History uncovered beneath the waves off Orkney

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THE remains of a Neolithic stone circle that could rival the most impressive in Britain may have been found off the coast of Orkney.

Archaeologists surveying the seabed near the island chain’s famous Ring of Brodgar believe they could have discovered an earlier version just 500 metres offshore from the major tourist attraction. Preliminary findings from an investigation seeking previously hidden historical sites in the area have raised hopes that prehistoric structures built up to 5,000 years ago have survived, even though they were submerged under the waves by rising sea levels. Marine surveys – using remote sensing and seismic profiling techniques – have revealed “anomalies” which could be man-made structures around 12 feet under water.

Seismic images taken in the Loch of Stenness appear to show a large circular feature in the water south of the Ring of Brodgar, the third-largest stone circle in the British Isles after Avebury and Stanton Drew in England and thought to date back to 3000-2000BC.

The sites were used for rituals by ancient Britons and the archaeologists are now planning to send a diving team into the area to investigate the findings.

Aberdeen University archaeologist Caroline Wickham-Jones, one of those leading the investigation, said: “These are very preliminary results and a lot more work is needed. Nevertheless, there does seem to be a ring-shaped feature.”

“It might suggest a previous incarnation of the Ring of Brodgar which was later rebuilt on higher ground as the sea came into the loch and the water levels rose.”

Dr Richard Bates, from the Department of Earth Sciences at St Andrews University, said the feature is about 90 metres in diameter, similar to the size of the main Ring of Brodgar. He said that if it is a man-made feature, it is likely to predate the influx of the sea into the Stenness Loch basin.

The investigation has also looked at the seabed around Hoy, Hoxa and the Bay of Firth. Images show how the Bay of Firth around Damsay has changed from mostly land in the Mesolithic period 8,000 years ago to the late Neolithic/Bronze Age around 2000 BC when the sea had filled in the lower-lying areas, leaving Damsay as a tidal island.

Tests in the Bay have revealed another anomaly – a 40-metre circular mound that could also be a structure of prehistoric age such as a chambered tomb.

The finds could shed new light on Orkney’s early residents and how they adapted to climate change. The islands are already one of the best sites for archaeological remains. The best-known structures, including homes, ceremonial centres and burial chambers, are designated as World Heritage Sites. But not so well known, and an area that has been rarely studied to date, is the landscape occupied by Orkney’s first inhabitants 10,000 years ago, at the end of the last Ice Age. At the time of these
The recent study, funded by the Royal Archaeological Institute and Society of Antiquaries of London, is part of the ‘Rising Tide’ project which started in 2004.

The work of the project has demonstrated that sea level only reached its present height around 2000BC. By taking sediment cores, the team can reconstruct former sea level positions by analysing whether the microfossils found in the sediments require fresh or salt water. As sea levels rose, fresh water lagoons became inundated with brackish (saltwater) microfossils. Dating the changes in salinity can produce a curve to show how sea level has risen through time.

Wickham-Jones said: “A lot of the hunter-gather settlement was along the coast and these areas have been submerged, so the evidence from Orkney is underwater. However, when they are flooded, not all of it gets destroyed, some sites may have survived and we may get to see them. “There is a possibility that in certain places we might have an archaeological footprint on the seabed. The preliminary findings back up the theory that there are man-made structures there.”

She said that due to the strong seas around Orkney it has been assumed that underwater sites would not have survived.

However, some areas of the islands are more sheltered and could have potential