

# Lost since 1362: Researchers discover the church of a sunken medieval trading place

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A lightweight survey vehicle provides large-scale magnetic mapping of cultural traces hidden beneath the present-day tidal flat surface. Credit: Dirk Bienen-Scholt

The medieval trading center of Rungholt, which is today located in the UNESCO Wadden Sea World Heritage Site and currently the focus of interdisciplinary research, drowned in a storm surge in 1362.

Using a combination of geoscientific and archaeological methods, researchers from Kiel University (CAU), Johannes Gutenberg University Mainz (JGU), the Center for Baltic and Scandinavian Archaeology (ZBSA), and the State Archaeology Department Schleswig-Holstein (ALSH), both in Schleswig, have now succeeded in locating the site of the Rungholt [church](#). Thus, they can now finally clarify a much-discussed research question that has been going on for over 100 years.

## **Interdisciplinary cooperation as the key to success**

Within the framework of two interdisciplinary projects by the German Research Foundation (DFG), i.e., the RUNGHOLT project and the Wadden Sea project in the ROOTS Cluster of Excellence, research has been conducted for several years on the medieval cultural landscape disappeared in the Wadden Sea.

Well known for its mythically exaggerated destruction and an archaeological find situation unique in Europe, Rungholt is a prominent example of the effects of massive human intervention in the northern German coastal region that continue to this day.



The researchers use sediment cores to record settlement remains and to reconstruct landscape evolution at selected sites on the tidal flats. Credit: Justus Lemm

The key to the success of the work lies in a close interdisciplinary collaboration. "Settlement remains hidden under the mudflats are first localized and mapped over a wide area using various geophysical methods such as magnetic gradiometry, [electromagnetic induction](#), and seismics," explained Dr. Dennis Wilken, geophysicist at Kiel University.

And Dr. Hanna Hadler from the Institute of Geography at Mainz

University, added, "Based on this prospection, we selectively take [sediment cores](#) that not only allow us to make statements about spatial and temporal relationships of settlement structures, but also about landscape development." Archaeological investigations at selected sites provide unique insights into the life of the North Frisian settlers and repeatedly bring to light significant new finds from the tidal flats.

## **First large-scale reconstruction of Rungholt's drowned cultural landscape with a central church**

In May 2023, a previously unknown two kilometer long chain of medieval terps, which are artificial settlement mounds, was recorded by geophysical prospection near Hallig Südfall. One of these terps shows structures that can undoubtedly be interpreted as the foundations of a church 40 meters to 15 meters in size. First corings and excavations have provided initial insights into the structure and foundations of the sacred building.



A special metal frame allows archaeological excavations of one square meter in the tidal flats. The finds are excavated and documented during low tide. Credit: Ruth Blankenfeldt

"The find thus joins the ranks of the large churches of North Frisia," stated Dr. Bente Sven Majchczack, archaeologist in the ROOTS Cluster of Excellence at Kiel University.

Dr. Ruth Blankenfeldt, archaeologist at ZBSA, added, "The special feature of the find lies in the significance of the church as the center of a settlement structure, which in its size must be interpreted as a parish with

superordinate function."

So far, the finds in the area investigated, which covers more than ten square kilometers, include 54 terps, systematic drainage systems, a sea dike with a tidal gate harbor as well as two sites of smaller churches—and now also a large main church. The settlement area found must therefore be regarded as one of the historically reported main sites of the medieval administrative district of Edomsharde.

## **Erosion threatens cultural remains**

In addition to the unique archival character that the mudflats have for the reconstruction of Rungholt's cultural landscape, the project results of recent years also show the extreme endangerment of the cultural traces that are over 600 years old.

"Around Hallig Südfall and in other mudflats, the medieval [settlement](#) remains are already heavily eroded and often only detectable as negative imprints. This is also very evident around the church's location, so we urgently need to intensify research here," said Dr. Hanna Hadler.

Provided by Universitaet Mainz

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