



## THE SEABED HAS A STORY TO TELL

On Aug. 11, 2006, the Danish off-shore patrol frigate **VÆDDEREN** sailed from Copenhagen for the Third Galathea Expedition 2006 –07, arriving Sept. 8, at Nuuk, Greenland after four weeks of research both on the high seas and in coastal areas of the Faeroes and South West Greenland. A new postage stamp was prepared for this occasion and on Sept. 9, the new Galathea stamp was officially released on board the **VÆDDEREN**.

“The seabed of the and coastal area records of information things, climatic writes Naja Mikkelsen projects of the Expedition

Climatic Changes in and Shelf Regions’ is examine cores of the of collecting and cores, is to obtain new changes in the and about recent

Climatic changes influence on the Greenlandic culture since the first Greenland took place

up until today. The cores of seabed consist of fine-grained material, which is stratified, and it is these different strata, which are the object of the examinations.

The strata contain among other things such as the remains of small microfossils, the calcium shells of small microscopic animals, which once lived in the water before sinking to the bottom and being embedded in the sediments of the seabed. “The cores of the sediments are collected with six- and 12- meter long core tubes, which are pressed into the soft sediments on the seabed by heavy plummets. Subsequently, the core tube is pulled out of the seabed with one of the strong capstans of the ship and then follows the exciting moment when the core tube is put on to deck. Will the new core contain new and exciting information?”

The cores are opened and samples are taken out, so the small microfossils can immediately be examined in the microscopes in the laboratories of the **VÆDDEREN**. These examinations give a first impression of the age of the cores and the climatic situations they represent. At the end of the expedition the cores will go through a long series of examinations in the laboratory of Copenhagen, and then more detailed information will emerge.

Before taking out the cores of sediment, a number of seismic examinations of the fiords have to be carried out, in order to find places suited as sediment basins. On the Greenlandic west coast, the 4,500-year old cultural history of Greenland is represented by the well-known Inuit cultures, Sarqaq, Dorset and Thule. In addition to these, there is also the Norse culture, represented by the Norsemen, who were descendants of the Norse Vikings.



Greenlandic fiords contains extensive about, among other changes of the past,” PhD. “One of the Galathea 3 ‘Environmental and Greenlandic Fiords to collect and seabed. The purpose examining these knowledge about Greenlandic climatic geological history.” have had a major history of the population and Inuit immigration to 4,500 years ago and

*(The Seabed has a, continued on page 16)*

*(The Seabed has a, continued from page 15)*

An attempt is being made to clarify whether the different cultures of Greenland arose and disappeared synchronously with climatic and environmental changes, or if other factors also came into play. The examinations of the cores of sediment collected during the Galathea expedition will focus on the latest 4,500 years, in order to examine among other things, climatic and environmental changes in the fiord regions at the times when the different Inuit immigration waves moved along the Greenland coast. Also to be examined is the climatic and environmental changes during the Norse period, when Europeans tried to live in Greenland as farmers, from approximately 1000-1500 AD. Norsemen settled in Greenland as farmers during a warm period and the Icelandic sagas relate the lives and activities of these Norsemen. The last written account about the Norsemen is from 1408, a description of a wedding in Hvalso Church. What happened to the Norse population since then has not yet been clarified but, hopefully, the marine cores of sediment to be collected during the Galathea expedition will contribute information about climatic changes during the period when the Norse disappeared from Greenland.

**VÆDDEREN** (patrol frigate)

Greenland # 2006 9.75kr

1992 – Royal Danish Navy; Svendborg Shipyard Ltd., Svendborg, Denmark; K. March 22, 1990, L. Dec. 21, 1990, C. June 9, 1992; Displ. 3,500 tons; 112.3m x 14.4m x 6.0m. (draught); three MAN-B&W diesels, 13,000 hp., 21.5kn, one reversible propeller, one bow-thruster of 884 hp, one azimuth thruster 1,088 hp, range @ 15.5 kn, 8,000 sea miles; Armament: 1-76mm Oto Melare gun, 2-



37mm salute guns, 4-12.7mm heavy machine guns m/01 LvSa, one depth charge launcher (removed during the expedition), 4 Stinger missiles after 2003, 1 Westland Lynx Mk. 80/91 helicopter (not on board during the expedition); Crew 61, plus accommodation for 12 passengers.

Built as an offshore patrol frigate by Svendborg Shipyard Ltd., Svendborg for the Royal Danish Navy, and launched on Dec. 21, 1990, as the **VÆDDEREN** (F359) (Ram), she is of the three **THETIS**-class frigates, of which the **TRITON**, is depicted on Greenland # (2005).

She was commissioned on June 9, 1992, and in September that year was part of a Royal Flotilla unit on tour to France, Spain and Italy. Between Nov. 1993 and Jan. 1994, she was on tour to East Asia as part of an export promotion tour for the Naval team in Denmark.

In Aug. 1994, she was on tour to South Africa, again in an export promotion for Naval Team Denmark. From January through to June 2006, she was fitted out as a survey and expedition vessel for the third Galathea Expedition by the Karstense Shipyard A/S in Skagen, Denmark. Her depth charge launcher and helicopter were removed, and replaced by containers. She completed her assignment on Sept. 11, 2006, departing Nuuk, Greenland for the Azores, and then an around-the-world tour.

Source: Greenland Post; D. Rodlie; A. Palmhof; <http://www.galathea3.dk/uk/Menu> [http://www.navalhistory.dk/English/TheShips/VW/Vaedderen\\_frigate\(1992-\).htm](http://www.navalhistory.dk/English/TheShips/VW/Vaedderen_frigate(1992-).htm)

*(Argentine Merchant Fleet, continued from page 30)*

**RAWSON** (dispatch vessel)

Argentine # (2006) 50+50c

1930 – Departamento Nacional de Higiene de Buenos Aires, Buenos Aires, Argentine; C.R.D. Adriatico, Monfalcone, Italy; Gt. 295, nt. 91; 105' x 25.4'; one 6-cyl oil engine, manufactured by MacColl & Pollock Ltd., Leghorn, Italy.



She was built by C.R.D. Adriatico, Monfalcone, Italy for Departamento Nacional de Higiene de Buenos Aires, Buenos Aires, Argentine, and launched as the **RAWSON**, and delivered in October 1930. She was built as a dispatch vessel for the public service of the Argentinean government. Between 1945-72, she was used in the port of La Boca to the Ponton Interseccion (Intersection Pontoon) a pontoon anchored in the Rio de La Plata. One of her tasks was to carry the inspection teams in charge of controlling that all ships arriving from overseas were fit (cleared), before continuing to Buenos Aires or La Plata ports, or through the Parana and Uruguay rivers. She was registered by the Prefecture Naval Argentina, and her pendant number was **GC41**. The service for which the **RAWSON** was used came to an end many years ago, thanks to new systems introduced to communicate between the ships and the port authorities. Besides her inspection duties, she was also used by the local pilots to board arriving vessels. Mario Rosner used her many times when he was a pilot at Buenos Aires. In 1972, she was scheduled to be broken up.

Source: Mr. Rosner; A. Palmhof; Argentine Post Office leaflet; *Lloyd's* 1955/56; [www.histarmar.com.ar/Buques Mercantes/ListadoR1/Rawson-Remoic.htm](http://www.histarmar.com.ar/Buques Mercantes/ListadoR1/Rawson-Remoic.htm).