developments.

The interview results show that the approaches are not only recognizable in the literature, but also in practice. Moreover, they are also really useful because they open up conversations and help to make more conscious and well-informed decisions about heritage. Even though the literature from which the approaches were synthesized is mainly focused on shrinking areas, the identified approaches are just as recognizable and applicable in the Green Heart. This indicates that the typology is also applicable to complex rural areas that are under many pressures and in need of sustainability transitions.

The typology is thus directly applicable, however, there are tensions and reflections that emerged from both the literature and the interviews. These reflections of the literature and the interview resulted in some adjustments to the typology (figure 4.4). The economically focused approach has been adjusted so that it is less associated with capitalization, and has more emphasis on the importance of sustainability in utilizing heritage for economic development. Furthermore, Legacy by Design, which focuses on integrated developments, has been removed, because it had too much overlap with the other approaches and was therefore not distinctive enough. The results however do underscore the importance of function stacking and integrated approaches. The results show that many (aspects of) approaches can indeed be combined. For example, the study by Guillén-Peñafiel et al., (2024) shows that tourism and education go hand in hand. They add that awareness raising of intangible heritage promotes environmental conservation. According to Amaro & Oliveira (2019) and Marshall, (2022) participation and community bonding also goes hand in hand with education and awareness raising.

However, approaches can also conflict, especially with Preserve & Protect that has a very traditional view of heritage. Broader views of heritage can threaten the goal of this approach. However, changing times may call for new goals. These reflections and tensions in turn also spark new thoughts and discussion. For example, the discussion about ‘what is heritage?’ Some approaches take a very broad view of the concept, such as Living Landscapes that consider biodiversity and ecology as heritage. Is this a valuable new perspective in changing times, or does it unnecessarily endanger cultural values? It is important to think about what valuable heritage for future generations can look like, and how we can ensure that they also retain the space and flexibility to give it their own interpretation.

The findings underscore that an approach with an explicit strong intergenerational function is still missing. There is still room for more engagement with intergenerational thinking in thinking about heritage in rural areas. Is this approach still emerging? Does this require broader and more conscious ways of thinking and working? These broader and more adaptive ways of thinking about heritage are needed to meet the call of Olivadese & Dindo (2024), Peterson (2005) and Sargent & Slaton (2015) for new adaptive approaches to heritage in the light of contemporary sustainability challenges.

5.2 Implications of the Study

Although there are still reflections and room for more engagement in intergenerational thinking, these findings provide a first step towards thinking about heritage in a new way in the context of contemporary sustainability challenges. In this way, it offers a first step in the necessary exploration of more adaptive ways of thinking about heritage. This helps to fill the research gap found in the literature on the intersection of intergenerational thinking, heritage, and rural areas.

The aim of this research was to inspire people in looking at heritage from a new angle. The typology and reflections open up conversations and raise questions. The typology is directly applicable in practice and makes the subject easier to discuss. It ensures that heritage is included in decisions about spatial development. This applies to organizations at national, regional and local level. This is important in a time when much knowledge is lost, as is evident from both the literature and interview results. The typology helps to make more conscious and well-informed decisions about heritage in sustainability developments in rural areas.

In the academic world, the study contributes to a new combination of existing concepts by crossing intergenerational thinking and heritage in a rural context. This conceptualization offers a renewed view. In addition, a crossing with sustainability transitions was not possible, since there is no research done on this intersection. By adding this context in the imperial analysis, this offers a completely new perspective.

To conclude, the study offers a typology with intergenerational heritage approaches that is directly applicable and meaningful, and that encourages for further exploration in this field. Suggestions for future research to continue this exploration are drawn in section 5.4

5.3 Limitations of the Research

This research has a number of limitations. First, a number of decisions in the data selection process limited the exploration. For example, studies concerning intangible heritage were excluded from the research. This is while intangible heritage and tangible heritage are often closely related to each other, and cannot be seen separately. For example, Pasta (2020) emphasizes that a loss of traditional knowledge leads to a loss of heritage plants. Therefore, a focus on intangible heritage is as important, or even more important. This leads to the typology missing an important perspective when it comes to future-oriented views on heritage. Moreover, but less drastic, interesting studies in urban landscapes are excluded in the research. The typology is focused on rural landscapes, but perhaps urban studies could have provided interesting insights, which would have made the typology more comprehensive. In addition, there are no articles in languages other than English included, which might also could have offered additional interesting perspectives.

