

Poldermolen De Breek

DESIGN | PRE-DESIGN | IMPACT ASSESSMENT
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Introduction

The polder mill De Breek, built in 1886, was used to artificially lower the water level of the Etersheimerbraak¹. Since the building of an electric mill in 1920, the mill has been out of function. In 1999 a foundation was created to restore the mill to its former glory. Currently, the visitor centre and the mill site are rented to an operator. These buildings are part of the larger concept “Laagste punt van Noord-Holland, and hoogtepunt van de omgeving” which aims to tell the historical heritage of the Etersheimerbraak and its surroundings.

Methods

The research focuses on the current use of the mill and its surrounding buildings. The following methods were used to gather information:

- Literature research (articles, databases)
- Site visit (November 18 2024)
- Interview and mail correspondence with owners
- Site and building analysis (3D model, mapping, photos)

Poldermolen De Breek



Context



1:2000



Mill details
The beard of the mill is dyed dark green with some red curls as decorations. The years '1886' and '2002' are painted in white, showing the year that the last mill was built and the year the cap was added.



Thatched facade
The pine octagon, with a thatched façade is built on a low base made of brick.



Mill wings
The wings are built in an old Dutch style and have a span of 22.4 meters.



Painted clapboards
The bottom 2 meters of the mill are covered with green painted clapboards. Due to the clapboards façade, less water can penetrate. This façade design has a better water drainage.

Facade of mill



Current landscape

The surrounding landscape, with the exception of the Etersheimerbraakpolder, is a typical stroke landscape ('slagenlandschap'). The landscape is mostly created by peat extractions and is characterized by long, narrow plots separated by drainage ditches³. The exploitation method led to the development of ribbon-shaped developments of which the nearby villages of Oosthuizen and Warder are examples of. The Etersheimerbraakpolder looks different due to the 'recent' drainage. The plots in this polder are larger but are still surrounded by

ditches used for water drainage. The lowest point of Noord-Holland, called the Kleiput is found within the polder². It lies 6.60 metres below sea level.



1:20000

+3.10 -6.60 N.A.P.

Current context

The mill owes its name to the polder in which it used to operate: the Etersheimerbraakpolder¹. The polder is named after the nearest hamlet Etersheim and its origin (a dike breach). To the south of the mill lies the Zeevang polder and to the east, behind the dike, lies the Markermeer. The electric pumping station Warder lies about 500m southeast of the mill.

Current function

The mill is currently a museum and is restored after its original function as a polder mill and late 19th-century miller's home. The living quarters of the miller consist of an entrance hall, two box beds and a kitchen. The rest of the mill holds the restored mill elements, such as the 'vijzel' and drive wheels. The mill functions but is operated on a voluntary basis. The visitor centre is newly built and remodelled after an old lighting barn. The archaeological mini museum the Waterwolf tells more about the story of the drowned village of Etersheim, the battle against the sea and the formation of the landscape. In and around the four buildings other activities, such as fairs, excursions and exhibitions, take place⁴. The upper floor of the museum can also be rented for meetings.

