

Facing the past

Connecting with the past through facial reconstructions

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Abstract: This paper presents examples of the use of facial reconstruction in archaeology, and especially for audience reach. The first example is a newly built archaeological depot/museum: Hilde's House. At least seven facial reconstructions with matching bodies, fully clothed in contemporary dress, are on display in this museum as representatives of their time period. These periods range from the Bronze Age to the modern era. Two cases from Hilde's House will be discussed in this paper: the first is the Iron Age child and the second Cees the Stone Age man. The Iron Age boy was reconstructed twice: once as a prehistoric figure, and once as a modern child. This boy became the subject of a competition among schoolchildren; the winner became the main character in a novel about this prehistoric child.

The second example is Cees the Stone Age man. This is a showcase in connecting people with the past. The story of his death, his dismemberment, predators, the reconstruction, the time period, and some human interest contributed a great deal to the publicity surrounding Cees. There were special museum tours and Cees himself travelled to several museums. He even made it on to a famous Dutch talk show.

Another intriguing example is the facial reconstruction of a man from the eleventh century, on display in the Vlaardingse Museum. His DNA was extracted, and through an extensive DNA search researchers tracked down a living descendant. This is a literal link to someone's past.

Keywords: facial reconstruction, audience reach, public relations, public interaction, DNA

Hilde's House

In hindsight, Hilde's House started with this facial reconstruction of Hilde, who lived during the Roman period. She lived in the province of Noord-Holland (in the Netherlands), not far in fact from where Hilde's House was subsequently built. She was not indigenous; isotope research indicates that she grew up in Germany. An exhibition centred on Hilde revealed a degree of public support for an archaeological museum, and it was just a matter of time before the former archaeological depot became outdated and too small to accommodate all the newly found archaeological artefacts.



Fig. 1 – The facial reconstruction of Hilde. Hilde's House derives its name from her (Copyright: R. van Eerden)

The new depot, named Hilde's House, was specially designed and constructed for its main task: to store all the archaeological artefacts held by the province of Noord-Holland. But because it was thought important for it also to have a role in educating the public about archaeology, a small museum has been incorporated in the building, with the aim of showcasing the archaeology and human history of this province.

For each time period, ranging from the Neolithic to modern times, a human figure represents a person from that era. Where possible, this figure is based on actual excavated skeletal remains. To attract public interest, lifelike facial reconstructions are made based on the original skulls, using new techniques and modern synthetic materials. These facial reconstructions are completed with fully clothed bodies and items appropriate to their period. All the clothing and items are authentically reproduced. At the moment, eight individuals have been reconstructed, ranging from a nine-year-old Iron Age boy to a medieval woman in her seventies.



Fig. 2 – The layout of the main exhibition space (Copyright: Hilde's House)

The main exhibition room is designed rather like a clock, divided into quarters and rings. Each quarter represents a time period. At the centre is a film projection that shows, at set intervals, the changing pattern of the landscape and the different time periods, along with their inhabitants. The first ring displays the figures, if possible with a facial reconstruction. If it was not possible to reconstruct the face owing to the absence of any complete skeleton available for that period, the figures were given a generic body and face. The middle ring shows the skeletons on which the bodies with the facial reconstructions are based. They are displayed just as they were found during the excavation. The outer ring is formed by display cases presenting archaeological finds from that period. Interactive displays are placed near the cases on which the public can search for information about the people, landscape, period, and artefacts.

The facial reconstructions and matching bodies play an important role in this exhibition. These key figures are, in themselves, powerful enough to attract a public. But one can do more. One can try to get the public to participate, to get them involved in the events surrounding the facial reconstructions, or aim at a bigger stage to reach the public. These individuals from the past are standing right in front of you. How can you use them to show the public that there is a vast and rich history beneath their feet?

This will be illustrated using three facial reconstructions, two from Hilde's House and one from the Vlaardingen Museum (in a different province). But first a few words about how the faces are reconstructed.



Fig. 3 – The main exhibition space, the figures with their skeletons (Copyright: Maja d'Hollosy / Skullpting)

First, a copy of the skull is made. The face is reconstructed on this copy using the average tissue thicknesses of the face, and drawing on guidelines for the shape, size, and position of different facial features (HELMER 1984, TAYLOR 2001, WILKINSON 2004, RYNN *et al.* 2010, ISCAN & STEYN 2013). These guidelines are applied to the unique anatomy and measurements of the skull in question. The finished sculpture is moulded, and this mould is then cast in silicone rubber. After being painted, the face is completed by the insertion of artificial eyes and human hair.



