

# Boat and ship Archaeology in Gilan Province (Iran)

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## Abstract

*Gilan province is one the northern states of Iran which is located in south west of Caspian Sea and has relatively long coastlines. According to historical and geographical location of Gilan, in 2017, Maritime archaeology group of Iranian Center for Archaeological Research (ICAR) decided to do a project as "Archaeology of maritime landscapes of Gilan Province". Main goal of perform this project was identifying immaterial and material of maritime culture across of Gilan province maritime landscape. Our Research area was from "Astara" county to "Rudsar" county in Gilan province. We were surveying about navigation and Boatbuilding in rivers, Lagoon and coastlines of Caspian Sea. For example: in "Estil" Lagoon in Astra county we observed a kind of Simple Watercraft which is more look like to a Dugout canoe. During this project, we observed and investigated about wooden boats with simple construction in different sizes that locals called "lutka/lodka" or "Nodonbal". Nowadays, fishermen use flat-bottomed, double-ended vessel (in local dialect called "karaji") that linked to past period. So we were investigating on remains of "Ghorogh" wooden shipwreck in "Talesh" County and wooden shipwreck "Lalehrūd" in "Rudsar" County. We visited Traditional Wooden Boat Factory and interviewed with locals. This article based on desk and field research on traditional and historical boat and ship in each city of Gilan province.*

**Key Words:** Caspian Sea, Gilan province, boat and ship.

## 1. Introduction

According to Iran Cultural Heritage, Handicrafts and Tourism Organization (ICHTO) is responsible for Cultural heritage in Iran. Recently, in 2017 Iranian Center for Archaeological Research (ICAR) issued a license titled

as "Archaeological survey of maritime landscapes of "Gilan" Province relying on pervious assessments and some Main principles of Convention on Protection of Underwater Cultural Heritage and identifying potentials in order to do future protection measures. "Hossein Tofighian" is the director of archaeological survey. The main goals of the Project were:

1. In Situ Preservation, as first option.
2. Obey legal protection of archaeological sites.
3. Organizational and archaeological monitoring in order to avoid of material culture for further degradations.
4. Necessary measures about protection of sites.
5. Making Reports and documents of archaeological finds.
6. Support ratification and compliance with the UNESCO 2001 Convention on the Protection of the UCH.
7. Protect underwater cultural heritage for future generations.

We used "[Christer Westerdahl's approach](#)" - the Maritime cultural Landscape - that published in international journal of nautical archaeology in 1992 for Maritime archaeological surveys in Gilan province. Because his approach, we can get to our holistic understanding about this subject. Our Research area was from "Astara" county to "Rudsar" county in Gilan province. We were surveying about shipwrecks, local maritime culture, navigation and Boatbuilding in rivers, Lagoon and coastlines of Caspian Sea. This article derived from this project and shipwreck as a time capsule and dating instrument mixed with historical report.

## **2. Maritime Archaeological studies in Caspian Sea**

Based on Encyclopedia of Lakes and reservoirs: "The Caspian Sea is the largest closed water body in the world. Five states are situated on its banks: Russia, Azerbaijan, Islamic republic of Iran, Kazakhstan, and Turkmenistan. The area of the sea at present equals to 0.4 million km

making 18% of the total area of lakes of the Earth. The volume of water equals to 79,000 km. The maximal extension of the sea from north to south equals to 1,200 km, its width varies from 200 up to 450 km, and the greatest depth equals to 1,025 m. The Caspian Sea accepts water of 130 rivers from the catchment area which is approximately ten times greater than its own one (3.5 million km<sup>2</sup>) ( Fig. 1). The main feature of the hydrological regime of the Caspian Sea is significant fluctuation of its level which is the reason of significant damages and ecological accidents" ([Bolgov, 2012](#)) and This is why various archaeological monuments were inundated by the Caspian Sea water ([Okorokov, 1993](#)). Caspian Sea and its coasts have many important aspects such as Strategic, Environmental, social and economic (fisheries, transportation and tourism) factors. In these days, we should have added maritime archaeological significance to the Caspian Sea.



