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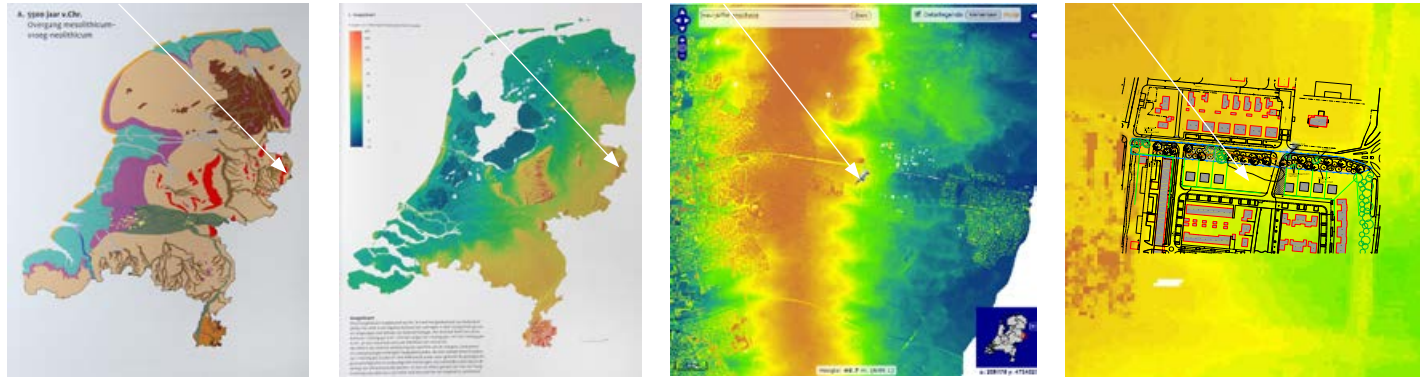
Making a Mesolithic site perceptible.

VUUR-STEEN FLINT STONE

Paul de Kort

MOTIVATION

The residential area Cascade is part of the plan Eschmarke in the municipal of Enschede. Cascade is located on the side of a push moraine created during the penultimate ice-age. Because remains have been found from the Middle Stone Age, also known as the Mesolithic, various plots in this urban planning project cannot be built upon. This design intends to make the story beneath ground level visible and perceptible for the current residents of Cascade.



The Dutch landscape during the Mesolithic period.

High and low in contemporary The Netherlands, the push moraine near Eschmarke is easy to recognize

The push moraine travels from north to south, but Cascade is located on a transition with an east-western orientation.

GEOLOGY

A reconstruction of the Mesolithic landscape can tell us a lot about the settlement and land use by humans. According to the Geological Map of The Netherlands, Cascade is located on a push moraine consisting of boulder clay and loamy sand covered in surface sand. The push moraine came into existence approximately 200.000 to 130.000 years ago, when this area was still covered with ice. The surface sand was deposited during the last ice-age (115.000 – 10.000 years ago). A cold and dry climate formed because of low sea levels, causing vegetation to disappear and sand to spray across the area. The sand created parabola shaped dunes.

HUNTING AND GATHERING

For the biggest part of the approximately 200.000 years that modern man (homo sapiens) has lived on earth, they lived as hunter-gatherers. The hunter-gatherer living in this area, survived by hunting animals and gathering edible fruits and plants. The hunter-gatherers usually did not have a fixed settlement, but instead travelled around like nomads in small groups of 20 to 25 people, always looking for new area with enough food.

CLIMATE CHANGE

About 12.000 years ago the climate in this area changed and it became warmer; more humid, and the ground was fixed by increasing forestation. A large variety of insects, fish, mammals and berries, fruits and nuts could be found in places where close forestation crossed into vegetation and open grasslands.

The hunter-gatherers relied mainly on these cross-over zones, often found in the transition from higher to lower areas, e.g. from dryer to wetter grounds, to acquire their food. Brooks and ponds, together with the cross-over zones, made the area even more attractive because they provided drinking water and easy transport on the water and alongside the shore.

Lastly, the tracks of hunter-gatherers can be expected in places where flint appeared at the surface due to erosion, places like the shores of brooks and water channels.

