“VEB SCHIFFSLATERNENWERK UECKERMUNDE” RESTORATION AND STUDY OF SIGNAL LANTERNS

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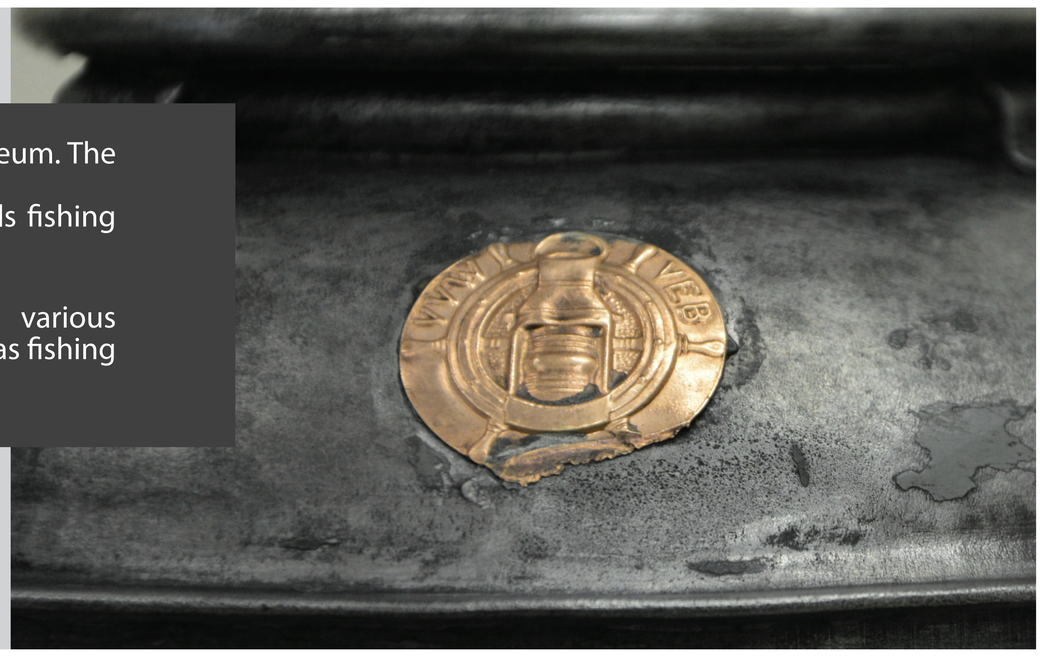
In 1954, the Seaside Open-Air Museum was founded in Ventspils as the Open-Air Maritime Fishing Museum. The museum fund consists of more than 26,000 different items.

One of the museum's collections includes ship and boat lanterns that were acquired from Ventspils fishing kolkhoz “Sarkanā bāka” (Red Lighthouse) and coastal villages.

International Maritime Laws prescribe the use of signal lights to ensure communication in various circumstances, in order to identify and assess any situation during navigation. Therefore, signal lanterns as fishing aids have been significant at all times.



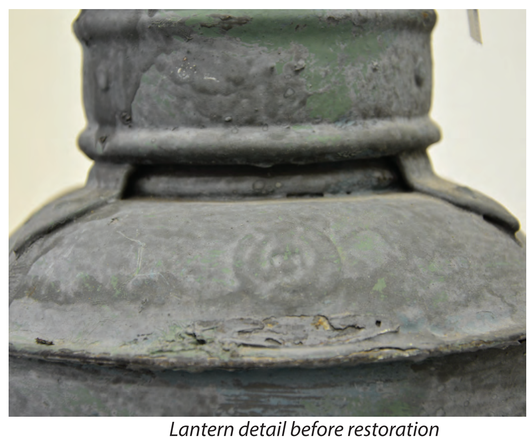
ABOUT LANTERNS

The signal lanterns included in the museum's collection were mostly ship kerosene flashlights manufactured by “VEB Schiffslaternenwerk Ueckermunde” (Germany) in the 60-70's of the 20th century. Both side lanterns with red and green glass and white top lanterns with white glass are in the collection. All VEB lanterns are plated with brass signs which are hardly visible due to thick layers of paint before the restoration.

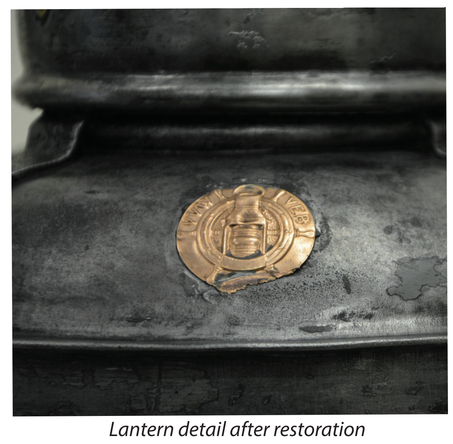
Lanterns are made of tin and are industrially painted in pale grey. In the middle, there is a curved, well-milled glass lens in front of which coloured glass is placed in order to produce green or red lights.

Many lanterns are covered by a thick layer of oil colour in grey or dark blue-grey. The grey colour of fishing vessels and boats was regulated while Latvia was a part of the USSR so that if necessary, the USSR military fleet could be assisted.

