

Archaeological excavation at Gudings, Eke parish, Gotland, year 2022

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Cover picture: *Box brooch from late Viking Age from a grave close to the wall enclosure at Gudings.*

Photo: Bosse J-N.E

Preface

A project with a dignity like the one we have conducted in Eke, where we have now achieved the fifth year, (that as planned, it has been the last one), it's definitely a project that is not possible to carry on without considerable contributions from many. So there is therefore reason to highlight here the effort made by many in order to be able to conduct the project so far in the exploration of the coast at Eke and its interesting history.

This field course has been carried out since 1998 in collaboration with the Folkhögskola in Hemse, that takes care of all the practical things such as accommodation, food, registrations, transports etc. etc.

*An arrangement that has worked excellently and then we want to address a heartfelt thanks to the **staff at the school** for the help provided. Should also be mentioned here the archeologist and osteologist **Petter Åke-son**, whom showed to the participants the mysteries of osteology.*

*The course has been 5 weeks long and, with the reduction of the pandemic restrictions and a built up desire to dig, basically meant that the course has been fully booked. We came to be between 25 and 27 participants per week during the time that the fieldwork was ongoing, and we achieved exciting, curious and sometimes unexpected results! All of you who participated deserve a big thanks, you have definitely moved the research on Gotland forward: **Konrad Lundberg, Johnny Wallin, Birgitta Ågren, Carin Rundqvist, Maja Bergman, Katarina Nordqvist, Ulla Nordström, Lizette Martinez, Christina Cox, Katja Müller, Nina Carus, Melissa Kness, Martha Ann Meeks, Abigail Farrow, Juliana Larsdotter, Mikke Brännström, Mats Tivenius, Stefan Eliasson, Monica Hjelm, Albin Aronsson, Ann-Sofie Eriksson, Leif Kindahl, Anita Lifvendahl, Catharina Folke, Anette Augustsson, Christian Carlsson, Josefin Hultmar, Jesper Rönnholm, Erika Groth, Anna Karsbjer, Kristina Into-Malmberg, Lena Hansson, Sture Carlson, Stefan Nord, Ellen Spangenberg, Caroline Dahlqvist, Mats Millberg, Jason Mellander, Kristina Bergsten, Kristina Hardingz, Gunilla Hedbrandt, Lars Eklund, Ann Hansen, Carina Dircks, Erik Wasell, Katarina Lindgren, Jan Zidén, Therese Bexner, Mats Karlsson, Rolf Andersson, Helena Bergström, Ulf Bergström, Åsa Engzell, Eva Hesselgren, Anders Granberg, Alma Johannessson, Axel Green.***

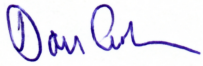
*But in order for a project such as this to work, there is an entire component around that also needs to work. Above all, it is important the presence of positive landowners, and I want clearly underline that without the help we received from **Mats Hallvede** and **Kerstin Hildingsson** at Gudings in Eke and **Roger Lundberg** at Ronnings in Grötlingbo (nowadays Eke) it would never be possible to carry on the excavation. We owe you a big heartfelt thank you for the support provided during these years such everything from graveling the road, cleaning the land and helping us fence our digging sites.*

*The fieldwork, and the following drafting of the report, could not have been possible without the excellent cooperation with my two field assistants, **Cherie Larkin** and **Alice Rosa Brusin**. An archaeological dig, however, is not completed when the field course is concluded, it often takes extensive and long work to translate summer's results into something that everyone can read. This also includes considerable analysis work, mainly to obtain age determinations from human remains, postholes or other finds, and the tool is then mainly called ^{14}C analyses.*

*During the time that the project has been going on, it has proven to be of invaluable help to be able to use ^{14}C analyses in the work of interpreting history, not least as a consequence of the fact that artifacts that could suggest a dating have not always been found. A very important contribution for these tests has been offered from **Mats Hallvede, Kerstin Hildingsson** and **Roger Lundberg**, which allows us this year to have a good amount of ^{14}C analyses done on both human and animal bones.*

It should have been clear from the above, that to conduct a field course in archaeology, such the one we made for quite a number of years, is a particularly considerable activity. I may have ideas about what we should investigate, but without all your input, support and encouragement, I would have had to settle for the mere intention of trying to solve the mystery of the remains of the coast.

You should know that during all these years we have conducted this course, you had in a crucial way advanced the knowledge about Gotland's history!



Doc. Dan Carlsson
Project Leader

The Connecting Point 2022

Archaeological excavation, Eke Parish, Gotland.

Type of investigation: Archaeological research excavation

Investigation institution: Arendus Ltd

Parish: Eke and Grötlingbo

County: Gotland

Report: Dan Carlsson, Alice Rosa Brusin and Cherie Larkin

Introduction

The report recaps the fifth year's archaeological investigations within the project "The Connecting Point", in the form of a brief account of the results from a supplementary excavation of Gudings wall enclosure and a limited test survey of the enclosure at Ronnings. The conclusions from this year's excavation must be seen as preliminary, since a final document will be edited after the completion of field investigations within the framework of the project.

This year's excavation was firstly concentrated on deepen the knowledge about the history around the wall enclosure Gudings and then above all the question involved the wall dating, construction and function. Concretely, this has meant making a number of fairly extensive trenches through the embankment in its northwestern part, where the wall is more massive.

An important aim during this summer's excavation has been also to carry out renewed trial investigations at the wall enclosure in Ronnings, Grötlingbo parish (nowadays Eke parish). The ambition with this supplementary survey was to illuminate the question if the picture which has emerged in Eke has its counterpart in other places along the coast, by that means that the history in Eke is not exclusive but rather part of a general situation of utilize of the coast during the Iron Age.

The report has been composed in English in order to reach a wider international public, but a condensed summary has been redacted also in Swedish.

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Dan Carlsson
Project Manager



Figure 1 - Map section of part of Gotland showing the survey area at a glance, located along the coast of south-eastern Gotland. Source © Lantmäteriet.

Ancient remains involved in Eke and Grötlingbo parish

- L1977:4155. Grave field (Eke parish)
- L1977:4059. Wall-enclosure (Eke parish)
- L1976:553. Wall-enclosure (Grötlingbo parish)

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Investigated ancient monuments summer 2022

- L1977:4059. Wall enclosure (hill fort), Eke parish.
- L1977:4155: Grave field, Eke parish.
- L1976:553. Wall enclosure (hill fort), Grötlingbo parish.

Monument	Typ	Excavated area	Number of graves
L1977:4059	Wall enclosure (hill fort)	220 m ²	
L1977:4155	Grave field		3
L1976:553	Wall enclosure (hill fort)	15 m ²	

Find to deliver to the museum: Four objects

Introduction

The Connecting Point Project

In order to shed light on the coastal activity during Viking Age on Gotland, a serie of archaeological investigations started during summer 2018 inside the frame of *The Connecting Point* project, with the aim to create a better knowledge of the prehistoric and medieval coastal landscape.

This report is a short statement of the fifth year's archaeological survey of the project. A final and complete accounting will be drawn up after all the field activities inside the project will be completed. For a more detailed information about the project goals and aims, it is possible to consult the reports of the past four years: Report Arendus 2018:35, 2020:2, 2020:34 och 2021:26 (the reports are mainly in Swedish).

Previous years' investigations have given a rather good picture about the history of the area, even if there certainly are many questions which had not yet received an answer. The issue that still needed to be elucidated in an acceptable way concerns the age, function and construction of the embankment itself.

Actually, four smaller trenches had been dug across the southern and eastern sections of the wall in 2018; but these were fairly limited and gave no clear explanation about the wall construction technique, and even less information about dating and function.

The ambition of this year's excavation concerned two defined central questions. In one case the topic was thus about the construction, dating and function of the embankment; and in the other case the question was how to create a better ground to understand if the instance is



Figure 1 - The main point in this year's investigations moved around Gudings hill fort, located at the top on the right in the map. Smaller test excavations have been carried out in a parallel wall enclosure in the southwestern part of Eke parish (previously Grötlingbo parish), located in the lower left corner on the map.

unique or, more possibly, the history in Eke can be found in several places along the coast, above all the neighboring parishes around Eke.

The point is in other words if the historical development that can be observed in Eke is diffuse on a big section along the Gotlandic coast, or if the situation in Eke is special and different from other sites in the same area (*Figure 1*).

Survey area

The places that have been investigated concerned an embankment in Eke and to a lesser extent in a corresponding embankment previously in Grötlingbo parish (Ronnings hill fort). The case of Eke (Gudings hill fort) in-

volved the excavation of a bigger amount of trenches, up to 5 meters wide, across the wall itself. The trenches were disposed in order to include the examination of several graves, which have been heavily affected by plundering and other interventions on the wall.

The archaeological investigation in the corresponding Ronnings hill fort didn't affect the wall itself, but some possible constructions in connection with the internal edge of the embankment. The survey in this location was limited to one week of investigation.

In the following section an overview report is presented, illustrating the results of 2022 excavation. For a more detailed description of the single trenches/constructions, including dating etc., refer to the apposite chapter in the second part of the report.

In the end of the report is possible to find a compilation of the analysis and a find list from the investigated ancient remains.

Summering

Projektet *The Connecting Point*

För att belysa kustaktiviteten under vikingatiden på Gotland påbörjades sommaren 2018 en rad arkeologiska undersökningar inom ramen för projektet *The Connecting Point*, med syfte att skapa en bättre kunskap om det förhistoriska och medeltida kustlandskapet.

Denna rapport är en kort redogörelse för det femte årets arkeologiska undersökning av projektet. En slutlig och fullständig redovisning kommer att upprättas efter att alla fältaktiviteter inom projektet har slutförts. För mer detaljerad information om projektets mål och syften finns det möjlighet att ta del av de senaste fyra årens rapporter: Rapport Arendus 2018:35, 2020:2, 2020:34 och 2021:26.

Tidigare års undersökningar har gett en förhållandevis tydlig bild av områdets historia, även om det säkert finns många frågor som ännu inte kunnat besvaras. Den fråga som fortfarande behövde belysas på ett godtagbart sätt gällde själva vallens ålder, funktion och konstruktion vid Gudings slott.

Under 2018 hade fyra mindre schakts grävts över de södra och östra delarna av muren; men dessa var ganska begränsade och gav ingen tydlig förklaring om vallens konstruktion, och ännu mindre om dess datering och funktion.

Ambitionen med årets utgrävning gällde två definierade centrala frågor. I det ena fallet handlade det om borgvallens konstruktion, datering och funktion; och i det andra fallet var frågan hur man skapar en bättre grund för att förstå om situationen i Eke är unik eller om historien upprepar sig längs kusten, framför allt i grannsocknarna runt Eke.

Frågan är med andra ord om den historiska utvecklingen som kan observeras i Eke är spridd på en stor sträcka längs den gotländska

kusten, eller om situationen i Eke är speciell och skiljer sig från andra platser i närområdet.

Undersökningsområde

De platser som har undersökts gäller vallen i Eke och i mindre utsträckning i en motsvarande vall tidigare i Grötlingbo socken (Ronnings bergsborg). Fallet Eke (Gudings Slots fornborg) gällde utgrävning av en större mängd schakt, upp till 5 meter breda, tvärs över själva muren. Schakten placerades med syftet att inkludera undersökning av flera gravar, som har varit hårt påverkade av plundring och andra ingrepp i muren.

Den arkeologiska undersökningen i motsvarande vallanläggning vid Ronnings berörde inte själva muren, utan några möjliga konstruktioner i anslutning till vallanläggningens inre kant. Undersökningen var här begränsad till en veckas undersökning.

Årets resultat

Den centrala frågan i årets undersökningar avsåg således att få ett bättre grepp om själva vallens uppbyggnad, tidsställning och funktion i Eke. Vägen att nå till svaret var att göra ett flertal stora schakt tvärs över vallen. Syftet var också att få ett bättre grepp om gravar också förekom i själva vallen och om dessa var från samma tid som de gravar som undersökts i kanten av vallen.

Undersökningarna har gett vid handen att vallen i norr och väster, där den är som mäktigast, av allt att döma i botten består av en naturlig strandvall som byggts upp längs en ås ut i det dåtida havet och att den omfattande stenpackningen som lagts uppepå, bestående av löst liggande stenar utan synbar ordning, utgör en del av konstruktionen kring de talrika gravar som finns i själva vallen.

Där vallen var som bäst bevarad kunde man tydligt se att det överliggande lagret, ca 3-4 meter brett och upp till 0,5 meter högt, avgränsades ut mot sidorna av en diffus rad av stora gråstenar, upp till 0,6-0,7 meter stora. Särskilt

tydligt kunde detta noteras i schakt 3 som rörde ett område som föreföll vara tämligen intakt (se figur x). Stenpackningen som finns i norr och väster bör således ses som en del av en gravkonstruktion, där gravar placerats i en lång rad på den naturliga vallen och täckts av omfattande massor av sten.

Den andra delen av årets undersökningar avsåg att ytterligare belysa frågan om förhållandena i Eke var ett unikum eller om historien upprepar sig längs kusten, i första hand längs den sydöstra delen av Gotland, från Grötlingbo till Burs.

Förra årets undersökningar i Rone och Grötlingbo pekade på sannolikheten av att situationen upprepar sig längs kusten. För att bygga på underlaget för en säkrare tolkning av förhållandena kom en mindre undersökning att genomföras vid motsvarande vallanläggning vid Ronnings i Eke (förut i Grötlingbo socken). Framför allt var frågan om det även vid denna vallanläggning fanns gravar från vikingatid, som i fallet Gudings slott.

För att besvara den frågan kom två gravliknande stenhögar på insidan av vallen att undersökas och därtill togs det upp en mindre yta (3x2 meter) över en flack platå med sotig jord synlig i markytan. De två stenhögarna visade sig inte vara gravar och några som helst spår av mänsklig verksamhet i dessa kunde inte noteras.

Däremot visade det begränsade schaktet över platån, beläget ca 10 meter innanför vallen, på ett tydligt kulturlager i form av ett ca 0,3 meter tjockt skärvstenslager innehållande gott om träkol och därtill ett stort antal krukskärvor och enstaka brända ben. En C14 datering av kolet gav som datering vendeltid, vilket indikerar en verksamhet inom vallanläggningen under den yngre järnåldern.

Dateringen var dock inte den förmodade, vilket gör frågan om verksamheten inom denna vallanläggning mer komplicerad än i Gudings slott. Kontentan av årets undersökningar in-

nebär att det finns skäl att fördjupa frågan om likartad utveckling längs kusten genom kompletterande undersökningar i Rone och Grötlingbo.

Investigations in Eke

The area

The main point of the archeological investigation of summer 2022 has been to explore the area inside Gudings hill fort and its immediate surroundings. A total of 10 trenches has been dug across the enclosure area, and all but two were in direct connection with the wall.

In addition, a complementary survey has been made in the southern inner part of the hill fort, next to a trench that has been dug in 2018. The surface investigated covered in total an area of ca 220 m², with the main part (ca 210 m²) laid out over the wall and its immediate proximity.

Furthermore, limited investigations were carried out in the opposite wall construction with

hin the land belonging to the farm Ronnings in Eke parish (previously Grötlingbo parish). The excavation here was of a limited extent and run on only one week. The investigation concerned two possible graves in the inner side of the wall and a small plateau delimited by a clear stone row. The total surface investigated here was only 15 m².

The survey in Eke

The core of summer 2022 investigation, Gudings wall enclosure, is denominated "fornborg" (hill fort) in the Ancient Remains Register. With the purpose to clarify the issue about the wall construction technique, period of use and function, fairly large trenches have been dug across the embankment, considering that in many cases it is particularly difficult to interpret a construction from small and limited trenches (figure 2).

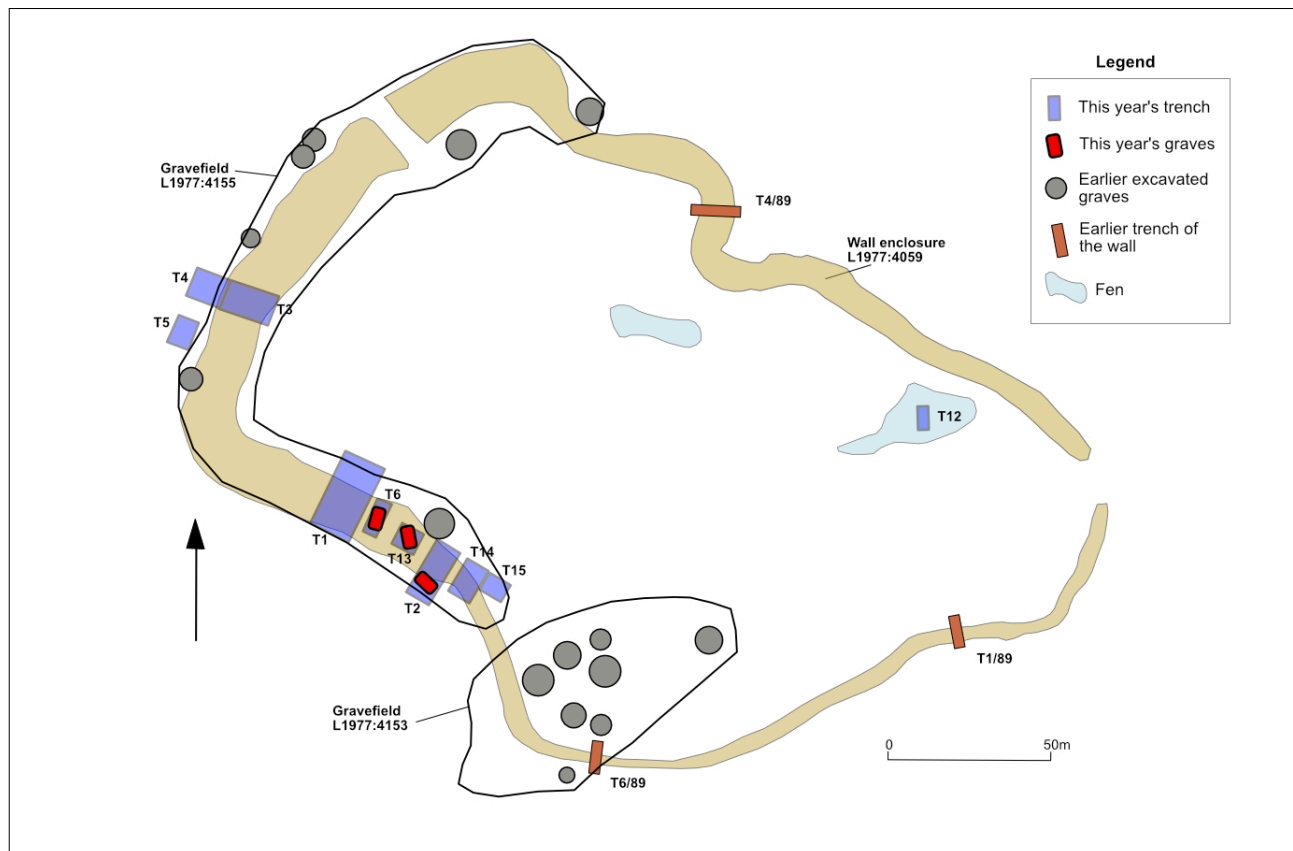


Figure 2. This years excavation was concentrated to the western part of the wall. Notice the difference of size of the western and the souther part of the wall enclosure. All excavated graves marked in the figure.

The wall construction Gudings hill fort is located on a distinct ridge, which extends like a promontory towards south; the highest point is in the central part of the construction with a level of a little more than 5 meters. The surrounding wall is situated along a decline of the ridge at a height of about 5 meters above sea level.

The wall itself, as previously mentioned, splits significantly within different parts of the facility. The thickest embankment construction is on the northern and western sides, then, on the eastern side, it gets thinner and basically becomes only a flat stone packing located on a slope. Towards south, the wall is relatively distinct, but it consists of a thin stone packing which is partly difficult to detect and delineate against surrounding rocks.

There are also sections along the wall where it is impossible to determine if the stones belong to an embankment, or if they are just natural stones deposited along a former beach.

Noteworthy is how well the wall follows the natural height of the plateau, which means that it follows a specific height. This is particularly evident along the eastern side, where the wall meanders forwards and apparently connects to a beach terrace in a way indicating that the wall appears partially of natural origin and look like a wall created by the sea (see figure 2, 3 and 4).

This is quite clear from the three shafts that were dug through the wall in 2018 to get an idea of its structure (see figure 2 for location of the trenches, number 1, 4 and 6). The three trenches show a fairly similar picture, with a flat embankment located at the edge of a terrace and with a width of about 3-5 meters and with a very flat upper surface (see the following figures).

Evident constructions, for example in the form of walled-up/pile-up rims of stones, clear shell walls and other signs of erection of the wall are not visible along the embankment, except a



Figure 3. The Eastern part of the embankment seen from the outside. The wall is very low, laying along the terrace and is about 4 meters wide, but only around 0,2 - 0,3 meters high.

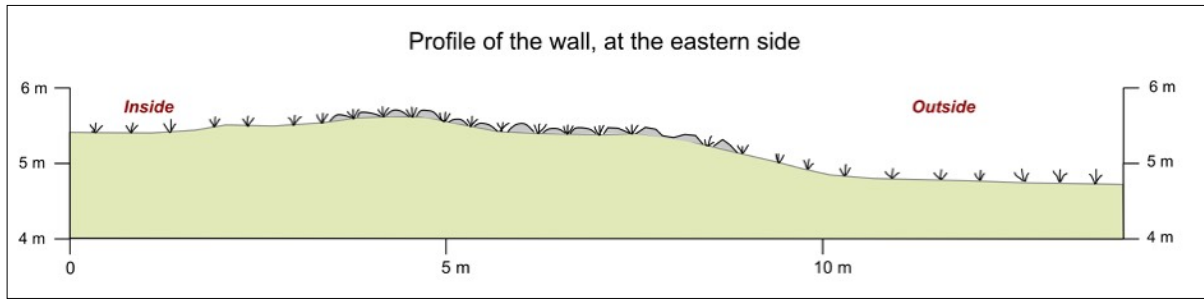


Figure 4. The profile of the wall at the eastern side of the rampart, illustrated in figure 3,

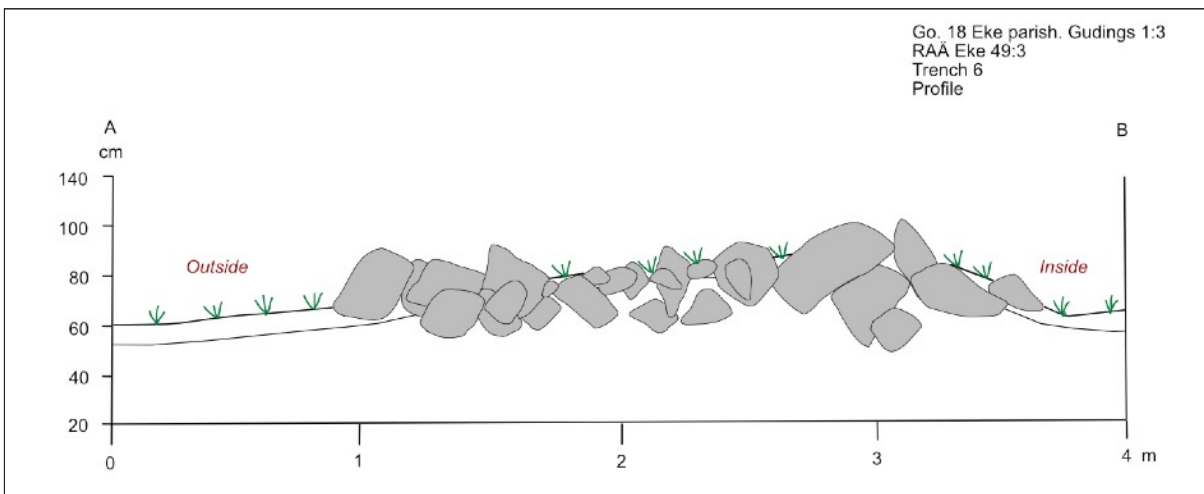
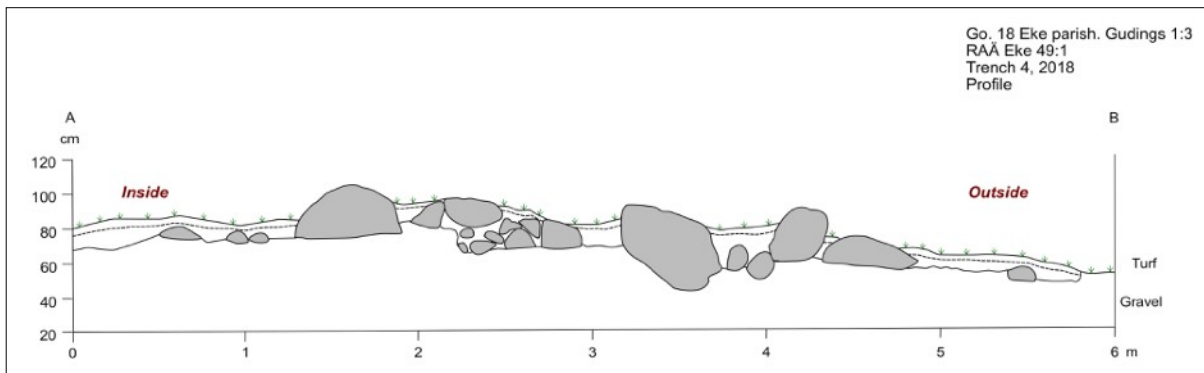
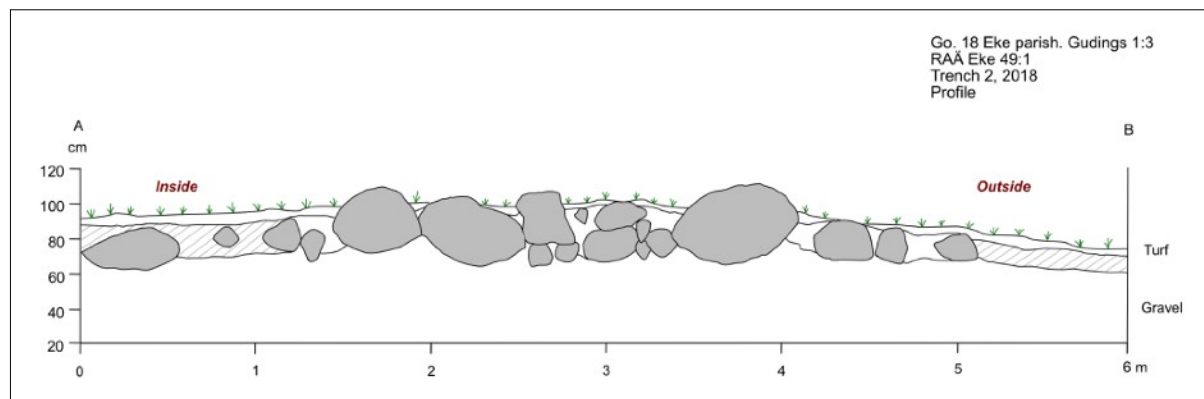


Figure 5. Profile showing the 3 trenches crossing the embankment excavated in 2018. The stones are spread out over a fairly broad area, and the stone packing is rather shallow. Notice the slope to the outside area, giving a clear sign that the stone packings are situated at the border of the terrass.