FLINTSTONES

Flint was one of the most important materials for hunter-gatherers to make tools and weapons. It is a hard and glass-like rock that is easy to manipulate and create tools and weapons from. A wide variety of tools could be made of flint, from axe and knife, to drill and arrowhead.



6 vuurstenen werktuigen

FIRE

In the development of the modern human being, the control over fire has been defining. During the age of hunter-gatherers fire was hard to make and even harder to maintain. It served varying purposes, such as heat, light, protection, and was used to cook and treat materials (forging and pottery). Fire was holy for the hunter-gatherer and surrounded by many rituals.

Mesolithic excavations often reveal remains of so-called hearths on sand ridges, because of their different colourations and layers they are strikingly visible in the yellow-like surface sand. These hearths mark settlements of travelling groups of hunter-gatherers. In the vicinity of these hearths, we often find a lot of flint waste and discarded tools.

The hearths provided an efficient way of making and maintaining a fire. In the middle of these hearths in the charcoal remains, we can often find boulders that are cracked and show a typical tear pattern that reminds of craquelé. These are rocks that have been burned by the heat of the fire.



TEH DESIGN

The description of a push moraine and parabola-shaped dunes, mainly formed by the south-western wind, in combination with the cross-over zone to a lower and wetter area, gives Cascade a cause for the parabola-shaped slope with a height accent in the north-eastern corner of the area. The hunter-gatherers had a preference for the cross-over zones between dense forestation and open terrain. This provides us with enough motivation for a vegetation project that gradually crosses from the tree line (Het Kattenbosje) into bushes and smaller vegetation and then into scarce grasslands that eventually fades into a swampy zone. The various kinds of vegetation can be selected by looking at the different kinds that were also present in the Mesolithic period.

The green zones in the residential area that are directly connected to a three-way junction between Vuurjuffer and Bosbeekjuffer, can get a similar feel and look, creating a cohesion in the scenic theme found at this junction.

The sharp and hard lines between the pavement and the vegetation can be touched and broken in the three zones around the junction because of the 'underlying story'.



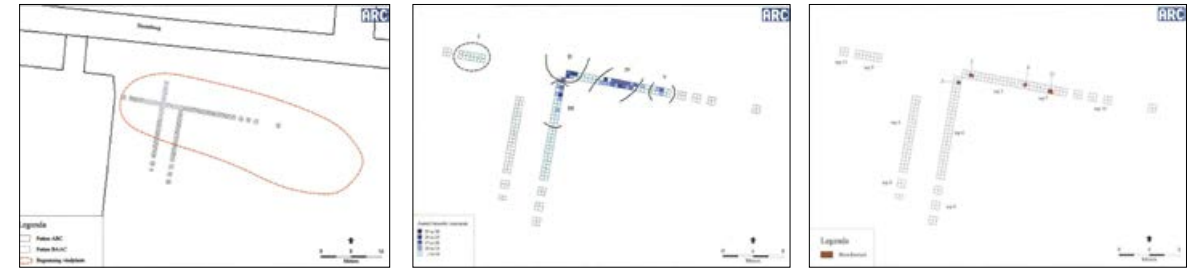
First sketch of the spatial plan

QUESTION MARKS

During archaeological research, four so called 'hearths' have been mapped with clusters of flint objects in the vicinity. This speaks to the imagination, these must have been places where hunter-gatherers came together to eat, have meetings or to sleep. We know very little about these tribes and this raises questions: who were these people, what did they do, what were they thinking? We know that they did not stick to one place, like the generations after them started doing, but we don't know how often and at what moments they returned to this place. Was their presence a consistent pattern or were their comings and goings unpredictable? What led them to this area? Was this the only tribe that settled here or were there many more?

