

Report of the exploratory field research in the form of trial trenches, Grevelingenstraat-Stromenpad in Middelburg (i.e. Rittenburg III)

Walcherse Archeologische Dienst



Colofon

Exploratory field research in the form of trial trenches at the location Grevelingenstraat-Stromenpad (Rittenburg III) in Middelburg (Municipality Middelburg).

Walcherse Archeologische Rapporten 53

WAD-Projectcode MIDD_021_002

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Figures

WAD, unless stated otherwise

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Cover image

Trial trench III, top of the peat being exposed

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Administratieve gegevens

Type of research:	Inventariserend VeldOnderzoek met Proefsleuven (IVO-p)
Province:	Zeeland
Municipality:	Middelburg
Place:	Middelburg
Toponym:	Grevelingenstraat-Stromenpad
Centrumcoord. research area :	X: 30670 / Y: 389800
Field work execution:	21-22 June
PvE & PvA nummer:	MIDD_021_002 PvA; MIDD_021_002 PvE
total surface research area:	ca. 3,77 ha
total surface target area:	ca. 3,77 ha
Cadastral data:	Middelburg S Parcel 2443, 2621, 2093 & 2841
Map:	65D
Archis preliminary study	4805458100
Archis case nr:	5080939100
Client:	Gemeente Middelburg Contact: J-W. de Wolf Department Leefomgeving Postbus 6000 4330 LA Middelburg 0118-675000
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Summary

Dutch

De gemeente Middelburg plant de ontwikkelingsplannen aan de Grevelingenstraat-Stromenpad in de Stromenwijk in Middelburg (ook wel Rittenburg III). Het vooronderzoek in de vorm van bureau- en booronderzoek, uitgevoerd door Artefact, kwam tot het volgende verwachtingsmodel:

- het veen is mogelijk lokaal intact, met uitzondering van de noord- en zuidwestzijde van het perceel (waar de boringen moernerig toonden); er is dus een middelhoge verwachting voor archeologie van de ijzertijd en Romeinse tijd. De verwachting voor archeologie van de middeleeuwen en nieuwe tijd is laag. Het onderzoeksteam van Artefact kwam zo tot de conclusie om een proefsleuvenonderzoek te laten uitvoeren onder het huidig onderzoeksteam.

Om het verwachtingsmodel te testen, heeft de WAD drie proefsleuven gegraven op de onderzoeks-locatie. Tijdens dit onderzoek zijn geen noemenswaardige sporen of vondsten gedaan die op een mogelijke vindplaats van de ijzertijd of Romeinse tijd kunnen duiden. Er zijn, in lijn met de verwachting, geen sporen uit de middeleeuwen of nieuwe tijd gevonden. Het perceel heeft dus een lage archeologische waarde.

In conclusie, het proefsleuvenonderzoek geeft geen aanwijzingen dat vervolgend onderzoek noodzakelijk is. Het advies is dus om de dubbelbestemming archeologie voor de locatie te laten vervallen.

English

The municipality of Middelburg is planning to develop the location Grevelingenstraat-Stromenpad (Rittenburg III) in the Stromenwijk in Middelburg. The desk study and coring results, documented and executed by Artefact, concluded in the following model of expectations:

The peat is most likely intact in certain parts of the parcel; there is a high chance of moernerig in other parts of the lot; there is thus a middle-high expectation for archaeology from the Iron Age and Roman time. The expectation for archaeology from the Middle Ages and New Era is low. They thus came to the advice to conduct a trial trench research, that has been executed and documented by the current research team.

To assess this model of expectations, the WAD has conducted a trial trench research. The fieldwork did not deliver any archaeological features or structures, although the peat was found largely intact.

Therefore, there is a negative advice to conduct any subsequent archaeological research. Concludingly, the research location can lose its designation for archaeology safely, as there are no indicators that there is anything of importance in the ground.

1. Introduction

1.1 Description of the research assignment

The municipality in Middelburg is planning to start phase III of the allocation plan for Rittenburg to expand the residential area. As the development plans are still in the early stages, there is no concrete plan yet. With building plans of this size, it is common to excavate deeper than -0,40 m below ground level during construction. This poses a threat to possible archaeology in the ground at the target location. In alignment with national legislation, the Walcherse archaeological policy and the allocation plan, an archaeological study needs to take place to assess the value of the location. For Rittenburg III, a desk study and coring has already been conducted, the results of which are included in the current rapport (Delporte, 2021). The remainder of this rapport will focus on the results from the trial trench that was executed at the research location, as advised by the research team based on the results from the desk study and coring.

During the coring, the field team found an extensive layer intact peat at 44 of the corings. Most of the peat was either eroded or excavated, but at some spots an amorphous top was found. In these cases, the amorphous top was about 10-25 cm, with a total thickness of about a meter. This indicates that the peat stratum is intact and the original top, which was the walking surface during the Iron Age and Roman time, is still present.

In this case, it is advisory to conduct a trial trench research to confirm the results from the coring and to detect any possible archaeology at the site. If the trial trench locates archaeology, the municipality can be inclined to conduct a proper excavation, or to maintain the double-indicator archaeology for the location.

The model of expectations is as follows: due to the intact peat detected at the research site and the data from the desk study, there is a middle-high expectation for archaeology from the Iron Age and Roman Time. The expectation for archaeology from the Middle Ages and New Era is low.

1.2 Location of the research area

The research area is located in the south of Middelburg, in a neighborhood called Stromenwijk. It finds itself in between the Grevelingenstraat,

the Stromenpad, the Merwedestraat and the Vlissingse Watergang (Figure 1).

1.3 Current and projected use

The target area has been built upon in the past. The current parcel lies waste. The municipality of Middelburg wants to expand the urban area in the Stromenwijk.

1.4 Active laws and policies

The current archaeological research is necessary to comply with the Erfgoedwet accepted in 2016 (Heritage Law). This law is in transition to become the Omgevingswet, which was accepted by the government in 2015-2016. The law states that the municipality oversees archaeology in their allocation plans. The municipalities of Walcheren have therefore established an archaeology policy. An inventory was made based on the archaeological values and expectations which was then translated into the Archeologische Waarden- en Verwachtingskaart Walcheren 2016 (Archaeological Value and Expectation Map). The target area for the current research is located on this map and indicates a middle-high expectancy for archaeology. For the conduction of the inventory coring and desk research the additional Provincial guidelines of 2019 are also applicable.