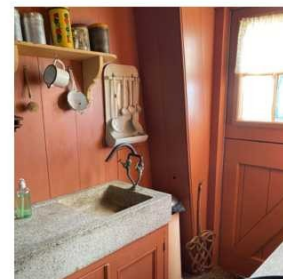
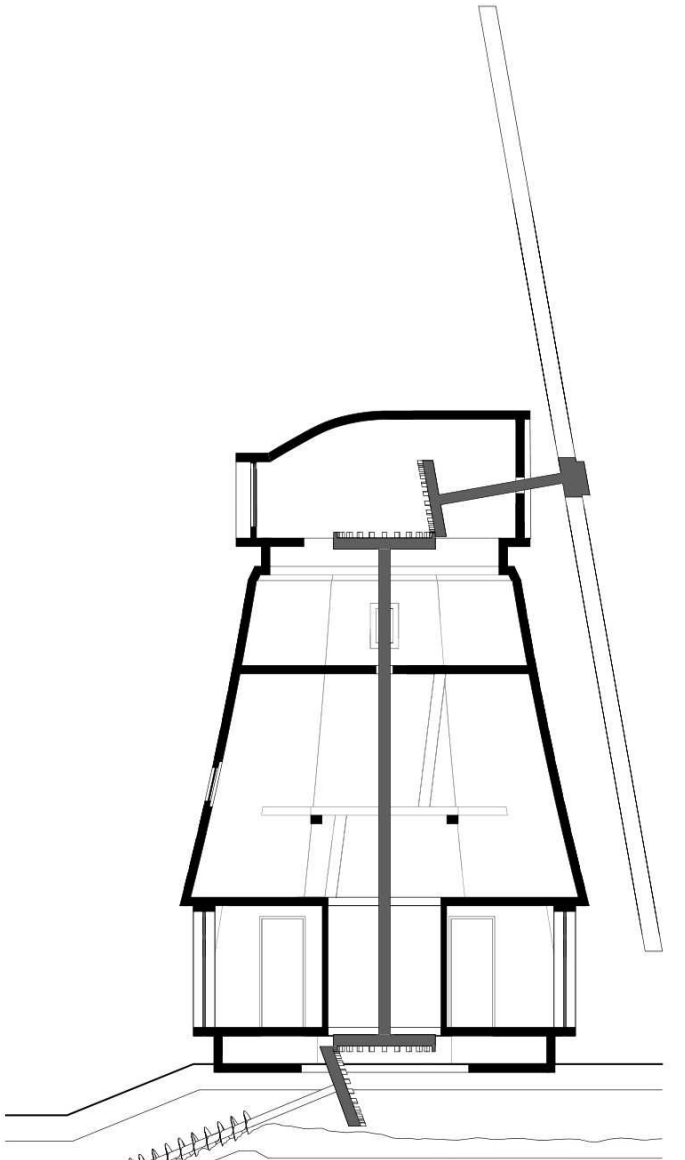
Landscape



Visitor centre



Section of mill



Kitchen
The mill historically was used for living purposes, a miller's home. Currently the mill is a museum and shows the entrance hall, the sleeping quarters and a small kitchen.



Chimney
When the mill began to show all kinds of defects, it was decided in 1920 to switch to electric drainage. The mill was no longer in use and was sold as a home to the miller. This might explain the chimney that appeared.



Top wheel
If there is sufficient wind, the blades rotate and set the upper shaft in motion. The combs of the top wheel and the top roller interlock precisely, so that the movement can be transmitted properly.



Vijzel
The vijzel of the mill carries the excess water from the polder into a nearby river or canal. The steel vijzel that is present within the polder mill De Breek can raise the water 4 to 5 meters.

Conclusion

The polder mill de Breek is together with the archaeological museum and visitor centre a focal point in the Etersheim region because of the festivities that take place, its historical value and the ability to teach many about the history of the region. The restored mill shows the life of a miller and how this this mill was able to reclaim land from the Zuiderzee. In addition to the history of the region, the museums and the centre provide information about the ongoing battle against water. So even though they are located in the lowest point of Noord-Holland, they are the highlight of the region.

References

1. Etersheimer Braakmolen. (2024, August 15). De Nederlandse Molendatabase. <https://www.molendatabase.nl/molens/ten-bruggencate-nr-01156-c>
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Introduction

The first mill that was used to drain the polder was built in 1632. In 1882 that mill burned down caused by a lightning strike, after which it was completely rebuilt¹. Four years later that mill burned down again, after which the current mill was built. From 1632 until 1920 the mill (and its reconstructions) fulfilled the same function. In 1916 the Etersheimerbraakpolder was lowered due