*Fig. 1: Caspian Sea; (Rucevska and Simonett, 2006)*

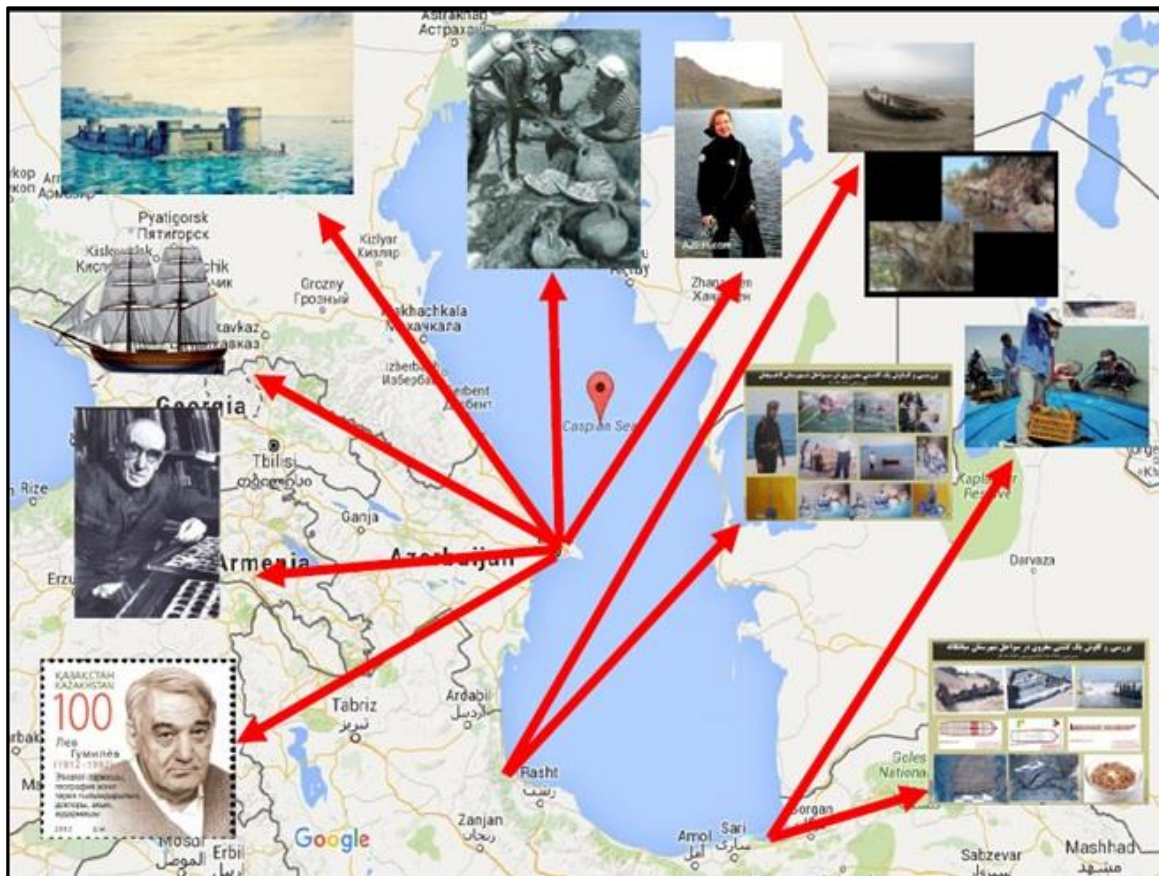
There are some of historical and considerable reports that mentioned to the Caspian Sea, include: Herodotus (5th cen. BC), Ptolemy (AD 2 cen.), Estakhri (AD 10th cen.), Mas'udi (AD 10th cen.), Al-Idrisi (AD 12th cen.) , Abu Zeyd al-Balkhi (AD 9th cen.), Adam Olearius (1599-167), Jan Janszoon Struys (1630-1694), Captain John Elton(1751), Jonas Hanway (1712-1786), Guillaume-Antoine Olivier (1756-1814), Pierre Amédée Jaubert (1779–1847), James Baillie Fraser (1783-1856), Charles Francis Mackenzie (1788–1862), Bohler(1853-?), Grigoriy Valerianovich Melgunov (his travel to southern coast of Caspian sea:1858-1860), Jakob Eduard Polak (1818-1891), Madame Carla Serena (1824-1884), Ernest Orsolle (1858-?), Henry Binder (1886-?), Frederick Charles Richards (1878–1932), Wipert von Blücher (1883- 1963) and etc. ([Zonn and et al.,2010](#); [Nikouyeh, 2007](#)). Also, we have many reports from Medieval Islamic travel writers about Relations between "RUS" and Iran on that time when Volga maritime route was open. Some of these writers include: "Al-Mas'udi, Ya'qubi, Yaqut al-Hamawi, Gardezi, Al-Muqaddasi, Ibn Rustah, Ibn Khordadbeh, ibn athir al jazari", particularly "Ahmad ibn Fadlan" and current western scientists' researches such as [Thorir Jonsson Hraundal](#) are very important for our maritime archaeological researches.