Fig. 4 – Reconstructing a face (Copyright: Maja d'Hollosy / Skullpting)

Aak, the Iron Age boy

The skeleton of this nine-year-old child was found alongside a ring ditch that probably belonged to a burial mound. He was in a supine position, with his knees flexed and his head at the same high level. DNA research showed that it was a boy. He was nicknamed Aak, or the little boy from the town Uitgeest, where he was found. The name Aak refers to iron, or “made of iron”. Two versions of his facial reconstruction were produced, depicting him as the Iron Age boy he was and as the streetwise kid he could have been today. The idea behind this was that children of today could identify more with a modern child. And it also shows that children from the distant past were essentially the same as children nowadays. Despite what a lot of people in the Netherlands think when you talk about prehistoric people, they weren't little apemen. In giving him his attributes – a shepherd's staff, a rope, and a goat – the aim is to offer an impression of his life.

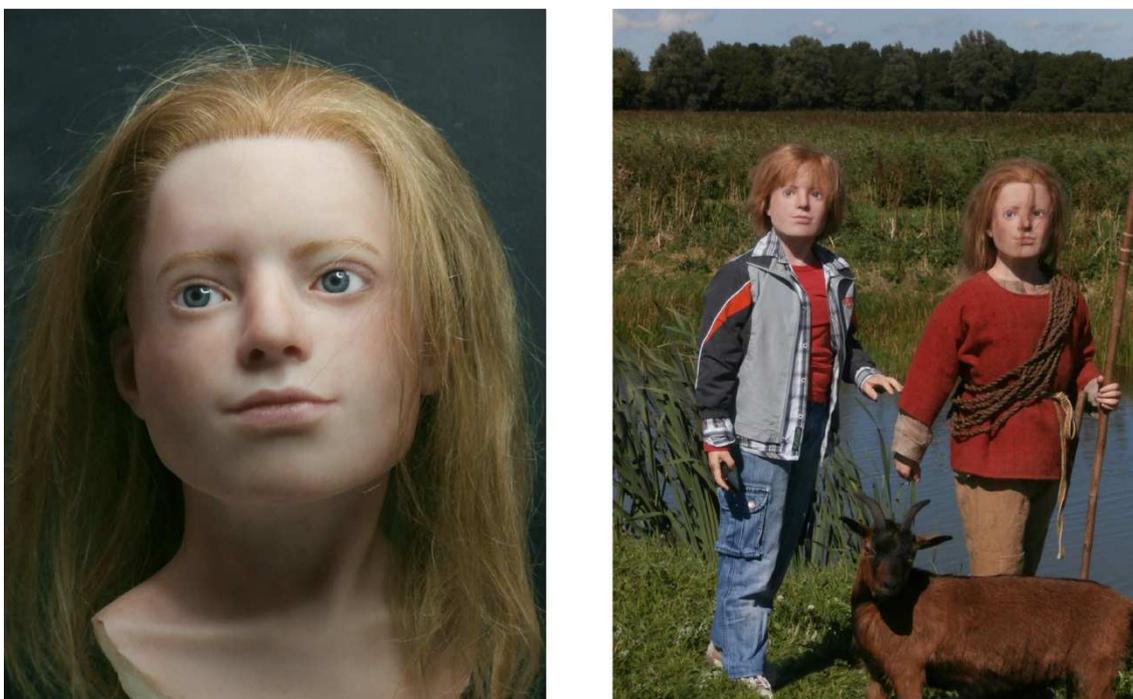


Fig. 5 – The reconstructions of Aak, the Iron Age boy (Copyright: Maja d'Hollosoy / Skullpting)

Long before the facial reconstructions were due to be unveiled, the organizers of Hilde's House decided to hold a competition among schoolchildren, with Aak as the subject. Eight-year-old Justin was the proud winner. His prize was to star alongside Aak in the children's book *The Curse of the Black Water*, written by a famous Dutch children's author, Hans Kuyper. The book's story begins when Justin visits the museum and hears Aak's voice talking to him. The text in the book has been approved by archaeologists, of course, to ensure it doesn't contain any archaeological mistakes or anachronisms.