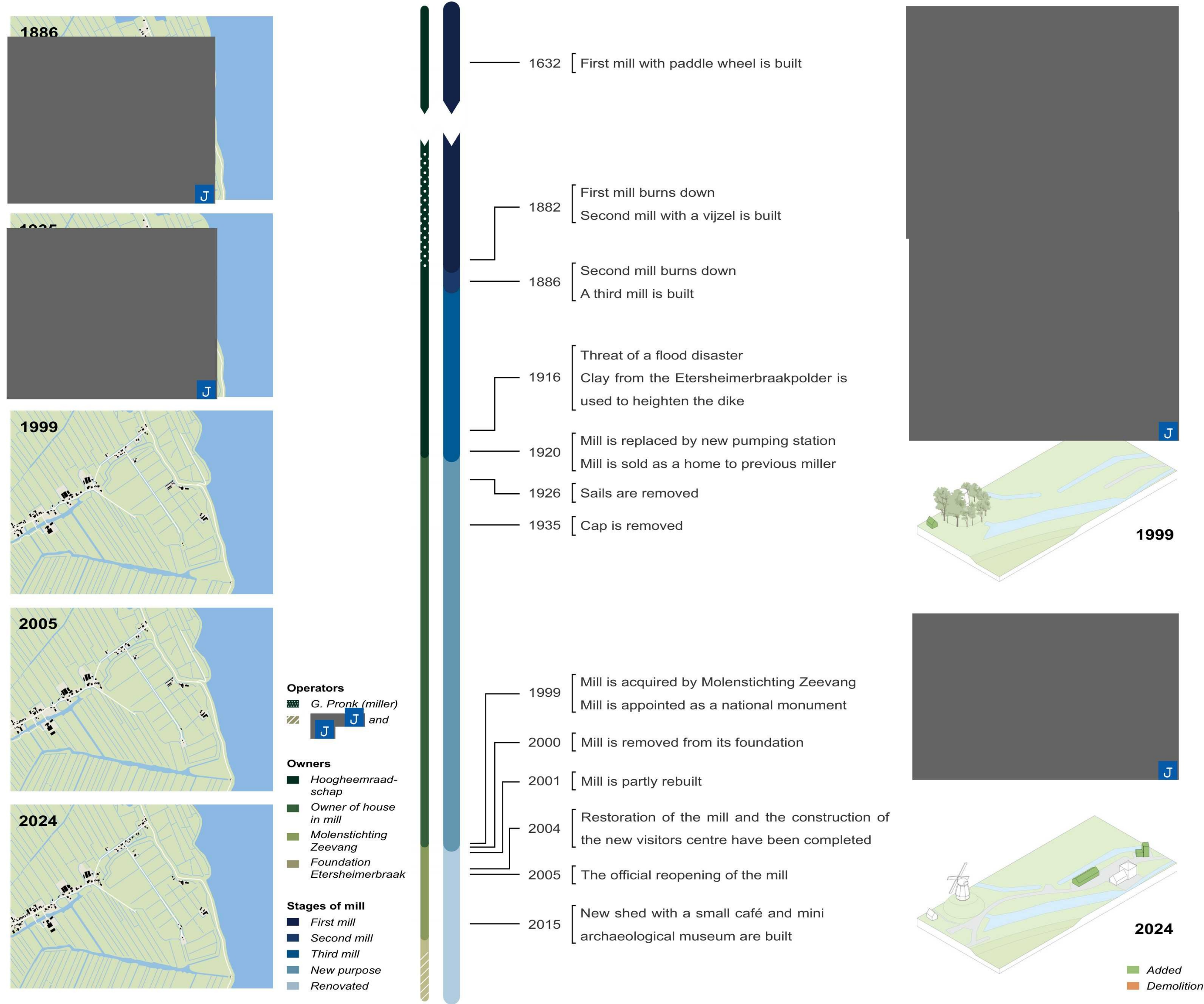
to the need for clay for dike reinforcements. However, it meant that the mill needed to pump out more water than before, something it could not do when there was insufficient wind. Therefore, it was decided to build a new electric mill at the beginning of the Etersheimer Braakweg in 1920. The polder mill remained out of function for over 80 years.

Methods

The research focuses on the history of the mill, its surrounding buildings and the landscape. The following methods were used to gather information:

- Literature research (articles, databases)
- Interview and mail correspondence with owners
- Site and building analysis (3D model, mapping, photos)

Renovation of mill (2000)



The mill, town and landscape

The hamlet of Etersheim, established around 800, was originally located outside the dike but suffered a lot from flooding². Shortly before the Etersheimerbraak dike breach, the village moved to its current location inside the dike. After the dike breach, the polder mill De Breek was used to drain the polder. Although the Etersheimerbraakpolder has different characteristics than the surrounding polders, it is just as old³. Due to repeated flooding in the polder, its has been drained

more recently. The polder mill De Breek is an example of a typical 16th and 17th-century polder mill¹. It is a wooden octagonal mill, the cap with the sails of which is turned from the inside. These characteristics are easily recognized by the absence of a tail and the plump look of the cap. These types of mills, including De Breek, used to use a paddle wheel to transport water. However, after the first fire in De Breek, the wheel was replaced by a vijzel.