HEARTHS

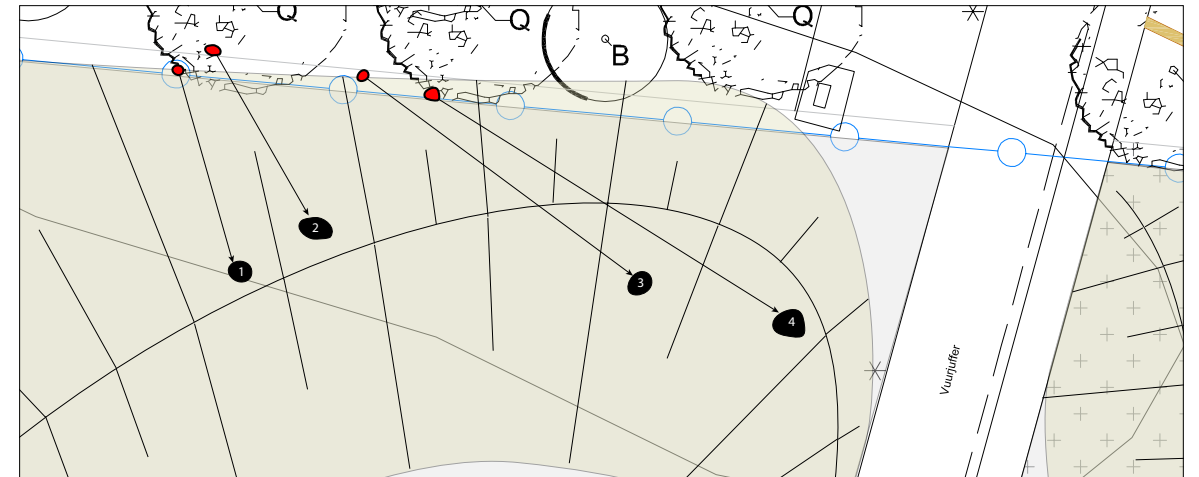
The four hearths found in Eschemarke are located in the north of the area, close to the trees and scattered across an east-western strip of approximately 15 metres. In this design, the hearths have been literally traced over from the archaeological rapport and have been enlarged twice their size. These new hearths have a round to oval shape and are approximately 1 to 1,5 kilometres in diameter. By picking up the hearths and move them in a south-eastern direction, they can lean over the crest of the parabola-shaped dune, at a high point for a good overview of the surroundings.



proefsleuven en begrenzing archeologische vindplaats

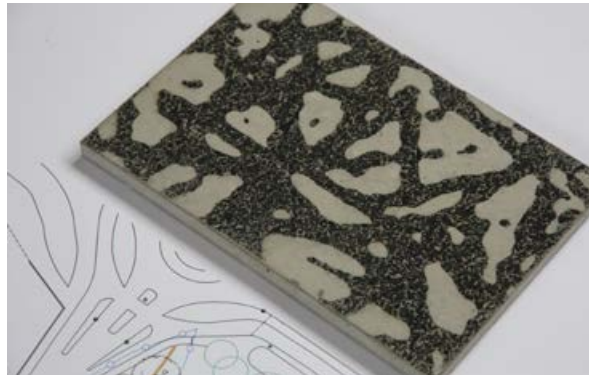
clusters met vuursteenresten

sporen van haarden

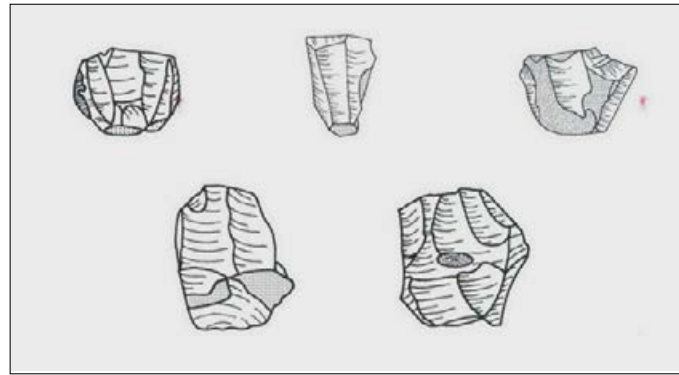


VUUR-STEEN (FLINTSTONE)

The four hearths now form the heart of the VUUR-STEEN plan. The hearths are represented as stone discs. Underneath every disc is a larger, slightly elongated surface that has been filled with loose play sand. The hearths represent a smouldering fire. The four hearths now form the foundation for the FLINT plan. The surface of the hearths consists of a stony material (concrete) that seems to have been 'cracked, torn and split by the heat'. The stony surfaces contain relief patterns of various cores of flint. Between the hundreds of flint splinters and shards a total of 29 artefacts were found. These are utensils purposely made by humans according to the archaeologists of ARCBv.