1.5 Goal of the research

The purpose of the trial trench research is to determine whether an archaeological assemblage is present at the target location and whether these are worthy of conservation. The expectation is to find archaeology at the top of the peat layer and the slufferlaag atop the peat.

The upcoming change in the allocation plan poses a threat to possible archaeology and can disturb the soil. Therefore, a trial trench is necessary.

1.6 Research questions

- Are there archaeological features or structures present at the research level? What are these features, structures and findings?
- How can these finds be interpreted?
- Are there any other phenomena of stratigraphical importance that deserve

mentioning in the current study?

- Is there phasing between the different finds and what exactly does this entail?
- What is the state of conservation for the finds?

1.7 Questions concerning value assessment and subsequent research

- What is the value assessment of the finds?
- What is the advice for subsequent research?

1.8 Methodology

To commence the research in the form of a trial trench, the research team has drawn up a plan of approach. This included a strategy, the Research Conditions and Specifications (PvE) as well as a Methodology Plan, which include the research problem and questions and a model of expectations.

In alignment with the KNA, the trial trenches that have been placed at the target location covered about 7.5% of the total research area. The research area falls under the extrapolation zones around the corings in which intact peat was found (see figure ...). This was divided into three different trenches of 4x25 meter each. The first trench was executed on day 1 of the field work, and covered coring 26. The consecutive trenches were dug on day 2 and covered coring 17 and 8 & 15. The first two trenches were dug according to the model in the RCaS & MP, whereas the location of the third trench was altered. In the field it became clear that the original location was impossible to excavate with the available excavator machine, as there was concrete tiling and mounds of rubble on the south side of the parcel. Therefore, the surface was flipped to the other side, thus allowing the excavator to properly conduct his work in the field instead of on concrete (fig. ...). The research level, as has been indicated previously, was the Hollandveen (or peat layer). This has been documented as the first level. Only on a rare occasion was there a slufferlaag atop the peat, but this was negligible and not of importance for archaeological purposes. The slufferlaag witnesses a slow sedimentation of the first flooding in Early Roman Time. If present, a first research level is required in the top of this sediment.

Afterwards, there was no registration of archaeological features or structures as no archaeological material had been found. Although the peat was in good condition in two of the trenches, only an old creek feature has been found. To fully uncover the creek-feature, the trench was elongated during the fieldwork. In the third

trench, there was also an excellent soil stratigraphy visible which has been drawn and documented. However, no archaeological material was discovered here either.

The research levels and features have been documented with photography and an approved GPS-system. Soil stratigraphy has been documented with a drawing to scale.

References

Adressen (al dan niet digitaal)

- ARCHIS (AMK, IKAW, omg en wng)
- FlexiWeb/Nedbrowser gemeente Middelburg
- Geoweb/CHS (Provincie Zeeland) (historische kaarten, luchtfoto's)
- Luchtfotografische documentatie (Geoweb Provincie Zeeland)
- Actueel Hoogtebestand Nederland (AHN)

Oude kaarten

- Jacob van Deventer (1550)
- Visscher-Romankaart (1650)
- Topografische Kaart van de Hattinga's (1750)
- Kadastrale kaart van Walcheren (Kuijper 1852)
- Kadastrale kaart van Walcheren (1875)
- Bonnebladen (1926)

Aardwetenschappelijke kaarten

- Rijks Geologische Dienst (RGD). Geologische kaart van Nederland 1:50.000, Blad Walcheren, Haarlem: 1972, Tweede druk 1997.
- RGD. Toelichtingen bij de Geologische kaart van Nederland 1:50.000, Blad Walcheren, Haarlem: 1972, Tweede druk 1997.
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- Bennema, Ir. J. en Dr. Ir. K. van der Meer. De Bodemkartering van Nederland, deel XII, De Bodemkartering van Walcheren. Ministerie van Landbouw, Visserij en Voedselvoorziening, Directie van de Landbouw, Stichting voor Bodemkartering, 's-Gravenhage: 1952.

Primary literature: listed in the back.