The studies that are included in the synthesis, may suffer from publication bias. However, the effect of this bias is expected to be limited in this research, since the research was not focused on themes in which the degree of interestingness is dependent on positive, negative, or only very striking results. There is no good or bad in this topic, it is about collecting different perspectives.

What could have had a greater effect on the outcome of the research is the relatively small number of articles and interviews in the data collection, included ten articles and three interviews. Regarding the articles, the small number of available studies can be explained by the fact that this is a very niche and new field of research. A larger number of studies could have been collected if the scope of the research had been enlarged, however, this would have made the exploration too broad and therefore less relevant. Moreover, the time available for this project was not sufficient for a more extensive analysis. The ten studies used were all academic, peer-reviewed studies, offering a large variety of professional

perspectives. Regarding the interviews, there were only three, however the selection of the interviews was done carefully. Three heritage experts were interviewed who also had knowledge of spatial development in the Groene Hart. In addition, they worked for a national, regional, and local organization, offering a multi-level perspective. The purpose of the interviews was mainly validation, and all interviewees gave the same validation. If there was a large variation in the answers, it would have been more important to talk to more experts. The large number of similarities between the results of the literature study and the interviews increases the reliability of the results.

What is expected to have had the greatest impact on the results is the reliance on interpretive analysis (Drápela, 2025). It is very likely that the results and especially the typology of the research would have looked different if the research had been conducted by another researcher. For this reason, the research was conducted and communicated as transparently as possible. Insights are provided in decisions and interpretations made, coding processes, and the synthesis. Moreover, the interpretations are validated in expert interviews. Moreover, this research is more focused on providing direction and inspiration, than on hard and detailed facts, which makes the interpretive nature less severe. Similarities between interviews and literature results increase the reliability.

5.4 Suggestions for Future Research

Further research should be conducted to refine the intergenerational heritage typology. What would be crucial in this research is a focus on the role of intangible heritage. Studies on intangible heritage and identity were now excluded from the research, while the importance is stressed in the literature and interview results of this study. Moreover, the intergenerational function of the different approaches can be more in-depth and critically elaborated on, since it is now doubtful whether all approaches are really intergenerational. In addition, it could be explored what an approach with a strongly explicit intergenerational function would look like. If this does not yet exist in the literature or practice, it would be interesting and valuable to design this approach from scratch, for example through a focus group or co-creation. In addition, an assessment of the different approaches could be developed, in which the advantages, disadvantages, and criticisms are investigated. The scope of the research could also be broadened to other contexts, such as urban landscapes. A broader scope might help with finding more literature and this might lead to undiscovered intergenerational heritage approaches.

Additionally, there are some themes that emerged in this research that are interesting for further exploration in relation to the typology. For example, the sustainability effects of tourism in cultural landscapes. In addition to advantages, tourism can also bring major disadvantages to an area (Selvakumar, 2024; Esposito & Cavelzani, 2006). Another emerging theme is the responsibility and power dynamics in heritage management. Gao et al (2021) touches on this by researching equitable sharing of costs and benefits of heritage conservation.

6. Conclusion & Recommendations

The first part of this research was conceptualizing and consisted of a systematic literature review. The sub research question that guided this part of the research was: *What intergenerational approaches to heritage can be identified in academic literature, and how can they be synthesized into a typology relevant to rural landscapes?* After the data synthesis, six intergenerational heritage approaches in rural areas emerged: Preserve & Protect, Shared Legacy, Heritage as Capital, Living Landscapes, Learning from Legacy, and Legacy by Design (Table 4.1). Each approach has its own intergenerational function, core vision on heritage, and applications and methods. The approach vary from an implicit to an explicit intergenerational function, and a traditional to a new, broader view on heritage. An approach with a strongly explicit intergenerational function appears to be missing, calling for even more innovative and future-oriented views on heritage in rural areas.