Fig. 6 – The book about the Iron Age boy (Copyright: Uitgeverij Leopold)

Because Aak was a child, the reconstructions were created in a slightly different way from those of the other figures. A special room, called the Archeolab, was designed for the children. Here they can see and touch real archaeological finds, and, through interactive media, they can hear the stories behind these objects. In this Archeolab the two reconstructed children are on display: an Iron Age child and a modern kid. The skeleton of this boy lies in an oblong cabinet that can be opened if needed. This is to ensure that the children are not involuntarily confronted with the skeleton of a human their own age.

Film footage and images are very important these days. It is often said that a picture is worth a thousand words. Of course an image alone cannot tell you everything. But combining it with information, whether written or oral, can create a very powerful medium. So during the making of these two figures a filmmaker

followed the process; this video is also shown in the Archeolab. And, as always, visual material was made available to the press.

It was surprising that the opening of this depot/museum attracted only local media attention, despite there being several facial reconstructions in the exhibition, one of which was of Cees, who had received plenty of media coverage in the past. The province's PR department had already predicted this; they had warned that any news item containing the word "province" would be considered insufficiently newsworthy by the national media.



Fig. 7 – The Iron Age boy, with the presenter of a Dutch late-night talk show (Copyright: M. Hartog)



Fig. 8 – Kidsweek, a magazine for children aged 7-12 years old (Copyright: Kidsweek / Uitgeverij Young & Connected)

A couple of weeks later, the news about Aak did make the national press, so reaching a larger audience. Justin, the winner of the school competition, and his classmates were special guests at the opening of the exhibition. Iron Age Aak was in local and national newspapers and magazines, on the evening news, children's news, on the radio, and even appeared as a guest in a late-night talk show. This was actually way beyond his bedtime. Because Aak is not that articulate, Rob van Eerden, Hilde's House project leader, and Maja d'Hollosoy, who made the facial reconstruction, served as spokespersons for Aak, thus bringing archaeology to the public in a very accessible way.

It was not only newspapers that published the story about this facial reconstruction; children's magazines picked it up as well. This brought the news to the attention of the young, who will be the politicians, teachers, and museum visitors of the future; in short, the new adult generation.

The DNA match bridging a thousand years

Another intriguing example of the use of facial reconstruction in archaeology is the next one, dating from 1000–1050 CE. The skull of this man, find number V 851, was excavated in 2002 in Vlaardingen and his facial reconstruction is on display in the Vlaardingen Museum. The excavation of the “Gat in de Markt” graveyard, from where the skull was retrieved, was necessary because of planned building work there. One of the remarkable facts about this skull is that it had exceptionally well-preserved DNA. As did twenty-four of the other skeletons exhumed. So Vlaardingen’s civic archaeologist Tim de Ridder came up with the idea of trying to link this eleventh-century DNA to DNA from the present.



Fig. 9 – The skull of the medieval man (Copyright: Maja d’Hollosy / Skulpting)

Sixteen of the skeletons with sufficient intact DNA were of males. This was important because the search for a distant relative was going to be conducted through the male lineage, based on the Y-chromosome DNA profile. Vlaardingen’s civic archivist Harm Jan Luth selected the names of ancient Vlaardingers from civic records relating to 1555, and Prof. Peter de Knijff and Eveline Altena (Forensic Laboratory for DNA

Research, Department of Human Genetics, Leiden University Medical Centre) conducted the DNA research. All living males in the Netherlands who could prove that their ancestors lived there in the sixteenth century or earlier could register with the archivist. In total 181 men applied and 88 candidates were selected for a buccal swab to extract their DNA. That was real public participation.