Conclusion

After the dike breach in 1632, the polder mill De Breek was used to drain the polder. Over the years, the appearance of the mill has undergone several changes. From being rebuilt two times after a lightning strike and fire, to being restored to its original state after the cap was removed. The site itself has also gained several buildings. When the mill became a mini museum, the small café and archaeological museum were built as an addition, creating the visitation centre that is present today.

References

- Etersheimer Braakmolen. (2024, August 15). De Nederlandse Molendatabase. <https://www.molendatabase.nl/molens/ten-bruggencate-nr-01156-c>
- Studio Harm Hasenaar. (n.d.). Etersheimerbraak. https://www.etersheimerbraak.nl/m_index.html#Homepage
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Introduction

The Netherlands currently is home to around 1000 cultural heritage mills³. The majority of these mills are grain mills and often keep their function¹; making flour in the traditional way has become increasingly more popular as a tourist attraction. Hence, most grain mills remain profitable and can continue to exist. In contrast, a polder mill awaits a bigger challenge for being impactful and profitable in the future. Most polder mills have lost their former draining function and, despite being a touristic attraction, are losing their value.

Methods

The research focuses on the heritage impact of the polder mill and the surroundings. The following methods were used to make an impact assessment:

- Literature research (articles, shared websites and presentations)
- Analysis of (Pre)Design poster

Current value

Etersheim

Since 2018, with other points of interest in the nearby region, the mill has been part of the Etersheimerbraak Foundation, founded to preserve heritage. The transformation of the mill into a heritage site saw the attraction of many tourists, which led to the construction of the current visitors' centre. Through the Etersheimerbraak Foundation, the visitors' centre became the centre of the area. This way, the mill has impacted the region by stimulating tourism.