In the second part of the research, an empirical analysis was conducted. The sub research question that guided this analysis was: *To what extent is the typology applicable and meaningful in practice, particularly in the context of the Green Heart: a complex rural area in need of a sustainability transition?* To explore this question, expert interviews were conducted. The experts indicated a strong recognition and acknowledgement of the intergenerational heritage approaches. The typology opens up conversations and helps to make more conscious and well-informed decisions about heritage in general and in the Green Heart. The approaches appear to be meaningful in practice on a national, regional, and local level. A few adjustments to the typology improve the applicability in practice even more. The most important adjustment is the removal of the Legacy for Design approach, which has much overlap with other approaches and is therefore not distinctive enough on its own. However, combining approaches and stacking functions for integrated developments remain important in spatial heritage planning.

Together, these findings inform the answer to the main research question: *How can intergenerational thinking help identify and inform heritage approaches in rural landscapes in need of sustainability transitions?* Intergenerational thinking helps to discover new ways of looking at heritage in the context of rural landscapes undergoing sustainability transitions, such as the Dutch Green Heart. By connecting the concepts of intergenerational thinking and heritage in the context of rural landscapes, and then applying them in the practical context of the Green Heart, informative and inspiring approaches were found. By mapping these in a useful and applicable way, they help to make more conscious and well-informed decisions about heritage in transitioning urban landscapes.

Connecting these concepts in a specific context, provides a first step in the exploration of thinking about heritage in a new and more future-oriented way. These broader and more adaptive ways of thinking about heritage, meet the call from several scholars to fill the research gap about the need for adaptive approaches to heritage in the light of contemporary sustainability challenges. However, there is many more to explore in this field, and the following suggestions for future research will help fill the gap even further.

What would be crucial in future research is a focus on the role of intangible heritage and identity, since tangible and intangible heritage go hand in hand. Moreover, the intergenerational function of the different intergenerational heritage approaches found in this research can be more in-depth and critically elaborated on. Also, an assessment of the different approaches could be developed, in which the advantages, disadvantages, and criticisms are investigated. Additionally, it would be valuable to explore what an approach with a strongly explicit intergenerational function would look like. This approach might not exist yet, but imagining it will bring a lot of inspiration and valuable insights for future oriented heritage management.

Lastly, I hope this first step in exploring intergenerational heritage approaches inspires other so continue this exploration, because changing times call for changing ways of thinking.

Reference List

- Amaro, A., & Oliveira, L. (2019). IoT for Playful Intergenerational Learning about Cultural Heritage: The LOCUS Approach. *ICT4AWE 2019 - Proceedings Of The 5th International Conference On Information And Communication Technologies For Ageing Well And e-Health*, 282–288.
<https://doi.org/10.5220/0007747202820288>
- Brundtland Report: Secretary-General, Un. & World Commission on Environment and Development. (1987, 4 augustus). *Report of the World Commission on Environment and Development (Brundtland Report)*. United Nations Digital Library System. <https://digitallibrary.un.org/record/139811?v=pdf>
- Caney, S. (2019). Democratic Reform, Intergenerational Justice and the Challenges of the Long-Term. Centre For The Understanding Of Sustainable Prosperity. <https://cusp.ac.uk/themes/m/m1-11/>
- Cilona, T., Granata, M. (2016). The Sicilian Landscape. Reuse, Renovation and Financial Feasibility Analysis for a Rural Village. In LC Piccinini, T. . Chang, M. Taverna, L. Iseppi (eds.), *Proceedings of the 19th IPSAPA/ISPALEM International Scientific Conference*. Naples (Italy) July 2nd – 3rd, 2015 *The Turning Point of the Landscape-cultural Mosaic: Renaissance Revelation Resilience* (pp. 51-63). Udine: IPSAPA/ISPALEM
- Coördinatiebureau Groene Hart. (2024). Ontwikkelingsperspectief 1.0: Groene hart 2050. Gezamenlijke ambities en uitgangspunten. Bestuurlijk Platform Groene Hart.
<https://www.bestuurlijkplatformgroenehart.nl/novex-aanpak/ontwikkelingsperspectief-groene-hart-2023>
- Deltacommissaris. (2024). Nationaal Deltaprogramma 2025. Naar een nieuwe balans in de leefomgeving: ruimte voor leven met water. Rijksoverheid.
<https://www.deltaprogramma.nl/documenten/publicaties/2024/09/17/dp2025-volledige-versie>
- Drápela, E. (2025). The Spirit of the Mountains: A Geomythological Perspective on the Cultural Evolution of Krakonoš (Rübezahl). *Geoheritage*, 17(2). <https://doi.org/10.1007/s12371-025-01110-8>
- Ducros, H. B. (2017). Confronting sustainable development in two rural heritage valorization models. *Journal Of Sustainable Tourism*, 25(3), 327–343. <https://doi.org/10.1080/09669582.2016.1206552>
- Esposito, M., & Cavelzani, A. (2006). The World Heritage and cultural landscapes. *Pasos Reviste de Turismo Y Patrimonio Cultural*, 4(3), 409–419.
<https://www.pasosonline.org/Publicados/4306/PASOS09.pdf#page=133>
- Gao, J., Lin, H., & Zhang, C. (2021). Locally situated rights and the ‘doing’ of responsibility for heritage conservation and tourism development at the cultural landscape of Honghe Hani Rice Terraces, China. *Journal Of Sustainable Tourism*, 29(2–3), 193–213. <https://doi.org/10.1080/09669582.2020.1727912>
- Geels, F. W. (2002). Technological transitions as evolutionary reconfiguration processes: A multi-level perspective and a case-study. *Research Policy*, 31(8–9), 1257–1274. [https://doi.org/10.1016/S0048-7333\(02\)00062-8](https://doi.org/10.1016/S0048-7333(02)00062-8)
- Guillén-Peñafiel, R., Hernández-Carretero, A. M., & Sánchez-Martín, J. M. (2024). University Students’ Perception of the Dehesa and the Associated Traditional Trades. *Sustainability*, 16(9), 3843.
<https://doi.org/10.3390/su16093843>
- Harrison, R. (2010). *What is heritage?* In: *Understanding the politics of heritage*.
<http://ci.nii.ac.jp/ncid/BB00830938>

