THE UNDERWATER ARCHAEOLOGICAL SEARCH PROJECT IN THE EASTERN PART OF THE GULF OF FINLAND BETWEEN 2006 AND 2009: SHIPWRECKS IN THE RUSSIAN ZONE OF THE NORD STREAM PROJECT

PETR SOROKIN, AYVAR STEPANOV

The plan for the North European Gas Pipeline (NEGP) from Russia to Germany under the Baltic Sea across the territorial waters and economic zones of Russia, Finland, Sweden, Denmark and Germany was the reason for this large-scale underwater archaeological research project that has led to the identification of new objects of the cultural heritage (Fig. 1). Between 2006 and 2009, integrated underwater research was carried out, including the identification and exploratory surveys of shipwrecks along the course of the projected pipeline in the Russian waters of the Gulf of Finland. Going from Portovaya Bay to the west of Maly Fiskar Island, southeast of the Bolshoy Fiskar Archipelago, passing Sommers Island, to the west of Hogland Island, the route goes beyond the territorial waters of the Russian Federation into the economic zone of Finland. Its total length in Russian waters is about 110 kilometres.

The route of the projected pipeline crosses historic water routes which connected the Baltic Sea with the eastern part of the Gulf of Finland. As early as the Middle Ages, there were waterways from the Nordic countries to the mouth of the River Neva, the Beryozovye Islands and the Gulf of Vyborg. From the Viking period (the eighth to the 11th centuries) until the late Middle Ages (the 17th century), the route along the northern coast of the gulf served as the main route for voyages by Norsemen, Hanseatic merchants and other inhabitants of northern Europe to Russia. After the foundation of Vyborg in 1293, there were routes which passed through the area, linking the town with Sweden. Given that the existing routes developed in the basic directions of traditional waterways used for navigation since the Middle Ages, it can be expected that wrecks from the Medieval period that are not mentioned in historical documents will be found. The time was characterised by sailing within sight of the shore, so the most likely discovery of Medieval vessels is predicted to be in the immediate vicinity of the northern coast and near coastal island archipelagos. Since the Late Middle Ages, international routes using large vessels formed, which were some distance from the coast, and which mostly coincide with modern shipping routes. At the same time, navigation by small and medium-size vessels often continued along the traditional routes.

The busiest period of navigation in these waters emerged after the foundation of St Petersburg in 1703, as most trade between Russia and Western Europe was carried out through the city. In the 18th to the 20th centuries, the major waterways to St Petersburg and Vyborg north of the island of Hogland was included in the zone of two lighthouses, Sommersky and Northern Hogland. Another way was to go south of Hogland. The Northern Hogland shoal, located a few kilometres from the northern tip of Hogland Island, is the place with the most shipwrecks of commercial and military ships from the 18th to the 20th centuries in the eastern Baltic.

Information about wrecks of commercial and military vessels in these waters can be found in archive documents. In the 18th and 19th centuries, the following vessels were lost here: two 32-gun frigates, the *Hector* (sunk in 1742) and the *Archangel Michael* (1760), the 66-gun battleship the *Vyacheslav* (1789), the galliot *Enge Tobias* (1771), the transport yacht *Theodosius* (1814), and the transport ship *America* (1856) (Sokolov 1855, pp.20, 88; Morskoy 1856, p.32ff; Sorokin 2007, p.6).

According to incomplete statistics on the wrecks of vessels in the area, between 1841 and 1858, 14 vessels sank; and between 1856 and 1866, 12 vessels sank. Most of these ships were private merchant vessels, mostly foreign, English, Dutch, Norwegian, German, Finnish and Swedish.

There is information that as late as 1856 the Swedish schooner *Victor* sank here, and the English vessels *Alexander*, the brig *Young Dixon*, and the steamer *Dzhakkal*. In 1860 the Finnish schooner *Ida*, the British merchant ships *Fanny* and *Gomsval*, and the Dutch ship *Triton* were lost there. This data can be considered as an average annual figure (Sorokin 2007).