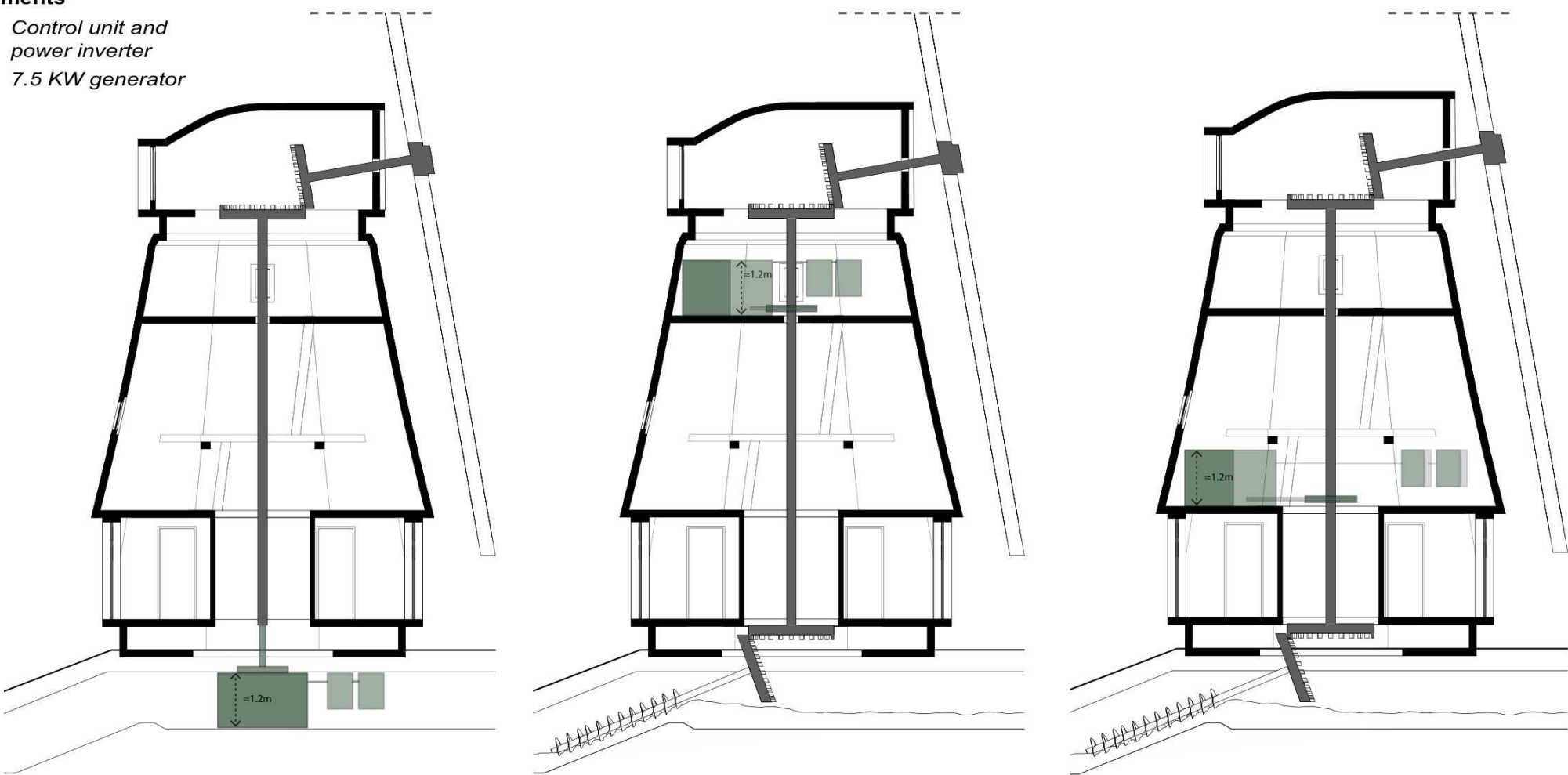
The public perception

For the largest part, the mill and its accessory visitors' centre, are experienced positively through many positive reviews, with specifically the beautiful and special location standing out, even in the negative reviews. Despite the mill and the visitors' centre receiving many positive reviews, close to none mention the other points of interest, possibly meaning a failure of the Etersheimerbraak Foundation to connect all the historic sites.

Possible placement of generators

Elements

- Control unit and power inverter
- 7.5 KW generator



Timeline of Vision Etersheimer Braakpolder 2030

2025	2026	2027
	Making the visitor centre more sustainable	Teaching traditional Dutch cuisine
	Sustainable catering with local and seasonal products	Using an electric van for groceries
	Improving (car) accessibility and safety on the grounds	Reinforcing the dike and creating recreation
		Creating a jetty for the brown fleet
		Generating wind energy

Future value

Visie Etersheimerbraakpolder

The cultural system of the polder mill will expand in the future under the vision Etersheimer Braakpolder 2030 with the slogan²: "From lowest point in North Holland to highest point of the region". The vision set certain goals as seen in the timeline. Within these goals, certain challenges arise. The polder mill has a slight disadvantage over the grain mill, meaning the success of the new food cycle depends more on the availability of local products and practices. Secondly, the creation of the jetty is prone to project delays mostly related to funding from different stakeholders. Lastly, the role of the polder mill itself needs to be reassessed to gain an understanding of its historical value and its ability to adapt to future needs, ensuring the heritage remains relevant in the modern landscape.

Generating wind energy

De Breek is still able to operate in case of emergency, but with this original function, it is difficult to make a profit such as is done with redeveloped grain mills. But, the mill's future may be opportunistic, as other mills have faced similar problems, yet have remained operational by turning to renewable energy generation. The installation method between grain and polder mills differs⁴. For polder mills, a installation is placed in the basement, probably because these mills have a basement for water installations. Grain mills however have no basement, which is why the energy installations are most likely placed in the upper rooms. The first method could work for De Breek, although this could result in the mill losing its water function. Applying the grain mill method is also possible, but one should take into account that this is more expensive and perhaps more difficult.

Café De Breek



Conclusion

The reviews of visitors show and confirm the value that the visitation centre brings to the area. The new vision for the area will help expand the cultural system, although certain challenges will arise. While the mill might lose its original water function, transforming it into a renewable energy generating mill will help with the continued existence. Thus, with an understanding of the historical and cultural value, the relevance of the polder mill in the modern landscape can be ensured.