Figure 6. Vertical photos of trench 6 from 2018 (top) and trench 4 from 2018 (bottom).

probable entrance in the northeastern side and a potential entrance in the western side. It is also important to note that the southeastern end of the wall has a continuation towards south where it forms a boundary between a highest surface on the West and a lower area to the East.

The embankment forms above all a distinct terrace towards east and composes a demarcation of the ridge on which several house remains and other relics from Iron age are present. The majority of these remains have been investigated during field season 2021 and have been dated to Roman Iron Age - Vendel period (report Arendus 2021:26).

The exploration of the embankment during the past summer has been concentrated on the northern and western sides, which are the most marked sides of the wall. The idea of choosing this area came from the fact that this part of the wall was possibly the least affected by recent activities, since the large and overlying stone packing should have protected the lower layers. In other words the chance to answer the question of the wall construction technique was assumed to be higher in this section than in other parts of the embankment.

Another reason for choosing to place the trenches in that area was that it would apparently mean that a certain number of graves could be encountered. It has been supposed that these burials, in agreement with the ones previously investigated around the wall, could belong to the period late Viking Age/Early Middle Ages and thereby indirectly implying an opportunity to dial in the age of the wall itself.

The trenches of this year had a width range between 3 and 5 meters and a length across the wall between 3 and 13 meters. A total of 7 trenches has been excavated directly on the wall; other 3 has been dug in other areas close to the embankment. For a detailed description of the different trenches and constructions encountered, refer to the Second part of the report.

Initially, in order to shed light on the graves and scattered human and animal bones that was found, the survey was concentrated on the wall itself.



Figure 7. The picture shows the western part of the wall, giving a good view of the huge amount of stones in the wall.

The trenches over the embankment have been dug layer by layer until the sterile soil. Essentially the wall consists of three layers of different nature within the various trenches, and basically two layers were in the end recognized to be just one. It thus appeared that the embankment was not built in the same way within the different parts that were examined, even if the main features were the same in all the trenches.

The example of the trenches 3/4

The starting point for the analysis and interpretation of the wall building technique, dating and function can be taken in the trenches 3 and 4, which together built a long trench across the wall in its northern part, where the embankment was larger.

No constructions or interventions have been encountered, which gives a clear picture of the structure of the embankment itself and the re-

lationship to the natural ground level, both under the loose stone packing and outside the wall in the North.

The embankment in trenches 3 and 4 basically consisted of three distinguishable layers, but eventually with two lower ones actually forming parts of the same layer. At the top there was a layer of loose granitic stones, 0.2-0.6 meters in size, without any mutual order; the width of the embankment amounted to 4.5 meters with a height of about 0.5 meters. There was no soil between the stones, and there wasn't any system for placing the stones as well. They formed a loose, imprecise layer of rocks with no apparent order. The layer varied in thickness between 0.3-0.5 meters and formed a slightly convex line across the wall.

Under this layer there was another stratum with smaller stones in compact soil. The stones were mostly 0,2 - 0,3 m large. They were clear-



Figure 8. Profile of trench number 3. The stone wall consists of two layers. On top, there is a loose stone backing of up to 0.5-0.6 meters high, and below that a layer of a bit smaller stones packed in the soil. The dotted line marks the limit between the two layers. Yellow figure marks a piece of a human bone. Notice the bigger stone along the two outer parts of the wall, being a kind of delimitation of the stone packing. It could also be noted that these huge stones are placed on top of other stones, giving a sign of being placed there after some of the stones had been put on top of the bottom layer.

ly packed in slightly dark soil layer, that likely constituted the ancient ground surface. The layer differed clearly from the loose-stones layer above, where the soil was completely absent.

The continuation of this layer of stones developed into a light, sterile clay layer of shore character, to further down into a compact clay layer with elements of isolated stones.

No form of construction has been identified in the bottom of the loose-stones layer, nor in the compact soil level below. On the whole, any kind of construction that could mark an intentionally erected embankment, for example, a shell wall character, couldn't be noted in any of the trenches that have been dug down to the bottom of the stone layer.

In the same way, no wood remains that could conduct to a palisade structure have been found, nor were there any traces of postholes, cultural layers, finds or traces of entropic activity at the bottom of the embankment, and no remains of animal or human bones as well.

However, it could be noted that the upper layer of unfastened stones differed quite marked-

ly between every excavated trench. This layer was not, in other words, uniformly constructed or arranged. This was mainly due to the extensive disturbance of the stone packing, mainly by plundering.

For trenches 3 and 4 it was possible to see that the outer edges of the wall's loose-stones layer were partially delimited by granitic stones, up to 0,7 meters large. These bigger delimiting stones lay in several cases piled up on smaller stones and they built throughout a form of demarcation of the loose-stones packing (the uppermost layer); they were by all accounts added in connection with the grave constructions.

Outside the wall towards north, in proximity of trenches 3-4, there was a hint of a low gravel embankment, piled up by loose collections of larger gray stones that gave the impression of being some kind of construction. However, the archaeological investigation did not provide any evidence of human intervention. The research took to the result that directly under the turf there was a simple filling of gravel with elements of stone, without any traces of cultural intervention whatsoever.



Figure 9. Trench 5 after de-turfing, consisting of a loose layer of stones without any traces of cultural layer or finds, except, that along the side on the right hand, there was a layer on top of the natural wall of fire cracked stones.

Not a single find or construction could be detected inside the investigated area: this low gravel and stone embankment is apparently a beach embankment from the time when the sea reached this level.

Adjacent to Trench 4 was Trench 5, which was laid out over this low outer embankment; it appeared to be a beach embankment with loose gray stones which didn't follow any particular order. It could be noted, however, the presence of a small pit/collection of burnt stones. Unfortunately, it didn't contain soot or charcoal, that means that it couldn't be dated. Considering the general dating of fire cracked stones on Gotland, it normally dates to Bronze Age/Early Iron Age period.

It can thus be noted that the burnt stones was on the crest of the minor shore wall which is located just outside the main wall.

The picture that emerges from Trench 3 and 4 is hence that the embankment within this side of Guding's castle consists at the top of a imposing layer of loosely lying stones without any soil between them and with the rocks size varying considerably, from 0.2 to 0.6 - 0.7 meter of width.

This packing of unfastened stones, that has an inner width of circa 3-4 m, was bounded on the outside at the edges, both inwards and outwards, by irregular rows of larger stones, which have partially been laid on top of the lower layer of stones. These appear to form a sort of framework for the loose stone packing within the trench.

The layer of loosely arranged stones transitioned quite distinctly into a layer of stones that is "packed" in the soil, where the upper part probably constitutes the ancient ground level. The thickness of this stone layer can be estimated at about 0.2-0.3 meters and below this was a light clay layer with single stones, which obviously constitutes an older beach layer.

It was possible to note, not at least in trench 3 and 4, that no traces which could indicate the construction of an earlier wall could be found in the embankment, either in the upper, imposed, stone layer or in the lower, natural stone layer. Nor were there any other remains, except for a part of a probable human arm, a smaller piece of a skull and fragments of three incisors of a cow. The human bones were found at the bottom of the loose stone layer and a portion of the possible tibia has been sent for ¹⁴C dating analysis. No bones that could clearly be attached to the lower layer were thus found.

Applied layers

Comparing the conditions found in Trenches 3 and 4 with the other trenches there are clear similarities, but also sensible differences. To begin with, it can be stated that also in the other trenches a top layer with the same characteristics as the one in trenches 3 and 4 could be found: it consisted of loose stones without contact with soil and with strong variations of size of stones. Furthermore, it could be observed that also in these trenches there was a following sterile level including stones fairly stucked in a clayey layer. Even in these trenches, there were essentially two layers, where the lower, sterile layer transitioned from slight-



Figure 10. Profil of trench number 16, showing the two different layers, the bottom layer of, as a rule, smaller stones stuck in the soil, and on top of this layer, the loose stone packing of stones of varied sizes.

ly darker soil at the top (former soil surface) to a light clay layer at the bottom. Above this layer was therefore the unfastened stone packing positioned at a varied height in the different trenches.

But it can be remarked also that no constructions, remains, wood fragments or cultural layers could be identified in the other trenches either; nothing, therefore, that could be linked to either the upper or lower layer or any other form of wall construction, with the exception, perhaps, of Trench 1. In the latter there was, as it looked like, a row of bigger stones in the middle of the wall, resting directly on the lower sterile layer. However, the interpretation is very uncertain and the supposed row of stones might well depend on how stones were removed during the excavation.

In likeness with trenches 3 and 4 both human and animal bones were encountered in the transition zones between the applied layer and the lower one. For instance, in the western edge of Trench 1, several human bones (in

form of arm bones, fragments of the feet etc) were found. The remarkable thing was that in the same layer, next to the human bones, there were also scattered bones of animals, some apparently of cattle.

It's an interesting relationship that occurs, with both human and animal bones in the same layer, and an essential question concerns whether these different types of bones have the same dating. A fragment of human bone and one from a cow from Trench 1 have been sent for ¹⁴C analysis as a first step. Unfortunately the animal bone resulted to be of a bad quality for the requirements of the analysis, and the dating of the human bone is not ready yet.

Trenches 1 and 6 did not show any clear traces of outer boundaries of the loose stone layer of larger stone, contrary to the case of trenches 3-4. In Trench 13, who hosted a burial in the central part of the wall, it could be noted that here too there was an even stone packing under the loose stone layer on which a severely damaged

skeleton was found. The grave contained some artifacts in form of a penannular brooch, two dress pins and a knife. The artifacts dated the burial to late Viking age.

The circumstances were the same in Trench 6, which hosted a quiet complete skeleton. The trench showed a clear "plundering hole" and thus the upper loose-stones packing was missing in the middle, but it was visible around the hole.

It can therefore be ascertain that the wall basically consists, counting from above, of an unfastened stone packing constructed in different manners along the sections of the embankment; under the packing there is a more compact but smooth and soil-mixed stone packing where the soil towards deeper layers transitions from slightly dark soil to lighter and clay- and silt-mixed soil. This lower layer, as stated above, don't show any traces of human impact: cultural layers, constructions and finds are completely lacking.

The lower layer with the stone packing in the soil can, by all means, be interpreted as a natural seawall, which had apparently functioned as a delimitation of the activities that took place within the enclosure from the Late Bronze Age and onwards. After the activity within the rampart ceased during the Early Iron Age, the area was used in a final stage for burials on and inside the wall, with the graves being covered by extensive layers of stones. The loose stones layer must therefore presumably be seen as an addition in connection with the beginning of the use of bury people in the area during the late Viking Age.

Generally, for all the trenches, it worths noticed that human and animal bones were basically found consistently in the loose-stone packing, or under the bottom of the latter, but never in the lower layer, that was consequently untouched. However there is an exception and it concerns the primary grave in Trench 2, which is apparently buried about 20 cm in the

lower "sterile" layer, but outside the embankment.

The question of dating and interpretation of the wall can thus be seen in the fact that no objects or human traces were found in the lower packed layers, except in one case a single small piece of charcoal, which in itself cannot automatically be correlated to an anthropic action.

Traces of human activity can be seen from the bones, both human and animal kind, that in many cases were encountered in the transition between the upper loose stone packing and the lower possible accumulation of seawall material. Animal bones, often in the form of teeth, were found in Trench 3 and trenches 1, 2, and 14 as well. For Trench 14, it concerns a number of sheep's teeth that emerged in the transition zone between the loose rocks layer and the lower embankment layer. A sample for C14 datings has been sent to the lab.

The burials

Previous years investigation of the graves in the area have only been about the burials which laid at the edges or outside the embankment itself, against the background of the large stone material in the wall. The intention of this year to investigate primarily the wall structure was also in order to get a handle on the presence of graves in the embankment itself and the dating of them. The question was if the burials inside the wall structure could be older than the ones within the hill fort and outside or if they were belonging to the same period.

Having this in mind the trenches were positioned over the sectors where the presence of graves could be guessed, that means over the possible plundering holes. The exception was Trench 1, which was laid out over an area that had no clear plundering hole, with the aim of highlighting the structure of the rampart itself.

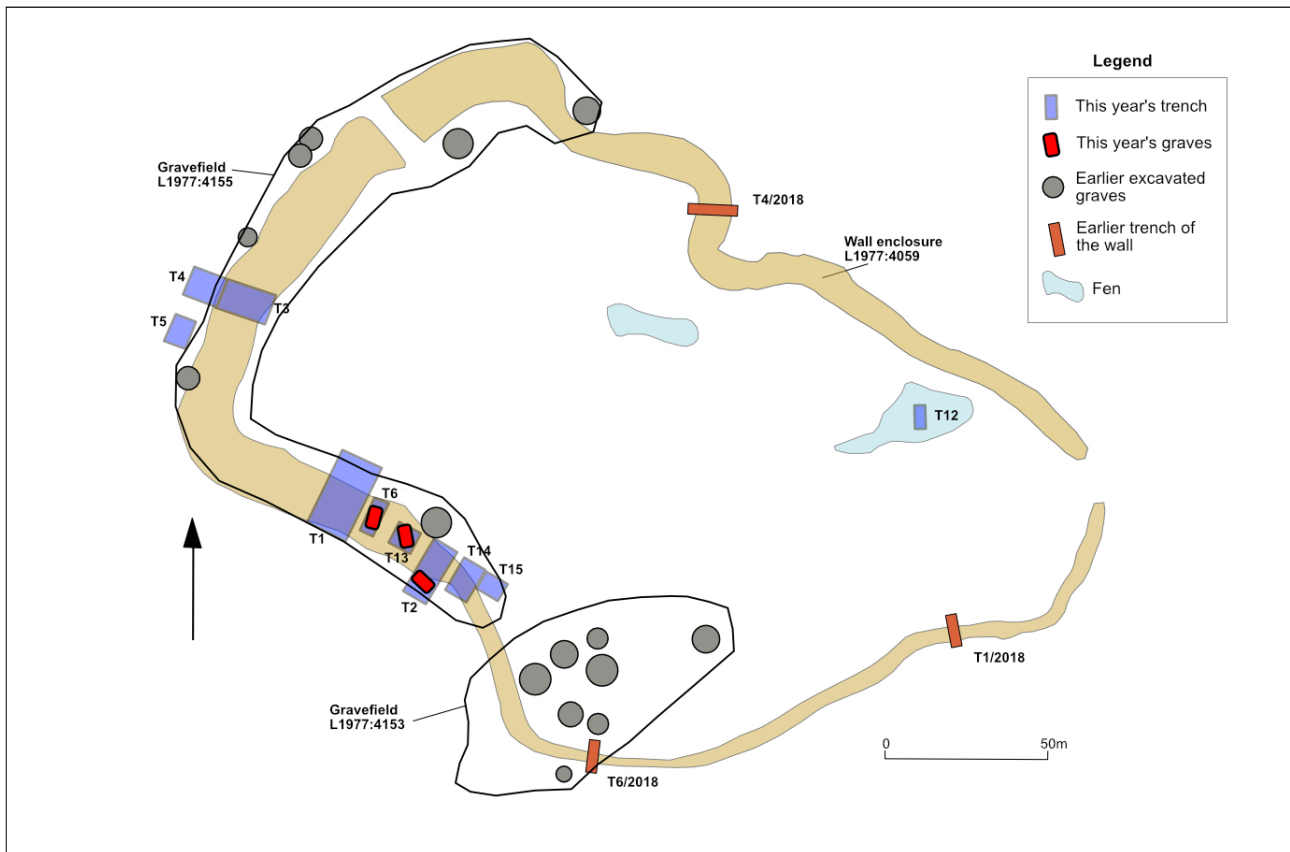


Figure 11. The trenches excavated this year, and the 3 graves discovered in the trenches. The grave in trench number 2 consisted of at least 3 individuals. Besides these more or less well preserved inhumation graves, there were also human bones found in trench 1 as well as in trench 3.

The surveys implied that one grave at the edge of the wall (in Trench 2) and two other graves in the middle of the wall (Trench 6 and 13) were examined. In addition to these graves, it should be noted that human bones were also found in two further trenches (1 and 3). In Trench 1, there were also several animal bones, both sheep and cattle, in direct contact with the bones that were judged to be human.

All of the graves had strong signs of plundering and they were partially heavily moved from the original disposition. In particular this was valid for the grave in Trench 2, that apparently hosted at least three individuals according to the conserved fragments of bones, although it was difficult to separate the different bones to the respective burial.

Figure 12. All the skeleton was extremely destroyed by plundering. The best preserved skeleton, still in a very bad preservation, was from trench 6; a female grave.



The grave in Trench 13 was quite disturbed too, and only the upper body parts of the skeleton were left, together with the above mentioned artifacts.

The only skeleton that was relatively well preserved was the one in Trench 6 (figure 12). The individual buried was a woman of ca 30 years old. The skeleton laid in a rather irregular position, with the cranium positioned higher in the grave section, the middle body quite lower respect the cranium and the legs rather high, as if the deceased had been laid on a very uneven surface, namely directly on the seawall.

Graves' position in the wall

If the interpretation of the wall and the burials are weighed together, it can be concluded that the remains of burials found in the embankment itself were obviously placed on the surface of the seawall along the ridge, and then covered with a layer of stone.

It has not been possible to note in any of the excavated trenches any kind of construction that could be connected to the lower stone packing, for example in the form of post holes, clear foundation walls, culture layers or other types of constructions.

The encountered skeletons and rest of skeletons have been found in the transition zone between the loose stone packing and the lower level consisting mainly of natural sea wall. In other words, by all accounts, the upper loose stone layer is completely connected with the burials and form a kind of grave construction.

A compilation based on the height above sea level of the different trenches dug through the wall, including the three trenches dug in 2018, shows both a similar construction of the embankment and basically to the same level above sea level, which is logical if it is a contemporary seawall formed at a given time.

Within the southern part of the hill fort, that didn't host any grave, the wall is very flat, with a width of 4-5 meters and generally only

one layer of stones whose height rarely exceeds 0.2-0.3 meters. The embankment is thus clearly located on a slope, especially in the eastern part towards the low-lying area (see figures 3, 4, 5 and 6).

It could be observed that the burials included in the wall itself were, more or less, positioned directly on the sea wall and then covered up with the layer of stones. Bones from human as well as animal bones were regularly found towards the bottom of the upper loose stones layer and never in the lower layer, which is considered the natural seawall.

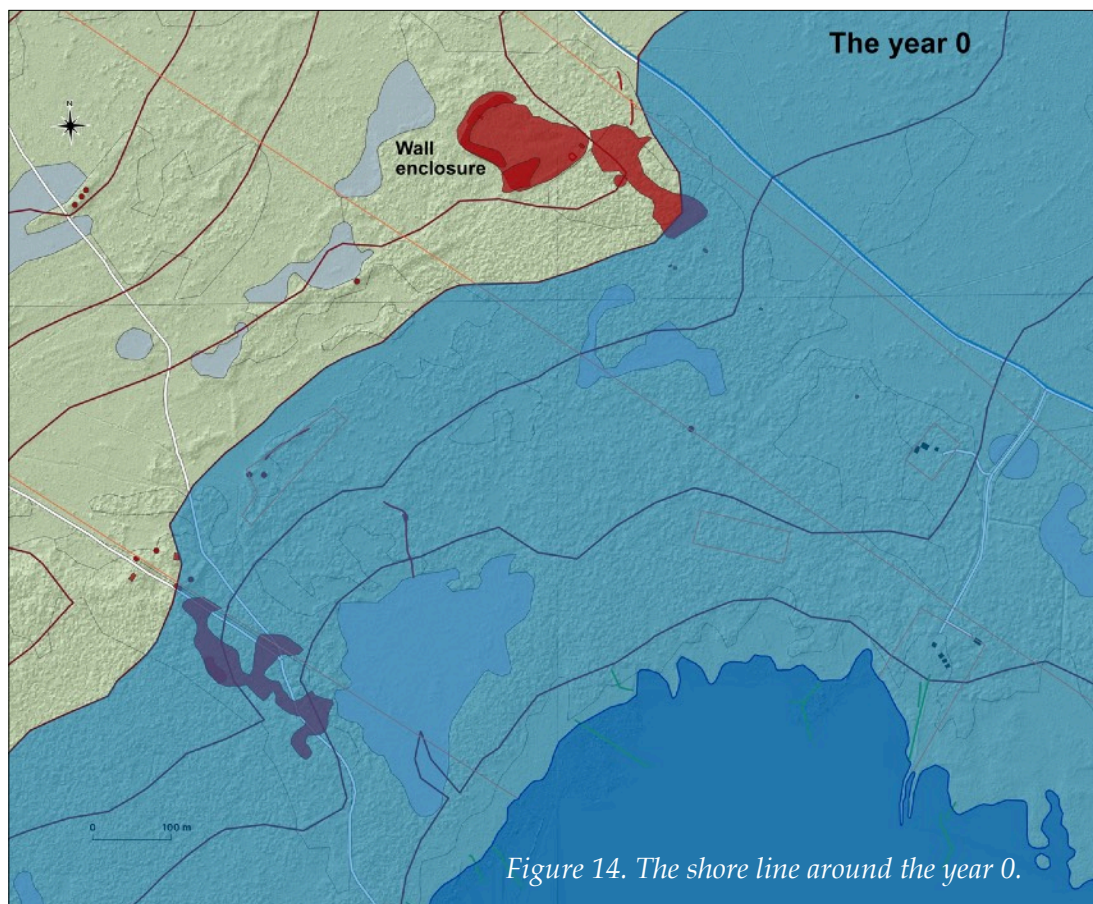
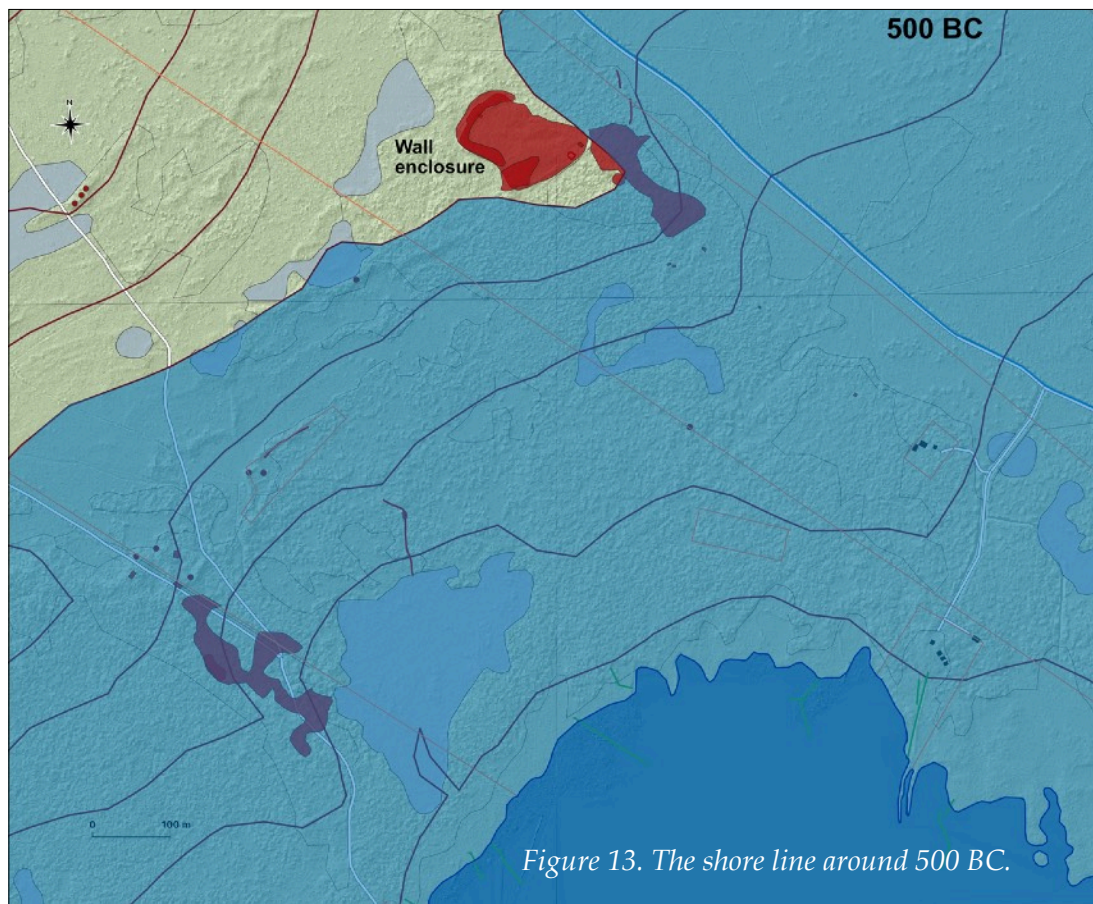
It could also be added that the human bone found in the middle of trench 3 laid at the bottom of the loose stone packing at a level of 5,45 meters above the sea level. The situation is almost the same in Trench 1, where the human bones encountered were at the top of the compact beach layer below at a level of 5,18-5,20 meters above sea level.

