Supplementary Online Information 1: Geographical find location of BZN17

*Fig. SOI 1.1: Map of the Netherlands, with the location of BZN17 indicated. After Opdebeeck et al. 2018, Fig. 1.*

Fig. SOI 2.1: Overview of representative measurement locations. (a) Leda-side; (b) Venus-side. Images: Archeologie West-Friesland.
Fig. SOI 2.2: Brown area (1). Diffractogram after background subtraction. Inset: detail measurement location.
Fig. SOI 2.3: White area (2). Diffractogram after background subtraction. Inset: detail measurement location.
Fig. SOI 2.4: Blue-black area (3). Diffractogram after background subtraction. Inset: detail measurement location.
Fig. SOI 2.5: Yellow material, scraping. Diffractogram after background subtraction. Inset: detail measurement location.
Fig. SOI 3.1: Overview of representative measurement locations. (a) Leda-side; (b) Venus-side; (c) side view; (d) top view with knob visible in the centre. Images (a) and (b): Archeologie West-Friesland; (d) Province of Noord-Holland.
area (3)

area (4)
Fig. S01 3.2: Portable XRF spectra, with data in black and PyMCA fits in colour. (a) area (1); (b) area (2); (c) area (3); (d) area (4); (e) colour legend.
Fig. SOI 4.1: Overview of measurement locations on the embedded cross-section. Optical micrograph.
Fig. S01 4.2: Area (1). (a) Backscatter electron image; EDS-spectra: (b) point 1; (c) point 2; (d) point 3; (e) point 4.
Fig. S01 4.3: Area (1), elemental EDS-mapping. Lighter areas correspond to higher elemental concentration.
Fig. SOI 4.4: Area (2). (a) Backscatter electron image; EDS-spectra: (b) point 1; (c) point 2; (d) point 3.
Fig. S01 4.5: Area (3). (a) Backscatter electron image; EDS-spectra: (b) point 1; (c) point 2; (d) point 3; (e) point 4; (f) point 5; (g) point 6; (h) point 7.
Fig. S1.4.6: Area (4). (a) Backscatter electron image; EDS-spectra: (b) point 1; (c) point 2; (d) point 3; (e) point 4.
Fig. SOI 4.7: Area (5). (a) Backscatter electron image; EDS-spectra: (b) point 1; (c) point 2; (d) point 3; (e) area 4.
Fig. 4.8: Area (6). (a) Backscatter electron image; EDS-spectra: (b) point 1; (c) point 2; (d) point 3.
Fig. S0I 4.9: Yellow powder particles, fragments from unknown origin on the box and mounted on carbon tape.  
(a) Image from XRD measurements, with cross-hairs on one of the two optically yellow particles; (b) backscatter electron image; EDS-spectra: (c) point 1; (d) point 2.
Fig. S10 4.10: Yellow powder particles, elemental EDS-mapping. Lighter areas correspond to higher elemental concentration.
Supplementary Online Information 5: RBS/PIXE data and simulations

Fig. SOI 5.1: Representative measurement location. (a) Overview; (b) Details. Top: area (1), bottom: area (2). Image oval box: Archeologie West-Friesland.
Fig. SOI 5.1: Typical simulation of an RBS spectrum, area (1).

Fig. SOI 5.3: Model chosen to simulate the surface. The chemical elements are based on PIXE data.

Two different results that both give a good fit of the RBS data:

(A)  
- no organic layer  
- gilding layer: 90.9 at% Au  
  7.3 at% Hg  
  1.8 at% W  
→ thickness 3.4 µm  
- brass:  
  80.6 at% Cu,  
  11.3 at% Zn  
  1.6 at% C  
  6.5 at% O

(B)  
- no organic layer  
- gilding layer: 78.2 at% Au  
  6.3 at% Hg  
  15.6 at% (Cu+Zn)  
→ thickness 4.2 µm  
- brass:  
  80.6 at% Cu,  
  11.3 at% Zn
Fig. SOI 6.1: Overview of sample locations. (a) Leda-side; (b) Venus-side; (c) side view. Images (a) and (b): Archeologie West-Friesland.
Fig. S01 6.2: Area (1). Fatty acid pattern might indicate an oil (glycerol; FA-2C9; FA-C16 and FA-C18 with P/S ratio 4.49).
Fig. SOI 6.3: Area (2). Fatty acid pattern might indicate an oil (FA-C16 and FA-C18 with P/S ratio 1.88; FA-C18:1; minor contributions of glycerol and FA-2C9).
Fig. S0I 6.4: Area (3). Fatty acid pattern might indicate an oil (glycerol; FA-C9; FA-C10; FA-C12; FA-C14; FA-C16; FA-C18; FA-C18:1; FA-2C4; FA-2C6; FA-2C8; FA-2C9). Traces of skin grease have been detected.
Fig. SOI 6.5: Area (4). Fatty acid pattern might indicate an oil (FA-C16; FA-2C4; FA-2C9).

glycerol and fatty acid ratios
Palmitic:Stearic = 6.05
Azelaic:Palmitic = 0.41
Suberic:Azelaic = 0.42
Palmitic:Glycerol = 7.36
Fig. SOI 6.6: The material retrieved from areas (5a), (5b) and (5c) has been combined into a single sample and subsequently analysed. Fatty acid pattern might indicate an oil. Traces of beeswax have been detected.