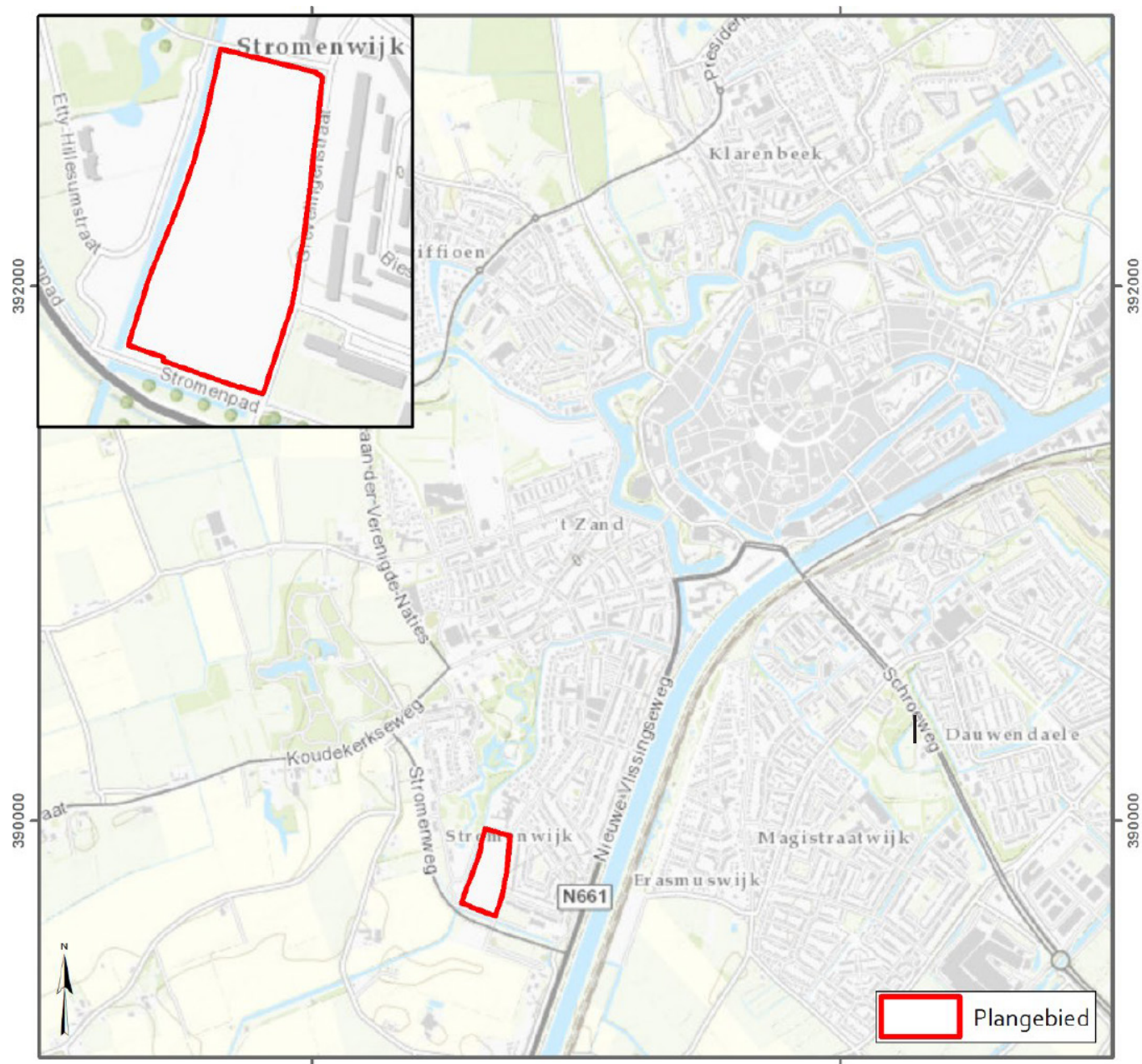


Fig.1 The research area on the topographical map. The exact location is marked with a red outline. The upper image has been extracted from the primary report by Artefact (Delporte, 2021)

2. Geology and soil

The geology on Walcheren is characterized by frequent periods of flooding and clay sinking in again. The soil at the current research location has a basis of Basisveen and Laagpakket van Wormer, which is then topped by the familiar layer of Hollandveen Laagpakket of the Formation of Nieuwkoop. This peat was the walking surface during the Iron Age and Roman time. However, because of dewatering during the Roman time, the peat settled and became susceptible to flooding from sea again. This causes the formation of a new tidal landscape, in which sedimentations from the Laagpakket van Walcheren settle. This new landscape was the habitable surface during the Middle Ages. The people settled on the higher tidal ridges and after a longer period until the 11th century BCE, the lower poel areas became habitable as well.

The research area is situated in a system of tidal ridges. On the map by De Mulder, the soil underneath consists of sedimentations of the Laagpakket van Walcheren & the Formation of Nieuwkoop (Delporte, 2021). An older geological map from 1971 indicated the landscape of the research area to be in a poel area belonging to the Laagpakket van Walcheren, with underneath Hollandveen and sedimentations from Wormer. The map by Bennema & Van der Meer (1952) show that the research area is crossed by a middle-land tidal ridge with transitions on the edges (figure 2). They further indicate relatively large areas of *moernering*, the practice of peat excavation for salt production. The soil underneath is thus part of an extensive tidal landscape of older and newer periods. The lower part of the research surface shows no signs of *moernering* and could thus contain intact peat, an indicator for archaeology of Iron Age and Roman time as mentioned before.

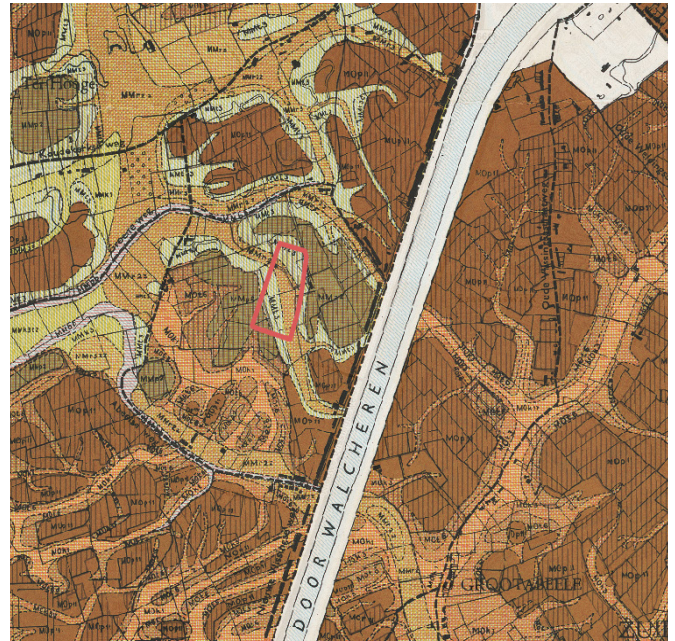


Fig. 2 Soil map by Bennema & Van der Meer 1952; The research area is characterized by two types of soil: MMt3 (homogenous young transition soil) and MMr2 (lightly silty, slightly calcareous early tidal ridge soil).

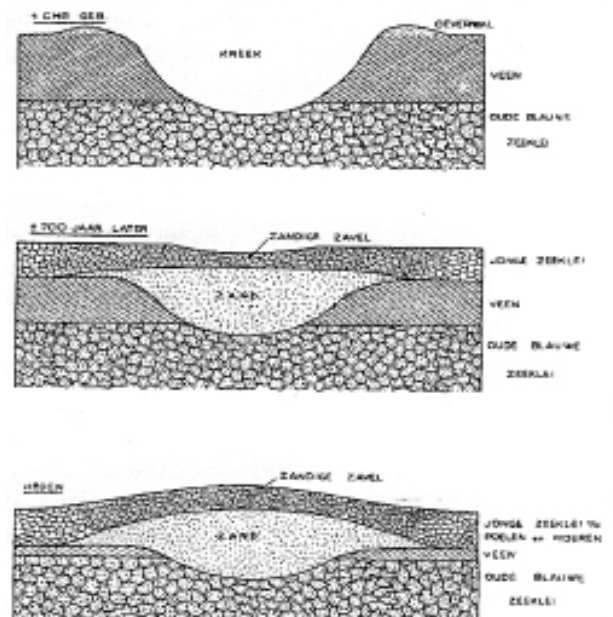


Fig. 3 De vorming van een kreekrug.
Bron: Rijkstuinbouwconsulentschap, 1951.

3. Overview of the known data (desk study)

3.1 Research history

Prior to the current study, an extensive desk research and coring has been conducted by Artefact (Delpoort, 2021). The results from this study have underlined the middle-high expectation for archaeology at the research location. The coring a thick layer of intact peat with an amorphous top in several places, which is a strong indicator for archaeology on Walcheren specifically. The peat was found at different depths, which is documented in the desk study and coring rapport but can generally be found at a depth of 1,7 m -NAP. Thus, the location required subsequent research in the form of a trial trench.