- Harrison, R. (2012). *Heritage: Critical Approaches*. Routledge. <https://doi.org/10.4324/9780203108857>
- Havlíček, M., Skokanová, H., Slach, T., Vymazalová, M., & Šantrůčková, M. (2024). THE IMPORTANCE OF HISTORICAL VINEYARD LANDSCAPES IN NATURE CONSERVATION AND RECREATION. *Public Recreation And Landscape Protection* . . . , 15, 332–337. <https://doi.org/10.11118/978-80-7509-963-1-0332>
- Howarth, R. B. (1997). Sustainability as Opportunity. *Land Economics*, 73(4), 569–579. <https://doi.org/10.2307/3147246https://www.jstor.org/stable/3147246>
- Janssen, A., Beers, P., & Van Mierlo, B. (2022). Identity in sustainability transitions: The crucial role of landscape in the Green Heart. *Environmental Innovation And Societal Transitions*, 42, 362–373. <https://doi.org/10.1016/j.eist.2022.01.008>
- Jonas, H. (1984). *The imperative of responsibility: In search of an ethics for the technological age*. University of Chicago Press.
- Knights, P. (2014). Cultural Landscapes, Ecological Restoration and the Intergenerational Narrative. In *The international library of environmental, agricultural and food ethics/The International library of environmental, agricultural and food ethics* (Vol. 21, pp. 93–108). https://doi.org/10.1007/978-3-319-07683-6_6
- Kooij, P. (2010). How the Netherlands got a green heart and lost it again. *Historia Agriculturae*, 42, 195–208.
- Lee, B. X., Kjaerulf, F., Turner, S., Cohen, L., Donnelly, P. D., Muggah, R., Davis, R., Realini, A., Kieselbach, B., MacGregor, L. S., Waller, I., Gordon, R., Moloney-Kitts, M., Lee, G., & Gilligan, J. (2016). Transforming Our World: Implementing the 2030 Agenda Through Sustainable Development Goal Indicators. *Journal Of Public Health Policy*, 37(S1), 13–31. <https://doi.org/10.1057/s41271-016-0002-7>
- Lowenthal, D. (1985). *The past is a foreign country*. In: *Historical Perspectives on Preventive Conservation*.
- Marshall, M., May, K., Lee, J., & O'Loughlin, G. (2022). Looking After the Rock Art of Kakadu National Park, Australia. *Studies in Conservation*, 67(sup1), 156–165. <https://doi.org/10.1080/00393630.2022.2066321>
- Ministerie van Binnenlandse Zaken en Koninkrijksrelaties. (2020). *Nationale omgevingsvisie: Duurzaam perspectief voor onze leefomgeving*. Rijksoverheid. <https://www.rijksoverheid.nl/documenten/rapporten/2020/09/11/nationale-omgevingsvisie>
- Ministerie van Binnenlandse Zaken en Koninkrijksrelaties. (2024). *Voorontwerp Nota Ruimte*. Rijksoverheid. <https://www.rijksoverheid.nl/documenten/rapporten/2024/06/19/rapport-voorontwerp-nota-ruimte>
- Ministerie van Economische Zaken en Klimaat. (2020). *Klimaatplan 2021-2030*. Rijksoverheid. <https://www.rijksoverheid.nl/onderwerpen/klimaatverandering/documenten/beleidsnotas/2020/04/24/klimaatplan-2021-2030>
- Ministerie van Economische Zaken en Klimaat. (2022). *Ontwerp Beleidsprogramma Klimaat*. Rijksoverheid. <https://www.rijksoverheid.nl/onderwerpen/klimaatverandering/documenten/publicaties/2022/06/02/ontwerp-beleidsprogramma-klimaat>
- Olivadese, M., & Dindo, M. L. (2024). Cultural Landscapes: Exploring the Imprint of the Roman Empire on Modern Identities. *Land*, 13(5), 605. <https://doi.org/10.3390/land13050605>

