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AIEMA - TÜRKİYE

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AIEMA - Türkiye is a research center that aims to study, introduce and constitute a data bank of the mosaics from the ancient times to the Byzantine period. The best presentation of the mosaics of Turkey is the ultimate goal of this center functioning depending on AIEMA. A data bank of Turkey mosaics and a corpus including Turkey mosaics are some of the practices of the center. Additionally, this center also equips a periodical including the art of ancient mosaics and original studies namely JMR.

The JMR (Journal of Mosaic Research) is an international journal on mosaics, annually published by the Bursa Uludağ University Mosaic Research Center. The aim of this journal is to serve as a forum for scientific studies with critical analysis, interpretation and synthesis of mosaics and related subjects. The main matter of the journal covers mosaics of Turkey and other mosaics related to Turkey mosaics. Besides, the journal also accommodates creative and original mosaic researches in general. Furthermore, together with articles about mosaics, the journal also includes book presentations and news about mosaics.

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Bu dergideki makalelerde kullanılacak olan kısaltmalar Alman Arkeoloji Enstitüsü yayın kuralları, Bulletin de l'Association internationale pour l'Etude de la Mosaïque antique, AIEMA - AOROC 24.2016, La Mosaïque Gréco Romaine IX ve Der Kleine Pauly dikkate alınarak yapılmıştır.

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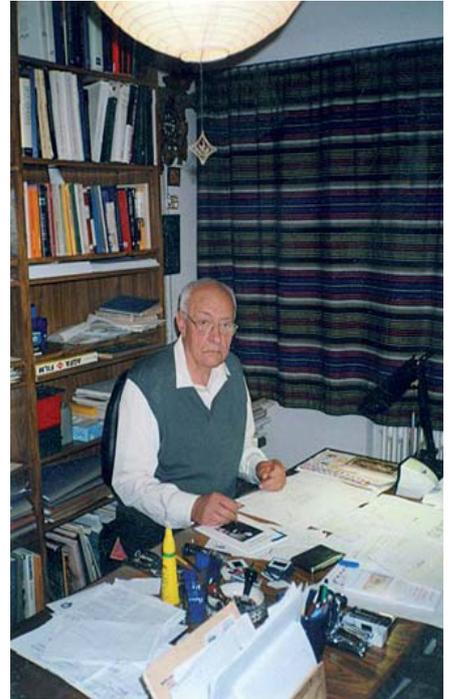
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## *José María Blázquez Martínez in memoriam (1926-2016)*

José María Blázquez Martínez (Professor of Ancient History and Fellow of the Spanish Royal Academy of History) passed away on March 26, 2016, in the city of Madrid (Spain) after a full life devoted to teaching, scientific research and the spread of antiquity; and leaving all of us -who have had the immense fortune to enjoy his mastership and overwhelming personality-, with an immense sadness.

Prof. Blázquez graduated in Philosophy and Letters from the University of Salamanca in 1951 and defended his PhD in the Complutense University of Madrid in 1956. During the next decade, Prof. Blázquez continued his training under the supervision of Prof. Pallottino at the University of La Sapienza in Rome and, granted by the DAAD, at the University of Marburg, under the supervision of Prof. Matz and Prof. Drerup. Subsequently he made other successful research stays at the University of Tel Aviv, the British Academy of Rome, the University of Catania, and in the German Archaeological Institute branches at Istanbul, Damascus and Riyadh. In this regard, Prof. Blázquez always defended the importance of international networks that, through academic contact with other schools and colleagues, conceived as essential for personal development and the progress of scientific research.



After this intense formative period, José María Blázquez obtained a position as Professor of Ancient History at the University of Salamanca (1966-) and shortly after at the Complutense de Madrid (1969-), where he was designated as Professor Emeritus. At the same time, he was an active member of the former Institute of Archaeology "Rodrigo Caro" (CSIC), that he directed during more than ten years (1973-1985). Finally, in recognition to his academic trajectory, Professor Blázquez was elected as a Fellow of the Spanish Royal Academy of History. In all these institutions Prof. Blázquez developed a brilliant contribution to the promotion of Ancient History in Spain, especially important was his capacity for mentoring (he supervised more than 40 PhDs during his academic life) large teams of teachers and researchers, that obtained several tenured positions in different universities and academic institutions. He was also a prolific author publishing many handbooks and monographs that are authentic milestones in history the Spanish scholarship (i. e. *La Romanización, Historia social y económica. La España Romana. Economía de la Hispania romana*, Bilbao, 1978, *Historia de España Antigua, I. Protohistoria*, Madrid, 1980; *Historia de España Antigua II. Hispania romana*, Madrid, 1978). Largely influential was also his leadership in the direction of the scientific journals as *Archivo Español de Arqueología* (1973-1987) and *Gerión* (1983-2010). In addition, Prof. Blázquez directed numerous archaeological excavations at Caparra (Cáceres), Cástulo (Jaén), La Loba (Fuenteovejuna, Córdoba), and in the Monte Testaccio (Rome).

By virtue of its training and its wide perspective, Prof. Blázquez's research trajectory was the reflection of the scientist dedicated to the study of antiquity, with a masterful management of

diverse written and archaeological sources, always connected with current intellectual debates of all social and human sciences. During his career published more than 37 books, acting of editor in other 9 monographs. He also published 234 articles in the most prestigious, both Spanish and International, scientific journals and several chapters in collective volumes. His research interests covered multiples areas on the study of antiquity: the Phoenician and Greek colonization of the Western Mediterranean, the Late Iron Age communities of the Iberian Peninsula, the study of Pre-Roman religions, the Impact of primitive Christianity in the Late Roman Empire, and, of course, the ancient economy of Roman Spain, with an special focus on the exports of *Baetican* olive oil.

Finally, we would like to highlight his research on Roman mosaics, whose first publication dates from 1975 - "Arte y Sociedad en los mosaicos del Bajo Imperio" [Art and Society in the mosaics of the Late Roman Empire] *Bellas Artes* 75, 1975, pp. 18-25 -soon followed by- "Mosaicos romanos del Bajo Imperio" [Roman mosaics of the Late Empire], *Archivo Español de Arqueología* 50-51, 1977, pp. 269-293., In this regard, Prof. Blázquez continued the a research line previously initiated by his teacher Prof. Antonio García y Bellido. Since 1976 to 1996, Prof. Blázquez promoted and directed the Corpus of Mosaics of Spain, within the framework of the international project sponsored by the AIEMA. Through this monumental labor, Prof. Blázquez contributed to establish the study of Roman mosaics as an authentic sub-discipline in the field of the Spanish Classical archaeology.

