

Chapter XX

מסכת ברכות פרק ד', משנה ו'

הִיָּה יוֹשֵׁב בַּסְּפִינָה, אוּ בַּקָּרוֹן, אוּ בַּאֲסָדָה - כִּגוֹן אֶת לְבוֹ כִּנְגֹד בֵּית קִדְשֵׁי הַקֹּדֶשִׁים :

“One who was sitting on a boat, or a wagon, or a raft [and cannot turn his body to face the proper direction while praying], should direct his heart towards the site of the Holy of Holies.”

What did ancient boats look like, and why couldn't a passenger simply turn around to pray on one?

A raft is just a few wooden logs tied together. It provides a simple way to float down a river. Wagons are carts pulled by animals.



Fig.XX.1 A model of an ancient raft



Fig.XX.2 A replica of a Roman wagon

These basic means of transportation have changed little since the time of the Mishna, almost 2000 years ago. The *Tifferes Yisrael* explains that standing up on these would be scary, and thus the Mishna allows one to remain seated while praying. But what about boats? Perhaps some small fishing boats were just as scary to stand on, but other ships were much larger. What did ancient boats look like during the time of the *Tana'im*—the great men of the Mishna, who lived during the time of the Roman Empire?

All ancient boats were made of wood. Since wood usually rots after a while, even though there were fleets of thousands of Roman ships roaming the seas for many hundreds of years, few of those ships have been found, and all that remains of the ones that have been found are their **hulls**. Nevertheless, we know a great deal about the boats of Roman times—mostly from Roman writings, carvings, and **mosaics** that depict the ships of their days (See Figs.XX.3,4 & 9).

Just like today, there were two main types of large ships: ships for fighting (warships) and ships for transporting goods (merchant ships). Today, all big ships move using propellers that are powered by engines. But until the invention of the steamboat (about 230 years ago), there were only two ways to power the movement of a ship across the sea:

- 1) Using oarsmen, who rowed the boat with **oars**
- 2) Using sailors, who harnessed the power of the wind with **sails**

Let us see how these two methods were used in Roman days.

Warships

Warships were built to be lightweight, fast, and very maneuverable (See Figs.XX.3&4). They used both sails and oarsmen. Roman military oarsmen were not slaves. They were highly trained, skilled laborers who were paid, not unlike soldiers (See Figs.XX.5&6). Warships had to be able to sail near the coast, where the water is shallow, so they needed to have flat, rather shallow hulls. They often had a pointed metal tip, called a **ram**, at the very front of the ship (called the **bow** of the ship). The ram was used to smash the hulls of enemy ships.



Fig.XX.3 A Roman stone carving of a warship. The soldiers are on top, standing on the **deck**. You can also see their fighting tower. Below the deck are the oarsmen, whose oars can be seen sticking out of the side of the ship. At the ship's bow, you can see where the ram is partially above the water.



Fig. XX.4 Roman mosaic of a warship, complete with sails, oarsmen, and a sharp ram at the bow of the ship (on the left of the picture).