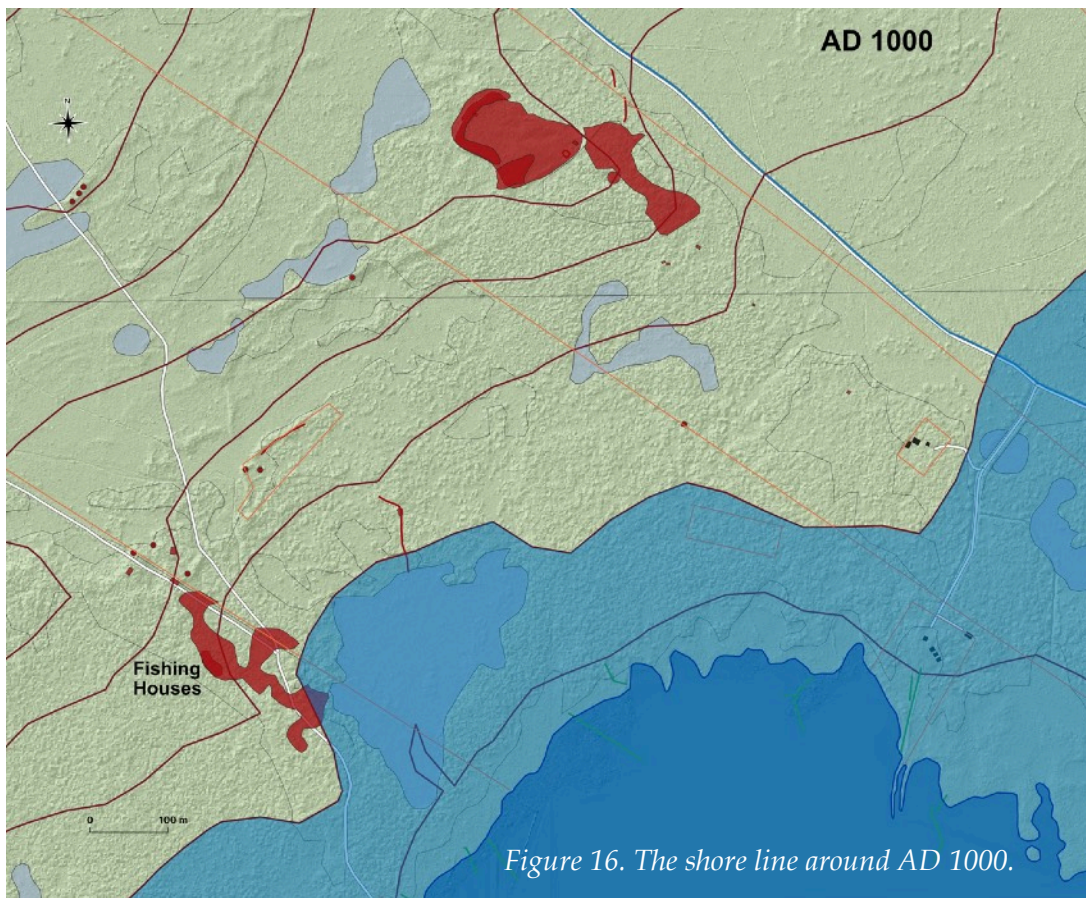
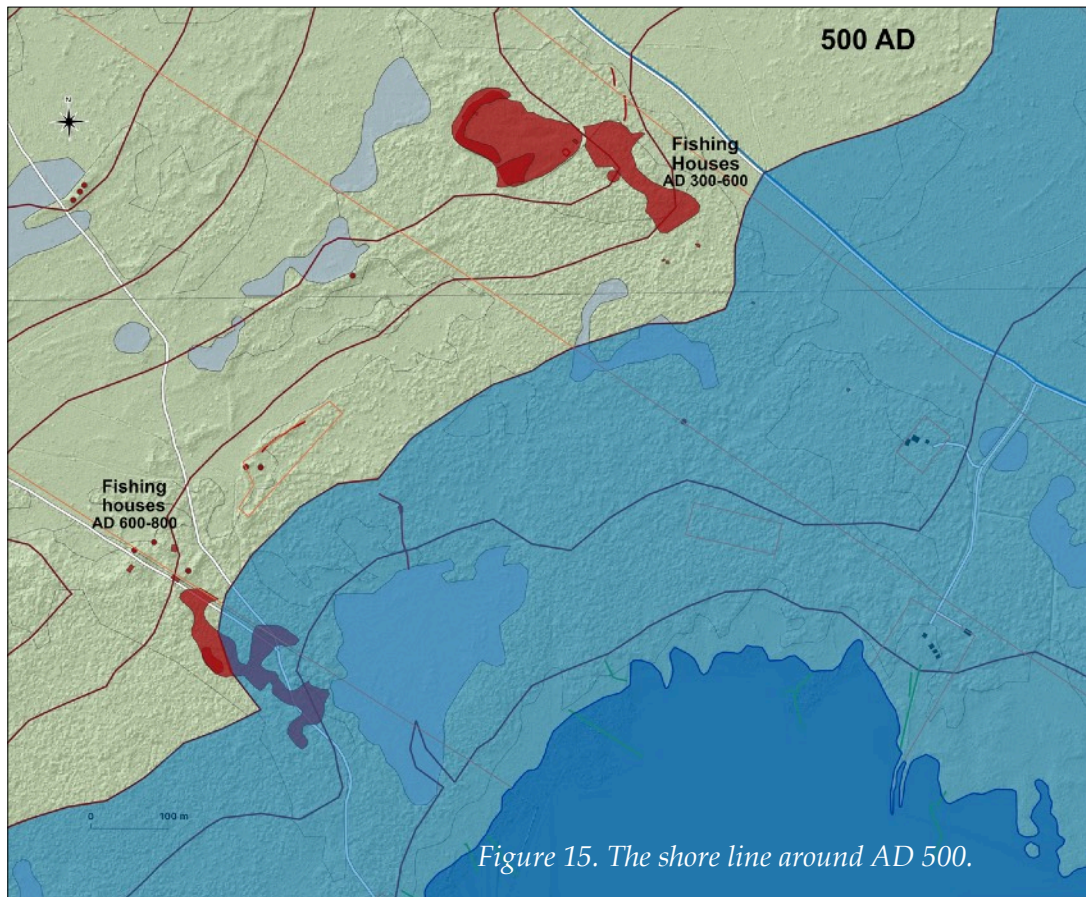
Interpretation

The investigations in Gudings hill fort have shown that there are basically two different time prospective of use of this specific area.

The first sign of human activity concerned the wall enclosure bound with diffuse traces of construction in the form of single postholes, hearths and other smaller constructions, are dated mainly to the Late Bronze Age-Early Iron Age time span.

At this time, the water level stood a few meters below the edge of the embankment and the site formed a clear promotor out into the surrounding sea (see figures on the following pages about the change of sea level over time). The promotor has formed a height in the otherwise very flat landscape and with a direct connection to the former beach. Some signs, in the form of an area cleaned from stones, suggest that the point of contact for boats has been on the south-east side of the embankment where a surface of this kind is visible. On the





southern side of the cleared surface and out into the ancient water zone, there is an oblong rock cairn consisting of stones apparently picked up from the adjacent area.

Over the time, and with a shallowing of the immediate area, the harbor site itself was moved further towards the South, about a couple of hundred meters, where the dating corresponds to the Early Iron Age, up to the seventh century, illustrates a continued activity. After the seventh century, the activity on the site apparently ceased to be used, as a result of the land rise, and the activities moved about 600 meters further to the West (see reports from the project for the years 2019 and 2020).

The area within the wall construction would then lie deserted for about 400 years, before being in use again as a burial place in the end of the Viking Age. The burials were positioned within the western and northern sectors of the area and the old embankment was used as a

burial ground, which means building on the wall with extensive stone material.

In total, there are probably around a hundred buried in the hill fort.

Until now, some 25 individuals have been encountered, in addition to a huge amount of dispersed human bones. The burials are from late Viking Age - Early Middle Ages; the oldest appear to be buried in the northwestern part and the youngest in the southern burial field, where some of them are from Early Middle Ages.

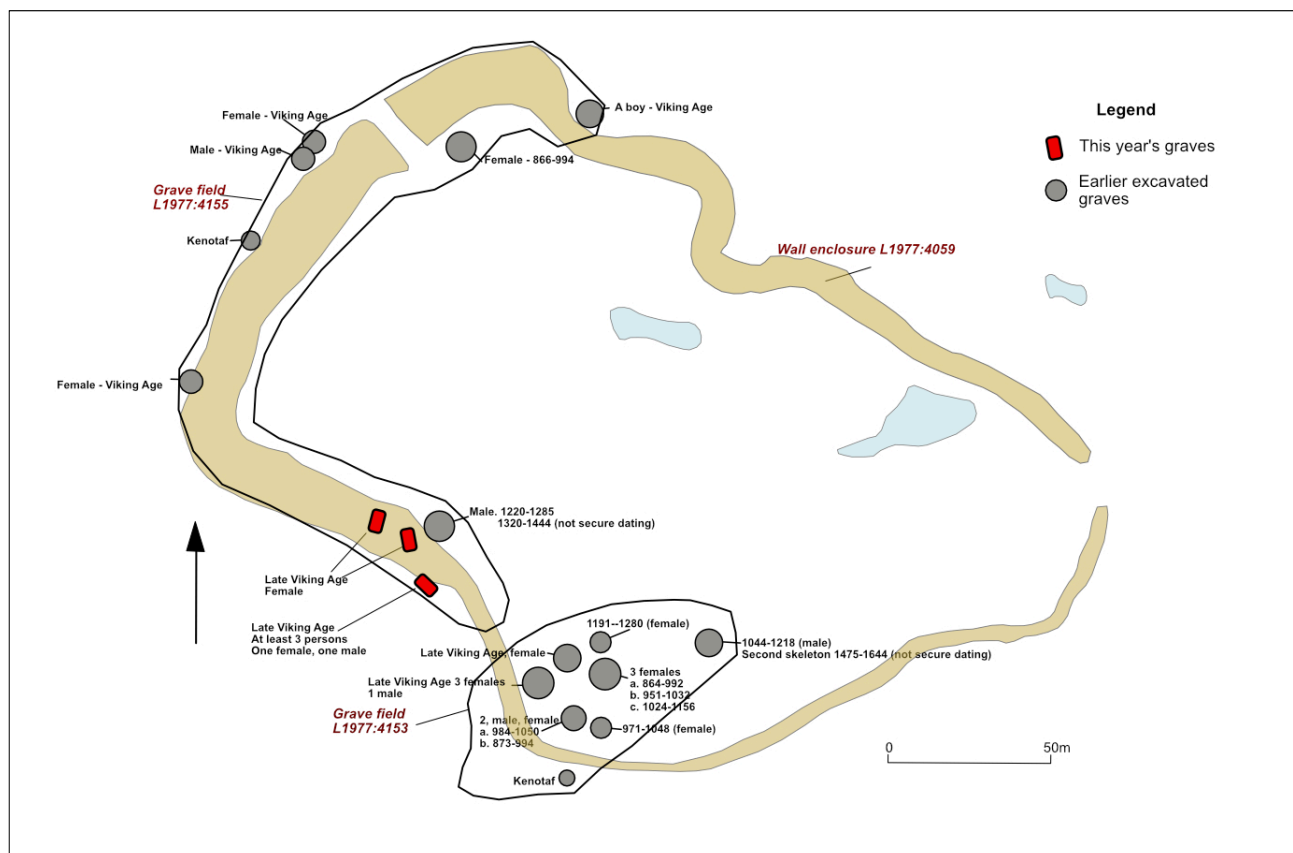


Figure 17. Datings of the graves, either by C14 or by the artifacts found in the graves.

Investigations in Grötlingbo parish

The question of the history repeating itself

An essential question, that has become more and more central in the project *The Connecting Point* over the time, concern the issue if the situation in Eke is unique or if the history repeat itself along the Gotlandic coast generally and above all specifically along adjacent coastal sections in the south-eastern part of Gotland. This means if the situation at Eke is to be seen as characteristic of the Gotland coast in general and not as a unique phenomenon.

Regarding the coastal landscape in Eke, as expressed in the form of flat, uninhabited coastal areas, it is possible to establish quickly (with the help of the maps) that the situation with this open uninhabited grazing landscape also exists within a larger coastline along this part of Gotland. It can be noted also in the area between Grötlingbo in the West and Burs in the East and possibly into the western coastal area of När parish.

This is then about a type of landscape that has apparently never been used for permanent living and cultivation. In addition the ground is of poor quality, with a thin layer of soil and a big component of stones deposited after the last Ice Age.

The distribution of the ancient remains along the coast, from current coastal location, up to the levels of the Bronze Age cairns at about 6-7 meters above sea level, can be found within this entire coastline.

Not at least is it possible to observe the numerous occurrences of stones with grinding groves and grinding surfaces, consistently located at a height above the sea level between 2 and 3 meters. It is interesting to remark also, exactly like the case of Eke, to note the close spatial connection between the areas with stones with grinding groves and grinding surfaces and the occurrence of ancient fishing settlements.

Seen in an overall spatial perspective, it is quite evident that the picture visible in Eke has its direct correspondence with several localities along the coast from Grötlingbo to Burs.

The wall enclosure at Ronnings

The place that has been investigated closer this year, as well as the continuation of the excavation at Gudings hill fort in Eke, concerned the wall enclosure at Ronnings in current Eke parish (previously Grötlingbo parish).

The structure as such is very much a direct parallel with the wall enclosure Gudings, both regarding dimensions and construction. This



Figur 17 - At the centre of the picture there is Gudings hill fort. The open and unoccupied landscape cover an area that start in the eastern part in Grötlingbo parish and continues towards East (to the left in the picture) past Ronehamn, which emerges in the left corner of the photo, to Burs parish for a long portion of territory to the west.

embankment also consists of a very strong stone wall in the northwestern part and an almost non-existent wall in the southern part. Both the enclosures are positioned at the same level above the sea and they are almost identical regarding the area inside the rampart.

In similarity with the wall enclosure in Eke there are probably some graves within the wall in the northwestern part. In addition, in the same part of the embankment, there are some internal constructions adjacent to the wall in the form of rows of stones, gentle plateaus and small unclear stone cairns.

With the intent to illuminate the question if the situation is the same at Ronnings and at Gudings a small excavation was carried out during the summer; the investigation concerned a limited area in the inner area of the enclosure.

The excavation, that lasted one week, has been concentrated in part to two small stone piles on the inside of the wall, in the nearby of a supposed entrance to the enclosure (trench 9 and 10). The issue was whether these stone piles were actually graves, in the same way as the ones in Eke and perhaps with the same dating.

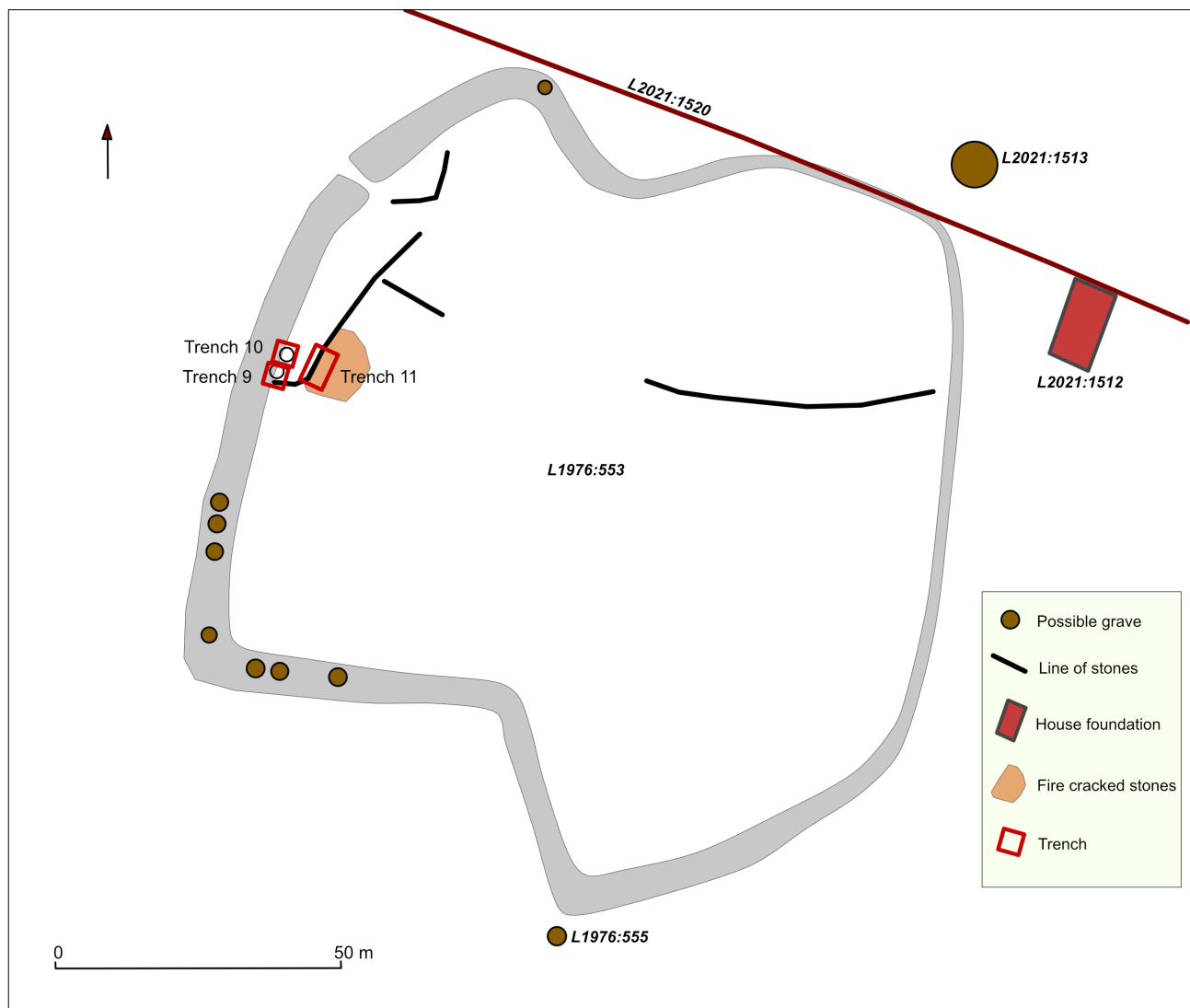


Figure 18. The wall enclosure at Ronnings, Grötlingbo parish (nowadays Eke parish). The size and form is more or less the same as in Eke, with an opening in the North. The excavation carried out along the western side of the wall, south of the entrance. The house foundation in the Northeast is probably from historical time.

The other part of the excavation in Ronnings affected a law plateau that was partially delimited by a clear row of stones (trench 11). Before the excavation of this plateau, which was extended only on a small surface, black soil with visible elements of soot was clearly visible in the ground surface.

The supposed graves

The possible graves were constituted by two rounded stone piles located directly next to the southern side (inside) of the wall. In particular the construction in Trench 9 was clearly grave-like through an almost round shape and a stone packing of two/three layers. No traces of burials, or for that part of any cultural layer, could though be noted at all.

Neither the structure in Trench 10, the other possible grave, contained traces of grave construction or cultural layer. This facility was more diffuse in shape than the one in Trench 9.

In other words, it could be established that the two investigated remains didn't constituted graves and that there were no traces whatsoever of human impact. Both constructions rested in a layer of light clay-mixed soil of the nature of older shore layers.

However, this doesn't exclude that the remains found centrally in the wall enclosure further south could possibly be graves, in line with the conditions in the wall in Eke. So, further archaeological investigations are required to clarify this issue.

Traces of the inhabited area

The third trench within the enclosure was Trench 11, which measured 3x2 meters, disposed about 5 meters into the area seen from the inner edge of the embankment. There was no extensive layer of turf here, and directly under the thin peat layer a heavily soot-colored soil layer with abundant fire-cracked stones emerged. This layer was delimited on the western side by a distinct row of granite stones, consisting in 0,3-0,6 meters large stones.



Figure 19. Trench 9, with a clearly built up stone packing, almost round. After de-turfing.



Figure 20. Trench 10. A diffuse stone packing, not clearly round, but well outside the wall.

The stones row continued far away outside the currently survey surface and it could be followed towards North for a 50 meters long lane. The row of stones run mainly parallel to the major embankment.

The rather compact fire-cracked stones layer (the total amount of fire-cracked stones was close to 300 liters, encountered inside the trench borders) was ca 0,3 meters thick, blended with soot and partially with charcoal. Some marked construction couldn't be noted, except the stone row mentioned above along the western side of the trench.

The relation between the section with the fire-cracked stones and the row of stones running north-south is not completely clear, but most likely the stone row itself is not connected directly to the culture layer but is older.

About forty fragments of ceramic, both of finer, blackish ware and of rougher, more reddish-brown ware, have been found mixed with the fire-cracked stones (figure 23 the following side). The ceramic appeared to represent at least three different vessels with different characteristics. A couple of bigger rim pieces has been identified, where one has been calculated to be part of a pot with a mouth opening of about 30 cm.



Figure 21. Trench 11 after excavation. The line of stone clearly seen in the upper part of the trench. Part of the layer of fire cracked stone still visible in the right part of the trench.

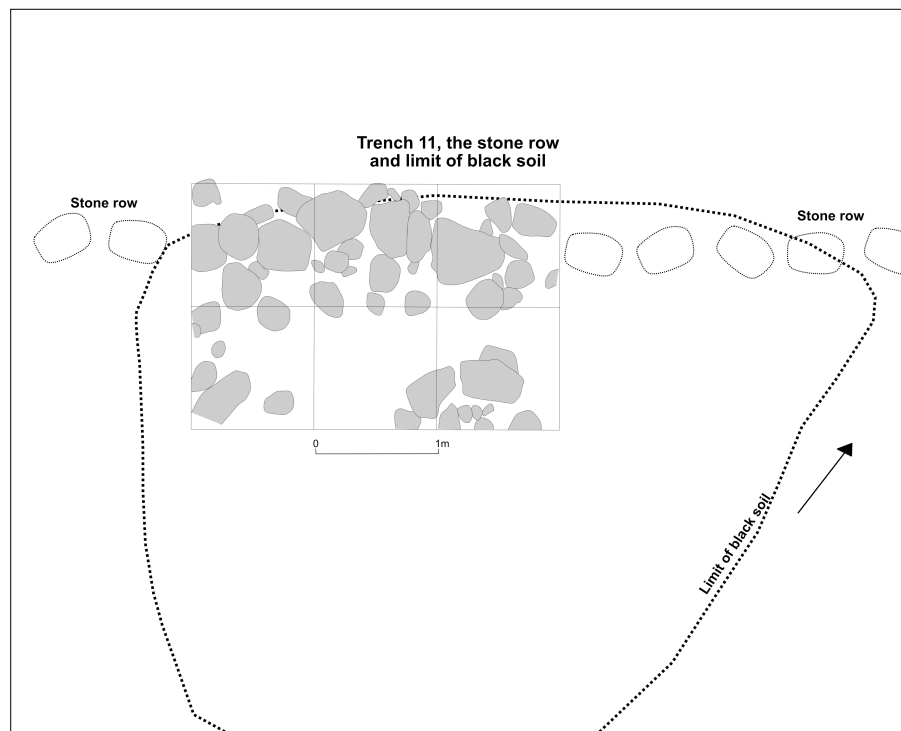


Figure 22. The total calculated area of the black soil and the continuation of the line of stones.

Besides charcoal, a little quantity of burnt bones (indefinable) and ceramic, no other finds have been encountered. The ^{14}C analysis on the charcoal sample gave a result of dating be-



Figur 23. Two types of ceramic was found in the trench. A black, thin ware of a pot of good quality (to the left) and a more rough type (to the right).

longing to Vendel Period (AD 641-690). Samples have also been submitted for a dating of the burnt bones to get a result that permit to compare the datings in the same layer of fire-cracked stones.

Interpretation

The investigation of this year within the wall enclosure at Ronnings has not been able to verify the idea of the presence of graves in and next to the rampart in the same way as in Eke. However, this case cannot be excluded, not at least regarding the clearest traces of possible graves that can be found in the southwestern part of the enclosure and then in the form of apparently evident plundering holes in the wall, in the same way that have been covered in the embankment complex Gudings slott.

There is even the case of a previously registered grave in the southern part of the area, positioned directly outside the wall (L1976:555). Only the continuation of the archaeological investigations can give an answer if the wall enclosure at Ronnings hosts graves from Early Iron Age, in line with the situation in the parallel Gudings hill fort.

The fire-cracked stone packing that was encountered this year in Ronnings has not its counterpart in Gudings. The construction itself is difficult to interpret, the little extension investigated gave no clues to its function or its connection with the embankment itself either to the other traces of remains in the western part of the enclosed area.

However, it is possible to ascertain that the dating of the fire-cracked stone packing is in line with the collocation in time of other sites in the nearby: the investigated house foundations in the corresponding environment at the fishing hamlet Rödstajn in Rone parish (see Report 2021), and the house remains in connection to Bybod, west to Gudings hill fort.

However, it is clear that further archaeological investigations will be required in both Rone and in the area of Ronnings enclosure in order to illuminate more clearly the hypothesis of a temporally similar development along the entire south-eastern coastline of Gotland.

Conclusions and perspectives

The purpose with 2022 investigations

This year's archaeological contribution inside the frame of *The Connecting Point* project had two main purposes. In one case, it was about getting an understanding of the timing, development and function of the wall construction in the Eke enclosure. The other aim was, with a limited excavation in the wall enclosure at Ronnings in the previously Grötlingbo parish, to find out if also here it was possible to encounter Viking age graves in connection with the wall itself, meaning that the history of Eke repeat itself along the coast.

To give and answer to the first question extensive large trenches have been positioned across the wall in the northwestern part of the enclosure in Eke, which is the most impressive section of the wall. The intention was that the possibilities to find unaffected layers, and as well eventual constructions at the bottom of the wall, were higher here.