The obtention of several I+D Research projects, funded in competitive calls by the Spanish Ministry of Science (acting as Principal Investigator from 1976 to 1997) and an International Project of the Joint Hispanic-American Committee, with the University of West-Lafayette, Purdue (Indiana-USA), allowed Prof. Blázquez to create a permanent research team on the study of Roman mosaics. This team, which I (Prof. Neira Jiménez) am honored of have been part, managed the realization of the above mentioned *Corpus de Mosaicos de España* (CME), a work continued afterwards by its dear colleague, Dr. Guadalupe López Monteagudo (CSIC). In addition to the publication of 12 volumes of the CME, he presented numerous papers on the Hispanic, African and Near Eastern Roman mosaics in the most prestigious conferences on these topics, such as the International Congresses organized by the AIEMA or *L'Africa romana* conference, organized by the Centro di Studi sull'Africa Romana of the Università degli studi di Sassari, as well as in countless courses and seminars in other institutions and universities, such as the Roman Mosaic Seminar of the UC3M, to which he attended every year, without missing any of the 9 editions celebrated.

Prof. Blázquez was a firm believer in the work developed by AIEMA, having been named member of Honor of this scientific association. He also formed part of the editorial board of the Journal of Mosaic Research, where he published various articles, and presented papers in both the 11th International Colloquium on Ancient Mosaics, held in Bursa on 2009, and in the 5th Colloquium of AIEMA Turkey, held in Kahramanmaraş on 2011. Prof. Blázquez was a true lover of Turkey.

Prof. Blázquez was an unavoidable reference in the international scholarship on ancient mosaics, many colleagues who share our pain remember his vitality even in the XIII. AIEMA Congress held in Madrid on September 2015, where he gave the inaugural conference. As a testimony of his enthusiasm for the study of ancient mosaics, he was already thinking of traveling to the next AIEMA Congress scheduled for 2018 in Cyprus. Proof of his infinite generosity, he prepared

tirelessly until the end of his days a text on Diana in the mosaics of Roman Spain for X SMR, held in September 2016 at Universidad Carlos III de Madrid.

His decisive contribution to the study of antiquity has earned him numerous recognitions from many international academic institutions and associations: Fellow of German Archaeological Institute (1968), Board member of the L'Association Internationale d'Epigraphie grecque et latine (AIEGL), Member of the Hispanic Society (1974); Fellow of the Academy of Arts and Archaeology of Bologna (1980), Fellow of the Spanish Royal Academy of History (1990), Fellow of the New York Academy of Sciences (1993), Fellow of the Academia Nazionale dei Lincei (1994), Fellow of the Fine Arts Academy of Santa Isabel de Hungría (Seville) (1995), Fellow of the Real Academia de Bones Letres de Barcelona (1997), or Fellow of the Académie de Aix-en-Provence (1999), among others. He also received many prizes as the Franz Cumont prize from the Académie Royale de Belgique (1985), the Great Silver medal of Archaeology from l'Académie d'Architecture de Paris (1987), or the Cavalli d'Oro prize from Venice (2003). Prof. Blázquez was named *doctor honoris causa* by the universities of Valladolid (1999), Salamanca (2000), Bologna (2001), León (2005), and Universidad Carlos III de Madrid (2015), and received the *Orden del Mérito Civil*, one of the highest recognitions granted by the Spanish govern.

He was a genius as scholar, but also a genial person. For both reasons, colleagues, students, and friends of many countries, that have the fortune of meet Prof. Blázquez during his life, feel a great emptiness for the loss of our dear teacher.

Prof. Dr. Mustafa Şahin  
Bursa Uludağ University

Prof. Maria Luz Neira Jiménez  
Universidad Carlos III de Madrid





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# The Boat Depicted in the Yakto Thalassa Mosaics: Is it a Dugout?

## Yakto Thalassa Mozaiklerinde Betimlenen Tekne: Bir Kano mu?

Zaraza FRIEDMAN\*

(Received 31 August 2017, accepted after revision 09 July 2018)

### Abstract

*Alexandria, Rome, and Constantinople were important cities during the Roman– Byzantine periods but quite little is known about the wealth of Antioch in the same periods. The rich and expansive life of Antioch in the 4<sup>th</sup> century AD is mostly known from the Letters and the Orations written by Libanius.*

*The present paper will not cover all aspects of Antioch and its beautiful mosaics. The boat depicted in the Thalassa mosaic from Yakto Upper Complex and dated to the middle of the 5<sup>th</sup> century AD (the subject of this paper) may represent a unique depiction of a dugout. Such a vessel is rarely depicted in any arts and especially on mosaics.*

*Dugouts are an earlier type of watercraft dating from Prehistoric times until the 21<sup>st</sup> century, and still in use all over the world. Representations of boats in any arts and especially on mosaics, as a simple method of transportation, carrying light cargoes, or the utensils for fishing, are also used as a symbol or apotropaic of the place where such scenes are depicted, as well as the welfare of the owner of the house.*

**Keywords:** *Mosaic, Antioch, Tethys/Thalassa, dugout, fishing.*

### Öz

*İskenderiye, Roma ve Konstantinopolis, Roma ve Bizans Çağları boyunca önemli şehirlerdi ancak aynı dönemlerde Antiocheia'nın zenginliği hakkında çok az şey bilinmektedir. İS 4. yüzyıldaki zengin ve gösterişli Antiocheia hayatı çoğunlukla Libanius tarafından yazılan Mektuplar (Letters) ve Söylevler (Orations) isimli kitaplardan bilinmektedir.*

*Bu makalede, Antiocheia ve onun güzel mozaikleri tüm yönleriyle ele alınmayacaktır. Yakto Yukarı Kompleksi'ndeki Thalassa mozağinde tasvir edilen ve İS 5. yüzyılın ortalarına tarihlenen tekne (bu yazının konusu), bir kanonun eşsiz bir tasvirini temsil edebilir. Bu tipte bir tekne nadiren herhangi bir görsel sanatta ve özellikle mozaiklerde tasvir edilir.*