example of graphicconcrete (www.graphicconcrete.com)



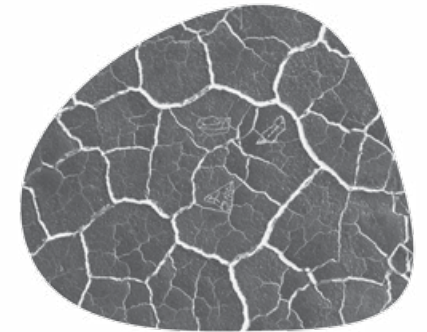
found artefacts (source ARC)

THE HEARTH

The fire, the sparkling guest, comes from the gods, but we need to build a hearth to provide it with a place to stay. This connection between flame and housing shaped the image of home for centuries: home and hearth. The flaming fire in the hearth is the symbol of the living centre of the family, the community, despite the fact that we are no longer dependent on it for warmth, light, protection, and food preparation. This long connection to the fireside has left us with an impression that is more than just the reminder of the actual physical construction. The concrete form of the hearth used to be no more than a stone surface or earth pit in the middle of a cave or primitive shelter.

Even though the building and structure of the hearth has changed, its spirit is still present when family and friends gather at a plated table or in front of the television during a football match. For thousands of years, the wooden kindled fire required constant care, which lead to a feeling of a ghost of the hearth, something at the head of a gathered family or community, something that mediates and alleviates differences between members and prepares for the gathering with great patience and dedication.

(from: *The Book of Symbols*, Taschen 2011)



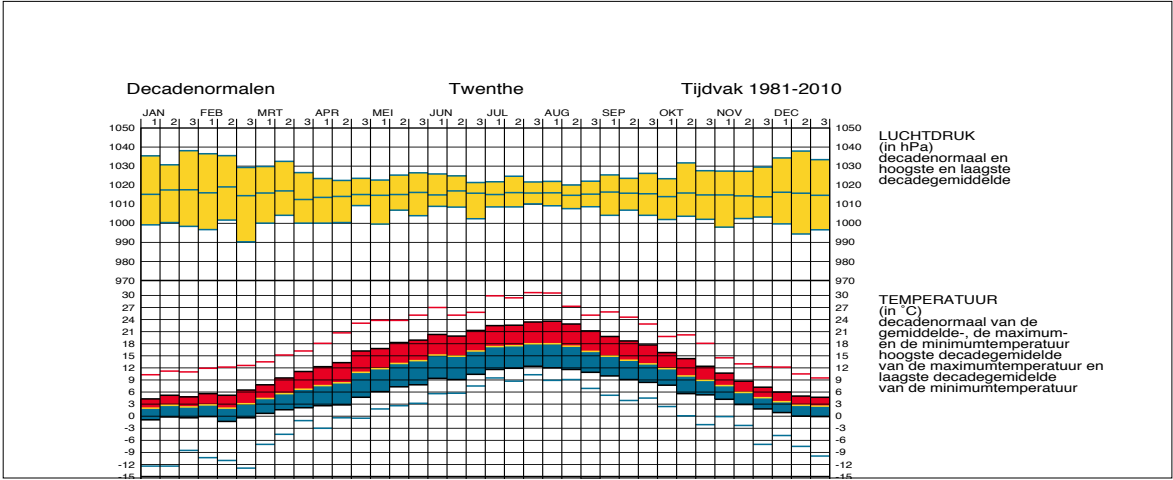
an example of a 'Hearth' with flint artefacts in its surface



WET OR DRY

The hunter-gatherers travelled from place to place and were therefore not always present in this settlement, the fire did not burn continuously and this is still the case.

Measurements over the years show us that when the atmospheric pressure drops below 1013 hPa (hectopascal) the chances of rain increase. If the pressure rises above 1013 hPa, the chances of stable weather are much higher. This 1013 hPa boundary dictates whether the hearths burn or not. Our travellers settle down in Cascade when the weather is nice, and







MYSTERY

The tribes travelled from place to place. When they were in this settlement we do not know, but when they were present they would ignite the fire. This will also be the case in this plan. One morning the fire has been extinguished, the people have left. A sudden feeling of loss encompasses the residents of Cascade. But after a certain amount of time the hearths are smouldering again; our