Another purpose for the excavation of the trenchers within this area of the enclosure was to clarify if there were also graves in the rampart itself, something that had not previously been established, although a large number of plundering holes have suggested that this is the case.

The issue was also to find out if these burials would be different at a temporal level from the ones already investigated outside and in connection with the wall which have been dated to Late Viking Age-Early Middle Ages.

About the embankment Gudings slott

The investigation of the wall gave a clear picture, revealing that in the north-west it basically consists of two separate layers. At the bottom there is a natural seawall consisting of stones and clayey soil without signs of any constructions or cultural layers or, at this level, graves. On top of this layer's boundary there

was a fairly massive stratum of unfastened stones that host a large number of burials.

The superstructure of stones has probably to be interpreted as a funerary monument which has covered a big portion of the northwestern part of the underlying seawall.

This "grave monument", nowadays strongly affected by plundering and ragging, originally consisted probably of a vaulted stone rampart on top of the original seawall, surrounded on both sides by a row of massive stones, like a sort of delimitation of the monument at the edges of the wall.

This kind of construction was only visible within the part of the embankment that hosted graves. The eastern and south-eastern parts of the embankment didn't contain any grave and here there wasn't any superstructure formed by loose stones, but only a more or less clear embankment with scattered stones in the soil, more of a natural beach wall.

Throughout the wall to the north-west the presence of evident cavities clearly indicated extensive tentatives of plundering. Several of these holes were included in the excavated trenches through the embankment and in two of these cavities skeletons were found, more or less preserved. It can therefore be stated that there are burials centrally in the wall. Even in the trenches that did not contain any actual complete skeletons, human and animal bones were consistently found.

In a severely damaged grave (13/22), where only parts of the upper body and skull were found, a little amount of items of ornaments in the form of two dress pin, a knife and a small penannular brooch have been found. The artifacts fit into a type that belong to the later Viking Age. ¹⁴C samples from the burials have been submitted for a more secure dating of the burials.

So far, there is nothing that contradicts the interpretation that there is no more pronounced

difference in dating between those buried at the edge of the wall and the ones buried in the wall itself. It concerns likely a period of burials that extends over a relatively short duration, estimated at about 200 years.

Ronnings wall enclosure

The second issue that with this year's investigation was intended to be solved was if also Ronnings wall enclosure hosted graves from Viking Age in the same way that occurs within Gudings hill fort in Eke.

The survey was very limited in extension and concerned two small grave-like stone heaps, next to the inner side of the wall. In addition a smaller trench was set up over a gentle plateau within the enclosure, at the edge of a marked stone line.

It turned out that the two stone piles were not graves. There were no traces what so ever of anthropic activity or other indications of the presence of a construction, so the issue is if these grave-like remains have to be interpreted as natural, then mostly as a result of changes in the coastal environment during the time that the water was at this level.

On the contrary, the investigated area on the little plateau turned out to expose a rather consistent fire-cracked stones layer, with an abundant component of ceramic and charcoal as well as occasional burnt bones. However, the small scale of the investigation (3x2 meters large surface) gave no information about the nature of the construction. It was possible to observe that the fire-cracked stones layer continued far beyond the investigated area (figure 22).

The radiocarbon analysis of the charcoal sample from the construction indicated, somehow unexpectedly, a Vendel period dating. The ceramic didn't show any ornamentation, which makes it difficult to give a more accurate collocation in time, but its shape and quality can very likely be associated to Vendel time.

To obtain a better comprehension regarding the dating, a new sample consisting of burnt bones has been sent for analysis. In fact the bones were found in small quantities inside the trench, mixed with the charcoal.

It has not been possible to estimate if the bones were from human origin or of animal nature. Furthermore, the bones remains were way too small and fragmented for an osteological analyses. The result from the ¹⁴C dating is not ready still.

A chronological perspective

This year fieldwork was the fifth year in a row in which archaeological investigations have been carried out in Eke. The picture of history has become increasingly clear over the years, and today it is possible to draw an overall description of the development over time, from the oldest stage in form of traces of activities within Gudings hill fort, to the present-day fishing village of Djaupkrok.

It turned out to be an activity clearly connected to the coast which, according to the land elevation, has been relocated on several occasions. The natural geographical situation has been of decisive importance in a way that the activities consistently take place on a promotor or a marked plateau with direct contact with the sea. The flat shores have been a problem to get through by boat due to the large number of rocks located in the beach area.



Figure 24. The flat coast outside Eke full of stones.

Following the chronological historical course the oldest activities can be found just over the 5 meters above the sea level on a clear promontory out into the ancient sea location. These activities are linked to the height where the Gudings wall enclosure is located. The oldest dates are in the time range 800-500 BC.

With the receding sea, the activity on the coast, visible in the form of seafront huts and other constructions, has by time been moved further out on the promontory. The dating of constructions here, in the form of huts and a possible graves, shows a use during the period of the Roman Iron Age up to the seventh century.

Towards the end of this period the shore outside the area was too shallow, which is why the activities were moved about 600 meters further west.

A small amount of houses and a tower have been investigated in this later area. The occupation is here divided in two spots, initially in a location towards northeast. A tower and several huts were found here, which establish the activities at the period c. 600 to 800 AD; whereupon the activities were moved once more approximately 200 meters further to the Southwest.

The investigation in this section have demonstrate a dating to a period included between ca

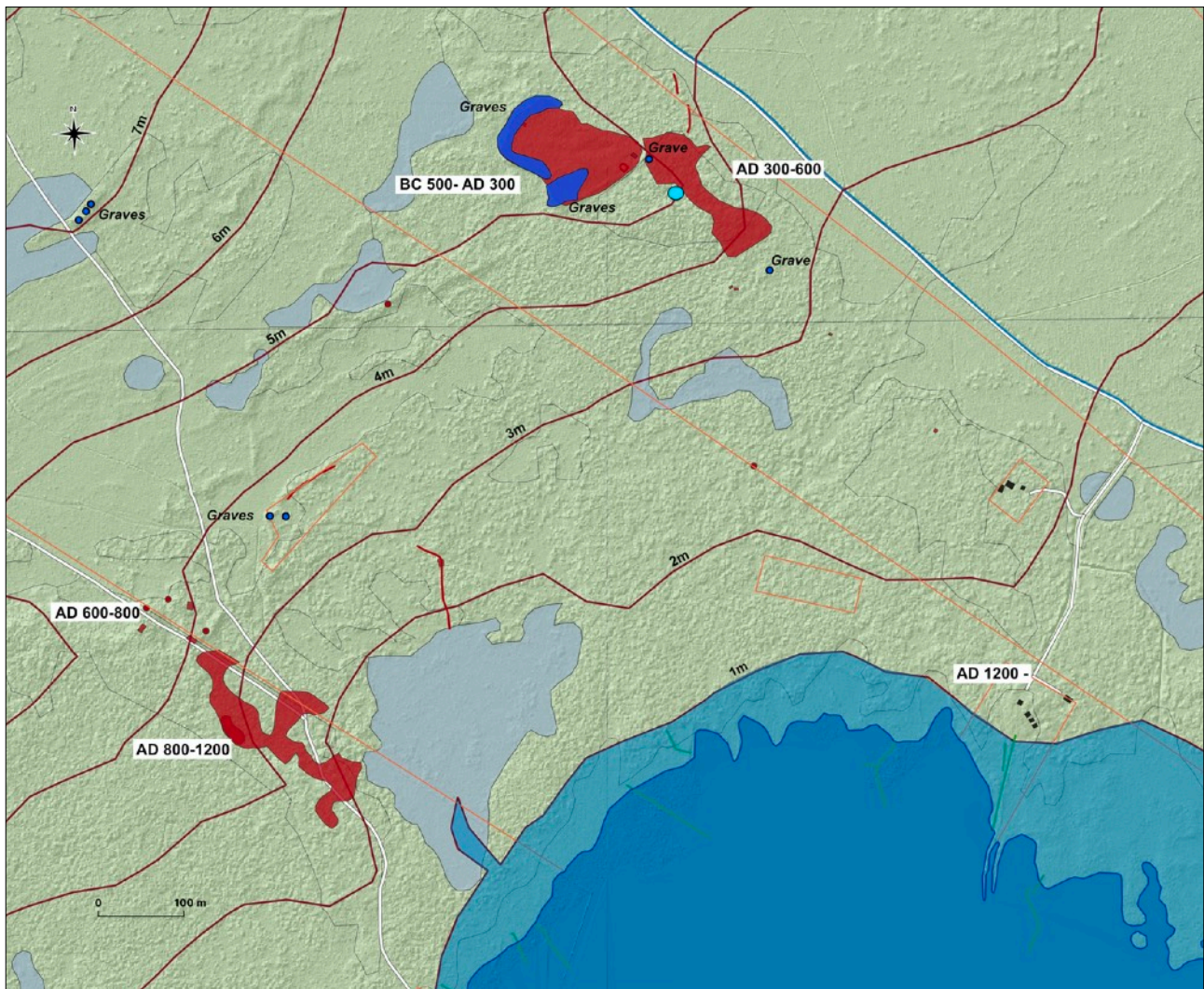


Figure 25. The fishing huts were relocated over time depending on the land rise. The settlement always connected directly to the sea, always located to an area of a certain height above the flat landscape.

800 AD until 1200 AD, where the later dating is based on the presence of well preserved imported pottery.

At some point during the course of the Middle Ages, the occupation was moved once more to the current location of the fishing village Djaupkrok. A question in this context that is difficult to assess is whether the fishing location at Bybod was discerned on this occasion, or if Bybod was added lately in time.

Summing up, it is possible to describe the coast activities within the area like a serie of movements of the inhabited centre just as the sea recedes. The fact that the ancient remains in the area are so well connected to the coast on different occasions create an interesting opportunity to be able to date remains based on the height above sea level, following the knowledge of the speed of land elevation. In the present case, there is a very clear connection between the height above sea level and the age of the facilities.

This possibility apparently only concerns the type of remains that functionally had a direct connection with the coast. It does not concern, for example, agricultural settlements, or areas located inland on Gotland. The case includes Bronze Age cairns, which are located on the ancient coast at a level of approximately 6-7 meters in this part of Gotland, and stones with grinding grooves, situated on the coast between 2 and 3 meters above sea level, which points to a dating between 500-1000 AD.

An essential argument during the carrying through of the project has been whether the conditions in Eke at Guding hill fort are a unique phenomenon or, on the contrary, if the picture with a coastal activity from the early Iron Age to the present, can be found elsewhere along the current coastline, and, more generally, if it basically looks the same around Gotland's coasts overall.

Within the frame of the project only a minor number of trial investigations have been carri-

ed out in the corresponding areas in Ronnings (former Grötlingbo parish) and the fishing village Rödstajn in Rone parish. The results obtained so far from these test excavations have shown that it's very likely that the story repeats itself along the entire coastal stretch and that what it was possible to uncover in Eke is not a unique story.

It has also been shown that conditions appear to be similar outside the coastal stretch that has been included in the project, ie the parishes of Rone, Eke and the eastern part of Grötlingbo. It has been noted that the conditions in the parish of Burs, in connection with Bandlundeviken, have clear indications that a couple of the interpreted burial fields close to the beach are in fact areas with huts from the Iron Age.

However, it should be noted that the investigations so far have been few within the parallel sites, and that further studies in these areas would be required to obtain more scientifically supporting material for the interpretation.

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Administrative information

Researcher: Arendus AB

County Administrative Board diary number: 431-193-2022

Type of research: Arkeologisk forskningsundersökning

Course of the field research: 27 juni-30 juli 2022

Region: Gotland

Municipality: Gotland

Parish: Eke

Estate: Eke Gudings 1:3, Grötlingbo Ronnings 1:3

RAÄ:nummer: L1977:4059, L1977:4155; L1976:553.

Project leader: Doc. Dan Carlsson

Report manager: Dan Carlsson, Alice Rosa Brusin, Cherie Larkin

Coordinate system: SWEREF 99TM

Measuring equipment: Teodolite, manual GPS and RTK/GPS.

Finds recovering and conservation via the Kiruna Art Conservation Foundation

Trench and construction descriptions

I det följande görs en detaljerad beskrivning och redovisning av samtliga undersökta anläggningar under fältsäsongen 2022, upplagda på de lämningar som har berörts inom socknarna Eke och Grötlingbo (numera Eke socken).

Tyngdpunkten i årets undersökningar har legat på Eke socken, med begränsade provundersökningar inom Grötlingbo socken. Undersökningarna i Grötlingbo begränsades till en fornlämning (Ronnings wall-enclosure) och under en vecka.

Grötlingbo socken

Inom Grötlingbo socken kom att undersökas ett par möjliga gravar inom vallanläggningen och därtill en yta som täckte en del av en svag platå med mörk

jord och i kanten av en tydlig rad av större stenar. Vallanläggningen är upptagen som hillfort i fornminnesregistret (L1976:553).

Eke socken

De mest omfattande undersökningarna under årets fältsäsong kom att handla om the rampart at Gudings slott, med syftet att klarlägga frågan om vallens tidsställning, konstruktion och funktion. Därtill syftade undersökningarna i Eke också till att klara ut om det även i själva vallen finns gravar.

Redovisningen är upplagd i nummerordning utgående från schakten.

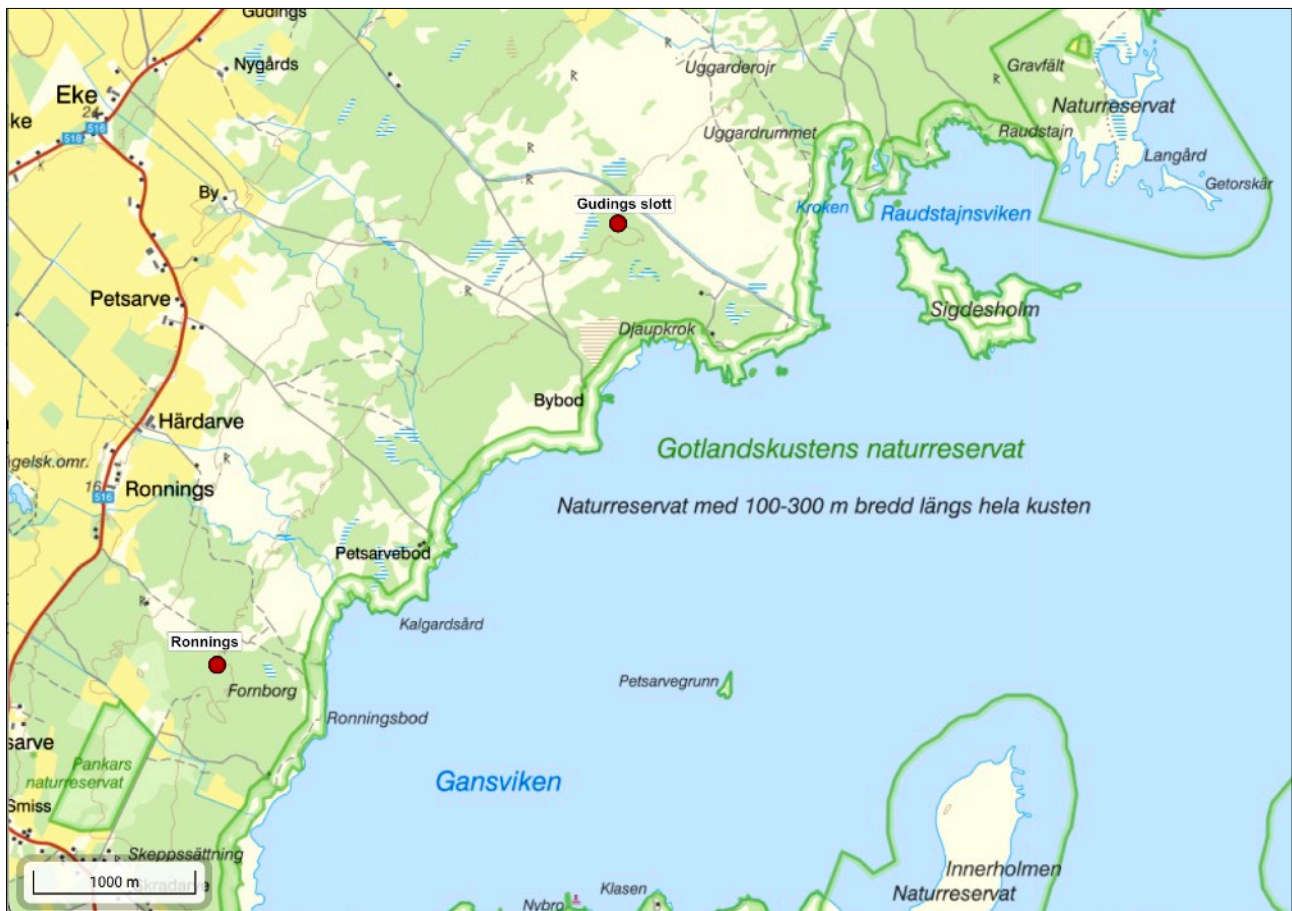


Figure 26. Excavations during 2022 has been carried out at two different locations marked with a red dot in the map.

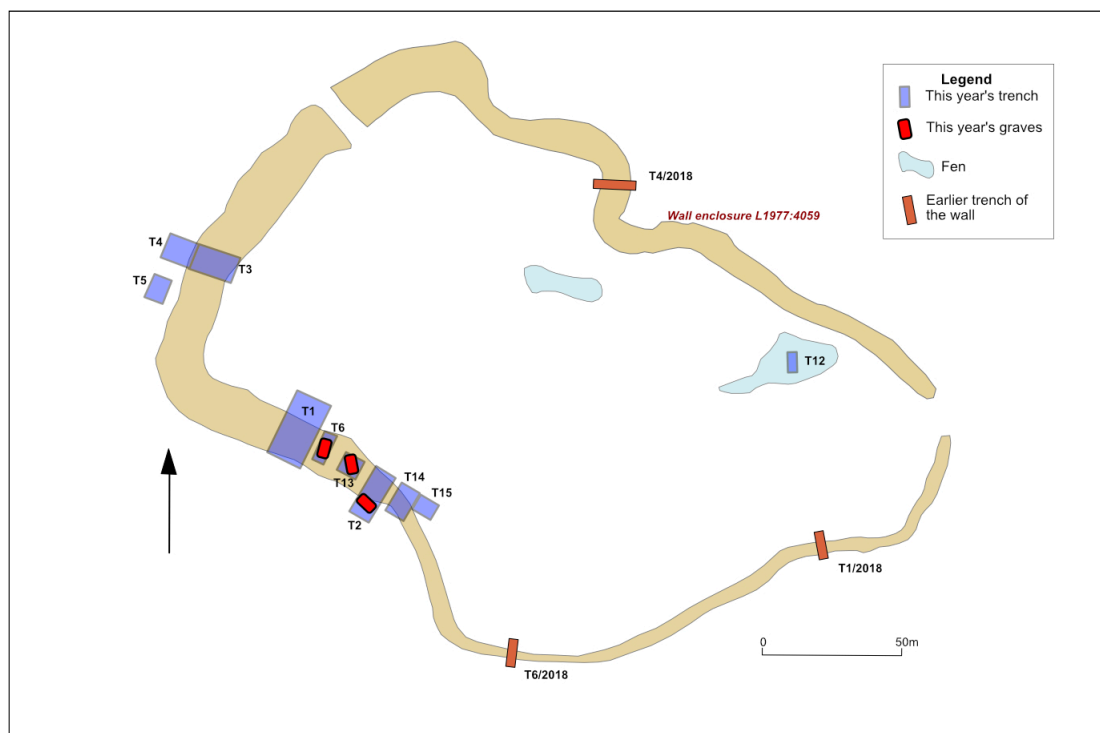


Figure 27. Excavated areas (trenches) of the embankment at Eke.

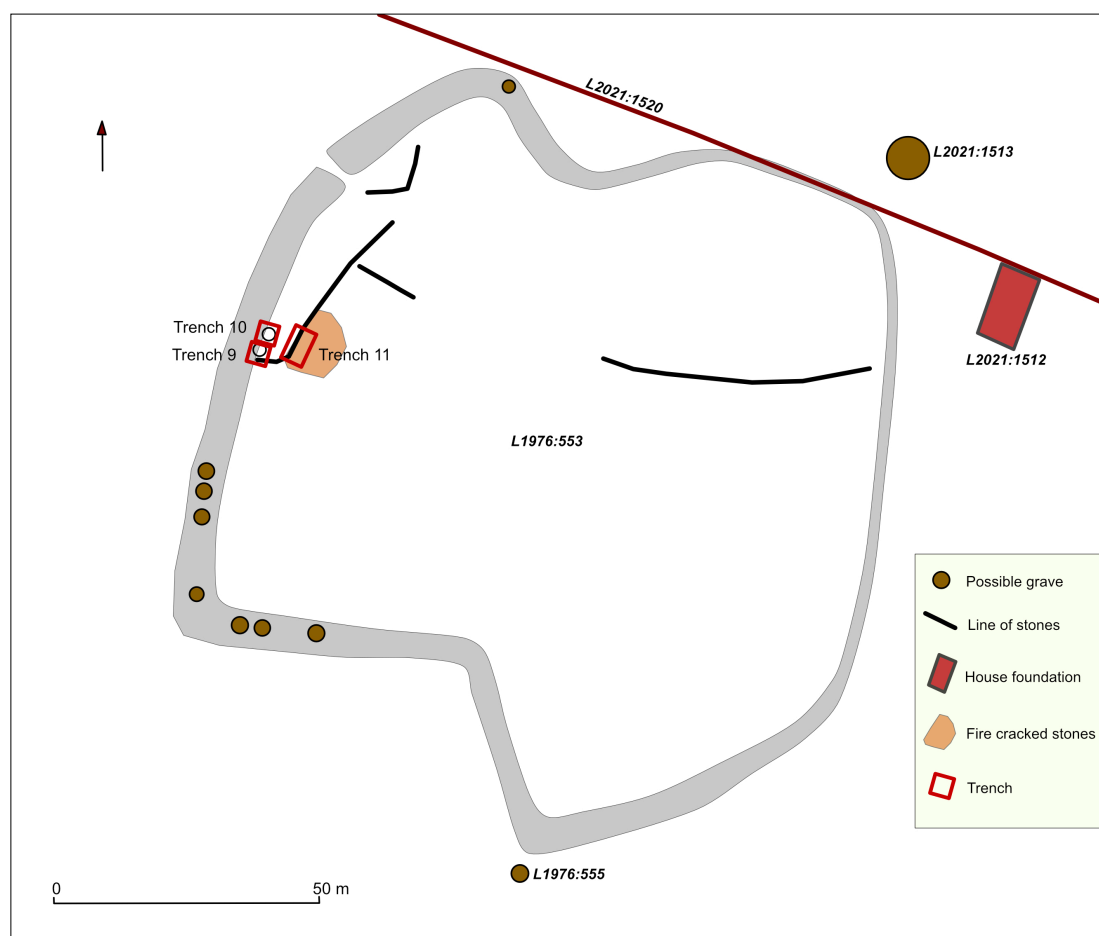


Figure 28. Excavated areas (trenches) of the embankment at Ronnings.

Go. Eke 2022, Trench n. 1

Ancient remain no.	L1977:4059
Construction no.	1
Type	Stone Wall
Size	10 m x 5 m
Area	50 m ²
Top and bottom level (cm)	Top 5,57, bottom 4,99 m.a.s.l.
Orientation	N-S
Samples and Analysis	Human fibula and animal bone for ¹⁴ C-analysis

Description:

The trench was 10 m x 5 m and run in a north-south direction. The wall of the hill fort was about 5 m wide. In the area of the trench north of the wall (inside the wall) there was a section of stones approx. 3 meters wide. North of the wall a grassy area approximately 2 meters wide.

The gray stones in the wall varied in size from about 0.10 m x 0.15 m to about 0.30 m x 0.50 m. To the West was a large flat, unmovable stone, approx. 1.30 x 1.30 m with a height of approx. 0.50 m above the ground. The stone was mainly situated outside the trench and bordered a probable entrance to the hill fort.

Initially, 1 meter south of the wall was de-turfed. After de-turfing, only gray stones with a size between approx. 0.10 m–0.25 m have been removed from the wall. In the middle of the wall, two depressions (perhaps the result of looted graves) could be found in a relatively stone-free area. In the depressions, the soil was mixed with a lot of bark. Under the peat there were plenty of cavities under the top layer of stone.

After de-turfing, a third depression, probably a looted grave, emerged roughly in the middle of the trench, about 1 meter from the western edge. In the northernmost 2 meters of the trench a massive packing of gray stones with a size of approx. 0.10 x 0.15 m to 0.30 m x 0.50 m appeared. The visible stone packing appears to rest on another layer of stones. Two more suspected graves/looting pits appeared. A possible explanation for the large amount of displaced stones on both sides of the wall could be the amount of trees growing in the wall.

Layer I

Loose stones have been removed in the southern half of the trench. There was very black soil in an area of about 1.5 square meters towards the southwestern corner. A bone (F1), of human or animal origin, was found.

After excavating further and removing the soil and roots, a new rock layer appeared. There were gray stones with a size of about 0.10 x 0.15 m to about 0.40 x 0.40 m. There was slightly darker soil in the southeastern corner.

During further excavation, an additional bone was found, a human radius (F2), which was in immediate connection to the previous bone found. More bone fragments appeared, including animal bones (F3) and human bones (F4, F5).

In the northern part of the trench (2 m further to the North) more stones were removed. There was a dark coloring of the soil in the middle of the trench, underneath which comes additional layers of stones. When clearing soil and roots in the northern part of the trench, pebbles and coarse-grained gravel appeared in the Northeast, with the exception of the last meter towards the Northwest. A cow bone was also found (F6).

Layer II

Excavation continued in the southern half of the trench. A probable femur and a piece of the femur diaphysis (F7) have been found. Then more human bones (lower leg, ribs, lower and upper arm bones, etc.) (F8) were found close to the stones, possibly from within the wall. Of the long bone fragments that have been recovered, most were in NNV-SSO. The bones obviously are from a destroyed grave.