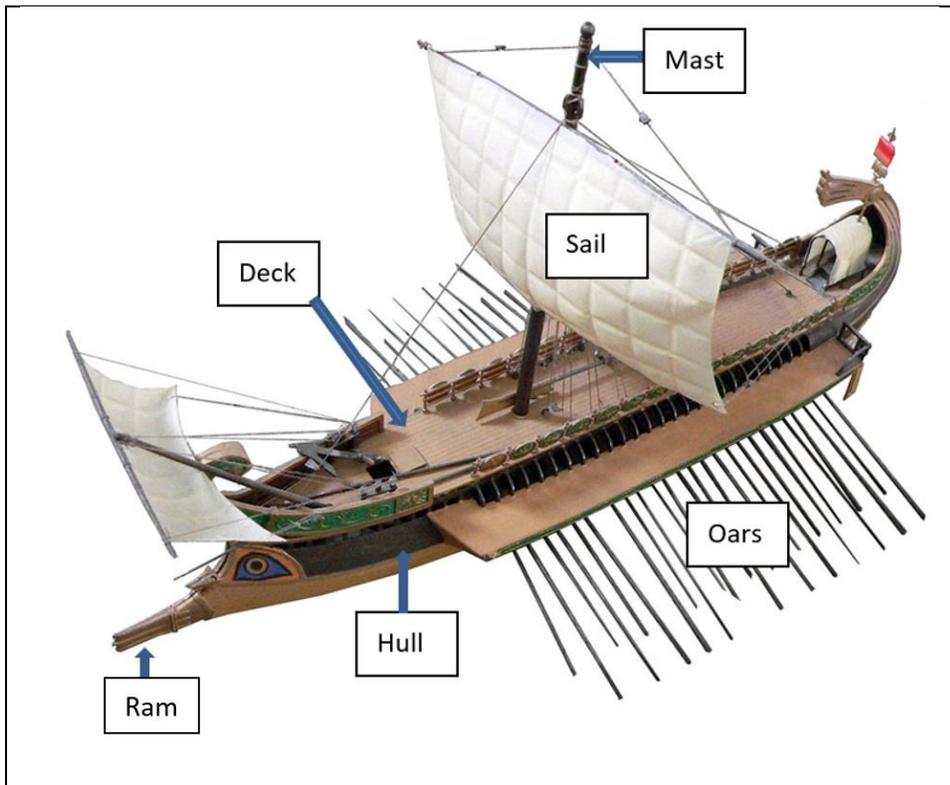


Fig.XX.5 A model of a type of large Roman warship called a *bireme* with two rows of oarsmen on each side.

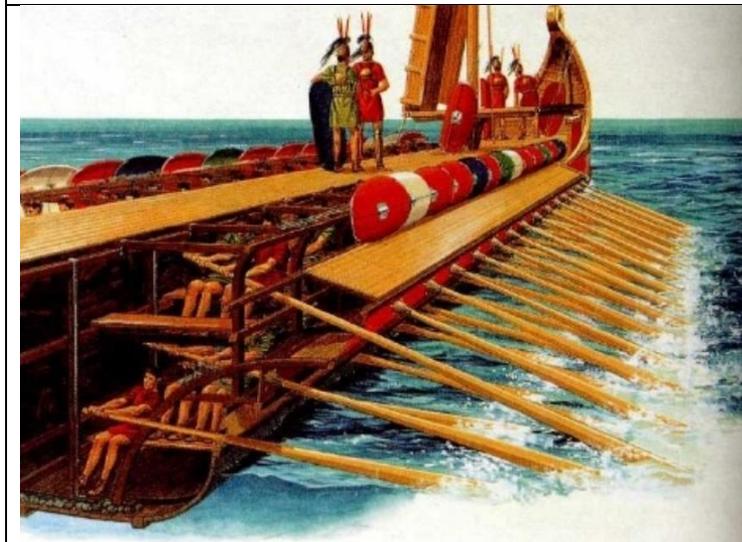


Fig.XX.6 This cutaway drawing shows the position of the oarsmen and their oars on a Roman *bireme*.

Note that these oarsmen could not possibly turn around to pray!

Roman warships also typically had a catapult called a **ballista** for shooting rocks (see Fig.XX.7). Sometimes, the ballista was also used to shoot a grappling hook called a **harpax**, which was used to grab onto an enemy ship and reel it in, so the Roman soldiers could board the enemy ship to attack its sailors. A large Roman warship might also have a built-in fighting tower, where soldiers would be protected while they shot arrows at their enemies.

