



## Total station recording and monitoring of the Bremen “Cog”

REFERENCE: Short Term Scientific Mission, COST TD1201

Beneficiary: Massimiliano Ditta, maritime archaeologist with expertise in digital recording and surveying of ships and boats - University of Southern Denmark; Esbjerg, Denmark.

[massimiliano.ditta@outlook.com](mailto:massimiliano.ditta@outlook.com)

Host: Amandine Colson, Conservator of archaeological objects, Deutsches Schiffahrtsmuseum, Hans-Scharoun-Platz 1; 27568 Bremerhaven, Germany.

[colson@dsm.museum](mailto:colson@dsm.museum)

Period: from 07/04/2015 to 28/04/2015

Place: Deutsches Schiffahrtsmuseum, Hans-Scharoun-Platz 1; 27568 Bremerhaven, Germany

Reference code: COST-STSM-TD1201-25185

Recording of control points with a Total station is a very flexible and accurate method to produce simple 3-dimensional point data of a structure. The result are extremely accurate and can be used for very different purposes:

- High definition dataset for monitoring: the method consents the acquisition of points in 3 dimensions, both for the outline of the shapes and sensible structures of the current boat. Given the high accuracy ( $\pm 2$  mm), the acquired dataset can be compared with subsequent datasets to measure differences and changes in the position of the datum points. The comparison can lead to the understanding of deformations and help to take further decision concerning restoration issues in the future.
- Define a reproducible protocol for the conservation monitoring: once the protocol is defined, it will possible for the museum to repeat the acquisition of the datum points and to compare the results with previous datasets. This will provide a durable monitoring system of the Bremen Cog.

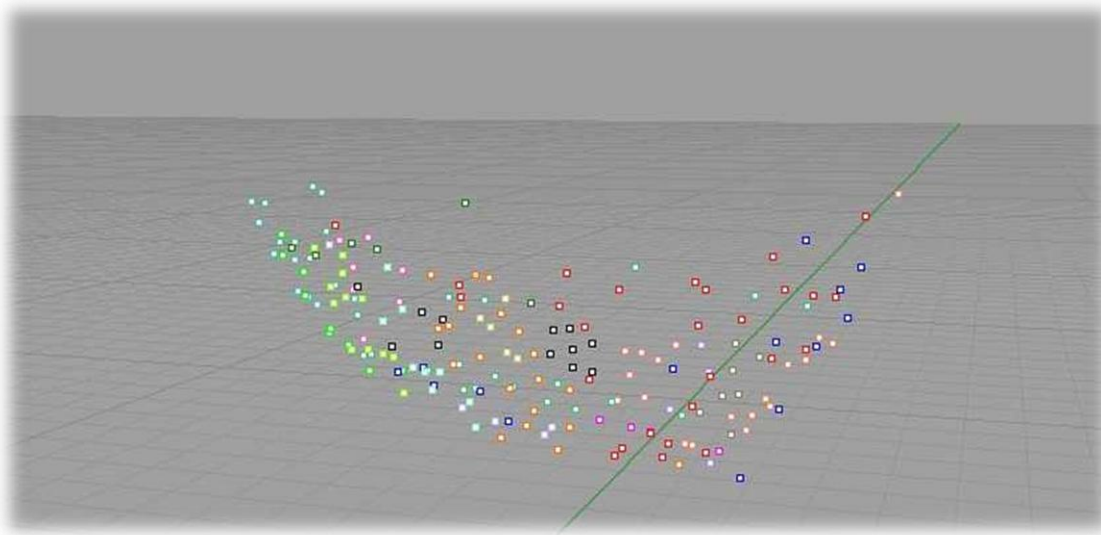


Recording Set-up



Acquisition of the data through Termit

Point Cloud Of The Monitored Control Points



Control and Reference Points

