



# Holwerd and its values

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**An investigation of the heritage values of a cultural landscape among inhabitants, professionals and academics in the process of a bottom-up spatial development.**

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## **Abstract**

Bottom-up spatial developments are often praised for the incorporation of the values of the people instead of implementing the vision of the expert in a top-down fashion. However, the incorporation of heritage values in the development of cultural landscapes is also a matter of choice and consequently, power. This research looks at the case of Holwerd aan Zee, a bottom-up initiative that aims to create a tidal lake by removing part of a sea dyke to stimulate the local economy. By interviewing experts and conducting a survey among residents, different heritage values and narratives are investigated. This research found different valuation mechanisms for the inhabitant, academic and professional discourse as a result of different objectives. The inhabitants and academics both valued landscape as an ensemble. However, inhabitants tend to value based on aesthetic and scenic qualities whereas academics value the dynamics of the entire landscape. Furthermore, academics ascribe value the landscape on the basis of the information it provides and the societal purposes it can serve. In the professional discourse both elements are valued that fit the narrative of the development plan and elements that were valued by academics. The reliance on the academic discourse is especially noticeable as the engagement of citizens can be difficult. In sum, this research identified salient interaction, interdependence and overlap between these discourses. This thesis therefore suggests further integration of the ways in which heritage is conceptualised in projects to come to a common understanding that employs heritage in a sustainable and cooperative fashion.

*Keywords:* Heritage • Dissonance • Cultural landscape • Landscape biography • Inhabitants' discourse • Academic discourse • Professional discourse • Bottom-up initiative

**Front page:** the Holwerter Feart seen from the Tonnebrêge (upper left), the pier of Holwerd with the Wadden Sea on the right (upper right), the Hegebuorren in Holwerd, located on a partly excavated terp (bottom left); and a plot of arable land south of Holwerd that is being harvested (bottom right).

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## 1. Introduction

European landscapes have been exposed to increasing pressure in recent years, contributing to a decline in landscape quality (Belčáková, Gazzola & Pauditšová, 2018). This in turn reduces the readability of the landscape as changes are superimposed rather than weaved into the fabric of the more legible “traditional landscape”. It is from these traditional landscapes that an understanding might be derived of sustainable management techniques (Antrop, 2005). Furthermore, these landscapes provide local inhabitants with a sense of place, a beacon in changing times (Harvey, 1989; Massey, 1994). As such, cultural landscapes can be viewed as heritage that is eligible for preservation.

However, the preservation of cultural landscapes might be complicated by contemporary challenges, such as climate change, urbanisation, and human migration which calls for sustainable developments (O'Donnell, 2016). Moreover, effective conservation planning is hindered by a paradigmatic inability to reconcile the natural and cultural realm (Fernandes et al., 2019; Schepers et al., 2021). As identified by O'Rourke (2005), landscapes have political components besides social and natural aspects. Consequently, the preservation of landscape heritage poses challenges for preservationists, spatial planners, policymakers, and politicians (Egberts, 2020). Glover et al. (2008) argue in favour of planning processes that “represent the values of stakeholders, empower communities, and lead to landscape changes that maintain and enhance a community's sense of place” (p.384). Similarly, it is argued that landscape management should be carried out in a somewhat hybrid way instead of a purely top-down or a bottom-up fashion (O'Rourke, 2005).

Increasingly, citizen initiatives are welcomed to take an active part in heritage management alongside professionals and academics (Li et al., 2020; Pastor Pérez et al., 2021). However, it remains questionable to what extent bottom-up initiatives effectuate their democratic creed with regard to heritage values. The pluralistic nature of heritage values poses difficulties as the assignation of a heritage status inevitably leads to the disinheritance of other people (Ashworth et al., 2007). What heritage entails, how it is defined, what it is used for and how it should be managed is determined by powerful groups in society (Atkinson, 2005; Smith, 2006). To this end, this research seeks to identify whether heritage values concur or whether there is possible dissonance that arises between heritage as it is seen by inhabitants, “professionals” and the “academics” in the process of a bottom-up spatial plan. Looking at a specific case, this research can contribute to theory on the incorporation of lay perspectives on heritage in bottom-up spatial developments (Tsang, 2013).

### 1.1 *Research problem and research aim*

This research seeks to address a knowledge gap with regard to landscape heritage values as they are conceptualised by inhabitants, academics, and professionals. Scholars increasingly advocate methods to gather heritage values of citizens in heritage management (Smith, 2006; Chen & Li, 2021; Jones, 2017), since the traditional expert-centred approach cannot successfully grasp the inherently diverse and dynamic values of inhabitants (Groote & Haartsen, 2012; Jones, 2017; Mydland & Grahn, 2012). Ideally, democratisation of heritage management places local communicates in a central position with support of professionals and academics (Li et al., 2020; Pastor Pérez et al., 2021). Previous research has focussed on the different heritage values as they are held by local communities and professionals (cf. Mydland & Grahn, 2012; Parkinson et al., 2016) or on the landscape preferences of residents and experts (cf. Coeterier, 2002; Rogge et al., 2007; Vouligny et al., 2009). However, no research has looked at the extent to which heritage values are similar or opposing in a bottom-up setting. Therefore, this research adopts a wider scope than the research by Parkinson et al. (2016) who look at the professional and lay discourse, while subsuming the academic discourse under the professional discourse. As such, this thesis aims to provide insights into the various heritage values that inhabitants, professionals and

academics might have through a case study. More specifically, it will look at the heritage values, to which degree they have similarities and where possible conflicts might arise.

## **1.2 Main research question**

*How do inhabitant, professional and academic discourses contextualise heritage values of cultural landscapes in such a way to contribute to a narrative of a cultural landscape that is worth preserving in the process of a bottom-up spatial development?*

## **1.3 Sub-questions**

1. *Which landscape elements are contextualised by inhabitants as heritage and how are they supported by argumentation?*
2. *Which landscape elements are contextualised by academics as heritage and how are they supported by argumentation?*
3. *Which landscape elements are contextualised by professionals as heritage and how are they supported by argumentation?*

## **1.4 Structure of thesis**

First, this thesis will discuss the various conceptualisations that surround the themes of landscape and heritage and how valuation comes about in different discourses. There will also be an overview of how approach of the heritage sector and spatial planning has changed over time. Second, the methods will be outlined, which in this case entails a methodological triangulation employing interviews, surveys, policy documents, and academic literature. Third, a results section presents a landscape biography and an overview of the heritage values as they are held by the different discourses. Lastly, this thesis will conclude with a discussion consisting of recommendations for both policy and future research.

## 2. Literature

In order to answer the research question, first a literature review will be presented that looks at the seemingly basic concepts of landscape and heritage. It is however crucial to understand these core concepts, their definition and classification for the comprehension of values as they are presented in the empirical part of this study. To this end, the review will also delve into the construction of discourses and their valuation of (landscape) heritage. Subsequently, it is interesting to see how spatial planning and heritage planning have adapted to deal with the multiplicity of values.

Literature suggests a wide array of factors that influence how landscape and heritage are valued on a personal or collective level. In quantitative accounts, previous research has tested for the impact of various socio-demographic and socioeconomic variables on the valuation and preferences in landscapes (cf. Balling & Falk, 1982; Bernaldez et al., 1989; Gomez-Limon & De Lucio Fernandez, 1999; Häfner et al., 2018; Herzog et al., 2000; Kaltenborn & Bjerke, 2002; Kaplan & Talbot, 1988; Lyons, 1983; Rodríguez-Darias et al., 2016; Strumse, 1996; Yu, 1995; Zube & Pitt, 1981; Zube et al., 1985). However, this large body of literature has not resulted in a clear-cut line of reasoning for the prediction of heritage values. Heritage values are highly context-dependent and in flux.

Instead of taking a quantitative approach, Nogué & Wilbrand (2018) subsumed landscapes as “social imaginaries”; landscapes are culturally constructed and perspectives on landscapes correspond with individual and collective knowledge, memory, and emotions. As such, landscape preferences rely heavily of individual connections vis-à-vis the landscape (i.e., the understanding, the level of engagement with, familiarity with and past experiences with the landscape) (Walker & Ryan, 2008). As a consequence, valued aspects of landscapes can vary highly, both on a personal level and on a community level (Ruiz & Domon, 2012). Before looking at the various discourses surrounding landscape, the concepts of landscape and heritage will be discussed first.

### 2.1 *Landscapes: natural and/or cultural*

Landscape is a social construct and has therefore been defined in a host of ways ever since it has been studied scientifically (Antrop, 2006; Greider & Garkovich, 1994). They can be regarded as the outcome of complex dependencies, interactions and feedback loops that play out differently on different temporal and spatial levels (Bürgi et al., 2017). As early as the 19<sup>th</sup> century a sharp distinction was made in German geography between *Kulturlandschaft* and *Naturlandschaft* (Antrop & Van Eetvelde, 2017). A dichotomy that is followed by Sauer (1925) who deduces that “*The cultural landscape is fashioned from a natural landscape by a culture group. Culture is the agent, the natural area is the medium, the cultural landscape is the result*” (p.343). As such the entity of landscape is subject to a prominent dichotomy between culture and nature. A dichotomy that is scrutinised itself by various authors for its counterproductive effect on management and conservation (Corlett, 2015; Schepers et al., 2021).

From a human viewpoint another divide is articulated in literature, the difference between a tangible landscape and a perceived landscape laden with values (Hirsch, 1995; Mitchell, 1994). Backhaus et al. (2008) assert that while a portion of land is value-free, landscapes on the other hand are differentiated based on values and human perception. This is also explained by Jacobs (2006) who identifies a matterscape (physical reality consisting of matter), powerscape (social reality prescribing the production of landscapes) and mindscape (inner reality pertaining to perception and meaning-giving). In a similar vein, Cosgrove (2003) indicates an ecological and a semiotic landscape discourse. These various dimensions are incorporated in the definition as proposed by the European Landscape Convention in 2000: “*an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors*” (Council of Europe, 2010). To be sure, landscape and heritage are two inextricably linked concepts (Grazuleviciute-Vileniske, 2008). The circumstances in which people live and the actions that they take create a palimpsest layering of landscape meanings and uses that in turn impact what



communities regard as worthy of preservation, in this case the “heritage landscape” (Lekakis & Dragouni, 2020). Landscapes are valued for a multitude of reasons: e.g., historic values (Olwig, 2019), elements of identity (Ashworth et al., 2007; Tilley, 2006), aesthetic and educational purposes (Torkildsen, 2005), and as economic assets (Zhang, 2010). Interestingly, Gerber & Hess (2017) propose to conceptualise landscapes as “commons” of which humans are a constituent. People attribute many different use values and non-utility values (intrinsic values and existence values such as aesthetics) to landscapes. However, all these different uses and values may conflict with the collective, inalienable and irreplaceable nature of landscapes (Gerber & Hess, 2017). It is also this multiplicity of meanings and values and perceptions that strongly influences what is regarded as a landscape, what should be preserved, and what is regarded as heritage (Rodríguez-Darias et al., 2016).

## **2.2 *Heritage and dissonance***

Heritage can be seen as a decision in the present to select elements from the past in order to bequeath it to the future (Ashworth & Graham, 2005). Heritage closely relates to the concept of value which can be described very concisely as “a characteristic that is considered important” (Kalman & Létourneau, 2021, p.305). In classifications of heritage values, oftentimes there is a consideration of values of “significance”. This significance can be defined as “a synthesis of values.” (Kalman & Létourneau, 2021, p.305). The concept of heritage harbours similar dichotomies as the concept of landscape. A frequently made division is the dyad of cultural heritage and natural heritage, a classification that is also upheld by UNESCO (Byrne et al., 2013; Kato, 2006; Lowenthal, 2005; Olwig, 2006; Schepers et al., 2021). This is however an artificial division between a human world and a natural world, supposedly free of human interference. This division fails to appreciate both the interrelatedness of these realms as well as the constructivist background of the concept of nature (Renes, 2019; Schepers et al., 2021). Next to this, the distinction is made between tangible and intangible heritage (Smith, 2006): material objects vs. meaning, values, memories and feelings. However, all heritage is part of an abstract world of ideas as the tangible can only be contextualised and understood through the intangible (Swensen et al., 2013). This tangible/intangible divide is more of a classification that is unintentionally upheld by experts in the understanding of heritage (Swensen et al., 2013).

As such, heritage itself is a social construct that boils down to values (Avrami & Mason, 2017). The continuous interpretation and re-interpretation of heritage contribute to its very polysemic nature (Harvey, 2001). As argued by Walter (2014), the conservation of heritage requires the identification, description and subsequently prioritisation of values. Therefore, the prioritisation within this plethora of heritage values that coexist can lead to different degrees of conflict. In this context the notion of “dissonant heritage” often emerges. To be sure, this does not mean that dissonance is the same as conflicts over heritage nor that dissonance will always result in conflicts. Different heritage values can indeed coexist. This dissonance is defined by Tunbridge & Ashworth (1996) as “a discordance or a lack of agreement and consistency as to the meaning of heritage” (p.21). Dissonance can be seen as an inherent part of heritage-making (Smith, 2021). Whereas someone might subscribe to a certain conceptualisation of heritage, this might be rejected by others. Consequently, heritage has an exclusive nature since the creation of heritage inevitably inherits some while disinherit others (Ashworth & Graham, 2005). Dissonance can emerge from a divergence of prevalent discourses. Divergence between the expert or academic discourse and the lay discourse can for example be observed in aesthetic valuation (Pennartz & Elsinga, 1990) and the demarcation of heritage (cf. Stoffelen et al., 2019). Heritage values that are held by a certain societal group can in turn allow for the formation of so-called “community heritage”. Put the other way around, people who hold similar heritage values can form a “heritage community” based on shared interests, identity and normativity (Barrett, 2015; Higgins & Douglas, 2021; Vergunst & Graham, 2019).

Which heritage values prevail and how the artefacts are framed is the outcome of the existing power structures (Ashworth et al., 2007). Lowenthal (2005) also identified that reigning

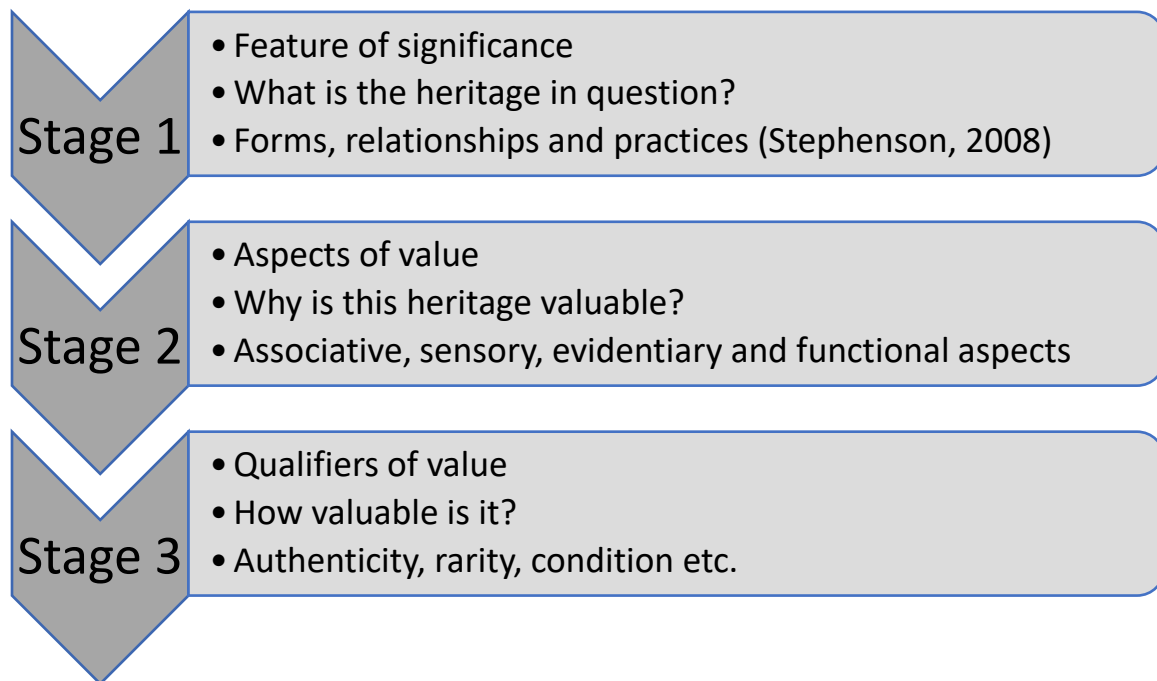
elites were the first to institute nature reserves and monuments. As of today, heritage places rely heavily on a legal status rather than a theoretical status, assigned by a supranational, national or subnational government (Silberman, 2015). It is also power that determines the demarcation of a landscape, since they do not have borders by themselves (Brown, 2007). Accordingly, Smith (2006) regards heritage conservation as a deeply sociocultural activity. She also coins the term “authorized heritage discourse” (AHD) which describes “the authority of expertise” (p.29). In this discourse, heritage is kept discrete and manageable in order to limit conflicts about meanings, marginalising other discourses. From this perspective, heritage building is a passive process. Like in a museum, artefacts are kept behind glass. Visitors are invited to and informed about without actual interaction (Smith, 2006). However, this top-down conceptualisation of heritage has been criticised in recent years. The valuing of heritage underwent a democratic change that acknowledges heritage as a social construct that is susceptible to change (Van der Hoeven, 2020). Likewise, successful heritage management needs to incorporate the intangible as well as the tangible aspects (Coleman, 2004).

As a result, the Professional and Academic discourses have become more preoccupied with values-based approaches to heritage to determine cultural significance for conservation (Clavir, 2002; de la Torre & Mason, 2002; Gibson & Pendlebury, 2009). In order to capture the different heritage values, oftentimes typology schemes are constructed. It is however argued that these typologies may fall short in doing justice to the plurality in heritage values, resulting in inappropriate conservation decisions (Fredheim & Khalaf, 2016). In their literature review, Chen & Li (2021) concluded that value typologies of heritage are still expert-oriented and subject to power structures that cannot fully grasp the plurality of heritage values. They plead in favour of a typology that encompasses the meaning and narratives of local people (Chen & Li, 2021). Various authors have identified underlying reasons for the valuation of landscapes in their entirety, which can range from economic value, to symbolic meaning to aesthetics (Biedenweg et al., 2019; Brown, 2012; Scazzosi, 2004). Fewer authors have come up with a typology of the valuation of heritage which also embraces relational values.

Such an effort is made by Stephenson (2008) who proposes a Cultural Values Model for the appreciation of landscapes. She distinguishes three dimensions: Forms, Relationships, and Practices. Forms entails “the physical, tangible and measurable aspects of landscape or space ... inclusive of both natural and cultural features” (Stephenson, 2008, p.134). Relationships encompass “meaning, significance, and interpretations of landscape ... Such relationships are represented in many ways including localised spirituality, myth, sense of place, naming, stories and through arts such as literature and song.” (Stephenson, 2008, p.134). Practices denote “both human practices and natural processes ... [they] include past and present actions, traditions and events; ecological and natural processes; and those practices/processes that incorporate both human and natural elements (Stephenson, 2008, p.134).

This model for valuation is expanded by Fredheim & Khalaf (2016) who identified the need to investigate three central questions in determining heritage values: What is valuable, why is it valuable and how valuable it is? A visual representation of this model can be seen in Figure 1.

**Figure 1.** Overview of the three identified stages of significance assessment.



**Source:** Fredheim & Khalaf (2016, p.472).

Taking Forms, Relationships and Practices (Stephenson, 2008) as the valuable feature they establish a second stage for the reason behind the valuation. This can be Associative (connections between people and the valued element), Sensory (sensory enjoyment like beauty), Evidentiary (as a source for scientific and other research), and Functional (use). In the category Associative, literature attributes importance to the concept of sense of place, especially in relation to landscapes and heritage (Larson et al., 2013; Waterton, 2005). Similarly, Dakin (2003) stresses the urgency to supplement the aesthetic-based approach that experts employ with a more attachment-based method that acknowledges the sense of place that inhabitants build in a landscape. This concept will be explored further in section 2.4.1. In the last stage, the qualifiers of value are addressed. As argued by Fredheim & Khalaf (2016), qualifiers can be regarded as multipliers who do not represent values themselves but rather result in stronger or weaker perceptions of significance. They propose the qualifiers Authenticity, Rarity and Condition. This is arguably an arbitrary list, which might call for an extension or reduction depending on the nature of the heritage that is valued. In the case of landscape heritage, Age and Ensemble Value might for example be added (Renes, 1999).

### **2.3 A constellation of conceptualisations: lay/professional/academic**

As elucidated above, both landscape and heritage are social constructs and their social representations are thus contingent (Harvey, 2001). How they are constructed and represented differs per time period, place, and of course per social group (Halfacree, 1993). Additionally, theory suggests a formation of heritage through so-called practices (Smith, 2006). These practices are routinised behavioural acts that play out both mentally and physically (Braaksma et al., 2016; Reckwitz, 2002). It is through this interaction with the physical world that individuals build an understanding that results in a discursive world (Buijs, 2009).

In this process, individuals can also grow emotive connections to the physical world they engage with, leading to valuation. Subsequently, social representations are constructed, adapted and reinforced in the process of communication between individuals. Within society, different

representations are upheld by different discourses. A discourse is “a practice not just of representing the world, but of signifying the world, constituting and constructing the world in meaning” (Fairclough, 1992, p.64). Writing in a context of conceptualising “rural”, Halfacree (1993) and Jones (1995) identify four prevailing and interdependent discourses:

- *Lay discourse*: “all the means of intentional and incidental communication which people use and encounter in the processes of their everyday lives, through which meanings of the rural, intentional and incidental, are expressed and constructed” (Jones, 1995, p.38).
- *Popular discourse*: “[discourses] that in some way are produced and disseminated within various cultural structures, such as art, literature, and all forms of media” (Jones, 1995, p.38).
- *Professional discourse*: “[discourses] of those whose work is in some way related to the object of discourse” (Jones, 1995, p.38).
- *Academic discourse*: “[discourses] of those who are studying the object within a discipline, with the aim of understanding and explaining the object of discourse” (Jones, 1995, p.38).

The popular discourse is somewhat of a mediating and reactive discourse in that its representations are both influenced by and influences portrayals in the other discourses (Jones, 1995). Although this discourse offers an important insight in how representations come to be and how they are justified, the main focus in this research will be on the lay, professional, and academic discourse.

In contrast to existing literature, this research does not define the inhabitants’ discourse as the “lay discourse”. It is argued that this denomination as “lay” disregards the experiential, local knowledge that inhabitants possess (Koizumi & Yamashita, 2021). Since this research looks at the conceptualisations of heritage by inhabitants, this is eponymously called inhabitants’ discourse is defined as the discourse of those who live in a certain area. However, the literature review builds on research in which the term “lay” is ubiquitously used. Therefore, the concept of lay discourse is used for the time being. The professional discourse is defined in line with the description by Döringer (2021) as the discourse held by “persons who are responsible for the development, implementation, or control of a solution, or persons who have privileged access to people or decision-making processes” (p.267). This discourse thus includes both those who have certain professions as well those who are able to influence the discourse and policies through their resources (Fairclough, 2010). Lastly, this research defines the academic discourse as the discourses of those who are studying the object within a discipline, with the aim of understanding and explaining the object of discourse (Jones, 1995, p.38).

Traditionally, the professional discourse has been the dominant one in the heritage sector (Smith, 2006; Groote & Haartsen, 2012). The professional has the authority to assign a heritage status and is expected to do so on the basis of “objective” criteria that allow for standardised evaluation (Graham et al., 2000; Smith, 2006). In this valuation, the professional is aided by the academic discourse that defines heritage value and delivers motivation for the heritage status. The lay discourse has been underrepresented in this process (Groote & Haartsen, 2012). Jones (2017, p.24) provides a host of reasons for the marginalisation of the values of citizens in the heritage sector. Firstly, social values are deemed transient whereas scientific values are more intrinsic. This is explicated by Koizumi & Yamashita (2021) who provide an overview of the traditional view that science had on lay people. They are assumed to know little, act irrationally, be emotional, resist new evidence, rely on anecdotes, be subjective with personal inclinations, be self-interested, and be easily frightened by media (Koizumi & Yamashita, 2021, p.2). Secondly, the means for establishing heritage values has been usurped by expertise and connoisseurship. Thirdly, the heritage sector has to deal with limited resources that impede the collection of social values. Lastly, heritage has also been subject to a wider trend of cost and benefit analyses. Public administrations tend to also value heritage when the investment in that heritage pays out in fields of well-being, health, education, and satisfaction with place.

This division of labour has been left uncriticised by scholars. First and foremost, professionals such as spatial planners do not properly scrutinise the methodology of academics

(Stephenson, 2005). The typologies that are currently employed for the valuation of elements do not allow for a thorough understanding of the cultural dynamics in landscapes. It is however this understanding that is necessary to safeguard values in new developments (Liang et al., 2022). Instead, lay values are insufficiently taken into account (Smith, 2006). Citizen involvement might even be a façade in order to justify predetermined decisions instead of genuine democratisation of the heritage sector (Swensen et al., 2012). Secondly, professionals and laypersons might have different interests in the composition of a common strategy for planning or preservation of heritage (Jones et al., 2007). Smith & Waterton (2009) even place professionals in the heritage sector among the many other communities of interests that lay their claim on heritage. Their knowledge and reputations as “custodians” of heritage does not make their specific claim any more legitimate than those of other groups (Smith & Waterton, 2009). Thirdly, Waterton & Smith (2010) state that professionals have a preconceived idea of what a community is when involving citizens in participatory processes. These images of homogenous communities overlook the very polymorphous values that appear in communities, contributing to dissonance. Moreover, professionals tend to use abstractions with regard to heritage that might alienate citizens who use a more discursive/descriptive approach (Swensen et al., 2012).

Professionals in the heritage sector tend to ascribe values that can be categorised in three domains: information value, historic value and experience value (Braaksma, 2021). Information value revolves around aspects as rarity, distinctiveness, ensemble value, and unicity. The historic value entails facets as age and integrity. Lastly, the experience value encompasses values as beauty, feeling, emotion, and stories. These are of course rather difficult to quantify in a scientific setting. Research has indicated that lay people might take into account fairly similar criteria in their valuation, however, the way in which different discourses build these criteria varies. Interestingly, Renes (1999, p.467) notes that “The accordance in the results of the valuation could very well be bigger than the accordance in the ways of valuing”.

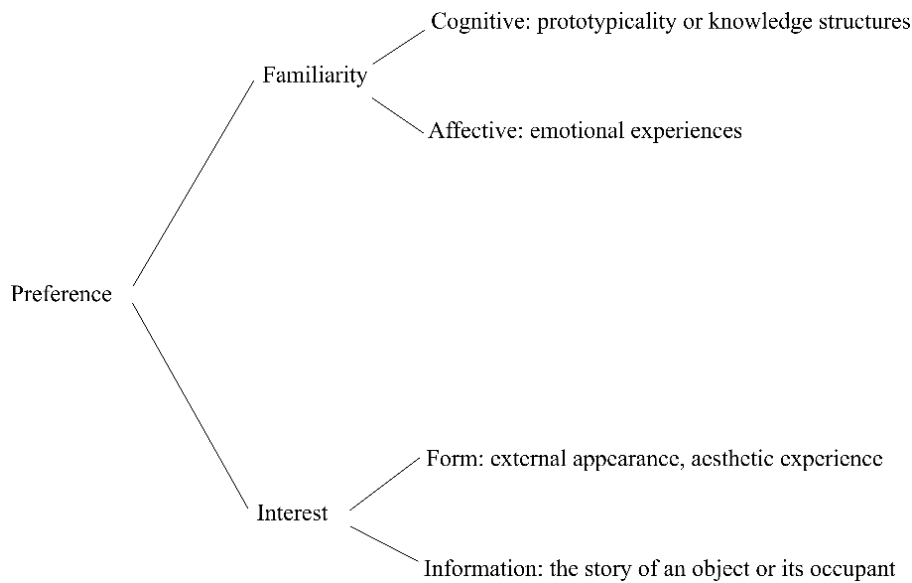
#### **2.4 Lay discourse**

Since heritage is a social construct, not everyone might effectively call it “heritage”. In the lay discourse valuable elements that are considered worthy of preservation might not be denoted as heritage (Kryder-Reid et al., 2018). They might describe value elements as “important”, “beautiful” or “belongs to [us/this place]”. This could contribute to semantic discrepancy as the term “heritage” in this regard might be an expert label on items, buildings, landscapes etc. (Swensen et al., 2012).

As mentioned before, previous research has found a host of personal parameters that impact people’s perception of landscapes. However, they are not unequivocal and do not allow for a sound prediction of valued elements. How preferences come to be among lay people is investigated by Coeterier (2002) who uses a model by Purcell & Nasar (1992), see Figure 2.

First, the concept “Cognitive” denotes the deviance from stereotypical landscapes. Environments that differ (but not too much) from what was expected tend to be appreciated more. Second, the concept “Affective” entails an emotional felt connection to the environment which in turn also sparks preference. Third, the concept “Form” means aesthetic appearance, so the influence of aspects as beauty, coherence or uniqueness. Fourth, the concept “Information” signifies the relationship between preference and the knowledge about the element in question (Coeterier, 2002).

**Figure 2.** The components of environmental preference.



**Source:** Coeterier, 2002, p.112.

Although Coeterier (2002) found a somewhat similar appreciation among both professionals and lay people when it comes to appearance, there were indeed some differences. Professionals tend to value elements based on the information about an element. This allows them to discern the age, the completeness and the rarity. Lay people tend to appreciate authenticity and state of maintenance (Coeterier, 2002). In line with these findings, citizens also take into account qualities as craftsmanship, completeness, realness and beauty (Braaksma, 2021).

According to Renes (1999), lay people (he also subsumes policy makers as lay people) lack an overview of larger regions and will therefore rarely ascribe value based on rarity or distinctiveness. Age is indeed appreciated to some extent although a seemingly old appearance is deemed sufficient. Likewise, the ensemble value is present in the lay discourse although its role is limited. Instead, lay people disapprove of visible changes that in their perspective negatively affect the condition. Renes (1999) states that lay appreciation can be influenced by information. Experts can make lay people aware of age, rarity, and distinctiveness which can be internalised by citizens, politicians etc.

In contrast to the professional and the academic, there is a bigger role for feeling in lay appreciation (Renes, 1999). Rather than focussing on inherent and formalised qualities, this would entail an assessment approach that goes beyond the experimental (appreciation of sensory stimuli) towards the experiential (emphasis on human-environment interaction and meaning-giving) (Dakin, 2003). Lay people tend to give value to the cognitive and affective aspects (Coeterier, 2002), as experiences and familiarity (Gobster et al., 2007). Besides a *genius loci*, they appreciate on the basis of the ties they have to the specific element and/or environment (Brandenburg & Carroll, 1995). This especially resonates with the notion of “sense of place” (Stewart, 1996).

#### 2.4.1 *Sense of place*

Sense of place is a crucial concept in the field of human geography, referring to a felt connection to the environment (Tuan, 1990). Sense of place has been defined in a variety of ways, simultaneously varying from discipline to discipline (Davenport & Anderson, 2005; Shamai & Ilatov, 2005). Furthermore, the elements that constitute sense of place are also perceived in a host of ways. This research follows Foote & Azaryahu (2009) in defining sense of place as “emotive bonds and attachments people develop or experience in particular environments, from the national, regional, or urban levels all the way to the personal scale of the neighborhood and home.”

(p.96). As found by Vong (2013), heritage can act as a stimulus for the formation of a sense of place. Dameria et al. (2020), elucidate the structure of the concept of sense of place and its salience for heritage as interaction leads to internalisation and appreciation of places and landscapes. They identified three dimensions to the concept sense of place: place attachment, place identity and place dependence (Dameria et al., 2020).

Place attachment can be of importance for the valuation of landscapes (Walker & Ryan, 2008). As a concept, place attachment has been defined in multiple ways revolving around a personal bond felt towards the physical environment as well as a meaning that it represents (Stedman, 2003). According to Savage (2010), belonging to a place can be categorised as either a feeling of nostalgia (the place has lost previous values) or as a feeling of elective belonging (the place is praised for enchanting qualities). These conceptualisations relate closely to heritage for it can contribute to enhanced place attachment (Alcindor et al., 2021). Place attachment itself influences one's attitude towards heritage, making place-protective behaviour more likely (Davenport & Anderson, 2005; Devine-Wright, 2009). The notion of place attachment can be of importance for management considerations of landscapes (Davenport & Anderson, 2005). How changes to the environment and its heritage are interpreted is also socially constructed and therefore extends beyond the individual (Batel & Devine-Wright, 2015). Consequently, the degree to which a change is deemed "fitting" can either positively or negatively affect place attachment (Devine-Wright, 2011).

According to Hawke (2011), the presence of heritage makes it more likely that a sense of place develops as the heritage is adopted in the identity of the self. Place identity refers to the identity that people derive from a place or landscape which allows them to discern themselves from inhabitants of other places or landscapes (Stobbelaar & Pedroli, 2011). Especially the "authenticity" of a landscape can be included as an element of this identity. It remains questionable how the authenticity of heritage can be established (Trinh et al., 2016). Place identity also closely relates to a form of environmental determinism on a personal scale. Twigger-Ros & Uzzel (1996) found that heritage can form a personal identity through "continuity", i.e., a person identifies with heritage places and refers to this heritage as a constituent factor for him- or herself. This is backed up by Lowenthal (1985) who clarifies that the past or heritage can help to position oneself within a wider timeframe. Lastly, a degree of familiarity with heritage contributes to a process of place-making (Mosler, 2019). Constant interaction with elements of heritage not only helps to orientate oneself within but also to read the landscape. Due to interaction, meaning is ascribed to the landscape elements as the physical and social become intertwined (Mosler, 2019).

Williams & Vaske (2003), state that place dependence can be viewed as a functional place attachment: people rely on a specific place to provide them with features or conditions that match their needs and desires. It is thus determined by the quality of the place and the expectations of a place (Alrobae & Al-Kinani, 2019). Place dependence is the outcome of evaluation of a place in comparison to other places (Jorgensen & Stedman, 2006). Having a sense of place also makes one more dependent on that place (Stokols & Shumaker, 1981). The absence of alternatives and a related uniqueness are also relevant for place identity and link closely to heritage. One's dependence on (heritage) places also makes one less likely to move away (Hawke, 2010).

In sum, sense of place is a crucial aspect in understanding the affective ties that inhabitants build with their living environment. Elements that are regarded as heritage can contribute significantly to this sense of place when these elements are internalised and become part of the personal or community's identity.

