# Sailing safely along rivers and canals in the Amorite period

Grégory Chambon

#### **Abstract**

The issue of safety in Ancient Near Eastern societies affects many aspects of daily life: the safety of individuals, of groups of persons, of commodities, of properties or at a larger scale, of states. As I have been running the ELEPPU-project on ships and shipbuilding in Mesopotamia with Ariel Bagg (EHESS / University of Heidelberg) for several years, I thought it would be interesting to address the issue of safety in relation to navigation on the rivers.<sup>1</sup>

Rivers in Mesopotamia were actually not only landscape elements that structured territories and served as political borders. They also constituted dynamic and oriented spaces (upstream to downstream) for the circulation of goods and people.<sup>2</sup> Although the Mesopotamian authorities have always sought to control rivers for agricultural purposes, rivers are the place of many activities (fishing, hunting, transport...) which are often beyond any control.<sup>3</sup>

This paper aims to present some case studies from the Amorite period, especially in the Old Babylonian documentation of Mari (19<sup>th</sup>–18<sup>th</sup> centuries BC.) on the Middle Euphrates, about risks and dangers in these "uncontrolled areas", in order to highlight the complex relationships between rivers and the authorities, which are economic, political as well as ideological. We will seek to answer three main questions:

What were the risks and dangers?

Who takes care of safety?

Did the kings control and secure the rivers (and how)?

 $<sup>^1\</sup>mathrm{I}$  thank the conference organising committee for their very warm welcome in the Centre Tchèque de Paris.

<sup>&</sup>lt;sup>2</sup>Chambon, 2021.

<sup>&</sup>lt;sup>3</sup>Chambon, 2017.

## 1 What were the risks and dangers?

The risks concerning the navigation on rivers could be of three kinds: natural, political, or economic. As already said, rivers are natural dynamic spaces, depending on the direction of the current, the depth of the water and the topography of their banks. The rhythm of the seasons determines the periods of low water and high water; the water level and the strength of the current, which vary according to the time of year and the geographical areas, condition the movement of people and goods by boat.<sup>4</sup>

For example, although the Euphrates appears to be navigable along most of its course, there were areas in north-western Syria that presented natural barriers, such as series of rapids upstream of the confluence with the Balih, and others in the basaltic plateau near the Halebiye Pass. The boats then had to unload to cross the highlands when they went upstream. People then continue on foot. A clear example is given in the documentation of Mari: a high official, who was in charge of the transport of a votive object to Aleppo for a religious festival explains that he disembarks in the vicinity of Lasqum and then goes to Imâr.<sup>5</sup>

In addition to these geomorphological conditions, climatic conditions forced navigation to follow seasonal rhythms. The most favourable times of the year to travel the Euphrates route were spring, just after the winter, when the flooding began in April, and autumn after the low water period.<sup>6</sup>

The Mesopotamians were well aware of the difficulties that the river's currents could cause for navigation. One of the articles in Hammurabi's Code states that in the event of a collision between two boats, the one that went upstream was responsible for the loss of goods and damage. It is to be understood that the downstream boat, steered by a pole and sailing with the current, must have been less manoeuvrable than the upstream boat, which was usually hauled, since it ran along the bank and could be stopped at any time. To cope with these geomorphological and climatic hazards, experts were needed to sail the boats. According to this Old Babylonian letter send by an official to the king of Mari, these experts were professionals or could be recruited from the fishermen's guilds, as they had a good knowledge of the Euphrates.

<sup>&</sup>lt;sup>4</sup>Gaborit, 2013: 5, 36–20.

<sup>&</sup>lt;sup>5</sup>See the letter ARM 26 17 (Durand, 1988: 125–128).

<sup>&</sup>lt;sup>6</sup>Durand, 1988: 124–125.

 $<sup>^7{\</sup>rm Hammurabi's}$  Code §240 (Richardson, 2000). The Lipit-Ištar Code and the Ešnunna Laws also contain regulations on river traffic.