*Kanolar, tarihöncesi dönemden itibaren bilinen en erken su taşıtı örneklerinden olup, 21. yüzyılda dünyanın her yerinde kullanılmaya devam etmektedir. Görsel sanatlarda ve özellikle mozaiklerde basit bir ulaşım aracı, hafif kargoların taşınması ya da balık tutma aracı olarak betimlenen tekneler hem bu tip sahnelerin betimlendiği yerler için bir koruyucu hem de ev sahibinin esenliğinin sembolü olarak kullanılmıştır.*

**Anahtar Kelimeler:** *Mozaik, Antiocheia, Tethys/Thalassa, kano, balıkçılık.*

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## Some Notes on the Orontes River and the Excavations

Antioch is situated on the southwest corner of the Amuq plain. The Orontes flows along the southern edge of the plain, cuts through the mountains and flows into the sea on the northeast coast of the Mediterranean (Fig. 1). The Silpius Mountain Range stretching along the river's right bank rises to a height of 506 meters above sea level (Downey 1961: 15). Facing the city, the lower slopes of the mountain are gradual and in antiquity terraces were cut into these slopes, providing the building ground for villas and baths with a magnificent view of the Orontes and the city below. Orontes having its sources in Coelè Syria flows near the city of Antiocheia. Its length of about 400 kilometer never becomes a wide and deep river to provide good conditions for naval purposes. Still, the river has a pretty substantial stream that is navigable with rafts and can also be used to irrigate the land, especially between Homs, and Ḥamāh, and Al-Ghāb. Though that Orontes is not navigable anymore between Antioch (now Antakya) and the sea<sup>1</sup>, several ancient sources mention that during certain periods in antiquity the river had very busy water traffics<sup>2</sup>. Strabo wrote that the river flows underground for a while and then resurfaces; he also wrote that someone can make the inland journey to the sea in the same day:

“The Orontes River flows near the city. This river has its sources in Coelè-Syria: and then, flowing underground, issues forth again; and then proceeding through the territory of the Apameians into that of Antiocheia, closely approaches the later (Antiocheia) and flows down to the sea near Seleucia... Now on the west, below Antiocheia and Seleucia lays the sea; and it is near Seleucia that the Orontes forms its outlets... Inland voyages from the sea to Antiocheia are made on the same day one starts” (Strab. geogr. 16.2.7).

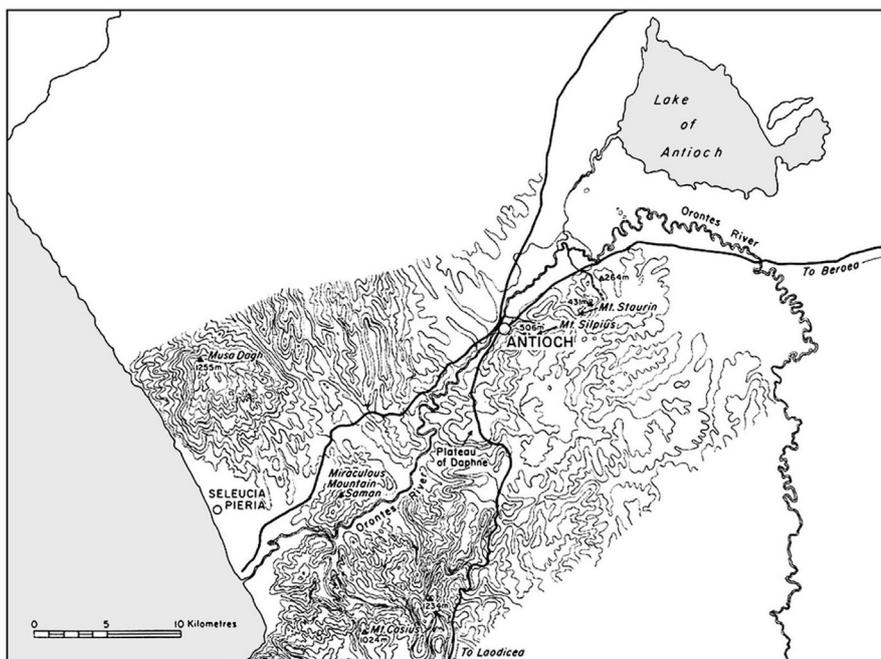


Figure 1  
Location map of Antioch on the Orontes  
(after Downey 1961: fig. 3).

- 1 In addition to the silt deposits from Mt. Silpius, since the Middle Ages, earthquakes, which are quite frequent in the Antioch region, caused debris fallen from the city wall to topple into the stream of the river and filling it up. The arm of the river that ran between the island and the city itself had filled up since the Crusader times; Downey 1961: 18.
- 2 The Gourob papyrus evidences that the Orontes was navigable in 246 BC; Downey 1961:18 and note 12.

A concurrent and updated description of Antioch in the 4<sup>th</sup> century AD is given by Libanius in his *Autobiography*, who also was a citizen of this city:

“As having the good fortune to be a citizen of a great and famous city, let us consider the size and character of the city of Antioch, the extent of its territory, the streams which water it, and the breezes which it backs. Even without seeing it, one can have full knowledge of it from hearsays, for there is no other corner of land or sea to which the fame of the city has not spread” (Norman 1992: 2).

Antiocheia was supplied with products from the hinterland, the lake and the sea by small vessels that sailed on the Orontes. Products like timber and fish came up the river from the seaport of Seleucia (Leibeschuetz 1972: 75 and notes 2–3). When Libanius spoke about the outlet of the Orontes, he refers to the products and goods that were brought to Antioch from its harbor Seleuceia Pieria:

“Wherefore all ships put to sea from all parts of the world, carrying goods from everywhere, from Libya, from Europe, from Asia, from the islands and the coasts, and the best of what is best everywhere is brought here, since the quickness of selling draws hither the wits of merchants... Among harbors, this (Seleuceia Pieria) has furlled the most of the sails that are spread over the seas” (Norman 1992: XI.264).

Since the 18<sup>th</sup> and especially the 19<sup>th</sup> century, Antioch was visited and plundered by many European visitors. In order to stop the looting of antiquities and treasure hunting excavations in Antioch, the Committee for the Excavations of Antioch and its vicinity was founded in 1930, under the chairmanship of Prof. C. R. Morey of the Princeton University. The Committee also included the Musée Nationaux de France, the Baltimore Museum of Art, and the Worcester Art Museum. Systematic excavations at Antioch and its vicinity (Daphne and Pieria) were carried out by the University of Princeton, which began in the spring of 1932 and continued until 1939, when the outbreak of the Second World War prevented the continuation of the works (Downey 1961: 28). These excavations revealed the prosperity and luxuries of Daphne and Pieria during the 4<sup>th</sup> – 5<sup>th</sup> centuries AD. Many mosaic floors in private houses, public structures, pools and baths were discovered during these investigations. The mosaic themes are varied and they are produced with wide ranges of hues of stone and glass tesserae. Mosaic floors found in houses with modest facilities also emphasized the richness of the city (Levi 1947: 1; Downey 1961: 33). The excavations of these mosaics revealed that figural and mythological themes starting since the 2<sup>nd</sup> century continued to be used until the 6<sup>th</sup> century AD, the end of classical Antioch (Lassus 1976: 63).

