

## *Nieuwe Borgen*



*Sem van den Eijnde  
Explorelab 37  
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## Introduction

The polder landscape of *Het Oldambt* houses the Grain Cathedrals of yesteryear. The elongated ridges of *Oldambster* barns rise above the sea clay landscape, once sculpted by farmers. In former times the glory of the farmer's elite, today often a monument to gone by days. In their need for upscaling and efficiency, farmers gained more land, which left the farmyards behind. Often the barns look like a wounded animal, they have been braced due to subsidence or earthquakes. Their wooden trusses are often visible through the windswept tiled roof. They are left behind due to a disinterest in the region and expensive maintenance.<sup>1</sup> The landscape left behind is anonymized. Even arable farmers struggle to preserve the fertile sea clay for cultivation. Large steel barns of livestock farmers appear in the landscape, described as "nitrogen refugees."<sup>2</sup> Here, the monoculture of a globalized production seizes a historic landscape.

It becomes increasingly visible that our system of production can lead to destruction on many scales. We depend on a globalized industrial system for our food, buildings, and utilities.<sup>3</sup> In politics, the consequences of this system are reduced to 'crisis.' Examples are the depopulation in the countryside, earthquakes, and nitrogen deposition. In these cases, the government fails to think in terms of possibilities. We seem disconnected from our environment. Problems like the nitrogen crisis in the Netherlands, are generalized. In my opinion, complexity seems to paralyze policymakers to incompetence for a bottom-up approach.<sup>4</sup> Maybe we need to look for a different approach.

Nikolai Schultz argues that Ecology emphasizes a place and its limitations. When we become dependent on a place that supports our existence, our understanding of freedom shifts. In the notion of dependence lies an opportunity to redefine independence and freedom. The more dependent we are, the better.<sup>5</sup> How can local problems be exploited as potential, as an alternative to generalizing it as 'crisis?' How can we move from a global monoculture to a regional multi-culture, in functionalities and building culture? Historically, identity has often been strongly linked to a local building culture. Building materials were extracted locally in redundant buildings and in the landscape. An approach motivated not by preference, but by necessity.<sup>6</sup> A new approach presents opportunities in aesthetic and material possibilities for a new and rich ecological architecture.<sup>7</sup> An approach dependent on its surroundings.

*Borgen* are traditionally the fortified farmsteads that started to appear in the Groningen landscape around the 14<sup>th</sup> century. They were created by farmers who were self-made. These buildings were often an expression of wealth, but originally a place for security and justice. They were a place for stewardship over the countryside. Rights for governance and jurisdiction were attached to the *Borg*. Nobleman tried to gain influence in the region through the acquisition of these rights. The *Borgen* lost their function as a physical place for safety, due to their high maintenance cost they were often left to decay. Their precious stone was reused in

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<sup>1</sup> Libau, Toekomst Oldambtster Boerderijen Hoofdrapport En Advies (Libau, 2019)

<sup>2</sup> Interview Matthijs Niehaus

<sup>3</sup> Schultz, Nikolaj, Bruno Latour, and Julie Rose. On the emergence of an ecological class: A memo. Cambridge: Polity Press, 2022.

<sup>4</sup> Maak Het Sempel (VPRO, 2023), <https://www.vpro.nl/programmas/tegenlicht/kijk/afleveringen/2023-2024/maak-t-sempel.html>.

<sup>5</sup> Schultz and Latour, 2022

<sup>6</sup> <https://aarch.dk/studio-2d/>

<sup>7</sup> Phineas Harper, "we're Seeing an Unprecedented Mobilisation of Architects in the Fight against Climate Change," Dezeen, June 11, 2019, <https://www.dezeen.com/2019/06/11/radical-architecture-climate-change-opinion-phineas-harper/>.

other buildings. The number of *Borgen* dropped and they slowly disappeared from the landscape, until they lost their rights in 1795.<sup>8</sup> The downfall of the *Borgen* from the 17th until the late 18th century happened parallel to the uprise of a new farming elite in Groningen (*Herenboeren*). This resulted in a unique typology of the *Oldambster* farmyard. The modern farmer, a farmer as an entrepreneur, was born in the *Oldambt*.<sup>9</sup> The independent farmer was liberated from a peasant life and looked down on his landworkers from his bourgeois house. Like the Groninger *Borgen* during the 18<sup>th</sup> century, the grain cathedrals of the *Oldambster* farmyard are obsolete. Farmers are interested in the fertile land and not in the farmyards, equal to the *Borgen* which are too expensive to maintain. If we look at a broader definition of *Borgen*, it lies on the one hand in deriving from, the immaterial relation with a place from its root. On the other hand, it defines the safeguarding and trust of the protection of the material. The current destruction of the ecosystem asks for a regenerative system that values the soil. Could a quest for a new stewardship result in a redefinition of the former *Borgen*, enabled by a local building culture and agriculture? Could the *Oldambt* again through it's history redefine the agricultural landscape? This raises the main question of this research;

How could *landscape stewardship* contribute to a *regenerative farmyard* with a *new tectonic*, that depends on the *regional landscape*?