## LAPO 18 906 (A.2407)8

"I have sent 200 tree trunks (cut into) planks to the Karkemiš quay. 60 men must go upstream to Imâr to meet me. In order for them to carry out their expedition, a boatman or someone among the fishermen who knows the art of piloting ( $m\hat{u}r\bar{u}tum$  ša  $m\hat{e}$ ) must come upstream with the troop."

Moreover, the banks of the Euphrates were essentially wild, with lots of wild animals that could be dangerous like for example lions;<sup>9</sup> you can guess that people on Euphrates didn't want to dock just anywhere.

But the dangers could also be political. Rivers served as political borders between two lands or crossed different territories. A boat travelling down a river could therefore find itself successively in hostile and safe areas.

One could travel an average of 80 km per day down the Euphrates from Imâr to Mari. The problem was therefore to spend each night in a safe place. There were not many solid structures to dock on the Euphrates according to both textual and archaeological sources, so most boats simply had to spend the nights on the banks of the river, in places where there was less vegetation. Several letters from Mari tell of Queen Šibtu's journey by boat from Aleppo to Mari to join the king Zimrī-Lîm who has just married her at the beginning of his rule. The organisers of the journey became concerned because the boat with the queen and her retinue passed through areas controlled by the Benjaminites, tribes who were hostile to the king. The danger does not seem to be in the daytime but rather at night, and it was essential to find fortresses all along the Euphrates to house the queen and her retinue. There was a set of port/fortress pairs located across the river at regular intervals (of ca. 80 km) on the Euphrates, from Imâr to Mari, a bit like "caravanserais". Expression of the spend of the spend of the service of the spend of the service of the

In one case, it was necessary to organise the disembarking of the queen and her staff on the banks of the Euphrates, because the ceremonial boat

<sup>&</sup>lt;sup>8</sup>Durand, 2000: 42.

<sup>&</sup>lt;sup>9</sup>Durand, 1988: 272.

<sup>&</sup>lt;sup>10</sup>See the remarks of the French colonel Chesney in *Bulletin de la société de géographie de novembre 1841* "Première section dans le but d'étudier la navigation sur l'Euphrate", p. 280: "Au moment de la crue [de l'Euphrate], le courant acquiert une vitesse de plus de 5 milles à l'heure, aussi les bateaux n'essaient-ils plus de remonter jusqu'à ce qu'elle soit réduite à 4 milles". A speed of 4 miles corresponds to 6.4 km/h. So a one-day trip (about 12 hours) by boat is about 80 km.

<sup>&</sup>lt;sup>11</sup>Durand, 1988: 95–117.

<sup>&</sup>lt;sup>12</sup>Chambon, 2021: 67. These pairs of port/fortress still existed during Middle Assyrian Period, as Aline Tenu has shown (Tenu, 2021).

seems to have had a large draught (tirant d'eau), and to make them reach the fortress of Dūr-Yahdun-Lim by canals on lighter boats. This example has a happy ending, as the queen arrived safely at Mari, but it shows that securing the banks of the Euphrates was a problem in the Amorite period, and the kings had to find solutions to better control the river (see above).

At last, the danger could be of an economic nature. As the ships sailing down the Euphrates were often loaded with valuable or expensive goods from the north-western regions (oil, wine, honey, flavoured wood, etc.<sup>14</sup>), it is not surprising that they were vulnerable to theft. This risk is already attested in the documentation from Ebla in north-western Syria dating from the 3<sup>rd</sup> millennium. A text (ARET 13 15), which was found in Ebla but was certainly written in Mari, because of its handwriting and lexical peculiarities, records several legal cases in which Ebla merchants had been wronged by the institutions of Mari.<sup>15</sup> Two of these cases concern the theft of olive oil that had been transported on rafts from Ebla to Mari.