## **2.5 Academic discourse**

The academic discourse builds its valuation predominantly on values such as aesthetic value, historic value, and scientific value (Braaksma, 2021). These are subsumed as "intrinsic values". These values can be derived from the elements independent of its use, independent of the valuers and values based on inherent properties of the element (O'Neill, 1992). This intrinsic value is also referred to as existence value: the value that is attached to things regardless of the use that

people make of it (Fredman, 1994). To be sure, these intrinsic values are still ascribed by people, however, these values are not instrumental but are regarded as valuable in their own right. These qualities justify the conservation of an element and make it to an objective on its own (Avrami & Mason, 2017).

Apart from these intrinsic values, academics also ascribe extrinsic or instrumental values to elements. Likewise, academics stress that heritage can fulfil an identity-building role for both communities and society at large (Murzyn-Kupisz & Działek, 2013). Next, it acts as a source of information, i.e., a basis for further scientific research (Fredheim & Khalaf, 2016). This academic valuation requires research and documentation in order to determine whether elements or places are outstanding or representative, whether they have integrity and authenticity and consequently whether their heritage value is “significant” (Kalman & Létourneau, 2021). This also requires the academic to take a macro-perspective: putting elements in a comparison with other elements to determine whether qualities are present (Chen & Li, 2021). As for landscapes, where various aesthetic elements can be expressed in quantifiable parameters in order to determine its value (Vouligny et al., 2009). However, all academic knowledge too is partial and subjective despite the inclination of academics to omit their perspective from their publications (Jones, 2003). Value qualifications are often guided by reductionist typologies that seem to poorly match the multiplicity of values that prevails in society, reinforcing existing power structures (Avrami & Mason, 2017; Chen & Li, 2021; Fredheim & Khalaf, 2016). This is not to say that the academic discourse is blind to the values that are held by lay people. As summarised by Braaksma (2017, p.23), the scientific foundation for cultural historic value revolves around “information value” (rarity, distinctiveness, coherence, and uniqueness), “historic value” (age and integrity) and “experiential value” (beauty, feeling, emotion, and stories).

Further, scholars increasingly recognise the authoritative role of the heritage discipline (Smith, 2006). More and more, they plead in favour of and implement methods that take lay narratives into account (Kalman & Létourneau, 2021; Walter, 2014). The so-called landscape biography is such a promising tool that combines the layering of landscapes in the physical world and the human realm of ideas grafted on top of this, allowing for the incorporation of local knowledge and heritage values (Spek, 2017).

## **2.6 Professional discourse**

The academic and professional discourse tend to be closely related when it comes to heritage (Taylor & Verdini, 2021). The professional is expected to make policies and decisions on the basis of cultural heritage assessments made by academics (Stephenson, 2005). In addition to academic judgements, professionals tend to define valuable heritage for themselves and then investigate how citizens experience and value this chosen heritage, foregoing to consult them in the first place (Van Gorp, 2003; Smith & Waterton, 2010). Instead, the essentialist approach is still prominent in policies, spawning an abundance of typologies for the determination of significance (Avrami & Mason, 2017; Fredheim & Khalaf, 2016).

The professional’s valuation is mostly aimed at physical elements (Mydland & Grahn, 2012). This also holds for professionals in a landscape setting where the professional bases valuation mostly on aesthetic qualities rather than emotional values (Lee, 2020). To the professional, heritage and cultural landscapes are fragile and they need to be preserved, i.e., frozen in time. Hunziker et al. (2008) for example found that while the general public preferred intensification or reforestation of a landscape, professionals favoured restoration of the traditional cultural landscape.

Whereas professionals and academics both appreciate heritage for their intrinsic value, professionals can also view heritage as an asset (Aversano, 2016). Heritage can be valued for a vast array of purposes: strengthening a local identity, gathering support for the views of political groups, gains through repurposing for tourism or entertainment, increasing cultural value and in the case of cultural landscapes: catering to the demand for rural living (Sardaro et al., 2021). This has led professionals to steadily move away from a curatorial attitude that regards the protection



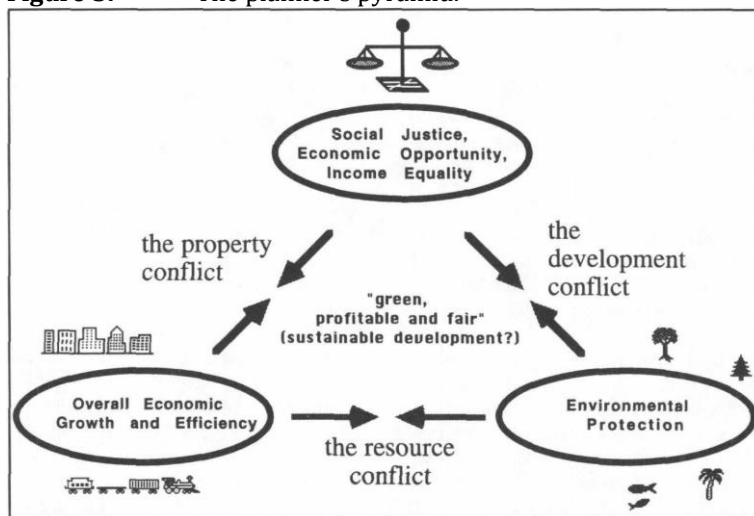
of cultural heritage as a legitimate end in itself (Avrami & Mason, 2017). A more, instrumental approach is frequently adopted that views heritage as an important utensil to achieve societal objectives (Avrami & Mason, 2017). In this context, cultural landscapes can be perceived as social-ecological systems that merge tradition and innovation in order to attain multifunctionality (Zerbe, 2022). Determining how heritage can contribute to these goals and how different actors and parties conceptualise heritage is key in this approach (Taylor & Verdini, 2021).

### 2.7 Spatial planning and landscape heritage: bottom up?

How to reconcile these various discourses regarding heritage and the cultural landscape is a changeling task for spatial planners. Likewise, Bürgi et al. (2017) identified “political shifts” as one of the main factors that heavily shape landscapes. The task is to actively combine spatial planning with the management of change instead of strict preservation (Janssen et al., 2017). Planning has been defined as “the systematic preparation of policymaking and policy-implementing actions aimed at intervening deliberately in the spatial order and to organise these interventions with the objective of preserving spatial qualities and improving them where possible” (Voogd, 2006, p.18). In essence, spatial planning deals with the multitude of claims that various parties make on space.

A clear model for these conflicting demands is constructed by Campbell (1996) who composed the “planner’s pyramid” in which possible tensions arise between the different pillars: the Economy, the Environment, and Equity. See Figure 3 below.

Figure 3. The planner’s pyramid.



Source: Campbell (1996) p.298.

Taking the cultural landscape and its perceived heritage values here as the Environment, first there is a “resource conflict” with the dogma of economic growth. How can an economy flourish without overexploitation of the environment/landscape, e.g., how can tourism increase in a protected area without detriment to its characteristics? Secondly, the “development conflict” highlights the dilemma between social justice and landscape protection. Especially when landscapes are employed in establishing class identity, they become subject to the preferences of ruling elites (Duncan & Duncan, 2001). Here, conflicts can arise about the very ownership of the landscape (elements), how they are presented, how they are used for political and societal purposes, and of course who see their cultural history represented in plans and plan formation (Duineveld, 2006). In dealing with the different claims on landscapes, a “problem of fit” arises since social institutions seem to poorly match dynamic and layered entities such as landscapes (Folke et al., 2007).

In response to the environmental, political and social tensions that traditional top-down planning worsened (Christopherson et al., 2010), planning approaches have been developed, in both theory and practice, that propagate communication and consensus-building (Verma, 2007). Increasingly, various scientific disciplines as well as policy makers moved away from a positivist lens towards a more constructivist lens (Gill, 2006). This paradigmatic shift in the planning discipline has come to be known as the “communicative turn”, “societal turn” or “cultural turn” leading to an approach called “collaborative planning” or “communicative planning”. This way of planning stipulates the involvement of many stakeholders, the conception of a shared frame of reference and an exchange of values (Allmendinger, 2017). Instead of professionals who propose a master plan, there is an objective of creating shared ownership through participation (Healey, 2003). However, reconciling top-down resource management and bottom-up developments require major political and economic changes (Cerna, 2013). Voogd & Woltjer (1999) consider it to be a requirement for the communicative approach that “stakeholders should be appropriately endowed with the necessary professional knowledge on the relevant issues and the possible alternative solutions” (p.845). Similarly, Healey (2003) states that expert knowledge needs to be supplemented by “key qualities of places which people want to maintain, develop, enhance and create” (p.527).

To come to this shared understanding of desired developments, oftentimes the method of “storytelling” is put into use. Van Dijk (2011) conceptualises storytelling as the creation of a narrative that normatively addresses current strengths and weaknesses and aims to commit the actors involved to deal collectively with these issues. This allows for the framing of elements, their past, present and future in order to steer developments in a certain direction (Van Hulst, 2012). Storytelling is seen as an adequate planning tool to achieve sense-making among actors and to provide direction to the collective action. Narrative-based approaches are in this regard interesting ways to engage communities in processes such as heritage preservation as they seek to grasp the perspective and lived experience of places of the actors involved (Foth et al., 2008). As such, this approach entails a significant move away from objective and official representations towards geographies of non-representational and affective aspects which closely relates to heritage values (Bulken et al., 2015). This leads Bulken et al. (2015, p. 2324) to conclude that “Storytelling [...] offers one useful way in which to get to these visceral perspectives of landscapes”. This is in line with the contemporary planning approach that seeks to maintain landscapes through development, stipulating the building of narratives and collaboration (Renes, 2019; Van der Valk, 2014).

This shared understanding of landscapes is especially relevant as more and more place-shaping is carried out by non-public actors (Horlings et al., 2021). Stenseke (2009) elucidates the need to listen to local voices in landscape maintenance when considering what is deemed heritage in order to foster a sense of ownership in the management of their appreciated environment. Primdahl et al. (2013) denote the prevalence of top-down policies in field of rural landscapes while highlighting the need for a communicative rationale in future rural landscape policies. Similarly, Plieninger et al. (2013) stress the importance of participatory, bottom-up processes to protect distinct landscapes by assuring social capital in relation to the landscape. The development of heritage is increasingly seen as an adaptive, developmental process that engages stakeholders, which in turn can empower communities and make them more resilient (Fabbricatti et al., 2020; Laven, 2015). Especially landscapes offer stakeholders “greater opportunities to integrate resiliency into their heritage development activities” due to their great complexity (Laven, 2015). To this end, a new branch of spatial planning developed. This “cultural planning” can be seen as “a new approach by which the historical aspects of cultural landscapes have to be connected with other functions and interests by means of integral planning associated with a large circle of involved disciplines, institutions and citizens.” (Vervloet et al., 2003, p.154). How exactly the participatory processes of historic landscape management should look like highly depends on the local context (López Sánchez et al., 2020). While “consultation” of local residents is the bare minimum, effective co-management is needed for continuation of landscapes as socio-ecological systems (López Sánchez et al., 2020). Successful cases of inclusion of inhabitants’ perspectives can

for example take on approaches of scenario planning (Plieninger et al., 2013) or action research (Elerie & Spek, 2010).

To be sure, this incorporation of the citizen perspective can be both passive (informing decisions), as well as active (taking control as a citizen initiative). Bottom-up citizen initiatives or community-based initiatives are increasingly welcomed to step in where local governments withdraw. Moreover, participation of community groups can help to bring forth lay perspectives that are more and more valued in heritage management (Waterton et al., 2006). Also, in dealing with heritage, new insurgent ways are found to circumvent existing power structures (Novoa, 2018). Bakker et al. (2012) distinguish three qualities of citizen initiatives. Firstly, they are regarded as collective actions. It may be initiated by a single person, but it is usually backed up by a larger group that strives to realise a public good. Secondly, these initiatives are characterised by self-organisation: revolving around self-determination on the configuration of the initiative as well as the means and the pooling of resources (Horlings et al., 2021). Thirdly, these initiatives act independently from governments or professional organisations.

Although these initiatives might indeed represent a share of the social-cultural values that the vector approach propagates (Janssen et al., 2017), all three of the three dimensions of Bakker et al. (2012) do have some connotations. These initiatives do not have a democratic mandate like governments (Matland, 1995). Moreover, not all inhabitants are equally inclined to participate and voice their opinion in collaborative endeavours (Nienhuis et al., 2011). Consequently, the legitimacy of the motivations of bottom-up initiatives may be questioned (Edelenbos et al., 2018). According to Taylor (2007), these initiatives might be used by some as a vehicle to achieve their own goals under the flag of community interest, possibly reiterating the forming of dissonant heritages. As with the authorized heritage discourse, local elites tend to be disproportionately empowered by local bottom-up initiatives, reinforcing power structures and hindering inclusive processes (Skerrat, 2016). A critical attitude remains necessary to determine whether working in a bottom-up fashion deals effectively with “problems of fit” in dynamic contexts such as landscapes (Guerrero et al., 2015).

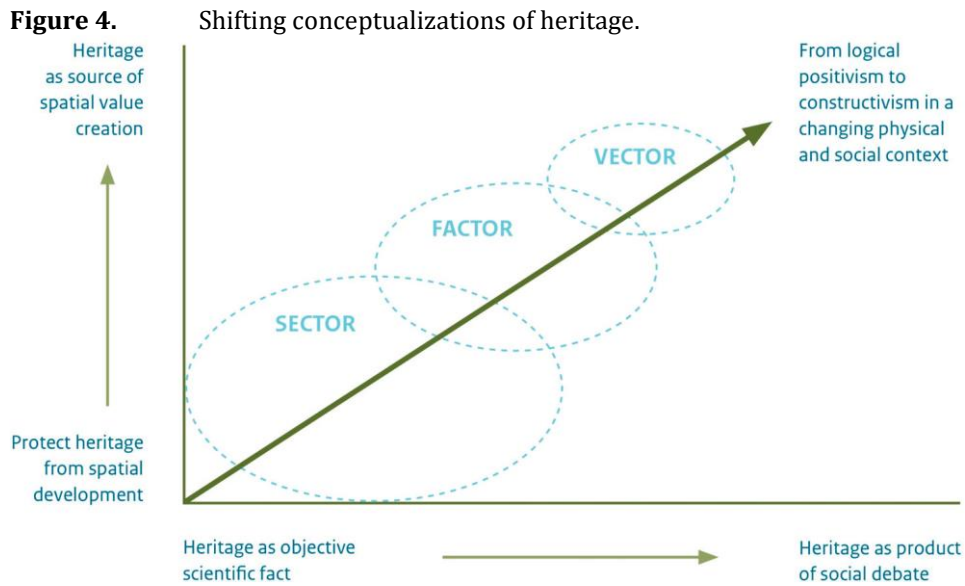
### *2.7.1 Heritage planning: a similar trend*

As with spatial planning, a similar movement towards democratisation has taken place in the landscape and heritage sector. The aforementioned “communicative turn” that has taken place in the discipline of spatial planning has also altered the discipline of heritage conservation (Veldpaus et al., 2013). A background on the rules and regulations on landscape heritage in the Netherlands can be found in Appendix I.

Janssen (2012) distinguishes three subsequent phases in how spatial planning has related to the heritage sector over the last century:

- Contrast (1900s-1970s): characterised by a highly modernist, and preservationist setting
- Contact (1970s-1990s): increasing interest for quality of the living environment
- Connection (1990s-present): redeveloping heritage for strategic (economic/societal) aims

In more recent work Janssen et al. (2017) elaborates on this trend and describe a transition from heritage as a sector towards heritage as a vector, see Figure 4.



**Source:** Janssen et al., 2017, p.1667.

Initially, heritage conservation was an elitist activity that revolved around preservation. As made clear by Lowenthal (2005), the endeavours to save cultural and natural heritage were initiated by the affluent, highly educated elites from the First World in response to “destruction” by industrialisation and modernisation. This also entails that it is this elite that appoints things as heritage. This nomination by ruling classes is later conceptualised as the aforementioned authorized heritage discourse (Smith, 2006). The heritage as a sector approach regards heritage as artifacts with scientifically established value that should be secluded from developments as heritage was perceived as a finite stock that could not be replenished. This traditional view on heritage also valued monuments for their therapeutic abilities in times of modernist developments (Janssen et al., 2017). Despite a certain perpetuation of this preservationist tendency in contemporary heritage planning, the heritage as a sector approach has been able to adopt a more comprehensive view that also encompasses mundane and working-class heritage (Janssen et al., 2017).

From the late 70s onwards, heritage became an economic asset, suitable for redevelopment. A strategic combination of functions could contribute to revitalisation. As such, heritage would contribute to the financing of its own conservation. Heritage was included in the wider appreciation of an area instead of a solitary building. It became one of the spatial qualities that was incorporated in plan development. However, as Wardana (2020) points out, a neoliberal frame of reference in the heritage discipline can have dire consequences for cultural landscapes, leading to homogenisation of landscapes.

The third approach of heritage as a vector seeks to take into account the social-cultural values next to the cultural-historical and economic values. Increasingly, this proliferation of the heritage sector calls for a broadening of heritage values as there is simply a lack of a comprehensive valuation system. This is due to a fragmentation of organisation, legislation and policy making. Therefore, there is a call for collaboration between academic and non-academic partners (Bazelmans, 2012; Bazelmans, 2013). This cultural turn has put an emphasis on intangible heritage and the personal narratives, memories and meanings. The historical narrative of the artefact infuses the planning process. In policies there has also been a semiotic shift of heritage, leading to a broader definition. Other values are now incorporated as well, such as cultural value, identity-building properties and the degree of interaction of the object with memory (Vecco, 2010). This strategy perceives heritage as layered for which the landscape biography provides an apt tool for analysis. This way, heritage building can function as a means to engage communities in planning processes. This is in line with the spreading conviction that landscapes can best be maintained through development (Renes, 2019; Van der Valk, 2014).

## 2.8 *Conceptual model*

The concepts discussed in the theoretical framework and their respective relations have been visualised in the conceptual model below, see Figure 5. In line with the reviewed literature, this model assumes a different valuation by the groups in a similar distinction as Parkinson et al. (2016) who employ the discourses that are identified by Jones (1995): Professionals, Academics, and Inhabitants. However, this model subsumes Professionals and Academics under the same category. This merge is based on the identified interrelatedness of Professionals and Academic valuation (Stephenson, 2005). Literature indicated that Professionals and Academics tend to appreciate elements based on intrinsic value, values that are integral part of the element and its valuation is separated from its use or the valuers (O'Neill, 1992; Taylor & Verdini, 2021).

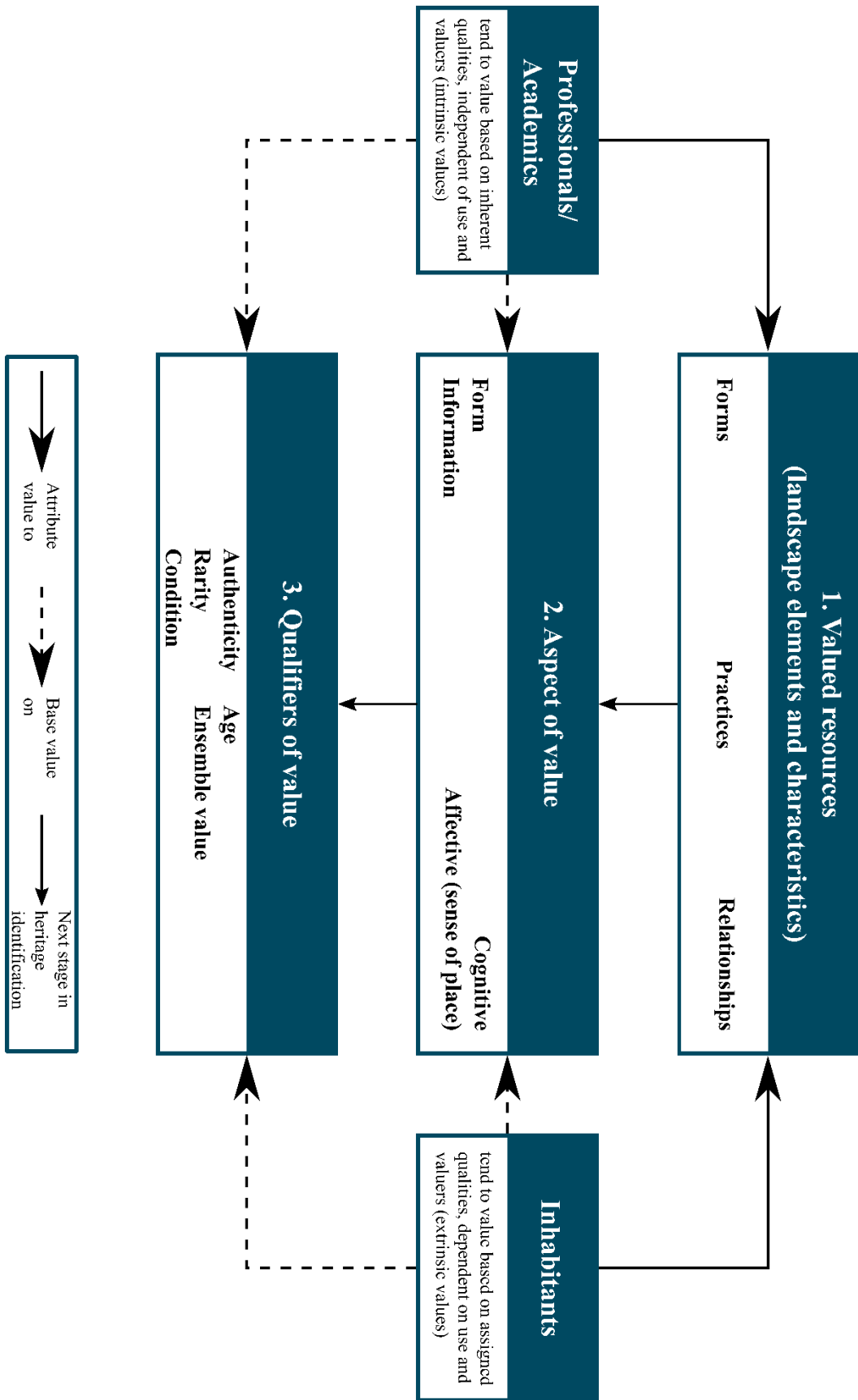
On the other hand, Inhabitants ascribe value to elements on the basis of familiarity and experience, which is explicitly called extrinsic value (Ruiz & Domon, 2012; Yung & Chan, 2013). Furthermore, the group is named "Inhabitants" here as the taken as the description "Laypeople" does not really do justice to the local knowledge that this pluriform group holds. Among those who reside in a landscape might similarly be people who have more recent expertise, both factual and experiential, than those who are called Professionals and Academics (Koizumi & Yamashita, 2021).

The model takes a three-stage approach that is introduced by Fredheim & Khalaf (2016) which builds on a model that was composed by Stephenson (2008) that is fully geared towards values in landscapes. This model for the assessment of significant first aims to determine what the feature of significance is. In this case this is a landscape element or characteristic. Stephenson (2008) makes a distinction between Forms (matter, appearance, location), Relationships (meaning, interpretation, significance), and Practices (traditions, activities, events, natural and cultural processes). Based on the literature review (cf. Renes, 1999), the category Form is placed at the side of the Professionals/Academics and Relationship at the side of the Inhabitants. Since Professionals/Academics tend to value the tangible and the Inhabitants tend to value based on affective connections (Renes, 1999). However, this is not to say that affective measures do not matter to Professionals/Academics or that the tangible does not matter to Inhabitants. Instead, this slight inclination is visualised by placing Form and Relationship somewhat at the sides. The dimension Practices was placed in the middle as no clear relation with the valuation by neither Professionals/Academics nor Inhabitants was found.

The second stage seeks to identify the aspect of value: Why is this heritage valuable? Fredheim & Khalaf (2016) have chosen the aspects, Sensory, Evidentiary, and Functional. They construe that these aspects were chosen based on earlier typologies (Fredheim & Khalaf, 2016). However, to specify this model to landscape heritage, this research follows the aspects used by Coeterier (2002), who also tested for expert and non-expert valuation based on these aspects. These include Cognitive, Affective, Form and Information. In his research Form and Information were more influential on valuation by Professionals. Whereas, the valuation by laypeople was influenced more by Cognitive and Affective relations. Especially with regard to Affective bonds and landscape, the salience of sense of place was reiterated in literature. Therefore, Form and Information are placed Professionals/Academics side in this model, and Cognitive and Affective (sense of place) were placed at the Inhabitants side. This is not to say that Professionals and Academics do not have a sense of place or that Inhabitants do not value elements when they have knowledge about them. As in the first stage, they are however slightly oriented.

The third stage tries to determine the qualifiers of value. In line with Fredheim & Khalaf, (2016), this model adopts the qualifiers Authenticity, Rarity, and Condition. In line with Renes (1999) the qualifiers Age and Ensemble value are added for the landscape setting. However, this is a rather arbitrary typology that is likely to differ per discipline or object under scrutiny. These qualifiers are placed in the middle as literature did not provide a clear line of reasoning whether Professionals/Academics or Inhabitants tend to use these qualifiers more or less than the other discourse (cf. Renes, 1999; Coeterier, 2002).

**Figure 5.** Conceptual model of landscape heritage valuation.



**Source:** Created by author (Ras, 2022).

## 2.9 Hypotheses

Based on the literature review it is expected that the mechanisms behind valuation differ between Inhabitants on the one hand and Professionals/Academics on the other.

*H<sub>research question</sub>: The inhabitant, professional and academic discourse have different valuation mechanisms. The professional and academic discourse are closely connected discourses that value information and aesthetics. Whereas the inhabitants' discourse is characterised by valuation of landscape elements based on personal and communal affective ties.*

*H<sub>sub-question 1</sub>: Inhabitants mainly value landscape elements based on affective ties.*

*H<sub>sub-question 2</sub>: Academics mainly value landscape elements based on appearance and information value.*

*H<sub>sub-question 3</sub>: Professionals mainly value landscape elements based on appearance and information value.*

### 3. Methods

As put forth by Swanwick (2009), attitudes and valuation of landscapes and their elements is highly place-specific. In order to fully grasp which aspects of the cultural landscape are regarded and framed as heritage the method of a case study is adopted. As argued by Yin (2016), case studies are suitable when the research focus is on the why and how behind a contemporary phenomenon when the context is of great importance. Therefore, this method can offer understanding of complex meaning systems within their socio-cultural context (Taylor, 2016). The case was selected based on a) the presence of a bottom-up spatial development that dealt with a landscape; b) the presence of an ongoing process to assure that people are more likely to be familiar with the case at hand.

Since this research seeks to get in-depth insights in the values that are held by different groups with very different sizes, this will be a mixed-methods single case study (Yin, 2016). In this regard method triangulation contributes to richer data and mitigation of researchers' bias (Fusch et al., 2018). The inhabitant's perspective was investigated through surveys that were administered in an interview setting with both closed and open-ended questions. The academic perspective was investigated through the making of a landscape biography based on academic literature which was supplemented by expert interviews. Lastly, the professional perspective was explored through semi-structured interviews and policy documents.

It is important to address how these groups are defined in this research. The inhabitants are defined as the people who live in Holwerd, both inside and outside of the built-up area, hereby following the borders of the postcode area (see Figure 6). The professionals are defined in line with the description by Döringer (2021) as "persons who are responsible for the development, implementation, or control of a solution, or persons who have privileged access to people or decision-making processes" (p.267). Therefore, the steering group behind the bottom-up initiative is also regarded as professionals next to governmental bodies such as the municipality, province etc. Lastly, academics are defined as people who study (cultural) landscapes from an academic perspective.

#### 3.1 *The case of Holwerd and Holwerd aan Zee*

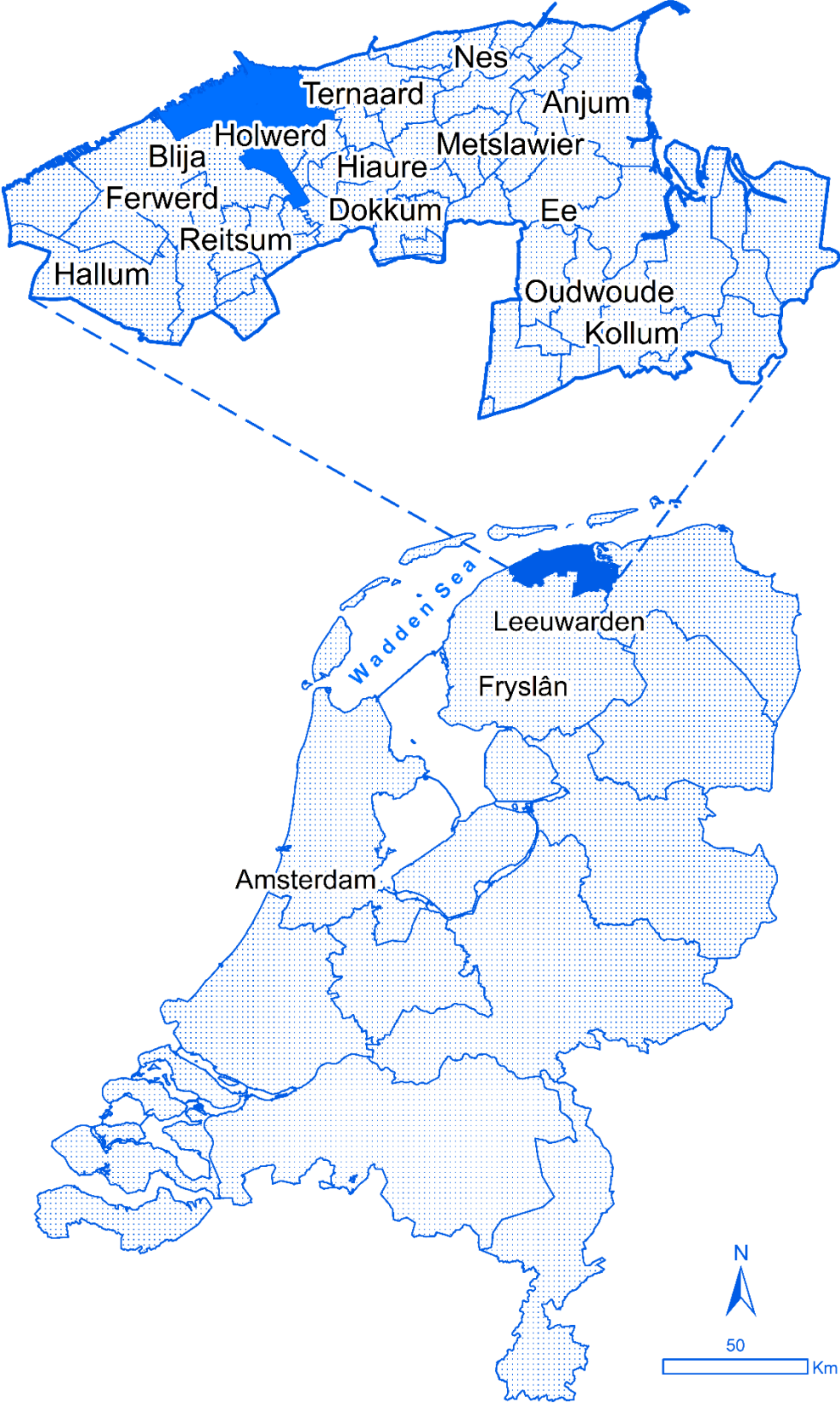
Holwerd (*West Frisian*: Holwert) is a village in the north of the Netherlands, in the municipality Noardeast-Fryslân, Province of Friesland, see Figure 6.

As of 2021, Holwerd has 1585 inhabitants which makes it the sixth largest village of the municipality (Noardeast-Fryslân, 2022). Holwerd is located northwest of the town of Dokkum and northeast of the city of Leeuwarden. The village is connected to these towns via the trunk roads N356, N357, and N358. Holwerd is arguably most famous for the ferry to the island of Ameland.

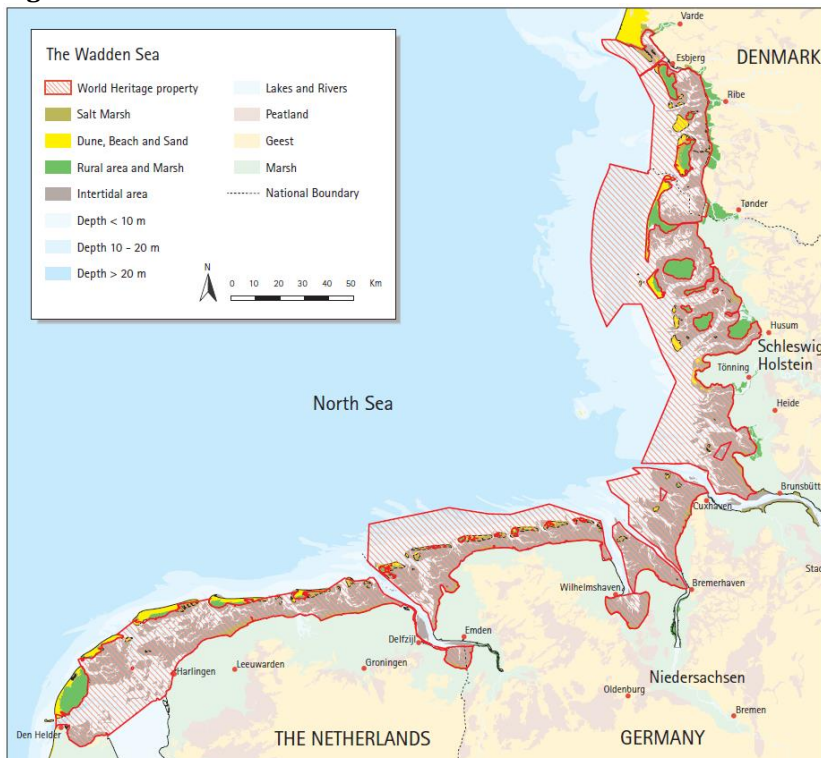
Directly north of the village is the Wadden Sea (also called *Wadden*). This is an intertidal zone ranging from the Netherlands to Denmark and is flanked by barrier islands, see Figure 7. In 2009 this area was designated as a natural World Heritage Site with an extension in 2014 (UNESCO, 2022). Interestingly, authors have stressed evident cultural aspects to this area due to omnipresent human interference (Renes, 2018).



**Figure 6.** Map of the Netherlands, location of Holwerd within the municipality of Noardeast-Fryslân.



**Figure 7.** Demarcation of the Wadden Sea as natural World Heritage Site.



**Source:** UNESCO (2022a).

The village of Holwerd is located in a fairly rural environment where agriculture dominates the scenery, covering 84% of the municipal surface compared to 78% in Friesland and 68% in the Netherlands (Koppen, 2016). Holwerd has an active village life judging by the presence of multiple associations and clubs (Gildemacher, 2016; Holwerd.nl, 2022a). Although the village has few amenities, Holwerd provides services to the direct surroundings (Gildemacher, 2016). Based on its “double-terp structure”, “spatial structure”, “historical valuable buildings” and “beauty and spatial congruence”, Holwerd was assigned the status of “protected village scape”, which seeks to uphold the spatial configuration as an entity (Ministerie van Welzijn, Volksgezondheid en Cultuur, 1991).