In the northern part of the trench, a 3 meter wide area has been demarcated from the west. That part of the trench was referred to hereafter as trench area 1a. Here additional stones were removed. Cleaning of soil and roots continued in the northern area. There was a 15 cm thick layer of roots and brush. Underneath this layer come patches of greasy, dark soil. Under the soil was another packing of gray stones in a size of approx. 0.10 x 0.15 m to 0.40 x 0.50 m. The stones were more tightly packed than in previous layers, i.e. with soil in between but without voids.

Layer III

Excavation continued in trench area 1a. After clearing the soil, a layer of gravel was encountered at a height of 180 below the instrument height. Another layer of stones was removed in trench area 1a. and the soil was removed. In the Southwest corner, clay transitioned to a layer of gravel. A bone, probably part of a human fibula (F9), has been found in the wall. Removal of stones in the wall continued, as well as cleaning of soil and dirt in the upper part of the wall. Soon a row of stones appeared, lying close together in a straight line, perhaps the original wall. It consisted of gray stones with a size of about 0.40 x 0.50 m to 0.60 x 0.70 m. A human bone fragment (F10) and probable animal bone fragments (F11) were found in trench area 1a. Sheep or goat's teeth (F12, F13) were also found. There was no sign of a shell wall.

The bones have been re-deposited and the trench set back in its original shape.

Interpretation:

The lacking of any kind of construction or structure leads to the interpretation that the section of the wall excavated in Trench one below the layer of loose stones is from natural origin. However, it is possible that the natural structure had been used as a burial site, as the find of human bones would testify, but the small presence of the same does not allow the ascertainment of this hypothesis.

SAMPLE LIST FOR CONSTRUCTION N.

Sample n.	Type
1 (F9)	Human fibula
2 (F11)	Animal bone



Trench 1 before de-turfing. Picture taken from the West towards the East.



Trench 1 after de-turfing. Picture taken from the North towards the South.



Trench 1 after de-turfing. Picture taken from the South towards the North.



Trench 1 removal of stones.



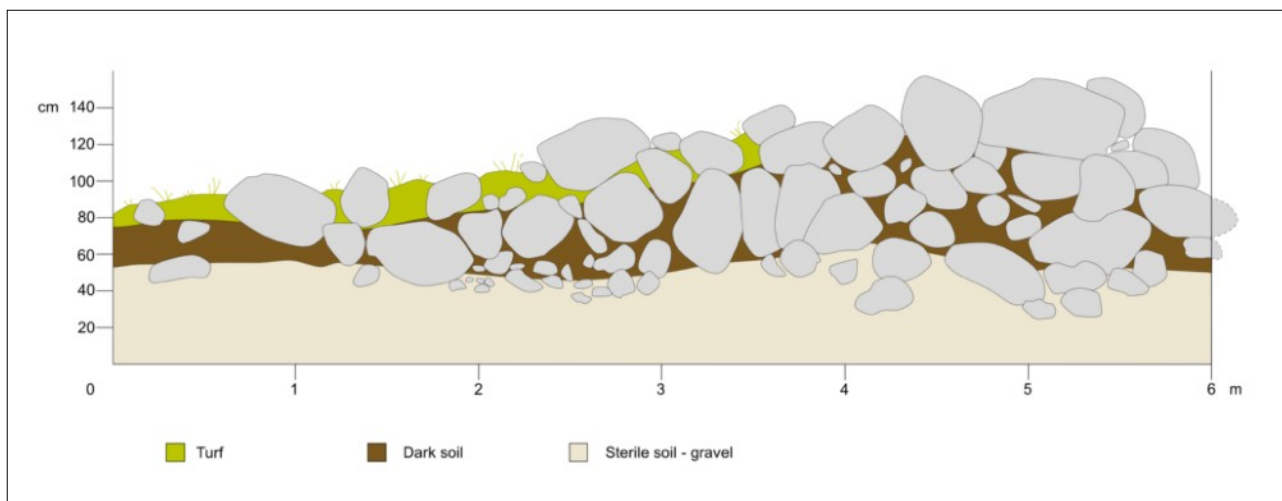
Trench 1 removal of stones.



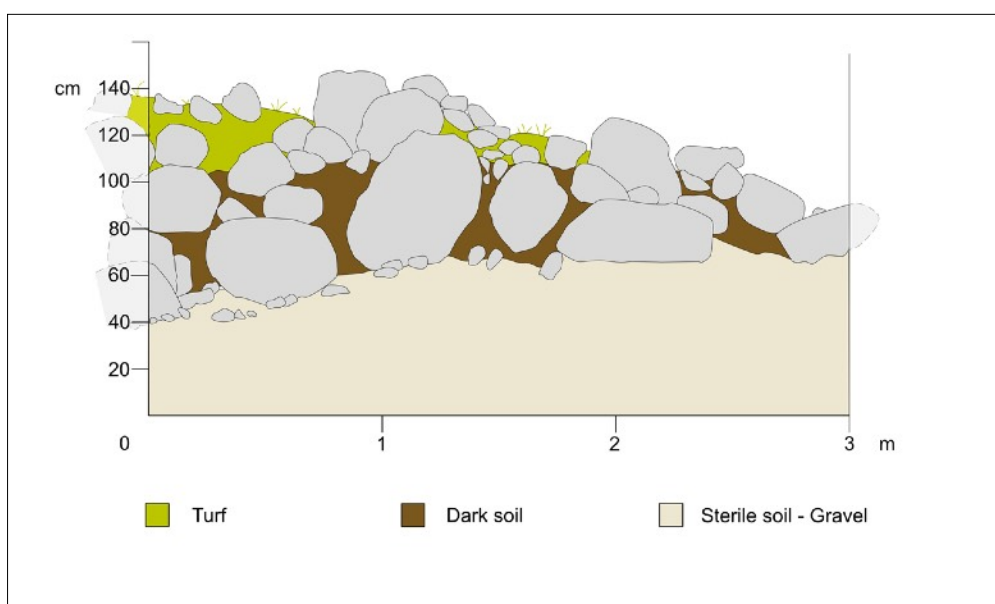
Trench 1 after excavation.



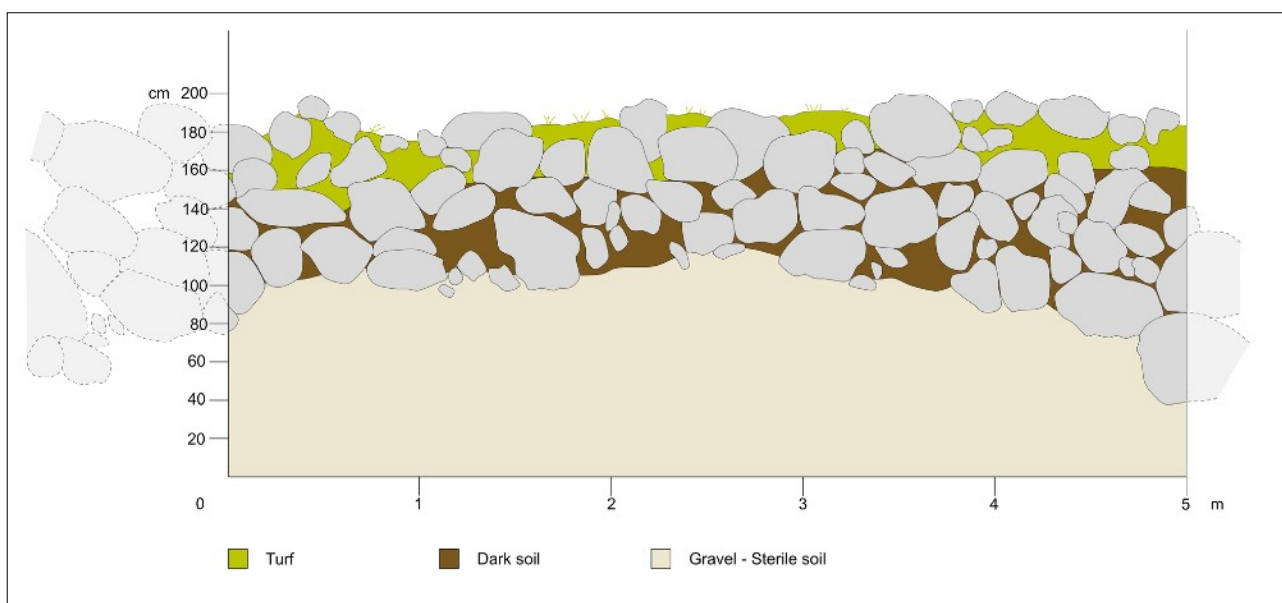
Vertical photo of Trench 1 after de-turfing and cleaning.



Profile B1 of Trench 1.



Profile B2 of Trench 1.



Profile C of Trench 1.

Go. Eke 2022, Trench n. 2

Ancient remain no.	L1977:4059, L1977:4155
Construction no.	2/22
Type	Stone Wall & Grave
Size	4 m x 11 m
Area	44 m ²
Top and bottom level	Wall: Top 5,81, bottom 5,01; Grave: Top 5,50, bottom 4,86 m.a.s.l.
Orientation	NE-SW
Samples and Analysis	Teeth for isotopic analysis; Femur and cranial fragments for C14-dating

Description:

Before de-turfing, the facility appeared as a low mound of stones which might have been the original wall or embankment of the so-called hillfort (Gudings Slott). The trench covered a 44 m² area that extends from inside of the wall (northeast) of Gudings Slott, across the wall, and down the outside of the wall in a southwesterly direction.

On the inner (northeast) side of the wall there were scattered stones (0.30–0.55 m) that seem to have come from the wall, possibly fallen or placed there. On the outer (southwest) side of the wall there was a separate mound of stones with a depression in the middle which probably indicated the presence of a looted grave.

Layer I

Wall

In the center of the trench, the remains of what looked like a shell wall could be observed. It consisted of an inner packing (approx. 3 m in width) of small stones (0.1–0.35 m) which was bordered on either side (northeast and southwest) with larger stones (0.5–0.65 m). The stones on the inner side of the wall were scattered and loosely packed. Looking for closely, it looked like the inner packing was the bottom of the wall, and the stones on the outside was thrown out from the center of the wall.

Grave

After de-turfing and cleaning of the stones, a fractured human humerus was found in the center of the depression (approx. 0.2 m deep) on the southern side of the wall. A large (0.63 m x 0.33 m) flat red stone was located on the outer edge of the South side of the grave and may have served as a boundary marker for the grave. The large stones on the surface of the grave appeared to be randomly scattered without any discernible pattern, a likely result of looting.

Layer II

Wall

The excavation continued on the inner side of the wall. While larger rocks (similar in size to those making up the outer border of the wall) have been found in the top layer, smaller stones (0.15 m and smaller) were found underneath to a depth of 0.20 m. The soil color appears to be uniform. A few scattered cremated animal bones were found in several different spots in the northeastern corner of the trench (similar cremated animal bones were found in the adjacent trench 14 to the East).

Further excavation of the southern side of the wall (east side of the profile, north of the grave) included the removal of large and medium sized stones that appeared to be loose and randomly scattered. Pelvic and long bones were found broken and scattered between the rocks. As the stone packing was removed teeth were discovered in the East side of the trench next to the outer wall. Hand bones, feet bones and more teeth were found scattered among the stone packing on the East side of the profile. A few long bone fragments were found near the profile. On the West side of the trench, just west of the profile line, a box brooch was found between the large stones. No other finds or skeletal remains were found on the West side of the trench, and the box brooch must have been "thrown out" at the time of the plundering of the grave.

Grave

Further excavation of the depression within the mound of stones located on the southwestern side of the wall, where the humerus was found, revealed further human remains. In addition to the previously mentioned humerus, there was a fibula, parts of the sternum and clavicle, a fragment of the cranium (northeastern side of the depression), as well as multiple teeth scattered across the northern side of the depression, with a concentration in the Northeast side as well as a few just under the profile line and a few in the Northwest side.

Layer III

Grave

Further excavation resulted in the removal of a layer of loose stones from the surface. More human remains were found underneath this layer, fractured and scattered across the depression. 34 teeth were found which meant that more than one individual was likely located within the grave. Part of the pelvis (ilium) was found in the center of the depression. The soil in this central area appeared darker. The remains found in the northeastern side of the grave were not found lower than the layer of small stone packing mixed with gravel, which is probably the old surface.

In addition to the human remains, a few small animal bones were also found within the grave depression. Some of these were concentrated near the center of the depression close to the pelvic bones. The distal end of a tibia from a sheep was also found.

Layer IV

Grave

Further excavation of the southwestern side of the depression revealed that the human remains continued to a depth below the stone packing and gravel found on the northeastern side. Layer IV shows a concentration of fractured human remains in the southwestern side of the depression. The area here appears to have been dug out deeper than the northeastern side. The depth of the southern side could point to this being the older grave with a possible secondary grave placed adjacent to and approximately 10 – 15 cm higher than the primary grave. In the eastern corner of

the grave a heavily fractured cranium was found crushed beneath a large stone. The cranium included the mandible with at least one attached tooth in addition to multiple loose teeth. Pieces of the clavicle were found just below the cranium and northeast of these remains. The sheep's tibia was laying just above the level of the human remains. Small animal bones continued to be found scattered among the human remains.

The extent of the grave was excavated from the Southeast side, where the cranium was located, in a westerly direction towards the legs and feet of the lowest laying (primary individual (2a/22) skeletal remains. During this process, human remains of other probable individuals (2b/22 & 2c/22) were found lying on top of and scattered among the remains of the primary individual. In the center of the grave (just below the profile line) dark oily soil was encountered along with the skeletal remains of the foot and ankle. The texture and color of the soil may be a result of some material, such as leather, used for shoes or some other form of clothing. Complete removal of the skeletal remains revealed that it lay down to the limestone bedrock, beneath a sandy layer.

Interpretation:

Wall

The excavation revealed the wall of Gudings Slott to have at this area the appearance of a shell wall (skalmuren) construction with a central packing of smaller stones bordered by larger stones on either side. The extent to which this is a natural occurrence, or the result of human manipulation cannot be fully ascertained, but it probably might be that the packing of smaller stones, that was laying lower than the surrounding bigger stones on each side, would be the natural beach wall, while excavation of this packing didn't show any sign of human construction. The wall appears to follow a natural progression of limestone bedrock, a sandy layer followed by a layer of gravel and then small stones. These layers may have been naturally deposited since they follow the same progression on an incline up from the outside of the wall towards the top of the wall. The larger stones appear to have been moved from their natural placement. It is not known if this occurred at the time that the graves were constructed or possibly later in connection to plundering of the graves in the wall.

Grave

The stone mound on the southwestern side of the wall was determined to be a grave. Skeletal remains were found for a minimum of three individuals. This number is based on the presence of three sets of femurs (six femoral heads), pelvic bones for three separate individuals and what appears to be at least three separate sets of teeth (see appendix 1, osteology).

The box brooch found indicates the presence of a female within the grave, however it was not found in direct connection with any of the remains. The box brooch was found among the large stones between the grave and the wall, west of where the pelvic bones of the female were found.

A determination of the original placement of the individuals is unclear since the looting of the grave has left most of the remains in disarray. The primary individual found in the deepest level of the Southwest side of the trench appears to be the closest to its original placement. The bones of the primary grave lay in their natural order which suggests there was less manipulation of the remains when it was looted (see plan of the individuals further on).

The broad scattering of the rest of the individuals' remains shows that they were manipulated extensively. It cannot be determined definitively if any of the other individuals were buried with the primary individual or if they were buried in secondary graves adjacent to the primary individual. The small area in which the primary individual was found in addition to the area adjacent appearing to have been dug down to the small stone packing points to an adjacent grave located northeasterly of the primary grave. The fact that the southern (primary) grave was dug deeper compared to the adjacent, and likely secondary, grave on the northern side would suggest that it is the older (original) grave. This individual has been C14 dated to AD 904-1148, most probably AD 977-1047, late Viking Age.

The primary individual was found lying in an east-west orientation with the cranium in the Southeast and the rest of the remains extending towards the Northwest, which is not indicative of a Christian burial.

In addition to the fibia, a few other bones from a sheep were found within the area of the supposed primary grave. The small animal remains that were found scattered among the human remains were determined to be from various animals including possibly a bird, a rabbit, and a rodent. It cannot be determined if any of these animals were placed within the grave at the time of burial or if these were the result of death in a later time.

Find Material:

Find no:	Description	Dating
1	Box Brooch (104 grams, 5.7 cm wide, 3.5 cm tall)	Late Viking Age

Sample no:	Type



Before de-turfing (towards the southeast)



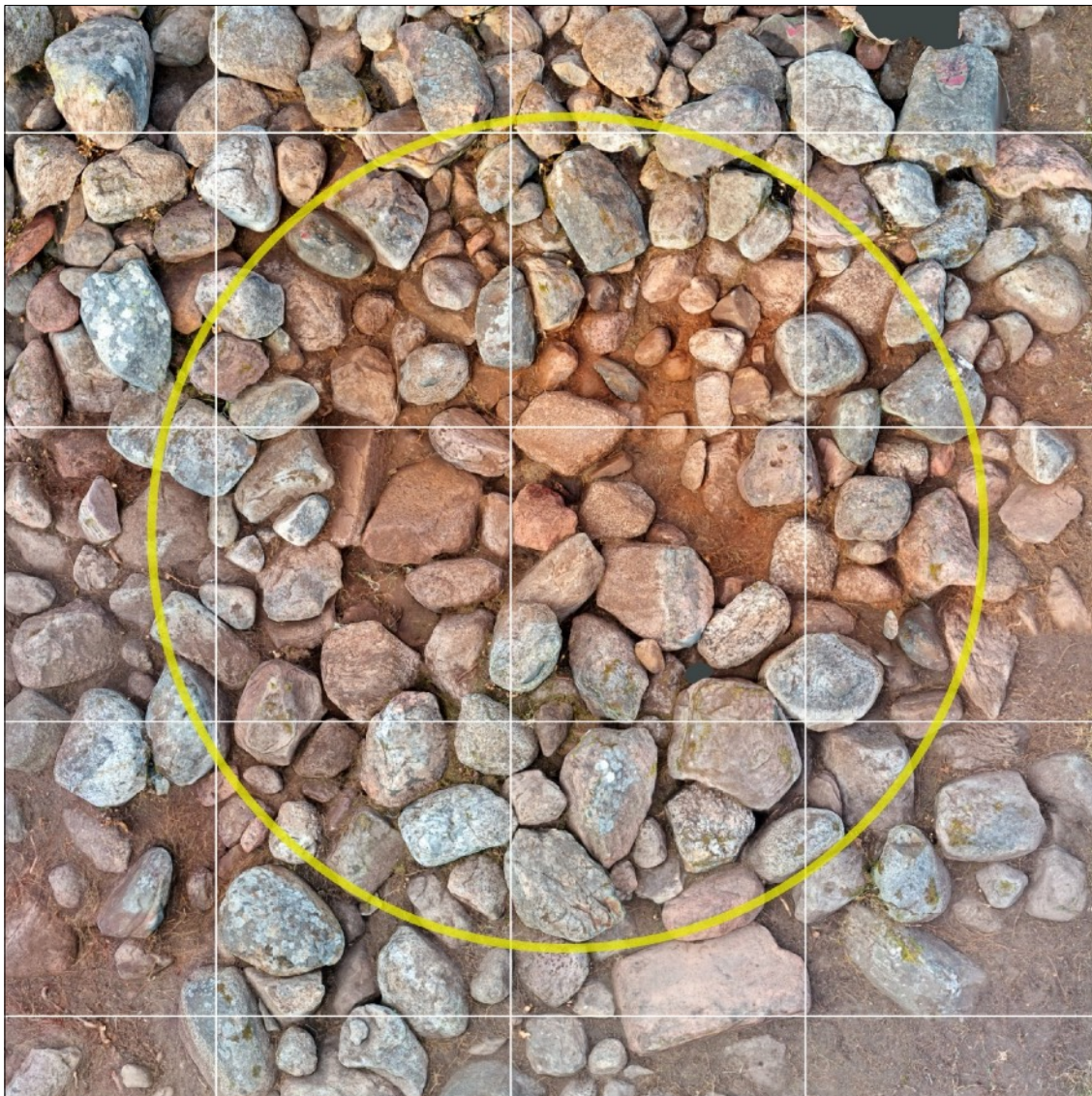
Before de-turfing (grave mound with center depression)



Layer 1 (grave after de-turfing, view from the South).



Layer 1 (human bone found protruding from the center of the depression)



Layer 1 (Vertical photo of grave after de-turfing with a clear depression in the center)



Layer 2 (More fragmented human remains were found scattered over Layer 2)



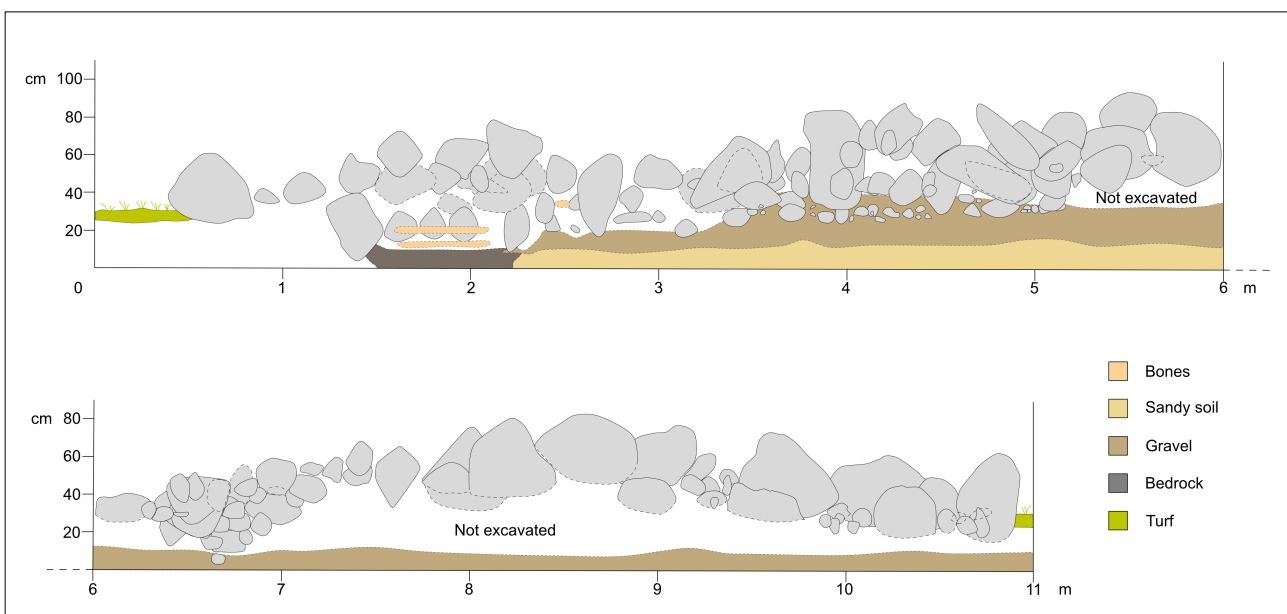
Grave Layer 3 (human skeletal remains are found on top of the small stone packing)



Trench 2 (Inner wall Layer 1, Outer wall Layer 2, Grave Layer 3 & 4)



Grave - Layout of skeletal remains, giving evidence of probably 3 different burials.



Profile of Trench 2



Fnr 1

Go. Eke sn

A well preserved box brooch dated to late Viking Age, from trench 2.

Go. Eke 2022, Trench n. 3

Ancient remain n.	L1977:4059
Size	4x7 m
Area	28 m ²
Top and bottom level	5,79 - 5,14 m.a.s.l.

Description:

The trench, which measured 4x4 m, was placed along the NW/SE direction over the wall in the embankment. The aim was to make a cross section through the wall and to potentially date its construction period.

A heavy stone packing with big and small stones (between 20-70 cm large) was visible before the removal of the turf. It looked like that the biggest stones were placed at the inner edge (southeast side) and outer edge (northwest side) of the wall. In the middle there was a mixture of small and big stones, with a predominance of minor size stones.

There seemed to be some kind of possible edge chain along the inner rim and also along the outer one. In the middle, there wasn't a proper stone packing, but void space was visible between the stones. It could be noted that many of the stones which lay at the very bottom are covered in moss, and, on the contrary, stones on the top missed the moss-cover.

After cleaning up the peat, plants (mainly sedge and milkweed) and moss, a clear stone packing with smaller (0.2-0.3m) stones appeared on the inside the wall. The stone packing continued after the shaft boundary into the embankment (southeast side).

Between the packing and the edge of the embankment, an unclear rim chain of larger stones seemed to be revealed. The embankment consisted of larger and smaller stones with space and cavities in between. On the outside of the embankment (north-west side) it was possible to notice a line with larger stones.

The stone packing inside the possible demarcation of the wall consisted of loose stones without any visible construction. This loose-stone packing was removed right down to a level where the stones were stuck in the soil. When the surface was cleared between the walls, a different stone packing with soil between the stones emerged. The boundary between the top layer of loose stones and the bottom layer of stones stuck in the soil was clearly visible at a height of 5,39 m above sea level. In the south-eastern part between the two layers a long bone (possibly humerus) and three fragments of bones, were found at the height of 5,37 m above sea level. The bones were found close together.

The outside of the wall was lined by two clear stone rows with smaller stones as filling. The line of the big stones was clearly put on top of smaller stones, giving a clear idea that these stones had been put on top of the lower stone packing.

With the continuation of the cleaning process, a bottom layer consisting of small and large stones emerged, just like in the stone layer above. No clear patterns were visible. The soil between the stones was completely free of sand and pebbles, and it consisted of what appeared to be decayed vegetation that might show an older surface. Two fragments of animal teeth were found next to the inner wall, at the height of 5,41 m above sea level. In addition, a probable tooth was found at the northern long wall height 5,44 m above sea level.