3.2 Known archaeological values

The research area is indicated by Bennema & Van der Meer as having a middle-high expectation for archaeology. The database Archis3 shows some findings in the adjacent parcel (2420063100): a trial trench was conducted in places where intact peat was found during the coring, which uncovered an extensive layer of intact peat with an amorphous top. One trench did show signs of moertering, the practice of peat extraction for salt production. No archaeological features nor structures were found during this trial trench at the adjacent parcel (figure 5).

3.3 Known historical data

The research area has for long been pasture or agricultural land. The map by Sgrooten from 1573 shows its proximity to a medieval castle noted as

Hoghe, about 1 kilometer northeast of the research area. The map by Visscher-Roman from the 17th century indicates the first infrastructure within the research area, with buildings close around it. However, because the map lacks accuracy in scale and geographical markers, the location of the research area is difficult to pinpoint.

The map by Hattinga has more accuracy and markers and therefore makes it easier to locate the research area. It confirms the presence of the road crossing through the location as well as the building that is located just off the map. The surface has not yet been built upon. Maps from the mid-19th century till the late 20th century shows the parcel only being developed in 1985, when it is transformed into the current Stromenwijk in Middelburg (figure 4). After about 25 years, the buildings are demolished, and the land is once again a vacant lot. The ZAD (Zeeuws Archaeological Depot) has no complimentary documentation to Archis3 about findings in direct proximity to research area (Delpoort, 2021).

3.4 Disruptions

The parcel shows construction from the 1970's onward, similar to what is visible on the historical maps mentioned above. These have been demolished in the early 2010's, confirmatory to what is stated above. The desk study furthermore states that the northern part of the parcel has been researched already and has also been examined in the field. This research was conducted because of a possible vliedberg, or refuge mound.

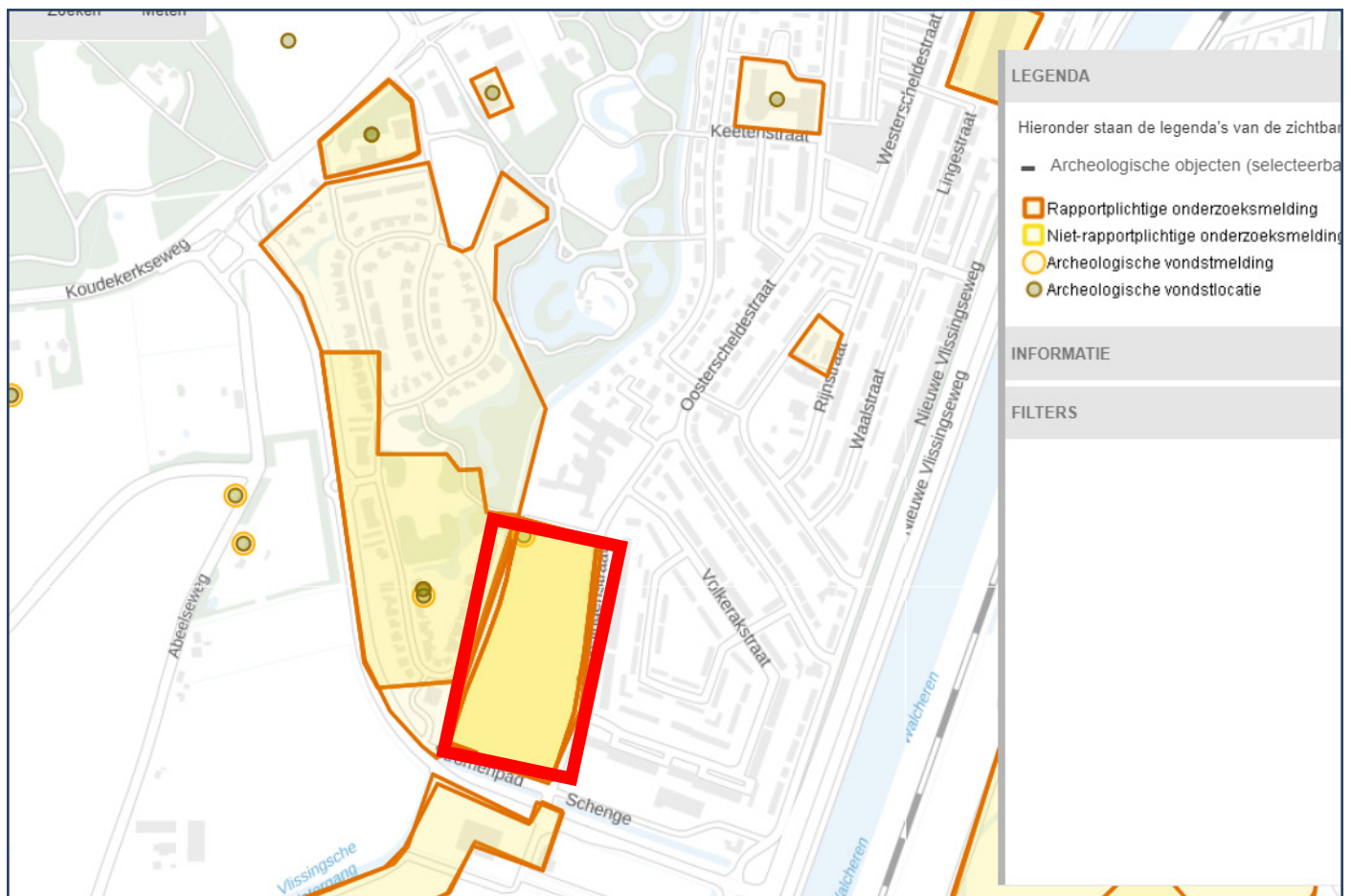
table 1: historical maps and their indicators

Map/Aerial photo	Period	Indicator	Remarks
Van Deventer	1550	no	pasture
Visscher-Roman	1650	no	pasture, road
Hattinga	1750	no	pasture,/ creek
Kadasterkaart	1832	no	pasture
Bonnebladen	1910	no	pasture
Luchtfoto	1959	no	pasture
Luchtfoto	1974	yes	buildings
Luchtfoto	heden	yes	waste land



Fig.4 Map of the parcel in 1995, showing the buildings that were demolished in 2012-13.