**ARET 13 15** (Translation by P. Steinkeller in Steinkeller, 2021: 191)

obv. iii 15 - v 10:

"The merchant Puzri brought a raft (carrying olive oil) to Mari (from Ebla). And he delivered (to the Mari administration) the olive-oil jars representing the "Euphrates tithe" (zag-10 Buranun $_x$ ), and those intended for the ... The olive oil (remaining on the raft) was guarded by one (Mari) man. And he (i. e., the guard) took 2 jars of olive oil, measuring 30 liters of olive oil (each)".

v 11 – vii 11:

"Pilsa'i brought a raft (carrying olive oil from Ebla to Mari). And he deposited the raft (in Mari's harbor) as a security in lieu of the "Euphrates tithe". And a thief from Mari brought a big ship (ma<sub>2</sub>-gur<sub>8</sub>) during the night. He stole the olive (from Pilsa'i's raft), and he poured it (into his own containers). And the thief and his Mari helper(s) seized the man guarding (the raft with) olive oil during the night. And they beat up the man guarding the olive oil. This is what Pilsa'i reported to the (Mari?) official

<sup>&</sup>lt;sup>13</sup>ARM 26 16.

<sup>&</sup>lt;sup>14</sup>For the transport of this commodities, see Michel, 1996: 384–396 and Chambon, 2017: 145–146.

<sup>&</sup>lt;sup>15</sup>See the remarks in Steinkeller, 2021: 191.

in charge of the long-distance trade. And the official in charge of the long-distance trade reported this (to his superiors)".

These two cases show that, during the Ebla's period (24<sup>th</sup> century BC.), thefts from the ships' cargo could be carried out, both by individuals and, more worryingly, by the guards themselves. There was an official in charge of the organization of the long-distance trade, but we don't not know whether he was responsible for security matters. Rather, it seems that guards were hired to watch the goods at night, which means that there were probably no troops to guard the ships as they docked on the banks.

But goods are not only stolen during transport, often theft occurs before they are even on board. In an Old Babylonian letter,<sup>16</sup> probably from Sippar in Babylonia, the supplier was made responsible for the theft of wood from the storage facilities or the quay in the harbour (the letter does not tell us which) and had to compensate the owner. As Michaela Weszeli pointed out, the theft of a boat (in harbour?) is even mentioned in the diagnostic omen series Sa.gig,<sup>17</sup> where the culprit was then seized by the harbour god and fell ill.<sup>18</sup> Security was therefore most certainly the responsibility of the merchants themselves or the ships owners.

## 2 Who takes care of safety?

In the Amorite period, there was no river police either. To safeguard a transport, soldiers were mobilised or guards were hired.

For example, King Hammurabi of Babylon wished to bring priestesses from the region of Larsa, the southern Sindjar region, to Babylon by boat, certainly on Euphrates. He then asked the gouvernor of this region, Sîn-iddinam, in charge of the journey, to rally soldiers (ERIN<sub>2</sub>-am (=  $s\bar{a}$ bum) bé-eh-ra-am) and troops used for hauling boats to ensure the safety of the priestesses.

#### AbB 2 34: obv. 8-24

"Make the priestesses-*ištarītu* travel quickly by boat so that they come to see me in Babylon! And let the women-*kezertum* follow them! Send bread, beer, sheep (and) provisions-*magarrûm*, as well as the preparation for the beer of the women-*kezertum*,

<sup>&</sup>lt;sup>16</sup>AbB 12 194.

<sup>&</sup>lt;sup>17</sup>TDP 28 87.

<sup>&</sup>lt;sup>18</sup>Weszeli, 2020: 97.

(enough) to reach Babylon for the ration of the priestessesištarītu. Assign rope-wielding soldiers (šādid ašlim) and conscripted soldiers to lead the priestesses-ištarītu safely to Babylon."

The king of Mari Zimrī-Lîm also sent officials to organise the transport of grain by boat from the region of Imâr to Mari, as there was a shortage of grain at the beginning of his reign. One of these official, Yasim-sūmū wrote to the king that 300 gur-measures of grain, which represents 2 1/2 mina of silver, will serve as wages for the sixty or so people, auxiliary troops (60  $s\bar{a}bum\ t\bar{a}lil\bar{u}$ ) to haul the 10 ships. <sup>19</sup>

This means that the kings did not set up large expeditions with troops from Babylon or Mari in order to secure the transport of goods or people on rivers. They prefer to send trusted people to organise the shipping and the security with the means at hand, and with the help of the local population in the regions crossed by the rivers.