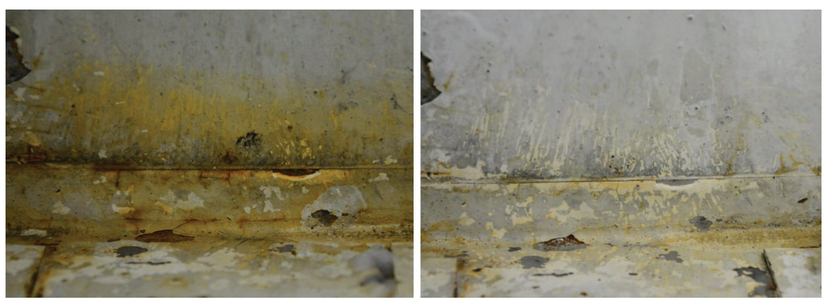
The paint was applied by brush. Visible leakage indicates that the lanterns have been repainted several times during the maintenance of the ship in order to avoid corrosion. For some lanterns, the green oil colour of different tones is visible under the layer of grey colour. They supposed to be used as green side flashlights. Here and there, paint layers have scaled off and dried in some places which have corroded over time. Most of all corrosion has affected the inside and the base of the lanterns. At a later time part of the lanterns have been adjusted for electricity.



Lantern detail before restoration

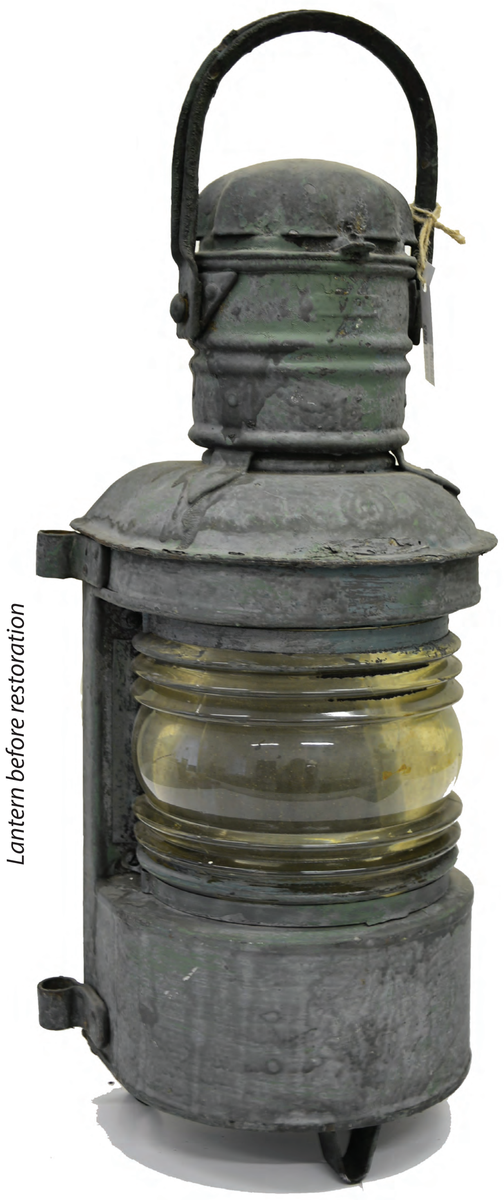


Lantern detail after restoration

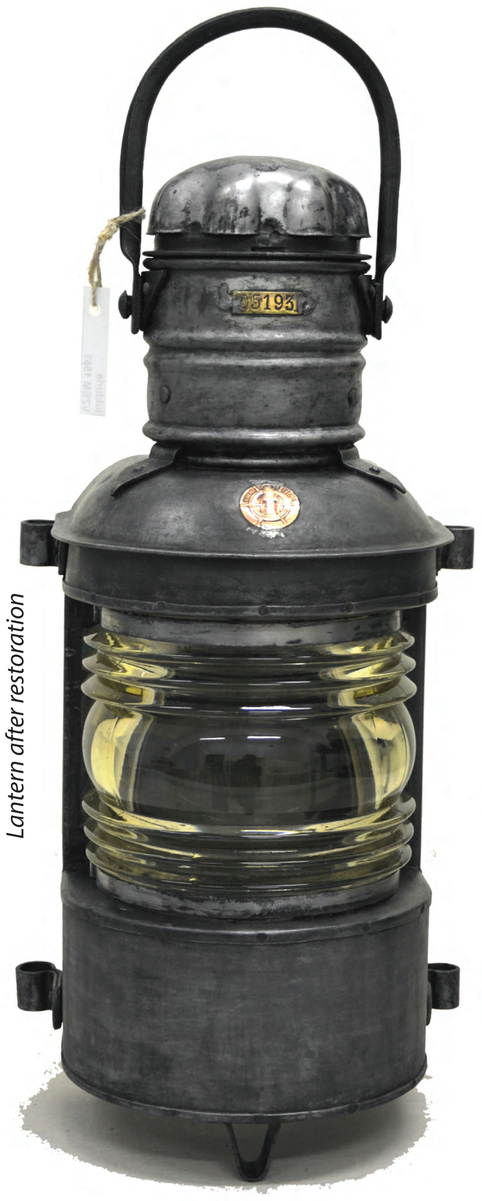


Process: before and after using gel – wheat flour glue that contains 5% of citric acid

Lantern restoration process



Lantern before restoration



Lantern after restoration

CONSERVATION PROCESS

In the process of restoration, lanterns have been cleaned from dirt and degreased. Paint layers have been gradually removed by using a gel – wheat flour glue that contains solvents such as dimethylsulfoxide, benzyl alcohol, ethanol and petroleum spirit (1:1:1:1). In order to clean up the doors of the lanterns that are covered with thick paint layers a hairdryer has been used. In the case of some lanterns, a layer of grey or green colour has been left untouched, if it holds well to the metal surface and has not peeled up and the corrosion layer has not been seen under it as well. Areas affected by corrosion are chemically cleaned by using a gel – wheat flour glue that contains 5% of citric acid. By cleaning areas affected by corrosion in this way, no leakage is formed, the selected area is cleaned and the whole process is controlled well. Lanterns are passivated, rinsed and dried. Surfaces are cleaned mechanically. A protective coating is applied on the metal surface.

Reference: In the study, the information available in the scientific archives of the Ventspils Seaside Open-Air Museum is used.