However, Holwerd as well as the wider region Noardeast-Fryslân have struggled with population decline since the 1960s. A series of (sub)regional policies that sought to foster industrialisation of the town of Dokkum could not prevent net outmigration as a result of the peripheral situation, a shifting economic gravitational point and modernisation and marginalisation of agriculture (Hoogeboom, 2014). Conversely, tourism based on the landscape, cultural history and water sports has grown in importance in the municipality (Koppen, 2016).

In 2011, the plan of Holwerd aan Zee was conceived based on a vision by a landscape architect. The plan was received well by the majority of the inhabitants and the interest group of the village (Dorpsbelang Holwerd) that wanted the plan to moved forward. Therefore, the idea was soon led by a steering group. This project aims to ameliorate both liveability and socioeconomic circumstances in Holwerd through recreation (Rijksoverheid, 2019). Taking inspiration from villages in Ostfriesland, Germany, the plan is to remove a part of the dyke in order to create a tidal inlet north of the village. This way Holwerd will be located directly at sea which would allow for a boulevard full of shops and restaurant along a tidal buffer lake, see Figure 8. This lake is supposed to create enough flow to prevent the inlet from filling in with sediment. Moreover, this brackish lake would create a habitat that fosters biodiversity. Furthermore, a disused canal will be deepened and widened in order to connect Holwerd to the water infrastructure of the hinterland, making it possible for small recreational boats to travel to Leeuwarden, Dokkum and the Frisian lakes.

The project is based on 9 pillars (Holwerd aan Zee, 2022a):

1. Nature
2. Water and water safety
3. Wadden port
4. Recreation and tourism
5. Liveability
6. Art, culture and landscape
7. Innovation and sustainability
8. Agriculture
9. Living lab Holwerd aan Zee

**Figure 8.** Visualisation of the project Holwerd aan Zee.



**Source:** Holwerd aan Zee (2022b).

After an initial meeting with local interest in 2014, the project began to accrue wider support from 2015 onwards. Holwerd aan Zee became a “living lab”, cooperating with educational institutes Hanzehogeschool Groningen, University of Groningen and TU Delft. The project was incorporated in the national programme for Infrastructure, Space and Transport (MIRT). In 2018, municipalities, the provincial council and the national government reserved funding for the project. In 2019, a large charity lottery promised contribution of €25 million. On December 16<sup>th</sup> 2019 Holwerd aan Zee, Bird Watch Netherlands, the province of Friesland, the municipality of Noardeast-Fryslân and the water board of Friesland signed a declaration of intent to realise Holwerd aan Zee. Subsequently, the first lands were purchased in 2020 for the construction of the tidal lake. During this period, various researches were carried out in order to determine economic feasibility as well as possible hydrological changes and salinisation (Holwerd aan Zee, 2022b).

In 2020, a wider area surrounding Holwerd got a candidacy for a UNESCO Man and the Biosphere status. In these areas, local and regional parties seek to achieve sustainable development by cooperating based on a common vision (UNESCO, 2022b). By engaging several

villages and the town of Dokkum, the aim is to attract sustainability tourism while the project of Holwerd aan Zee acts as a catalyst (Holwerd aan Zee, 2020).

Authors have questioned whether a combination of so many different goals, core principles, and expensive projects is actually viable (Koppen, 2020). Nevertheless, local news sites reported that Holwerd aan Zee seems to have delivered on its promise even before realisation. The housing market has surged forward in the last decade, even in shrinking regions such as Noardeast-Fryslân. Local media reported in 2015 and 2018 that this revival was especially visible in Holwerd as the prospect of the project contributed to the attractiveness of the village (Omrop Fryslân, 2015; Omrop Fryslân, 2018). Within 10 years' time, the situation turned around since there is a demand for more houses in the village (Omrop Fryslân, 2020).

In 2022, three scenarios were developed: a) nature and integrally to stimulate nature development and local revitalisation with a tidal inlet, when possible, with a navigable water management system; b) the first scenario with a navigable inlet that suits ships, nature and fish migration; c) no tidal inlet, but integral area development; d) stopping with the project Holwerd aan Zee (Holwerd.nl, 2022b). As of October 2022, the plan consists of a navigable tidal inlet and lake together with a navigable canal (scenario a). Just before this research was completed it was announced that two parties (farmers organisation LTO Noord and waterboard Wetterskip Fryslân) withdrew from the project but that Holwerd aan Zee would effectively be realised in a "natural variant" without a navigable passage (Omrop Fryslân, 2022).

### **3.2 Data collection process: survey**

First, a door-to-door survey is conducted among the inhabitants of Holwerd to gather the elements that are valued from the perspective of the inhabitants. As online surveys generally have lower response rates (Brown & Weber, 2012), inhabitants were visited physically. In order to get a representative sample of the whole of the village, a systematic random sampling was applied (Banerjee, 2019), i.e., visiting every other address, both within and outside the built-up area. Recruitment took place over the course of several weeks on weekdays between 16:00h and 19:00h to assure a higher response rate. Households were asked for respondents over 18 who lived in the village, resulting in the absence of minors in the sample. This selection criterion was chosen to avoid difficulties with parental consent. Participation in the survey had no further selection criteria. Over the course of several weeks, the researcher visited about 350 addresses of the 750 addresses of Holwerd. Of these 350 addresses visited, 108 responded, resulting in a response rate of roughly 30%.

Besides a higher response rate, this approach also has the benefit of eliciting more meaningful answers through personal contact (McLafferty, 2016). Furthermore, unclarities about the questions or research purposes could directly be addressed by the researcher. Lastly, personal interaction allows for the researcher to pick up on non-verbal communication (Banerjee, 2019).

Surveys were conducted in a question-answer manner. The researcher read aloud the exact question to which the participants responded. By doing so, the survey tried to emulate an interview setting since interviewing is an effective way to map the nature and location of cultural heritage with inhabitants (Li et al., 2020). Answers were then written down by the researcher and afterwards manually inserted in the online survey. Records were password-protected.

The questionnaire consisted of three sections. The first part asked questions about the attitude towards the landscape, valuable landscape elements and the project of Holwerd aan Zee. To this end, the method of cultural mapping was also employed, a method that provides participants with more agency and freedom of thought (Currie & Miranda Correa, 2021). Besides verbal description of valuable qualities and elements, respondents could indicate their valued location, size of location etc. on a map.

The second part looked at the sense of place that respondents derived from the landscape around Holwerd. For this measurement of the level of "sense of place" the method of Raymond et al. (2010) was adopted. However, in order to keep the questionnaire concise, only two questions



per dimension of sense of place was included. Here, the choice was made to incorporate the questions that were most significant in the analysis by Raymond et al. (2010).

The third part delved into the participants' personal characteristics in order to determine the demographic representativeness of the sample. Therefore, respondents were asked about basic demographic characteristics as gender, age, educational attainment, and duration of residency. The questionnaire structure can be found in Appendix II.

### **3.3 Data collection process: landscape biography**

Next, to fully grasp the landscape heritage values as they present themselves in the academic discourse a landscape biography is composed. Based on the landscape biography a list is made of landscape elements and characteristics that could be regarded as heritage from an academic perspective.

A landscape biography is made in order to investigate how heritage values are embedded in the continuous becoming and layering of landscapes. According to Kolen et al. (2015), landscape biographies contribute to an interdisciplinary understanding of the *longue durée* landscape changes in the light of the human *Lebenswelt*. As such, a landscape biography provides an overview of the history of the physical world and the world of ideas that is superimposed on it. Although these biographies strive to provide an integrative account of the layering that constitute the landscape, they are by no means complete as they highlight certain ecosystems, artefacts and social meanings (Kolen et al., 2016).

Besides interpretation and representation of landscapes by their inhabitants of the past, landscape biographies feature present-day heritage practices that affect contemporary spatial developments (Roymans et al., 2009). As such, this method is praised for its ability to bridge the gap between theory and practice for protection in environmental planning (Bloemers, 2010). As a result, this method is also recommended for municipalities in order to integrate heritage values in their spatial vision plans (Rijksdienst voor het Cultureel Erfgoed, 2018). Landscape biographies can have various forms, for example a time line or a model. This research will employ a chronological approach following the time frames as used by Bazelmans et al. (2012), narrowed down to the village of Holwerd within the northern part of Oostergo (north of the line Leeuwarden-Kollum) and Friesland. Relevant literature for this biography is identified through an online literature search, the landscape biography by Worst & Coppens (2021), publications by the Vereniging voor Terpenonderzoek, snowballing references of the paper of Bazelmans et al. (2012), and literature from the researcher's personal library on regional history.

An interesting landscape layer is the toponymy. According to Jett (2011), place names represent people's relationship with the physical environment as they reflect interrelations between place and the human realm with its beliefs, values and perceptions. Toponyms contribute to a place identity and create generational ties to place. Moreover, its linguistic nature makes toponyms suitable for heritage creation and transmission (Hakala et al., 2015). Like heritage, toponyms are subject to power structures, especially in the situation of majority versus minority languages, as is the case in Friesland (Gorter, 2022). Consequently, Frisian toponyms themselves can be regarded as heritage (Ormeling & Versloot, 2008). Furthermore, place names provide insight in cultural history as well as settlement history (Gildemacher, 2008). Besides place names (toponyms) and street names (hodonoms) (Landry & Bourhis, 1997), this information can be distilled from water names (hydronoms) (Gildemacher, 1993) and so-called micro toponyms (Devos, 2000), such as field names (Penko Seidl, 2008). In the case of Friesland, the research institute Fryske Akademy has inventoried toponyms since 1949 (Mol & Beetstra, 1988).

### **3.4 Data collection process: interview**

Thirdly, via interviews insight will be gained in how Professionals and Academics come to their valuation of elements and which elements or characteristics are seen as heritage. According to Van Audenhove & Donders (2019) expert interviews are useful ways for collecting *process knowledge*: knowledge about processes, attitudes, routines, and decision making in certain fields. This objective for expert interviews requires purposive sampling of experts that work in the context under investigation (Van Audenhove & Donders, 2019).

The academic perspective was investigated by approaching academics who are active in the field of landscape history and who are familiar with the research area. These participants were prof. dr. ir. Theo Spek (professor of Landscape History), dr. Mans Schepers (archeobotanist and assistant professor), and Jeroen Wiersma, MA (landscape historian). It is argued that these three interviewees are representative for their academic discipline as they were educated in the academic realm, are aware of the academic debate and literature. These three interviews made use of cultural mapping (Duxbury et al., 2015). A topographic map with an overlay altitude map was presented to the participants and they were asked the following question: "What do you consider to be heritage on this map and why do you consider this to be heritage?". Participants were allowed to draw on these maps. Directly after the interview, details behind the drawings were reconstructed (Van Audenhove & Donders, 2019). Audio recordings of the interviews were made with consent of the participants, see Appendix III.

In order to investigate the value building in the professional discourse, an online semi-structured interview was held with a member of the steering group of the bottom-up initiative Holwerd aan Zee. Next, a semi-structured interview was held with a civil servant who dealt with landscape heritage. Both interviews covered which parts or elements of landscapes were considered to be heritage, how this is supported by argumentation, and how this taken into account in plans. Here too, audio recordings of the interviews were made with consent of the participants, see Appendix III. The interview guides can be found in Appendix IV.

### **3.5 Methods of analysis: survey data**

In order to analyse survey responses in a consistent manner, a classification system was built to categorise heritage values. In this research, a stepwise form of assessment is developed in line with the conceptual model which in turn is based on the work of Fredheim & Khalaf (2016) and Stephenson (2008), see Table 1.

The model by Stephenson (2008) proposes a subdivision of Forms, Relationships, and Practices for the valuation of landscapes. However, some aspects in this model were relatively abstract or not explained. In order to further increase the applicability of this model, articles were found that delved into these aspects in more detail. The first step is identifying the feature of significance. By who proposes a subdivision of Forms, Relationships, and Practices for the valuation of landscapes. Further operationalisation of these dimensions is grounded in the works by Minkjan et al. (2010) for Form, Brown (2012) for Relationship.

The second stage of this model is adapted to suit the valuation of both built heritage and landscapes. Instead of the elements proposed by Fredheim & Khalaf (2016), this research adopts the aspects of values by Brown (2012) as they represent a broader spectrum for applicability.

The third step, the Qualifiers of value, holds some qualifiers that are hard to quantify. Rarity and condition are therefore kept broad in terms of rare and common, and pristine and affected. Authenticity has been operationalised following García-Esparza (2016) and Wood (2020).

**Table 1.** Model for the classification of heritage values.

Step 1: Feature of significance What is regarded as heritage?		
Forms (Minkjan et al., 2010)	Relationships (Stephenson, 2008)	Practices (Stephenson, 2008)
<ul style="list-style-type: none"> <li>- Matter</li> <li>- Form (appearance)</li> <li>- Location</li> </ul>	<ul style="list-style-type: none"> <li>- Meaning</li> <li>- Interpretation</li> <li>- Significance</li> </ul>	<ul style="list-style-type: none"> <li>- Traditions</li> <li>- Activities</li> <li>- Events</li> <li>- Processes</li> </ul>

Step 2: Aspects of value (Brown, 2012) Why is this heritage regarded as valuable?
<ul style="list-style-type: none"> <li>- Aesthetic/scenic: attractive sights, smells, sounds</li> <li>- Economic: provision of resources or income</li> <li>- Recreation: place for outdoor recreation</li> <li>- Life sustaining: production/preservation/cleaning of air, soil and water</li> <li>- Learning/scientific: provision of knowledge through observation and study</li> <li>- Biological: presence of biodiversity</li> <li>- Spiritual: scared, respect for place</li> <li>- Intrinsic: valuable in own right, regardless of people's opinions</li> <li>- Historic: representation of natural and human history</li> <li>- Future: valuable because future generations can know and experience the area</li> <li>- Subsistence: provision of food and supplies to sustain life</li> <li>- Therapeutic: contribution to physical and/or mental restoration</li> <li>- Cultural: allow for transfer on knowledge, tradition and way of life of ancestors</li> <li>- Wilderness: wild, unhabitated and untouched by human activity</li> <li>- Marine: area supports marine life</li> <li>- Social: places for social interaction</li> <li>- Special places: other meaning</li> </ul>

Qualifiers of value		
Authenticity (García-Esparza, 2016; Wood, 2020)	Rarity	Condition
<ul style="list-style-type: none"> <li>• Static authenticity</li> <li>- Objective</li> <li>• Dynamic authenticity</li> <li>- Staged</li> <li>- Constructivist</li> <li>- Existential</li> <li>- Emergent</li> <li>- Theoplacity</li> </ul>	<ul style="list-style-type: none"> <li>- Rare</li> <li>- Common</li> </ul>	<ul style="list-style-type: none"> <li>- Pristine</li> <li>- Affected</li> </ul>

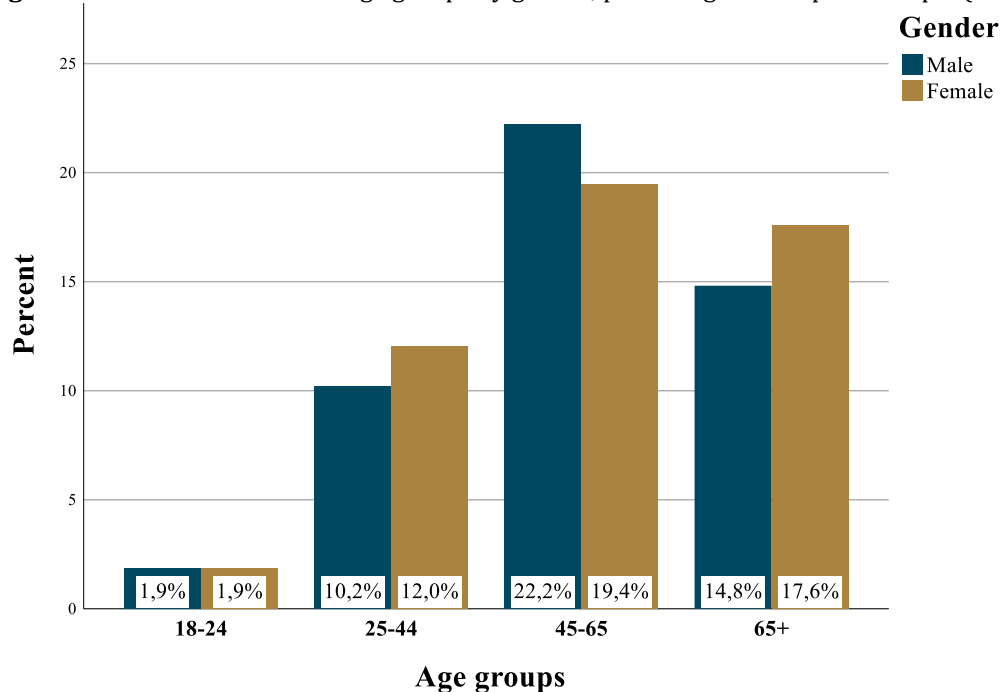
### 3.6 *Methods of analysis: interview data*

Interviews were held in the period of 15 September until 6 October 2022. The recordings of the interviews were translated and transcribed from West Frisian/Dutch to English using ATLAS.ti. Quotes that might disclosure the participant's identity were replaced with "[personal information]". The transcripts can be found in Appendix V.

### 3.7 Representativeness of sample

An overview of the respondent characteristics can be found in the Appendix V, Table 2. The sample shows an almost equal distribution of both genders (49% male and 51% female) and a distribution of educational attainment that closely matches the statistics on the village of Holwerd. However, there seems to be an over-representation of the age groups 45-65 and 65+ while the group 15-25 is under-represented, see Figure 9. Respondents of under 18 were not recruited, the age group 0-15 is therefore not present in the sample. This might create a bias towards groups that might interact differently with the landscape and consequently might value different elements. It is argued that this will not hinder the analysis as this research does not aim to provide full generalisability on which elements are valued by what share of the inhabitants. Rather, the focus is on a stocktaking of the valued elements and how these valuations is backed up by argumentation.

**Figure 9.** Distribution of age groups by gender, percentage of complete sample (n=108).



### 3.8 Ethical considerations

When doing research, ethical considerations are especially relevant as gathering knowledge is a normative act (Couper, 2015, p.205). The quality of knowledge thus relies on honesty and integrity. As such, researchers should respect self-determination, strive to do good, refrain from doing harm, and do justice when it comes to costs and benefits of the research (Couper, 2015). In order to identify possible ethical points of attention a priori, the Ethical Checklist of the Research Ethics Committee of the Faculty of Spatial Sciences of the University of Groningen was employed. No discrepancies were identified here.

Participants were informed about the purposes of the research. Furthermore, participants could withdraw at any moment. In order to guarantee anonymity, no personal information was asked apart from age, gender, level of education, and length of residency in Holwerd. When conducting questionnaires from door to door, power relations are especially relevant for the personal interaction between researcher and participant. How the latter is addressed influences both the preparedness to participate as well as the answers that are given (Hazel & Clark, 2013). Power relations in an inverse way do also play a role in interviewing experts. In this context,



participants can take over control in interviews and dictate what can and cannot be discussed (Perera, 2021).

Lastly, it is relevant to elaborate on the positionality of the researcher as this will inevitably impact the research process (Holmes, 2020). Being reflexive and acknowledging one's positionality should help to reduce biases and partisanship (Holmes, 2020). The researcher is a white male who grew up in a working-class family and who has a predominantly rural residential background, growing up roughly 50 km from the research area. The researcher has a fondness for physical cultural heritage and landscapes which is likely to affect his views on (spatial) developments that deal with these matters. Having a rural residential background and speaking Frisian does help to build rapport with the participants (Collins, 1991). This may contribute to more "openness" on the side of the participant as the researcher might be regarded as part of the in-group, yielding a higher response rate and more meaningful answers (Holmes, 2020). On the other hand, being part of the in-group could mean that the researcher is more biased in favour of his peers. Additionally, "obvious information" might not be shared as participants expect the researcher to already have this inside knowledge (Holmes, 2020). It is thus crucial to be aware of this positionality that might place the researcher somewhere outside the community under investigation but not completely separate from it. Moreover, in the context of this research it is important to address the academic education of the researcher which might place the researcher's conceptualisations of landscape and heritage in the academic discourse that is under investigation here.

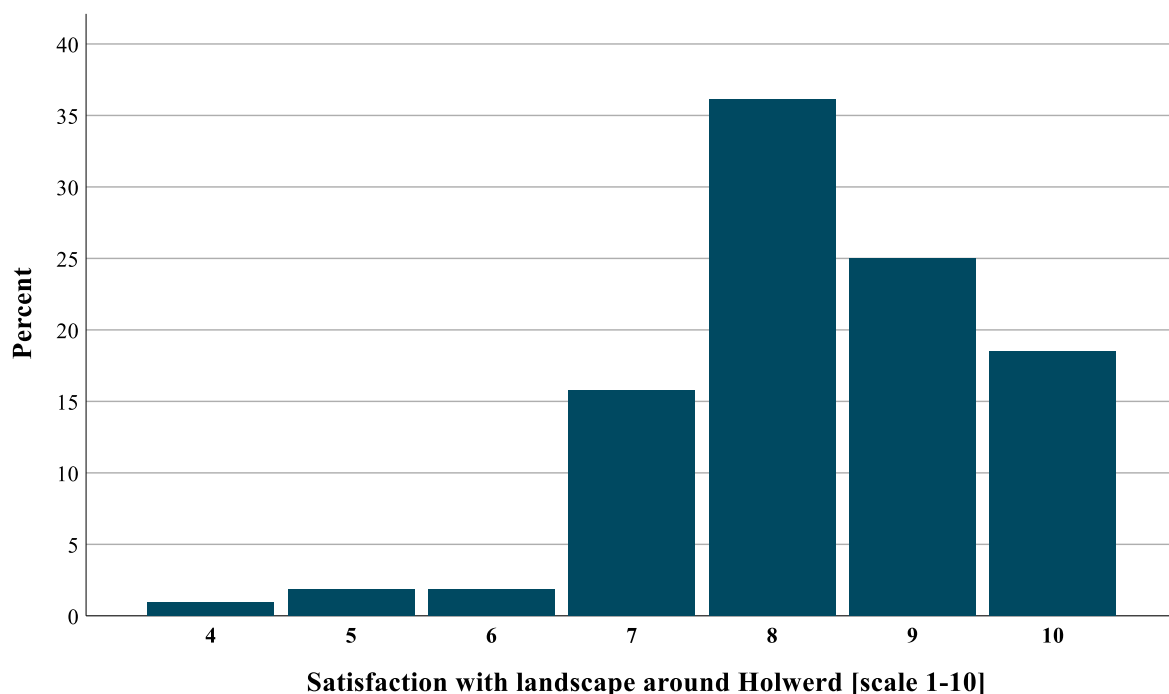
## 4. Results

### 4.1. *The inhabitants' discourse*

#### 4.1.1. *Satisfaction with landscape and landscape characterisation*

Respondents in the survey were relatively positive about the landscape, see Figure 10. 97,2% of the respondents rated their satisfaction with the landscape surrounding Holwerd with a 6 or higher on a 10-point scale with a mean of 8,33 and a mode of 8. When asked to characterise the landscape, participants often described the landscape as open, wide or spacious, see Table 3. It was relatively often described as rural, agricultural, and/or natural. However, also evaluations were present in the characterisation of landscapes. Respondents frequently described the landscape as beautiful or nice. Whereas value judgements were also uttered in the description of the openness when some respondents described this openness with adjectives as empty, bare, or monotonous.

**Figure 10.** Satisfaction with landscape around Holwerd on a 10-point scale.



64,8% of the respondents considered the landscape surrounding Holwerd to have a specific identity. Interestingly, some respondents did consider the landscape around Holwerd to be unique while adding that this originality has to be seen in a wider context. The landscape is somewhat similar in the whole north-eastern part of Friesland contributing to a sharp contrast with the Wâlden, a more bocage-like landscape 10 km southeast of Holwerd. The reoccurring themes that respondents thought provided the identity of Holwerd's landscape can be found in Table 4. This identity was mainly attributed to the proximity of the Wadden Sea and the dyke. Again, the openness (wide view) of the landscape and the agricultural use were mentioned often.

<b>Table 3.</b> Most frequently mentioned terms to characterise the landscape around Holwerd.		<b>Table 4.</b> Most frequently mentioned terms to describe the identity of the landscape around Holwerd.	
	Times mentioned <sup>a, b</sup>		Times mentioned <sup>b, c</sup>
Open, spacious	36	Wadden Sea	20
Beautiful	29	Dyke	16
Agricultural	21	Wide view	9
Rural	20	Agriculture	9
Peaceful	18	Pier	6
Natural	17	Salt marshes	5
Flat	12	Village centre	4
Wadden Sea	6	Terps	3
Free	5		

<sup>a</sup> n = 108.

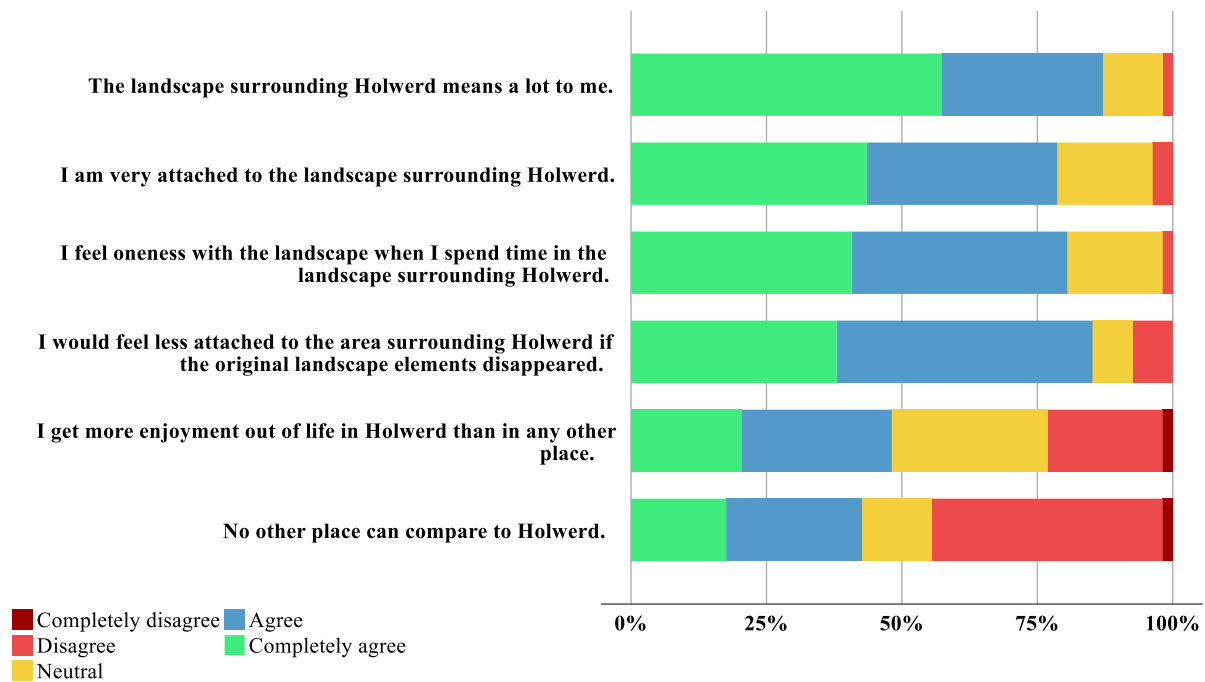
<sup>b</sup> Respondents had no word count restriction and may therefore be present in multiple categories.

<sup>c</sup> n = 70 (respondents who did consider the landscape around Holwerd to have a specific identity).

Respondents generally had a rather positive attitude towards the project Holwerd aan Zee. People especially appreciated the activity that the project might bring to the village. Next to this, the respondents appreciated the possible nature values that the project could enhance. However, the financial feasibility was often questioned. Regarding the landscape, a vast majority thought that the landscape was taken adequately into account in the plans. 82 respondents (75,9%) considered the landscape to be taken sufficiently taken into account. 12 respondents (11,1%) did not consider the landscape to be taken sufficiently into account. 14 respondents (13,0%) did not know whether the landscape was taken sufficiently into account.

#### 4.1.1 *Sense of place*

Respondents to the survey indicated to derive a certain degree of attachment from the landscape and its elements. The levels of agreement to the six statements that measured sense of place can be found in Figure 11. Especially salient is the level of agreement for the first four statements that measure place identity and place attachment. Here, more than 75% of the respondents indicated to either agree or completely agree. This sharply contrasts with the level of agreement with the statements on place dependence which do not attain a level of agreement of 50%. Another interesting finding in the light of landscape heritage is the level of agreement with the statement "I would feel less attached to the area surrounding Holwerd if the original landscape elements disappeared". The high level of agreement here indicates that attachment to the landscape relates to landscape elements that the respondents deem original and maybe even heritage.

**Figure 11.** Agreement with statements on sense of place.

#### 4.1.2 Heritage values

Respondents of the survey have mentioned a wide array of elements of the landscape that they thought were important to preserve, an overview can be found in Appendix VII, Table 5. In this stocktaking, participants both valued qualities of the landscape as a whole as well as elements in the landscape.

With regard to broader characteristics of the landscape, respondents valued the peacefulness, space and wide vistas. This was not only regarded as valuable for its aesthetics. The openness and peacefulness of the landscape were appreciated for multiple reasons. Respondents regarded it as an inherent part of the landscape as also surfaced in the landscape characterisation. As such, this vastness was regarded as something that gave identity to the landscape and set it apart from other parts and landscape of Friesland. This aspect of the scenery was also valued for its “therapeutic” function as it brought feelings of peace and freedom.

Some respondents had a more comprehensive view on the valuation of the landscape as they wanted to preserve it as whole: no alterations should be made. Respondents valued the landscape as an ensemble of elements that together constituted the identity and uniqueness of Holwerd’s landscape. Again, this ensemble was also appreciated for its aesthetic value. Some respondents would reject wind farms, gas extraction, and the arrival of Holwerd aan Zee while praising the status quo. These aspects are often mentioned in the context of NIMBY-ism (Devine-Wright, 2009). The landscape as it is should be preserved as it currently is authentic and diverse.

When identifying landscape elements, most salient is that respondents did not single out individual elements apart from the sea dyke, pier, church and village centre. Rather, respondents defined valued elements in categories instead of pointing to a specific one. As such, various elements were valued that pertained to the agriculture, which was also frequently mentioned as characteristic for the landscape.

Farmsteads were appreciated for their aesthetic qualities. They were regarded as defining for the scenery. Farms contributed to diversity in the landscape which otherwise would be rather “bare”. Moreover, the farms were valued for their historic aspects. Many farms are old and were therefore seen as carriers of the Frisian identity that provided authenticity to the landscape. However, their historic value was often explicated in a rather nihilistic way as: “they simply belong here”. Other reasons for appreciation were economic aspects, i.e., their production of food, and their role in supporting biodiversity.

Besides farmsteads, agricultural land use was also appreciated. This entailed not only arable land, but also meadows and the cattle grazing it. These lands were similarly valued for their intrinsic value. They contribute to the uniqueness of the landscape and simply “belong here”. Agriculture is regarded as part of the landscape. Furthermore, agricultural land also produced economic gain, jobs, crops, and were home to various animal and plant species.

However, respondents stressed the negative influence that land consolidation had. Especially, the small plots from before the land consolidation were appreciated for their historic value and aesthetics as they were characterised by diversity. Again, farming was seen as inextricably linked to the landscape, however it should be done in a small-scale fashion. Especially the hamlet of Elba was praised in this regard for its smaller parcels, winding ditches and roads.

In the survey, nature as a whole was also listed as a valuable aspect of the landscape. Highlighted were the sparse trees in the landscape and the salt marshes that function as habitats. Apart from the ecological function, nature is appreciated as a constituting factor of the landscape. The green fields and biodiversity are regarded as unique and contribute to the identity of Holwerd’s landscape. Interestingly, meadow birds were also recognised as integral parts of the landscape.

The Wadden Sea on the other hand was valued because of more intrinsic aspects. The Wadden Sea was considered to be unique and could not be found elsewhere. Similarly, the uniqueness of the Wadden Sea was a determining factor for the scenery. However, it was also stated that the Wadden Sea and the salt marshes “belonged here”.

The sea dyke was appreciated for both its aesthetics and its identity carrying capacity. It is seen as a unique feature that cannot be found anywhere else and decisive for the landscape as it also contributes to diversity. The dyke is perceived as something that has been here for so long and therefore “belongs here”. Similarly, sleeper dykes and winding roads hold both historic value and aesthetic value. Furthermore, the sea dyke was appreciated for its protection against the sea and as a site for recreation. The pier from where the ferry to Ameland departs is deemed valuable for both jobs and it is also regarded as something that belongs to Holwerd.

The terps in the area are appreciated for various reasons. They are perceived as unique elements that are also part of the Frisian culture. Terps represent historic value that also needs to be preserved for the future. These terps contribute to scenic diversity in a monotonous landscape.

In a similar vein, canals are valued for their contribution to the character of the landscape. They are also representants of the landscape from before the land consolidation and hold therefore historic and aesthetic value. These canals also need to be preserved and maintained. These canals can also be used for recreational purposes.

Lastly, old buildings were valued. These buildings include windmills, churches, monuments and other old buildings. Old buildings were valued for their aesthetic value and the diversity they add to the landscape. These buildings contribute to the landscape’s identity and are also regarded as unique for Friesland. These buildings are monumental and need to be preserved because of this status. Moreover, these buildings are appreciated for their age and consequently that they “belong here”.

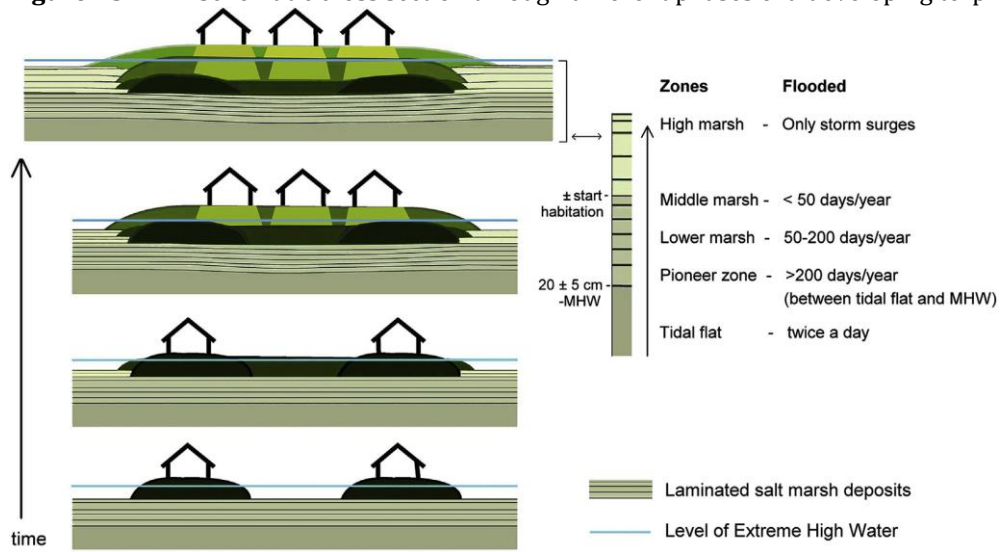
#### **4.2    *The academic discourse: landscape biography***

This landscape biography starts at moment of the colonisation of the salt marshes around 600 BC as from this period onwards the landscape became subject to substantial human interference. Visible landscape elements and characteristics that can be perceived as heritage date from this period. A more elaborate genesis of the landscape leading up to the biography’s starting point can be found in Appendix VIII. This landscape biography is more specified to the area surrounding Holwerd than the landscape biography that was ordered by the municipality of Noardeast-Fryslân, see Figure 12.