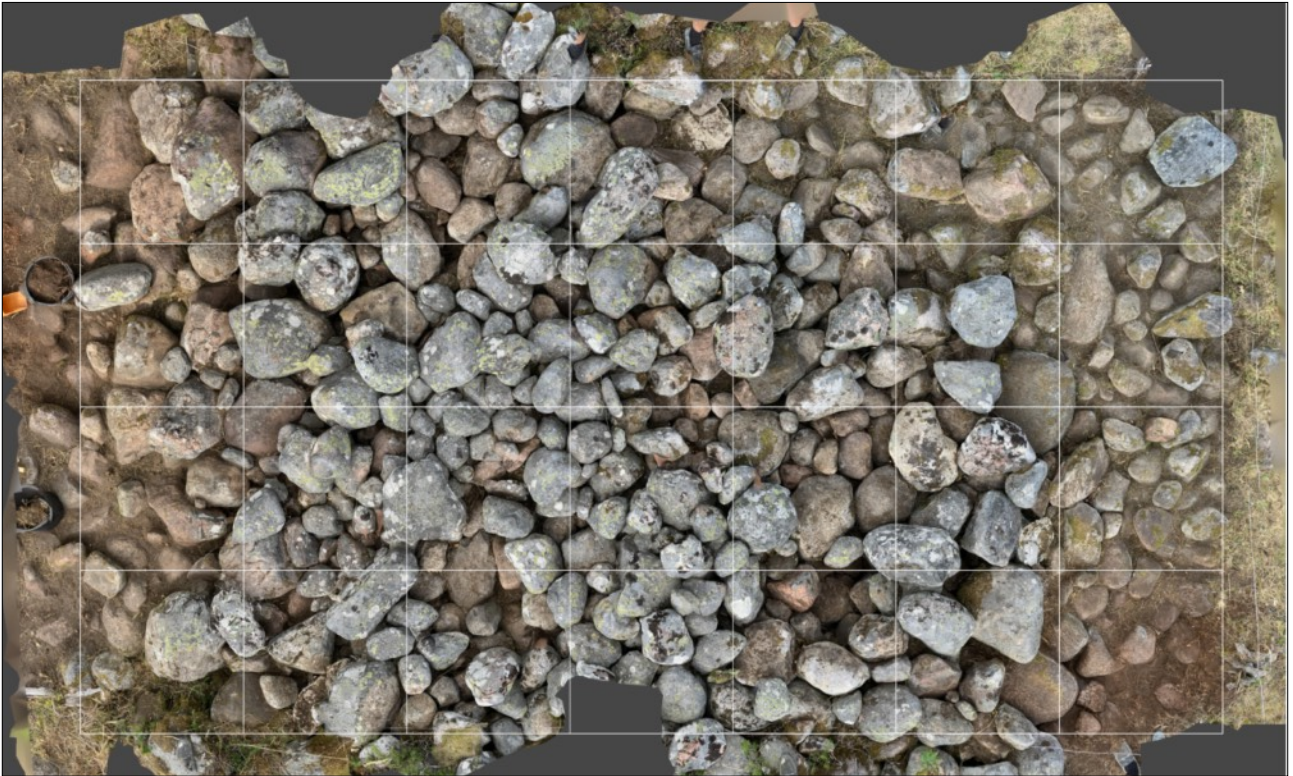
Interpretation:

The wall clearly consists of two layers, where the top layer is made up of a loose stone packing without any internal order. This layer connects to the lines of bigger stones on each side of the embankment. The loose stone packing has a width of about 4 meters. Below this layer, there was a stone packing clearly fixed in hard packed soil of a type that has a feeling of an older beach layer. This bottom layer could be more or less divided in two parts, where the upper part had more of a dark soil layer mixed with the stones, and the second layer a more clayish content. It should be noted that the division in two layers was more the result of the excavation procedure, than a clear difference between them.

Nothing came to light to indicate that the embankment was built with a palisade. Filling in the form of sand and gravel was totally missing. The age of the dike cannot be determined based on the findings. Among the finds there is a probable human tibia, which was found relatively far down lying horizontally in the lower part of the loose top stone packing. The bone has been sent for C14 dating. The osteology analysis assessed that two bones are likely human: partly a skull fragment and partly a humerus.

FIND LIST FOR TRENCH N. 5	
FIND N.	Description
1	Bones, one bigger and one smaller. The smaller fits into the larger, and the fracture point is not new. Probable human tibia.
2	Bone, flat with a little curvature. Possibly from animal, possibly human (50% probability for each). Probably skull.
4	Incisor tooth from a cow, in two fragments.
5	Left front molar from cow. Also four smaller fragments belonging.
6	Tooth fragment from cow. Found in the sieve.
7	Charcoal found in the sieve.
8	Seed husk. Saved for potential C14 dating. Found under the stone wall.

SAMPLE LIST FOR TRENCH N. 5	
Sample n.	Type
1	Human tibia, sent for C14 dating.



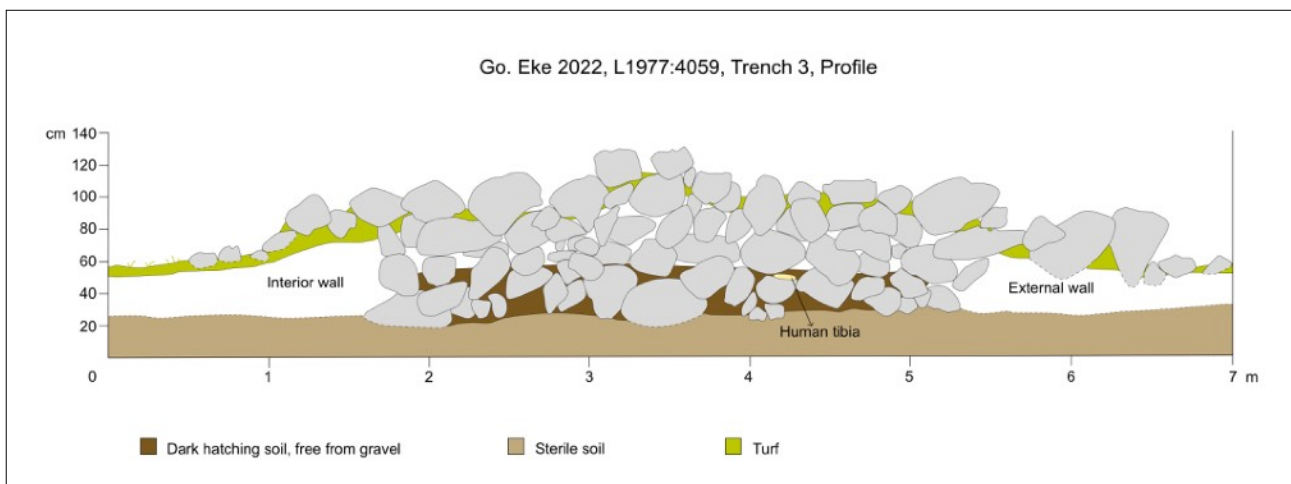
Vertical photo of Trench 3 after de-turfing. The squares are 1 meter.



Vertical photo of Trench 3 after the loose stone packing been taken away, showing the outer stone lines on each side of the embankment, placed on top of smaller stones.



The profile of the stone packing after both layer of stones have been taking away. Notice the lines of big stones on each side of the trench.



Profile of Trench 3.

Go. Eke 2022, Trench n. 4

Ancient remain n.	L1977:4059
Size	4x6
Area	24
Top and bottom level	5,34 m (ridge) 5,18 m (ditch) m.a.s.l.

Description:

The trench has been settled outside the western main wall of Gudings hillfort, and it covered an area with a depression that looked like a possible ditch and an elevated ridge.

After the removal of the turf, which was ca 10 cm deep, scattered bigger and smaller stones emerged. An elevation was visible in the northern part of the trench, extending from east to west. In the southern part, next to Trench 3, some large stones were visible (torn down from the wall?). The depression between the wall and elevation was characterized by a clay layer. In the Northwest quadrant the stones formed an oval pattern. Nearby, there was a cracked stone lying with soil between the parts which could indicate interferences in the layer.

After cleaning, a little more pebbles crystallize in the ridge have been detected. Between the ridge and the wall there was clay and gravel within the stone packing. North from the ridge there was only soil.

In the wall, there were several large stones measuring about 50 cm in diameter. Between the large stones there were smaller stones measuring 5-30 cm. Under the large stones, no big stones were visible, the size decreased approximately at 5-15 cm.

The profile has been set up at the edges in the east and west sides, and a sample pits has been collected to see where the sterile level was.

The trench was extended in the west due to a suspected grave (Construction 1), turned out to be no traces of any human interaction. At the end of the survey, the material extracted from the trench has been repositioned according to its original shape.

Construction n.	1
Type	Natural construction?
Size	280 cm (W-E), 244 cm (N-S)
Shape	Oval
Orientation	
Top and bottom level	
Samples and analysis	

Description:

The round construction was located in the southwest on Trench 4, and it measured 2.44 x 2.80 m. At the outer edge of the facility there were varying sizes of stones (from 10 to 45 cm in diameter). In the middle there was a depression. Some stone seems to have fallen from the wall. The stone packing continued outside the trench to the West.

Slightly smaller stones in the middle of the stone heap. Examples of sizes: 19x12 cm, 45x32 cm, 30x34x30 cm, 55x18x18x20 cm, 37x23x33 cm.

After measuring the profile, burial began through the dense stone packing. Underneath there was a layer of stone, gravel and mud. No find was detected.

Interpretation:

The initially hypothesis of a grave construction has been rejected in favor of a interpretation of the facility as natural.

SAMPLE LIST FOR TRENCH N. 4

Sample n.	Type
1	Charcoal sample

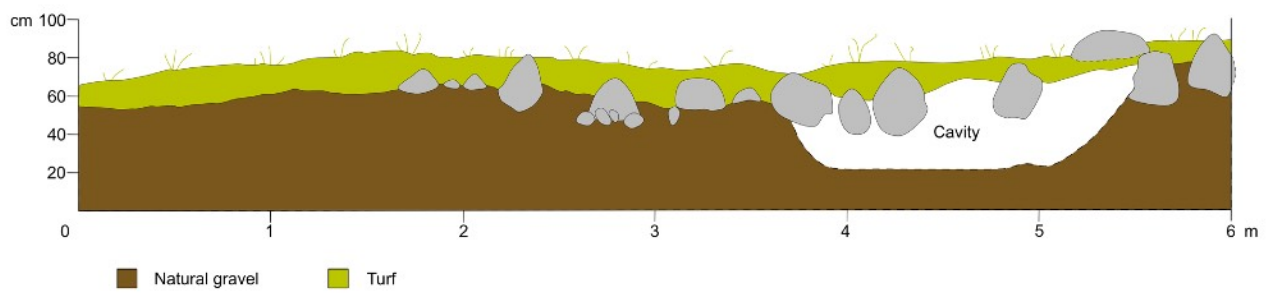


Vertical photo of Trench 4.



Oblique picture of Construction 1.

Go. Eke 2022, L1977:4059, Trench 4, Profile



Profile of Trench 4.

Go. Eke 2022, Trench n. 5

Ancient remain n.	L1977:4059
Size	4x4 m
Area	16 m ²
Top and bottom level	5,55 m - 5,02 m.a.s.l.

Description

The trench, situated few meters outside the western wall of Gudings hill fort, measured 4x4 meters and covered a surface of 16 m². Before the removal of the turf, it appeared like a semi-visible elevation of stones with a N-S orientation. The vegetation that covered the surface consisted of grass and bushes. A tree has been cut to facilitate the dig: the remains of this tree and another stub were located in the middle of the trench.

After the removal of the turf, the central area of the N-E side of the trench appeared like a concentration of gravel and small stones, in correspondence of the elevation visible before the cleaning. Around the concentration of gravel bigger stones were present. This accumulation has been described as Construction 1.

In the N-V area a collection of cracked stones has been noted and described as Construction 2.

In the S-E side there was no gravel, but there were large stones instead. The stump in the gravel accumulation has been removed, revealing another layer of the same kind of gravel. In the center area towards a thick layer of dark and clayey soil laid between the stones.

The removal of this layer of the darker soil has revealed a level gravel and stone packing, classified as the natural layer, ca 1,5 meters long from the eastern edge of the shaft to the west.

Under both the constructions a natural layer of yellow-grey gravel has been found, ca 30 cm under the level of the ground surface.

After the reaching of the natural level the trench has been refilled according to its original shape.

Construction n.	1
Type	Natural stone packing with gravel
Size	
Shape	
Orientation	
Top and bottom level	134 cm - 187 cm (Instrument height: 100 cm)
Samples and analysis	

Description

Under the turf level, a linear accumulation of white-gray gravel and smaller stones surrounded by larger stones has been found in the trench. The limestone pieces included numerous fossils. The larger stones initially appeared to form an oval pattern, hypothesis denied with the following phase of the cleaning. The construction seemed to follow a N-S direction. During the removal of the gravel layer, it has been noted that some empty spaces between the small rocks were present, phenomenon that created some holes in the layer.

Under the layer of gravel, which was ca 20 cm thick, another layer of a different kind of gravel (mixed with yellow-gray soil) as been found, and classified as sterile soil.

No finds have been discovered in this construction.

Interpretation

Initially, the accumulation of gravel inside two rows of bigger stones took to the hypothesis of an additional external wall of Gudings hillfort. The observation of the different layers took to the conclusion that the entire construction is of natural origin.

Construction n.	2
Type	Heap of fire cracked stones
Size	70x20 cm in cross section
Shape	
Orientation	
Top and bottom level	Bottom 177 cm (Instrument height: 100 cm)
Samples and analysis	

Description

The construction consisted in a concentration of cracked stones in the N-V side of the trench, and it continued under the northern profile. It was 70 cm wide, and protruded 55 cm from the trench edge. The shard pile was 90 cm distant from the western limit of the trench.

Pile of gray stone cracked that look from heating characterized the construction. The stones were 5-10 cm in size. However, no charcoal has been found.

About 10 cm outside the shard pile, a pentagonal stone was found.

The rubble pile was cut through by the shaft edge of the 4x4 meter trench.
 The construction was formed by a single concentrated layer which layer was 20 cm deep, under which the natural sterile gravel layer has been found.

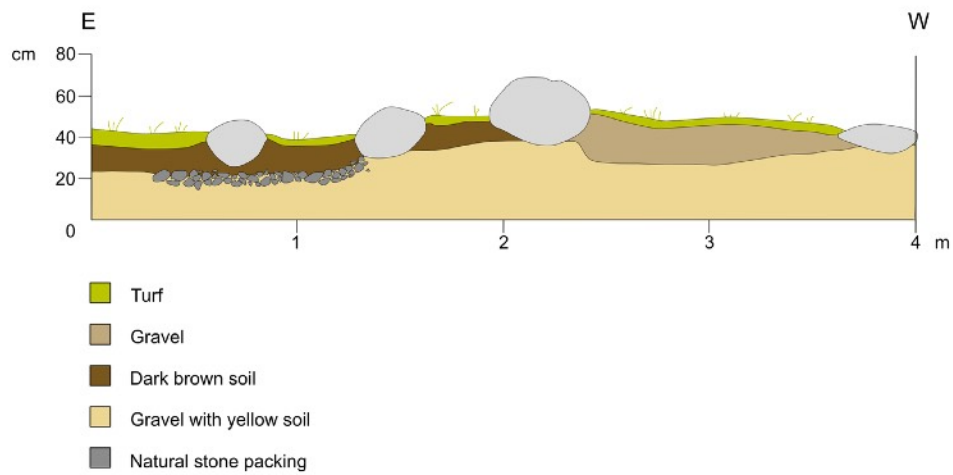
Interpretation

The lack of charcoal, finds and other characteristics that could connect the construction to an human intervention classified Constriction 2 as of natural origin.

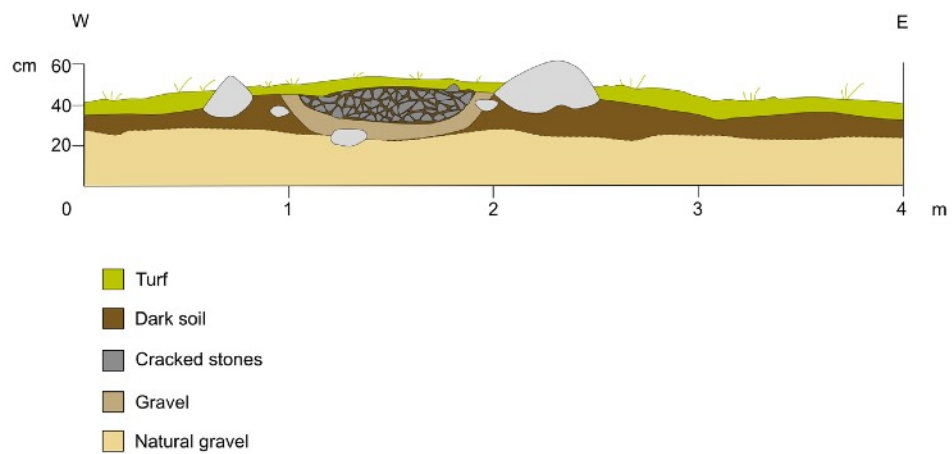
FIND LIST FOR CONSTRUCTION N.	
FIND N.	Description
1	Stone with pentagonal section



Plan over Trench 5 after the removal of the turf and the initial cleaning of Layer II. The hole in the, ground is after a tree root.



E-W profile of Trench 5, located along the middle division of the trench. The profile marks the layers of Construction 1 and the natural stone packing in the eastern side.



W-E profile, over the northern edge of the trench. It offers a description of Construction 2.



The concentration of cracked stones that characterizes Construction 2.

Go. Eke 2022, Trench n. 6

Ancient remain n.	L1977:4155
Size	6x3 m
Area	18 m ²
Top and bottom level	5,42 - 4,86 m.a.s.l.

Description of trench:

The trench was situated along the southern stonewall of Gudings hillfort. It measured 3 meters in the E-W direction (along the wall), and 6 meters in the N-S directions (over the wall).

The wall consisted in an accumulation of gray stones with a size between 20 and 60 cm on the surface. In the middle of the trench a recess in the wall (described as Construction 1) was clearly visible; the depression had an oval shape, it was ca 150 x 180 cm large and it didn't include stones on its surface, which was instead covered by a thick layer of turf and moss. In the north-east side of the recess there was a big stump.

After the cleaning of the turf, it has been noted that there were generally spaces/cavities between the stones of the wall around Construction 1, and a stone packing with particularly dark and clayey soil has been found under this latter.

A little amount of loose human bones has been found during the removal of the soil on the western side of Construction 1. The finding of more bones in lower layer of the same area and in the stone packing of the wall at a different height has taken to the discovery of *Grave 1/22* in the north-west quadrant of the trench.

The bottom of both the constructions and likely of the wall consisted in a sterile layer of gravel with very small stones of different minerals.

Construction n.	1
Type	Looting pit
Size	150x180 cm ca
Shape	Oval hole in the stonepacking
Orientation	
Top and bottom level	147 cm - 203 cm (Instrument height: 100 cm)
Samples and analysis	Wood from modern time

Description of looting pit:

The construction was situated in the middle of Trench 6 and was characterized by a depression where the big stones of the wall were absent. Instead of them, a thick layer of turf that covered an oval surface of ca 150x180 cm was present.

The excavation of the trench has been concentrated in this area because of his appearance of a possible plundered grave. After the removal of the turf (Layer I), which was ca 20-25 cm thick, the excavation proceeded with the removal of Layer II, characterized by very dark and clayey soil and a stone packing formed by stones of ca 15- 30 cm in size.

In the western corner, in coincidence with the limit of Construction 1 and the stone packing of the wall, few loose stones has been found. These bones resulted later to be in connection with the *Grave 1/22*.

The soil was mixed with wood from the stump in the N-E corner of the construction, but a different kind of wood has been found in the S-E side. A sample has been collected. No finds have been found in the construction. After the removal of the soil and stones of Layer II, a sterile layer composed by gravel has emerged, ca 60 cm under the top level of the turf in the construction.

SAMPLE LIST FOR LOOTING PIT	
Sample n.	Type
1	Wood sample

Description of grave:

Construction n.	1/22
Type	Inhumation grave
Size	140x170 cm ca
Shape	Oval
Orientation	N (head)- S (feet)
Top and bottom level	5,29 m.a.s.l. (head) – 5,11 m.a.s.l.
Samples and analysis	1 tooth and one ear bone, one bone sample for C14 analysis, soil sample from the stomach area

Grave 1/22 is located in the N-W quadrant of Trench 6. It consisted of a skeleton grave with unusual N-S (head-feet) orientation, dislocated in different levels in the area and fragmentarily preserved.

The first bone was found loose under the first layer of the stone packing of the wall (femur bone), and fragments of lower leg bones have been found in the II layer of soil and stones (west side of the trench). The rest of the body has been discovered in the N-V side, in correspondence of the same level of the bones found in Layer II of Construction 1. In the northern side, under a stone, parts of the cranium were conserved.

The middle part of the body was collapsed and not conserved, except for few fragments of vertebrae and one small fragment of a rib. Only one part of the right overarm has been found. The underarms were bended towards the hips, and under the latter fragments of finger bones (probably from the left hand) have been excavated. 21 teeth have been found ca 20 cm under the cranium level, were a part of the jaw (with 3 teeth included) has been discovered.

It has not been noted any kind of pattern in the stone packing that can remind to a sort of grave construction. The skeleton seemed to lay between the stones of the stone packing, just under the big stones of the wall. Despite the level of fragmentation, the skeleton laid in its original position. No grave goods were found with the defunct. After the cleaning of the bones, the osteology analysis and the collection of the samples, the skeleton has been repositioned in its original place in the wall.

Interpretation:

The orientation could suggest a dating around the Migration Period (AD 375-550), in witch the most common N-S (head in the South) orientation has been reversed. The osteology analysis took to the hypothesis that the defunct was probably female. The analysis of the teeth and the fusion of the bones suggests that they belong to an adult individual, who died at the age of ca 30 years old.

FIND LIST FOR CONSTRUCTION N. 1/22

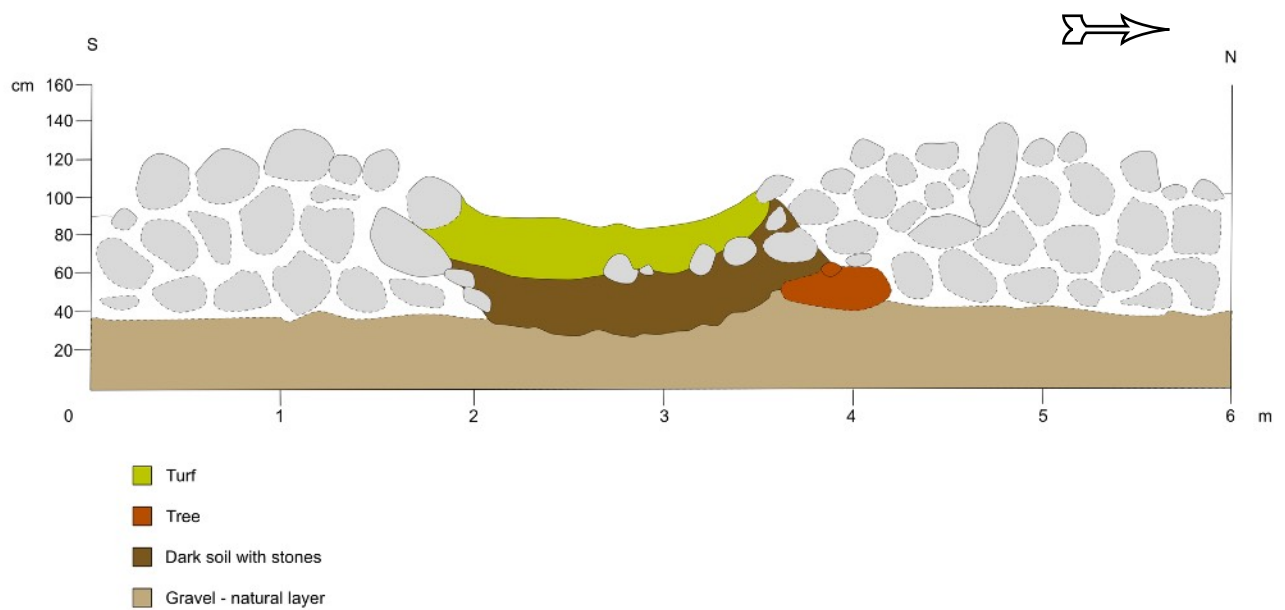
FIND N.	Description
1	Fragmented skeleton a woman. Total weight: ca 1064 g.

SAMPLE LIST FOR CONSTRUCTION N. 1/22

Sample n.	Type
1	Tooth
2	Ear bone
3	Bones sample
4	Soil sample from the stomach area



Plan over Trench 6 after the removal of the turf.



Profile of Trench 6, oriented towards west.



Plan over Grave 1/22. It hasn't been noted any pattern in the stone packing.



Detail of the hips and legs part of the skeleton.

Go. Eke 2022, Trench n. 12

Ancient remain no.	L1977:4059
Construction no.	12
Type	Test trench
Size	2 m x 5 m
Area	10 m ²
Top and bottom level	Top 160, Bottom 198 below the instrument hight
Orientation	N-S
Samples and Analysis	-

Description:

The trench was 2 m x 5 m in size and laid out in a north-south direction in a depression that is usually filled with water in winter, but which was dry during the time of excavation. The surface is grassy with sedge bushes and a few small birches.

De-turfing took place in 10–15 cm thick peat. After de-turfing, there was dark colored soil with occasional gray stones approx. 0.10 x 0.15 m to 0.20 x 0.30 m in size. The height of the ground level met in the middle of each trench edge.

Underneath the peat there was a layer of grass roots and below that came sand mixed with dark soil and patches of whitish-yellow sand. The sand turned green after a while in the sun. A sheep or goat's tooth (F1) and four fragments of cow, sheep and/or goat's teeth (F2) was found.

Layer I

During further excavation, approx. 0.20 m below the ground surface, more and more gray stones (0.10 x 0.10 m – 0.20 x 0.30 m) occurred over the entire surface. After a few more centimeters, coarser gravel of smaller stones occurred over the entire surface. In the North, there was a slightly deeper layer of dark soil, about 0.25 m below the surface.