Fig. 5 The research location with data from ARCHIS 3.
Source: ARCHIS III



4. Results archaeologisch field research

4.1 Introduction & method

On the 21st of June 2021, the WAD has conducted a trial trench at the location Rittenburg III, Grevelingenweg-Stromenpad. The field team consisted of B. Meijlink, B. Silkens, both senior KNA archaeologists & intern H. van Veen. The parcel was a vacant field. During the exploratory coring, intact peat was found at several spots, at different depths. This was enough reason to advise a trial trench research to assess the possibility of archaeology. In case archaeological material is found during the trial trench, it can be decided to either maintain the designation of archaeology at the site, if the upcoming allocation development does not endanger the underground heritage; or, it could be decided to execute an excavation.

The trial trench has been executed under the Methodology Plan (MIDD_021_002 PvA), drawn up by H. van Veen and a Research Conditions and Specifications document (MIDD_021_002 PvE), drawn up by B. Meijlink & H. van Veen.

According to the research conditions dictated by the KNA, the planned trial trenches cover a surface of about 7.5 % of the research area, formed by extrapolation around corings where intact peat was found. Three trenches have been placed in the field, that have a surface of about 4x25 m. The depth was determined by the depth of the peat. The trenches covered the location of coring 26, 17, and 8. Their location altered slightly in the field, because of a mound of rubble obstructing the planned third trench. It was therefore placed slightly more northern (figure 7 & 9).

The fieldwork required only one research level, namely that of the Hollandveen, the peat. An extra level was not required, because of the low expectation for the presence of a slufferlaag. The level of the peat has been documented as the first level.

The trial trench was dug by crane operator Jochen Bartels & Ko (Melse Maljaars). The preceding weeks to the trial trench was a very dry and sunny period. Because of restricted availability, it was therefore decided that a normal crane, instead of a caterpillar crane, would be sufficient. However, the days preceding the field work, rain caused the parcel to turn into a muddy field. After having dug one of the trenches, the crane could not continue the work. The other trenches were therefore delayed until the next day. Tuesday the 22nd of June, the fieldwork was recommenced, and the two consecutive trenches were dug by a caterpillar crane. The fieldwork did not turn up any archaeological features or structures. Besides traces of an old creek crossing trench 3, no archaeological material has

been found. The third trench did have an excellent stratigraphical profile and has been documented with a drawing to scale.

The surface and depth of the trenches, as well as the creek feature have been documented with GPS.

4.2 Stratigraphy

Base-peat layer and pleistocene sand

This layer has not been reached during the fieldwork; it was also not the goal of the research.

Wormer Laagpakket (Depositions of Calais)

This layer was reached in some rare occasions. To determine the total depth of the peat, the soil in trench I has been dug away until the Wormer clay was reached.

Hollandveen and Medieval/New Era moertering

The peat layer was reached during the coring and indicated intact peat, at times with an amorphous top (Delporte, 2021). In the first trial trench (WP1 underneath coring 26), the peat was found relatively high in the ground, just 70cm below ground level. The intact peat layer was about 60cm thick with an amorphous top of 20cm. In some spots, the peat is crossed with clay-like sedimentations. The peat layer is topped off with about 10 cm of sluffersoil at a few spots. Locally, the soil has invasive disruptions due to piping or recent excavations.

The second trench (WP2) contained peat quite deeper in the soil, reaching a depth of 100 cm. The top layer of the peat was heavily disrupted and messy, showing clear signs of construction and piling into the ground. The south corner of the trench shows such damage, that archaeology is here highly improbable.

Trench WP3 revealed the peat even lower but largely intact, at a depth of 170cm below ground level. Despite disruptions in the above layers, the peat has remained largely intact. The walking surface of the Iron Age and Roman time has thus been maintained. In the northern corner of the trench a creek feature crosses the trench till about the middle left part. The creek is wide, but not very deep. The peat layer has a pattern where natural streams have found their way into the soil (figure 8).

Walchers Laagpakket (Depositions of Dunkirk)

The slufferlaag has only been found scarcely in one of the trenches, namely the first one. Otherwise, the Laagpakket van Walcheren was largely disrupted. It contained a lot of rubble, such as red-color brick and clots of peat or recent wood or clay. This is a clear indicator the soil has been turned over recently, as these uniform bricks are a more recent feature. The soil reaches a depth of about 100 – 110 cm below ground level.

Recent topsoil

The topsoil contained lots of vegetation and rubble. As the buildings upon the lot have been demolished recently, the field was filled with contemporary sherds, rubble, and trash.

4.3 Features & structures

The fieldwork did not deliver any archaeological features or structures of any importance.

Trial trench 1 (WP1, see figure 9):

The trench reaches a depth of 70cm below ground level at 1.38m -NAP (north) and 1.60m

-NAP (south), which is where the peat can be found. Atop the peat is a humus slufferclay-layer of 10 cm. The first trench contained piping crossing the peat layer that has been measured in using GPS. The peat here was thus not excavated and probably disrupted. The topsoil and Laagpakket van Walcheren were relatively sandy and humus.

WP2 (figure 9):

The soil within the second trench was much more disrupted than WP1, reaching a depth of about 1,20 m below ground level. As this is also where the peat is found at 0.52 -NAP. at 1.39m -NAP (north) and 1.80m -NAP (south), the top has been largely damaged. No archaeology could be found in the soil. In case there had been archaeology in the past, it would have surely been damaged or destroyed in the process of construction.

WP3 (figure 9)

: As mentioned above, the third trench revealed a well-preserved stratigraphy and an intact peat layer at a depth of 170cm, at 1.48m -NAP (north) and 1.68m

-NAP (south) below ground level (0.34 m – NAP). The peat was crossed through by an old and wide creek. The soil stratigraphy in the third trench allowed a drawing to scale to be made. Below the highly disrupted topsoil and Laagpakket van Walcheren, the team found a somewhat sandy clay layer, below which a silty blue-grey layer of sea clay was situated (figure 6). This indicates a rough environment that could have posed a threat to the condition of the peat and possible archaeology on top of it. However, the peat has been largely preserved. Despite the condition of the soil, no archaeological evidence of a settlement has been found at the site.

5. Processing findings

The archaeological field research has not resulted any features or structures. Therefore, no processing has taken place in the current research.

Fig. 6 Well-preserved stratigraphy from WP3, with the sea clay layer atop the peat.