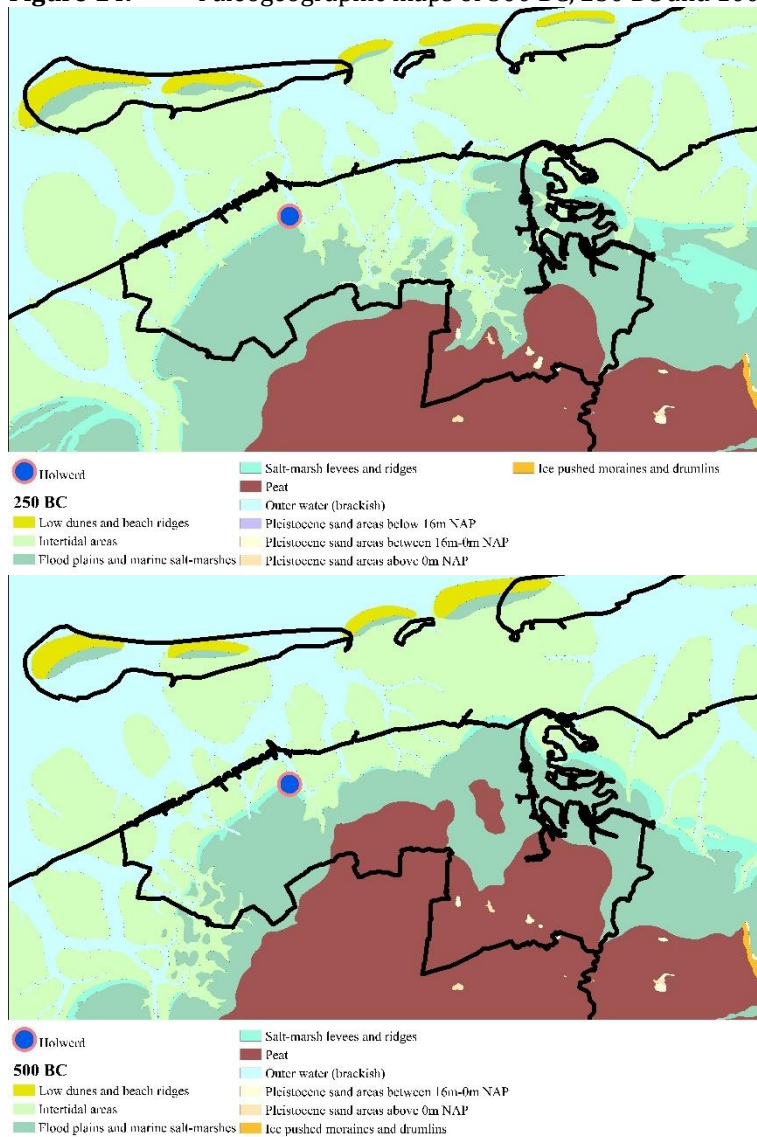


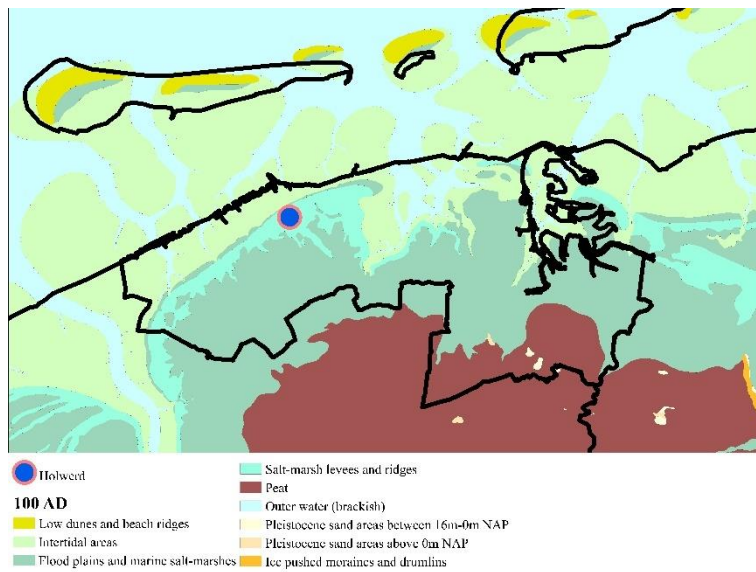
**Figure 13.** Schematic cross section through different phases of a developing terp.



**Source:** Nieuwhof et al. (2019, p.82).

**Figure 14.** Paleogeographic maps of 500 BC, 250 BC and 100 AD.





**Source:** Vos et al. (2020), adapted by author.

Between 600 and 500 BC the region east of the Middelzee started to silt up, resulting in a seaward expansion of the salt marsh (Nicolay et al., 2018). Between 500 BC and 100 BC, a narrow salt marsh ridge developed that still had connections to the basin behind it via various inlets, see Figure 14. On this ridge lay the present-day villages of Hallum, Marrum, Ferwert, Blije, Holwerd, and Ternaard.

The drainage of the adjoining peat bogs resulted in oxidation and subsidence of the hinterland, making these areas more susceptible to flooding. Consequently, new tidal inlets emerged from 500 BC onwards: the Middelzee, the Lauweszee and a creek system east of Holwerd (Vos & De Lange, 2010). This did foster the accretion of the salt marshes as well as amelioration of the accessibility over water (Vos & De Lange, 2010). Near Holwerd a tidal inlet reached into the hinterland in the direction of Dokkum between 1500 BC and 400 AD. As this inlet silted up, an inversion of the relief took place. In contrast to the settling of the clayey deposits, the sandy sediments in the former inlet left behind a protruding ridge on which the villages of Waaxens, Brantgum, and Foudgum are situated (Worst & Coppens, 2021).

As early as the late Stone Age until the early Roman period, low summer dykes were constructed that protected arable land. However, these dykes were low enough to allow for flooding during winter. This way, sedimentation helped these areas kept up with sea level rise while also bringing in minerals (Bazelmans et al., 1999; Nieuwhof, 2006). In times of flooding, draining of the land was fostered by man-made ditches that were connected to the natural creeks.

Around the year 0, the terp area experienced its Golden Age (Hacquebord, 2010). During a period of regression between 200 BC and 200 AD a second generation of terps was erected (Stenvert et al., 2000). However, people were still subject to environmental changes. Despite the fact that paleogeographic maps do not show drastic changes in the region between 100 AD and 800 AD (Wiersma & Nieuwhof, 2018), continuing accretion of salt marshes led to hampered drainage in the hinterland (Nieuwhof, 2016). Both agriculture and grazing by livestock was impossible in lower lying areas with stagnating water, incentivising these inhabitants to leave the area. Consequently, this led inhabitants on the higher salt marsh ridges to also leave the area as the socio-economic structure collapsed. This is why the 4<sup>th</sup> century saw a sharp decline in habitation, leading Nieuwhof (2016) to call it the “empty 4<sup>th</sup> century”. This discontinuity in habitation is supported by the absence of archaeological findings from this century in Medwerd near Holwerd (Kaspers, 2021), Waaxens (Kaspers, 2021), Ternaard (Kaspers, 2021), Hallum (Nicolay et al., 2018), Foudgum (Pasveer, 1991), Birdaard (Den Hengst et al., 2010), Hogebeintum (Nicolay et al., 2019).

During the 5<sup>th</sup> and 6<sup>th</sup> century, the area became recolonised by Anglo-Saxon immigrants (Nieuwhof, 2016). In the terp of Holwerd, there have been findings dating back to the 6<sup>th</sup> or 7<sup>th</sup>



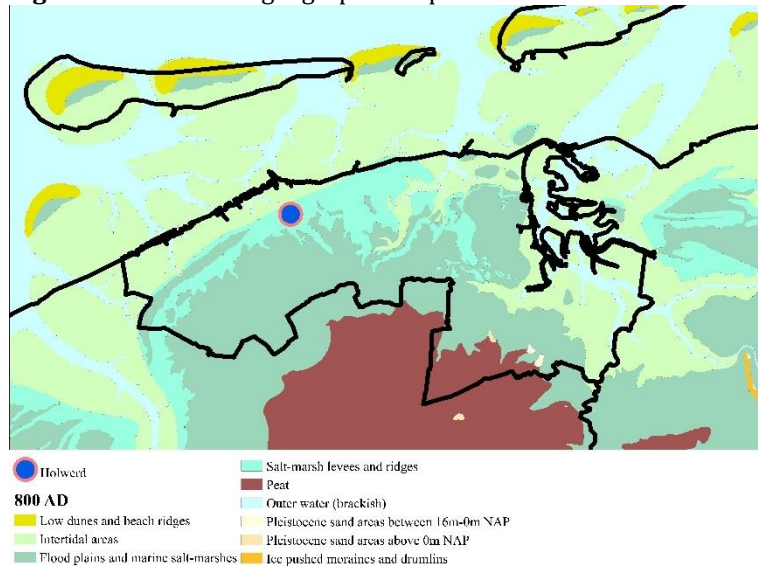
century (Prummel & Olivier, 2008). At first, previous settlements were inhabited again, but in the 7<sup>th</sup> century existing terps were expanded and new terps were constructed as well, producing a third generation of terps (Bärenfänger et al., 2013). For the Frisian terp landscape, place names have been connected to both their geographical and chronological situation (Versloot, 2021). Toponyms that denote dwelling mounds in the Frisian context can be classified based on the suffixes -hēm (= homestead), -ing (= belonging to), -werth (= elevated settlement), -werua (= elevated settlement), and -therp (= cultivated land, dwelling, settlement).

- Toponyms consisting of the elements -hēm, -ing, -werth have been identified as early Medieval (De Langen, 1992; Gildemacher, 2008).
- The element -werua can be found in lower lying areas which have been colonised in a later stage (Gildemacher, 2007).
- Interestingly, the most notorious form “terp” developed rather recently and is relatively scarce as a toponym (Gildemacher, 2008).

A more elaborate stocktaking of toponyms can be found in Appendix IX, Table 6.

***Being part of the Christian empire (800-1500 AD): largescale embankments and reclamations of the tidal marshes and peatlands***

**Figure 15.** Paleogeographic map of 800 AD.



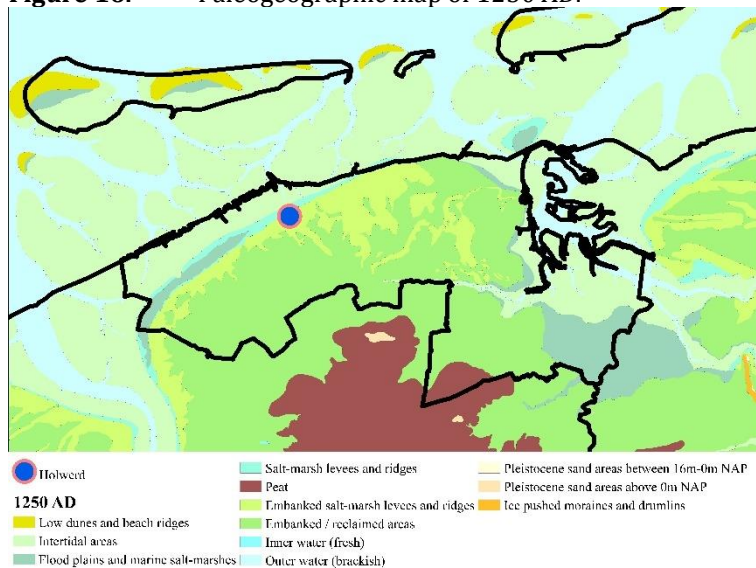
**Source:** Vos et al. (2020), adapted by author.

In the 8<sup>th</sup> century, Friesland became part of the Frankish Empire. This incorporation in this vast empire not only made the inhabitants subject to a feudal system, it also provided possibilities for trade with Scandinavia and the Baltics (Bazelmans et al., 2012). Especially salt was an important merchandise which was extracted by burning sub-surface peat. These trade ties boosted city formation as well as growth of more small-scale trade settlements (De Langen, 1992). The growth of the agriculture and trade is also reflected in the arrangement of settlements. Besides reuse of previously abandoned terps and colonisation of the rest of available salt marsh ridges, people moved inland. From the 7<sup>th</sup> century onwards, people increasingly reclaimed vast areas of the beat bogs in the hinterland, see Figure 15. A development that would continue throughout the Middle Ages (De Langen, 1992). Furthermore, terps themselves were taken into agricultural use during the Early and High Middle Ages. As the agricultural surface of the terp expanded, the farmsteads gradually moved toward the edges of the terp, starting mid-9<sup>th</sup> century and continuing until mid-11<sup>th</sup> century (De Langen & Mol, 2022). Depending on the environment and number of people, terps could develop in a radial shape, a more rectangular shape or various variants in between (De Langen & Mol, 2016). Especially in the lower lying areas with heavy clay that surrounded the terp, the equal division of land among the various farms contributed to the

appearance of a spoked wheel. It is argued that more distant (communal) complexes of hayfield were divided in the late 12<sup>th</sup> or 13<sup>th</sup> century (De Langen & Mol, 2022). On the higher salt marsh ridge, this subdivision of land resulted in more parallel and block-shaped properties perpendicular to the elongated ridge (De Langen & Mol, 2016). This form of equal distribution did not require a pie-like division of the terp, often resulting in more of a rectangular patchwork (De Langen & Mol, 2016). An interesting quality that can be found on arable land on flat salt marsh ridges are dome-shaped parcels, so-called “kruinige percelen”. Through ploughing parcels inward, the difference in height fostered the drainage of the parcels (Jongmans et al., 2015).

With the conquest by the Franks, the Christianisation of Friesland ensued. This conversion was led by missionaries who were supported by the bishops and major abbeys (Roemeling, 2013; Van Vliet, 2002). The first churches were so-called proprietary churches or *Eigenkirchen* when the missionaries transferred them to the monasteries or the episcopal church (De Langen & Mol, 2017). The first foundations in northern Oostergo include Holwerd, Dokkum, and Ferwerd (Noomen, 2014). As such, Holwerd was a proprietary church of the monastery Esternach, founded just before 777 and dedicated to Willibrord (De Langen & Mol, 2017). Holwerd acted as a mission centre from where the lower lying hinterland was christened (De Langen & Worst, 2021). As mentioned before, the terps themselves were still valued for their agricultural use despite the possibilities to grow crops around the terps (De Langen & Mol, 2016; Schepers, 2015). This contributed to the decision to found churches on small agricultural terps or house terps near larger agricultural terps (De Langen & Mol, 2016). The Holwerd church is located on a terp of the Carolingian period. The situation of this mound outside the 12<sup>th</sup> century dyke can be explained by erosion of the surrounding high salt marsh (De Langen & Mol, 2016). The settlement of Holwerd however was founded on an agrarian mound just south of the church terp (De Langen & Mol, 2016). Consequently, the village has a rather complex structure compared to surrounding villages, a size that is most likely achieved in the Late Middle Ages (De Langen, 1992).

**Figure 16.** Paleogeographic map of 1250 AD.



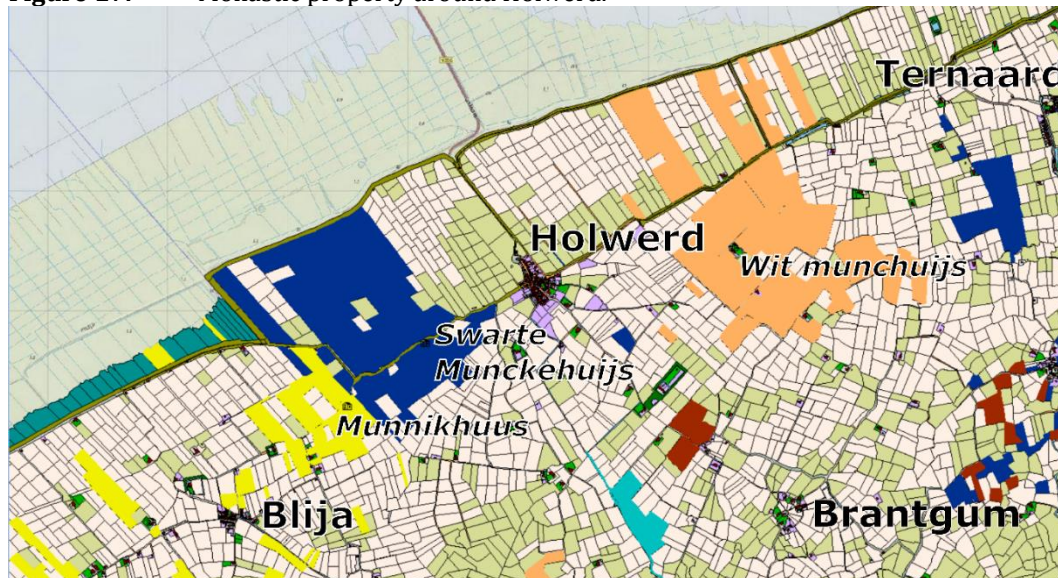
**Source:** Vos et al. (2020), adapted by author.

However, drainage of the lower laying areas behind the salt marsh ridges became increasingly harder as the inlets started to silt up around the year 1000 (Spek & Schepers, 2022). An important development in this regard was the building of dykes on a larger scale, starting with circular dykes that protected small areas in the 10<sup>th</sup> century. Between the 11<sup>th</sup> and 13<sup>th</sup> century larger inlets were dammed. Around the 12<sup>th</sup> century the encompassing dyke around Oostergo was constructed in one piece (Van der Laan-Meijer et al., 2022). Silted up passages were deepened or diverted and discharge sluice, locally called *zijlen* or *pompen*, were constructed in these levees.






The construction of dykes had far-reaching consequences for settlement patterns. People were now able to colonise and use more intensively, the lower laying loamy clay areas. Farms left the terps and relocated to either these low laying areas or the salt marsh ridge (Nicolay et al., 2018; Spek & Schepers, 2022). However, farms were still built on dwelling mounds as the sea defence was still far from reliable (Spek & Schepers, 2022).

In this period of defensive dyke building, the first monasteries came into being in Friesland. It is however a misconception that the convents were the initiating force behind dyke building nor that they settled in unforgiving terrains (Mol, 2013). At the moment of their arrival, Friesland was already in the “age of damming the remaining streams, the construction of central water outlets, and of the reorganisation and intensification of the use of agricultural space” (Mol, 2013, p.283). Research has shown that they had a keen eye for heights in the landscape to build their monasteries while they acquired low laying areas that they could easily drain and make profitable (Mol, 1992). West and east of the village of Holwerd monasteries had three subsidiaries or *granges*: the Premonstratensian Munnikhuus, part of Foswerd near Ferwerd, the Cistercian Swarte Munckehuijs, part of Klaarkamp near Rinsumageest, and the Premonstratensian Wit munchuijs, part of St. Boniface’s Abbey in Dokkum, see Figure 17. Since the dyke provided protection, these granges were built directly on top of the salt marsh ridge. Production at these granges not only supplied the monastery but also yielded surpluses that could be sold (Mol, 2013).

**Figure 17.** Monastic property around Holwerd.



**Source:** Fryske Akademy (2022), adapted by author.

	Premonstratensians, Dokkum		Cistercians, Rinsumageest
	Premonstratensians, Oudkerk		Cistercians, Burum
	Benedictines, Ferwerd		

The choice of location of monasteries cannot be seen separately from the presence of the local elite who acted as their beneficiaries (Mol, 1992). This class of subordinates to the distant Francian king can trace its lineage back to pre-Carolingian times (Noomen, 2009; Noomen, 2013). This indigenous elite was able to consolidate their position and carry it forward through the Middle Ages when serfdom was abolished in the 11<sup>th</sup> century (De Langen & Mol, 2022).

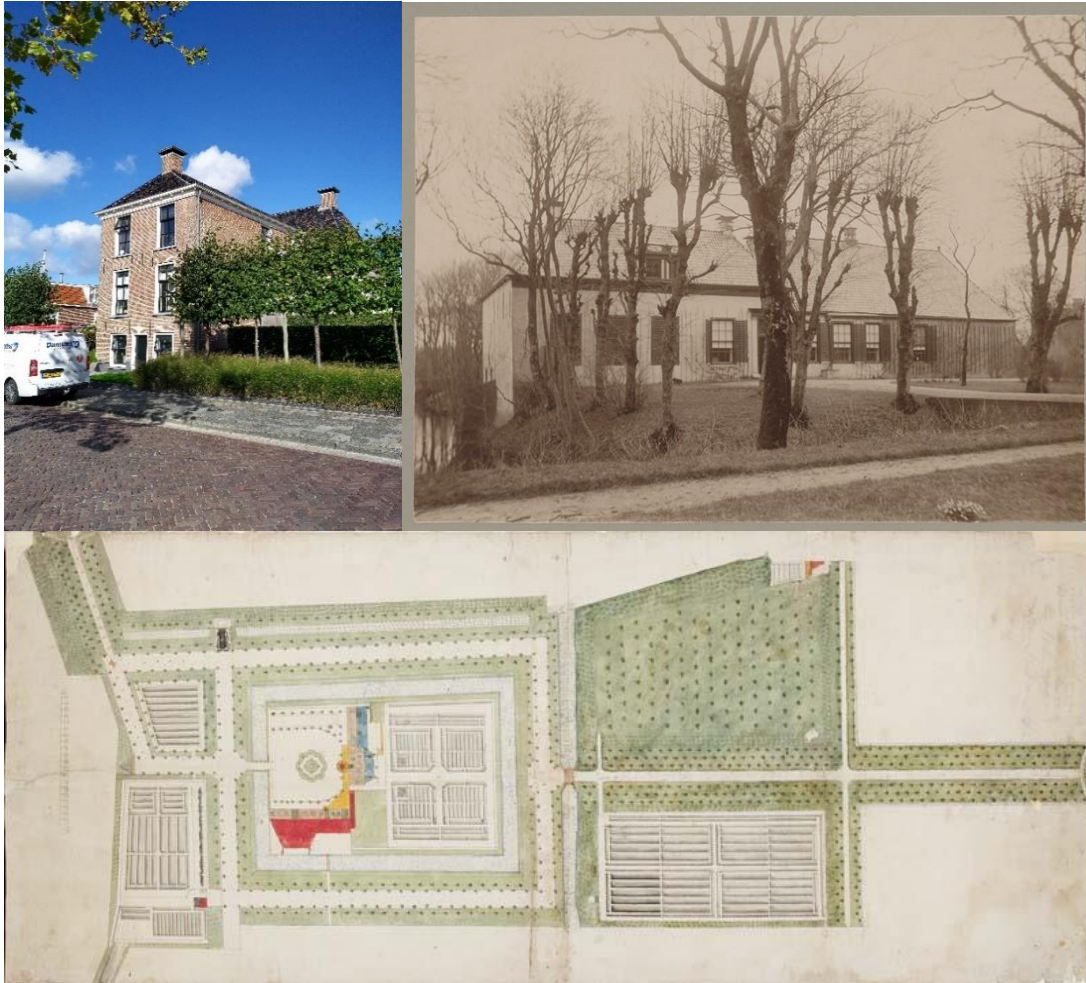
Here, the physical environment did have its consequences for the societal organisation. The Frisian lands were situated at the very edge of the Holy Roman Empire, isolated from their



hinterlands by the vast bogs. The absence of strong domanical power in this area together with communal efforts to control the water led to a certain degree of self-determination (Feenstra & Oudman, 2004). As a consequence, various “farmers republics” filled this *de facto* power vacuum that was manifest in the 13<sup>th</sup> century (Robijn, 2005; Vries, 2015). This period was both praised for its societal equality (Alma, 2012) as well as decried for its lawlessness (Noomen, 1999). Since there was no feudal system, the power vacuum was filled by noblemen (hoofdelingen) and freeholders (eigenerfden) (De Langen & Mol, 2021). In the Late Middle Ages, juridical and ecclesial rights and privileges were attached to farmsteads (Feenstra & Oudman, 2004).

This period was also characterised by faction formation and feuds which in turn spawned the erection of so-called stinzen: rather plain defensible towers or houses that provided shelter in times of uproar (Noomen, 2009).

**Figure 18.** Former stinzen in Holwerd: Bonga (upper left), Tjessens (upper right), Hania (below).



**Sources:** upper left Ras (2022), upper right Fries Museum (2022a), bottom Fries Museum (2022b)  
Former stinzen in Holwerd: Bonga (upper left), Tjessens (upper right), Hania (below).

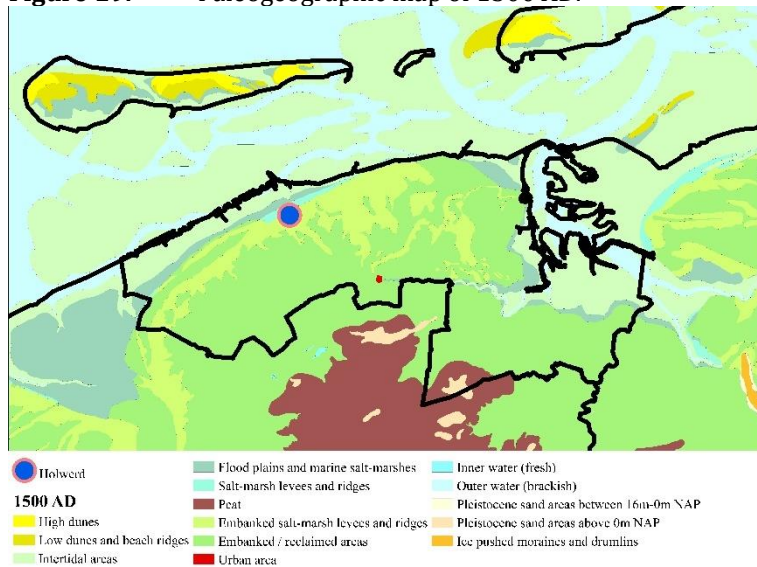
Noomen (2009) identified ten houses in and around Holwerd that can be classified as “stins”, see Figure 18. It however remains uncertain to what extent these buildings are medieval in nature. Arguably, the three most prestigious ones were:

- Bonga: members of the Bonga family were grietman of Westdongeradeel. The mediaeval stins was later attached to a later built farmstead. In the 19<sup>th</sup> century, the stins was replaced and got an extra floor. Its current basement still has medieval vaulting.
- Hania: at first it was owned by the noble family Hania and later on by the family Van Aylva. As of 2022, the contours of the estate grounds are still partly recognizable.

- Tjessens: located on an eponymous terp. Tjessens, as well as the stins Hemminga, was owned by the noble families Van Aylva and Harinxma thoe Slooten. The estate was demolished in 1898. As of 2022, the contours of the estate grounds are still partly recognizable. The terp is part of an experiment of the Cultural Heritage Agency of the Netherlands. As ploughing might expose and damage relics in the ground, an addition layer of roughly 30cm was added to the terp for protection (Rijksdienst voor het Cultureel Erfgoed, 2019).

***The Wadden sea area as part of the early modern world system (1500-1800): agricultural and maritime innovation as triggers for prosperity***

**Figure 19.** Paleogeographic map of 1500 AD.



**Source:** Vos et al. (2020), adapted by author.

Around 1500, internal struggles in Friesland led parties to call in the help of foreign lords, submerging Friesland in European politics. Eventually Friesland became part of the Habsburg Netherlands. Despite many changes of power, the northern part of Friesland suffered relatively little from the troubles of the Eighty Years' War.

From the 16<sup>th</sup> century onwards, the region became even more integrated in international trade ties as a centre for agricultural produce (Bazelmans et al., 2012). Especially along the Wadden coast trade settlements grew enormously. Holwerd already gained market rights in 1453. Moreover, the church tower of Holwerd also acted as lighthouse to guide (merchant) ships (Van den Berg, 1983). Holwerd's late medieval village centre continued to expand southwards. Furthermore, a rather straight canal was dug in the 16<sup>th</sup> century to connect Holwerd to larger waterways in the hinterland (Worst & Coppens, 2021).

Although medieval spatial configuration did not change drastically, new techniques allowed for more intensive use of previously extensively used areas. From the 15<sup>th</sup> century onwards, creating polders was possible in more and more areas. Continuing accretion of salt marshes allowed for incremental embanking of parts of the Wadden Sea. After the creation of the Bildt polder west of Holwerd in 1505 (Kuiken, 2013), dykes were constructed around accreted salt marshes north of Holwerd in 1580 (Rienks & Walther, 1954). Based on the right of "opstrek", farmers on the salt marsh ridge were allowed to annex parts of this newly dyked areas as long as this was in line with their initial property. This has resulted in a straight and elongated parcellation. Whereas farmers generally also moved their farmsteads to these polders, the polders north of Holwerd did not become inhabited, see Figure 20.

**Figure 20.** Polder Nieuw Donger Deel (1580).



**Source:** Schotanus à Sterringa (1718).

New techniques also affected the lower laying areas during the 15<sup>th</sup> and 16<sup>th</sup> century (Breuker, 2017). The initially common hayfields that remained were also divided in this period in order to become privately owned (Breuker, 2017; Postma, 2010). These areas of common hayfields can be recognised by the toponym “mieden” as can be seen in Holwerdermieden, see Figure 21. Prominent in these areas is the combination of older winding ditches and straight man-made ditches to improve drainage (Worst & Coppens, 2021). In these areas also duck decoys were built in order to catch waterfowl. Two decoys were present in the Holwerdermieden (Mast, 2021).

Apart from inclusion in trade networks, there were also societal changes. The subjection to a monopoly on violence had pushed the local elite in the role of officers instead of warriors. This is mirrored in their residences. Defensible stone towers made way for larger estates (so-called *staten*) that acted as a demonstration of status rather than a building to take refuge (Noomen, 2009). Furthermore, the Reformation had resulted in an abandonment of the Catholic Church. Monasteries were closed. The buildings became public stone quarries and their lands were confiscated by the province (Mol, 2004).

**Figure 21.** Mieden area of Holwerd with various roads to the hayfields and a former duck decoy.

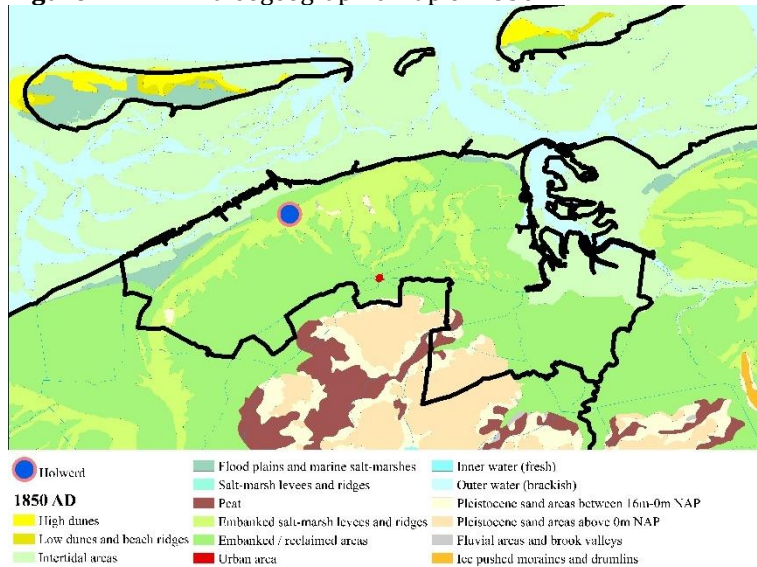


**Source:** Eekhoff (1853).



***The Wadden sea area as part of a (post-) modern world system (1800-present): from production to consumption***

**Figure 22.** Paleogeographic map of 1850 AD.



**Source:** Vos et al. (2020), adapted by author.

Over the course of the 19<sup>th</sup> and 20<sup>th</sup> century, Friesland became even more and more part of an international production chain. This interdependence also meant that the region was more susceptible to price fluctuations. During the 19<sup>th</sup> century Friesland faced an economic downturn after the French left the country in 1813 (Van der Woude, 1998). Increasing demand for dairy and butter formed an incentive to change from arable land to meadows. Whereas the area experienced a revival due to increased demand from England around 1850 (Van der Woude, 1998). During this period of flourishing production and trade, numerous farmsteads were replaced with new buildings in a “head-neck-body” fashion or a simpler variant without protruding vestibule and residence, see Figure 23. These new farmsteads themselves were also expression of wealth and status (Hoekstra, 2010).

**Figure 23.** “Head-neck-body farmhouse” left with arable land (left) and a “stjelp farmsteads” (right) near Holwerd.



**Source:** Ras (2022)

Although the economic boom would come to a halt with the agricultural crisis of 1878-1895, competition with products from the US, Russia and Denmark sparked another round of modernisation of the production process (Van der Woude, 1998). Dairy was now processed in

factories that were built along the canals from the 16<sup>th</sup> and 17<sup>th</sup> century that connected the villages to larger waterways. Similarly, roads were improved or newly constructed to facilitate the transport of agricultural products (Worst & Coppens, 2021).

As early as the 16<sup>th</sup> century, small dams and ditches were dug on the salt marsh to foster accretion and improve drainage. This was especially interesting for farmers as newly accreted grounds could rightfully be added to existing property (Worst & Coppens, 2021). Some of these areas were turned into polders or summer polder that would flood during winter. These summer polders are surrounded by lower dykes, often called “kadijk”. New technologies allowed for further land reclamation and plans even arose for dyke construction around the Wadden Sea, effectively turning it into a polder. As a starting point, a dam from Holwerd on mainland to the isle of Ameland was indeed realised in the 1870s although storm surges soon destroyed this structure. A remainder of this dam near Holwerd later became a basis for a pier at which the ferry to Ameland docks (Schroor, 2009).

Another technological addition to the landscape was the railroad track Leeuwarden-Anjum, also called the Dokkumer Lokaaltje. This connection that was used for the transportation of both goods and people was constructed in 1901. In 1974 the line was taken out of order. Although large parts of the former track disappeared during land consolidation. Still many villages along the former track have station buildings that have found new purposes.