Also, in 1870, [Naser al-Din Shah Qajar](#) in "Ruznameh-ye safar-e Gilan" mentioned a list of many different types of watercrafts which are located in southern of Caspian sea called: "karaji"(a kind of barge), "Navid"(kind of watercraft),"ka(e)šti ātaši"(a kind of Steamboat), "Nāv"(a kind of cruiser), "ka(e)šti bozorg tojjāri"(a kind of Merchant vessel), "ka(e)šti muzik"(Musical watercraft), "ka(e)šti boxār bozorg v kuča(e)k" (Big and small Steamboat ), "Qāyeq lotke/Lodka"(a kind of Russian boat), "ka(e)šti dudi"(a kind of Steamboat) and so on.

Maritime Archaeological researches on coastal and marine regions of the southern part of the Caspian Sea do not date back to long ago. For example, a couple of them are as follow:

In the early eighteenth century, several Russian scholars wrote their observations of stone structures in the coast of Baku. In 1840, an attempt to locate the submerged town was undertaken. It did not succeed, although two Russian naval brigs took part. In 1933, the Azerbaijan Academy of Sciences conducted underwater investigations in the area by "I. M. Djiifar-Zade" and "E. A. Pakhomov". Totally, 636 frieze fragments with tile decorations were raised and their inscriptions deciphered. In 1961, the Leningrad Branch of the Institute of Archaeology headed by L. N. Gumilyov started exploration of the underwater part of "Derbent" Fortress. The expedition examined about 300 m of the fortress wall underwater. These investigations confirmed the abrupt variations of the Caspian Sea-level ([Okorokov,1993](#)). According to "Viktor Kvachidze" says: "in 1968, I had the idea to create an underwater archaeological expedition in conjunction with the Azerbaijani History Museum and the first dive was organized in 1969" ([Kvachidze, 2006](#)). The expedition lifted a lot of very valuable material culture from the seabed some of them included: The remains of settlements of "Bandovan I" and "Bandovan II", swallowed by the Caspian Sea. They were found in ancient channels and on the bank of the Kura River. Bandovan I, is ruins of "Gushtaspi" city, which existed in the 11th-13th centuries, and "Bandovan II" is ruins of "Mugan" city (9th-12th centuries), too ([Ibrahimov, 2016](#)). In 1982, underwater specialists examined a ship which sank with the Russian Army treasury in the Bay of Baku at the beginning of the 19th century ([Okorokov, 1993](#)). In 2000, a fishing company observed the wrecked body of an old ship and some objects such as samovars, porcelains and some hardware artifacts obtained from there. Objects obtained from the shipwreck of "Amir Abad

of Lahijan" confirmed the issue that the vessel had been a "cargo ship". These retrieved artifacts from the vessel were made in Russia include porcelains made in "Kuznetsov Factory" ([Mirsalehi, 2001](#)). In 2003, it was reported a shipwreck appeared in the north of "Zaghmarz" Village in 17 Km away from the north of "Neka" Town ([Sourtchi, 2004](#)). In 2006, "Zhenya Anichenko" published a report of her short research trip to Azerbaijan. She wrote reasons of this short scientific trip: collecting additional data about "Sababyil" submerged Castle based on writings of middle-age historians, investigating submerged lands, Caspian Sea archeological potentials and the history of this region ([Anichenko, 2006](#)). Between 2007 and 2009, Julian Jansen Van Rensburg et al, investigated "Tammīsheh" and "Gorgān" Underwater Walls ([Rensburg and et al, 2013](#)). In 2013, the recording form of "Ghorogh" shipwreck on Talesh coastlines prepared and submitted to Cultural Heritage Administration of Gilan Province. In 2016, remains of wooden ship appeared to seem that belong to the Afsharid Era, has recently explored on "Rudsar" coasts in "Gilan" Province ([Alizadeh, 2015](#)) (Fig 2). In 2016, the divers of the Russian Geographical Society's (RGS) expedition found an object, which looked like an anchor in the Caspian Sea near the coast of Derbent. Presumably, it belongs to one of the ships flotilla of the Peter the Great, - the press-secretary of the Tatarstan branch of the Russian Geographical Society "Irina Sadykova" says ([RIA Dagestan, 2016](#)).