The purpose of this research is to show the potential of a bottom-up approach to the challenges in the Dutch countryside. The approach focuses on local value chains through the engagement and stories of farmers and people who are active in the region. In this case focused on an approach to repurposing the obsolete farmyards in *Het Oldambt* and reconnecting them to an agricultural landscape. The stories and observations of the research are structured in the form of an atlas. To translate and visualize the data that is collected, which is to be used to inform the design process of one repurposed farmyard. This research strongly believes in the stories brought by people, buildings, and a landscape as an atlas to inform the future.

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<sup>8</sup> Wiebe Jannes Formsa, *De Ommelander Borgen En Steenhuizen* (Assen: Van Gorcum & Comp, 1973).

<sup>9</sup> Frank Westerman, *De Graan Republiek*, (Amsterdam: Olympus, 1999).

## Research framework

The research is placed within the framework of the *Graanrepubliek*. This is cooperation focused on local food production with a sustainable ambition, focused on quality and taste. Their members are mainly food companies (o.a. *Hooghout*, *Vermaat*, *Dollard Wiskey*) and farmers from the region. They have the ambition to inspire people to rethink how we value food. Together with farmers and makers, they create new food products, for example with the reintroduction of older grain breeds. These are processes of multiple years (2 to 5 years) of seed multiplication, and product development, to explore new tastes and possibilities.<sup>10</sup> The farmers connected to de *Graanrepubliek* will be the main source informing this research.

A short image of 5 farming members;

Who: Luddo Fledderman

What: 1200ha (500ha is cultivated; wintertarwe, suikerbieten, aardappelen en luzerne). They are a efficient farm combined with nature management (of dikes, salt marshes, waterways and farmyards)

Farmyard: Johannes Kerkhovenpolder complex (1952) has a monumental status design by Nanno Jakob Kruizinga.<sup>11</sup> Four farms were merged and rebuilt as one after their demolition in the Second World War.<sup>12</sup>



Who: Doeko van 't Westeinde

What: 200ha land (cultivated; wintertarwe, suikerbiet, koolzaad, luzerne). He practises non-inversion tillage and biological crop protection.<sup>13</sup>

Farmyard: Remkesheert (1887). Historacaly o.a. Hamdijk 49 (1850,1922)

Where: Hamdijk Bad Nieuweschans



<sup>10</sup> De Graanrepubliek, accessed November 9, 2023, <https://www.graanrepubliek.nl/over-ons>

<sup>11</sup> "Johannes Kerkhovenpolder 11, 9946 TI Te Woldendorp," Johannes Kerkhovenpolder 11, 9946 TL te Woldendorp | Rijksdienst voor het Cultureel Erfgoed, accessed November 20, 2023, <https://monumentenregister.cultureelerfgoed.nl/monumenten/531063>

<sup>12</sup> "Johannes Kerkhovenpolder B.V., January 10, 2017, <https://www.johanneskerkhovenpolder.com/>.

<sup>13</sup> <https://www.youtube.com/watch?v=JsmPxcuR4mY>

Who: Bert Gosselaar  
What: 56ha land, (cultivated?) nature-inclusive agriculture  
Farmyard: Barn(1819), House in Amsterdam school (1932)  
Where: Finsterwolde, Kerkeweg 6



Who: Gert Noordhof  
What: 50ha land (cultivated; Tarwe, luzerne, suikerbieten, sluitkolen, pompoen, haver, gerst, emmer en oude tarwerassen). He practices biological crop protection, Strip cultivation, mixed cultivation, rough manure and low soil load.<sup>14</sup> He is also one of the initiators of landart projects, which investigates different ways of cultivating the soil and a local makers place focused on residual flows.<sup>15</sup>



Erf: Nieuw Uden gast (1915-1968)  
Waar: Bellingwolde Tweekarspelenweg 7

Who: Hero Havenga de poel

What: 60ha land (50ha cultivated: graansoort, mosterdzaad, pootaardappelen, uien, peen en olievlas). The focus on producing high quality products like mosterd. They also practice landscape management, for example in keeping growing reeds.<sup>16</sup>