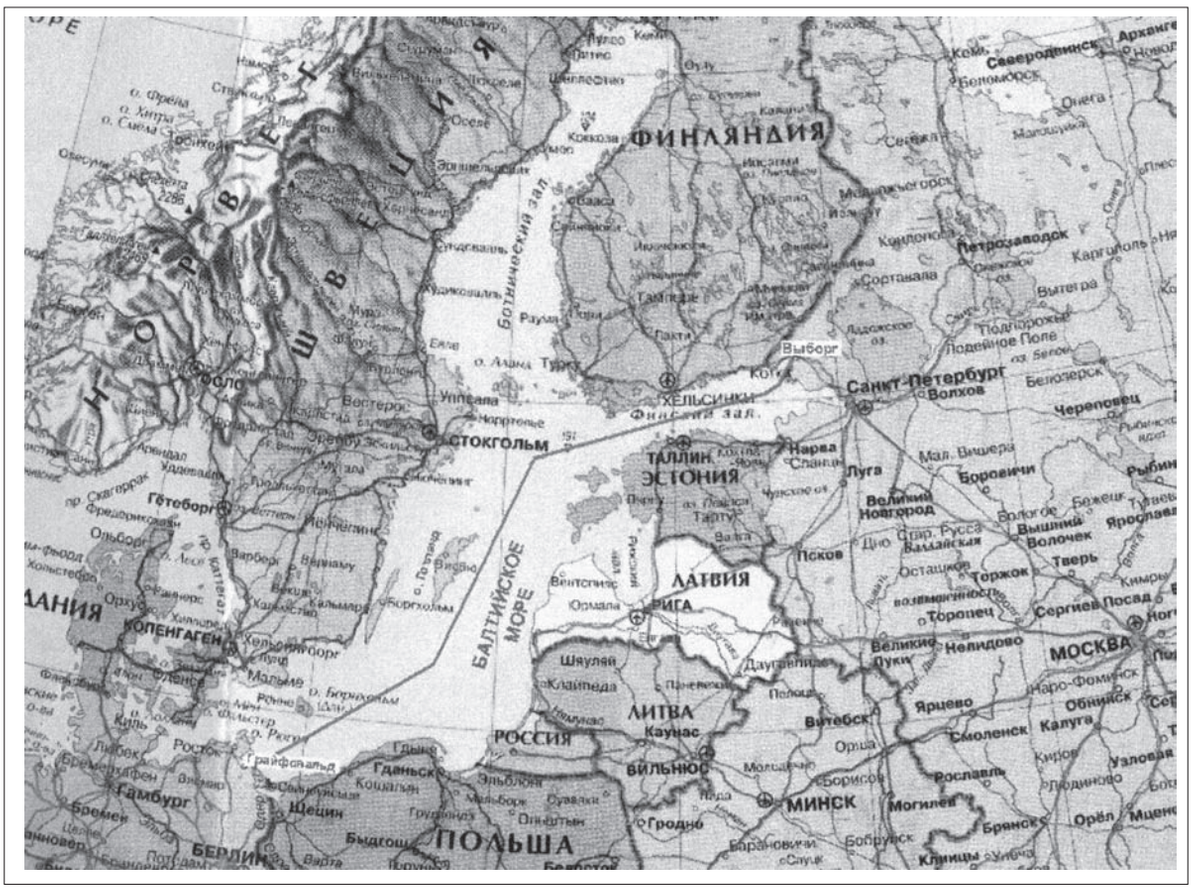

Fig. 1. The plan for the North European Gas Pipeline.