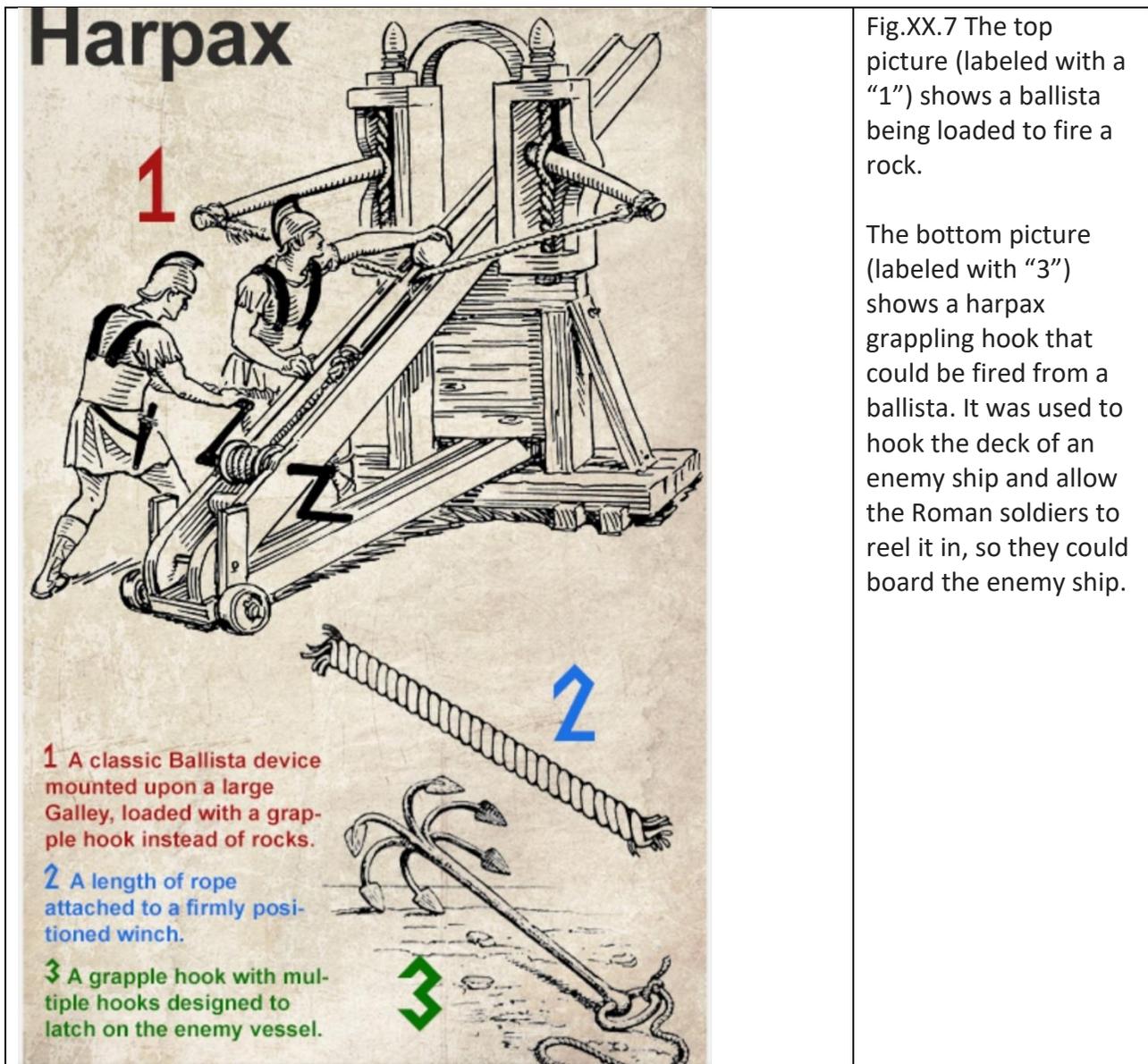


Fig.XX.7 The top picture (labeled with a "1") shows a ballista being loaded to fire a rock.

The bottom picture (labeled with "3") shows a harpax grapple hook that could be fired from a ballista. It was used to hook the deck of an enemy ship and allow the Roman soldiers to reel it in, so they could board the enemy ship.

Merchant ships

Merchant ships were built to safely transport cargo long distances in potentially challenging conditions (see Figs.XX.8&9). Stability, rather than speed and maneuverability, was their priority. Unlike warships, they had a V-shaped hull that went deep underwater to provide extra stability in stormy weather. This meant that they could not sail too close to the coast and had to be loaded and off-loaded by smaller boats. Some merchant ships used oarsmen, but the majority were propelled only by sails, which was a much less expensive option. They frequently carried their goods in amphorae. An **amphora** is an ancient container used for storing and transporting wine, oil or other goods. They were typically made out of ceramic. In ancient times they were used in vast numbers.