Erf: Landgoud (1820-2006)  
Where: Dijksterweg 45 Kloosterburen



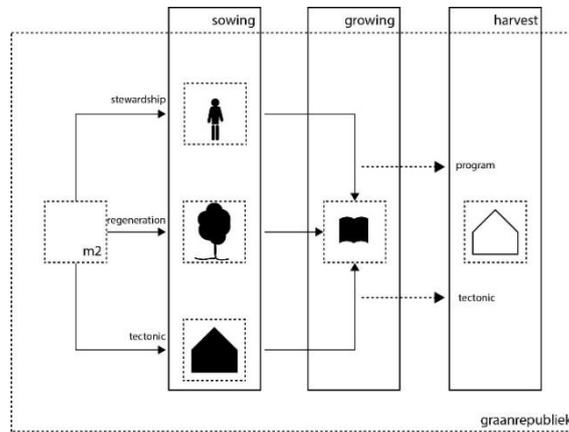
<sup>14</sup>Gert Noordhoff -Voorboeren-." voorBoeren, September 9, 2022. <https://voorboeren.nl/boerenbedrijven/gert-noordhoff/>.

<sup>15</sup> <https://www.nieuweoogst.nl/nieuws/2023/08/11/groningse-akkerbouwer-verbetert-grond-met-kunstproject>

<sup>16</sup> <https://www.landgoud.nl/bedrijf/>

## Method and research structure

Like an agricultural process, the 3 main stages of the research are sowing, growing, and harvesting. The stage of sowing embodies the data collection of the research. Growing defines the stage of data visualization and analysis into an atlas. The harvest is taken from the atlas that operates as a catalogue of inspiration, to inform the design process of a farmyard.



*conceptual model*

### Sowing

The sowing is initiated by taking a (symbolic but physical) square meter of soil from each of the selected farmers. This forms the connecting element in this research. As a measurable entity through all the scales. The  $m^2$  element consists of a soil sample of 1m deep, a bucket of clay and a GPS-marked retraceable  $m^2$ . The samples are captured for two reasons. To begin with, the samples are used for material experimentation and to materialize the research into physical models, made from the clay taken at each farmer. More importantly, they are disassembled into three different aspects (farmer, landscape and tectonic). Informed by the main research question;

How could *landscape stewardship* contribute to a *regenerative farmyard* with a *new tectonic*, that depends on the *regional landscape*?

The different sub-questions are layered into different themes, some of these themes are predefined others will appear during the research. All the interviews, drawings, diagrams, and maps are linked to the  $m^2$ . The themes that are used to look at this  $m^2$ , can be used as thematic layers in the Atlas



*square meter sample*

#### Farmer (the story)

First, there is the aspect of the farmer (the immaterial), answering the sub-question; How do farmers identify their current and future position in landscape stewardship?

The farmers are interviewed on their positions as landscape stewards. It is about the interaction between in this case soil (landscape) and farmers (stewards). In landscape stewardship, the community that resides in the landscape perceives its ecological functioning as beneficial.<sup>17</sup> A responsibility for safeguarding common values (*Borgen*). How do the farmers of the *Oldambt* view their current relationship with the soil and do they regard this as a relationship of stewardship? How do they define the safeguarding and trust of the protection of a social-ecological system? The farmers are interviewed on the following themes; Values (material, immaterial), ecological functioning, identity, obsolete farmyards, the future of the farm(ers), future needs and necessities.

#### Landscape (the drawing)

Second, there is the aspect of the the landscape (the material), answering the sub-question; How can a farm be regenerative through the use of its soil?

The farmers will be accompanied on their farms to observe and document how they cultivate their land. The focus lies on the regeneration of the soil. What is the relationship of *Borgen* in the form of a transaction that farmers make with the landscape? De focus of the observation lies on the current regenerative aspects present in their method. The starting point of the conversation is their cultivation plan. This plan incorporates what crops they are cultivating and when for the next 3-7 years. In addition, different methods of cultivation and their regenerative potential are discussed. The focus lies on the inclusion of biobased building materials in their cultivation plan, and the (re)use of residual material. The following themes are observed and discussed; Soil structure, soil condition, cultivated crops, added value of crops (revenue, regeneration of the soil), life cycle of the crops, potential of the inclusion of biobased materials, system of cultivation

#### Farmyard (the image)

Third, there is the aspect of the Farmyard (the tectonic), answering the sub-question; How can the tectonic of a farmyard depend on the regional landscape and contribute to local building culture?