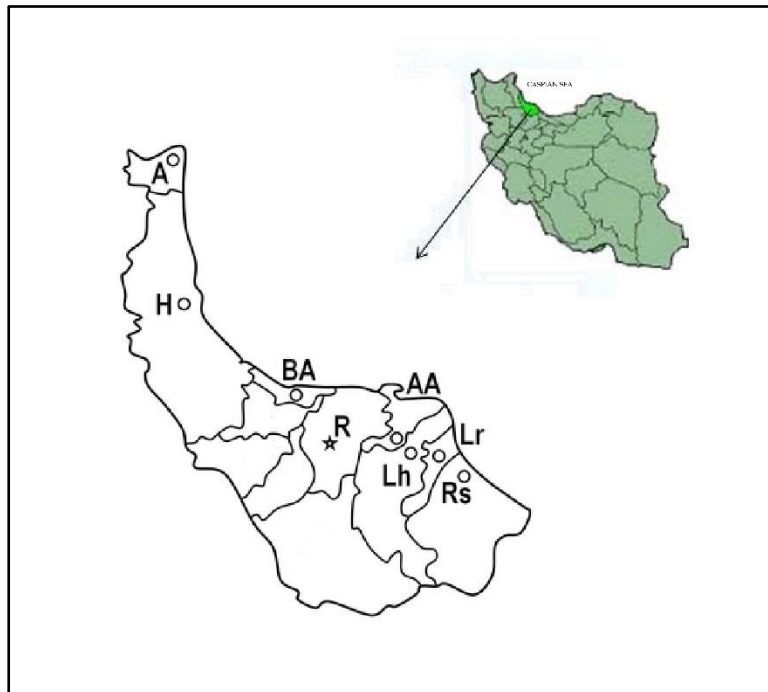


*Fig. 2 (left): Maritime archaeological researches around the Caspian Sea (Authors,2017)*

### **3. Study area**

Gilan is one of the Circum-Caspian Iranian provinces (Ostan). This province is situated on north of Iran and located in southwestern shore of the Caspian Sea. Gilan has about 14044 kilometers extent area and population – 2.4 million people with 16 Counties (in Persian: Shahrestan). Gilan connects to the Caspian Sea in north, to the Mazandaran Province in east, to the Ardabil Province in west, to the Zanjan and Qazvin Provinces in south. It also has borders with the Republic of Azerbaijan in the north as well as Russia via the Caspian Sea. The main city is Rasht and The main river is the "Sefid Rud" ([Zonn and et al.,2010](#)) (Fig 3). It has the best type of weather and climate in Iran with a moderate and humid climate that is known as the moderate Caspian climate. The effective

factors on such climate include the Alborz mountain range, direction of the mountains, the height of the area, and the Caspian Sea, vegetation surface, local winds, as well as the altitude and weather fronts ([Kazemi Rad and Mohammadi, 2015](#)). Our Research area was from "Astara" county to "Rudсар" county in "Gilan" province. We were surveying about local maritime culture, navigation and Boatbuilding in rivers, Lagoon and coastlines of Caspian Sea.