Apart from the infrastructure, many different aspects of the landscape were increasingly altered to facilitate more efficient production. However, excess water that was pushed up from the rest of Friesland still meant a big problem for Holwerd and the wider region. Therefore, the road from Holwerd to Dokkum was elevated to become a dyke in itself, making a polder out of Dongeradeel (Jongsma, 2012). With the arrival of windmills and later pumping stations, lower laying areas that were still soggy could be taken into use. To this end, in 1855, the water mill Miedenmolen was built in the Holwerdermieden.

Another development that took place in the 19<sup>th</sup> century was terp excavation. The terps that had long lost their function of save haven were increasingly excavated as their humous and phosphate rich soils were excellent fertilisers for poorer Pleistocene hinterland, see Figure 24. Although terps had already been used modestly for this end, excavation on a commercial scale caught on in the 1840s with a peak in the 1920s (Arjaans, 1990). Although dense habitation on the former agricultural terp of Holwerd inhibited larger excavation, up to 80 cm was removed from the main street in the 1870s. Thereby lowering the street level and accentuating the dwelling height. The separate church terp was commercially excavated around 1891, also highlighting the elevation because of the steep slopes that were left (Karstkarel, 2015).

**Figure 24.** Advertisement for terp soils from 1889.



**Source:** Leeuwarder Courant (1889).

However, the agricultural crisis and ongoing modernisation had also consequences for the local population. Many workers lost their jobs and became self-sustaining as cottier on small plots of land. In Friesland, these small farmers were called “gardenier” (compare “gardener”). Holwerd

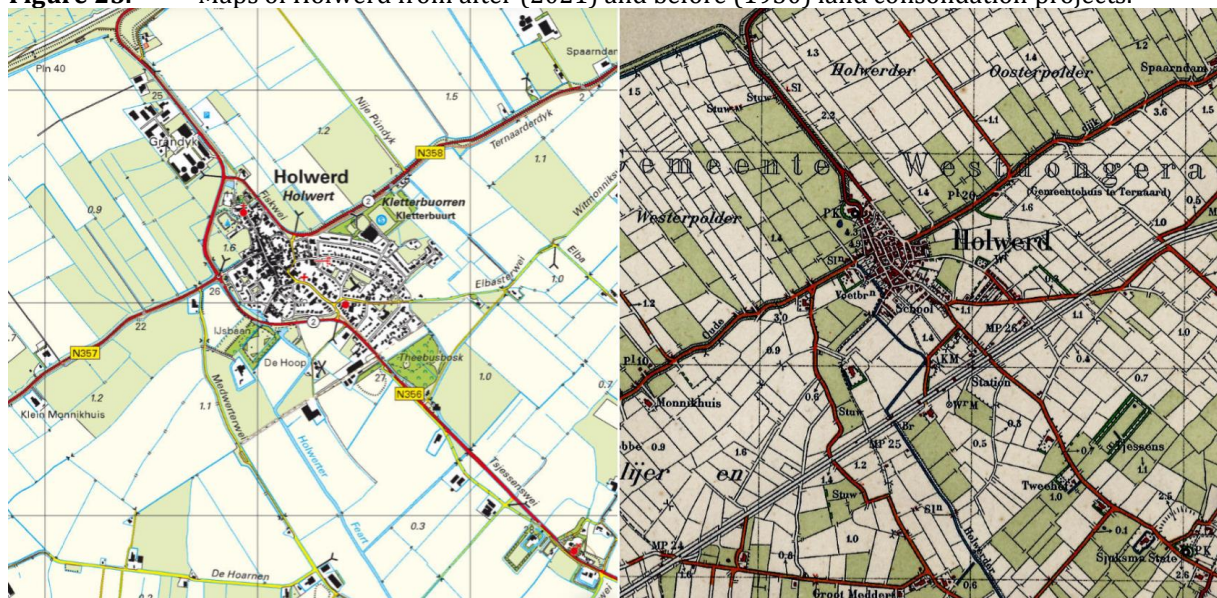


had more than 100 of these gardeniers (Geertsma, 1995). Many of them rented pieces of land and held cattle in the common land in de Kegen (kegen were previously without dykes). One of the village's streets is called "Gernierspaad": path where the gardeniers used to live.

Due to all the efforts of cultivating the land it could be stated that by the time of the First World War the old Frisian landscape was mostly finished (Schroor, 1993). Dykes were constructed on the salt marshes, former lakes were drained, and most of the peat was extracted in the hinterland. However, these changes in the landscape were increasingly regarded as negative developments. From the 1930s onwards Nature conservation organisations such as Natuurmonumenten and It Fryske Gea sought to counteract these trends of cultivation by buying large properties in Friesland and demarcating them as nature. In the 1970s, public concern about the environment grew. Nature conservation organisations moved away from mere protection towards the development of nature (Schroor, 1993). The plans for dams that would connect the island of Ameland to the mainland in the 1960 was the direct incentive for the creation of the Waddenvereniging, a conservation organisation that aims to protect the Wadden Sea (Schroor, 1993). The Wadden Sea was increasingly seen as an area for nature and projects were started to turn polders back into salt marshes (Dijkema et al., 2001). Near Holwerd, holes were created in dykes of a summer polder in 1995. Furthermore, a lot of works that had to foster accretion were removed (De Jong, 2010).

Despite these efforts, modernisation of the agricultural sector would impose enormous changes on the landscape in the second half of the 20<sup>th</sup> century (Van den Bergh, 2004; Commissie Canon van Fryslân, 2008). New production methods and mechanisation not only required a smaller workforce, it also required an efficient use of the land. To achieve this, many different land consolidation projects were started throughout the Netherlands, see Figure 25. Between 1970 and 1991 the land consolidation project in Oost-Dongeradeel and West-Dongeradeel took place, area-wise the largest land consolidation project in Friesland (Holsbrink et al., 1993). Farms were relocated, parcels were merged, ditches were removed and newly dug, roads were newly built and small forests were planted (Holsbrink et al., 1993).

**Figure 25.** Maps of Holwerd from after (2021) and before (1930) land consolidation projects.

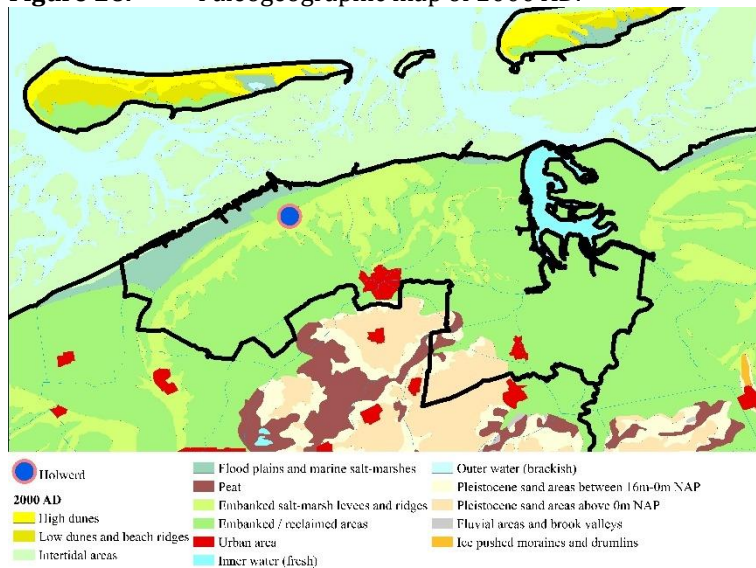


**Source:** Kadaster (2022).

Despite the fact that the Frisian landscape has time and again been altered to suit the prospects of the agricultural sector, other non-agrarian functions grew in importance such as recreation (Koppen, 2020; Van der Vaart, 1999). The agricultural sector has been declining as a result of various policies (Schroor, 1993). While on the other hand, the cultural historical, ecological and

recreational aspects have grown tremendously in importance (Plantinga, 2021). It is in this post-production era that the landscape will be defined again, see Figure 26 (Van der Vaart, 1999).

**Figure 26.** Paleogeographic map of 2000 AD.



**Source:** Vos et al. (2020), adapted by author.

#### 4.2.1 Heritage values based on landscape biography

Based on this concise landscape biography the following landscape elements can be regarded as heritage:

- Salt marsh ridges
- Tidal channels
- Terps
- Different forms of parcellation
- Churches
- Borders of monastic and grange complexes
- Moated sites of stinsen
- Historic farmsteads
- Sea dykes and polder dykes
- Microrelief – ditches
- Duck decoys
- Waterways
- Works for land reclamation
- Infrastructure

### 4.3 *The academic discourse: academics*

In the interviews, academic respondents stressed that heritage values from their point of view did not necessarily rely on one single landscape element. Instead, they focussed on the ensemble of the totality of landscape elements.

In their accounts of the landscape, they made distinctions between both layering of the landscape in a temporal fashion as well spatial distributions of phenomena. There is a certain landscape substrate, geology, upon which a cultural historical layer is superimposed. This cultural historical layer can be subdivided in archaeology, the medieval period, the early modern period and the later modern period.

In a spatial division, a distinction was made between four subtypes in the landscape typology of the terp landscape. However, it was made clear that is always a certain gradient, no sharp between landscape types can be made, there are always hybrid phenotypes. In the interviews, the following elements within these subtypes were regarded as valuable, see also Figure 27, 28 and 29.

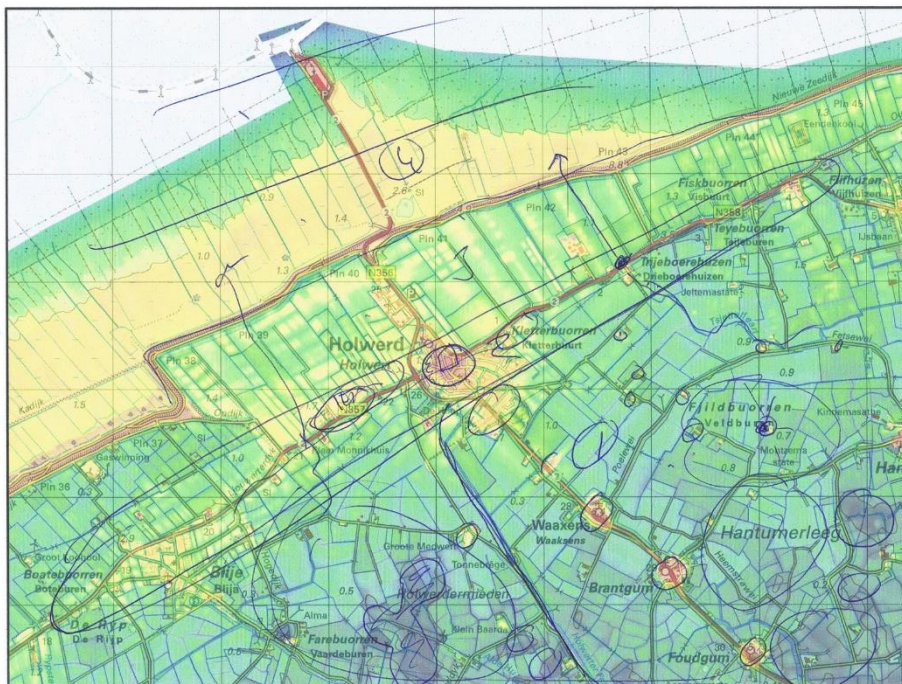
1. *Salt marsh basin*. In this basin the irregularly blocked parcellation were deemed important together with the microrelief within these parcels. Furthermore, these areas had dead end roads that led to the hayfields here which were also appreciated. Lastly, the former drainage system for these areas were valued, i.e., identifying former tidal channels that were used to get rid of water.
2. *Salt marsh ridge*. The more elongated and regularly blocked parcellation of the salt marsh ridge was considered valuable. Also important was the location of arable land (so-called fellingen) and the microrelief in these areas (dome-shaped parcels because of inward ploughing), see Figure 29.
3. *Sea clay polder*. Here the elongated rectangular parcellation was appreciated. Similarly, the presence of microrelief of sloping parcels was highlighted. Furthermore, the sequence of dykes that indicate embankment of more recently accreted areas was seen as an important feature.
4. *Salt marsh*. In this dynamic environment, the presence of lower dykes that were intended for further creation of polders were appreciated. Furthermore, micro drainage was valued as well as other works that fostered accretion such as rows of twigs.

In addition to this classification other elements were mentioned as well:

- Settlement/terp structures on and behind the salt marsh ridge
- Individual terps for farmsteads
- Sites of former monastic granges
- Sites of terp excavations
- Sites for gas extraction
- Duck decoys
- Roads that connect villages
- Canals
- Pier/dam
- Ponds for drinking water

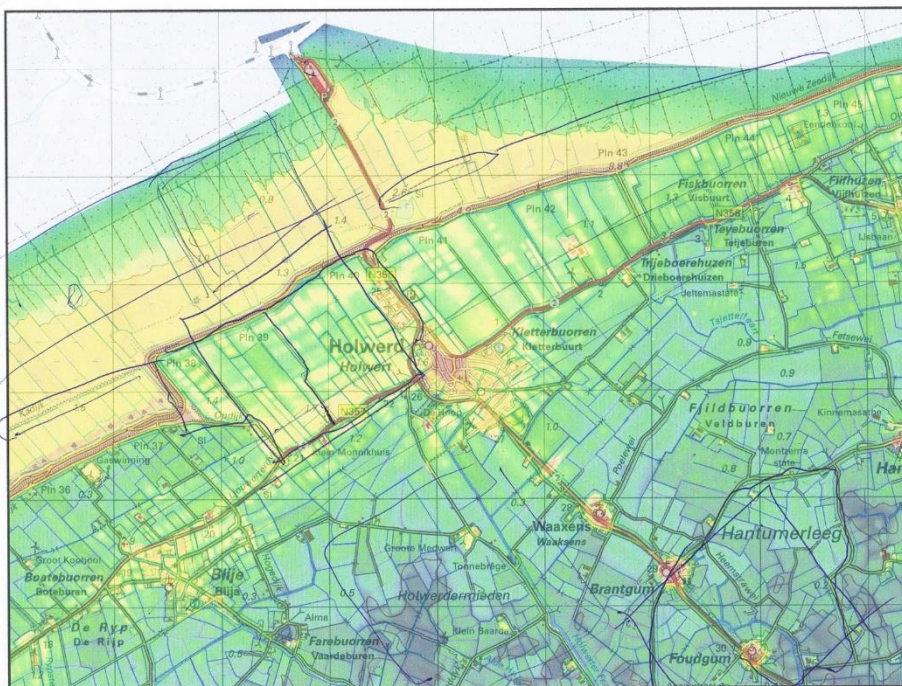


**Figure 27.** Topographic map with an overlay altitude map, notes by Theo Spek.



**Source:** created by author based on Kadaster (2021) and Rijkswaterstaat (2022) with notes by Theo Spek

**Figure 28.** Topographic map with an overlay altitude map, notes by Mans Schepers.



**Source:** created by author based on Kadaster (2021) and Rijkswaterstaat (2022) with notes by Mans Schepers.





typologies were regarded as relatively arbitrary. Whereas these classifications might appoint aspects to be heritage, this is not necessarily shared by inhabitants. Therefore, there was a plea for the incorporation of local knowledge in the development of plans. This inhabitant-based perspective is also reflected in their reasoning why the landscape as an ensemble can be regarded as heritage.

The first and foremost reason for this valuation of landscape as a structured, layered, interdependent entity is to be able to tell the story of the landscape. The landscape elements are the bookmarks on the basis of which this story can be told. This is why for example the terp excavations and gas extraction site were mentioned. In that sense landscapes and its elements reflect the humanity's changing attitude regarding its living environment.

Secondly, the respondents considered this story as very salient for the inhabitants. Landscapes, they argue, contribute to a very existential sense of feeling at home. This deep rootedness seems to be founded on aesthetics, but it is the aesthetics that also build identity. The landscape itself and the knowledge about it acts as a binding force for communities.

Thirdly, in a similar vein, respondents consider landscapes epitomes of sustainability. In line with the longevity of landscapes, society needs to take landscapes into account and develop more long-term visions on developments. It was mentioned that understanding of larger processes also requires understanding of more local landscapes. Moreover, landscapes were regarded as a resource that has been built by generations over thousands of years. Landscapes should be treated with dignity to pay respect to these generations who built it as well as to the generations to come who should also be able to experience it. This also entails a respect for nature and geology.

Fourthly, respondents indicated the ecological value of cultural history. In this context, the microrelief and land use were mentioned since they created a multitude of habitats and niches. Influence like the presence of ditches, fertilisation create gradients in which many different plants and animals' species can find shelter and food.

Fifthly, cultural landscapes also have their aesthetic appeal that people appreciate. This closely relates to the economic value.

Sixthly, economic value for society was mentioned. Heritage comes with possibilities for financial gain through tourism or increasing property values.

Lastly, there is also appreciation from a scientific perspective. An intact landscape also means that the archaeological archive remains intact which can be investigated at a later moment.

#### **4.4 The professional discourse: Holwerd aan Zee**

The initiative of Holwerd aan Zee sees the landscape and its heritage as an asset to spark rural development. As stated in the interview, the project started with a vision that was commissioned by the province and was provided to the local interest group (Dorpsbelang Holwerd). Many sessions were held on how to counteract population decline, however smaller plans to achieve this were never executed. Holwerd aan Zee was a larger intervention that would alleviate more of this problem. Next to this, Rijkswaterstaat (Directorate-General for Public Works and Water Management) expected that the project could reduce the spending on dredging the fairway for the ferry to Ameland. Various ways have been explored to involve citizens in the plan formation of Holwerd aan Zee. These have mostly been events to inform them about the progress that is being made. It was stressed that the landscape is a very determining factor in the plan formation:

*“And in that sense, landscape is very important in that. We always said what we are going to do has to fit in that salt marsh landscape, in the Wadden landscape, in the sea clay landscape.”*

When asked about the landscape elements that are important to preserve, the main features that need to be preserved were also mentioned in a context of development that would make them more visible. Landscape needed to become (more) visible to demonstrate the information value:

*"Well, I think that it's the elevations in there. The salt marsh and the old tidal channels. Those are important, you can highlight them in different ways. You can make them navigable, I just give an example. But on a salt marsh ridge you can also put a simple bench, a place to rest with an information sign and then show the people this way that they are sitting higher and they can have an overview over the landscape"*

[when talking about the terp of Holwerd] *"That's more man-made, but that's of course the reaction to how people used to live there. A beautiful story, we also built Holwerd aan Zee around that terp of Holwerd. We always say: the Netherlands have a lot of terps, and those terps served a purpose, but nowhere that function is still visible. [...] when we could get water around the terp of Holwerd then we bring back the terp in the situation from before 1500 so to say. In the ballpark of, well when was the first sea dike constructed, 1100 or something, I don't know. But then you're back in those days. You can show the function of the terp with the water and the sea around it and protection. So that's, terps have a central position in that."*

It became apparent that valuable elements in the landscape thus need to be developed in order to showcase them. However, the initiators behind Holwerd aan Zee have also attained candidacy for a UNESCO Man and the Biosphere status for the wider area: the triangle Blija, Ternaard, Dokkum. This status would be an important "stamp of approval" to draw in the same clientele that visits the Wadden Sea as well: the tourist that favours sustainable quality (Holwerd aan Zee, 2020). As such, this Biosphere does not entail a demarcation as a reserve but it is more a recognition of a sustainable agenda. The Holwerd aan Zee project should act as catalyst for the wider region. Here, both tourists and the inhabitants should benefit from the development. The landscape should be made visible in such a way that a certain degree of pride and identity can be derived from it:

*"But of course, in an UNESCO Biosphere area, it's also the intention to involve the villages. So that the villages become extra aware, the inhabitants. And that awareness in turn contributes to pride and ambassadorship of the inhabitants in those villages when tourists go there, that they tell that. But also, for themselves: Wow, I live in a beautiful area. Well, like that. That's very important."*

In this context, various elements in the landscape were mentioned for their possible roles in the development. These elements can be of value because of their contribution to sustainable / ecological goals that the Biosphere status entails:

*"Well, the agrarian sector alone, the farms, are also places where a lot of biodiversity is. Those are oases in the landscape. Every farmstead is an oasis of biodiversity. That could also be something that we can work with. And you can also make new nature. That's also an important part of the Biosphere story. The Holwerter Feart is a blue connection, but you can also change that into a very green-blue connection. More blue, more water retention, more space for fish for instance. And uhm... more space for nature. So could make a combination there. In combination again with the accessibility of Dokkum over water and the accessibility of the villages over water and tracks for walking and cycling and places for experience where you can very nicely experience the landscape."*

The landscape could however not be separated from the agricultural identity of the area. This is why agricultural identity is another key nub:

*“...the landscape is made by the sea, but in the end, it is formed by the agrarian sector. And the agrarian sector, they are in our view the sector that also maintains the landscape. Farmers maintain the landscape and we put the agrarian identity in a central position.”*

Now that the project of Holwerd aan Zee has been expanded with the Man and the Biosphere candidacy, the landscape needs to be re-evaluated. This candidacy requires a description of the area with its valuable elements. To this end, a landscape biography will be written that is likely to be based on existing literature and policy documents:

*“... we are going to compose the landscape biography together; we are with 11 villages. Well, a lot is already known, so we don't need to come up with a lot. Because Noardeast-Fryslân or in the North, in the Northeast, there's a very nice landscape biography, they composed it. There's of course the provincial nota Grutsk op 'e Romte, there that one too. And uhm, there's very well written what the value and qualities of the landscape are.”*

#### **4.5 The professional discourse: municipality**

The interview with the municipal official offered other insights in the way that heritage is operationalised in the professional discourse. Especially in this public domain the various interests need to be addressed adequately.

*It's nice to think from one perspective, from a landscape or cultural history perspective, but there are of course a lot more disciplines. That's why it's always the case: this is the objective, but with a good motivation, there can always be alterations. The intention indeed is preservation and protection, but there are people living and working there and it's developing. So, you can't always preserve everything.*

This reality that limits one's possibilities to preserve everything of course makes it necessary to make choices in what is regarded as non-negotiable heritage and heritage that can be developed to some extent. What exactly is deemed heritage is not directly eligible for preservation.

*Because there are national monuments, that's not under debate whether those are valuable. But there are of course many more things that are worthy to be preserved. But these are not that well protected or not protected at all. Then we cannot do much as a municipality. Uhm, but you cannot protect everything.*

When a development comes across (one of) these values, tailor-made decisions can be made on how to deal with these qualities. When developments stumble upon valuable elements, these have to be taken into account, this can be done through preservation or by developing it. However, in extreme cases preservation is not possible. In those cases, strong argumentation is required why preservation is not an option. Here, also the example of dome-shaped parcels (kruinige percelen) was given.

*But I mentioned the example of the sloping parcels. Here, you have very valuable arable lands. The potato cultivation is very valuable. And that has some demands for the environments. And uhm... Then you have to things that clash directly, the preservation of the landscape and cultural historical, well what it looks like, what it is, against the use value and the quality and the food production at the other side. Well, you tell me. That's very difficult. And then you start to look, where are the sloping parcels the highest and the most and where... Then you really focus on preservation while in other places you provide a bit more leeway.*

Therefore, the adage “preservation through development” is important for heritage elements. This could work especially work for delapidated characteristic buildings or silted up channels that



are on the verge of being torn down or disappearing. When buildings or landscape elements do not have a protected status, devising a development that also respects the valued aspects can assure protection in a different way. Although no list was presented of valuable elements according to the municipality, information was deemed to be important in the designation of heritage. Knowledge about landscape elements was mentioned as being particularly relevant for the motivation of why these elements are worthy of preservation. To do a stocktaking of the landscape heritage in the municipality, a landscape biography has been ordered as the municipality does not have the capacity for structural research in this field.

*In that, the story of the landscape is described from how it developed until now, and also the landscape and cultural historical core qualities. Uhm, that's step 1. That's knowledge. It's not complete of course. There are always successive investigations that can be done to gather successive knowledge. A colleague of mine [...] makes a continuation on the landscape biography. The landscape biography, like I said, is knowledge, it needs to be translated into policy.*

This landscape biography (Worst & Coppens, 2021) will inform a new municipal Environmental Vision in which landscape values will be incorporated in different ways. They can either be protected or safeguarded through development as expressed earlier. Ideally, all these identified values are included in the vision. This is however still under development. In this landscape biography (Worst & Coppens, 2021), 45 core qualities of the municipality's landscape are listed, 32 of which apply to the Wadden landscape:

- Salt marsh ridges
- Tidal channels
- Tidal channels ("kweldergeulen en prielen")
- Terps
- Drinkwater ponds in embanked areas I
- Former areas for salt extraction
- Regular block shaped parcellation
- Irregular block shaped parcellation
- "Opstrekken" parcellation in clay-on-peat area
- Irregular block shaped parcellation in sea polder
- "Opstrekken" parcellation in sea polder
- Parcellation in former areas for salt extraction
- Churches
- Borders of monastic and grange complexes
- Moated sites of stinsen
- Historic farmsteads
- Sea dykes and polder dykes
- Kolken, result of dyke breaches
- Dyke coupure
- Microrelief – ditches
- Drinkwater ponds in embanked areas II
- Duck decoys
- Waterways
- Fishing towns
- Small maritime heritage
- Drinkwater ponds outside embanked areas II
- Works for land reclamation
- Summer polders
- Dairy factories
- Historic farms
- Water control
- Infrastructure

As such, the landscape biography is an important tool for the construction of the environmental vision that is being written as this research was conducted. However, the landscape biography did not involve inhabitants to contribute to the composition of the landscape biography due to limited resources. Moreover, it was expressed that incorporating the people's perspective is really important although it requires careful consideration in which ways this should be done.

*Well, it's still difficult, how to involve people in a good way. You have made a big effort. [...] It's just difficult to A) determine how to can involve people in the best way and how you can reach out to them, that's always difficult for a municipality; and how much influence you give or how much.... That's another thing that I find difficult, under the Environment and Planning Act, a lot is transferred to the community, or the "mienskip" as we say here in Friesland, but well, spatial quality, structure, cultural history, they are really disciplines. So I believe in the consultation amongst each other, but it's difficult to determine when you incorporate something or not.*

In line with the movement in spatial planning, heritage planning and many other disciplines, the importance of supplementing expertise with local knowledge was also stressed.

*...expertise is very important, but it's still the case that the people's stories are really important. Under ideal circumstances, you want to develop beautiful plans together. And most of the time, that's possible.*

## 5. Discussion

In this research, it was assessed how different discourses build their heritage value. It was guided by the following research question:

***How do inhabitant, professional and academic discourses contextualise heritage values of cultural landscapes in such a way to contribute to a narrative of a cultural landscape that is worth preserving in the process of a bottom-up spatial development?***

It became apparent that the inhabitants' discourse turned out to be the central discourse. Both the Professional and Academic discourse seek to involve citizens and incorporate their heritage values to some extent. Differences in the valuation of landscapes became apparent although overlap and interaction between the discourses was found. Bringing together the different heritage values per discourse, an overview of the valued landscape elements and characteristic can be found below in Table 7.

**Table 7.** Overview of heritage values by discourse.

Valued element		Valued by		
		Inh.	Acad.	Prof.
Ensemble value		x	x	
Nature	Meadow birds	x		
	Forrest / trees	x		
	Nature of salt marsh	x		x
Peace, space, vistas		x		
Buildings	Old dwellings	x		
	Windmill	x		
	Churches	x	x	
	Historic village centre / village scape	x		
	Monuments	x		
	Farmsteads	x	x	x
	Former monastic granges		x	
	Moated sites	x	x	
Settlement structures	Terps	x	x	x
	Individual terps for farmsteads		x	
	Sites of terp excavations		x	
Land use	Agricultural land use	x	x	
	Former sites for salt extraction		x	
Other uses	Sites for gas extraction		x	
	Duck decoys		x	
	Ponds for drinking water		x	
Parcellation		x	x	
	Regular block shaped parcellation		x	
	Irregular block shaped parcellation		x	
	"Opstrekende" parcellation in clay-on-peat area		x	
	Irregular block shaped parcellation in sea polder		x	
	"Opstrekende" parcellation in sea polder		x	
	Parcellation in former areas for salt extraction		x	
Microrelief		x	x	
Infrastructure	Roads that connect villages		x	
	Winding rural roads	x	x	
	Waterways	x	x	
	Drainage			
Dykes	Sea dyke	x	x	
	Sleeper dykes	x	x	
	Dyke breaches		x	

	Dyke coupure		x	
Polders	Sea clay polder		x	
	Summer polder		x	
Wadden	Pier / dam	x	x	
	Salt marshes (dynamics)	x		x
	Small maritime heritage		x	
Other geological / hydrological elements				
	Salt marsh ridge		x	
	Former tidal channels	x	x	

As expected, the inhabitants hold a multitude of heritage values for the landscape surrounding Holwerd so no central narrative has come forth. Argumentation for preservation of elements revolved around scenic qualities. This was often denoted in terms of preserving the current situation in its entirety: no alterations should be made. Interestingly, respondents did not so much mention personal affective ties as reasons to value landscape elements. The inhabitants attached much value to the aesthetic features that for them determined the identity of the landscape. Elements such as farmsteads, terps, dykes, historic buildings, agricultural lands, the Wadden Sea and nature were all identified as elements that provided diversity to the landscape and that contributed to the identity of Holwerd's landscape. Moreover, these elements were also appreciated for their historic and intrinsic value. Because these elements "have always been here" they are simply regarded as part of the landscape. Often times the reason for valuation was described as: "it belongs here". This also relates to the sense of place that inhabitants derive from their living environment. Likewise, respondents of the survey indicated that characteristic landscape elements contributed to their attachment to the area. When looking at built heritage there seems to be an interaction with the professional discourse. The churches, windmills and other old buildings were not solely appreciated for their historic value, aesthetic qualities or their contribution to a diverse scenery. Rather, they were valued for they were "monuments" or "cultural heritage". This seems to align with the Foucauldian concept of "naturalisation". Heritage values are internalised and no further explanation was given. This seems to be a *circulus in probando* when something is heritage because it is heritage (Duineveld & Van Assche, 2011). Other reasons for valuation, such as economics, ecology or recreation, were less prominent. In line with findings of Ruiz & Domon (2012), the respondents heavily valued farming that is based on more traditional principles. Farmers are valued for their role in the maintenance of the landscape. Still, respondents can be critical of the purely productivist way of farming as this can be at the expense of nature or valuable landscape elements, such as small-scale parcellation. However, some contrasts were found with the conceptual model (Figure 5). Landscape elements were generally not explicitly valued based on everyday interactions and emotive ties as found by Vouligny et al. (2009). Things were rather valued for their contribution to scenic diversity and their existence as an inherent part of the area. This is in line with findings by Braaksma et al. (2016) who found that aesthetic appeal can contribute to the appreciation as heritage. In contrast to findings by Renes (1999), participants did value elements explicitly on the basis of their distinctiveness and their uniqueness as they could not be found elsewhere. Moreover, the ensemble value was deemed especially important as respondents often wanted to preserve the landscape as a whole contrary to Renes' (1999) findings.

The academic discourse stipulated to maintain the ensemble of the landscape instead of specific elements. A very interesting finding in this regard is the similarity with the inhabitants in a kind of holistic valuation of the landscape. Likewise, academics considered groups of elements to be carriers of the landscape identity rather than singling out specific farmsteads or parcels. However, these groups did have different semantic descriptions for this valued wholeness. Inhabitants wanted to preserve the landscape as it is, whereas academics appreciated it as an "ensemble". Nevertheless, the academics were more specific in their accounts of valuable elements, going into more detail and subclassifications of structures than the inhabitants did. The academic participants mentioned a wide array of landscape elements but placed them in a context

of interdependence. It is the dynamics between the different compartments of the landscape that should be preserved. Through the individual elements (ditches, infrastructure, dykes) the ensemble remains recognisable on the basis of which the story of the landscape can be told. Subsequently, this landscape story is important for the identity of the people who live there and forms an existential part of their being. Furthermore, understanding the *longue durée* was deemed important for long-term visions and sustainability thinking about the environment. Additionally, landscape heritage was appreciated for its contribution to economics and ecology. This can also be found in the importance of Information value in the conceptual model (Figure 5). Whereas inhabitants did appreciate “nature” as elements that were eligible for preservation, academics did not classify nature as heritage. Rather, elements that were regarded as landscape heritage could contribute to ecological values. Additionally, a cross-over with the inhabitants’ discourse was identified. The academic discourse increasingly recognises the salience of local knowledge and builds its valuation on these insights in integrative methods such as the landscape biography. On the other hand, the intrinsic value of the landscape can for example be found in the paper by Bazelmans et al. (2012) called “Understanding the cultural historical value of the Wadden Sea region. The co-evolution of environment and society in the Wadden Sea area in the Holocene up until early modern times (11,700 BCe1800 AD): An outline”. However, this paper provides more of a chronological overview of the genesis the area while the “cultural historical value” is justified rather briefly. Although it is noted that traces from the past “enable us to reflect on the region’s present and future” (Bazelmans et al., 2012, p.124), the cultural historical value of the area is predominantly left for the reader to interpret.

The academic discourse values the landscape ensemble to not only ensure the identity and attachment that inhabitants connect to the landscape; it also aims to ensure sustainable development of the environment. The professional discourse on the other hand seeks to ensure the key qualities of places to maintain and enhance the landscape. Both as a living environment for the inhabitants, but also for people from elsewhere who come to experience it. Landscape heritage elements are in this regard not solely framed as valuable in their own right. They can also be developed to allow for a certain degree of commercialisation. In the bottom-up initiative, heritage elements are selected that match this storyline. This is what the professional discourse builds its narrative on. Heritage elements and its related identity act as assets in this story. This multiplicity of uses for the landscape that the different discourses adduce is also represented in the way that Mitchell & Barrett (2017) view agricultural landscapes as “cultural-ecological-social-economic systems”.

The professional discourse stipulated the idea of conservation through development. In the interviews it became apparent that this discourse relates strongly to both the inhabitants’ discourse and the academic discourse. Landscape heritage was not very sharply defined in these interviews. Both the bottom-up initiative and the local government are still working on their plans and policies for landscape qualities. However, a difference between the bottom-up initiative and the civil servant was observed in the interviews.

The bottom-up initiative highlighted landscape elements including the terps, salt marshes, farmsteads and canals. These elements were valued because of their contribution to the landscape identity and aesthetics as well as their ecological value and their recreational value. These values fit the objective of the initiative as the landscape aesthetics and identity of the landscape can be capitalised on. The ecologic, and recreational value can be a part of this, to consolidate this landscape identity that in turn can be commodified. Furthermore, the agricultural land use is also valued, both for its role in maintaining a (landscape) identity and establishing support among inhabitants and farmers. Additionally, the initiative of Holwerd aan Zee will also compose a landscape biography, but will base this on the municipal landscape biography and on provincial policy documents.