### The Yakto Complex – Upper Level

In November 1932, the Committee for the Excavations of Antioch, while excavating at Daphne (the suburb of Antioch) revealed a villa complex paved with beautiful and colorful mosaics. Two adjacent rooms on the NW side of the complex were named by the excavators Room A and Room B (Fig. 2). The walls of this complex had completely disappeared, as well as many parts of the mosaic floors. No indicative materials have been found during the excavations to hint or augment the dating of these rooms and their mosaic floors. The mosaic floor in the larger room (Room A) is decorated with hunting scenes surrounding a large circular medallion in the middle of the floor and depicting the bust of a female (Fig. 3). A Greek inscription spreading on both sides of the figure's head

indicates her name Megalopsychia. The entire mosaic is surrounded by a topographical border depicting varied buildings and streets, presumably illustrating the city of Antioch and its suburbs. A Greek inscription including the name and the title of Pribathon Ardaburius provides a terminus post quem of this mosaic, dated to the middle of the 5<sup>th</sup> century AD. Ardaburius was the "magister militum per Orientem" from 450 to 475 AD, with his headquarters at Antioch-on-the-Orontes, where he resided as late as 459 AD (Morey 1938: 18; Levi 1947: 323).

Figure 2  
Plan of Yakto Upper Complex  
(after Levi 1947: 280 fig. 110).

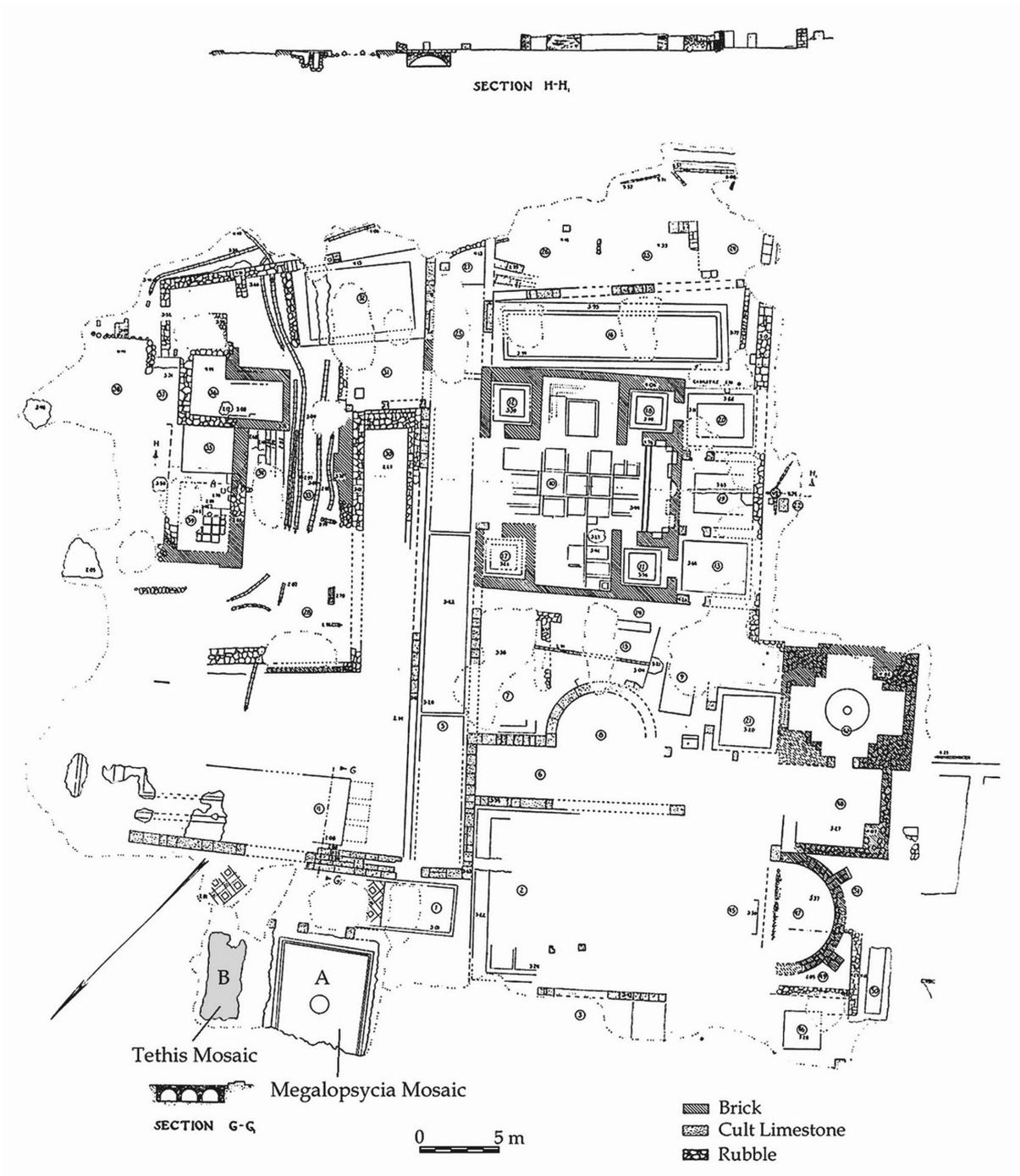
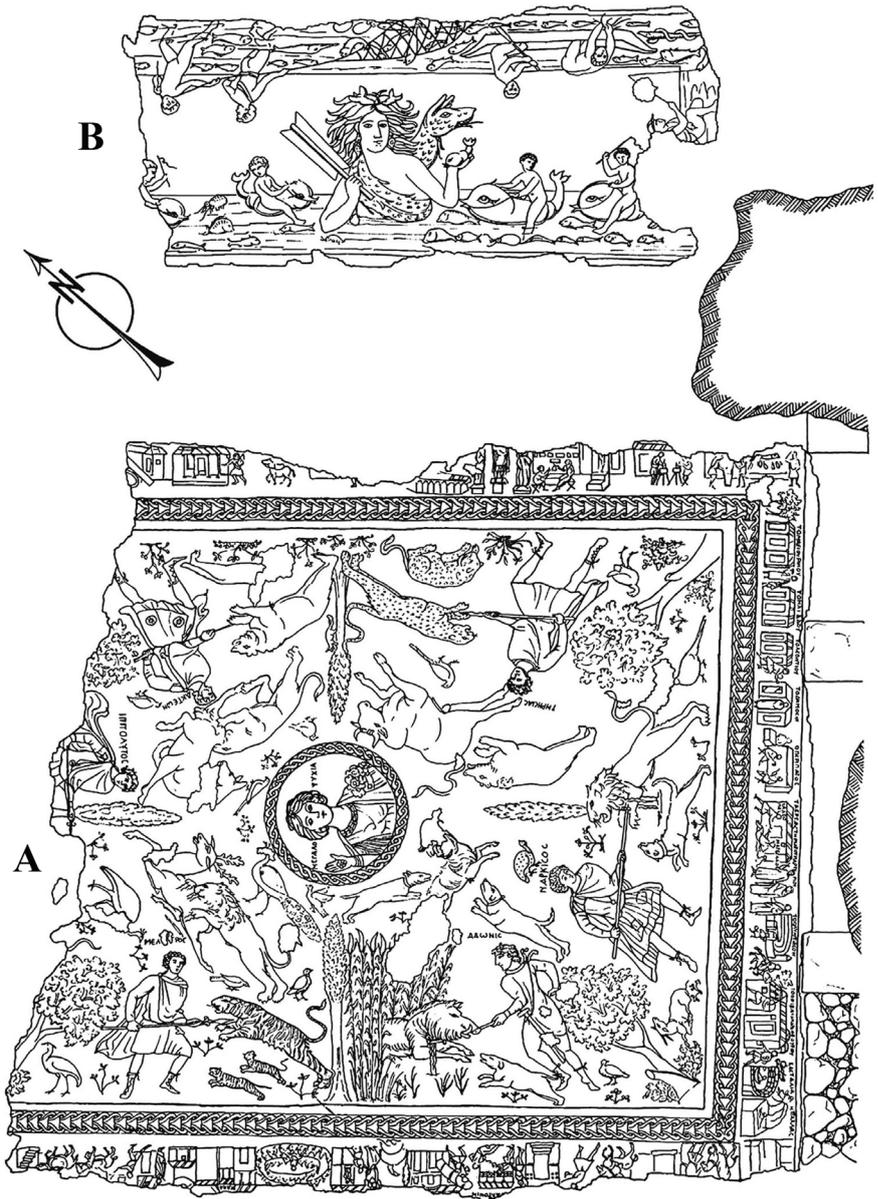


