

Coring by divers

Principle: With the mixed gas (nitrox) techniques that have become common over the last years the efficient bottom time of scuba divers at depths down to around 30 m has increased significantly. Taking cores down to 3-4 meters below the bottom in softer sediments with Perchauer borers or Russian borers up to a diameter of 5 cm has proved much cheaper and faster than the use of heavier gear such as vibrocores from ships.

Basic features: The divers simply carry out boring into the bottom as if it had been on land. Like on land it is convenient to use meter-sections. For some types of observations the description can be carried out under water. For more detailed analysis and processing of the cores it is necessary to take them up on the working platform.

Resolution and horizontal precision: The vertical resolution of the data registered during coring is easy to hold within a few centimeters. With transponders sub-meter precision can be obtained horizontally.

Platforms: Ships and boats are natural platforms for taking cores. However their positioning in relation to the core points is less important when the coring is done by divers.

Advantages:

- Direct human control with the coring – when visibility better than zero
- High precision/resolution of data registered
- Cheap compared to cores taken from ships

Disadvantages:

- Reduced visual control increases the risk of erroneous registrations of e.g. core depths.
- Not economical below approximately 30 m where much more expensive diving techniques than scuba must be applied.

Literature:

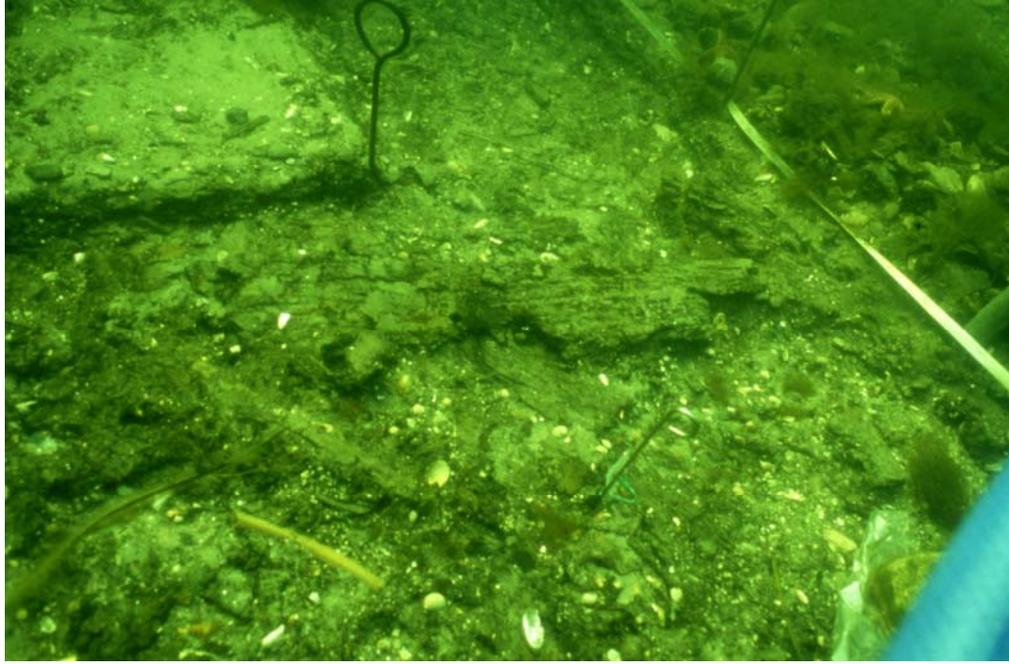
Dean, M., Ferrari, B., Oxley, I., Redknap, M., Watson, K. (eds.): *Archaeology Underwater, The NAS Guide to Principles and Practice*. Published by the Nautical Archaeology Society, Archetype Press, 1992



Divers excavating the Mesolithic pit dwelling at Møllegabet II, Denmark, from a wooden platform positioned above the cultural layer under excavation.



Drwing and levelling with a garden hose at Møllegabet II, Denmark.



Excavating the bark cover of the platform of the Møllegabet dwelling in 0.5 x 0.5 m squares and 5 cm layers.