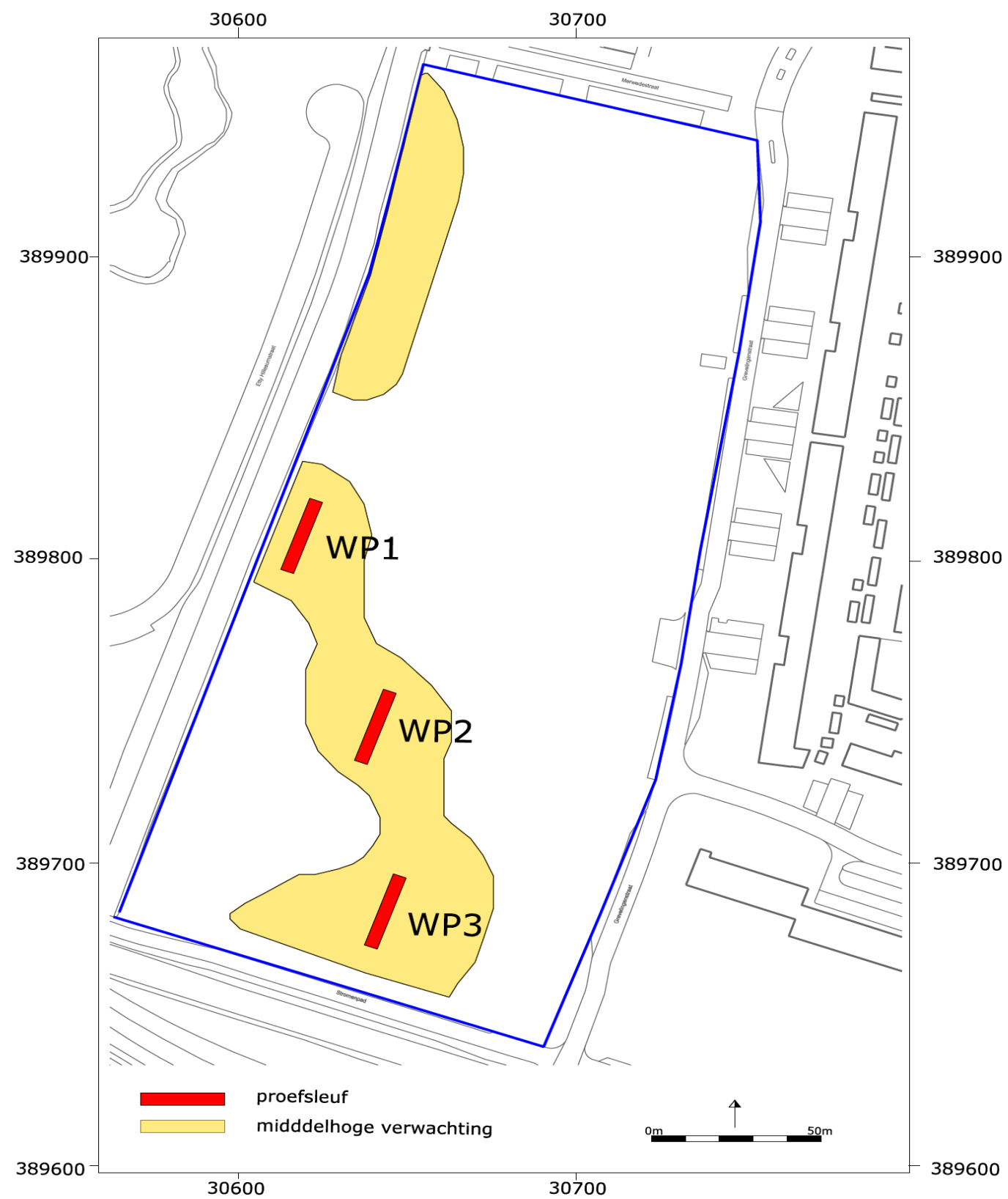


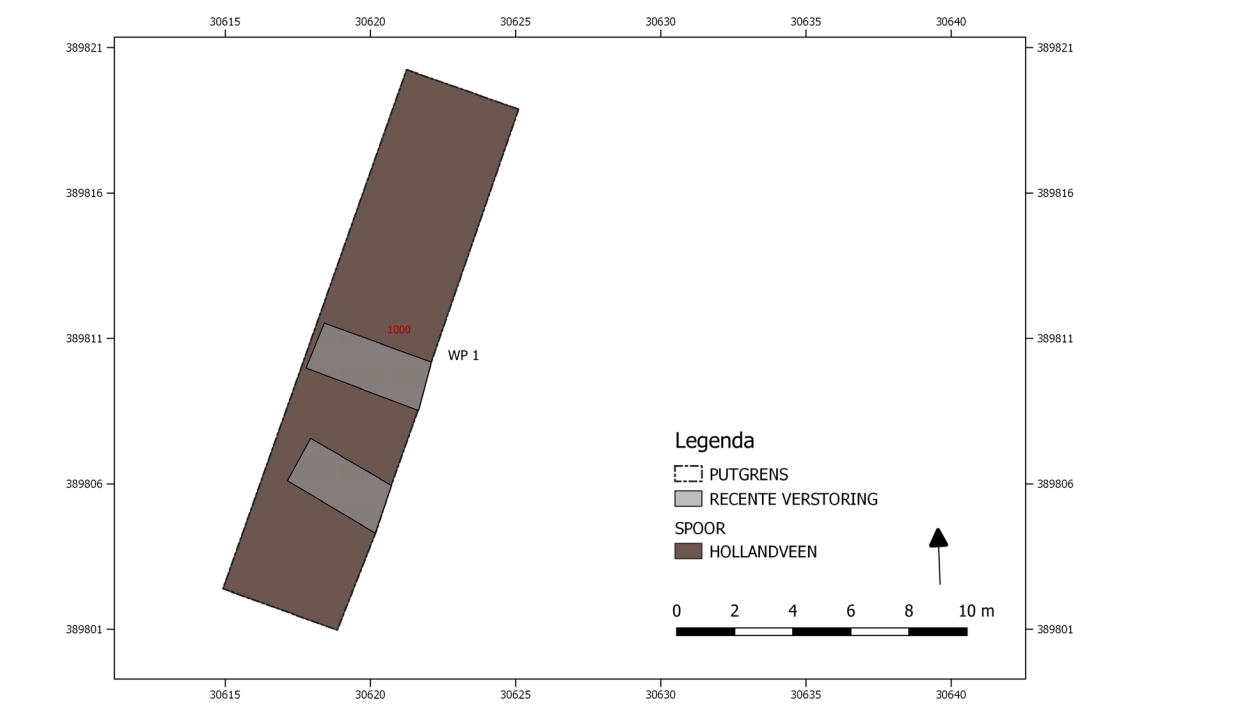
Fig. 7 The research area with the planned trenches. As explained, WP3 has been shifted north, thus the actual trenches differ slightly from this image.