*Fig. 3: Location of "Gilan" Province.*

**A:** "ASTARA"; **H:** "HAŠTPAR" (Ṭāleš); **BA:** "BANDAR-E ANZALĪ"; **Lh:** "LĀHIJĀN"; **Lr:** "LANGARUD"; **Rs:** "RUDSAR" (Authors,2017)

### 3.1 ASTARA

In 1843, "Keith Edward Abbott" mentioned: "Astara" as "dehkade dahne kenār" which is situated in the mouth of the "Astara River". Also, Astara hasn't any harbor and cargo of ships were unloaded via boat nearby Astara water ([Sotuda, 1995](#)). There are many subjects about maritime archaeological and ethnographical studies in Astara. One of them is "Estil Lagoon". We observed a kind of Simple Watercraft which is more look like



to a Dugout canoe (Logboat) around the Lagoon (in local dialect called "Lodka"), Also, traces of axe observed on hull's Dugout canoe (Fig4). Undoubtedly, dugout canoe is one of the oldest vessels ([Okorokov, 1995](#)). According to Sean McGrail (2004): "Dugout canoe are shell-built". The technique of Dugout canoe building as: "The trunk of a heavy tree was carved out with a crude stone knife or axe: the men would then plug up both ends of the hollow trunk with some form of boarding" ([Agius, 2008:123](#)). The use of this boat building technique, dated back to Mesolithic ([McGrail, 2001:11](#)). It should be noted that boats are first known among settled peoples-farmers and fishermen. Hunters seem to have confined their water transport to occasional 'vessels', such as tree trunks, and primitive rafts. To have confined their water transport to occasional 'vessels', such as tree trunks, and primitive rafts. Many such these Dugout canoe observed and recorded in Russia, Ukraine and Latvia (See, [Okorokov, 1995](#); [Burov, 1996](#)). During our investigation in study area, we observed and recorded plank boats with simple construction in different sizes that locals called "lutka/lodka" or "Nodonbal" or "Karaji".

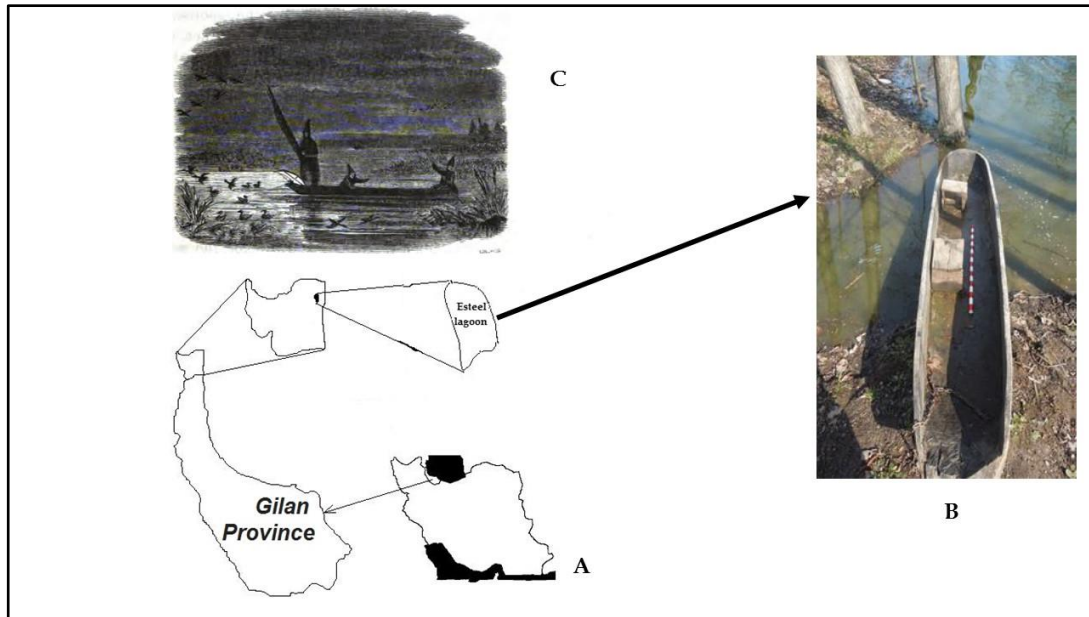
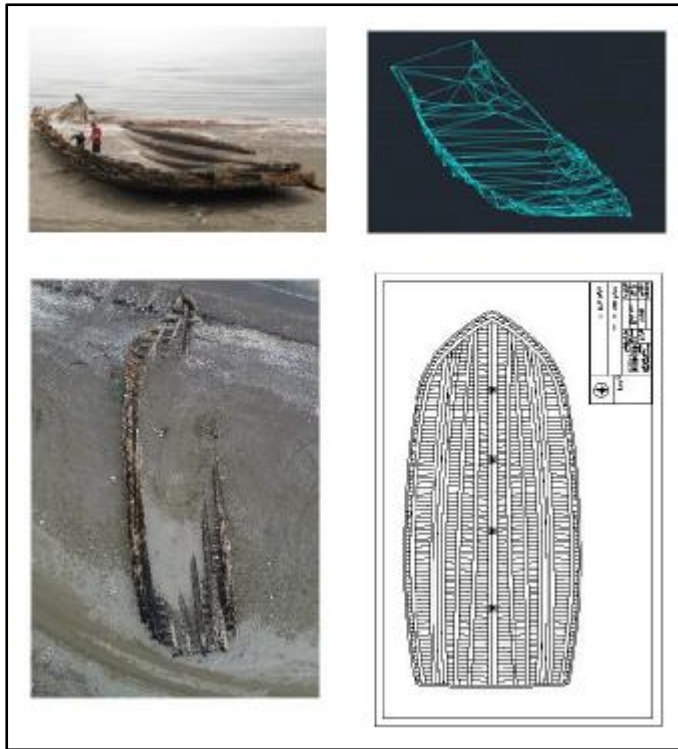