- Page, E. A. (2006). *Climate Change, Justice and Future Generations*. Edward Elgar Publishing.
- Peterson, A. (2005). Has the generalisation regarding conservation of trees and shrubs in Swedish agricultural landscapes gone too far? *Landscape And Urban Planning*, 70(1–2), 97–109. <https://doi.org/10.1016/j.landurbplan.2003.10.007>
- Planbureau voor de Leefomgeving. (2021). *Grote opgaven in een beperkte ruimte* (4318). Uitgeverij PBL. <https://www.pbl.nl/publicaties/grote-opgaven-in-een-beperkte-ruimte>
- Pulpón, Á. R. R., Del Carmen Cañizares Ruiz, M., & Sánchez-Mateos, H. S. M. (2023). Regional Identity and Intangible Heritage Related to Saffron Cultivation in Castilla-La Mancha (Spain). *Heritage*, 6(3), 2453–2472. <https://doi.org/10.3390/heritage6030129>
- Rahman, A. A., Ismail, S. M., & Ariffin, N. F. M. (2018). Public perspective on conservation value of Malay rural traditional village landscape in Langkawi Geopark. *IOP Conference Series Earth And Environmental Science*, 179, 012018. <https://doi.org/10.1088/1755-1315/179/1/012018>
- Reihana, K. R., Lyver, P. O., Gormley, A., Younger, M., Harcourt, N., Cox, M., Wilcox, M., & Innes, J. (2023). Me ora te Ngāhere: visioning forest health through an Indigenous biocultural lens. *Pacific Conservation Biology*, 30(1). <https://doi.org/10.1071/pc22028>
- Rijksoverheid: Ministerie van Infrastructuur en Milieu, Ministerie van Economische zaken, Ministerie van Buitenlandse zaken, Ministerie van Binnenlandse Zaken en Koninkrijksrelaties. (2016). Nederland circulair in 2050: Rijksbreed programma Circulaire Economie. Rijksoverheid. <https://www.rijksoverheid.nl/onderwerpen/circulaire-economie/documenten/rapporten/2016/09/14/bijlage-1-nederland-circulair-in-2050>
- Rockström, J., Steffen, W., Noone, K. et al. (2009) A safe operating space for humanity. *Nature*, 461, 472–475. <https://doi.org/10.1038/461472a>
- Ross, F. (2019). Kate Raworth - Doughnut economics: Seven ways to think like a 21st century economist. *Regional and Business Studies*, 11(2), 81–86. doi:10.33568/rbs.2409
- Rzeszotarska-Patka, M. (2024). Manor and Park Estates—Resilience to Transformation and the New Management of Space Due to Political Changes: The Case of Western Pomerania (Poland). *Sustainability*, 16(6), 2562. <https://doi.org/10.3390/su16062562>
- Salerno, R. (2018). Far-Sightedness vs. Emergency: A Matter for “Not Outstanding” European Cultural Landscapes. *Buildings*, 8(3), 39. <https://doi.org/10.3390/buildings8030039>
- Sardaro, R., La Sala, P., De Pascale, G., & Faccilongo, N. (2021). The conservation of cultural heritage in rural areas: Stakeholder preferences regarding historical rural buildings in Apulia, southern Italy. *Land Use Policy*, 109. <https://doi.org/10.1016/j.landusepol.2021.105662>
- Sargent, L., & Slaton, D. (2015). Heading into the Wind: Climate Change and the Implications for Managing Our Cultural Landscape Legacy. *Change Over Time*, 5(2), 200–224. <https://doi.org/10.1353/cot.2015.0017>
- Selvakumar, P., Chaithanya, K., Sethumadhavan, R., Chandel, P. S., & Indolia, U. (2024). Current waste management practices in rural tourism. In *Solid Waste Management and Disposal Practices in Rural Tourism* (pp. 1–26). <https://doi.org/10.4018/979-8-3693-9621-6.ch001>
- Smith, L. (2006). Uses of heritage. <https://doi.org/10.4324/9780203602263>