Individuals could also hire soldiers. In an Old Babylonian letter (AbB 10 15) from Southern Mesopotamia, two agrarian entrepreneurs, probably in the region of Kiš, are involved in transporting sesame by boat on canals. One then says to the other:

"Load five gur-measures of barley on a barge and ten soldiers (AGA.ÚS.MEŠ) with their weapons and ten city guards (ERIN $_2$ .MEŠ e-li BAD) for towing and in the course of tomorrow they shall arrive here in Al-malahim!"

The banks of the Euphrates and the canals were therefore far from secure. The problem of safe overnight stays must have been the same as in the third millennium (see the case of Ebla below) and at a landing overnight someone had probably to sleep on the boat. But there is no mention of this way of safeguarding goods in the Old Babylonian documentation, as far I know. However, some Neo-Assyrian letters provide evidence. For example, Ṭāb-šar-Aššur, responsible for a transport of cult objects, assures king Sargon II that he will stay on the boat to guard the cultic bed until it can be delivered to the temple.<sup>20</sup>

Do these cases mean that there were organised pirate groups along the rivers or just occasional robberies? The fact that ten armed soldiers can be hired in the Old Babylonian letter seen above seems to support the first hypothesis. In any case, according to a letter from Mari, a trader being in

<sup>&</sup>lt;sup>19</sup>ARM 13 15.

<sup>&</sup>lt;sup>20</sup>SAA 1 54–55.

a foreign land is given an escort for his boat by the ruler of this land to protect him, but is told to leave as soon as possible.<sup>21</sup>

In southern Mesopotamia, traders tend to accompany their wares personally or, if one is prevented from going, one would send a trusted person,<sup>22</sup> as explained in the following letter between two merchants:

#### AbB 12 54

"Speak to Sîn-erībam: Thus says Awil-ilim [...] I have sold my textiles and I myself have left for Aššur. Your brother Adayatum is aboard the ship with the millstones. From this ship ('s cargo) half is mine. Be a gentleman, accompany him on board and notify me of (the arrival of) the millstones."

But is it really conceivable then that the kings had no means of controlling the rivers?

## 3 Did the kings control and secure the rivers?

As Hammurabi said in a famous letter to the king Zimrī-Lîm of Mari, Mari was a land of donkeys and carts, not of boats:<sup>23</sup>

"The strength of your country (i.e. Mari) are the donkeys and wagons, but the strength of this (country, i.e. Babylonia) are the boats."

This argument was given in connection with the struggle about the city of Hīt, between Mari kingdom and Babylon kingdom, which was renowned for its bitumen, which Hammurabi needed for coating boats. Although this subjective political argument must be qualified, we must distinguish between two regions, the Mesopotamian north and south, which have different ideological and economic relationships to rivers and canals.

Boats were not so very much needed in Mari, donkeys being preferred for most transports. But the availability of boats is often a matter of distress, especially during harvest time. The palace of Mari and its (agricultural) administrators suffered from an inadequate number of boats for the transport of barley, because the palace does not have a fleet. The palace only had two large cargo ships at its disposal and had to borrow from individuals or

<sup>&</sup>lt;sup>21</sup>Maul, 1994: 29–31 (Text 8).

<sup>&</sup>lt;sup>22</sup>See for example AbB 12 54 and 58.

<sup>&</sup>lt;sup>23</sup>ARM 26/2 468: Rs. 21'f.

buy other ships if necessary, especially from Imâr and Karkemiš.<sup>24</sup> More generally, there is every indication that navigation on the Euphrates was not at all organised by the palace, with, for example, traffic managers, boatmen, and transport equipment directly at the disposal of the palace at various locations along the river banks.

