

AGAINST THE GRAIN

We see an amorphous shape, floating in space. It brings to mind the grainy images of Churyumov-Gerasimenko, the irregularly, horse-shaped comet, as seen from the European Space Agency's spacecraft Rosetta.

Upon closer inspection details emerge, the fragmented surface allowing the light to enter, revealing distinctive oval and rectangular shapes, at the same time uncannily alien and strangely familiar. But what is it? Parts of a collapsed building? Ancient dinosaur bones? Unidentified space debris?

After being commissioned by the Huis van Hilde, the province of North Holland's new Archeological Information Centre in the small town of Castricum, Wael el Allouche decided to go against the grain. The client asked for a 3D printed object, to be installed in the lobby of the new building, which would express the centre's focus on artifacts and other traces of human life found in this region to the north of Amsterdam.

Instead of incorporating the ancient human remains and earthenware items from the collection, Wael wanted to dig deeper and looked beyond the given temporal and material boundaries for his inspiration. From drill samples, showing the stratification below the surface of the ground, he deliberately picked grains of sand that were probably never touched or seen by any human being. Tiny silent witnesses of the passing of time.

Through a process of scanning, modelling and 3D printing he managed to produce three comet-like blown-up versions of multiple grains of sand. And although he combined them with self-made artefacts, including microscopic pieces of paper and wood, questions were raised about the symbolic and didactic quality of sand in the context of an archeological information centre. Can dead matter reveal the traces of human existence? What does it tell us about ourselves and the world we live in?

The answer is simple. We can find the history of the Earth, and our role in it, in a single grain of sand. Via sand we delve back into the story of the beginning of our planet, or the universe, or life. If you examine the beauty of sand with a magnifying glass, the shape, size, and color of the sand grains tell many stories.

Sand predates all life on earth and will likely outlive humanity. Sand is our past and future. It was already ancient when the dinosaurs went extinct. It was ancient when the first creatures

crawled on land from the seas, and when the first fish started swimming in them. Sand is nearly three times as old as all forms of complex life. And in the far future our magnificent cities and museums eventually will all crumble and turn back into piles of sand and vast deserts.

Sand encapsulates and structures our lives. The surface of most planets, including Earth and Mars, is composed of sand. Ceramics, mortar, bricks, concrete; most of our building materials are made from sand. Silica, the most common constituent of sand, is crucial for the production of glass and is almost always used for the fabrication of integrated circuits, popularly known as (micro)chips, that are present in everyday electrical and electronic devices. Sand is to mortar and bricks, what data is to information and knowledge. It is the invaluable material that feeds the gigantic 3D printer called Planet Earth.

In Wael's native Tunisia the Sahara desert has buried the film set of the epic sci-fi movie Star Wars Episode One - The Phantom Menace. Filmed in the 1990s, and set in an unknown future, the movie featured the iconic dome-roofed Mos Espa spaceport whose remains are now largely covered with sand. The government's plans to reclaim the site from the encroaching desert and excavate some of the buildings will lead to an 'archeology of the future' bringing to light a utopian vision from the past.

Likewise, Wael's enlarged scans of sand, printed in wood filament and aptly named 'Lamp of Hilde' will help illuminate the origins and future of life in the province of North Holland and beyond. Looking up to the dangling installation, it provides us with a kaleidoscopic view of the world around us, on the order of things and on the countless layers of time before, below and in front of us.

by Michiel Van Iersel



IMAGE INDEX

1. First brainstorm about archeology, science, history.
4. A diagram about archeology: the reconstruction of reality through artifacts
5. First sketches of the possible object
6. sketches on the composition and positioning of the printed object in space.
9. When the human started to control the landscape of holland by sigurdur gudmunsson
- 10-11. A schematic presentation of the concept of stratigraphy, the layering of information
- 12-15. Visual inspiration
- 16-17. Virtual renderings of a grain of sand
19. Final crop of the scanned sample of sand
20. Virtual sketch of the work
21. Facing image of the final crop
22. Sand squeezed into the scanner
23. One layer taken from the scanned sand sample: displaying 3 different layers of sand taken from Noord-Holland
24. 3D rendering of the scan
25. Visualization of the different Tones within the digital file
- 26-27. Cleaning up the file
- 28-29.3 Different viewpoints of the final computer renderings of the installation
- 30-31. 3D viewpoint of the final rendering
- 32-35. Mesh surface typology 3 file: a close up of the final object
- 36-37. The fabrication of small 3d printed cubes into the various parts of the installation
- 38-39. Close up of the 3d print, displaying the layers of the object
- 7-8. The finished work in the entrance hall of Huis van Hilde in Castricum

COLAPHON

- Work: Waël El Allouche
Design: Tariq Heyboer
Text: Michiel van Iersel
Typeface: Mikel Orfanos
Print: Amsterdams Grafisch Atelier / Knoest Nijmegen
- Thanks to: Public Rietveld, Design Lab & Graphic Design
- Gerrit Rietveld Academie, Amsterdam
Huis van Hilde / Provincie Noord-Holland