The municipal civil servant stressed that heritage policies are still under development. However, some valuable elements and characteristics were mentioned such as openness, terps, farmsteads, parcellation, microrelief, and canals which are also mentioned in current policies. This is not a definite list. Ideally, all values identified in the landscape biography (Worst & Coppens,

2021) would be safeguarded in policy. As such, landscape elements were also valued for their importance for science and intrinsic worth. Possibilities for inhabitants to contribute to the landscape biography were hardly made use of. As a result, the valuation relies heavily on the academic valuation.

The professional discourse asserted that the inhabitant's perspective is important, but really reaching out and engaging them is difficult to achieve. As a result, citizens are informed about made decisions. The selection and contextualisation of heritage elements still relies heavily on the academic discourse. The municipality ordered a landscape biography, written by academics, but without much consultation of inhabitants. This landscape biography in turn infuses a landscape biography that will be written by the bottom-up initiative of Holwerd aan Zee. In sum, the professional discourse in this case tried to incorporate the inhabitant's perspective as the aim is to enhance spatial qualities to benefit inhabitants. However, the professional discourse has to resort to the academic discourse when inhabitants are hard to reach. This falling back on the academic valuation could be explained by a modern idea of the management of risks (Giddens, 1991). Especially when available knowledge is incomplete or insufficient, there is a tendency of professionalisation and turning to those who are knowledgeable. Giddens (1990) postulates that the material and social are structured by so-called expert systems: bodies of professional expertise and techniques. Moreover, scientific knowledge remains a crucial basis for legitimacy of argumentation (Zinn, 2016).

To conclude, the model proposed by Fredheim & Khalaf (2016) has provided a useful system to analyse the structure of heritage values. Contrary to existing literature, the "Relationships" or affective ties were not as prominent in the inhabitants' discourse as expected. Instead, Forms were more important for this valuation. This too holds for the professional and academic discourse which appreciate the aesthetics and information value of elements. All across the board, the degree of authenticity and rarity were returning aspects that impacted the valuation of elements among professionals, academics and inhabitants. However, differences arose in selectivity and the level of detail in which landscape elements were valued and the motive behind valuation.

It is noteworthy that this does not need to result in a conflict. As mentioned earlier, respondents to the survey generally had a favourable attitude towards the project of Holwerd aan Zee. They considered the landscape to be adequately taken into account in the plans. Therefore, the project was deemed fitting in the landscape. Despite the fact that the sea dyke was frequently mentioned as a valuable element, the idea of removing a part was not met with general rejection. This predominantly favourable attitude seems to plead in favour of this bottom-up initiative as the citizens appreciate the proposed changes and therefore support the project. It could be argued that the initiative has been successful in creating a narrative in which a newly introduced element (the tidal lake) does not clash with the inhabitants' valuation of the landscape as an ensemble. Furthermore, this project incorporates an agricultural identity and nature values, aspects that were appreciated by inhabitants too. Values seem to coalesce as also the academics valued the dynamics of the landscape. Landscapes are always evolving and new elements are always introduced. It is however crucial to introduce them with respect to what has been there before.

## **5.1 Implications**

This research has tried to provide insight in how different discourses build and contextualise heritage values. A main finding is the interrelatedness of the discourses despite their different objectives for which they use heritage. It is therefore crucial for the different discourses to find ways to profit from this interrelatedness as it is both a means and an end. This study concurs with the multiple calls for further incorporation of lay / inhabitant perspectives and democratisation in the development of heritage and landscapes (e.g., Smith, 2006).

This research has contributed to the existing body of literature on heritage values and how they are presented by different "groups" in society. Despite growing efforts to include local knowledge, the societal turn in heritage management is far from completed. This research joins

the numerous calls for new ways to comprehend and involve the multiplicity of inhabitant's values and local knowledge, such as the landscape biography or cultural mapping (cf. Duxbury et al., 2015; Li et al., 2020; López Sánchez et al., 2020; Van der Valk et al., 2010). Effective management of landscape heritage requires the involvement of the communities that engage with it. Consequently, bottom-up methods need to be employed that investigate the cognitive and experienced aspects of landscapes (Lekakis & Dragouni, 2020). To reach participatory co-management, landscapes have to be seen as socio-economic systems instead of demarcated figures for protection (López Sánchez et al., 2020). Because heritage protection and conservation only serve a purpose when there is a society that is willing and able to employ this heritage as a vector in developments (Janssen et al., 2017; López Sánchez et al., 2020).

As exemplified, the landscape biography is an excellent example of how local knowledge can contribute to a better understanding of the landscape and its heritage and how inhabitants' local identities can be strengthened. However, such a biography can also have different levels of participation. How to effectively engage inhabitants in these efforts remains a difficult matter, especially when a biography is written for larger areas. Reaching out and really involving citizens in this type of heritage building process can be a difficult matter, but it contributes to the building of support and a common identity that can be commodified in a responsible and sustainable fashion.

One of the pitfalls in the involvement of citizens is the assumption that communities are homogenous groups with one single set of demands, desires, and heritage values (Parkinson et al., 2016). Communities are diverse and subdivided entities which contributes to a diversified spectrum of heritage values (Ennen, 1999; Smith & Waterton (2009). As seen in this research, inhabitants present a wide array of valuable landscape elements. Methods need to be able to investigate these values and to do them justice with respect for the people who hold them.

## 6. Reflection and future research

The core strength of the methods used is the triangulation that allowed for the analysis of multiple perspectives. Especially in research that investigates different discourses, a plurality of sources is an apt way to deal with possible bias that a limited number of cases or participants would entail. However, methodological triangulation can be both a point of strength as well as a disadvantage, particularly for novice researchers. Whereas triangulation can offer more in-depth understanding of the phenomenon under study, it also limits the degree to which results can be compared, e.g., comparing interviews with surveys or policy documents. This in turn necessitates a rigorously well thought out plan of attack to make sure that the methods chosen measure what they need to measure and that they can be put in context.

This disproportionality between methods is also a weakness in this research. Methods varied because of the different group sizes and the different roles that the participants have in heritage planning, spatial planning and policymaking. However, this difference in methods used (survey vs. landscape biography and interviews vs. interviews and policy documents) might limit the strength of conclusions that were drawn from this comparison.

Future research might therefore deal with this possible mismatch by choosing more similar tools in the methodological considerations. The comparability would particularly benefit from in-depth interviews among residents to look at how their heritage values come to be or a more large-scale survey among professionals and academics. To this end, future research might also benefit from a more diverse and wider set of participants. This would not only include the heritage values of inhabitants, academics, and professionals, but also of visitors and decisionmakers at the provincial and national level (Bazelmans, 2009). Even the academic realm could be more represented by people from the fields of archaeology and architectural history. The current research included more local actors and those who were familiar with the area as heritage building is a very contextual matter.

It should also be noted that this research was conducted in a period of farmers' protests in the Netherlands. Although the survey of this research did not ask questions specifically about the agricultural sector, the role of farmers did come up on multiple occasions. This context might very well impact opinions and valuation of agricultural land use and farms. Already positive evaluations might shift toward even more positive valuation as well as negative evaluations might become more negative. Similarly, positive and negative attitudes might change the other way around. Consequently, replication of this research in another time might very well result in another valuation of agricultural land use. Besides, just before this research was finished, it was announced that the project of Holwerd aan Zee would move on to a new phase of realisation in which there would be a tidal inlet but without a navigable passage. Consequently, Holwerd aan Zee would still be an interesting subject for a future case study on heritage values. Which heritage values are indeed translated and safeguarded in the implementation would be interesting to investigate.

Lastly, on a more personal note, the process of this investigation has helped me to improve my research skills. Whereas I conducted a door-to-door survey before in my bachelor thesis, this thesis was a step forward through combining multiple research methods and comparing the output of different groups. Interviewing experts required a respectful demeanour. However, visiting inhabitants required a respectful and understanding attitude. Of course, investigating the heritage values of inhabitants and experts demanded a different jargon. This research process has at times been a humbling experience but at the same time enriching for me as a novice researcher.



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## Appendix

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## Appendix I – Background of rules and regulations on landscape heritage

### Supranational regulations

Heritage is not subject to stringent, hard supranational laws. Landscapes and heritage are safeguarded by various international treaties, which means that the protection relies on the cooperation of the parties that signed. UNESCO's World Heritage for example seeks to encourage and support protection of sites while the legal protection and funding has to come from the (sub)national government (Van der Aa, 2006).

In a European context, the EU has no specific competences within the field of spatial planning that could regulate landscape management (Dallhammer et al., 2018). As put forth by Strecker (2018) "*state practice is lagging behind the normative developments made in the field of international landscape protection*" (p.184). Landscapes are mostly protected indirectly through the Common Agricultural Policy, the Natura 2000 Network and the Environmental Impact Assessment (Strecker, 2018).

However, the Valetta Treaty that came into force in 1995 meant a binding document that requires its members to commit to the conservation of archaeological heritage. The protection and management of European landscapes was also laid down during the aforementioned European Landscape Convention of 2000 which stipulated to "*recognise landscapes in law as an essential component of people's surroundings, an expression of the diversity of their shared cultural and natural heritage, and a foundation of their identity*". This recognition of landscapes as expression of culture does make them subject to Article 27(1) of the Universal Declaration of Human Rights (1948), granting everyone the right to freely "participate in the cultural life of the community, to enjoy the arts and to share in scientific advancement and its benefits" (Strecker, 2018).

### National legislation

In Dutch policy documents the term historical environment (*historische omgeving*) is used to denote cultural landscapes, city and village scapes, world heritage sites, and post-war reconstruction areas. (OCW, 2017). Provinces and municipalities are the prominent actors in this domain. The competences for looking after this historical environment have been decentralised and included in spatial policies mainly. However, municipalities fail to adequately take cultural landscapes into account in their zoning plans, especially compared to archaeological remains and built cultural heritage (OCW, 2017). Landscape has never been a strong policy field in the Netherlands which can be partly attributed to difficulties in the demarcation of landscapes (PBL, 2020). Efforts to come to protected landscapes in the 1970s were unsuccessful due to opposition by farmer's organisations (Janssen, 2009). In the Dutch context, there seems to be a sharp contrast between areas of intensive agriculture and designated semi-natural areas. (Renes)

However, from the 1980s onward, the planning discipline began to acknowledge the possibilities for services in a post-industrial society that built heritage and landscape heritage offer. Heritage values were regarded as a resource for regeneration policies. However, heritage was not yet incorporated adequately as integral part of plans as it is still seen a finite resource that should be isolated from developments (Janssen et al., 2014). The 1988 Monument Act still displays a certain degree of positivist assertion of what experts deem to be heritage based on objective criteria. In the Dutch context, a paradigm shift occurred in the 1990s with a move from seeing culture as fragile to seeing culture as asset to benefit from. This is also marked by the Belvedere Memorandum of 1999, which entailed a 10-year programme that sought to integrate heritage management and spatial planning in pilot projects.

Renewed interest in preservation policies for landscapes in the late 1990s resulted in the designation of national landscapes (Janssen, 2009). These landscapes are "*areas with internationally rare and nationally distinctive features in the field of cultural history and nature*" (Ministries of VROM, LNV, VenW & EZ, 2006, p.28). The main aim is to safeguard the "core qualities" of landscapes in spatial developments, which is left to the provinces. Renes (2011) noted that these national landscapes followed from the Belvedere Memorandum as they sought to allow

for a degree of development. However, the national landscapes policies were lacking both funding and a clear vision would hand provinces the necessary tools (Ibid.).

The year 2012 marked a change in landscape policy. The nationwide policy domains nature and landscape were compromised by the Structural Vision Infrastructure and Space (Structuurvisie Infrastructuur en Ruimte) which dispersed landscape protection over multiple ministries. The strategy of 20 “National Landscapes”, 10 “State Buffer Zones” and 9 “National Highway Panoramas” were abandoned. National protection continued for Natura 2000 areas, National Ecological Structure (NNN), coastal fundament, woodland, heritage sites, UNESCO world heritage sites, protected cityscapes and village scapes, estates and archaeological monuments. Protection for nature remained rather “hard”, whereas cultural heritage enjoys “soft” protection.

The year 2016 heralded a shift in the administrative structure that safeguarded heritage. In this framework municipalities become the key actors in heritage management and planning in order to foster public participation as the decisions are made closer to the citizens (Egberts & Renes, 2020). The most salient legal instruments that are put into place are two partly overlapping umbrella laws: the Heritage Act and the Environment and Planning Act.

In 2016, another law in heritage field came into existence, a new Heritage Act (Erfgoedwet). This law sought to integrate multiple laws and regulations. This law defines cultural heritage as *“material and immaterial resources, inherited from the past, that was developed over time by humans or originated due to interaction between humans and the environment, which people, regardless of ownership, identify as a reflection and expression of continuously developing values, convictions, knowledge, and traditions and that offers them and future generations a frame of reference”* (Erfgoedwet, 2021, Artikel 1.1). A national monument status is assigned to (archaeological) monuments of public interest because of: a) beauty; b) importance to science; or c) cultural historical value (Erfgoedwet, 2021, Artikel 3.1).

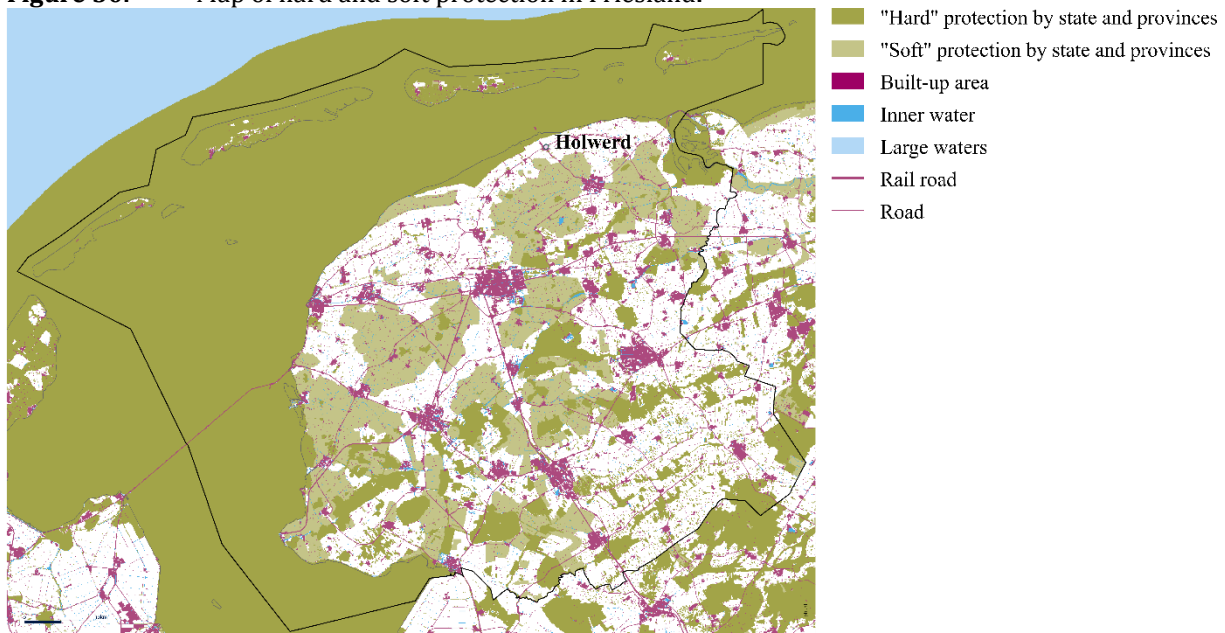
The upcoming Environment and Planning Act (Omgevingswet) will have massive consequences for spatial planning and landscapes. This act does not foresee a prominent place for landscapes (PBL, 2020). However, the 2019 Draft National Environmental Vision (Ontwerp Nationale Omgevingsvisie) highlights a return to preservation: *“Unique scenic qualities are reinforced and protected. New developments in rural areas contribute to the quality of the landscape.”* This law creates an obligation for the national government, provinces and municipalities to create an Environmental vision (Omgevingsvisie). This vision needs to provide an integral view of desired and necessary spatial developments, including nature, landscape and cultural heritage.

### **Provincial and local legislation**

Since the Heritage Act of 2016 came into power, more discretion has been transferred to the lower governmental layers. 1) Both provinces and municipalities have the ability to assign the status of municipal monument based on culture-historical or scientific importance, seeing to an own municipal monument catalogue. Designation of this status can be informed by advice of a board of experts. 2) Municipalities have the ability to assign the status of a protected cityscape/village scape.



**Figure 30.** Map of hard and soft protection in Friesland.



**Source:** PBL (2020), adapted by author.

Provinces became the prime actor for protective policies, contributing to serious differentiation in legislation from rather lenient to rather stringent. In the case of Friesland, see Figure 30, protected landscapes and areas involve:

- Former National Ecological Network areas that aimed at the protection of species, are continued as Nature Network Netherlands (PBL, 2020).
- Former National Parks Schiermonnikoog, Lauwersmeer, Alde Feanen and Drents-Friese Wold.
- Protected areas for meadow birds

As of 2022, the municipality of Noardeast-Fryslân has not made an inventory of municipal monuments. However, there are protected village scapes in Birdaard, Dokkum, Ee, Ferwerd, Hallum, Hogebeintum, Holwerd, Janum, Kollum, Metslawier, Moddergat, and Veenklooster.

Furthermore, municipalities are required based on art. 3.1.6 Bro (Besluit ruimtelijke ordening) to incorporate in their zoning plans "a description of the way in which present cultural historical values and present or expected monuments in the area are taken into account". As such, the municipality of Noardeast-Fryslân has marked the lands outside the built-up areas as agricultural land. Parts of these vast lands have a double designation next to arable land: "Value – Archeological monument", "Value – Archeological valuable area" and/or "Value - Relief".

## Appendix II – Questionnaire inhabitants

1. On a scale from 1 to 10, how satisfied are you with the landscape surrounding Holwerd?
  - [scale 1-10]
2. How would you characterise the landscape of Holwerd and its surroundings?
  - Open question
3. Does the landscape of Holwerd have a specific identity and if so, how would you describe it?
  - Open question
4. Which elements in the landscape in the landscape of Holwerd and its environment do you regard as valuable and should be preserved, and why?
  - Open question
5. How do you think important landscape can be maintained best?
  - By a government (municipality, province, national government)
  - By farmers
  - By residents themselves
  - I don't know
  - Other:
6. What do you think of the project Holwerda an Zee and do you think that the landscape was taken sufficiently into account?
  - Open question

### Measurement sense of place

7. To what extent do you agree with the following statement [agree with statements on 5-point scale: totally disagree – totally agree]
  - The landscape surrounding Holwerd means a lot to me. (Place identity)
  - I am very attached to the landscape surrounding Holwerd. (Place identity)
  - I feel oneness with the landscape when I spend time in the landscape surrounding Holwerd. (Place attachment)
  - I would feel less attached to the area surrounding Holwerd if the original landscape elements disappeared. (Place attachment)
  - I get more enjoyment out of life in Holwerd than in any other place. (Place dependence)
  - No other place can compare to Holwerd. (Place dependence)

### Personal characteristics

8. What is your age?
  - [age in years]
9. What is your gender?
  - Male

- Female
- Other

10. What is your highest achieved level of education? (Specified to Dutch context)

- Basisonderwijs / lagere school, LBO (bijv. LTS, LEAO, huishoudschool)
- VMBO, MAVO (MULO)
- HAVO, VWO, Gymnasium (HBS, MULO-B, Lyceum)
- MBO (bijv. MTS, MEAO, UTS)
- HBO, Wetenschappelijk onderwijs (bijv. HTS, HEAO, Sociale Academie, Kweekschool, PABO, HAS, WO-bachelor, WO-master, PhD)
- Other
- I'd rather not say

11. For how long have you been living in Holwerd?

- [duration in years]

12. How important has the landscape been in the decision to stay/move here?

- [scale 1-10]

-

13. Do you have any remarks?

- [remarks]

14. In case you wanted to be posted on the outcome of this research, you can fill in your email address here.

- [email address]

## **Appendix III – Consent form**

### **Holwerd aan Zee en het cultuurlandschap.**

In het kader van mijn studie, Sociale Planologie aan de Rijksuniversiteit Groningen, doe ik onderzoek naar de erfgoedwaarden in en rond Holwerd en hoe deze meegenomen worden in de planvorming van Holwerd aan Zee.

### **Inhoud van het interview.**

Ik zal u vragen stellen over het landschap rond Holwerd/het project Holwerd aan Zee en hoe het landschap hierin een rol speelt.

Alle data wordt volledig vertrouwelijk verwerkt.

### **Deelname aan dit interview.**

Dit interview zal naar verwachting 30 minuten in beslag nemen. Er zijn geen goede of foute antwoorden. Uw deelname is volledig vrijwillig. U kunt besluiten niet langer uw medewerking te verlenen op elk moment. Mogelijke vragen die u heeft over dit onderzoek kunt u stellen aan de onderzoeker. Naderhand kunt u contact opnemen met de onderzoeker via: [m.ras.1@student.rug.nl](mailto:m.ras.1@student.rug.nl).

**Formulier voor deelname aan onderzoeksproject “Holwerd aan Zee en het cultuurlandschap”.**

Ik heb de bijgaande informatiebrief gelezen over het onderzoeksproject. Ik was in staat vragen te stellen en deze zijn naar believen beantwoord. Ik heb voldoende tijd gehad om te besluiten om deel te nemen aan dit onderzoek. Mijn deelname is geheel vrijwillig. Ik kan besluiten om mij terug te trekken op elk gewenst moment, zonder opgaaf van reden. Ik geef toestemming om mijn interview data voor de volgende doeleinden te gebruiken (e.g. wetenschappelijk artikel en presentaties en/of onderwijsdoeleinden). Ik ga akkoord met deelname aan dit interview. Dit formulier wordt los van uw interviewgegevens bewaard en dient enkel als teken van uw instemming.

**Deelnemer**

Ik ga akkoord het maken van een geluidsopnamen van dit interview: ja  nee

Datum: \_\_\_\_\_

Plaats: \_\_\_\_\_

Naam: \_\_\_\_\_

Handtekening:  
\_\_\_\_\_

**Onderzoeker**

Ik verklaar de deelnemer geïnformeerd te hebben over dit onderzoek. Ik breng de deelnemer op de hoogte van zaken die zijn/haar deelname aan het onderzoek kunnen beïnvloeden.

Datum: \_\_\_\_\_

Plaats: \_\_\_\_\_

Naam: \_\_\_\_\_

Handtekening:  
\_\_\_\_\_

## Appendix IV – Interview guides

### Interview guide Holwerd aan Zee

1. What is your position in the project?
2. How did the project come into existence?
  - Who started it?
3. How important in support from the village of Holwerd for the project?
4. How do you make sure that people will keep supporting the plan?
5. One of the pillars of the pillars is “Art, culture and landscape”. How is het landscape taken into account in the “cultural landscape development”?
6. What things in the landscape need to be protected according to Holwerd aan Zee?
  - Why?
  - Are there things you do not take into account in the project or just develop in another way?
  - How did you come to these elements/list?
7. Does the World Heritage Status of the Wadden Sea offer mostly opportunities or restrictions for the project?
8. Which demands/challenges were imposed by the municipality/province?
  - How do they deal with the landscape?
  - What are their monuments/protected elements?
9. What will the plan look like?
  - Which changes were made?
  - Is there just as much or more/less attention for the landscape?

### Interview guide municipality

1. What is your position in the municipality?
2. How does the municipality deal with cultural heritage?
  - What are the mechanisms?
3. How important is public support for the heritage policies?
  - How are people involved?
  - How do you deal with opposed interests?
4. How is the status of cultural heritage determined in the municipality?
  - Why should heritage be preserved, why is it valuable?
5. How is cultural landscape heritage determined?
6. Based on the conditions for the new Environmental Vision: The landscape should be preserved and should move along when possible. Is there an emphasis on preservation?
7. In what kind of instrumental context does the preservation of landscape heritage take place?
8. How are landscape qualities safeguarded?
9. What is the municipality’s stance on Holwerd aan Holwerd?
10. Are landscape qualities/landscape heritage adequately safeguarded in Holwerd aan Zee?
  - Are there bottlenecks?
  - Does the municipality need to state conditions?



## Appendix V – Transcripts

Transcript interview Jan Zijlstra (Holwerd aan Zee) - 15-09-2022

I: interviewer

P: participant – Hans Zijlstra

I: Uhm, what is your position within the project?

P: Uhm, that. Holwerd aan Zee is carried forward by four people. Uhm and uhm. Well, I'm one of those four. So, that, the position is very broad. I am concerned with political lobby, financial lobby, uhm, content: nature, fish migration, birds, and the biodiversity, climate adaptation, communication I do a lot. Uhm, I started this in 2013 when we started so to say as part of the municipality of Noardeast-Fryslân, at that time it was called Dongeradeel.

I: Yes

P: I don't work there anymore. Uhm, so I work independently and I do the same job, but not for the municipality, but from my own ambition and drive. Yes

I: But, you knew each other already, those four men or it is...

P: One of the three I knew. I knew Marco Verbeek, he had contacted the municipality before for another case, that's how I knew him. Uhm, but they contacted the municipality together with the village and I was a civil servant there. And the board of mayor and aldermen asked me to be present at that conversation. And from then onwards we said, well the board: "this is a nice idea that you have and Jan Zijlstra can help you with that"

I: Yes

P: Because I worked in the Lauwersmeer area and I worked in the Wadden area and I had built my network over there so to say.

I: Yes, yes, right. And who boosted the plan. Were those three men the initiators who said: this is a good plan and you became part of this.

P: They went to the municipality with a rather large group from the village: with the interest group for the village as well, and numerous people. And I said: this doesn't work with this many people. Then you can't make progress when you constantly need to give feedback and the like. That's just unhandy. So, I said: we need to form a small group and that small group needs to make progress. And that's how we did it. Four people, with two from the interest group: Hessel and Theo were members of the interest group, Hessel was chairman and Marco was an entrepreneur there. And that's how we started it.

I: And how important is the support from the village itself for the project? How important is it that the people stand behind it?

P: That's where it starts right. The interest group had seen a vision, that vision was composed by Atelier Fryslân and commissioned by the province. That vision was presented and the village said: that's nice. And as a first activity we contacted the farmers, because they would have to give up land. And the second activity was really to go to the village. And we had had some conversations with the province and the Waddenvereniging and

- Rijkswaterstaat, really the most important parties. And with the outcome of that conversation, we organised an evening for the interest group and the room was full of people and they responded were positively. Sometimes a bit giggle, because you're talking about a very large project, an investment of millions. So maybe, unknowingly, we were taken for a fool, I don't know. I suspect so and uhm. That's no big deal. Everybody was okay with it, okay. Some were really enthusiastic and others thought it was okay. Like that, okay.
- I: Yes, so you could feel that the village supported it.
- P: Yes, I mean, we, the village had held so many sessions in 2013 on how to deal with population decline and what can be do about it. Houses were vacant and were dilapidated in the centre. And there were many nice plans, you know. Everybody had nice plans. Every bureau produced nice plans, but it didn't lead to anything, because when you don't have any money, you can't realise any plans. Yeah. With that idea, we said we have to do a large intervention, we have to make a large investment and only then it has effect. Only then many people come over, only then it has any use. The little things, the small projects, the low hanging fruit as it is often called, that's a way so you don't have to do big things, then you do small things, that's low hanging fruit. And even the low hanging fruit was not realised, there was hardly any movement. Everybody did support the idea and soon we had a vision together with Rijkswaterstaat that it could financially be very lucrative. When you dig extra room for water, so to say, when you add water to the so-called storage area of the Wadden Sea, then it's very likely that the dredging of fairway to Ameland will decrease. And Rijkswaterstaat made a calculation and said that it would decrease with 70%. And 70% of an annual spending of millions, then 70% is a lot of money.
- I: Yes
- P: And the annual spending of dredging would increase tremendously, that's what they calculated. We already saw this 70% of an enormous amount. So that's how it became very serious very quickly. Because we said, we can save millions and that's how we can finance it and then we have a blah blah blah... And that was embraced by nature conservation organisations, by the village, by..., everybody was enthusiastic about it. So, it went really quickly in the beginning.
- I: Yes, they were really enthusiastic. And, well once in a while there's an evening where the people can come to be informed.
- P: That's right.
- I: But, what ways do you have to involve people, so to say, that they keep supporting the project?
- P: Uhm, well, we have a, we do, we have various, we do various things of course. We do, we had newsletters, we had week overviews, we had year overviews, we had sessions, we had walk-in sessions in the project bureau, social media of course, the Facebook page is quite popular, Twitter and LinkedIn as well, maybe a bit more for the professionals, uhm... We had a documentary by HUMAN, they made that documentary. They are now working on part 2, that's going on as well. Uhm... What didn't we do. Well, I won't weekly, but monthly we put pieces in newspapers on the developments and positive things. Sometimes it was only announced by RTV NOF or by the Dockumer [Nieuwe Dockumer Courant], but sometimes also by the Omrop [Fryslân] once in a while. Then the Omrop mentioned it. We always had great press, let put it that way.

I: And those sessions that you talked about, what happened there, what could the people do there?

P: Apart from the sessions in the MFA [Multifunctionele Accomodatie De Ynset in Holwerd] in the community centre, then we talk about the progress. That's something that we do regularly. And we also had a walk-in pub on Friday afternoon. Then the door was open and people could enter. And we also organised sessions with on street level, so per street we invited people: you are invited on that time. Then, God, the people who are interested would come and you can explain it to them and they will spread the word in the street, you know.

I: Right, a bit of mouth-to-mouth publicity.

P: Yes, yes.

I: And this is something else. But I saw on your site that are multiple pillars on which the project stands. And one of them was "Art, Culture and Landscape". And how do you involve the landscape in that development of the cultural landscape?

P: Yes, well, the pillars that's the story of the first beginning. I have to say, that pillars have disappeared maybe, well not disappeared, but were added. We're working on new pillars really. Well not new, but to phrase it differently, also for the region, for the larger area.

I: Yes.

P: And in that sense, landscape is very important in that. We always said what we are going to do has to fit in that salt marsh landscape, in the Wadden landscape, in the sea clay landscape. That's what you call it, most likely.

I: Something like that, yes.

P: So, the values of how the sea has formed the landscape to preserve that as much as possible and to work in line with it. That way, we take the landscape and it is even nicer to show people who come from elsewhere how the sea made this.

I: Yes

P: To show them: here's a ridge, that's a salt marsh ridge, that's mainly sand. You can see that in the cultivation by farmers. You know, like that. That's the most beautiful, to show that to people, because you can see it too. But not everyone can see that, you have to be told that.

I: Yes, so in the altered version, it remains a pillar that landscape is a centrepiece.

P: Yes, that's very important. Also because the landscape is made by the sea, but in the end, it is formed by the agrarian sector. And the agrarian sector, they are in our view the sector that also maintains the landscape. Farmers maintain the landscape and we put the agrarian identity in a central position. That's a starting point uhm... The farmers have to do well, farmers must be able to move forward. The farmers are prepared to make concessions with regard to biodiversity for example or climate change, salinisation. They want to think about it, so farmers in the middle, the identity, the agrarian identity in the middle. But taken into account that the farmers, together with us, want to think about the future on how to deal with it.

I: Yes.

- P: That's one of those pillars. To develop a future proof agricultural agenda with the farmer. Currently, that's a group of 18 famers. But in the area, we want to work towards 50 farmers, you know. That you, that you can take the whole area and that you can speak on behalf of the entire area and that you can connect people in the area. Because those farmers are doing a lot by themselves, on their own really. And you can feel that when you talk with them then a certain interaction develops, that can develop. Well, yes, that agrarian identity is really crucial.
- I: So, also that farmers cooperate from Ternaard or Ferwerd, that it becomes a larger area?
- P: Well, we have a candidacy for a Man and the Biosphere area of UNESCO
- I: Yes.
- P: And for that, we have drawn an area from roughly Blija to Ternaard along the coast and like a pizza slice towards Dokkum. So that entrepreneurs from Dokkum can participate as well. And that's our candidate Biosphere area and we seek the collaboration in that area. That's already quite a task in an area like that. There are a lot of actors. And you can expand the area but that doesn't make it easier.
- I: No.
- P: So really, we have made our own restrictions to focus on that area to choose there.
- I: Yes, right. You already said that it would be nice to show to the outsider: this is our landscape. Well, which elements in the landscape do you consider to be in need of protection in the plans? Elements that need to be preserved.
- P: Well, I think that it's the elevations in there. The salt marsh and the old tidal channels. Those are important, you can highlight them in different ways. You can make them navigable, I just give an example. But on a salt marsh ridge you can also put a simple bench, a place to rest with an information sign and them show the people this way that they are sitting higher and they can have an overview over the landscape, that's because blah blah...
- I: Yes.
- P: Yes.
- [disturbance]
- P: But you can do it in different ways. Really everything that was formed because of the Wadden Sea that's interesting to show.
- I: So I mention the small terps that are still there.
- P: Yes, right, that's right. That's more man-made, but that's of course the reaction to how people used to live there. A beautiful story, we also built Holwerd aan Zee around that terp of Holwerd. We always say: the Netherlands have a lot of terps, and those terps served a purpose, but nowhere that function is still visible. Yes, when you inundate the ice skate rink in some village, and then the water is near the church, but normally, you can't show that to tourists. And not to tourists, nor to inhabitants. Because inhabitants don't know, well they do know that, but when we could get water around the terp of Holwerd then we bring back the terp in the situation from before 1500 so to say. In the ballpark of, well when was the first sea dike was constructed, 1100 or something, I don't know. But then

you're back in those days. You can show the function of the terp with the water and the sea around it and protection. So that's, terps have a central position in that. The same is true for the Biosphere area. That Biosphere area has a very beautiful route of course from Dokkum to Holwerd and that cuts right through terp villages: Foudgum, Brantgum and... you know them. And those are really beautiful terp villages. Aalsum, Aalsum, I don't know how they pronounce it over there. That's very nice to show.

I: Yes, right. So, you would say that what is there we need to develop so to say, that it becomes more visible, instead of leaving it alone and that it's not visible. So, it needs to be developed.

P: Uhm, yes, you just need to show it to people in one way or the other. In the candidacy for the Biosphere area of UNESCO we said we are going to compose the landscape biography together; we are with 11 villages. Well, a lot is already known, so we don't need to come up with a lot. Because Noardeast-Fryslân or in the North, in the Northeast, there's a very nice landscape biography, they composed it. There's of course the provincial nota Grutsk op 'e Romte, there that one too. And uhm, there's very well written what the value and qualities of the landscape are. But of course, in an UNESCO Biosphere area, it's also the intention to involve the villages. So that the villages become extra aware, the inhabitants. And that awareness in turn contributes to pride and ambassadorship of the inhabitants in those villages when tourists go there, that they tell that. But also, for themselves: Wow, I live in a beautiful area. Well, like that. That's very important. It's not the intention that tourists go to the area because it's a Biosphere area and it's Wadden World Heritage, and there are beautiful villages, and then they run into a villager and the villager says: "I don't know what you're doing here because there's nothing here and you can't do anything." Well, then there's no match.