The main reason is that the Euphrates does not only flow through the kingdom of Mari, but also through other regions upstream, such as Karkemiš, Imâr, or Tuttul, which have trade relations with the palace of Mari but do not depend on it.<sup>25</sup> In this sense, the Euphrates, unlike agricultural land, belongs to no one.

The only control that the king of Mari can exercise over the river was informational and economic. The king actually wished to have a regular report on who was going down the Euphrates or crossing it upstream from Mari, especially if they were large groups of people, such as the Bedouin tribes. The small military garrisons, which were located in the port/fortress pairs on the Euphrates controlled by the king (see above), had to monitor the comings and goings of people and inform the king. For example, Yaqqim-Addu, the governor of Saggarâtum writes to the king of Mari:<sup>26</sup>

"On the day when I had this tablet brought to my Lord, Dāriya and the cedars arrived at Tilla-zibim [note: upstream from Deir-ez-Zor]. The soldiers having warned me, I wrote to my Lord."

The king of Mari exercised economic control over river traffic through customs at Terqa upstream from Mari. The official Numušda-nahrārī, who reported to the chief merchant of the Kingdom, systematically registered the names of the boatmen and the nature of their cargoes and usually took 1/10 of the goods from the boats going downstream.<sup>27</sup> Therefore, the palace of Mari did not direct and secure the river traffic, but profited from it through the merchants.

The situation was completely different for Babylonia, as the Euphrates and many canals ran through the Babylonian kingdom. During the reign of Rîm-Sîn in Larsa, a special document was to be shown to the mayors of the localities along a river by the person in charge of the convoy of boats with grain that must reach Larsa:<sup>28</sup>

<sup>&</sup>lt;sup>24</sup>Chambon, 2017: 142.

<sup>&</sup>lt;sup>25</sup>Durand, 2018.

 $<sup>^{26}</sup>$ ARM 14 32 (= LAPO 16 192).

 $<sup>^{27}</sup>$ A small dossier of about forty texts concerning Terqa "customs" gives us detailed information on the type of goods "taxed" (ARM 13 58–99; see the new edition and commentaries in Durand, 2000: 26–39).

<sup>&</sup>lt;sup>28</sup>AbB 10 67.

"To the various mayors of the banks: the grain of the palace must go to Larsa. Send before it an escort city by city, so that it may reach Larsa safely."

This shows an insecure situation in the Larsa canal system, perhaps at the end of Rîm-Sîn's reign. The responsibility for the safety and smooth running of the transport by boat was then entrusted to each locality.

During Hammurabi's reign, the correspondence between the king and his administrators shows a new attitude of the king towards the problems of insecurity on the river and the canals. Hammurabi clearly sought to control river transport and secure it. Unlike the kingdom of Mari, in the kingdom of Babylon there was a river fleet controlled by the king. A letter from Hammurabi to Sîn-iddinam the governor of the region of Larsa, certainly written just after the Babylonian conquest of Larsa, when Hammurabi wanted to know the current state of the wealth of his new province, mentions cargo captains in the kingdom:<sup>29</sup>

"Say to Sîn-iddinam, thus says Hammurabi: Write to the captains of the cargo fleets of your province, so that they may plan to arrive in Babylon with their fleets by the 30<sup>th</sup> day of the month XII, and take command of their entire fleet".

Hammurabi wanted to make so an inventory of all the ships available in the kingdom that could be mobilised by the palace, for economic exchanges but also probably for military campaigns.

Other letters sent to Sîn-iddinam, show that the king himself supervised the transport of grain or livestock. It was necessary that all the foodstuffs and animals arrived well in Babylon, because this corresponded to the different taxes levied in the country.<sup>30</sup>

Several officials were appointed for the transport: there was the *rakbum*, responsible for the loading of the foodstuffs, the "river supervisor" (UGULU  $I_7$ .DA, maybe *rabi*  $n\bar{a}rim$ ) who collected the *biltum* taxe on the grain, and the *mu'errum* (Á.GÁL) who was in charge of the transport of grain to Babylon. The whole system of tax collection and transport of goods on rivers and canals had to be secured in this way and any loss or theft was the responsibility of the officials involved.