SteenhuisMeurs (2021). Het Groene Hart: Landschapsbiografie en cultuurhistorische waardering. Bestuurlijk Platform Groene Hart. <https://www.bestuurlijkplatformgroenehart.nl/documenten/groene-hart-biografie>

Teodoro, J. D., Doorn, N., Kwakkel, J., & Comes, T. (2022). Flexibility for intergenerational justice in climate resilience decision-making: an application on sea-level rise in the Netherlands. *Sustainability Science*, 18(3), 1355–1365. <https://doi.org/10.1007/s11625-022-01233-9>

Tremmel, J. C. (2009). *A Theory of Intergenerational Justice*. In Routledge eBooks. <https://doi.org/10.4324/9781849774369>

UNESCO World Heritage Centre. (1972). *Convention concerning the protection of the world cultural and natural heritage*. UNESCO World Heritage Centre. <https://whc.unesco.org/en/conventiontext/>

UNESCO World Heritage Centre. (2003). *Convention for the safeguarding of the intangible cultural heritage*. UNESCO World Heritage Centre. <https://ich.unesco.org/en/convention>

UNESCO World Heritage Centre. (n.d.). *World Heritage*. UNESCO World Heritage Convention. Retrieved March 10, 2025, from <https://whc.unesco.org/en/about/>

United Nations. (2015). *Transforming our world: The 2030 Agenda for Sustainable Development*. United Nations. <https://sdgs.un.org/2030agenda>

Wageningen University & Research. (2019). Een natuurlijkere toekomst voor Nederland in 2120. (KB-36-003-004) WUR. <https://cusp.ac.uk/themes/m/m1-11/>

Watve, A., & Chavan, V. (2020). Conceptualising framework for local biodiversity heritage sites (Lbhs): A bio-cultural model for biodiversity conservation in maharashtra. *Asian Biotechnology And Development Review*, 22(2–3), 61–82. https://www.researchgate.net/profile/Vishwas-Chavan-2/publication/350547035_Conceptualising_Framework_for_Local_Biodiversity_Heritage_Sites_LBHS_A_Bio-cultural_model_for_biodiversity_conservation_in_Maharashtra/links/6065b366299bf1252e1d8920/Conceptualising-Framework-for-Local-Biodiversity-Heritage-Sites-LBHS-A-Bio-cultural-model-for-biodiversity-conservation-in-Maharashtra.pdf

Weiss, E. B. (1990). Our rights and obligations to future generations for the environment. *American journal of international law*, 84(1), 198-207. <https://doi.org/10.2307/2203020>

Weiss, E.B. (1992). *Environmental change and international law: New challenges and dimensions*. United Nations University Press. <https://archive.unu.edu/unupress/unupbooks/uu25ee/uu25ee00.htm#Contents>

Appendix 1. PICOS Approach: Developing Search Terms

For the literature search, a defined but complete search query was needed to extract literature from databases. To formulate this query, the sub-research question was first divided and translated into relevant scientific concepts and then into specific search terms. The PICOS approach, as described in box 2 in the paper of Liberati et al. (2009), was used for this process. Possible synonyms from different disciplines are included for each concept. The table below elaborates the PICOS approach and presents the final search terms.