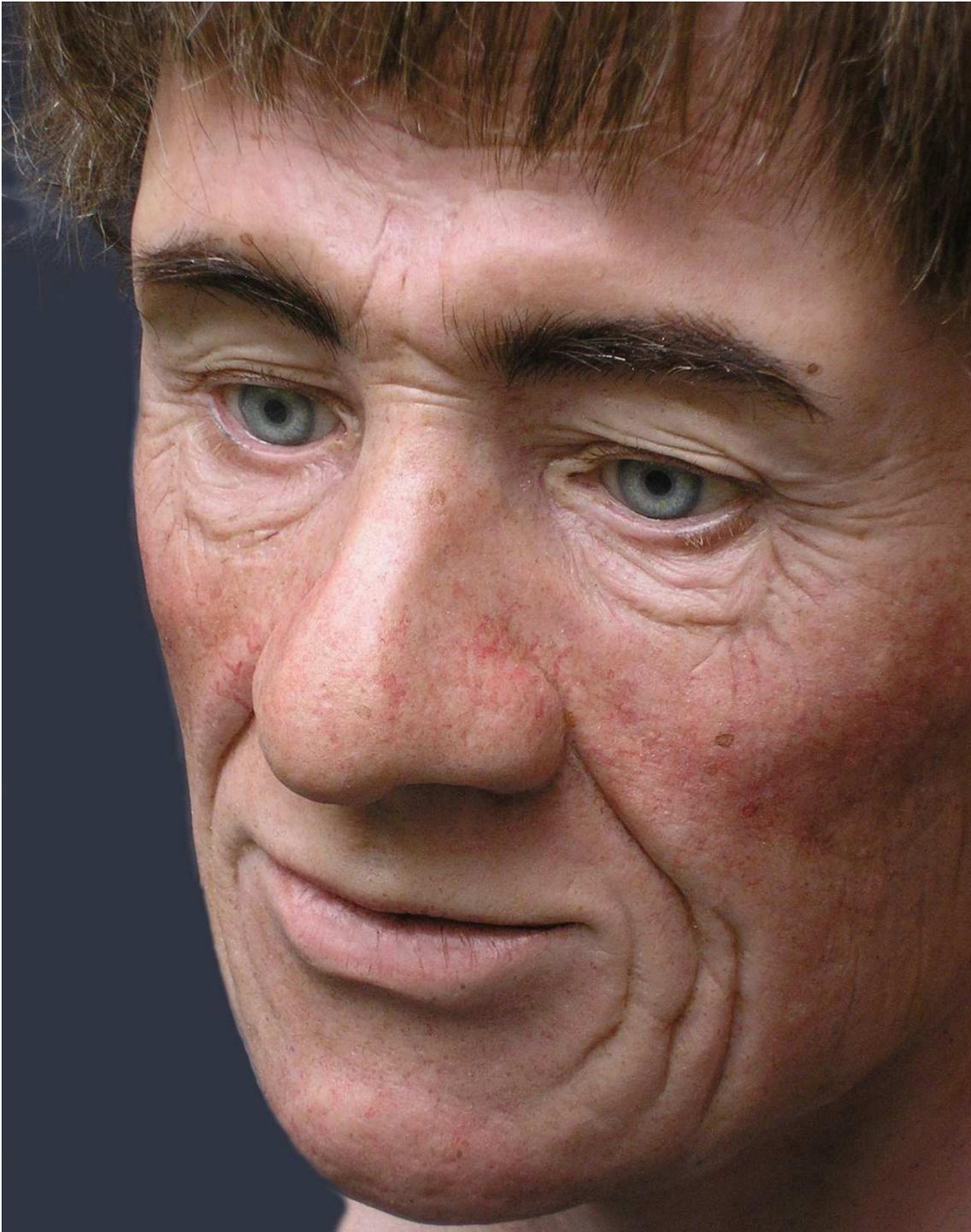


Fig. 10 – The facial reconstruction of the medieval man (Copyright: Maja d'Hollosy / Skullpting)

Though the chances of finding a now living relative were extremely slim, the researchers were very lucky. The DNA profile of Edward Zuiderent, a retired dentist, was identical. This particular Y-chromosome profile is

very rare in the Netherlands and Europe, and it is 99.5% certain that Mr Zuiderent is a relative, albeit very distant, of our medieval man (RIDDER *et al.* 2008). That this match was found was all the more remarkable since the name Zuiderent did not appear in the civic records. At that time, surnames were not always used. But Mr Zuiderent was a keen genealogist and he knew that his forefathers came from the Vlaardingens area, so he insisted on being checked. Thanks to his persistence, a link was found. The fact that his ancestor suffered from tartar build-up and chronic root inflammation is a poignant detail given Mr Zuiderent's profession.

The facial reconstruction of this medieval man was made without knowing the identity of his modern descendant. When Mr Zuiderent was asked what he thought about a possible resemblance to his ancient relative, he was adamant that there was none! But you can see for yourself. Coincidence? Or genes? That physical appearance can be inherited can be seen in the case of identical twins, but the genes responsible for this are located on the autosomal chromosomes, not on the sex chromosomes.



Fig. 11 – The two very distant relatives (Copyright: Maja d'Hollosy / Skullpting)

This is an example of how a man found a connection with his past through his DNA. These genes were passed down through generations and generations. Was a facial reconstruction necessary for this result?

No, but a face, and surely a face that slightly resembles that of a contemporary relative, is more interesting than simply matching DNA profiles. It's a visualization of the research. And this way people are more likely to remember it.