The tectonic of the farmyards that are left behind due to the appropriation of land for the growing farms of the selected farmers are documented. These farmyards are historically connected to the current farm. The following themes are observed and documented; Current function, monument status, condition, building materials, building techniques, the potential of reuse (material, techniques), the potential of reintroduction (material, techniques).

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<sup>17</sup> Paul Opdam, "How Landscape Stewardship Emerges out of Landscape Planning," *The Science and Practice of Landscape Stewardship*, 2017, 331–46, <https://doi.org/10.1017/9781316499016.033>.

## Growing

The stage of growing embodies the data collection and reorganization of the data collection in the form of an Atlas. The three aspects are the main chapters of the atlas. However the atlas is also used to show the overlap of the different elements in the research. These elements can be used as layers in the maps (always connected to the m<sup>2</sup>) that can be turned on or off, depending on what is told.

### Farmer (the story)

The interviews of the farmers are translated into stories, additionally, their stories are mapped through collaborative drawing with farmers.

### Landscape (the drawing)

From the m<sup>2</sup> the visible landscape is documented, farmyards, flora, fauna and the soil. The observed themes are visualized in the form of maps and drawings. The crops that are discussed are documented in the form of a herbarium, describing and visualizing their regenerative aspects. The systems at the farmyard are visualized in the form of section drawings showing how they operate, and could potentially operate. A future cultivation plan forms the framework to structure the different ways of cultivating and what this means for the organization of the farmyard.

### Tectonic (the image)

The farmyards are photographed inspired by Bernd and Hilla Becher, ordering the farmyard according to the elements of observation. These photographs are filtered on design principles, resulting in overlaying diagrams.



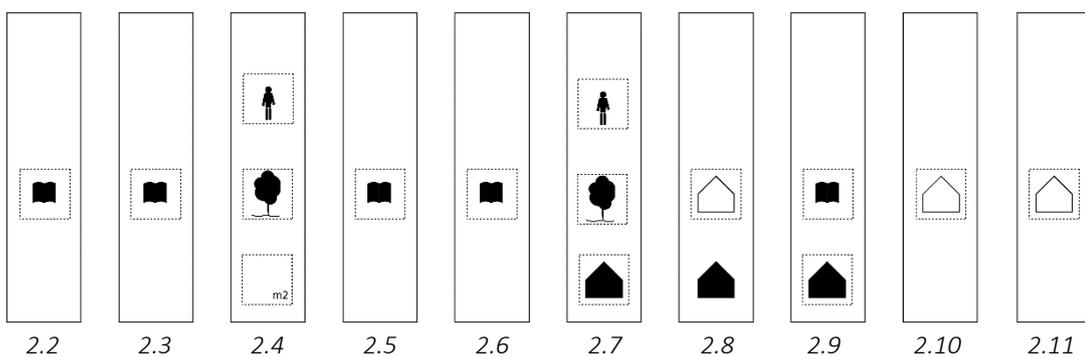
*Impression of design principles*

## Harvest

The stage of harvest describes the face of design and uses the Atlas as a catalogue of design principles. The aim for the design is to transform an abandoned farmyard in the *Oldambt*. To aim for an approach that makes them functional entities in the operation of the *Graanrepubliek* ideally functioning as a farm, or otherwise in an indirect connection supporting the farmers. The stories of the farmers will inform the program of the design and the special needs of the farmyard. The goal of these interviews is to be able to document the farmer's position on the future of their work field. The different takes can be used to inform scenarios for the future of agriculture and the transformation and reimplementation of obsolete farmyards. As will the aspect of the landscape in the form of the cultivation of the soil, since cultivation plan will influence the needed functionalities of the farmyard.

The aspects of landscape and tectonic will inform the building materials and techniques to be used in the design. The materials are either taken from abandoned farmyards, or biobased and cultivated within the region. The architecture should emerge from the landscape.

## Planning



- 2.2 Denmark, Specifying research method and organizing the visit to Groningen in week 2.4
- 2.3 Preparation of visit Groningen preparations of maps, reading the historical context of the farmyards and potential biobased materials
- 2.4 Visit to the Oldambt
- 2.5 Data organization and evaluation of the method
- 2.6 Preparation of the second visit initial design idea's derived from the first visit
- 2.7 Second visit to the Oldambt
- 2.9 Data organization and visualisation, designing on a location
- 2.10 Design
- 2.11 P2

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