Figure 3  
Drawing of Thalassa and “Megalopsychia”  
mosaics, Rooms A-B (after Levi 1947: 324  
fig. 136).



### The Yakto Thalassa Mosaic

The mosaic floor in Room B depicts the large bust of Thalassa<sup>3</sup> rising from

3 Tethys was the Titan goddess of the sources of fresh water which nourished the earth. She was the wife of Okeanos, the earth-encircling fresh-water stream, and the mother of the Potamoi (Rivers), Okeanides (Springs, Streams and Fountains) and Nephelai (Clouds). Both Tethys and Oceanus were depicted as a couple, as well as each one also is represented as a single figure in varied arts since the 2<sup>nd</sup> to the 6<sup>th</sup> centuries AD (Levi 1947: pl. CLIX b). Both deities became a favored theme in mosaics from Antioch, Zeugma and Syria. In the early depictions of the goddess a pair of wings rises above her temples and a snake coils around her lower torso and over her right arm (Levi 1947: pls. XXXIX b, L a, LXII a; Wages 1986: figs. 1, 3, 5). The iconographic evolution of the winged sea goddess in mosaics began at the end of the 3<sup>rd</sup> century and lasted until the later part of the 5<sup>th</sup> century AD (Wages 1986: 124). Oceanus holds a long rudder with slim and an elongated blade, in his right arm and laid on his right shoulder. A pair of crab or lobster claws rises above his temples. He looks like an elderly man with gray thick beard (Levi 1947: pls. VI a, b, L c; Wages 1986: figs. 1, 8). The Tethys mosaic excavated at Shahba/ancient Philippiopolis, Syria (325 – 350 AD) shows the portrait of the goddess within a square frame. Her hair appears as seaweeds, a pair of wings rises above her forehead and a sea star is placed between the wings. She holds a rudder with thin and elongated blade that lay on her left shoulder. A snake (ketos) rises from behind her back and its open mouth seems to point towards the right side of her head (Wages 1986: fig. 7). Apparently some changes occurred in the depiction of Tethys in the 4<sup>th</sup>

the sea, holding a rudder in her right arm and laid on her shoulder, and holding a small dolphin in her left palm (Figs. 3, 4, 4a). The rudder has a short shaft with a slim elongated blade. The blade comprises two long and narrow wings. Presumably, each wing formed an individual unit, which was inserted in a long groove cut lengthwise into the lower shaft. They seem to be locked by wooden treenails or pegs, or by bronze nails, indicated by the darker dots along the visible face of the shaft (Fig. 5). Both, the shoulders and the bottom ends of the blade's wings are angled toward the shaft. The left wing is depicted with ochre tesserae and the right one with dark brown stones. A monstrous snake (*ketos*), with a dog or wolf head and looking to the left, coils around the bust of Thalassa. Two short and thick claws of lobster or crab rising from the top of the Goddess's forehead are rendered with light brown, reddish-brown and ochre tesserae. The surrounding water of the maritime scene is depicted with dark green hues, while the white strips seem to indicate the crest of the waves. Varied fishing techniques are illustrated within a rich fauna of fish in the aquatic environment. The Yakto Thalassa is surrounded by these fishing scenes along with water games carried out by several young boys. Four boys, each one riding on the back of a dolphin, are racing towards the Goddess, two to the left and two to the right (Figs. 4 - 4a). On the extreme right-hand vertical border is depicted a fisherman sitting on a rock near the shore and fishing with a fishing rod; a fish is caught in the hook at the end of the line. In the reverse frame above the head of Thalassa are illustrated two types of fishing techniques: In the right side of the frame is shown a boat with two naked men engaged in fishing. The man standing slightly off amidships and bending over the fore port hull pulls an octopus out of the water, while the second man sited on the quarter steers the boat (Fig. 6). Within the left side frame are depicted two naked young boys in knee deep water, each pulling the liner of a seine net full of fish (Fig. 4). The present author may suggest that this fishing scene could be a pictographic illustration of the description given by Libanius when he wrote about the abundance of fish for the diet of the local population:

“Everything is at once available, and it is not necessary to hurry about in search of fish... Indeed, we who live on land enjoy more fish than many of those who are tossed about the ocean, and although we are separated by from the sea, the fishermen catch for us in their nets the creatures of the sea, and crowds of fishes of all kinds come into them every day” (Norman 1992: XI.258).