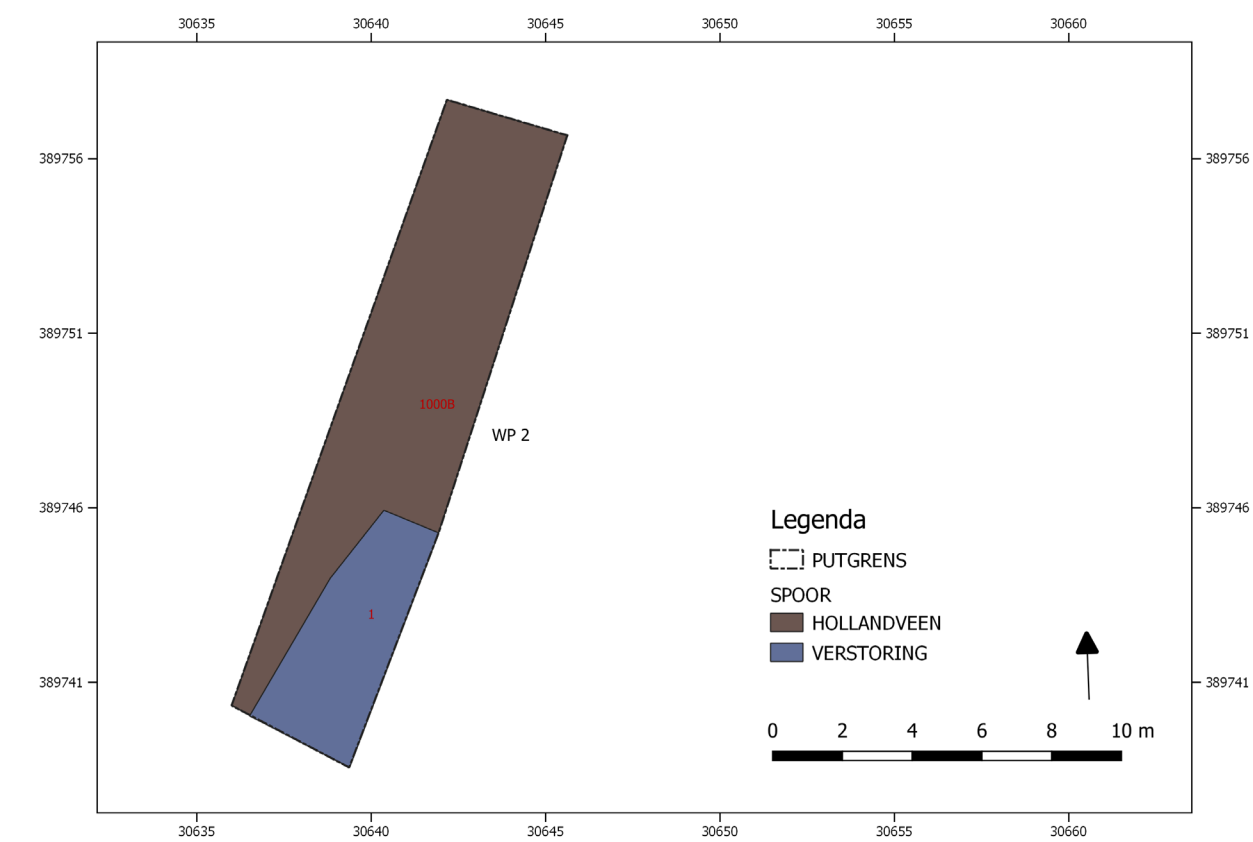
Fig. 8 An image of the third trench, showing both the peat layer and the old creek crossing the soil from the east side.

Fig 9 Trial trenches and their features.