Fig. 4: A. Esteel lagoon Map. (Gharibkhany,2009); B. Estil Lagoon Dugout canoe. (Authours); C. Small Canoe. ( Holmes, 1845)

### 3.2 HAŠTPAR (or Šahr-e Ṭāleš “Ṭāleš City”)

A city in the western part of "Gilān" Province, center of the "šahrestān" (sub-provincial district) of "Ṭāleš" (or Tāleš). The city is located at lat 37°48' N, long 48°55' E, at the head of the delta of the "Kargānrud" River ([Bazin, n.d.](#)). Natural dynamic of "Talesh" coast area has caused “unstable conditions” in this region during different periods. Hence, “several water level fluctuations” in the Caspian Sea has led to “emerging or submerging of the neighbor lands."Kargan-Rud" constitutes the biggest Caspian Sea water basin in Western Gilan. It should be noted that there is considerable wooden shipwreck in Ghorugh Village of Talesh County. Here is the exact location of this vessel, according to geographic coordinate system. It is located on the latitude of 37°51'20.88"N and longitude of 48°57'27.77" E with the elevation of -28 below the sea surface. The shipwreck is accessible through "Anzali-Talesh-Astara" road. In this area, the forest is closer to the shoreline, as if the sea and

the forest are intertwined. At the present, only some parts of the vessel's keel and hull are remained. it is more than 28 meters long and about 6 meters wide. It is not clear yet what method used for construction of Ghorogh's hull. However, according to observations, a complex method, strong timbers and wooden pieces used to construct this vessel. Also, long and robust metal nails were used to fasten the wooden elements. The ship's file is prepared for national registration. It is probable this vessel played an important role in wood trade during the Qajar era between Iran and Russia. In 1880, "[Ahmad Ibn-xudāwirdī Lankarānī](#)" in "Aḫbār-nāma"; tārix-i Tālišān az salṭanat-i Nādir Šāh tā salṭanat-i Muḥammad Šāh Qāğār" said: "There was a naval warfare between Iranian Navy and Stepan Razin". Also he mentioned: "There were some exchanges cargo such as Timbers and Cereals from Gilan to Russia". Also, we were investigating on remains of "Ghorogh" wooden shipwreck in Talesh County by helishot and Details of shipwreck were mapping (Fig 5.). In these days, Fishermen use flat-bottomed double-ended vessels (in local dialect called "karaji") in this area linked to past period. Those watercrafts look like flat-bottomed double-ended vessels were using in 18 and 19 centuries.