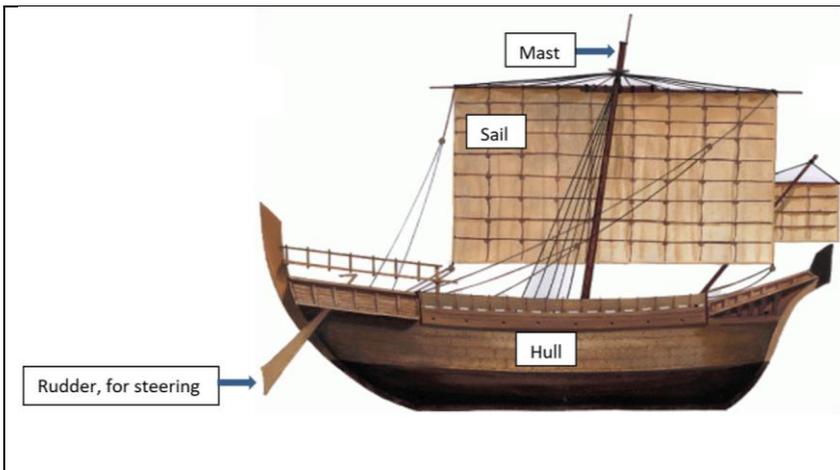


Fig.XX.8 A drawing of a Roman Corbita merchant ship. The Corbita was an enormous Roman ship that could carry 400-450 tons (almost a million pounds) and transport as many as 11,000 amphorae. It was 45 yards (40m) long—almost half the length of a football field. There were rudders at the back of the ship for steering, one on each side (only one is shown.)

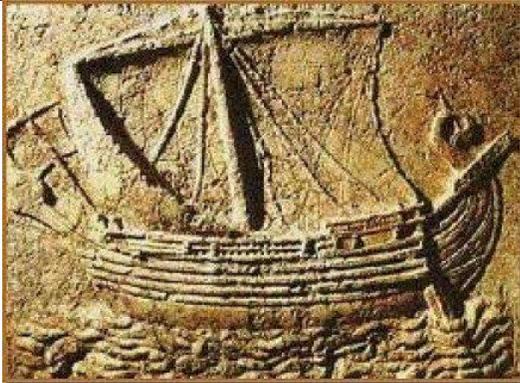


Fig.XX.9 The picture shows a Roman stone carving of a corbita.



Fig.XX.10 Part of a shipwreck found off the Italian coast. The containers are for transporting wine or oil. They are called amphorae (an individual one is called an amphora).



Fig.XX.11 Amphorae in the Roman Naval Museum, in Albenga, Italy. This picture shows how the amphorae were stacked in the ship as they were being transported. These amphorae came from a shipwreck of a Corbita.

Note the bottom of each amphora comes to quite a narrow point, called a foot. This is so they could slot into a hole on the ship designed to hold the amphora in place when the sea was rough.

A Jewish oarsman in the Roman navy would be just the sort of person that our Mishna is referring to as one forced to remain on his seat, unable to stand and face the right direction to pray. Similarly, a passenger on a crowded merchant ship or one on rough seas might not be able to stand up and pray, just like a sailor on a small fishing boat.

References:

https://en.wikipedia.org/wiki/Roman_navy

<https://www2.rgzm.de/navis/Themes/Commercio/CommerceEnglish.htm>

<https://www.ancient.eu/article/1028/roman-shipbuilding--navigation/>

<https://www.naval-encyclopedia.com/goodies-naval-encyclopedia/antique-ships/roman-ships/>

<https://mass.maritime-heritage.com/albenga-wreck>

<https://en.wikipedia.org/wiki/Steamboat>

"Maritime opportunities and their exploitation in antiquity" Pieter Swart¹

Picture references:

Raft: <https://www.naval-encyclopedia.com/prehistoric-boats/>

Wagon: <https://www.romae-vitam.com/roman-carriages.html>

Roman warships https://en.wikipedia.org/wiki/Roman_navy#/media/File:D473-bir%C3%A8me_romaine-Liv2-ch10.png

And https://en.wikipedia.org/wiki/Roman_navy#/media/File:Mosa%C3%AFque_d%27Ulysse_et_les_sir%C3%A8nes.jpg

Roman warship drawing: https://en.wikipedia.org/wiki/Roman_navy#/media/File:Trireme_1.jpg

Cutaway of warship: Google "roman oar"

Harpax and Ballista: Wikipedia

Amphorae in the sea: <https://www.italymagazine.com/news/ancient-roman-shipwreck-found-ligurian-sea>

Amphorae and Corbita pictures: <https://mass.maritime-heritage.com/albenga-wreck>

Amphora: Wikipedia