<sup>&</sup>lt;sup>29</sup> AbB 2 40.

<sup>&</sup>lt;sup>30</sup>For these taxes, see the contributions in Mynářová / Alivernini, 2020.

### Conclusion

In conclusion, the human or natural dangers and risks on the rivers and canals were significant. But rivers were more difficult to control and secure than canals, as they flowed through different territories and comply with particular geomorphological and climatic conditions.

King Zimrī-Lîm of Mari preferred to simply keep an eye on the Euphrates and make economic profits from it. The kings of southern Mesopotamia instead sought to deal with the problems of insecurity. They either directly supervised transport operations by appointing different officials for the loading and security of goods, or they entrusted the responsibility for these operations to the localities of the kingdom.

## **Bibliography**

- Chambon, G., 2017: "La navigation fluviale sur l'Euphrate au second millénaire av. J.-C.: usages, enjeux et communautés de pratiques". In P. De Souza / P. Arnaud / C. Buchet (eds.): *The Sea in History: The Ancient World / La mer dans l'histoire: l'Antiquité*. Pp. 138–150.
- 2021: "De l'amont vers l'aval: Dynamiques de circulation et de contrôle sur l'Euphrate sous le règne du roi de Mari Zimrī-Lîm (XVIIIe siècle av. J.-C.)". In A. Tenu / M. Yoyotte (eds.): *Le Roi et le Fleuve. Exemples d'usages plurielles de l'espace.* Paris. Pp. 57–71.
- Durand, J.-M., 2000: *Documents épistolaires du Palais de Mari*, Tome III, *LAPO* 18. Paris.
- 2018: "Le commerce à longue distance de Mari d'après les textes du règne de Zimrî-Lîm". *Pasiphae* 12, 69–87.
- Gaborit, J., 2013: *La vallée engloutie: géographie historique du Moyen-Euphrate*. Bibliothèque Archéologique et Historique t. 199. Beyrouth.
- Maul, S., 1994: "Die Korrespondenz des Iasī-Sūmû. Ein Nachtrag zu ARMT XIII, 25–57". In J.-M. Durand / D. Charpin (eds.): *Florilegium marianum* II, *Mémorial M. Birot*, Mémoires de NABU n°3. Paris. Pp. 23–54.
- Michel, C., 1996: "Le commerce dans les textes de Mari". In J.-M. Durand (ed.): *Amurru 1, Mari, Ebla et les Hourrites. Dix ans de travaux*. Paris. Pp. 385–426.
- Mynářová, J. / Alivernini, S. (eds.), 2020: Economic Complexity in the Ancient Near East: Management of Resources and Taxation (Third-Second Millennium BC). Prague.
- Richardson, M.E.J., 2000: *Hammurabi's Laws: Text, translation and glossary*. New York: Sheffield Academic Press.
- Steinkeller, P., 2021: "International trade in Greater Mesopotamia during late Pre-Sargonic times. The case of Ebla as illustrated by her participation in the Euphratean timber trade". In L. Rahmstorf / G. Barjamovic / N. Ialongo (eds.): Merchants, Measures and Money: Understanding Technologies of Early Trade in a Comparative Perspective, Weight & Value: Volume 2. Kiel / Hamburg. Pp. 173–197.
- Tenu, A., 2021: "Le roi d'Assyrie et l'Euphrate d'Adad-nirari I<sup>er</sup> (1295–1264 av. J.-C.) à Salmanazar III (858–824 av. J.-C.)". In A. Tenu / M. Yoyotte (eds.): *Le roi et le fleuve: exemples d'usages pluriels de l'espace*. Paris.

Weszeli, M., 2020: "Water Transport in 2<sup>nd</sup> Millennium BC Babylonia and Mari. Its Organization and Economic Importance". In D.A. Warburton (ed.): *Political and Economic Interaction on the Edge of Early Empires*. eTopoi Journal of Ancient Studies Special Volume 7. Pp. 87–115.