*Fig. 5 (left): Photo and drawing of "Ghorogh" shipwreck. (Authors, 2017)*

### **3.3 Anzali**

A city and sea port as well as an Iranian naval base on the Caspian Sea in Gilan Province ([Zonn and et al., 2010](#)). After the 1979 Iranian revolution, the name of the place reverted to its original name of "Anzali". In 1860, "Grigoriy Valerianovich Melgunov" reports: "The Melgunov party aboard the "Lankoran/ Lankara" arrived off Anzali at half past the hour of eleven in the morning on October 7, 1860. The "famed tower" of Anzali was in plain view. The breeze did not permit the ship to draw any closer and so the ship dropped anchor at some distance from the shore. The local karaji came out competing among themselves to reach the ship, hoping to sell their goods to the passengers and crew and provide transportation back to shore. As it turned out, on that day, only two passengers were due to disembark at Anzali, and there was no cargo to land. Even though it was called a "town," Melgunov observed, Anzali consisted of two villages, one at each side of the straits that separated the sea from the lagoon. Tiny sea shells, reeds, and shifting sand bars marked the southern approaches

to Anzali. On each side of the straits stood a tower set in about a mile from the water's edge. The tower on the west or northern part of Anzali stood some 94 feet tall and the smoke from its signal could be seen as far east as "Piri Bazar". Anzali itself consisted of some 200 houses and 160 shops, 2 bathhouses, 3 mosques, and 3 shrines. Each house boasted a garden often bearing citrus trees. In the southern part of the lagoon lay "Miyanposhteh" Island, mostly covered in reeds. The inhabitants wove straw goods, grew silk and melons, and drove "karajis".

The ships from Baku and Astrakhan, chiefly carrying consignments of coal and petroleum, would anchor offshore opposite the Russian trading houses, as Anzali itself did not have much of an anchorage. Melgunov observed that Anzali had the Caspian's worst harbor; its bottom was rocky and storms arose in its vicinity without much warning. Steamers were prohibited from approaching the shore and were obliged to anchor some three miles off. The trade of Gilan, including Rasht and Anzali, according to Melgunov, consisted chiefly of silk and fisheries. The silk, in particular, was exported to such destinations as Constantinople in Turkey, Marseilles in France, and Russia. Among the foreign trading houses active in Gilan at the time were Riley and Company, which dealt in silk; the House of Diner, belonging to a Swiss entrepreneur; and the Kavkaz and Mercury Steam Navigation Company ([Mirfendereski, 2001](#)). During archaeological survey around the Anazli, we observed a few Shipbuilding factories where they are still building wooden fishing vessels in different size for navigating

in the sea and river (Fig 6). It should be noted that, today, a number of such these factories were decreased than previous periods.



*Fig. 6: Small Shipbuilding factory. (Authors, 2017)*

### 3.4 Lahijan

A city in the province of Gilān, located at 37°12' N, long 50°0' E, to the east of the lower reaches of Safidrud at an altitude of 4 m. ([Bromberger, 2012](#)). Around the coastline of Amirabad village in Lahijan that connect to Caspian Sea found the remains of wooden shipwreck. According to artifact recovered confirms the vessel has used as a cargo ship. The objects recovered from the vessel are mainly made in Russia and include some porcelain objects made by Kuznetsov Factory (Fig 7) ([Mirsalehi, 1380](#)). the porcelain factory took its name from the merchant and founder Terenti Kuznetsov. He established the factory in 1832 in Dulyovo [present Likin-Dulyovo]. Soon after, the factory's

products became very popular and products exclusively produced since that time, they were known as “Imperial Porcelain Factory” in Russia. Kuznetsov porcelain designed and produced based on Eastern and Western tastes; so it had many customers. The factory had a wide range of products. For example, it produced 150 different types of lunch, tea and coffee sets and about 370 types of cups and various types of teaspoons, butter dishes, fruit dishes, sugar bowl, ashtrays, candlesticks, money boxes and other products ([Torchinsky, 2010](#)). The ship’s cargo recovered in 2001 and part of the cargo is currently displayed on Lahijan Anthropology Museum.