Cees, the Stone Age man

The facial reconstruction of Cees, the Stone Age man – or to be more accurate the New Stone Age man – was part of the larger Odyssey project: “The late Neolithic treasury of Noord-Holland opened”. The *Odyssey Programme* was created to promote the analysis and research of old, never previously published archaeological sites, and to make the results accessible. Cees has helped splendidly in communicating the results of scientific research to a wider audience.

Cees's skeleton was excavated exhumed in 1990. He lived in the New Stone Age, the Neolithic Period, and reached the age of 26-35 years. His round burial pit was positioned at the centre of a rectangular space bordered by wooden posts, probably a so-called funeral house. His skeleton was incomplete: his right arm and all the bones beneath his thighbones were missing, except for the right shinbone. His body was buried in a prone /left-side position, with his knees flexed. His right thigh and shinbone showed gnawing marks, made by large dogs or wolves. Archaeologists believe that Cees died somewhere out in the fields; perhaps he was killed by a predator, with his body then falling victim to scavenging dogs or wolves. This is one theory, but it is also possible that there was some excarnation involved. Certainly, his contemporaries saw fit to recover his remains in order to bury him. The circumstances surrounding his death are unclear, but whatever the explanation is, here is a story to tell.

To promote Cees and the period in which he lived, several tours were undertaken. One involved a tour in a covered wagon. Here, it was not the reconstruction itself that travelled through Noord-Holland, but two or three people, depicting Cees and his wife. These actors were specialized in bringing the Stone Age to life. They had a vast knowledge of how to authentically make Stone Age clothing, of the food products available, and of the tools used in the Neolithic Period. They visited schools and fairs and gave out Stone Age snacks and Stone Age calendars. The calendar and tour were commissioned by the Cultural Heritage Agency of the Netherlands, which organized the Odyssey project.

The reconstructed Cees undertook a brief tour himself. Before finally ending in Hilde's House, he travelled to the Dutch National Museum of Antiquities in Leiden and to the Westfries Museum in Hoorn. For a couple of days, special guided tours were given in the Westfries Museum. Billed as an opportunity to “meet and greet Cees the Stone Age man”, they proved highly popular and were soon sold out.



Fig. 12 – Reconstructing Cees (Copyright: Hilde's House)



Fig. 13 – Cees in the Westfries Museum (Copyright: Maja d'Holloosy / Skullpting)

Several days before the opening, Cees started to Twitter. He tweeted about his journey through the Noord-Holland landscape with his son and friend. He had only 130 followers, but his tweets were reported by newspapers and television, and the media value was much greater than the “tweet value”.

The organizers of the exhibition found the owner of the stretch of land where Cees was excavated in the 1990s. The Stone Age man was named after this man: Cees J. van Berkel. Our contemporary Cees was a farmer, and he was more than willing to give his opinion about his namesake. He would show reporters where the skeleton was found, and shared his thoughts with the media about this farmer who lived thousands of years ago.

After the opening, one of the last and most famous journeys Cees made was to take part in a prime-time talk show. A broader audience is almost impossible to imagine.

Cees the Stone Age man is a showcase in connecting people with the past. The story of his death, the reconstruction, the period, and even the fact that the man after whom Cees is named was still alive and willing to be interviewed, all this contributed to the publicity surrounding Cees. Human interest, anecdotes, and maybe even some horror, all this has made Cees famous, for the moment of course. So much so that his image appeared in a feature in one of the biggest-circulation newspapers in the Netherlands, where

readers can send in lookalikes, or doppelgängers, of famous people (Fig. 14). So Cees had captured the imagination of the public. Not bad for a 4,500-year-old guy.



Fig. 14 – The feature in the Dutch daily newspaper where Cees is compared with Marco van Basten, a famous soccer player (Copyright: *De Volkskrant*)

Conclusion

We have seen three different facial reconstructions, each with their own story to tell, and each using a different way to attract the attention of the public. The media coverage has ranged from radio, newspapers, magazines, Internet, television news, to prime-time talk shows. That the audience is intrigued by these reconstructions and the narratives that accompany them is obvious from the number of visitors and the degree of public involvement. Since its opening, the exhibition at Hilde's House has been a hit with all ages and walks of life. Not only because facial reconstructions never cease to fascinate an audience, but also

because here they are embedded in a larger picture: the picture of their lives in the context of where and when they lived.

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