Table A: Development of search terms using the PICOS approach

PICOS	Description	Concepts and synonyms	Search terms
P - Problem	A lack of conceptual clarity on how intergenerational thinking is or can be applied to heritage management , especially within agricultural landscapes undergoing sustainability transitions .	Heritage management Cultural heritage, landscape heritage, heritage preservation, heritage conservation, heritage planning, heritage policy, place-based value, place-based identity, historical value, cultural value, traditional knowledge	("heritag*" OR "place-based value*" OR "places-based identity" OR "historic* value*" OR "cultural value*" OR "traditional knowledge")
		Agricultural landscape Rural landscape, cultural landscape, historical landscape, rural area, agricultural area	("rural landscape*" OR "agricultural landscape*" OR "cultural landscape*" OR "historical landscape*" OR "rural area" OR "agricultural area")
		Sustainability transition Sustainable development, rural transition, landscape change, spatial transition, climate adaptation, environmental change, rural transformation, landscape transformation	("sustain* transition*" OR "sustain* develop*" OR "rural transition" OR "landscape change" OR "land use change" OR "spatial transition" OR "climate adaptation" OR "environmental change" OR "rural transformation" OR "landscape transformation")
I - Intervention	A systematic analysis of academic literature that identifies and organizes intergenerational approaches to heritage management in agricultural landscapes undergoing sustainability transitions.	Intergenerational approaches Intergenerational thinking, intergenerational justice, intergenerational equity, thinking across generations, long-term thinking, future generations, future-oriented planning, long-term thinking, temporal justice, anticipatory governance, future thinking, environmental stewardship, future strategies	("intergenerational*" OR "thinking across generations" OR "long-term thinking" OR "future generation*" OR "future-oriented planning" OR "long-term thinking" OR "temporal justice" OR "anticipatory governance" OR "future thinking" OR "environmental stewardship" OR "future strategies")
C - Comparison	There is no direct comparison group, but typology will compare conceptual approaches found across different studies. There is no predetermined group, contrasts will emerge through synthesis.	n/a	n/a
O - Outcome	A synthesized typology of intergenerational approaches to heritage management, applicable in the context of agricultural landscapes undergoing sustainability transitions, that can be used as a lens to analyze policy and practice.	n/a	n/a
S - Study design	Peer-reviewed conceptual and theoretical literature, including review articles, framework papers, and exploratory studies in fields such as planning, landscape architecture, heritage studies, and sustainability science. Only studies that include both explicit and implicit intergenerational perspectives are included.	n/a	n/a

Appendix 2. Literature Used to Inform Approaches

Table B: Literature used to inform each intergenerational heritage approach

<i>Approach</i>	<i>Literature</i>
Preserve & Protect	Watve & Chavan, 2020; Knights, 2014; Ducros, 2017; Watve & Chavan, 2020; Esposito & Cavelzani, 2006; Salerno, 2018; Amaro & Oliveira, 2019; Marshall et al., 2022; Reihana et al., 2023; Sargent & Slaton, 2015
Shared Legacy	Ducros, 2017; Watve & Chavan, 2020; Esposito & Cavelzani, 2006; Salerno, 2018; Guillén-Peñafiel et al., 2024; Amaro & Oliveira, 2019; Marshall et al., 2022; Reihana et al., 2023;
Living Landscapes	Knights, 2014; Watve & Chavan, 2020; Reihana et al., 2023
Learning from Legacy	Ducros, 2017; Watve & Chavan, 2020; Esposito & Cavelzani, 2006; Guillén-Peñafiel et al., 2024; Amaro & Oliveira, 2019; Marshall et al., 2022; Reihana et al., 2023; Sargent & Slaton, 2015
Heritage as Capital	Ducros, 2017; Esposito & Cavelzani, 2006; Salerno, 2018; Amaro & Oliveira, 2019
Legacy by Design	Knights, 2014; Ducros, 2017; Watve & Chavan, 2020; Esposito & Cavelzani, 2006; Salerno, 2018; Guillén-Peñafiel et al., 2024