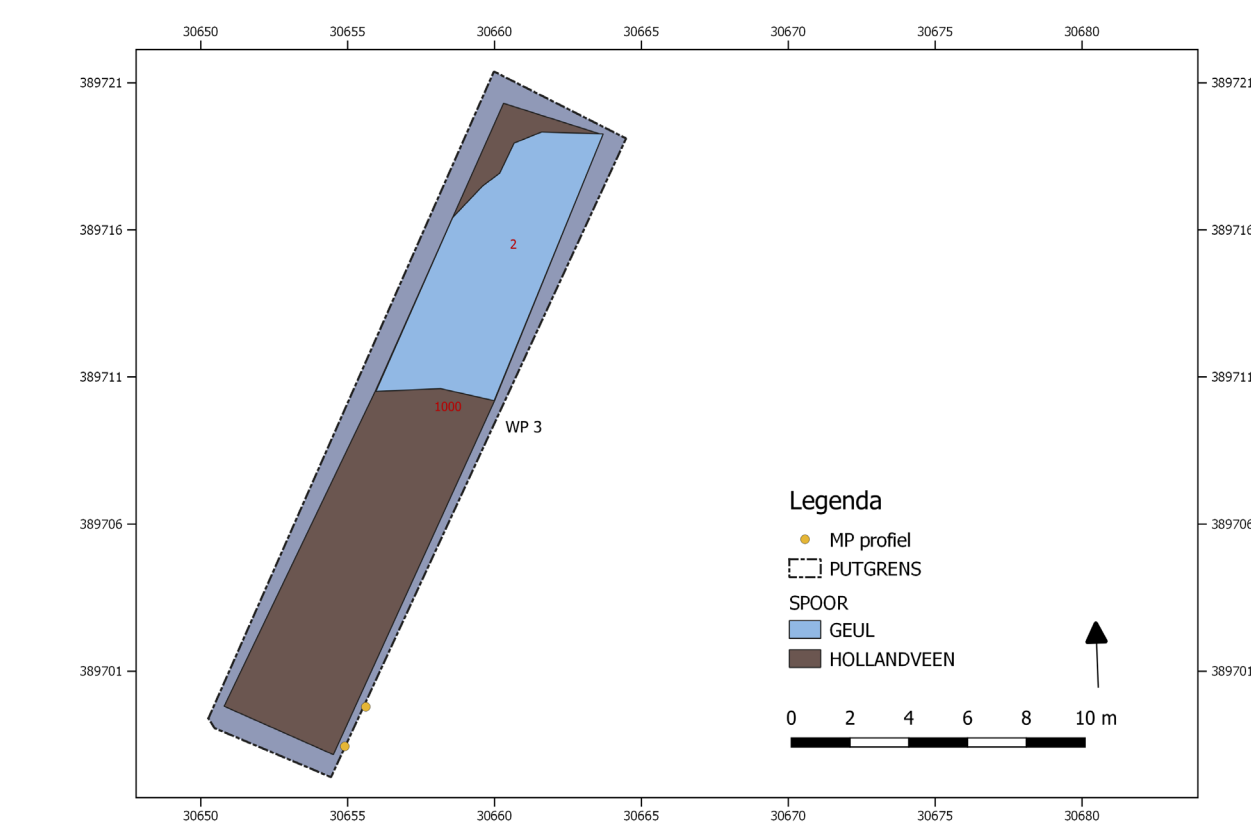
WP1



WP2



WP3



6. Conclusions, value assessment and advice

6.1 General

The municipality of Middelburg plans to change the allocation plans for the current Grevelingenstraat-Stromenpad (Rittenburg III). According with local and national legislation for archaeology, the planned development requires archaeological research at the site, in the form of a desk study and coring, executed and documented by Artefact! (Delporte, 2021). Based on this research, a trial trench research was advised and has been executed. The results of the field research have been documented in this rapport. The area has a middle-high expectation for archaeology because of the soil conditions listed by Bennema & Van der Meer. This goes specifically for archaeology from the Iron Age and Roman time as these can be expected atop the intact peat that has been found at the target location. The specific model of expectation is as follows:

- The location has a middle-high expectation for archaeology from the Iron Age and Roman time, because of the possibility of intact peat;
- Research that has been conducted in the direct proximity of the research location indicated intact peat, but no archaeology yet;
- There is also a likely possibility that the peat has been exposed to moeraning during the Middle Ages, especially in the north and south-west corner of the parcel;
- The northern part of the research location contains a low expectation for archaeology as this has already been examined extensively and has turned up low results;
- The expectation for archaeology from the Middle Ages and New Time is very low because of the extensive disruptions during construction developments in the late 20th century.

This model required the WAD to execute a trial trench research, under conditions of the Methodology Plan and Research Conditions and Specifications, that indicate the expectation, goal, and research problem, as well as methodology and strategy. According to the conditions of the KNA, the trenches covered a surface of 7.5% of the total research area. The research area has been narrowed down after the exploratory coring. Thus, it consists of the extrapolation around the corings where intact peat was found. The spots where there was no intact peat during the coring, have been eliminated from the research area. They were altered slightly, namely trench 3 that has shift north-east, due to the conditions of the field.

The soil, at the level of the Hollandveen, although largely intact, did not reveal any archaeological features or structures in the present research. Therefore, there

are no indicators that there was a settlement during the Iron Age or Roman time. The low expectation for archaeology from the Middle Ages and the New Era has been confirmed by the disastrous condition of the soil stratigraphy above the peat, containing lots of rubble and turned over soil.

6.2 Research questions and answers

The following research questions are of importance in the current research:

- Are there any archaeological features or structures to be found at the research level of the peat? In case this is affirmative, what kind of traces and findings are these?

The soil did not contain any archaeological features or structures at the research level of the peat. In the first trench, a recent feature was found in the form of piping. The third trench revealed an old creek crossing the peat layer.

- How can one interpret and date these features and structures?

The piping found in the first trench is a very recent one and probably dates to the late 20th century when the parcel was being urbanized. The creek crossing the peat in the third trench could be dated to 300-600 CE, as this is the main period in which flooding occurred in Walcheren after the Roman occupation.

- Besides archaeology, are there any features of stratigraphical importance that need to be assessed?

The soil stratigraphy in the third trench shows a rough sea climate in the time period after the Roman time. It consists of a clay stratum, atop which is a silty sea clay layer. Overall, the stratigraphy is relatively intact in this third trench, not taking into account the highly disrupted topsoil.

- Is there phasing between different features and/or structures and how can this be characterized?

No archaeological features or structures were found.

- What is the condition of the features, structures, and findings?

No archaeological features or structures were found. The creek feature has been preserved quite well.

6.3 Questions concerning value assessment &

selection advice

- What is the value assessment of the location (in accordance with the KNA)?

Despite the middle-high expectation for Iron Age and Roman archaeology at the site and the good condition of the peat, no assemblage has been found. Therefore, the location cannot be deemed an archaeological hotspot and a value assessment is not required nor necessary.

- What is the advice regarding subsequent research?

No subsequent research is necessary in this research, as there are no indicators there is any archaeological material of importance. Therefore, the research area can be stripped of its designation for archaeology. The development in the allocation plans can continue as planned.

6.4 Value assessmentt and selection advice

There is no Iron Age or Roman archaeology in the top layer of the peat. The creek feature can be dated to 300-600 CE but has a very low value.

There is a negative advice for subsequent research. The advice is to strip the research area of its designation for archaeological importance.

6.5 Conclusions and advice

In conclusion, the trial trench research has not given any indicators that there is an archaeological site of any importance underground at the research location of Grevelingenstraat-Stromenpad. Therefore, the advice is to recommence the development in allocation plans as scheduled. This includes any excavation projects into the ground.

Figures and tables

Figure 1: Location of the research area on geographical maps.

Figure 2: The research location in a red outline on the soil map by Bennema & Van der Meer

Figure 3: Formation of a tidal ridge

Figure 4: Map of the research location from 1995 that shows the buildings that were built in the late 70's.

Figure 5: An overview of the archaeological research that has been conducted in the area of the target location.

Figure 6: An image of the stratigraphy in WP3, trench 3.

Figure 7: The planned trial trenches at the research area, with coordinates

Figure 8: A picture taken from the third trench, that shows the peat layer as well as the old creek crossing through the soil.

Table 1: List of historical maps and their archaeological indicators.

Table 2: Selection advice

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A p p e n d i c e s

MIDD_021_002 Rittenburg III sporenlijst

SPOOR	PUT	VLAK	SPOORTYPE	GECOUPÉERD	AFGEWERKT	DIEPTE (cm)	BEGINPERIODE	EINDPERIODE	STRUCTUUR	OPMERKING
1000		1	1 geologisch-Hollandveen	ONWAAR	ONWAAR	85	Bronstijd	Romeinse tijd		
999		1	1 Recente Verstoring	ONWAAR	ONWAAR		recent	recent		
1		2	1 Recente Verstoring	ONWAAR	ONWAAR		recent	recent		
2		3	1 geologisch-Gravel	WAAR	ONWAAR	25	Romeinse tijd	middeleeuwen		

