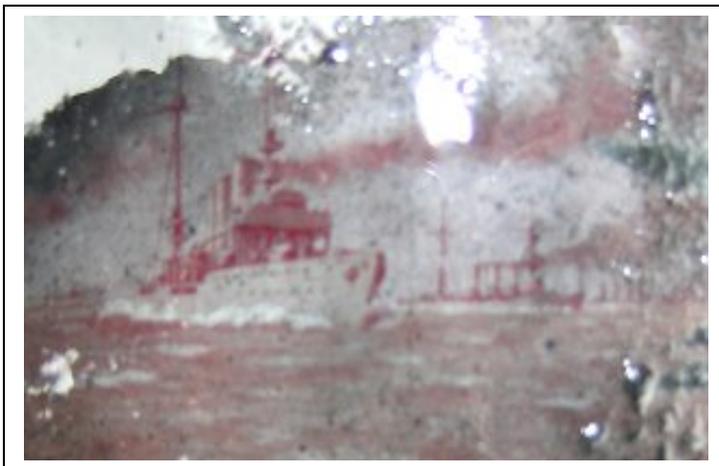


Report to Historic Scotland on the Recovery of Postcards from the German High Seas Vessel SMS Karlsruhe, Scapa Flow Orkney



1 Introduction.

In September 2003 a recreational diver exploring the wreck of the SMS Karlsruhe reported finding what appeared to be stacks postcards in a fairly intact condition. Historic Scotland subsequently asked Scientific Underwater Logistics And Diving (SULA Diving) to investigate this claim.

SULA diving carried out a preliminary site investigation on the 25 September 2003. The materials were located in the bow section of the vessel against a bulkhead. There appeared to be 5 stacks of cards and a considerable amount of eroded material surrounding these.

On questioning the diver, it became apparent that these had been known about for some time and indeed some had already been recovered. However without appropriate conservation these had deteriorated.

2 Methods

The SMS Karlsruhe lies on it's starboard side at a depth of approximately 25 – 28 metres. The section of wreck in which the postcards were located was at the forward bow area. Although presenting an overhead environment for the diver access to the area was through an opening in the deck. Figure 1. The postcards were situated approximately 12 metres towards the stern and 3 metres down from the opening.

All dives were carried out in pairs with one diver removing the postcards while the second remained outside the wreck, observing the working diver through gaps in the hull plates.

3 Excavation

The bulk of the sediment was removed from around the postcards by hand trowel (Image 2). Stacks 1 –3 (Image 3.) were orientated from bottom left to top right on the image with one end of the card on the "floor" of the compartment. Stacks 4-5 were arranged at 90° to these.

A sharp broad blade knife was then used to separate adjacent stacks of cards.(Image 4).

It became apparent during this process that there was a layer of hard material between each stack. Some corroded metal was also noted lying on top of the stacks. Initially it had been assumed that this was pieces of corroded metal that had become dislodged from the surrounding metal plates and fallen on top of the stacks. However, with the presence of the material between the stacks it was concluded that the cards must have originally been stored in tin boxes. These had almost completely corroded away over the years revealing the cards and probably accounts for their survival in the marine environment.

Initially, Stack 1 (Image 3) was removed and placed in watertight plastic containers, allowing easier access to stack 3. Once this had been separated from stacks 4&5 and stack 2 the knife was slid underneath stack 3. This made it possible to remove the cards in stack 3 in two bundles.

While trying to separate stack 2 from the metal plate (Image 3, red outline.) became detached allowing easier access to this stack of cards. These were removed in 4 bundles and placed in plastic containers.

Stack 4 was then removed and similarly stored.

Stack 5 appeared to have heavily corroded material around it and it was decided to leave this *in situ* as the cards were likely to be damaged in an attempt to separate these from the bulkhead they were against.

In all 6 dives, varying between 30 – 40 minutes bottom time, were undertaken between 5 – 6 March 2004 to recover the cards. Due to the relative cold and minimal activity of the divers all dives were run using EANx36 but decompression schedules were based on air. Once excavated, cards were placed in plastic containers were brought to the surface after each dive and stored in a cool dark environment. At the end of each day bubble wrap was placed in each container to secure the bundle of cards for transport. They were kept refrigerated until transport was organised to the conservation laboratory.



Image 1. Access to bow section containing the postcards.



Image 2. Stacks of postcards *in situ* prior to removal once the sediment had been removed.

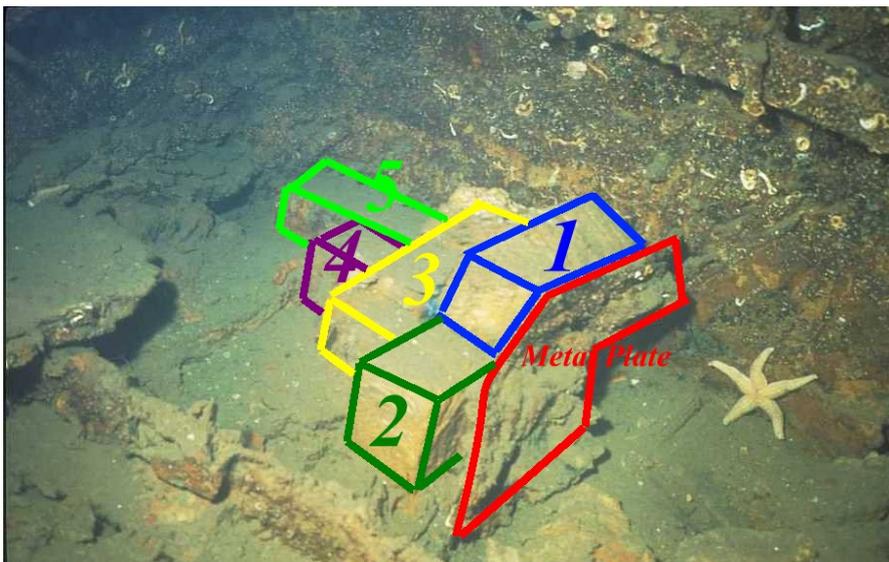


Image 3. Position and orientation of stacks of postcards.



Image 4. Stack one removed showing cards beginning to separate in stack 2 revealing postcard image.