I: No.

P: It has to match. So, they have to go to the area enthusiastically and they have to meet enthusiastic inhabitants who tell enthusiastically about their own region. Like that.

I: So, the landscape biography and the nota Grutsk op 'e Romte play a role in how you as a project see the landscape.

P: Well, see we are going to... We are in an exploration. We are candidate Biosphere area and, in that exploration, we have to write down what the area is, what does it look like. And in that, notas like that emerge. And first that nota by Noardeast-Fryslân, that landscape biography, and when you zoom out you can place that in the nota Grutsk op 'e Romte. Of course, that's an important basis. We are not going to do that ourselves, but we will make sure that it will be done that way.

I: Yes, and what has been decisive in how you see the landscape and what needs to be protected, and where the canal can be made, because that also needed to fit in, where can it go, at which side of the terp?

P: Well, the localisation of the tidal lake and the canal through the salt marsh has a more practical reason, because to keep the end of the peer sludge free. When we were to construct the canal at the west side of the peer, then the canal would have the tendency to move towards the west.

I: Yes.

- P: And when you place it at the eastern side, then it can't go to the west because the peer sits in between, that's hardened barrier and that's how you keep the end of the peer free of dredge. That was the idea of Rijkswaterstaat and the ferry can sail to the end of the peer.
- I: Yes, right.
- P: And that's why it was put on that side. But in the end, it doesn't matter that much at which side it will go. Uhm.. But we did say that... the plan is initially taking shape really at the east side of the village now, but we did say together that's not logical. It's more logical that it maybe starts at the east side but that it ends at the west side of the village.
- I: Yes
- P: Or at both sides of the village anyway. Because later, we want a connection to the Holwerter Feart. And the Holwerter Feart joins the village at the southwest side. So, it's logical that, if that connection is ever realised with the Holwerter Feart, that you go to the west side of the village.
- I: Yes, then the start is already there then.
- P: Yes, then it's already there.
- I: Yes, right. And of course, the World Heritage status of the Wadden area, does that provide mainly opportunities for the project or also restrictions?
- P: Well, see, the World Heritage status does not include the peer that ends at the sea dike. The World Heritage is purely focussed on nature. And that's geared towards protection, but that's alright. That's something you can benefit from, that is maybe done too little yet. The World Heritage is there, and that's it. Nowhere, there's an entrepreneur, or very occasionally, you can see that entrepreneur make use of that, like: We are close to, experience the World Heritage. No, that's done too little. It's not positioned enough, that's why we said, look at the German example where they are near the World Heritage, the Wadden Sea, where they are a national park, but where they are also Man and the Biosphere. And uhm... We view that as a complement to each other. There's the World Heritage, there's nature, you can't do anything there, you can enjoy that. And there's a Man and the Biosphere area, there nature and humans go together. And humans and nature, humans make the area extra beautiful for nature but without that it bothers humans. So, we combine that and we see abroad that that's a very successful combination. And, well, the Wadden Sea so to say used to be Man and the Biosphere. That status, it was World Heritage and it was a Man and Biosphere area, but they never acted on that status so that status was revoked, a few years ago. It's also logical, because it's in the name: Man. You couldn't find that on the Wadden Sea. The islands are not part of that, of the World Heritage, it's not a part of it. So, where humans live is not part of the UNESCO World Heritage.
- I: No, right.
- P: So, also not Man and the Biosphere area.
- I: So, it wasn't restrictive that they said on behalf of UNESCO: what you are doing with this channel is too invasive in an area where nature decides.
- P: No. No, because in the World Heritage age there's more human activity. A ferry sails there of course and that fairway is maintained of course and deepened. And uhm, that wasn't a



limitation, it was more of an added value. Because in a Man and the Biosphere area there's also nature. There's also a hard, hard core of nature, so to say, really dark green. Well, here, that's a piece of salt marsh. That's a piece of Natura2000 area, a World Heritage Site, but that is really nature. Then there's nature that you, yeah, the Bird Watch call it "area own nature". So then, you make nature that fits within the area. Well, that's, in an agrarian area, that's minimal. But still, you can do a lot. And uhm... Well, the agrarian sector alone, the farms, are also places where a lot of biodiversity is. Those are oases in the landscape. Every farmstead is an oasis of biodiversity. That could also be something that we can work with. And you can also make new nature. That's also an important part of the Biosphere story. The Holwerter Feart is a blue connection, but you can also change that into a very green-blue connection. More blue, more water retention, more space for fish for instance. And uhm... more space for nature. So could make a combination there. In combination again with the accessibility of Dokkum over water and the accessibility of the villages over water and tracks for walking and cycling and places for experience where you can very nicely experience the landscape.

I: Yes, right. Well, at the moment nitrogen is also a big deal, but would it be beneficial if the project would get a Natura2000 status?

P: No, because that would go too far. Then there would be restrictions and the farmers would not be happy about that. So, the extern influence of Natura2000, we don't want that.

I: It's what the project will become... that's it. And another status is not needed, because the World Heritage status is enough really, that that's close.

P: Yes, that has to be enough. And with the least restrictions possible in that regard. That's how we present it. When you further inland, and it becomes a Biosphere area, then you can also change it, you can also make possibilities. When you put the landscape and the agrarian identity so to say and the function of the agrarian sector centrally, then they will have a role and a position. And then we have to make sure that we keep that sector and that it flourishes as well as possible. Because if that's not the case then we lose those people. When we lose our farms, then the landscape is also lost.

I: Yes, right. Yeah, which demands or which challenges were imposed by the municipality and the province? To what extent were they restrictive.

P: Well, uhm... From the start we... See, when you're talking about the restrictions of authorities, I know everything about that. In 2013 I had not worked for 20, 25 years for the local government, but I did know the fundamental things. So, I said from the start: we do not use government, we do use their ambitions, their challenges, their policies so to say. But not asking governments: hey, are you okay with doing that. Because then they don't know what to do. What does the alderman think? What does the municipal council think? What does the coalition agreement say? Help. So, we went our own way. We made our own plan. We didn't do it ourselves, but we did do it together with all those so-called stakeholders. But when you ask stakeholders what they want in the plan then they add something to the plan and then they're not stakeholders but shareholders. Then they're shareholders of the plan. And when they're shareholders, they're also ambassadors of your plan, and they create support, for financial support, they bring in that as well. We did it that way. So, as much as possible, we made the plan integrally, area-specific, multi-disciplinary blah blah blah, every buzzword you can think is applicable to the plan development of Holwerd aan Zee. At some point, you arrive at the province or the

- municipality and you enter the world project organisations, steering groups, and things like that. And that's when the delay develops a bit.
- I: The bureaucracy.
- P: Well, the bureaucracy and the desire to know everything for certain before you move on. But, that's not the case for an innovative project. Because, Holwerd aan Zee is innovative, we go through a sea dyke and we're working with sludge and blah blah blah. And then you're not completely sure how that will work out and maybe you will have change course. Well, is that a bad thing? Politically, sometimes it is. Then a deputy thinks: Oh, oh, oh, how will this work out. What does the provincial council think of it?
- I: Yes, right.
- P: But in the corporate world they say: we're going to give this a try and when it doesn't work, we'll do that and when that doesn't work, we'll do that. And then the risk is for the corporate world and everyone is okay with that. That's a way of working that suits the innovations of Holwerd aan Zee.
- I: Yes, right. And uhm, which restrictions have they imposed with regard to landscape and protected elements? Of which they said: you can't touch them.
- P: Well, then you arrive at, of course, the terp is there. When you start digging at the foot of the terp, you can expect to find historical things. That's of course. Well, next to that, nothing really. We now have a task to take another good look at the spatial quality of the story and we do that together with the province. Uhm, well, those people also know: okay when this is the plan, we let water come in, what are you allowed to do and what are you not allowed to do? Well, we said, we'll make two nice terps in and we put houses for recreation on them. It's very well possible that it's not logical to have terps in that spot. Maybe, on the other hand, it is. It's of course possible that they have an opinion about that. That is has to be different. We'll see. That's not the most important. The most important is that, at some point, we'll go through the salt marsh, through the sea dyke and that there'll be water: ebb and flood.
- I: Okay, so there will be another evaluation, together with the province of which qualities are there and what can we add to it?
- P: Yes. The rough image is acceptable. Like we said: bring the water back to the terp as it was back in the days. Because the dyke is there since 1580 or something. Well, then you restore the situation of before. There's no one who can be against that from a landscape perspective.
- I: No, right. Then a question about... There have been a lot of changes this year. What will the rough outline of the plan? What are the most recent developments?
- P: Well, uhm... Before the holiday it was presented as if there would only be a natural plan. But that's completely not true. We only go with a plan where nature and the economy are in balance and go together.
- I: Yes.
- P: So, we keep holding on to a fairway connection for barges [platbodems], those are the ships on the Wadden Sea from the eastern part of the Wadden Sea. So, it... But, we try, and that wasn't explained really well by everyone, that we try to put an extra plus on nature.

Especially in the salt marsh outside the dykes. We could maybe take more from that. And that is our ambition: more nature, that's also more interesting for financiers, for our financing. But that's also more interesting for the experience, for the people who go there. The more beautiful you make the area, the better it will become. So, we see the so-called nature-variant as an opportunity. We see that as a chance for financing. But we do not let go of the sailing. There will be sailing and there will be ebb and flood, inside of the dykes. Because, otherwise, we have... we create something inside of the dykes that is absolutely not logical. A lake on a high clay ridge so to say or in a high area, because the Wadden coast is high, the first three kilometres or something, four kilometres is rather high. There's no lake there. So, we're not going to do that.

I: Because, the sluice was removed? From the plan?

P: Yeah, you know how it goes. Uhm... There are certain parties who say: this could become difficult to get a permit for this and to get financing for this, because you have a sluice in it, you have a regulating mechanism in it. And that's a very technical solution altogether. The we think: it's also placed in a very technical dyke. The sea dyke is a technical solution as well. So, you go through it and it also becomes better. From our perspective, there's no problem. But other parties start to reiterate that story and before you know it, the sluice is taken out. But maybe it's completely not realistic. And we're investigating that at the moment: okay when the sluice is taken out, we are left with the regulating mechanism, because it needs a regulating mechanism to manage the water and the sludge. Uhm... When you don't have that, it will silt up. So, so, you have to manage it. Well, then we have to look now whether we can make that regulating mechanism navigable. We are looking into that. And then maybe you don't need a sluice, that would save I think 17 million or something. Uhm... But on the other hand, if that's not possible and if that's not realistic, then we have to be realistic as well and maybe we have to go back to the first solution.

I: Yes, right. So, in fact, not that much has changed with regard to attention to the landscape. That stays about the same.

P: No, it's solely the framing that did that. Attention for the landscape, well in that sense, well that's right. A fresh water lake over there is not obvious, because from a landscape perspective, that's very odd, very strange. It doesn't fit in the area. In that sense, for us, the landscape, has very different interests. You can also trace it back to that argument.

I: Yes. Well, that was my last question really. Are there at the moment things that you would like to say or things that come to mind?

P: [information about previous research by students in Holwerd]

Transcript interview municipality - 06-10-2022

I: interviewer

P: participant

I: First of all, thank you. First a very formal question. What is your position in the municipality?

P: I am a policy officer for spatial quality. Well, I don't know whether that's the formal description but that's how I call it myself.

I: Yes

P: More of an advisor really.

I: An advisor, yes. And the landscape is big part of that in this respect?

P: Yes, we merged not that long ago and uhm... We have rather generic functions in the municipality, but everyone has their specialty of course. Originally, I have an education in architectural engineering, urban design. But in the former municipality, Dongeradeel, that was a relatively small municipality, you would quickly get a far broader function than solely the discipline of urban design.

I: I see.

P: So, a bit of cultural history, a bit of landscape, a bit of aesthetics [welstand], and well also urban design.

I: I see.

P: Really, in the transition that has stayed the same. Because we still don't have a specific landscape person.

I: So, then you get a bit of a broader working field than you would think at first.

P: Yes, yes. It's also nice.

I: Well, how does the municipality Noardeast-Fryslân deal with heritage. So which mechanisms are there to deal with it, to protect it, to assign it?

P: We are of course a relatively new municipality. Uhm... So, a lot is still developing.

I: Yes.

P: Well, my colleague, that's for heritage, specifically, that's a new position within... [personal information]. Is working on a heritage nota.

I: Yes.

P: I don't know exactly what's in it because it's under construction. Uhm... the new municipal council is actually really, considers heritage to be really important. It's a bit of a trend of course at the moment.

I: Yes, of course.

P: So basically, I'm really happy with that. And what definitely will be the case, in zoning plans a lot of landscape, cultural historic values are protected

I: Yes.

P: You can check that yourself at Ruimtelijke Plannen. Next to that, the province has made a structural vision: Grutsk op 'e Romte. In that, there's a description of landscape and cultural historical structures and elements per area that are of provincial value they consider. So that they protect in that way. So, at the moment that there's a plan, when that kind of .... Elements and structures, landscape elements and structures are affected or that's altered then they will of course also make judgements. And preferably also thinking along in the plan development. Uhm... As the municipality Noardeast-fryslân, we had a landscape biography made.

I: Yes, yes.

P: Uhm, in that, there are a lot of landscape and cultural historical, well apart from the story of how the landscape developed, but also the qualities. This not a policy document yet, we are now working on the environmental vision. And in the environmental vision there will be referred to this book. And uhm... next we will also make an environmental plan and in that all those landscape values that are there, we will assess again, do we want to protect them, or safeguarding them in another way to preserve it, do we want to strengthen it.

I: Yes, right.

P: Those are all questions that will come. But at the moment, the existing zoning plans are still the basis.

I: Yes, because I often saw that the really the only way to protect heritage in the landscape, that the zoning plans are the weapon of choice to do that.

P: Yes, that's right. And it's not the case that all values are protected. You also know, that a lot is still being discovered.

I: Yes.

P: Uhm... And in the end, a decision was made to, because it's also the case that, people also live and work there, so it's always searching for a balance of what you protect and what you preserve and what you can develop. I always like the motto of preservation through development.

I: I saw in important points for the environmental vision... There a few crucial points that have to return in the environmental vision of the municipality. And it said: preservation, but moving along where possible.

P: Yes.

I: So, it seems that there's an emphasis on preservation.

P: That's a good question. Uhm... What you've read is the official's text, not formally accorded by the council. So, the council has not seen it yet. It's true that I think that a lot of landscape and cultural historic qualities are under substantial stress and you initially from that perspective need to protect them and preserve. But that doesn't mean that it's always possible. It's always a broad spatial consideration.

I: That's true, absolutely. Yes, so, it remains a consideration, but preservation is the first thing you look at when pressure increases.

P: [nods] To give an example, we are currently working on, in Dokkum we have, characteristic buildings were assigned and uhm. For that the intention is to preserve them, but sometimes it's not possible when a building is in a bad shape or with regard to the costs you have to make to maintain it or keep it up to date, that they are so high. Because for national monuments you have subsidies but for characteristic buildings a bit less.

I: Yes. That's true.

P: And it also needs to stay usable. So the zoning plan says that at the moment that it's reasonably not possible anymore. Then we have to do something else with the characteristic buildings. And the formulation of what is "reasonable" that is often quite an investigation.

I: Yes, I saw that they intend to bring back names on facades.

P: Yes, in the inner cities. Yes, it's a very, so that's really nice.

I: Uhm, then, yes, how is landscape heritage determined, how is that mapped, what are the mechanisms in that?

P: We don't do structural investigations, unfortunately, we don't have the capacity for that. Uhm, we did have the landscape biography made by Dennis Worst.

[digression]

P: He made the landscape biography for us. In that, the story of the landscape is described from how it developed until now, and also the landscape and cultural historical core qualities. Uhm, that's step 1. That's knowledge. It's not complete of course. There are always successive investigations that can be done to gather successive knowledge. A colleague of mine, is on maternity leave, makes a continuation on the landscape biography. The landscape biography, like I said, is knowledge, it needs to be translated into policy.

I: Yes.

P: Uhm, how you deal with those values and the core qualities that are there.

I: Yes.

P: Uhm... that step still needs to be taken. So, at this moment the zoning plans are still the frame. Soon, the environmental plan will be the frame and in that, well, we will look what can land in there from the landscape biography. Uhm... Like I said, a colleague is working on the heritage nota, that's a lot more about the built heritage, and uhm... What is also the case, because this is about the policy formation trajectory, it's constructed rather integrally. It's nice to think from one perspective, from a landscape or cultural history perspective, but there are of course a lot more disciplines. That's why it's always the case: this is the objective, but with a good motivation, there can always be alterations. The intention indeed is preservation and protection, but there are people living and working there and it's developing. So, you can't always preserve everything.

I: Of course, there are always choices to be made.

P: True. Well, that's the policy process, we are right in the middle of that. Uhm, then there are projects that are taking place of course or applications by initiators, people from the area



who want something and then you often deal with landscape and cultural historical values. Then of course, the zoning plan is the frame for assessment. When there's a conflict with the zoning plan then a consideration will need to be made on how to deal with it. It's not standard to say: we protect everything always. Or we say: if it happens this way, then we think it's preserved enough. It's always that consideration to make. And for the knowledge is important.

I: Because archaeology is always rather well safeguarded in projects, but how you can describe landscape heritage and how you take that into account is always a more difficult task.

P: Yes, and still, it's easier than for example other spatial quality aspects such as aesthetics [welstandscriteria] In that, you're completely, well, no concrete tools to employ. It's always up for interpretation. So that's true, it's a shame that's not measurable in solid figures, but that's the nature of the case.

I: Indeed, but knowledge is an important aspect from where you can build, and this is done by, so to say, experts in that field, uhm... Is it solely the knowledge of the expert on which you build, is that the only basis to make policy on, or do you have surveys for the citizens?

P: Yes, that's true. Participation is a really important item nowadays, and I myself consider it to be really important. Because you can of course have knowledge and be very directive: this has been done like that, but you do not get support and understanding, and you do not contribute to preservation. What I like in this case is, the example of good practice is the Nije Pleats, I don't know if you've heard about it.

I: I've heard about it

P: That's when farmers want to extend their barns and that extends on top of an old moat or old tree row. So how do you deal with that? Well, what you can do is say: no, that's not possible because the moat is there, but you can also discuss and draw sketches on how to move forward. That.... And what's important is consultation, that I learn to understand the story of the entrepreneur, the farmer, the agricultural entrepreneur, so that I can think along with him. He learns to understand my story and to see it in the landscape and subsequently, he can think along with that. That's the way in which I prefer to work. And really at the moment that you understand each other's standpoint, it's much easier to make good plans.

I: Yes, I see.

P: But it's a lot more effort.

I: Yes, that's true. And there's not really a, that's been abolished in 2012 or something, that there were national landscapes. So, there's not really a clear frame for the location of landscapes in that sense. Has there been something put in place in the municipality? In which you can indicate: these are areas that we want to isolate because they are characteristic or...

P: No, we don't have that. We do have, in Noardeast, a part of a former national landscape, and we still use the term, because we... it's really an extraordinary area: Noardlike Fryske Wâlden, uhm... but the terp region is just as extraordinary. The qualities of the area, are points in the zoning plans, for example the openness and the terps, the farmsteads, those are all characteristic things that are already safeguarded in the zoning plan. And uhm... well, like I said, we... another example is the parcellation, that a very fragile thing. Well,

farmers want to have large parcels so they can drive back and forth, but when you fill in the ditches, the landscape will become flat, and you clearly get a disappearance of irregular block parcellation and elongated parcellations, that the landscape image disappears, so what we did in a zoning plan is protecting certain forms of parcellation, no ditches can be filled in. And it's quite difficult, because every time we get applications, if we get applications at all, because sometimes it happens anyway, you just have to know that you cannot fill it in.

I: No, right.

P: But in times of climate change, the availability and retention of sweet water is indeed important, so in that sense, ditches may become really important, but it always remains difficult to... I know of an example in Middag-Humsterland, there they indicated what ditches were characteristic and needed to be maintained, could not be filled in, and the consequence was that the rest was filled in as quickly as possible. But that's also not desirable. So that's why on one hand, you can enforce your rules really strictly, then you can protect really well, but at the same time you get that it becomes hard to develop. I prefer saying, like the zoning plans are: we thought this through, does your development, the plan, fit in there, then go ahead, when we assess it based on the zoning plan. Does it not fit in there, or do you find something as a landscape quality, then we look how it can be possible.

I: Yes.

P: Then you deliver tailor-made work. And I think that we, certainly in the Environment and Planning Act, it will be stimulated more and more, again it's something that takes more effort. I'm not necessarily in favour of demarcating areas for conservation or preservation.

I: So, at the moment, it's a bit lagging behind, in the assessment of zoning plans: what happened here?

P: No, because you assess in advance

I: No, but when a ditch was filled in that was valuable.

P: Yes, then it's patrolling. And the negative side is that the Environment and Planning Act will focus more on this

I: Yes, yes. That will be transition.

P: That's why consultation in advance and establishing together how something can be made possible, I think is really important.

I: I see.

P: It's the question how that can be done. That's a challenge.

I: Yes

P: How do you get people to talk with you.

I: That's true... I also read this landscape biography, not completely from cover to cover, but I've read for a large part. And in there, a number of landscape qualities are mentioned, different kinds of parcellation, farmsteads, and things like that, churches, terps. How will they be safeguarded, that nota is not ready yet for heritage, but how will those qualities be

expressed, will they be translated one on one, that you incorporate them all or will there be a choice?

P: If it's up to me, we will use them all, but it's likely that that won't be reality. It's always an evaluation. And it's a bit of a dull answer but I'm not really sure. Uhm... when it's up to me, we do incorporate these values so that it's clear where the values are. And when you come in contact with that with your plan, your extension or your initiative or whatever you do, that you have to take that into account. Taking something into account can be done in many different ways. You can do that by leaving it untouched or by making a good design around it. Or by, in extreme cases it can be that it's not feasible to preserve it. But you have to be able to motivate really well why that's not the case. An example are the characteristic buildings that I mentioned that they are bad and could collapse. When do you demolish them and when do you try again to preserve? It's always possible but there are costs and those are not always available.

I: That's true.

P: And of course, it's an area where people live and work so that evaluation is always important. And in that, landscape, cultural history is one of the aspects in, the archaeology as well of course, in all the other spatial or physical aspects. That's how it goes.

I: Of course, buildings that don't have a real monumental status, that motivation is easier to make maybe, but in the municipality there also many protected village scapes and then case becomes more difficult.

P: Well, up to now, in protected village and city scapes, you cannot put solar panels on the roofs that are visible from public spaces. Well, it become increasingly difficult to uphold that in the energy transition that we're in. There are of course alternative imaginable, that you provide people with a meadow to put solar panels but then you're dealing with the landscape again. So well...

I: It's difficult.

P: That's why I think that at the moment it's very important that designers think along in looking for spatial solutions. Because it's rather complex. In technical cases you can say  $1+1=2$  and add 1 and it's 3. That not how it works in a...

I: ... a heritage setting

P: Or in a spatial setting. The weight is coupled with the arguments.

I: I see. Then I have a question about heritage in general. Because the municipality has not yet chosen to safeguard municipal monuments. So well, which ways does the municipality see to involve people? So what is really local heritage, how are people involved in that?

P: That's a difficult question. I'm not sure about that. I know about Dokkum. The characteristic buildings, so, not a status like municipal monument, but they are safeguarded in the zoning plan.

I: Yes.

P: What we did is we held informative evenings, walk-in gatherings, sending out letters, having conversations. Some people were eager to have a monument status for their building, others didn't want that because it would mean that less was possible. Some people were really proud of their building, they think it's important to preserve it. So, we

held various gatherings to come to a list of characteristic buildings. Some people, that was the participation part, at the same time there was a knowledge part with someone who did an analysis and a grading system: where do you put the critical value, a building has this score...

I: Yes, condition or...

P: Yes, condition or ensemble value, architectural history or technicity value, and some more of those values. It's coupled with the zoning plan regiostad Dokkum by the way, so you can find it on the internet, those grading lists. Then at 22 point or at 23 points, where do you put the threshold, when is something sufficiently characteristic? That's quite an evaluation. Then you can get a situation of a tollhouse, what I would consider very important with respect to its story and experience, but it has little architectural historical value, that can be excluded. So, you get really... Again, it's not necessarily measurable. Then it can score on condition or less, while it can be very important based on story and place. And it can be difficult to come up with a good system for that. Well, we learned from that, but I have to admit that I don't know how the new heritage policy will do that [personal information] But with regard to preservation of heritage, then awareness and knowledge among people is important.

I: Yes, so they have a role in the... Well, let's say a building is positioned at the limit of becoming a listed monument yes or no, would the story of a person or that a person argues that he wants the building on the list, would that be decisive? Is that?

P: I don't know actually. I wasn't involved in that.

I: No right.

P: Those are things that we need to find out for the rest. I don't know whether characteristic buildings will become municipal buildings. I think that is the desire of the college. But there's a long way to go.

I: Yes, right. So when this is indeed translated, this biography, would there be a bigger role for the people?

P: That should be the case. This landscape biography was composed with too little participation. That's because it had to be made under quite high pressure and in a really short timeframe. We have invited people, and that's still possible, when you enter a digital map in the system, you can put that in. There was not much response or none really. It's never a finished story. That's something that we talked about. Really, you need to keep filling that. And the best it would be when it would be filled with stories of the people themselves. Well, it's still difficult, how to involve people in a good way. You have made a big effort.

I: Yes, so it's... at the moment they can deliver knowledge, but to determine what important elements are, that will be a difficult puzzle to involve people in the right way.

P: Well, what it's really.... No, that's right. It's just difficult to a) determine how to can involve people in the best way and how you can reach out to them, that's always difficult for a municipality; and how much influence you give or how much.... That's another thing that I find difficult, under the Environment and Planning Act, a lot is transferred to the community, or the mienskip as we say here in Friesland, but well, spatial quality, structure, cultural history, they are really disciplines. So I believe in the consultation amongst each other, but it's difficult to determine when you incorporate something or not. When people

really want it, but when you think, the cultural historical values is really not that high. It's really a dilemma.

I: Yes, exactly. So, expertise in that sense still has a leading role.

P: Yes, I think so. Yes.

I: Well, sometimes, people are not able to recognise: oh, this is an elevation or this is a valuable terp. That's difficult as well.

P: And also things like dome-shaped parcels [kruinige percelen].

I: Yes, what makes it more valuable than a terp?

P: And uhm... expertise is very important, but it's still the case that the people's stories are really important. Under ideal circumstances, you want to develop beautiful plans together. And most of the time, that's possible. Well, maybe I'm in a privileged position because I don't have to deal with all the small initiatives and applications. I deal with the larger plans.

I: Yes, I see. So, it remains difficult to reconcile those two.

P: Yes, that will always be the case. It remains a challenge. And... you can't always please everyone.

I: No. So, how that will exactly be incorporated in the upcoming nota is not completely certain.

P: No, but I think that preservation will be a basis. Apart from the threshold of what you want to preserve. But I think that "preservation through development" will be an important direction.

I: Then more a question about heritage in general. What makes heritage valuable from the perspective of the municipality? What are the things of what you say, this should be preserved?

P: Well, that's very difficult question. Because there are national monuments, that's not under debate whether those are valuable. But there are of course many more things that are worthy to be preserved. But these are not that well protected or not protected at all. Then we cannot do much as a municipality. Uhm, but you cannot protect everything.

I: No

P: And that will remain a struggle. Based on knowledge you can motivate why something is valuable. So again, that knowledge is important. Uhm... But I mentioned the example of the sloping parcels. Here, you have very valuable arable lands. The potato cultivation is very valuable. And that has some demands for the environments. And uhm... Then you have to things that clash directly, the preservation of the landscape and cultural historical, well what it looks like, what it is, against the use value and the quality and the food production at the other side. Well, you tell me. That's very difficult. And then you start to look, where are the sloping parcels the highest and the most and where... Then you really focus on preservation while in other places you provide a bit more leeway.

I: So, it's about reconciling the different claims that people put on it. So, you have the experts who say this is valuable, while a farmer would say: that's not valuable, people need to eat. And...

- P: That's true right.
- I: Yes, of course. But from the municipality's perspective, it's reconciling of those things instead of having an opinion on what is valuable on its own for a specific reason.
- P: No, it can be the case that we say: we think this is valuable. Like I said, specific areas with sloping parcels where we aim to protect the sloping parcels and in other places, we give way a bit more. And the same goes for parcellation patterns. Near the terps and some pieces with very irregular parcellation or where there is an old channel, that's where you focus on preservation of parcellation patterns.
- I: That's also because of the scientific knowledge that is holds?
- P: Yes. And sometimes you have to consult the users how they can still use it.
- I: Yes, definitely. That remains a difficult consideration.
- P: That's something that has no definite solution.
- I: Then I had some questions regarding... I don't' how familiar you are with...
- P: Holwerd aan Zee...
- I: That's indeed solely Holwerd aan Zee. Very generally, how does the municipality think about it at the moment?
- P: No idea, I have not been involved in that for years so I cannot say that.
- I: And from a landscape perspective, is that reconcilable?
- P: That depends a bit on how you look at it. It's.... Once the sea came until here or a bit further [point at map]
- I: You can just draw on the map when you see something.
- P: What we did. Here is the old dyke, this is a new dyke. We have added new pieces of land. What we now will do is bringing it back. Uhm... well... But this is a personal opinion, I'm always a bit hesitant about the large-scale projects. But I have the same with nature development. Uhm... It can surely become really beautiful, I believe that. When you look at the larger landscape structures there is... the question whether it 100% fits within the construction of the landscape as it is right now. Look, the whole sea dyke is under debate. We keep raising it, raising it, raising it. Is this the way to protect ourselves from the water... Uhm... when that's not the case, when you should say we have to let the sea in so that accretion can take place... I have no idea; I really have no idea. It's very difficult.
- I: So, you can find some bottlenecks in this?
- P: From a landscape perspective, yes. It's.... It's something completely different from the current landscape, I think. The same thing goes for Meerstad, Groningen, and Blauwestad as well. But we are Dutch, that's how we do things. We are always building our landscape.
- I: That's true.
- P: There's always another layer added.
- I: And the creation of a tidal lake, as planned, should the municipality put conditions into place from a landscape perspective? Or could you say...

- P: It's definitely a landscape challenge.
- I: You could say, this is such a large area and a small part of the sea dyke, polder area so to say, we can miss that. Or should there be clear conditions to prevent disturbance of the landscape?
- P: That also depends on what you mean with disturbance. This is now agricultural land of course. It will be very different if you let Holwerd aan Zee emerge there, but is that disturbing? I don't know. It's true that you can let such a project move within existing structures. Look, here you have the elongating parcellation. Well, they let it happen very clearly within this elongation. Well, I think this is really a task for a landscape design how to fit this right here. And there are landscape designers involved of course who can do that well.
- I: So, this is a difficult one to reconcile this with, well the core qualities that emerge from the biography. Because the idea is to, one of the main arguments is: we bring it back to the state as it was.
- P: Yes, but what was it... Then you might just as well put the sea much more north or south. So that always really depends on what point in time you take as a reference. I didn't know that that's one of the main arguments. I think that the mean like: we have a sea dyke that make a hard distinction and now you allow the natural flows within the landscape. Because this has become relatively static, this landscape inside the dyke and outside the dyke it's more dynamic. Uhm... I think they... and the sea dyke makes it really static indeed. When you open it, it will become more dynamic. What is... what is suitable?
- I: From the perspective of the landscape biography, both would reconcilable.
- P: Yes, and I think that often, that when you do it in a right way a lot is possible. Uhm... And that's the crux. You have to design it well. Sometimes we are... when you would completely [points at map], then something would change then you would remove a layer of the history, and that's something that I think is a shame when that happens. When you cannot see anymore what happened there in the past.
- I: Yes, that's true.
- P: But that doesn't mean that is cannot change. Yes, and I think it's... and I keep saying that... every time it's a challenge, every time it's searching for... what the frame is, what frame you want to use, which possibilities for solutions there are... That's how the zoning plan was intended. It is stated: we thought well about this, when it fit in there, go ahead, when it doesn't fit, what is then possible.
- I: Indeed. So also from the landscape perspective, it also depends on the story that surrounds it. So, when you can explain that this fits because we recreate the time of around the year 0 or before the dykes that it's justified.
- P: At this moment, it's a strange project. You let water in, in an area that is now agriculture. But I don't think that these things should clash. Also, because we are always working on our landscape. And every time we are looking for solutions to problems, making use of opportunities. Water is not strange here, but it really depends on how you design it and how you... I don't know really. On the one hand, when you look at what it is right now then it's a disturbance. And when you look at the chances it offers, and when you look further back in time or when you look at the dynamics of the Wadden system so to say, yeah, then the sea dyke is a strange element, but we do need it. But at the same time, the sea dyke is



- beautiful landscape element, it's also a beautiful cultural historical element. So no, there's no single answer.
- I: No, this is not the ideal form of preservation through development that the municipality envisions?
- P: Well, there's not a single municipality... You ask me.
- I: That's true.
- P: And there are a lot of other disciplines that look at in another way of course. And a farmer over these looks in yet another way at it. And that's the story that you have to make the story together, that fits in the context that's there. And uhm... that's not black and white.
- I: No, no. And they want to deepened and widen the canal. That would be a better example of preservation through development? Because over there, you maintain the structure more than would happen there.
- P: Yes, uhm... I think so. Look at the Peasens, when you read the landscape biography, you can see that the Peasens has been really important for the forming of this whole area. But at some places, the Peasens has changed into a small ditch.
- I: Yes.
- P: Well, it doesn't have much of a function anymore. So, the chance that is will disappear is really big. By using something, making it navigable for example, or maybe even by giving it a more important function in the water system, as a major water way or whatever, then you can easily preserve something. But that also means that when you widened the canal too much then it doesn't have that cultural historical... what is used to look like and how it was used. They weren't wide canals or... that always had a specific size and people dug everything, so they made it the way that was practical, uhm... so you go back... you cannot go back to a specific point in time, but by keep using it you keep it open.
- I: Yes.
- P: But, it's the case that you can do it in a good way and a less good way. When you put steel sheet piling around it, is that still the right way?
- I: That's a shame yes.
- P: So, I think that the usage of canals is indeed a way to preserve it.
- I: Yes, it's also difficult to give every canal a separate monument status, that's also not practical.
- P: What you also see, at a lot of farms there are small canals up to the farm itself. They are really difficult to preserve because they have to function anymore.
- I: No.
- P: And the farmer would rather fill them up, because then he might as well build there, they have completely no function anymore. Well, it's really difficult to preserve them. The same goes for the kop-hals-rompboerderij. We will experience that the coming years. There are people who really like them, especially when it doesn't function as an agrarian farm, then they are preserved. But in the agricultural sector, they are not necessarily practical.
- I: No, no.