Reviews



"Cozy café in the middle of a polder close to the IJsselmeer and Oosterhuizen. Beautifully located next to an authentic polder mill which has a lot of information available on it. The coffee were fine and you got something nice to eat with it."

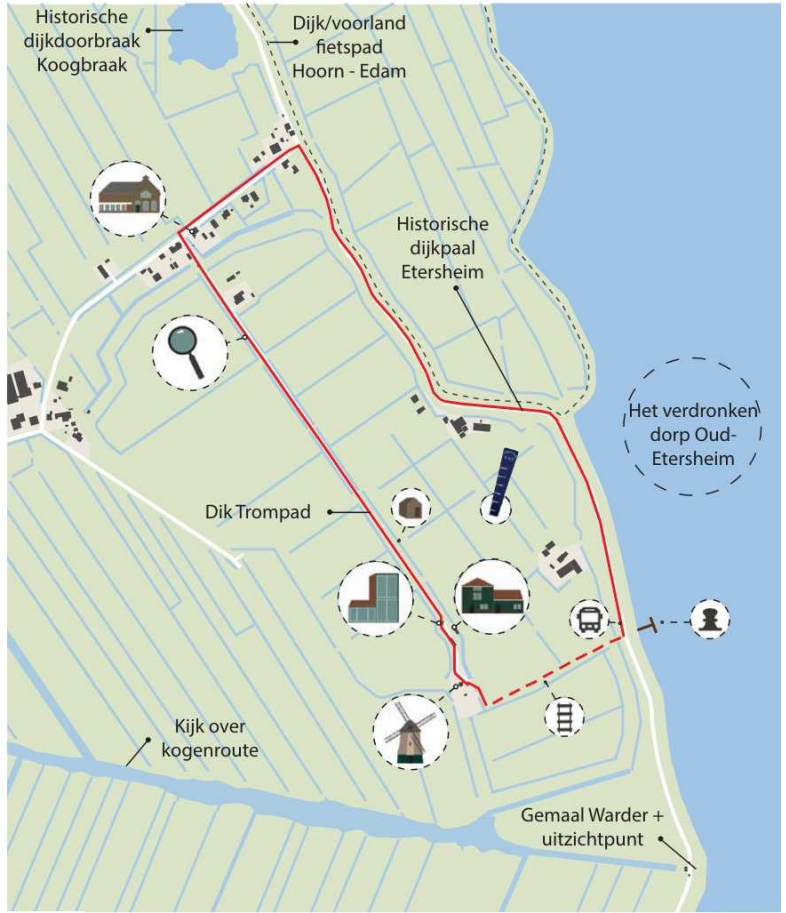


"Cozy visitors' centre just outside the village of Dik Trom. Had a nice cup of coffee with freshly baked apple pie at the mill. Children had the opportunity to play with various toys. Is located among meadows."



"Pretty visitors' centre, interesting history, especially the Dik Trom museum. The mill is nicely furnished to represent the mid 1800's. Beautiful surroundings and definitely worth a visit."

Etersheimerbraak's elements



1:10000

References

1. De Hollandsche Molen. (n.d.). Molens zijn dichterbij dan je denkt. Molens.nl. <https://www.molens.nl/vind-molens>
2. Stichting Etersheimerbraak, De Klaverhoeve, & De Breek. (n.d.). Van laagste punt in Noord Holland, naar hoogtepunt van de regio [Slide show].
3. Ministerie van Onderwijs, Cultuur en Wetenschap. (2022, February 9). Molens. Rijksdienst Voor Het Cultureel Erfgoed. <https://www.cultureelerfgoed.nl/onderwerpen/molens#:~:text=In%20Nederland%20staan%20ruim%201100,de%20provincie%20Utrecht%20de%20minste>
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Toelichting grondslagen

In dit document kunt u secties vinden die onleesbaar zijn gemaakt. Deze informatie is achterwege gelaten op basis van de Wet open overheid (Woo). De letter die hierbij is vermeld correspondeert met de bijbehorende grondslag in onderstaand overzicht.

J Art. 5.1 lid 2 sub e

Het belang van de openbaarmaking van deze informatie weegt niet op tegen het belang van de eerbiediging van de persoonlijke levenssfeer van betrokkenen