No datable materials were found in Room B with the Thalassa mosaic. It was mentioned above that the *Megalopsychia* mosaic in Room A was dated to the middle of the 5<sup>th</sup> century AD upon the Greek inscription within the topographical border and referring to Ardaburius. We may assume that the Thalassa mosaic was produced at the same time of *Megalopsychia* mosaics, which may be deduced from the fact that both rooms are adjacent and belonged to the same complex (Fig. 3).

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and 5<sup>th</sup> centuries AD in Antioch and Zeugma. The wings attribute of Tethys in the early mosaics were changed into claw of crab or lobster that are the distinct attributes of Oceanus. These claws are adopted as attributes of Thalassa, as well as holding a rudder in her right hand and lay on her shoulder. During this phase the goddess Tethys began to merge with figures that personified the sea, and known in Greek as *Thalassa* (Wages 1986: 124). *Thalassa* is also the Greek word for the “sea”. She is depicted as a woman clothed in bands of seaweed, half submerged in the sea, and is represented with some attributes that were formerly given to Oceanus: the lobster or crab claws rising above her forehead, a rudder, a dolphin, a ship, or a ship's prow held in her palm, but not wings on her forehead. Thus, the Yakto goddess is one of the earliest depictions of Thalassa. She is depicted with the attributes that once belonged to Oceanus. Therefore, the goddess in the Yakto maritime scene is Thalassa and not Tethys.

Figure 4  
Yakto Thalassa mosaic ([https://commons.wikimedia.org/wiki/File:Hatay\\_thalassa.jpg](https://commons.wikimedia.org/wiki/File:Hatay_thalassa.jpg))



Figure 4a  
Drawing of Thalassa mosaic panel  
(detail from Levi 1947: fig. 136).



Figure 5  
Thalassa rising from the sea  
([https://commons.wikimedia.org/wiki/File:Hatay\\_thalassa.jpg](https://commons.wikimedia.org/wiki/File:Hatay_thalassa.jpg)).



### The Yakto Boat

The only boat in the Yakto Thalassa mosaic is depicted within the fishing scenes border, in reverse above the head of goddess (Figs. 4, 4a, 6). The boat is seen in some perspective, deduced from the revealed inner starboard hull depicted with dark brown tesserae. The boat is engaged in fishing (Fig. 6). The prow is pointed to the left. The entire longitudinal port hull is rendered by uniform coloring of yellow-brown or ochre tesserae. Both ends (stem and stern) and the lower part of the hull are outlined by two rows of dark brown tesserae, probably indicating the

pitch or bitumen coating to make the hull watertight. The transom stem and stern have outward angles of c.30-40 degree each with a horizontal short platforms and finished by short straight cut ends. The boat has a flat bottom, elongated slim hull and a shallow hold, deduced from the projecting knees of the man bent over the fore port hull and pulling an octopus out of the water. The feet of the sited helmsman rest on the flat shallow floor of the boat. His knees also reach high above the gunwale.

The propulsion gear comprises a pair of oars with dual function steering and/or rowing; one oar is mounted to either quarter gunwale (Figs. 6-7). The port oar is represented by a long and thin shaft that it's lower end transverses longitudinally the rectangular blade. The oar is secured to the port quarter gunwale

Figure 6  
Yakto Thalassa mosaic: fishing dugout boat  
([https://commons.wikimedia.org/wiki/File:Hatay\\_thalassa.jpg](https://commons.wikimedia.org/wiki/File:Hatay_thalassa.jpg)).

Figure 7  
Close-up of the rower  
(detail from Cimok 2005: 37).



by a line tied around the lower shaft above the shoulder of the blade and then passing through a metal or wooden ring oarlock (Fig. 7). Apparently, the secure-line seems to be stretching along the shaft and its upper end being held in the rower's left palm. The short rectangular blade comprises two wings that seem to be inserted into a groove cut along the lower part of the shaft and then secured by wooden treenails or bronze nails. The lower part of the port blade seems to be submerged in the water. The starboard oar is indicated only by its upper shaft. Actually, this oar was similar to the port oar in its shape, length and mounting system on the starboard gunwale. The oarsman seems to steer the boat and stabilize it while the man on the fore-deck is engaged in fishing.

The rich fauna inhabiting the water are sea creatures some of which may be identified by known species of fish: Red mullet (*Mullus surmuletus*), silver fish (*Argentina sphyraena*), gray mullet (*Mugil cephalus*), barracuda (*Sphyraena sphyrena/Linnaeus*), cuttlefish/octopus (*Octopus vulgaris*), sea snake, bass (Greek: *Labrax*, Latin: *Lupus*), and shrimps (*Crustacea*)<sup>4</sup>. Thus we may conclude that the water environment surrounding Thalassa is the sea and the fishing activities are carried out in shallow waters close to the shore, as indicated by both boys in knee deep water and pulling the net full of the caught fish (Figs. 4, 4a).

### Building a Basic Dugout

The Yakto Boat with a slim hull, flat bottom, even-colored sheer, and transom ends (stem and stern), most probably represents a logboat or dugout made from a single log. Such type of boat is a very simple and earliest water craft. The dugout was hollowed either from a whole log or a half log split longitudinally. Logboat or dugout has a long history known since the Neolithic period throughout all historical periods, and are still used in varied parts of the globe today: Arabia, Africa, Egypt, Northern Europe, and America. They also are known as *monoxylon* (Greek: *mono*: single, *xylon*: tree) or pirogue. Ancient dugouts were occasionally found in inland sites. Few of the oldest logboats were found at Pesse, Netherlands, and dated to 7920-6470 BC (Johnstone 1980: 46 fig. 5.1) (c.2.98 m long and 44x0.31m abeam), and at Noyen-sur-Seine, France, dated c.7190-6540 BC (McGrail 2001:173) (4.05m long and 0.55x0.20m abeam) (McGrail 2001:174). A logboat found in Lake Bracciano, Italy, is assumed to date to the 6<sup>th</sup> millennium BC (McGrail 2001:150).

