SUMMARY

Michał Grabowski

Local Boat- and Shipbuilding in the Gulf of Gdańsk from the 14th to 19th Century: An Archaeological Study.

The issue of production and use of small, coastal vessels in the Gulf of Gdańsk is still little known in Polish historiography. This is largely the result of the scarce historical sources, in which coastal seafaring was treated as "obvious", receiving much less attention than the large seagoing vessels operated from the big harbors of the cities of Gdańsk and Elblag. Moreover, the handcrafted production of the local vessels based on traditional methods that took place in small regional shipyards and family-run workshops was passed down from generation to generation, sometimes only by word of mouth. Therefore, historical sources often remain silent when it comes to the local shipbuilding traditions.

With limited written sources, archaeological data becomes an invaluable source of information about shipbuilding techniques and vessel construction. A variety of data is obtained through the examination of shipwrecks that allows not only to determine the technical parameters, such as the overall dimensions and shape of the hull, propulsion, construction sequence or use of material but also indicates their purpose and functions (e.g. economic, military), adaptation to local conditions and types of navigation. Thanks to the development of modern methods of analyzing wooden archaeological objects, including dendrochronological dating, it has recently become possible to more accurately determine the age of shipwrecks as well as the provenance of timber used for their construction. It proved to be particularly useful in the case of research on smaller, traditionally built vessels, which were predominantly built close to the source of timber.

The thesis focuses on the construction of small, coastal vessels locally used and built within the Gulf of Gdańsk. Based on the analysis of 12 ship finds from Gdańsk, Puck Bay and the Vistula Lagoon that spanned a period from the 14th to 19th centuries, an attempt was made to trace changes in design of ships and their individual parts, how they were produced, which methods of production were implemented; what materials and tools were used, and to what

extent the discussed constructions met the conditions and transportation needs within the shallow waters of the Puck Bay and the Vistula Lagoon.

The work also addressed the issue of organizing local shipbuilding facilities and workshops, in which the construction and repairs of the local vessels were undertaken to provide a basic service for coastal communities in this area. Using the historical data, an attempt was made to present the conditions of local shipyards, their technological advance and production scale, labour market as well as the supply of basic materials. Particular attention was paid to the boat and ship production of coastal towns and villages located along the Bay of Puck and the Vistula Lagoon, which for many centuries operated in the vicinity and, to some extent, in the shadow of large harbor cities and their shipyards.

Based on the examination of collected data, several conclusions can be drawn in terms of the major changes that occurred in local shipbuilding in the span of the 14th and 19th centuries. The starting point was the 14th century with increased agricultural production and bulk trade from the Baltic Sea to Western Europe, which required production of larger and more capacious cargo vessels suited for the transportation of bulk cargo. Only the largest shipyards, located within large port cities, could meet the growing demand for the mass production of large cargo ships. The production of smaller vessels was taken over by regional facilities and individual boat builders who carried out some of the orders for the local population on their own account. The old shipbuilding traditions developed in the early Middle Ages underwent further changes, first under the influence of Hanseatic seafaring, and then, in the period of the 16th and 17th centuries, when the Dutch took over the Baltic trade. The period of the 19th century was selected as the upper time limit when as a result of the industrial revolution, significant transformations took place in the entire ship industry. The timber has been increasingly replaced by more durable and easier-to-obtain materials like iron and steel. Furthermore, new types of propulsion were introduced, first steam and later combustion engine, that revolutionized maritime and shortly after also coastal seafaring. New materials and technologies required different qualifications, tools, and the organization of productions. The setup of fix connections (steam and railway) between smaller towns of the region in the mid-nineteenth century led to the decline of the part of the local cargo fleet, and thus the local shipbuilding business.

key words: shipbuilding, maritime archaeology, shipwreck, Gulf of Gdansk