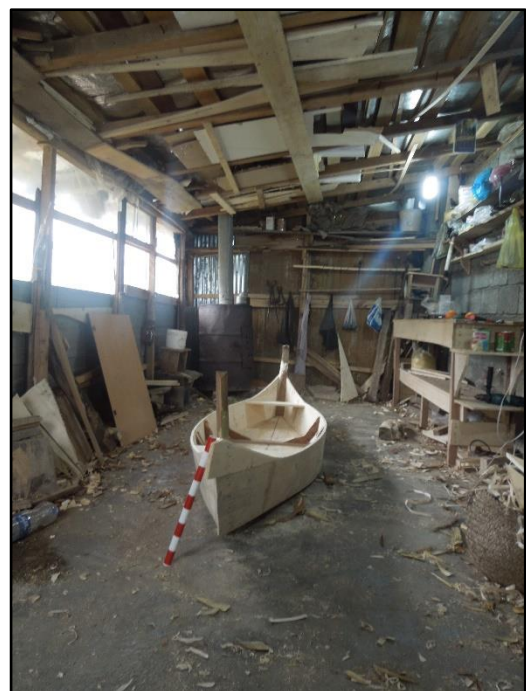


*Fig. 7: The cargo and hull of the Amirabad shipwreck. (Mirsalehi,2000)*

### **3.5 Langarud**

A city and sub-provincial district (šahrestān) in Gilān located at lat 37°11' N, long 50°09' E on the Langarud River, which cuts through the city. From 1611 to 1899, Anthony Jenkinson and other Englishmen report: “Langroe (Langerud) is situate in low, swampy ground, and at the time of Gmelin's

visit, was in a ruined state; nothing but a few reed hovels were to be seen, and a half -ruined bridge and a masque. It was near here that the remains of the ship built by John Elton for Nadir Shah were to be seen. — Holmes' Sketches on the Shoi'es of the Caspian. (Jenkinson et al.,n.d ). "(t)he city owes its fame to the commercial and administrative functions it has performed throughout history. Located in the heart of a region that produces rice and silk, with the nearby quarter of Čamķāla functioning as its commercial port, Langarud witnessed strong growth late in the 19th and early in 20th century when Iran's trade with Russia and Europe was flourishing (Fig 8)([Bazin and Bromberger n.d](#)). Chaf and Chamkhaleh is a city in the Central District of Langarud County, in Gilan Province northwest of Iran. The city is located on the Caspian Sea. In this area, we visited a Traditional Wooden Boatbuilding Factory, which they are building in different sizes that locals called "lutka/lodka" or "Nodonbal"(Fig 9).



*Fig. 8 (left): River landscape of Langarud. ( Holmes, 1845) and Fig 9. Traditional Wooden Boat Factory in Chaf and Chamkhaleh (Authours, 2017)*



### 3.6 Rudsar

A city and sub-provincial district (šahrestān) in eastern Gilān. The city is located at lat 37°08' N, long 50°18' E, at the place where the Caspian coastal highway crosses the small river Rudsar or Kiārud, 14 km southwest of Langarud ([Bazin, n.d.](#)). River "Shalman Rud" passed through Rudsar and flows into the Caspian Sea. Around the river where "Lalehrūd or Allah Rūd" village is suited; there are remains of a grounded wooden shipwreck. It is very significant for archaeological research. There are some clues in historical accounts on this matter, for example: "[Jonas Hanway](#)" reports as titled "an historical account of the British trade over the Caspian Sea": "Elton with locals built many warships for Nader Shah in a place that called "Langroud". It should be noted that the site of shipwreck is near to this location. Maybe this shipwreck belongs to Afsharid Era? Also, we were investigating on remains wooden shipwreck's Lalehrūd Rud in Rudsar County. Group members were recording all details' shipwreck in a special recording form (Fig. 10). We got some wooden samples from shipwrecks for dendrochronological studies. In relation to this matter, we are staying in touch with international scientists.



*Fig 10. Rudsar shipwreck. (Authours,2017)*

#### **4 Conclusion**

Unfortunately, over several Decades of forming maritime archaeological studies in the world in this area of Iran is intact and need more maritime archaeological survey. In the nascent stage of maritime archaeological survey in Gilan province, we tried to identify maritime archaeological potentials and some historical accounts that mentioned to maritime spaces of Gilan province. It should be noted that in this paper we tried to mix historical accounts with archaeological records to clarify dating maritime culture heritage, but there are many hypotheses about seafaring in this area based on archaeological records. According to historical accounts, it is clear to us, there were seafaring activities in the Caspian Sea region since AD 9<sup>th</sup> century contemporary with Opening "Volga maritime trade" route until today. Also, it is noticed that, different kinds of watercrafts from shell-built to skeleton-built were used in this area.

Unresolved hypotheses of this issue move forward us to use of Multidisciplinary Studies and international contacts.

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