Our knowledge of building logboats/dugouts come from several ethnographic sources: a study of three excavated half-finished logboats from Germany, or one of the first examples of experimental archaeology of reconstructing such a boat in 1965 on the shore of lake Mondsee, Austria (McGrail 1998: 59). Ancient dugouts were made from pine (*Pinus sylvestris*), alder (*Alnus sp.*), poplar (*Populus sp.*), and lime (*Tilia sp.*), whereas oak (*Quercus sp.*) was used sporadically from the Neolithic Period to the Bronze Age (McGrail 2001: 174). The timber used for building a dugout depends on what is available locally. Ethnographic evidence indicates that the tree generally chosen for a dugout is found near the water. The trunk should have a reasonable length and be strong, should not split or have spiral grains that would be difficult to be worked (McGrail 1998: 59). A dugout may be designed first by leveling the upper surface of the horizontal log

4 Some of the species surrounding the Neptune/Oceans and his consort Amphitrite/Thalassa mosaics from the House of Calendars, Room Six, dated 2<sup>nd</sup> century CE are based on the identification made by Dr. Henry W. Fowler, Curator of Fishes in the Philadelphia Academy of Natural Sciences; Morey 1938: 30-31; Levi 1947: 37 fig. 12 pls. VI a, b.

to the height of the future sheerline (McGrail 1998: 61). Using charcoal or red chalk the carpenter marks the plan of the boat, the hold area and both stem and stern. Apparently, the first method is hollowing a certain amount of the log before the internal and external shape of the boat is finished. The external shaping of the boat is done with axes and also by adze. Thus, the preliminary shaping, both internally and externally is to reduce the weight of the log, which will lessen the effort to move the raw boat either overland to a water site, or to overturn the log to be worked underside and then to complete the final shape of the boat (McGrail 1998: 61) Such an example of hollowing a dugout is evidenced by the experimental archaeology carried out at Pfahlbau – Lake Dwelling Museum at Unteruhldigen/Bodensee, on the NE shore of Lake Constance, Germany (Fig. 8). The tools needed to hollow such a boat comprise axes, adzes, mallet (wooden hammer), chisels and scrapers.

Figure 8  
Making a dugout boat; Lake Dwelling Museum, Bodensee, Germany (photo: Zaraza Friedman).

Figure 9  
Preserved dugout under water; Lake Dwelling Museum, Bodensee, Germany (photo: Zaraza Friedman).



There are several reports of dugouts that were not finished in one season but were often stored under water, until the next year. Such a boat was probably towed on a sled to the water near the habitat of the owner, and then it was sunken under water at a depth of c.2m by filling in with stones and tight between four poles where it remained from one to several years (McGrail 1998: 63). Such comparable examples also are found at the Lake Dwelling Museum at Bodensee, Germany (Fig. 9). Three or more dugouts sunken under water were filled in with stones and are still tight to a pole close to the shore of the lake at the Dwelling Museum (personal communication). They look as new, though that they are submerged in the water for over twenty years at the Museum. Presumably, in several countries in Northern Europe, partly worked logs, still “green”, were stored under water, to keep the timber fresh and moist above the fiber saturation point. Thus the log would not shrink and then it can be worked relatively easier in a future boat (McGrail 1998: 63).

Another method to make a dugout is using fire. When fire is used it is lit on top of the horizontal log and constrained by sprayed water or by wet clay. Then

the charred wood is subsequently adzed or scraped away to leave a smoothed surface (McGrail 1998: 62). Accounts on the use of the fire method were given by European travelers to North, Central and South America in the 16<sup>th</sup> and 18<sup>th</sup> centuries. Thomas Harriot described the fire method in 1548, when he saw the local men in Virginia making dugouts by fire method (McGrail 2001: 423). A drawing dated to the 16<sup>th</sup> century shows in detail the use of fire method (Fig. 10). A similar method was described by the Swedish traveler Peter Kalm in 1747, as used by Delaware Indians:

“They lay branches along the stem of the tree as far as it must be hollowed out, set them on fire, and replace them by others. While these parts are burning, they keep pouring water on those parts that are not to be burnt at the sides and the ends. When the interior is sufficiently burnt out, they take their stone hatches and shells and scoop out the burnt wood. These canoes are usually thirty or forty feet long (10 – 13 m)” (Johnstone 1980: 47).

Figure 10  
A late 16th century drawing of hollowing a dugout by fire method  
(after McGrail 2001: 423 fig. 11.25).



The hydrostatics of logboats/dugouts is limited due to their long, narrow hull and shallow hold. Therefore, since antiquity, men searched to improve the stability of such boats by varied methods, such as by extending the beam of the boat, using stabilizers and outriggers, or by joining two or more dugouts by tying them together by heavy cables and then placing a platform on top to transport cargoes, and/or animals (such as sheep or horses) (Johnstone 1980: 48-50; McGrail 1998: 66-67, 72 fig. 6.12). Transverse timbers or thwarts have rarely survived in ancient dugouts found in excavations or surveys (Zwammerdam Boat 1, Netherlands; Barouscourt, Ireland; Loch Killburnie, Scotland) (McGrail 1998: 80). Transverse timbers also provide lateral reinforcement to the hull, as well as a sitting place for the oarsmen. Dugouts being small vessels were used for fishing in rivers, lakes, or along the seashore in shallow waters. Such boats also were used for hunting in marshes or river delta, carrying small cargo, or transporting limited livestock (one to two sheep, or one horse), or up to ten passengers. Dugout boats were propelled by a standing paddler slightly off amidships, or rowed by a seated oarsman on the thwart amidships or on the flatten end of the boat. The Yakto boat probably suggests a dugout that was rowed or steered by a pair oars with dual function as it was needed (Fig. 6).