- P: And they are really... they are a hundred years old. Yeah, some are about to collapse, what can you do with them?
- I: Yes.
- P: With regard to the aesthetics, they are really influential, and with regard to the story too.
- I: Yes, even with another use it's not certain that they will remain.
- P: No, but then you look for another function while it should have an agrarian function when you look at other purposes. The modern machinery does not fit in there... welcome to the work field of planning and the spatial developer.
- I: I see. Tough decisions.
- P: Well, it may sound dull, but it depends on the case and every time you have to start over. And that's also what makes the discipline difficult. That you have to form an opinion every time on what is important here and what are the opportunities here.
- I: Yes, I see. Uhm, those were the questions I had. Are there things that you think of right now, things you would like add, questions...
- P: Well, what I would like to add about Holwerd aan Zee is that it's of course also a, and I think I already said that, but it's also a chance. Us Dutch are landscape builders, we can constantly can make beautiful things. Because when you look at it purely from the landscape history, then it's odd to bring in water here. But when you look at it from the chances that it offers from Holwerd, and that maybe you might have for nature development, and so maybe also for landscape development in the future, then you're talking about very different chances. Then you're really talking about opportunities.
- I: And for those opportunities, the landscape should sometimes make way a bit?
- P: Yes, well... the existing landscape qualities, when you replace them with new ones.
- I: That's true. Then you get other forms back.
- P: What is a point of attention is the... nowadays we can do anything of course. We have the biggest machinery, we can dig everything, and then it's an art to have the arguments and to make the right design. What you see happening often is, we can make a road everywhere, the Sintrale As for example, but it's made beautifully in the landscape. The landscape continues over the road. There are not, everywhere, those kinds of, I don't know really, of the parcels. So that the whole landscape is altered for the road. And those are completely different methods. To respectfully deal with the landscape and you do new things in it. And I hope that Holwerd aan Zee will also become something like that.
- I: That it offers chances, but that it fits in the right way. Well, thank you very much then. Then I will stop the recording.

## Appendix VI – Characteristics of respondents

**Table 2.** Characteristics and representativeness of respondents.

Respondent-category:	% respondents Survey Holwerd <sup>a</sup>	Noardeast- Fryslân	Holwerd <sup>b</sup>	Holwerd village
Man	49	50 <sup>c</sup>	51 <sup>c</sup>	51 <sup>d</sup>
Women	51	50 <sup>c</sup>	49 <sup>c</sup>	49 <sup>d</sup>
0-15	-	17 <sup>c</sup>	17 <sup>c</sup>	16 <sup>d</sup>
15-25	4	12 <sup>c</sup>	12 <sup>c</sup>	12 <sup>d</sup>
25-45	22	21 <sup>c</sup>	22 <sup>c</sup>	22 <sup>d</sup>
45-65	42	29 <sup>c</sup>	30 <sup>c</sup>	29 <sup>d</sup>
65+	32	21 <sup>c</sup>	20 <sup>c</sup>	21 <sup>d</sup>
Lower education	33	32 <sup>e</sup>	31 <sup>e</sup>	34 <sup>e</sup>
Medium education	53	49 <sup>e</sup>	51 <sup>e</sup>	51 <sup>e</sup>
Higher education	14	19 <sup>e</sup>	18 <sup>e</sup>	15 <sup>e</sup>

<sup>a</sup> n = 108. Numbers in valid percent. Households were asked for respondent over 18.

<sup>b</sup> Holwerd as a statistical unit also includes the villages of Waaxens, Brantgum, Foudgum, Bornwird and Raard.

<sup>c</sup> Date of 2020, retrieved from CBS (2022).

<sup>d</sup> Data of 2020, retrieved from CBS (2021a). Data is provided in exact numbers per age category. Percentage was calculated by dividing age categories by total numbers.

<sup>e</sup> Data of 2020, retrieved from CBS (2021b). Data is provided in exact numbers of age category 15-75. Percentage was calculated by dividing education categories by total numbers.

**Appendix VII – Heritage values**

**Table 5.** Heritage values and qualification.

Feature of significance		Aspects of value	Qualifiers of value
Keeping everything the way it is	“The whole picture”	<ul style="list-style-type: none"> <li>- It has to stay the way it is (intrinsic)</li> <li>- No Holwerd aan Zee, we have to protect the sea (intrinsic, marine, wilderness)</li> <li>- The whole ensemble is part of the landscape (aesthetic, intrinsic)</li> <li>- Farms, canals, terps as a whole (aesthetic, intrinsic)</li> <li>- It’s diverse right now (aesthetic, intrinsic)</li> <li>- No windmills or gas extraction (aesthetic)</li> <li>- It’s unique and authentic (intrinsic)</li> </ul>	Authentic Rare Ensemble value
Peace, space, vistas		<ul style="list-style-type: none"> <li>- It provides a feeling of freedom (therapeutic)</li> <li>- Peaceful is good (therapeutic)</li> <li>- The peacefulness provides identity (cultural)</li> <li>- Not dwellings everywhere (aesthetic)</li> <li>- The openness is unique compared to the rest of Friesland (aesthetic, cultural, intrinsic)</li> </ul>	Authentic Rare
Farmsteads		<ul style="list-style-type: none"> <li>- Otherwise too bare (aesthetic)</li> <li>- Old farmsteads are part of the landscape (aesthetic, intrinsic, historic)</li> <li>• Tearing down would be a shame (intrinsic, historic)</li> <li>• Antique, it is part of the landscape (aesthetic, intrinsic, historic)</li> <li>• They determine the landscape, are part of it (aesthetic, intrinsic)</li> <li>• They have to stay in spite of the nitrogen crisis (economic)</li> <li>• They allow for biodiversity, also with the crops (biological)</li> <li>• They provide character, from before the land consolidation (aesthetic, intrinsic historic)</li> <li>• They provide authenticity in a monocultural environment, part of Frisian culture (aesthetic, historic, cultural)</li> </ul>	Authentic Age
Agricultural lands (both livestock and arable land)		<ul style="list-style-type: none"> <li>- It’s the only space that we still have (aesthetic, intrinsic)</li> <li>- It’s important (intrinsic)</li> <li>- It provides uniqueness to the countryside (aesthetic, intrinsic)</li> <li>- We need to preserve farmland, not too many tourists (intrinsic)</li> <li>- It belongs here (intrinsic)</li> <li>- Important for animals and grain (economic, subsistence, biological)</li> </ul>	Authentic Rare

Small-scale farming	Smaller plots	<ul style="list-style-type: none"> <li>- It was affected by the land consolidation (aesthetic, historic)</li> <li>- Diversity (aesthetic)</li> <li>- It has to be made undone, not on a larger scale as it will mean a further loss of quality (aesthetics, intrinsic)</li> <li>- Farming is part of the landscape, but it should be small-scale (intrinsic)</li> <li>- It's too large scale (aesthetics, intrinsic)</li> <li>- It has to be like near Elba: winding roads and canals (aesthetics)</li> </ul>	Authentic Rare Condition
Nature	Meadow birds Forrest/ trees Salt marsh	<ul style="list-style-type: none"> <li>- Deterioration of nature is a shame (intrinsic, biological)</li> <li>- Greenery, water and animals provide Holwerd with identity (intrinsic, cultural, aesthetics)</li> <li>- Biodiversity is unique (intrinsic, biological)</li> <li>- Trees give another image (aesthetic)</li> <li>- Interaction between nature and people (biologic)</li> <li>- Outside the dykes is valuable (biological, marine, aesthetic)</li> </ul>	Authentic Rare
Buildings	Old dwellings, windmill, churches, historic village centre/ village scape, monuments	<ul style="list-style-type: none"> <li>- Are part of the landscape (aesthetic, intrinsic)</li> <li>- Antique, it belongs here (intrinsic, historic)</li> <li>- It provides identity (intrinsic, cultural)</li> <li>- It needs to be preserved (intrinsic, future)</li> <li>- It determines the scenery (aesthetic, intrinsic)</li> <li>- Characteristic for Friesland (intrinsic, cultural)</li> <li>- Monuments need to be preserved, would be a shame if were demolished (intrinsic, historic, future)</li> </ul>	Authentic Rare Age Ensemble value
Dyke	Sea dyke	<ul style="list-style-type: none"> <li>- It provides diversity to the landscape (aesthetic)</li> <li>- It protects against flooding (special places: safety)</li> <li>- It is cultural heritage (intrinsic, historic, future, cultural)</li> <li>- It can only be found here, it's unique (intrinsic)</li> <li>- It determines the scenery (aesthetic, intrinsic)</li> <li>- The dyke has to remain the way it is, don't disturb nature (intrinsic, biological)</li> <li>- It belongs here, it is part of the landscape (intrinsic, aesthetic)</li> <li>- Place for strolling and walking the dog (recreation)</li> <li>- It's here for so long, it belongs here (intrinsic, historic)</li> </ul>	Authentic Rare Age Ensemble value
Terps		<ul style="list-style-type: none"> <li>- They are unique (intrinsic)</li> </ul>	Authentic

## Holwerd and its values

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		<ul style="list-style-type: none"> <li>- Part of history (historic, learning)</li> <li>- Part of Frisian culture (culture)</li> <li>- Part of the landscape that needs to be preserved, it's not original anymore (future, aesthetic, intrinsic)</li> <li>- Creates diversity in the landscape (aesthetic)</li> </ul>	Rare
Wadden Sea	Salt marshes	<ul style="list-style-type: none"> <li>- Nowhere else to be found (intrinsic)</li> <li>- Outside the dyke it's unique (intrinsic)</li> <li>- It determines the scenery (intrinsic, aesthetic)</li> <li>- The salt marshes belong here (intrinsic)</li> </ul>	Authentic Rare Ensemble value
Pier		<ul style="list-style-type: none"> <li>- Creates jobs (economic)</li> <li>- It's a part of Holwerd (intrinsic)</li> </ul>	Authentic
Canals		<ul style="list-style-type: none"> <li>- They provide character (intrinsic)</li> <li>- They are from before the land consolidation (aesthetic, intrinsic, historic)</li> <li>- They need to be maintained and preserved (intrinsic, future)</li> <li>- People can ice-skate on them (recreation)</li> </ul>	Authentic Rare
Old sleeper dykes and roads		<ul style="list-style-type: none"> <li>- They bring enjoyment (aesthetic)</li> <li>- They have historic value (historic)</li> </ul>	Authentic Age

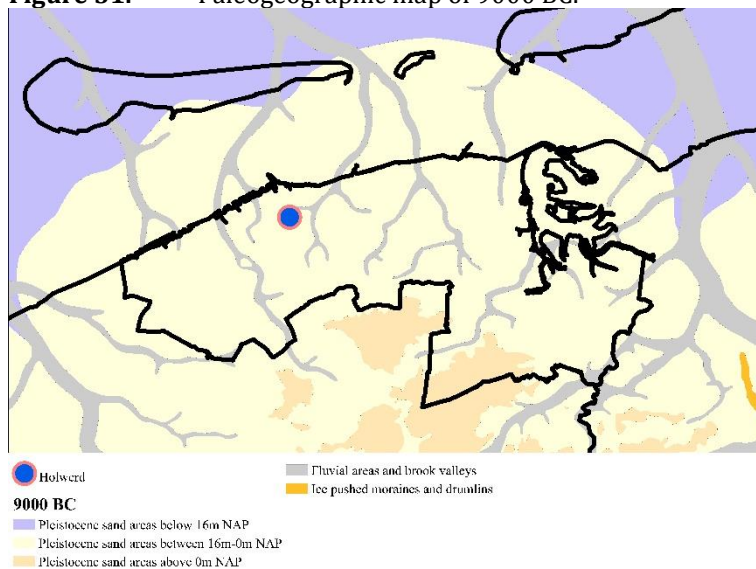
## Appendix VIII – Context landscape biography

The geological basis for the Wadden Sea area was formed during the Pleistocene (2.580.000-11.500 years ago). In the Saale glaciation, a layer of boulder clay was deposited by glaciers that moved over the Northern-Netherlands between 240.000 and 130.000 years ago. The ensuing warmer period, the Eemian, resulted in the forming of meltwater valleys of the Boorne, de Hunze and the Fivel. During the Weichselian glaciation, the Netherlands would not be reached by glaciers. Instead, cover sands were deposited as a result of aeolian processes, partially filling up the meltwater valleys.

### *The post-Pleistocene development of the Wadden Sea area*

With the arrival of the Holocene (11.700 years ago), both eustasy and glacio-isostatic adjustment resulted in a southward movement of the North Sea coast of about 600 km (Karle et al., 2021).

**Figure 31.** Paleogeographic map of 9000 BC.



**Source:** Vos et al. (2020), adapted by author.

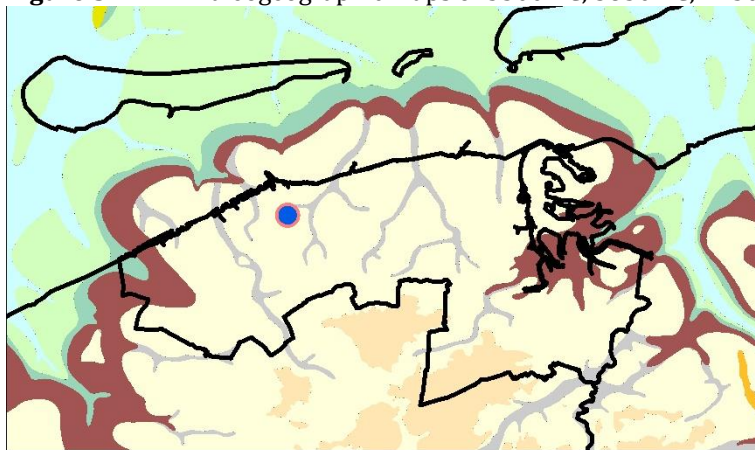
### *Early holocene occupation: hunting and gathering and early farming in a drowning landscape (11,700 BP-600 BC)*

Continuing climate change contributed to rising sea levels between 9.000 and 5.500 BC. Roughly 8000 years ago, the sea reached the current-day coast, filling the meltwater valleys (Vos & Van Kesteren, 2000). In present-day Friesland, the landscape became subdivided in separate peninsulas as these valleys transformed into tidal basins. Holwerd is located on the “Hoog van Oostergo”, an outcrop of the Pleistocene Drenthe plateau, which is closed in by the tidal basins of the Boorne in the west and the Hunze in the east (Vos & Knol, 2005). As such, these basins resembled the current Wadden environment apart from a sea-level rise that outpaced the sedimentation. At the edges of the basins, a landscape emerged of gullies, intertidal sand and mudflats and salt marshes. A subclassification can be made between a pioneer zone, low salt marshes, middle salt marsh and the high salt marsh which have different frequencies of flooding (Vos & De Langen, 2010).

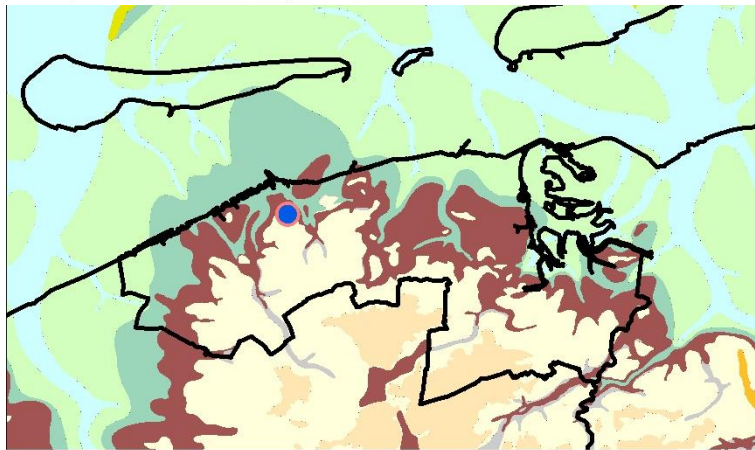
Around 7.000 BC raising water tables due to seepage had contributed to peat development in the lowest parts of the river valleys. Around 3850 BC, the sea-level rise and sedimentation reached an equilibrium. However, a difference in supply of sediment and subsidence caused the Dutch coastline in the west to close while in the north barrier islands remained separated. Filling of the river valleys with peat led to hampered drainage, in turn stimulating further peat bog formation on top of the Pleistocene soils, see Figure 32.



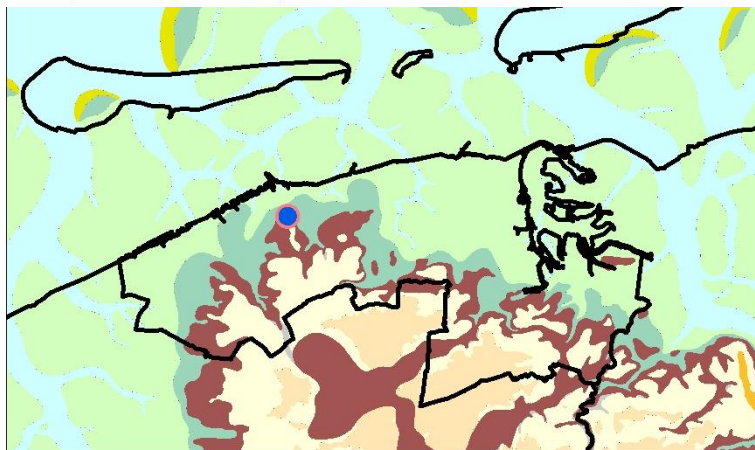
**Figure 32.** Paleogeographic maps of 5500 BC, 3850 BC, 2750 BC, and 1500 BC.



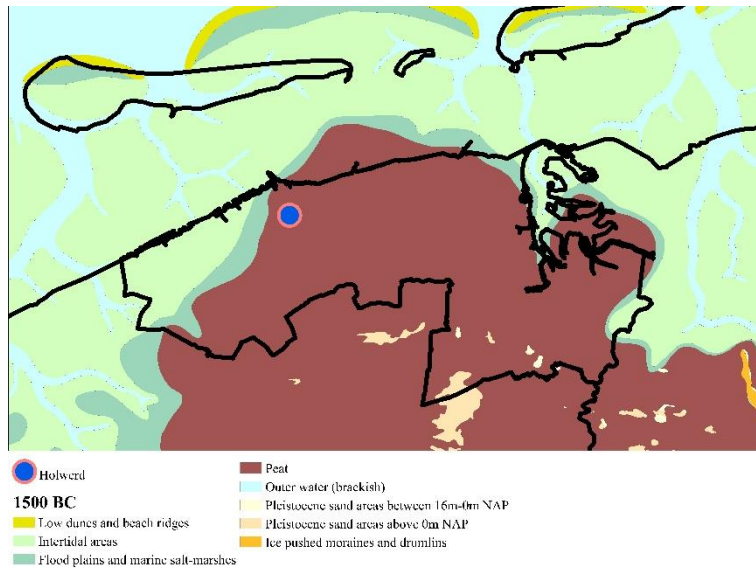
- Holwerd
- Peat
- Outer water (brackish)
- Pleistocene sand areas between 16m-0m NAP
- Pleistocene sand areas above 0m NAP
- Low dunes and beach ridges
- Intertidal areas
- Fluvial areas and brook valleys
- Flood plains and marine salt-marshes
- Ice pushed moraines and drumlins



- Holwerd
- Peat
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- Pleistocene sand areas between 16m-0m NAP
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- Holwerd
- Peat
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- Low dunes and beach ridges
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- Fluvial areas and brook valleys
- Flood plains and marine salt-marshes
- Ice pushed moraines and drumlins



**Source:** Vos et al. (2020), adapted by author.

Between 5000 and 4250 BC, there was a shift from a retreating coastline to a seaward expansion (Vos, 2015). The coastline started to resemble its current position and tidal ranges started to grow as the barrier islands steadily “moved” closer to the mainland (Beets & Van der Spek, 2000). These dynamics also contributed to the influx of sandier sediment (Vos & Van Kesteren, 2000).

From 1500 BC onwards, frequent flooding at the edges of the salt marsh in combination with the sandy sediments resulted in the creation of salt marsh ridges whereas more clayey sediments were deposited in the hinterland. These ridges were often several hundred metres wide and many could stretch for multiple kilometres (Nieuwhof et al., 2019).

Between 600 and 500 BC the region east of the Middelzee started to silt up, resulting in a seaward expansion of the salt marsh (Nicolay et al., 2018). Between 500 BC and 100 BC, a narrow salt marsh ridge developed that still had connections to the basin behind it via various inlets. The present-day villages of Hallum, Marrum, Ferwert, Blije, Holwerd, and Ternaard sit on this ridge. Near Holwerd a tidal inlet reached into the hinterland in the direction of Dokkum between 1500 BC and 400 AD. As this inlet silted up, an inversion of the relief took place. In contrast to the settling of the clayey deposits, the sandy sediments in the former inlet left behind a protruding ridge on which the villages of Waaxens, Brantgum, and Foudgum are situated (Worst & Coppens, 2021).

## Appendix IX – Toponyms

Table 6. Stocktaking of toponyms around Holwerd.

Name ( <i>West-Frisian name</i> )	Earliest record ( <i>date</i> )	Other mentions ( <i>date</i> )	Meaning	Source
<b>Place names</b>				
Holwerd ( <i>Holwerd</i> )	Holeuurt ( <i>11<sup>th</sup> century</i> )	Hoelwer ( <i>1333</i> ), Hoelwerde, Holwerde ( <i>1399</i> ), Holwert ( <i>1486/87</i> ), Holuerde ( <i>1500</i> ), Holwerdt ( <i>1505</i> )	Hol(e)= located in a low-lying area OR derived from given name Halle  Werth= dwelling mound	A, B, C
Ferwerd ( <i>Ferwert</i> )	Fatruwerde ( <i>819/825</i> )	Feterwrde ( <i>825-842</i> ), Federwerth ( <i>1289</i> ), Fetherwerth ( <i>1290</i> ), Ferwerth ( <i>1389, 1418</i> ), Ferwaert ( <i>1511</i> ), Berwerd ( <i>1511</i> ), Ferwardt ( <i>1540</i> ), Feruierdt ( <i>1542</i> ), Ferwerd ( <i>1543</i> )	Fer= derived from given name Fatru or Fedder  Werth= dwelling mound	A, B, C
Blija ( <i>Blije</i> )	Blitha ( <i>12<sup>th</sup> century</i> )	Blia ( <i>1418</i> ), Blije ( <i>1450/1483</i> ), Blij ( <i>1543</i> )	Blij= shimmering silt	A, C
Waaxens ( <i>Waaksens</i> )	Wacheringe ( <i>825-842</i> )	Wasginge ( <i>944</i> ), Waxinge ( <i>13<sup>th</sup> century</i> ), Waaxens ( <i>1453</i> ), Waexens ( <i>1491, 1664</i> ), Waxens ( <i>1511, 1543</i> ),	Wachsa= given name  Ingi= belonging to the people of	A, B, C
Ternaard	Tumfurte ( <i>819-825</i> )	Tunfurte ( <i>819-825</i> ), Tunuwerde ( <i>819-825</i> ), Tunwerde ( <i>819-825</i> ), Tunenwrt ( <i>822-856</i> ), Tundwerde ( <i>825-842</i> ), Tununfurt ( <i>825-842</i> ), Duneuurt ( <i>944</i> ), Thunewerd ( <i>981</i> ), Thonovic ( <i>1333</i> ), Tunawerth ( <i>1390</i> ), Tonawerth ( <i>1441</i> ), Tonnaeurt ( <i>1450</i> ), Thonaewerth ( <i>1473</i> ), Toenaerd ( <i>1474</i> ), Tonnauwert ( <i>1491</i> ), Nauwart ( <i>1517</i> ), Tennaerd ( <i>1530</i> ), Tonnauwert ( <i>1543</i> ), Tonnawerdt ( <i>1664</i> ), Tonnaard ( <i>1700</i> )	Dun= thin, elongated  Werth= dwelling mound	A, B, C
Brantgum	Brantgom ( <i>13<sup>th</sup> century</i> )	Brontegum ( <i>13<sup>th</sup> century</i> ), Brantgum ( <i>1469, 1491</i> ), Brantkum ( <i>1491</i> ), Brantghum ( <i>1525</i> ), Branteghum ( <i>1543</i> )	Brant= derived from family name "Brantinga"  Heem= homestead	A, B, C
Foudgum	Fotdenheim ( <i>944</i> )	Foldeghum ( <i>1422, 1474</i> ), Foudtgum	Foud= derived from family name Foldinga	A, B, C

		(1449), Foedegum (1487), Foudeghum (1491), Foudgum (1511, 1543), Fowdum (1511), Foudum (1543)	Heem= homestead	
Bornwird (Boarnwert)	Bonewirt (825-842)	Bonfurt (825-842), Brunnenuurt (944), Burnwerth (1314, 1442), Burndwerd (1425), Bouwerd (1449), Bornwart (1591), Benwerd (1500), Bonwert (1504, 1511), Bornwerd (1540), Bornd (1543), Bornwyrdt (1543)	Born= burna (spring, small water) OR derived from given name Bonne  Werth= dwelling mound	A, B, C
Raard	Runwerde (850-900)	Ruonwerde (850-900), Rawerth (1389), Rawert (13 <sup>th</sup> century, 1482), Raerd (1474), Hrawt (1511), Rauwert (1511), Ravert (1523), Rauwerd (1543)	Hriād= reed  Werth= dwelling mound	A, B, C
Hogebeintum (Hegebeintum)	Bintheim (819-825)	Westerbintheim (944), Westerbintum (12 <sup>th</sup> century), Benchum (1335), Benthem (1415), Westerbyntum (1417), Bentim (1418), Westerbentum (1472), Bentem (1481), Hogebeintum (1511), Hoegebentum (1530), Beijnthum (1540), Bentum (1540), Hogebeijnthum (1540), Hoge Beyntum (1664), Hooge Beintum (1786)	Hoge= high (at first "west" to discern from Oosterbeintum)  Bint= grey hair-grass  Heem= homestead	A, B, C
Hantum	Hanaten (944)	Honttum (1335), Hontim (1431), Hantem (1465), Hantum (1505)	Based on prehistoric hydronym Kanatos = shimmering	A
Lichtaard	Lihdanfurt (944)	Lychawert, Lychtaurt (1431), Lictauwert (1449), Lichttauwerth (1451), Lichttauwert (1465), Lectawerth (1482), Lichtaeuwerdt (1505), Lichtewert (1527), Lichtaerd (16 <sup>th</sup> / 17 <sup>th</sup> century)	Licht = light, clear, possibly an unidentified personal name  Werth = terp	A, B, C
<b>Hamlets</b>				
Kletterbuurt (Kletterbuorren)			Possibly related to the sound that aspen trees	A

## Holwerd and its values

			make when the wind blows (=kletteren) Also possible is a relation to "klater" which means soft soils. Buurt = neighbourhood	
Drieboerehuizen (Trijeboerehuizen)			Trije = three Boere = farmers Huizen = houses	A
Elba			Explained as a remote place based on Napoleon's exile.	A
<b>Roads</b>				
Ljouwerterdyk			Ljouwerter = of the city of Leeuwarden Dyk = dyke, in Friesland dyke is often synonymous with road	
Medwerterwei			Medwerd = see Medwerd Wei = road	
De Hoarnen			Possibly derived from "hore" = sludge OR "horn" = hook or corner	A, D
Mieddyk			Mied = see Holwerdermieden Dyk = dyke	
Miedwei			Mied = see Holwerdermieden Wei = road	
Mûnereed			Mûne = mill Reed = dirt road	
Tjessenswei			Tjessens = see Tjessens Wei = road	
Elba			See Elba above	
Lania			Named after a disappeared farmstead Lania in Ternaard	
Witmonnikswei			Wit = white Monnik = monk Refers to white habit of Premonstratensians Wei = road	
Ternaarderwei			Ternaarder = of the village of Ternaard Wei = road	
Nije Púndyk			Nije = new Pún = rubble Dyk = dyke	
Fiskwei			Fisk = fish Wei = road	
Grândyk			Grân = shell grit Dyk = dyke	
Bjimsterwei			Unknown	
Tsjerkestrjitte			Tsjerke = church Strjitte = street	
Kasernestrjitte			Kaserne = barracks Strjitte = street	

It Keechje			Keeg = land near water outside of dykes	C
Klokstrjitte			Klok, refers to a tavern De Gouden Klok (The Golden Bell) Strjitte = street	
De Terp			The Terp	
Hegebuorren			Hege = high Buorren = neighbourhood	
Kloksteeg			See Klokstrjitte Steeg = alley	
Foarstrjitte			Foar = front Strjitte = street	
Kijdykje			Kij = cows Dykje = small dyk	
Keningsstrjitte			Kening = king Strjitte = street	
Blomsteech			Blom = named after a family Steech = alley	
Radiostrjitte			Radio = radio Strjitte = street	
Waling Dykstrastrjitte			Waling Dykstra = a famous author Strjitte = street	
Bollemansteech			Bol = bull Man = man Refers to the owner of a bull Steech = alley	E
Pôlewei			Pôle = small elevation Wei = road	
Stjelpspaad			Stjelp = type of farm with a hip roof Paad = path	
Moppenbuorren			Derived from Mokkemaburg Mokkema = a noble family Burg = stronghold	F
Smidssteech			Smid = blacksmith Steech = alley	
Opslach			Opslach = storage (close to the former harbour)	
Haniastrjitte			Hania = a noble family Strjitte = street	
Achter de Hoven			Achter = behind De Hoven = the enclosed places or gardens	
Van Aylvawei			Van Aylva = a noble family Wei = road	
Stelwagenreed			Stelwagen = type of wagon Reed = dirt road	
Hemmingawei			Hemminga = a noble family Wei = road	
Gama			Unknown	
De Iest			Eest = complex of arable land	A, G
Stasjonswei			Stasjon = station	

## Holwerd and its values

			Wei = road	
Elbasterwei			Elbaster = see Elba Wei = road	
Johannes Piersonstrjitte			Johannes Pierson = famous philologist Strjitte = street	
Professor Holwerdastrjitte			Professor Holwerda = academic Strjitte = street	
De Teebus			Teebus = tea caddy Unknown origin	
Gernierspaad			Gernier = cottier Paad = path	
Ale-Tún			Possibly a local variant of Âld = old Tuin = garden	
Fonteinstrjitte			Fontein = a family name Strjitte = street	
Nijhóf			Nij = new Hóf = enclosed place or garden	
Van Bongastrjitte			Van Bonga = noble family Strjitte = street	
De Kamp			Kamp = demarcated and enclosed field	G
De Morgenzon			Named after a farmstead at the east side of the village	
Beyertstrjitte			Beyert = poorhouse Strjitte = street	H
De Fellingen			High plots of arable land that are not deeply ploughed	I
<b>Terps</b>				
Vaardeburen ( <i>Farebuorren</i> )	Oeffaerd (1474)	Faerd (1511), Faned (1511), Faurd (1511), Faerdt (1540), Saerdt (1540), Faerd (1543), Vaarde Buiren (1718), Faarderbuiren (1843), Vaardeburen (1861)	Vaarde= composed of given name Offe and werth (dwelling mound)  Buren= hamlet	A, B, C
Medwerd ( <i>Meddert</i> )	Metwid (825-842)	Medunwrth (944), Medewerth (12 <sup>th</sup> century) Medwerth (1390), Medwert (1511), Medderbuiren (ca. 1700), Medwert (1846, 1899), Medderburen (1899)	Mid= in the middle  Werth= dwelling mound	A, B, C
Sotrum	Sottrem (1445)	Sutrum (1543)	Heem= homestead	A
Moelen Werf	Moelen Werf (1511)		Molen= mill  Wier → Werua= dwelling mound	A
Dieuwerd	Dywirth (1416)		? Dide= peat  Werth= dwelling mound	A
Hellinge terp	Hellinge terp (1543)		Hillig= sacred	A



			Therp= dwelling mound	
Tjessens ( <i>Tsjessens</i> )	Zsessens (1437)	Tzessens (1491), Tziessens (1511), Tijessens (1540), Hiessens (1543), Tzessens (1543), Tiessens (1622)	Tjesse= given name	A, B
<b>Farmsteads</b>				
Groot Dijkslobbe			Groot = big Dijk = dyke Lobbe = possibly weak, soggy	G
Dijxtra			Dijxtra = family name	
Klein Monnikhuis			Klein = small Monnik = monk Huis = house  A former grange	
Groot Monnikhuis			Groot = big Monnik = monk Huis = house  A former grange	
de Roode Schuur			Roode = red Schoor = barn	
Hania			Hania = family name	
Groot Jaarsma			Groot = big Jaarsma = family name	
Klein Jaarsma			Klein = small Jaarsma = Family name	
Harig			Possibly similar to the village name Harich in Friesland:  harug = stone heap → shrine	C
Hogenhiem			Hoog = high Hiem = homestead	
Tjesema			Tjesema = family name	
Klein Ijpma			Klein = small Ijpma = family name	
Groot Medwerd			Groot = big See Medwerd	
Klein Medwerd			Klein = Small See Medwerd	
Tsigera			Tsigera = family name	
Groot Baarda			Groot = big Baarda = family name	
Klein Baarda			Klein = small Baarda = family name	
Gabbema			Gabbema = family name	
Bonga			Bonga = family name	
Hemminga			Hemminga = family name	
Signeada			Signeada = family name	
Sigerda			Sigerda = family name	
Tjessens			See Tjessens	
Romkema			Romkema = family name	

## Holwerd and its values

Hoekstra			Hoekstra = family name	
Feijma			Feijma = family name	
Itsmā			Itsmā = family name	
Jensma			Jensma = family name	
Groot Haakma			Groot = big Haakma = family name	
Klein Haakma			Klein = small Haakma = family name	
Geringa			Geringa = family name	
Atema			Atema = family name	
Wit Monnikhuis			Wit = white Monnik = monk Huis = house  A former grange	
Bouta			Bouta = family name	
Harnsma			Harnsma = family name	
Bleinsma			Bleinsma = family name	
Spaarndam			Spaarndam = named after the village of Spaarndam	
Uilsmahorn			Uilsmā = family name Horn = hook, corner	A
<b>Hydronyms</b>				
Holwerdervaart ( <i>Holwerter Feart</i> )			Holwerder = of Holwerd Feart = canal	
Oude Hulp ( <i>Alde Hulp</i> )			Oude = old Hulp = derived from "hulapa" → hul = hollow Apa = water or river	J
Ketelvaart ( <i>Tsjettelfeart</i> )			Ketel = kettle Feart = canal  Kettle refers to a kettle shaped "valley" in which the canal is situated	I
<b>Other</b>				
De Hoop (mindmill)			De Hoop = The Hope	
Teebusbosk			Teebus = tea caddy Bosk = forrest	
A Gildemacher (2007) B Gildemacher (2008) C Van Berkel & Samplonius (2018) D Dykstra (1955) E Geertsma (2019) F Sijtsma (2002) G Schönfeld (1980) H Brouwer et al. (1958) I Kalma (1949) J Gildemacher (1993)				