A test pit has been dug between squares 3/0 and 4/0. During excavation sterile, white sand was encountered. After bottom measurements were taken, the trench was backfilled with the material removed.

Interpretation:

No clear signs of any construction could be noted. The wet area is most probably a natural depression in the ground.



Trench 12 after de-turfing. Picture taken from the South towards the North.



Trench 12 after de-turfing. Picture taken from the East towards the West.



Trench 12 – Layer I. Vertical photo.

Go. Eke 2022, Trench n. 13

Ancient remain n.	L1977:4155
Size	4.5 m x 2.5 m
Area	11.25 m ²
Top and bottom level	Top 5,23, Bottom 5,09 m.a.s.l.

Description of trench:

Before de-turfing

The trench was on top of the wall (rampart), which runs SW-NW. In the middle was a N-S oriented oval depression surrounded with large stones. The northern end of the trench had fewer visible stones about 1 meter from the trench boundary. The North end of the trench was towards the inside of the wall (the rampart), the South end towards the outside.

Layer I

After cleaning of turf and upper layer of soil, more stone appeared in different sizes. In the depression, that was already seen earlier, there were both larger and smaller stones. Many stones were probably thrown up and not in their original position. The recess was approx. 2 meters long and approx. 1 meter wide, the deepest point was approx. 0.70–0.80 m below the surrounding stones. There were no limestones, only granit stones.

About 1 meter in from the northern edge of the trench there was a row of larger stones that continued into Trench 2. Inside there was a stone packing about 1.80 m wide made of smaller stones. Parallel to the larger stone row, there was another one in the southern part of the trench with large stones. About 2 meters from the western side of the northern trench edge in the stone packing were larger stones between 0.40–0.60 meters tall. The larger stones formed a rounded pit. The smaller stones in the stone packing were between 0.12–0.20 meters. The larger stones in the northern and southern row of stones were between 0.40–0.50 meters.

Layer II

After removing the intermediate stone packing and cleaning, some human skeletal remains and a bronze pin appeared. Large and small stones were removed to further expose the remains and bronze pin. Two new indications of metal appeared in the area, which would turn out to be another bronze pin and a small penannular brooch, also of bronze. More skeletal remains began to appear in an area with a diameter of about 1 meter. The bronze pin was located at the outer edge of the skeletal remains. The area of skeletal remains appeared to be bounded with smaller stones all around with a large stone to the Southeast next to the bronze pin and a large stone to the Northwest delimiting the area. A large red rock was on top of the human remains as a possible cover. The bronze pin was 10 cm long. A new metal detector indication at the northern edge of the skeletal remains turned out to be an iron knife.

Layer III

The skeletal remains were removed to follow up if there were any more remains laying beneath. About 50 cm to the north of the remains, a foot bone was found between stones. On the other side of the more western stone, a single bone presumably from the foot was also found. During the continued clearing work, a kneecap was found about 10 cm northeast of the collection of remains.

Construction n.	3/22
Type	Grave
Size	1 meter
Shape	Circular
Orientation	N-S
Top and bottom level	Top 5,23 m.a.s.l. Bottom 5,09 m.a.s.l.
Samples and analysis	Tooth (isotopic analysis), femur fragment (C14)

Description of grave:

The grave was oriented in a north-south direction and hosted a very fragmented skeleton with the head towards south. After a first cleaning of the stone packing, a crushed skull and arm bones could be seen, no continuation in the form of a torso and bones was visible. After further clearing, a foot bone was found approx. 50 cm to the North, another bone found was a kneecap (B7) approx. 10 cm east of the concentration of skeletal remains. The first indication of the grave was a single bone (B1) that laid about 5 cm above the concentration of remains. A scan with a metal detector gave an indication which after some digging turned out to be a bronze pin (F1) lying on the South side of a rock against which the head rested. Once the bones were cleared, another search was made with a metal detector and three more indications were found: another bronze pin (F2) was found under an arm bone (B5), a knife with a broken point (F3), and a penannular brooch (F4) which was under the cranium (B9). The grave was heavily disturbed; among other things, finger bones were found under the penannular brooch and under the head. Digging was continued to a bottom depth of 180 but no further bones or more metal signals were found. The skeleton has been deposited in its original position with its knife.

Osteology analysis (by Petter Åkeson):

The skeleton is very fragmented, only a few larger parts are preserved, mainly skull roof and long bones. However, all areas from the human body are present, although skeletal parts from the lower legs and feet are only represented by a few fragments. In general, it can be said that the legs are not particularly strong, but neither are they thin and slender.

The sex of the individual is difficult to assess, as some sex-distinguishing characters show female traits and others male. No joint ends were preserved for measurement in this aspect. Overall, however, it points to the skeleton probably coming from a man, mainly based on the upper edge of the eye socket and the area around and below the symphysis joint on the right pubic bone.

Age assessment has been made after analysis of tooth wear and fusion of the joint ends of the bones. The latter consisted only of the right clavicle, the end toward the middle of which appears to have been recently fused. This, combined with slight wear on the four preserved molars, indicates an age of around 25 years.

No complete bones for body length calculation were preserved.

The only skeletal mark noted is a strong bone growth on a lumbar vertebra. It is located on the left side of the vertebral body and extends more than two centimeters upwards. The outside of this goes smoothly into the side of the vertebral body and has probably been formed over a relatively long time, probably in response to stress caused by some form of trauma. The upper surface of the vertebral body is also uneven and porotic. Since no more vertebrae are preserved to the same extent, it is difficult to say whether the damage affected larger areas of the spine.

Two bone fragments from the right femur and a cheek tooth (probably a second molar) were selected for analyses, other skeletal material was reburied.

FIND LIST FOR CONSTRUCTION N. 3/22

FIND N.	Description
1	Bronze dress pin
2	Bronze dress pin
3	Iron knife
4	Penannular brooch

SAMPLE LIST FOR CONSTRUCTION N. 3/22

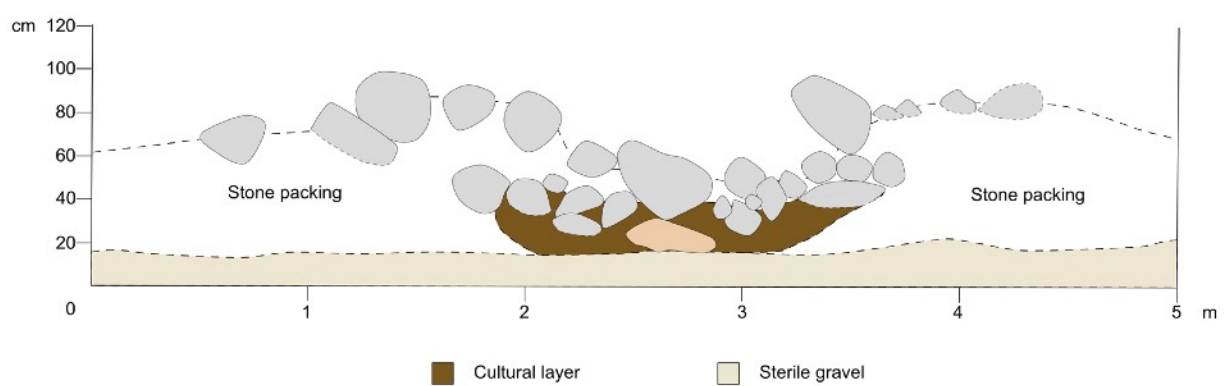
Sample n.	Type
1	Tooth (isotopic analysis)
2	Femur fragment (C14 dating)



Vertical photo of Layer II in Trench 13.



Oblique photo of Grave 3/22 in Trench 13.



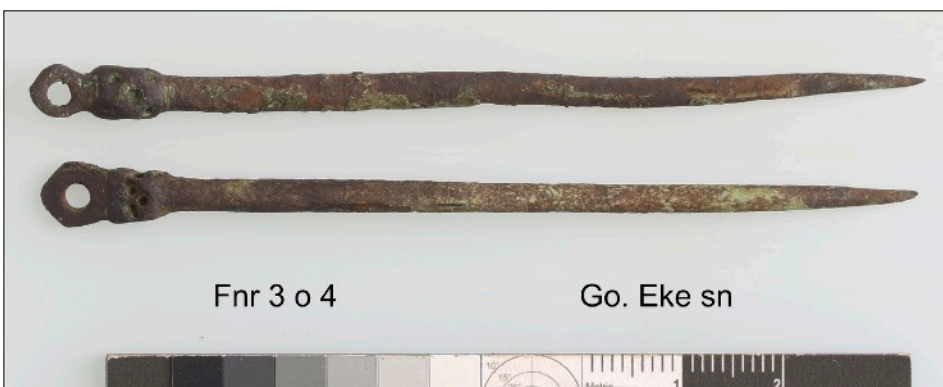
Profile of Trench 13.



*Detail of the skeleton
hosted in Grave 3/22.*



*Penannular brooch in bronze found with the
skeleton. After conservation. Photo: Bosse J-N.E
2022.*



*Bronze pins. Before
conservation. Photo:
Bosse J-N.E 2022*

Go. Eke 2022, Trench n. 14

Ancient remain nr.	L1977:4059
Size	4.15 m x 2.5 m
Area	10.3 m ²
Top and bottom level	Top 5,75, bottom 4,99 m.a.s.l.

Description:

The southwestern area of the trench had a denser packing of stones than the northeastern area. Four large visible stones in the Southwest area, in addition to a large stone in the northeast, should not be considered as part of the facility because they were laying on the grass above ground. A depression which lacked large stones was clearly visible in the center of the trench. There were fewer visible stones in the Northeast. The stone formation around the depression appeared to be circular.

Layer I

The stones in the trench appeared to have been moved from their original location and were in disarray. In the center there was a depression that is approximately 0.80 m in diameter. There was one large stone (0.60 m), while the majority of the other stones were medium sized (0.30–0.40 m). Several smaller stones in the North and northwest were more scattered than in the rest of the trench. Small stones (0.20 m and less), in more diffuse concentrations occurred around the depression in the middle.

Layer II

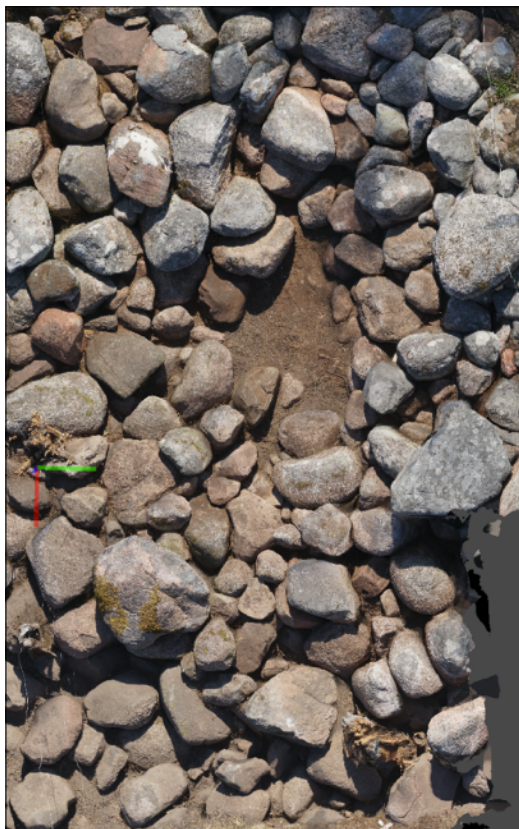
In the Southwest corner of the trench some animal teeth (F3), likely sheep, were found. These were found under a packing of smaller stones (0.10–0.15 m). In the center of the trench there was a packing of larger stones (0.30–0.40 m). In the Southeast corner there was an untouched stone packing with stones approx. 0.40–0.50 m in diameter. Centered in the West was a large, relatively square stone (0.80 m), limestone. The bottom of the shaft consisted of sterile gravel.

Interpretation

No clear construction could be noticed. The Northern part was obviously part of the wall, the Southern part probably consisted mainly of thrown out stones from the center of the wall.



Trenches 14 and 15 after de-turfing. 14 to the right, 15 to the left



Vertical picture of Trench 14 after de-turfing

Go. Eke 2022, Trench n. 15

Ancient remain n.	L1977:4059
Size	2.4 m x 3.1 m
Area	7.4 m ²
Top and bottom level	Top 5,73, bottom 5,05 m.a.s.l.

Description:

Before de-turfing

The trench, which measured 2.4 m x 3.1 m, laid in a straight north-south direction. It had an over-peat filling with a circular elevation of approx. 0.20 m with a clear depression in the middle. In the trench there were some gray stones (0.20–0.40 m) laying on the surface.

Layer I

After de-turfing, an accumulation of gray stones of varying sizes (0.20–0.40 m) was visible.

The stones were larger in the Southwest corner and more densely packed in the South. A ring-shaped formation with a diameter of about 1.5 m and consisting of slightly larger stones could be seen in the center of the trench. The stones appeared largely untouched, but some of the top stones are loose.

Layer II

After removing a layer of loose stones, several additional stones of varying sizes appeared in an irregular pattern. At the western edge of the trench, very small pieces of charcoal were found during sifting. The ring-shaped formation observed before the removal of the loose stones could no longer be distinguished.

Layer III

An area of approx. 0.80 m along the southern edge of the shaft was dug down to the untouched ground and cleared so that the profile was clearly visible. The profile showed some larger stones (0.30–0.50 m) partly embedded in the peat edge and a few smaller stones (0.10–0.20 m). A number of larger stones were moved to clear the surface. The bottom of the trench, closest to the profile, consisted partly of small stones (0.5–0.10 m) lying on sterile soil. There were no finds.

Interpretation

No clear construction was found, and most of the stones might have been thrown out from the center of the wall during plundering activities.

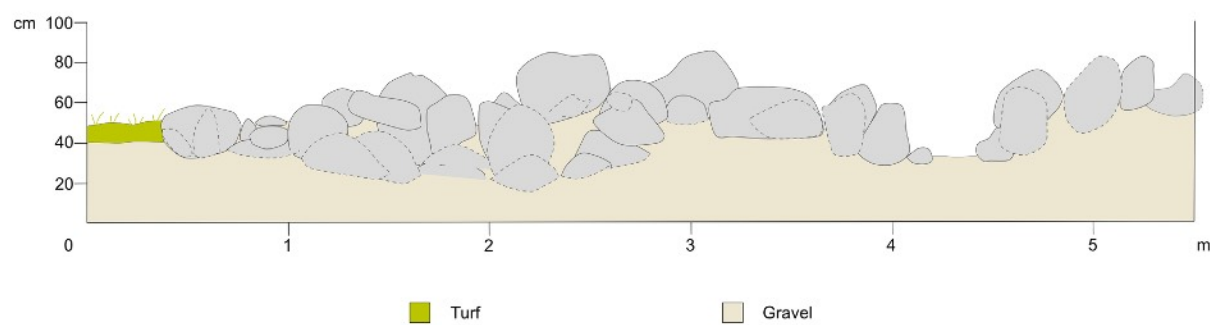


Trench 15 seen from west after de-turfing.

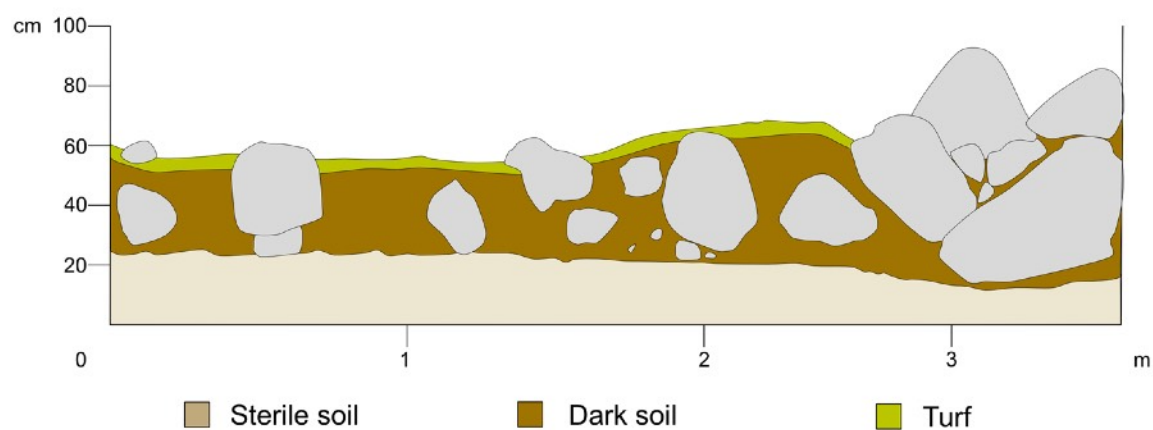
Trench 14 och 15, bottom of layer II



Vertical photo of trenches 14 and 15. Trench 15 to the left, 14 to the right.



Profile of Trench 15.



Southern profile of Trench 15.

Go. Eke 2022, Trench n. 16

Ancient remain no.	L1977:4059
Construction no.	16
Type	Stone wall
Size	3 m x 3 m
Area	9 m ²
Top and bottom level	
Orientation	N-S
Samples and Analysis	

Description:

The trench measured 3 m x 3 m and was located in the center of the stone wall at Gudings Slott, and covered a clear depression in the wall. It laid almost entirely in a north-south direction and covered the center of the wall. The surface was covered with gray stones of varying sizes (0.10 x 0.15 m to 0.50 x 0.60 m) as well as moss, sedge bushes and some grass. In the middle of the trench there was the depression, a relatively stone-free area of approx. 1 m x 1.5 m. The latter area was dug first and increasingly expanded within the surrounding stone ring. After de-turfing, the soil was loose and covered with bark, dark wood and peat, thus dark brown in color. There was large empty space between the stones.

Layer I

After excavating about 20 cm down, larger, more packed stones occur approximately in the middle of the excavated area. In the middle of that stone packing, after clearing the soil, there was a packing of slightly smaller stones (0.8 m x 0.10 m to 0.10 m x 0.25 m). In the South-east corner of the trench, there was a depression with a lot of soil mixed with bark. A similar depression with the same kind of soil also occurred in the Northwest corner.

Layer II

A layer of stones has been removed and under the stone there was extremely loose soil mixed with bark and peat. An approx. 1 meter wide band of smaller stones (approx. 0.10 m–0.15 m) could be distinguished in an east-west direction, i.e. the direction of the wall, in the middle of the trench.

Layer III

Next layer of stones was removed. In the North there was sandy soil and in the South a grayish clay. More stones were removed placed in no specific pattern.

After finishing the excavation, the area was backfilled with the original material according to the initial shape.

Interpretation

Before the excavation, there was a clear depression like a plundering pit in line with other depression in the wall. The excavation gave no evidence of a grave, not a single bone, nor any artifacts. The existence of a huge layer of wood remains might point to the interpretation that the depression has to do with trees. Another explanation might be that the area has really been plundered, mistaking the area for a grave.



Trench 16 before de-turfing. Picture taken from the North towards the South.



Trench 16 before de-turfing. Picture taken from the West towards the East.



Trench 16 after de-turfing. Picture taken from the West towards the East.



Trench 16 after excavation.



Trench 16. A profile showing the Eastern side of the trench, that clearly illustrate the two different layers of the wall, The top layer of loose stones, and the bottom layer with stones packed in the soil. The latter layer interpreted as the natural beech wall. Below the white line.

Go. Grötlingbo 2022, Trench n. 9

Ancient remain n.	L1976:553
Size of the trench	2x2 m
Area of the trench	4 m ²

Construction n.	1
Type	Suspected grave
Size	2x2
Shape	
Orientation	
Top and bottom level	Top 5,7, bottom 4,95 m.a.s.l. approximative
Samples and analysis	1 charcoal sample

Description:

An area with stones covered in moss, ca 2 x 1,5 m large, was clearly visible before the removal of the turf. It has been noted a tendency to a higher altitude of the construction on the West side, and it looked like it was leaning against the wall. It's moreover possible that the facility continues under the wall.

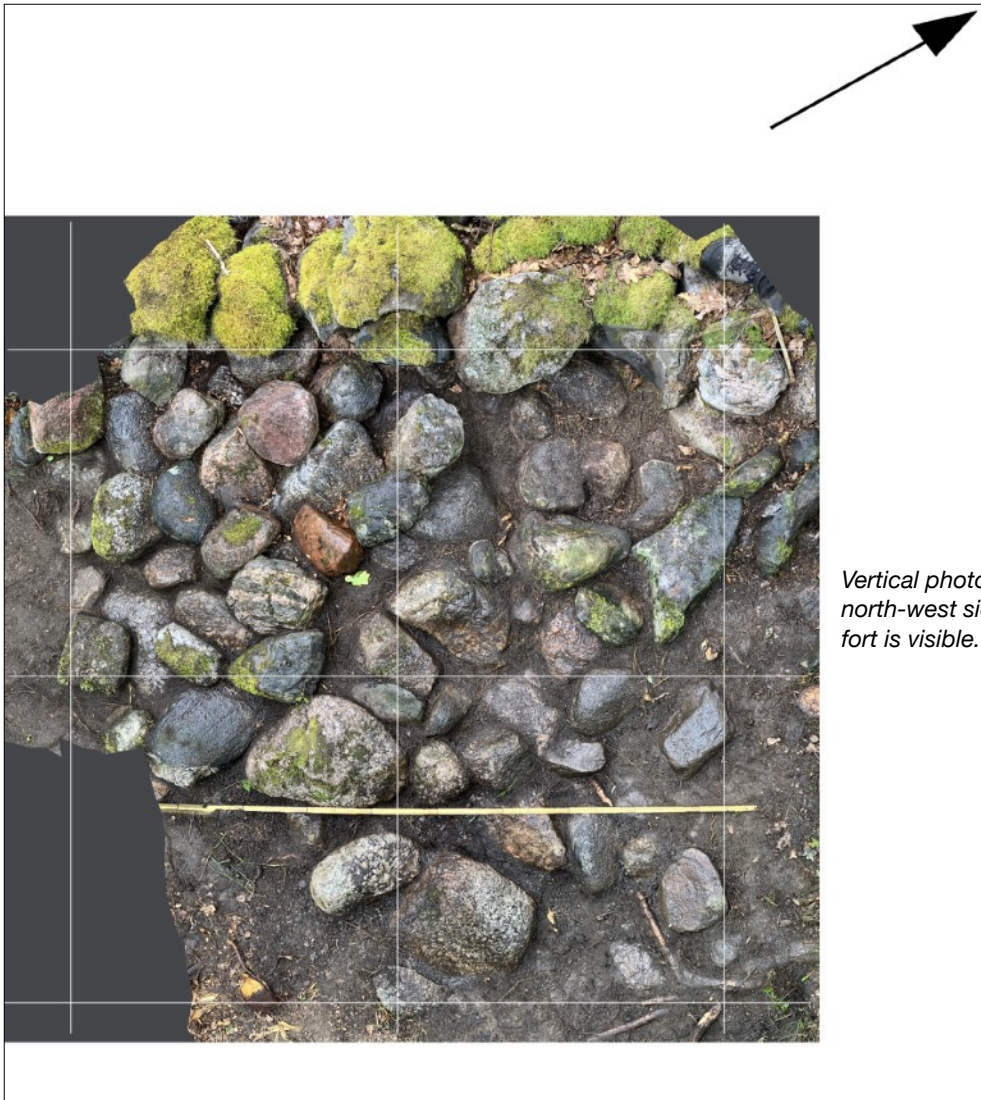
The straight line of stones in the construction was 2,49 m long. After the cleaning a bigger structure emerged. It consisted of stones forming a semicircle, which had the straight side against the stone embankment. The highest stone was the closest to the stone wall. The stones had a size between 30 and 40 cm; the northwestern part of the facility was slightly higher than other parts of the wall.

During the excavation, at the level of layer II, a tight stone packing came up, formed by stones of the dimension of 30-40 cm. The stones were very close to each other and with a very small amount of soil in between. A piece of charcoal has been found in the Northeast area and collected. The bottom was found at a depth of ca 50 cm. No finds have been detected.

Interpretation:

The construction has initially been suggested to be a grave, especially during the discovery of the tight stone packing in Layer II. However, nothing has been found except a small piece of charcoal.

SAMPLE LIST FOR TRENCH 9	
Sample n.	Type
1	Charcoal



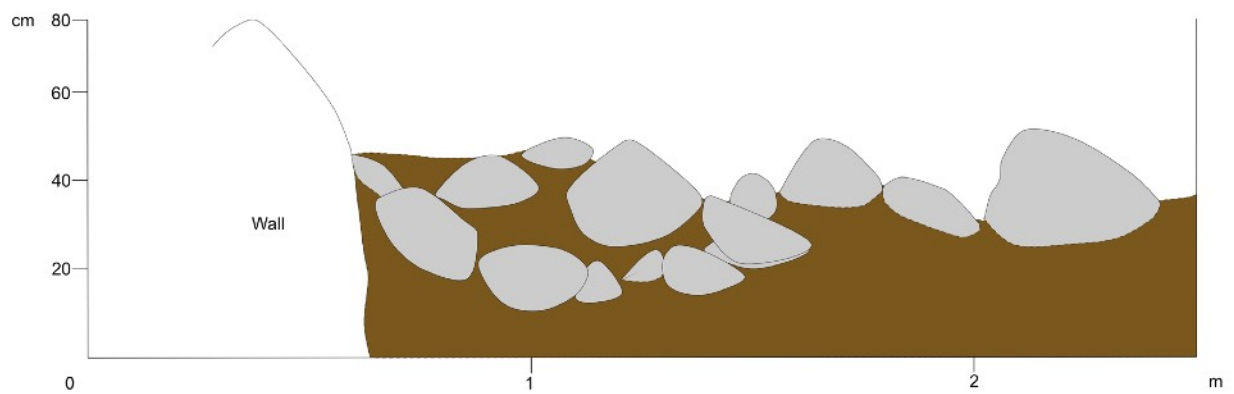
Vertical photo of Trench 9. In the north-west side the wall of the hill fort is visible.