### The Marina Mosaic in the Nile Villa at Leptis Magna

The Villa with the Nile mosaic is situated near the port of the ancient city of Leptis Magna. The name of the villa comes from three excavated mosaics depicting Nilotic scenes. The Yakto Boat (Fig. 6) is comparable to one of the boats depicted in the Nile Villa that decorated the floor of the *tepidarium*. The excavations at the site that began in 1916 and continued until 1930 indicate a possible date of the mosaics and the construction of the villa around the 2<sup>nd</sup> century AD (Aurigemma 1960: 49)<sup>5</sup>. Two boats (Fig. 11) depicted in the left hand side of the mosaic panel are part of the design illustrating several fishing methods. The top boat with an elongated and slim hull, with outward extended ends (stem and stern), and a flat bottom (Fig. 12) is similar to Yakto Boat (Fig. 6). The static position of the boat and the five sitting figures, who probably are engaged in a party, suggest that the boat is anchored, though no anchor or mooring devices are shown. The prow points to the left. The stern, now damaged, probably had a similar shape as the prow with outward angle and a flat top. The oar mounted on the port quarter gunwale may indicate the steering gear (Fig. 12). The figure sitting on the quarter deck with his knees rising above the gunwale, presumably is the helmsman (badly damaged; only his profile and the left arm are preserved). His left arm stretching forward holds the loom of the port oar. Probably the loom of the starboard steering oar is worked by his right hand (badly damaged). The slim shape of the boat and the uniform coloring of the hull rendered with dark brown tesserae, presumably suggest an expansion logboat of about 10 m long and c.1-1.5 m abeam (McGrail 1998: 67-68 fig. 6.10). Its shallow hold is deduced from the sited figures on the starboard and port gunwales, with their feet resting on the flat floor and shallow hold, whereas their knees reach height above the gunwale.

Figure 11  
The “Marina” mosaic in the Nile Villa at Leptis Magna (courtesy Jona Lendering, Livius.Org).

<sup>5</sup> The size of the mosaic: L=3.78m; W=1.2m.



Figure 12  
The top boat in the “Marina” mosaic  
(detail; courtesy Jona Lendering, Livius.  
Org).

## Conclusions

The Yakto Thalassa mosaic (450 – 460 AD) is not the only mosaic depicting this sea goddess in Turkey. Apparently, themes of sea gods and goddesses were quite common motifs used in the mosaic decorations in Antioch and Zeugma in Turkey, as well as in Syria from the 2<sup>nd</sup> to the 6<sup>th</sup> centuries AD. The goddess depicted in the Yakto mosaic is Thalassa, as deduced from her attributes: she rises from the sea as a single figure, a pair of crab or lobster claws rise above her forehead, her hair is made by seaweeds indicated by dark hues of green and grey tesserae, she holds a rudder in her right hand, a small dolphin in her left hand, and a ketos coils around her bust. However, the Yakto Thalassa appears to be the only example where the goddess is surrounded by young boys engaged in various fishing activities and water games (Fig. 4).

The boat depicted in the fishing scene, in reverse to the goddess's head, may indicate a dugout, which is a rare representation in any arts and especially mosaics. The Yakto Boat, probably, was 5m or 8m long, one meter abeam and probably had a load capacity up to several hundreds of kilograms. The present author may suggest that the Yakto Boat was made by hollowing a log by axes, adze and scrappers. No such boat was found yet in Antioch to augment its building method. Therefore, the suggestion of the dugout is based only upon its iconographic depiction. The Yakto boat (Fig. 6) is comparable to the top boat depicted in the Nile mosaic from Leptis Magna (Fig. 12). If the boat in the Leptis Magna mosaic indeed represents a dugout then it is the earliest pictographic representation of such vessel in mosaics (2<sup>nd</sup> century AD), pre-dating the Yakto Boat by about 300 years. It is well known that pattern decorations in the North African mosaics and those from the NE Mediterranean are very similar. Pattern books and other sources of decorations circulated around the Mediterranean through sea trade connections, as well as by the movement of the mosaicists from one place to another and being contracted in projects by wealthy patrons whose taste for luxuries was a priority. These artists carried with them some patterns from their homeland workshops, which they could adjust to the taste and the requirements of the patron. Although Orontes was not navigable between the sea and Antioch in Late Antiquity, and neither is today, ancient sources indicate that at certain periods the river had busy water traffics (Downey 1961: 18 note 12). In his Orations of Antioch, Libanius wrote that the city profited greatly from the river because “many things were brought to the city by the vessels sailing

on the river” (Norman 1992: XI. 260). The close flow of Orontes at Daphne and Antiocheia provided an easy access to products brought by boats from the harbor of Seleuceia Pieria or from the hinterland down the river. Thus, the people had some kind of landings in front of their dwellings for such delivery boats:

“At first they bring the goods separately; then the river takes the place of both, receiving, along with its own products what is carried through the lake... It delivers the cargoes to each person before the gates, so that it is possible for the women and children to unload the freights” (Norman 1992: XI. 261).

Debris from the city walls that toppled into the river since the Middle Ages have blocked the passage for large sailing boats in the Orontes, but small boats could still sail on varied areas along the river. It also appears that the riverbed rose as a result of earthquakes, which are frequent in the area (Downey 1961: 1).

Though that Libanius does not mention anything about boat building near the Orontes or the sea, we may assume that the wood fallen from the mountain ranges of Amanus and Silpius, and the overseas wood trade provided the raw material for boats construction, as well as building materials, heating and also used in varied industries. This assumption also is suggested by Libanius:

“...the river was a way of transportation for the variety of woods, which are brought from everywhere” (Norman 1992: XI. 262).

Dugouts were the simplest vessels to be build that neither required much space nor a special shipyard, or a large team of shipwrights. The elementary tools were adze, axes, chisels, scrapers, and fire, and the raw material of proper logs were found in the vicinity of a river banks, lake or the sea shore. The present author may suggest that the Yakto Boat is a relevant representation of a dugout considering the fact that the site is found in close proximity to the Orontes River and the mountain ranges of Amanus and Silpius supplied the necessary timbers for the construction of roofs, fuel for bakeries and baths, as well as for boats building. The mosaicist who made the Yakto Thalassa mosaic may have seen or been familiar with such simple river crafts that probably still sailed on the Orontes or along the seashore in the 4<sup>th</sup> century AD. He also may have seen such boats engaged in fishing on the Orontes or nearby the seashore. All three varied fishing scenes depicted within the frames surrounding Thalassa may suggest for such activities in the daily life and the economy of the people living on the banks of Orontes, the Lake and the seashore. Fishing scenes were significant sources in any art decorations associated with mythological stories combine with scenes of everyday life of the people living in such areas. The owner of the Yakto complex probably was engaged in maritime trade and fishing business, as well having a taste for classical arts.

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