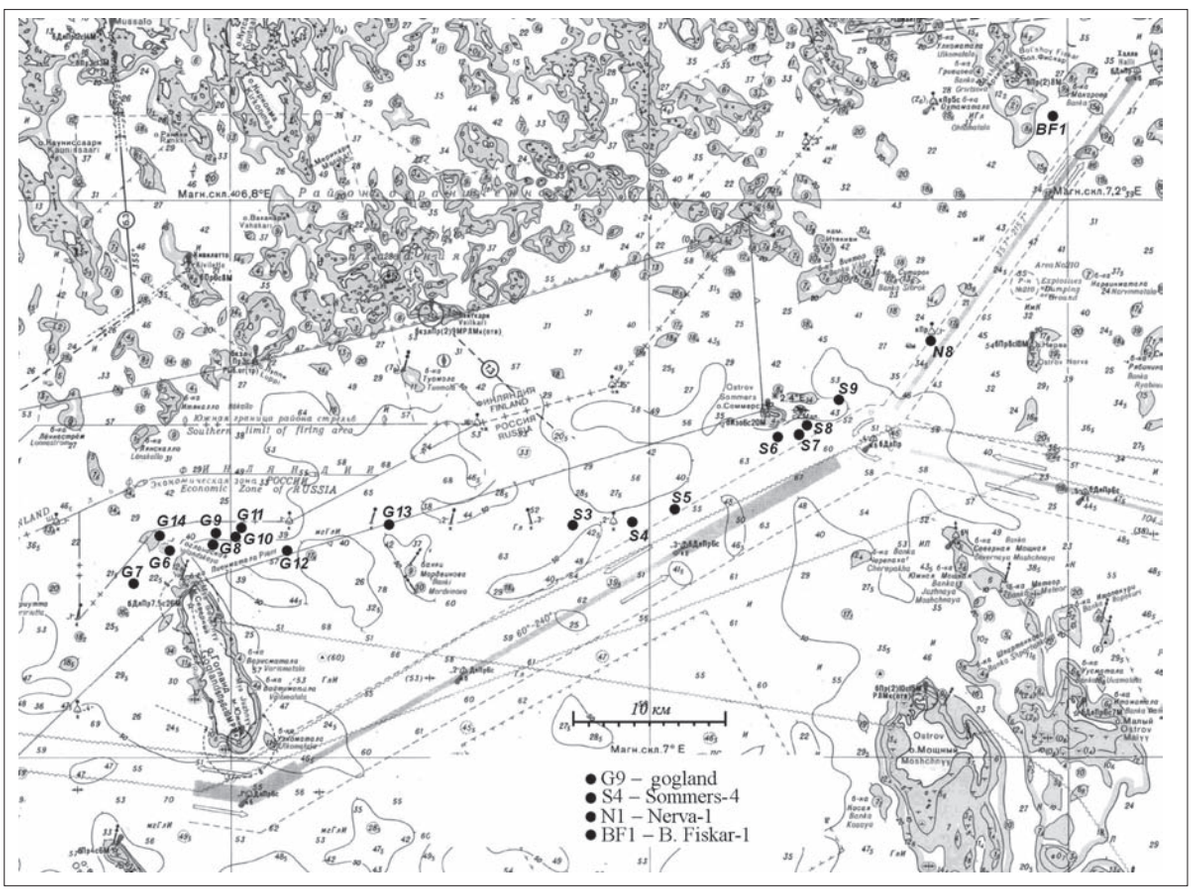

Fig. 2. The locations of shipwrecks identified in the zone of the pipeline.

The remains of two ships, a Finnish gunboat that sank in the last war, and a Soviet auxiliary ship (supposed to be the tugboat *Shauliai*), which was lost during its transfer from Tallinn in 1941, were examined by the St Petersburg Archaeological Expedition of the Institute for the History of Material Culture of the Russian Academy of Sciences, and the Northwest Institute of Heritage in 2005 in the Northern Bay area (Suurkyulyan-lahti) of Hogland Island (Sorokin 2005).

Work on finding wrecks along the Russian section of the North European Gas Pipeline between 2006 and 2009 was carried out by the Nord Stream company, using side-scan sonar and a remotely operated underwater vehicle (ROV) with a television camera. In 2008 and 2009, most of the work was completed (Fig. 2). The total number of detected objects is 18. Three of the vessels have been dated to the 18th century, two to the 18th or 19th centuries, four to the 19th century, three to the 19th or 20th century, and four to the 20th century. The dating of two other vessels is difficult. Previously identified were two cargo ships, one Dutch from the18th century, and the other English from the 19th century, and also two Soviet torpedo boats, lost in the Sommers area during the Second World War. They all received conventional names in accordance with a previously established system based on the nearest geographical point. Given the proximity of some of them to the route of the projected gas pipeline, in 2009 there was further monitoring work on a number of objects. In the course of this work, on the southern section of the line, close to Hogland, four sites were examined, including the discovery as a result of a sonar scan at the base of the eastern slope of Hogland bank of a previously unknown, sunken cargo ship from the 19th century, probably English, called 'Hogland 14'. Glass, ceramics and crockery, and pipes were retrieved from the ship (Fig. 3, see Plate VII). Another ship surveyed by the divers was the merchant ship 'Hogland 11'. Judging by the construction and cargo, it can be identified as Dutch, from the last quarter of the 18th century. Also found were glass, ceramic and porcelain tableware, pipes and copper coins of Dutch and Russian origin (Fig. 4, see Plate VIII). Based on the shape and design features, this vessel can be defined as a galliot. The third cargo ship inspected, 'Hogland 13', with a large Admiralty anchor, dates from the first half of the 18th century (Fig. 5, see Plate VIII). The fourth cargo ship, 'Sommers 4', with a helm, dates from the 19th century (Fig. 6, see Plate VIII). In the course of the investigations, an examination, preliminary measurements and the identification of architectural elements were made (Stepanov 2009). Other sites were studied based on hydro-acoustic surveys and image acquisition materials.

All of the vessels identified were recommended for inclusion in the list of cultural heritage objects. At this stage in the study, the precise determination of wrecks on the basis of written documents is difficult, given the large number of shipwrecks in the area and the insufficient knowledge of the vessels themselves, as well as the full range of archival information on the ships lost in that area. At the same time, we can say that medium-size commercial vessels belonging to several north European states prevail. This is consistent with historical data, according to which the main cargo transport across the Baltic Sea between Western Europe and Russia was carried out in the 18th and 19th centuries by West European, mostly British and Dutch, vessels.

Given that most of the shipwrecks found lie at a considerable depth and are well preserved, the preservation of all the vessels found along the site of discovery during the construction work along the pipeline is recommended. To guarantee their conservation, the projected pipeline route should be constructed no closer than 100 metres from the identified sites. In the event of a reduction of this distance, it is necessary to develop a special project for the preservation of objects of the cultural heritage. In the event of the salvaging of ships, or parts of them, their full conservation and delivery to state museum care should be ensured.

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