Stoney Cove wreck rendered in 3D

MARITIME ARCHAEOLOGY TRUST / MARTIN DAVIES

REVOLVING IMAGERY of the Gresham Ship, a 400-year-old Elizabethan merchantman the remains of which can be seen at Leicestershire's Stoney Cove inland dive-site, has been created by a computational archaeology expert.

Brandon Mason, of the Maritime Archaeology Trust, created the Gresham Ship graphics using photographs taken of the wreck by Nautical Archaeology Society photographer Martin Davies in 2013.

Revolving 3D graphics are based on photogrammetry, by which measurements are made using photographic images captured from many vantage points.

Viewers can then examine a wreck from any angle by making its 3D image revolve on screen at the touch of a mouse.

The Gresham Ship remains consist of some bow material plus a 15m-long section of the ship's port side.

Found in London's Thames Estuary in 2003, the pieces were moved to Stoney Cove in spring 2012, along with an anchor. It can be viewed at sketchfab.com – enter "Gresham Ship" in the search panel.

Photogrammetrical graphics are on the increase in maritime archaeology.

For example, a set of wrecks studied off North Carolina by the University of North Carolina Coastal Studies Institute, including the famous USS *Monitor*, the ironclad steamship built during the American Civil War, can also be seen at sketchfab.com – search for "John McCord".

Reef life off the Musandam peninsula.

Healthy corals buck bleaching trend

AS A COUNTER to the depressingly familiar message of coral degradation around the globe, one scientific team has found an abundance of healthy, vibrant shallow-water coral – in the waters of northern Oman.

In many parts of the world coral-bleaching, in which corals die off for want of nutrition, has been occurring as the result of warming seas, with their associated increases in acidity and carbon dioxide levels, pollution, sedimentation, disease and overfishing. This can lead to increased, smothering plant growth.

But when researchers with Biosphere Expeditions went out to look at corals off Oman's Musandam Peninsula, they found reefs that were "extremely healthy, covering the shallow waters of the spectacular fjord landscape with extreme variety of growth forms".

The corals ranged from "massive 400-year-old, 4m-high boulder coral to the delicate yet important branching and bushy corals". Coverage of near-shore corals "regularly exceeds 70%".

"Musandam is withstanding the current temperature hikes," said Dr Jean-Luc Solandt, the expedition's scientist and the coral expert for the UK-based Marine Conservation Society. "Our survey findings offer hope that there are some areas of the world that can withstand such environmental change."

Situated at the entrance to the Gulf of Arabia, Musandam is enriched by cool waters from the depths of the Gulf of Oman to the east, which prevent damaging climatic effects.

Active currents also wash the reefs with clear waters. Further, the scientists noted, some of the corals carry temperature-resistant algae, affording an even greater resistance to bleaching.

A concern, however, surrounds fisheries which, says Biosphere, have been "overexploited at ever-increasing levels". Grouper, the reefs' most important commercial fish species, were recorded at "very few more isolated sites" and, even then, at only "50cm in size".

The group is urging the Omani Government to introduce some form of protection. "What we're suggesting for the wonderful Musandam area is relatively small no-take zones to allow fishing to persist at sustainable levels in other areas," said Solandt.

Such "simple, effective and long-lasting" measures are, he added, "for fishermen, not against them" and "secure the protection of the reefs that host a huge amount of biodiversity". www.biosphere-expeditions.org

Wreath laid for WW1 hospital ship

DIVERS LAID A WREATH on the wreck of the hospital ship *Anglia* off Kent in late November, to mark the centenary of the vessel's loss. The divers came from local clubs, and included some retired servicemen.

The requisitioned passenger ship went down off Folkestone on 17 November, 1915, after hitting a mine.

It was carrying British soldiers who had been wounded and evacuated from France. Of nearly 400 soldiers, medical staff and crew on board, 134 died in the sinking.

The well-broken wreck lies on a sandy bottom about 30m deep.