Oblique image of the final stage of the digging of Trench 9.



Vertical photo of Layer II in Trench 9.



Profile of Trench 9.

Go. Eke 2022, Trench n. 10

Ancient remain n.	L1976:553
Size	SE side 170 cm; NW side 258 cm; NE side 196 cm; SW side 254 cm.
Area	About 5 m ²
Top and bottom level	Top 5,45 m, bottom 5,2 m.a.s.l. Approximative

Description:

The trench shape was an irregular square located approximately 0.70 to 1.50 m from the intended inside of the hill fort rampart. The shaft's northern corner was located ca 9.30 m from the nearest inner corner of the ancient stone enclosure.

The trench area was characterized by a large number of small (10-20 cm in diameter) and medium-sized (20-40 cm) stones evenly spread over basically the entire surface. The stones in the north-west side of the shaft (the side facing the ancient stone wall) were exclusively of medium size in the peat layer; generally, the stones were of smaller size in the western corner than along the rest of the north-west side of the shaft. The shaft sloped from the north-west long side down towards the south-east side. All with the distance from the ancient castle wall, the degree of slope decreased to stop just outside the south-eastern long side of the shaft.

The peat layer consisted to only a small or very small part of such grasses, herbs and shrubs as well as roots that usually characterize a peat layer. In the approximately two-fifths that were closest to the ramparts that surrounded the hill fort (Ronnings hill fort), the pre-layer consisted almost exclusively of moss, about two to four cm thick, on top of the stones along with empty spaces between the stones. In the remainder of the shaft, the pre-layer consisted almost exclusively of withered leaves, twigs and acorns, occasional hazelnut shells and a couple of low more or less rotted stumps (diameter 14-20 cm, of which the smaller approximately 30 cm inside the south-west side of the shaft and the large ca 40 cm east of the center of the shaft).

In the two-thirds of the shaft that were located closest to the south-eastern long side of the shaft, as the former were removed, a stone oval in a west-east direction seemed to emerge more and more clearly. The shaft was therefore expanded on two sides, which explains the irregular shape.

Layer I:

Rocks were cleaned and removed as they became loose. In the western corner of the trench, there was a free surface with soft soil under smaller medium-sized stones. This could mean that the stones were not in their original position. The excavation of the Northwest side of the shaft in general revealed, after removal of medium to large medium-sized stones, a significantly thinner layer of soil around and under the stones. In the rest of the trench there was relatively good soil between and under the stones with tree bark between.

Layer II: In the western corner of the trench there was a thick layer of decayed soil with acorns. In the rest of the Northwest side, under the removed stones in Layer I, there was no uniform stone-

free surface with soil. Instead, there was a thin layer of poor soil between the stones belonging to Layer III.

Layer III: The layer was characterized by a number of stones of medium size fixed in the ground. In the western corner, the soil gradually became of poorer quality with increased elements of sterile connotation. The rest of the northwestern part was only partially excavated. The southeastern part still had relatively good soil. Underneath the removed stones, the soil mass changed to a semi-hard character. It appeared to contain a large measure of impure sand and a smaller portion of clay. The proportion of sterile soil increased.

Layers II and III contained six to seven acorn caches located below the ground surface. The largest contained 415 acorns. The caches contained at least 1000 – 1200 acorns. In addition, there are acorns lying loosely in the soil. Total maybe 1500 or more. Almost all were dark black, soft and cracked along the length. Remnants of root threads protruded from many of them; some of them fresh. A conversation with the biologist on duty at the National Museum of Natural History gave the information that germination requires that the acorns are not stored too dry and that they must not be exposed to too much cold. They are likely collected by a mouse or possibly a squirrel. The large number suggests that they may have been collected by several mice. The collection may have taken place over a long period of time.

Layer IV: The layer is characterized by a number of stones surrounded by sterile soil. Two small areas have been dig more and they revealed the beginning of a layer of gravel. No find has been detected and no sample has been collected.

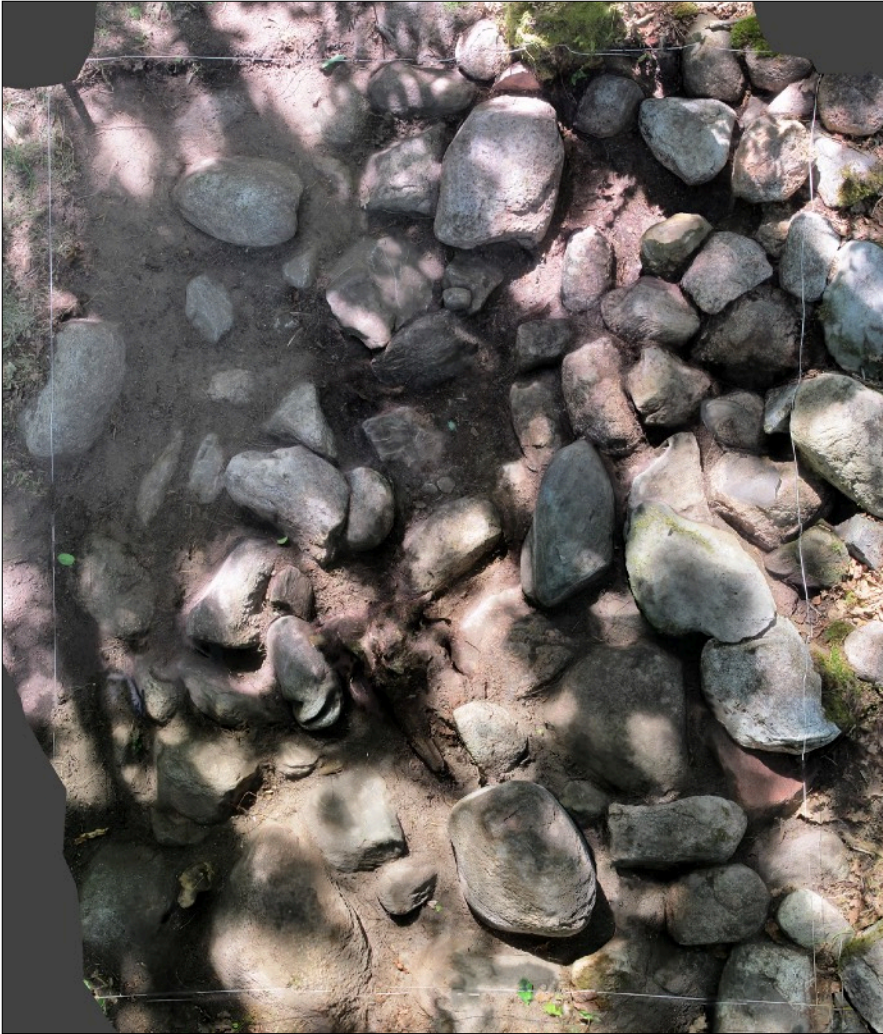
Interpretation:

The location of the trench was motivated by the fact that a slightly oval stone circle with possible inner circles indicated a stone-covered grave of Viking age character. The oval was located in a west-east direction.

However, the excavation did not reveal any unequivocal remains of human activity. Nothing came to light to indicate that the supposed stone circle initially interpreted as a possible burial site would have been a grave or a cenotaph.

The quantity as well as the volume of smaller and medium-sized stones was higher in the part of the shaft that is located closest to the ancient castle's wall; in the southern and eastern corners of the shaft, the number of stones visible on the surface was comparatively low, and just outside the south-eastern long side of the shaft, it ceased more or less completely. This, coupled with the presence of decayed soil under stones, suggests that the uppermost stones in the shaft (the majority of those already visible at the start of excavation) were not original. One guess is that they were previously placed on top of the ancient castle's wall.

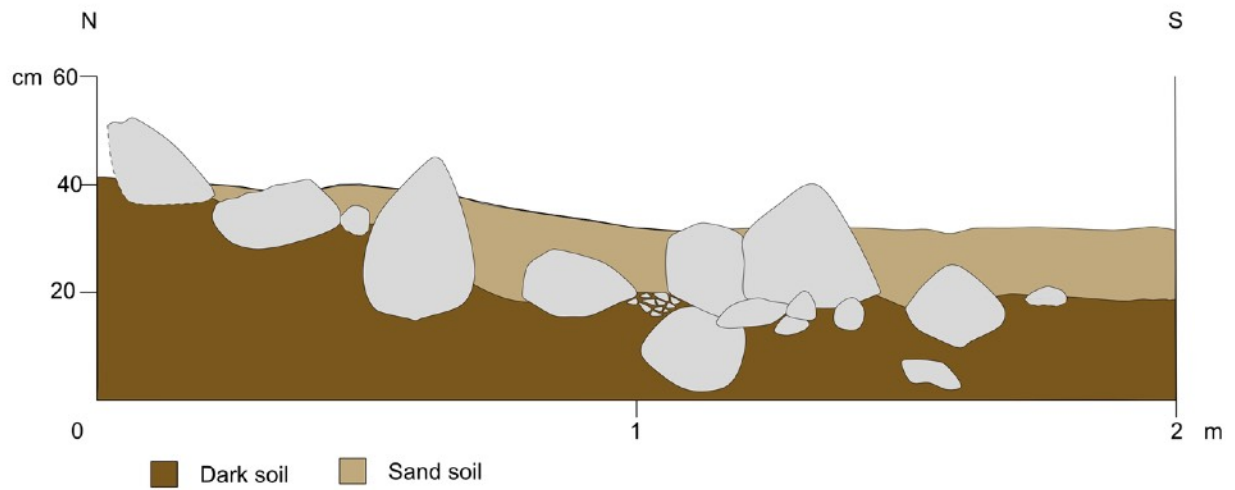
Stones surrounded by sterile soil and beach gravel are considered natural and to have obtained their position during the Ice Age.



Vertical photo of Trench 10, Layer II.



Oblique photo of Trench 10, final stage.



Profil from the stone wall towards the inner part of the enclosed area



Acorns collection found in Layer II and III.

Go. Eke 2022, Trench n. 11

Ancient remain n.	L1976:553
Size	3x2
Area	6
Top and bottom level	Top 5,5, bottom 5,2 m.a.s.l. Approximative
Samples and analysis	Charcoal. C14 dating AD 641-772

Description:

Before the cleaning of the turf, in the northern part of the trench, a line of stones emerged from the soil. The stones' size was between 30 cm and 60 cm. In the southeastern corner another stone (ca 30 cm big) was visible. Along the central part a small elevated plateau was present, with a grass turf sparsely disposed. Black oily soil, with a component of charcoal, was visible from the beginning before the removal of the turf. The turf level itself was thin.

After the removal of the turf the cultural layer emerged. The furthest eastern part and the southwestern part (except the stone row) were characterized by the presence of very dark soil. The soil included charcoal and burnt stones.

A stone row emerged along the northern side of the trench. Also in the southern edge more stones became distinguishable. The stone row in the northern part bordered with a lower level of the ground surface.

After the cleaning of the surface of this layer, a compact packing of burnt stones (ca 7-10 cm thick) became visible, with the stones of a dimension between 5 and 10 cm, and occasionally bigger. The packing was mainly concentrated in the northern side of the trench. A row of stones with a sequel towards east (and partially towards west) was now clearly evident.

The granite stones of the stone row were of a size between 40 and 60 cm. The stone row formed an edge where the ground in the north was lower and not filled with dark-charcoal components. In the eastern end of the trench, before the row of stones, there was three stones further, ca 40-50 cm in size. The layer of burnt stones continued over the boundaries of the trench.

The cracked stones layer bottom was ca 33 cm under the ground level, and ca 20 cm thick. The bottom of the trench consisted in steril gravel. Pieces of dark ceramic, included two rim bevels, were found spread out in the cracked stones layer. The cultural layer showed also the presence of burned bones in the southeastern corner.

Interpretation:

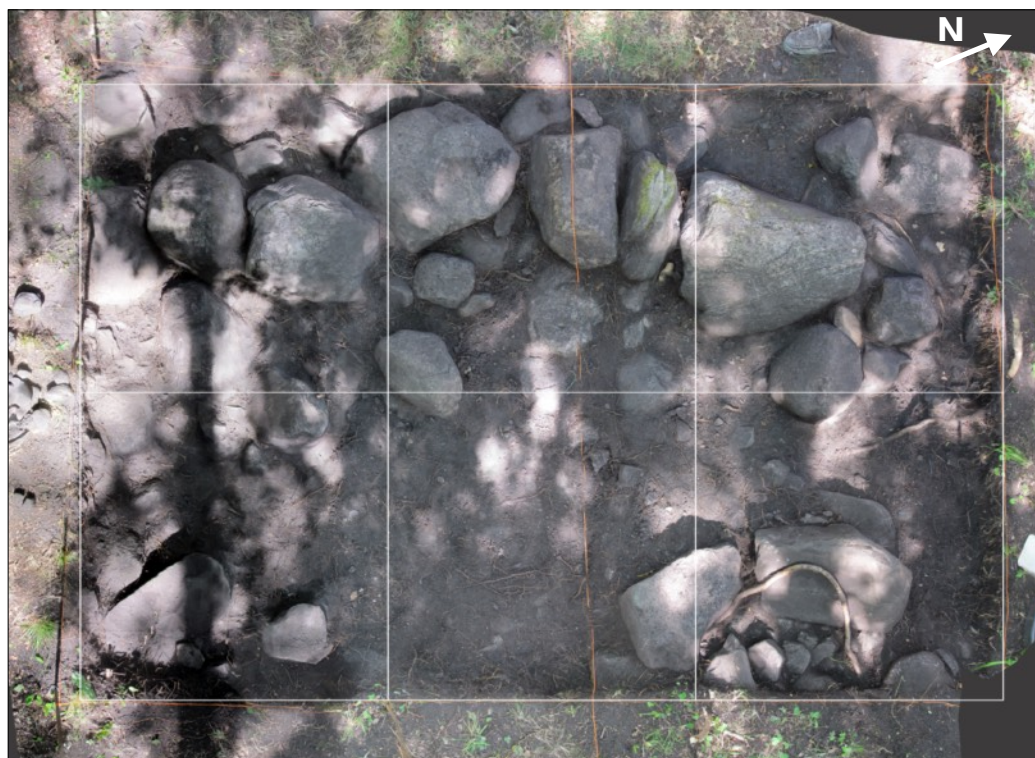
The row of stones, which showed continuation outside the borders of the trench, suggested the presence of a bigger structure, probably older than the concentration of charcoal and cracked stones.

FIND LIST FOR TRENCH N. 11	
FIND N.	Description
2	4 ceramic fragments, included a rim bevel
3	Ceramic fragments
4	Burnt clay
5	Burnt bones
6	Slate
7	Charcoal
8	Charcoal
9	Ceramic fragments
10	Ceramic fragments
11	Burnt bones
12	Burnt bones
13	Ceramic fragments
14	Ceramic fragments
15	Bones
16	Ceramic fragments, 1 rim bevel

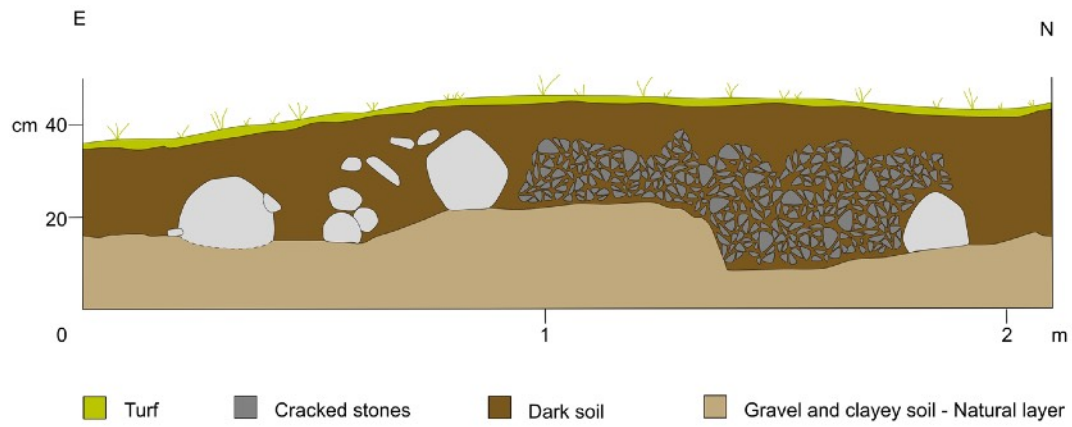
SAMPLE LIST FOR CONSTRUCTION N.	
Sample n.	Type
1	Charcoal



*Vertical photo of
Trench 11 after the
removal of the turf.*



*Vertical photo of
cultural layer in
Trench 11.*



Profile of Trench 11.



Oblique photo of the cultural layer in Trench 11. The line of stones to the right in the picture

Appendix 1. Osteology

Trench 2, Construction 2/22

The primary individual (2a/22), found in the far southwest end of the trench, appears to be mostly complete. The remains were determined to be an individual approximately 30–35 years of age based on the fusing of the cranium and the tooth wear. The M2 on the right and left side showed evidence of large dental caries on the hypoconulid side with evidence of abscess within the lingual right side of the mandible showing evidence of infection with collection of pus in a cavity formed by tissue disintegration, shown as a cavity within alveolar bone near the tooth root apices (White 2011). The greater sciatic notch shows a narrower angle with the number being between 3 and 4 on the scale of 1 to 5 based on P. Walker in Buikstra and Ubelaker's standard volume (1994), indicating that the individual is most likely a male. The distinct angulation of the posterior border of the mandibular ramus of the individual also suggests that the remains are from a male. Males usually have a pronounced flexure of the posterior ramal border at the level of the occlusal surface of the molars (Loth & Henneberg 1996 & 1998; White 2011:414).



Parts of a pelvis, the Os Coxae and the distal end of a femur, which were found scattered on top of the primary individual, were partially fused indicating an individual (2b/22) of indeterminate sex aged between 20–25 years.

Cranium fragments found northeast of the primary individual, were most likely from a female based on the thickness of the occipital bone of the cranium and the smooth surface area of the nuchal crest with minimal expression Buikstra and Ubelaker standards volume (1994) White (2011). A large number of teeth were also found near the cranium on the East side of the trench, but a few teeth were also found scattered up to 1–2 meters west of the cranium. It cannot be determined if the cranium fragments and teeth belong to the same individual aged 20–25 years. Tooth wear patterns suggest an age estimate of 20 to 25 with wear patterns from both incisor and molar field teeth based on adaptations charts of tooth wear patterns from Brothwell (1981) and Lovejoy (1985).

Parts of a pelvis were found among the large stones between the grave and the wall. They were determined to be from a female (2c/22) who had given birth. Based on the parturition changes on the greater sciatic notch on ossa coxae which are at a wide angle as 1 within a range between 1 and 5, 1 being very indicative of female. Teeth, fragments of long bones, as well as bones from the hands and feet were found scattered among the same rocks, all on the east side of the trench. It cannot be determined if the female to which the pelvic bones belonged is the same individual for which the cranium fragments belong.

Literature:

Brothwell. D.R. 1981. Digging up bones. Cornell University Press.

Buikstra, J. E., & Ubelaker, D. 1994. Standards for data collection from human skeletal remains. Research series no. 44. Fayetteville, Arkansas: Arkansas archeological survey research series no 44.

Loth, S.R., Henneberg, M. 1996. Mandibular ramus flexure: A new morphologic indicator of sexual dimorphism in the human skeleton. American Journal of Biological Anthropology.

Lovejoy, O. 1985. Chronological metamorphosis of the auricular surface of the ilium: A new method for the determination of adult skeletal age at death.

White, T. et al. 2011. Human Osteology. Elsevier

Appendix 2/2022

Find list Archaeological investigation at Eke summer 2022.

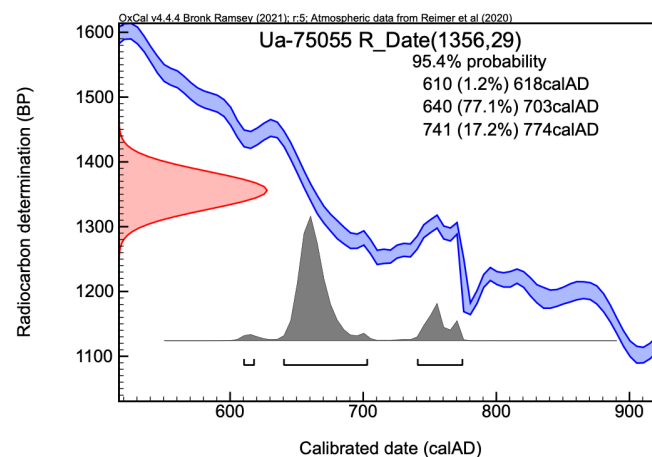
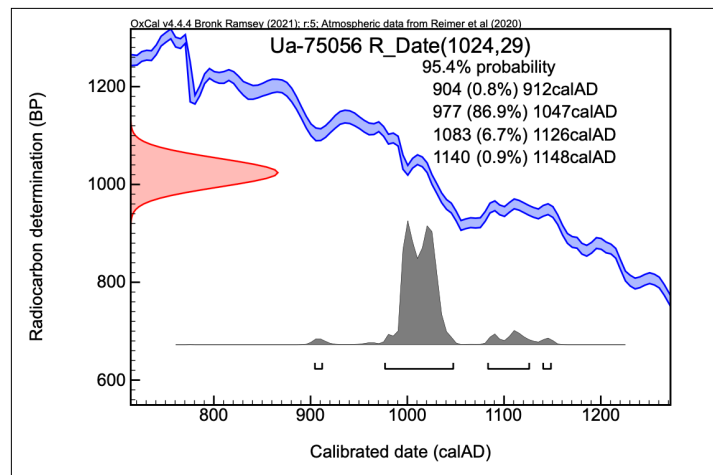
Lst reg.number: 431-193-2022.

Gotland, Eke socken, L1977:4155						
Fnr	Trench	Anl.	Object	Material	Dating	Other
1	2	Anl. 2/22	Box brooch	Cu-legering	Viking Age	Conservated
2	13	Anl. 3/22	Pennanular brooch	Cu-legering	Viking Age	Conservated
3	13	Anl. 3/22	Dress pin	Cu-legering	Viking Age	Conservated
4	13	Anl. 3/22	Dress pin	Cu-legering	Viking Age	Conservated
5	13	Anl. 3/22	Knife, heavily eroded, and in pieces	Iron	Viking Age	Re-deposited
6	11		Ceramic	Clay	Vendel Period	Two different types.
7	6	Anl. 1/22	Tooth	Bone	Viking Age	From female grave
8	13	Anl. 3/22	Tooth	Bone	Viking Age	From grave
9	2	Anl. 2/22	Tooth	Bone	Viking Age	Maybe 4th skeleton
10	2	Anl. 2/22	Tooth	Bone	Viking Age	Individual 2
11	2	Anl. 2/22	Tooth	Bone	Viking Age	Individual 3
12	14		Cremated bones	Bone		4 small pieces
13	14		Animal bone	Bone		A small bone, mouse or bird
14	2	Anl. 2b/22	Human bone	Bone		Piece of long bone
15	2	Anl. 2b/22	Human bone	Bone		2 pieces og long bone
16	6		Animal bone	Bone		Small animal or bird
17	2	Anl. 2a/22	Human bone	Bone		Femur
18	2	Anl. 2b/22	Human bone	Bone		Piece of cranium
19	6	Anl. 1/22	Human bone	Bone		Piece of cranium
20	6	Anl. 1/22	Soil sample	Soil		Soil from area of stomach
21	3		Human bone	Bone		Used for C14.

Appendix 3. ¹⁴C datings. Eke summer 2022

Calibrated with OxCal v4.4.4.

Nr.	Trench	Const.	Material	Dating	Lab number
1	1		Animal bone	Low quality, not dating	
2	2	2a/22	Human bone	1024±20 BP, 95,4 % AD 904-1148. Most probably AD 977-1047	Ua-75056
3	11		Charcoal	1356±29 BP, 95,4 % AD 610-774. Most probably AD 640-AD 703	Ua-75055
4	1		Human bone	Not yet ready	
5	3		Human bone	Not yet ready	
6	6	1/22	Human bone	Not yet ready	
7	13	3/22	Human bone	Not yet ready	
8	14		Aninmal bone	Not yet ready	
9	11		Burnt bone	Not yet ready	



Konserveringsrapport

Arendus AB
Dan Carlsson
2022-08-18



UPPDRAG

INTRODUKTION

4 bronsföremål, Dosformigt spänne, Ringspänne och 2 Prydnadsnålar.

TILLSTÅND

Go. Eke sn

Fnr 1 Cu Dosformigt spänne 101,9 g. Brunt lerlager på den gröna korrosions ytan.

Fnr 2 Cu Ringspänne 27 g. Brunt lerlager på den gröna korrosions ytan.

Fnr 3 Cu Prydnadsnål 5,97 g. Brunt lerlager på den gröna korrosions ytan.

Fnr 4 Cu Prydnadsnål 4,98 g. Brunt lerlager på den gröna korrosions ytan.

ÅTGÄRDSFÖRSLAG

Dokumentation.

Fotografering före och efter konservering.

Undersökning under mikroskop, rengöring med pensel.

Avlägsnande av korrosionsprodukter.

Avfettning och ytbehandling.

KONSERVERING

Alla fyra föremålen fotograferades före- och efter konservering.

Föremålen rengjordes försiktigt med mjuk pensel och aceton, även med ¹Berol 784 och pensel under mikroskop.

På dosformiga spännet lämnades det kvar ler på de små cirkelarna för att inte ta bort värdefull information.

Sedan avfettades föremålen i aceton och ett skydd av lack, 6% Paraloid B-72 lades på.

ANVISNINGAR OCH RÅD FÖR HANTERING SAMT FÖRVARING

Arkeologisk metall bör även efter konservering förvaras så torrt som möjligt.

Relativ fuktighet 18–20 %

Temperatur 18–20 C°

Hantering bör ske med handskar.

¹Berol 784 är en non-jonisk tensid.





Fnr 3 o 4

Go. Eke sn



Foto: Bosse J sson-Närva E
2022



STIFTELSEN
FÖREMÅLSVÅRD
I KIRUNA