

**A STUDY OF THE NAUTICAL IMAGERY IN THE
SKYLITZES MATRITENSIS CODEX**

A Thesis

by

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ABSTRACT

This thesis examines the existing studies of the miniatures in the *Skylitzes Matritensis* codex, a 12th-century Byzantine illuminated manuscript, and adds to them by undertaking an analysis of its nautical imagery. Out of the 574 miniatures in this manuscript, 51 include renditions of nautical vessels in a variety of settings. Among these images are some of the only surviving representations of certain devices, such as the mechanism for deploying Greek fire. While earlier studies have examined the entire corpus of imagery in this unique manuscript, assessments of the valuable nautical imagery that this manuscript offers are lacking. This thesis attempts to examine the information *Skylitzes Matritensis* provides about Byzantine vessels and their representation in illuminated manuscripts. Chapter I provides a summary of Byzantine illuminated manuscript study, the history of this particular codex, a brief overview of Byzantine naval construction, and a synopsis of the challenges in the research of illuminated manuscripts and their nautical imagery. Chapter II examines each miniature with a nautical theme, providing relevant context and characteristics for each vessel. Chapter III synthesizes these observations into general trends that reflect traditions in maritime representation in illuminated manuscripts, as well as traditions specific to western or Byzantine trained illustrators. Finally, Chapter IV concludes with a summary of a comprehensive examination and synthesis of how nautical miniatures can expand our understanding of Byzantine ships and their manner of stylized representations in illuminated manuscripts.

DEDICATION

To my family, for your love and support.

AMDG

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NOMENCLATURE

DOP

Dumbarton Oaks Papers

IJNA

International Journal of Nautical Archaeology

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CHAPTER I

INTRODUCTION

The study of past cultures is a multifaceted one, best accomplished by examining and considering all available sources. One abundant source of information is the examination of artwork produced in the period of study. Art offers a unique perspective; indeed, an extinct perspective. It is a window into a lost world, a view that would otherwise be absent into how people of the past viewed and understood their world. Art, particularly imagery, can provide information on cultural practices and traits not found in historical texts or physical archaeological remains. It can also contextualize these sources to increase our understanding of historical events and characters, and how people of that culture viewed these.¹

A particularly fruitful source of information is the body of works known as Byzantine illuminated manuscripts. Byzantine illuminated manuscripts demonstrate how art and text can work together to provide historical insight. These texts give evidence for various aspects of life during the Byzantine period (330-1453 CE) with the support of accompanying illustrations. The amount of information such works can provide on various topics encourages a detailed study of each manuscript. The *Skylitzes Matritensis*, also known as *Madrid Skylitzes*, an illuminated manuscript from the 12th century, contains many images with nautical themes. While experts have studied this medieval manuscript and acknowledged its contribution, a thorough examination of these nautical images is still lacking. This thesis offers an assessment and analysis of the nautical imagery and the vessels in *Skylitzes Matritensis* that seeks to determine whether the representations are accurate portrayals of ships present in the Byzantine period and

¹ Kalavrezou and Tomaselli 2017, 32.

what information this manuscript can provide on the trends of nautical depictions in Byzantine illuminated manuscripts.

The thesis begins with an overview of Byzantine illuminated manuscripts, followed by an introduction to *Skylitzes Matritensis*, its history, various components, and the artisans who contributed to it. These two sections introduce considerations and difficulties encountered in the studies of Byzantine illuminated manuscripts, nautical imagery, and *Skylitzes Matritensis*, which shape the methodology of the thesis. The thesis does not ignore the challenges, but instead adapts to them in methods and analysis that contextualize the artistic content of *Skylitzes Matritensis* and provides an in-depth study of each nautical miniature. The study comprises Chapter II, where individual vessels in the 51 paintings with nautical themes are contextualized and described. Chapter III analyzes and synthesizes the vessels' characteristics and context to determine trends in the depictions. These trends provide evidence for the traditions in watercraft representation and a greater understanding of Byzantine culture, as shown in the concluding Chapter IV.

Byzantine Illuminated Manuscripts

Byzantine illuminated manuscripts are illustrated texts produced throughout the Byzantine Empire between the fourth and 15th centuries CE. They constitute four components: the written text, chapter titles and initials, decorative frames, and illustrations.² The term "illuminated" refers to the use of gold and silver embellishments, as well as a variety of colors, to create illustrious images. Byzantine illuminated manuscripts feature a variety of illustrative designs, including ornate borders, chapter headings, and distinct first letters of new sections or

² Anderson 1997, 83.

chapters.³ Representations that supplement or depict events accompany the text. These range from full-page spreads to small margin depictions.⁴ The topics of the manuscripts are numerous, although the majority are religious. Christianity was recognized in the Byzantine Empire during the reign of Constantine (306-337 CE), and its rituals and manners became pervasive in Byzantine culture.⁵ Reflecting this, a substantial amount of manuscripts are homilies, sections of or the entire Bible, and other liturgical texts.⁶ The second-largest corpus of this literature is scientific, addressing either mathematical, geographical, astronomical, engineering, or pharmaceutical subjects.⁷ Finally, there are historiographies, or historical chronicles, such as *Skylitzes Matritensis*. These historical texts can tackle any sort and range of history, at times from the creation to the author's period and at other times, delving into a particular era of the Byzantine Empire.

Byzantine illuminated manuscripts were produced at writing centers, or *scriptoria* (singular *scriptorium*), and monasteries in Byzantium, the Byzantine Empire proper, and throughout the provinces of the Byzantine Empire.⁸ Indeed, illuminated manuscripts experienced a period of flourishing in the west during the late Byzantine period, when *scriptoria* expanded to the western provinces and caused a blending of Byzantine and western artistic elements.⁹ At the *scriptoria*, scribes and painters copied texts, inserted illustrations, and assembled the entire manuscript.¹⁰ Byzantine works took two forms. The older form is the scroll, generally made from

³ Spieser 2017, 8-9; Betancourt 2016, 2.

⁴ Kalavrezou and Tomaselli 2017, 27-28.

⁵ Jeffreys *et al.* 2008, 4

⁶ Spieser 2017, 7-10.

⁷ Spieser 2017, 5.

⁸ Freeman 2018; Tsamakda 2002, 18.

⁹ Cormack 2018, 174.

¹⁰ Lowden 2008, 465

papyrus.¹¹ In a scroll, glued sheets of papyrus form a long strip.¹² One would hold the rolled-up scroll in the left hand to read a scroll, unrolling it bit by bit and rerolling in the right hand. The inconvenience of using both hands led to the codex, although there are scrolls dating to the late and post-Byzantine eras.¹³ The codex (plural codices) is one or more stacks of folded sheets of papyrus, parchment, or paper, bound between a pair of wooden panels, with leather stretched around the outside. Each folded sheet, called a quire, usually forms four folios.¹⁴ A letter, r for *recto* and v for *verso*, designates each half of a quire, dividing it between front and back.¹⁵ Thus the first quire will produce folios 1r, 1v, 2r, and 2v, and the folios of subsequent quires will follow. Images are referred to by their folio number and a designation, when necessary, of top, middle, or bottom.

Scriptoria employed a number of contributors, with multiple illustrators often working on a single manuscript. It is not always clear whether contributors to text and illumination operated in the same place. The interaction between the Byzantine Empire and its provinces enabled contributors from various origins to travel between *scriptoria*, collaborating on a variety of works.¹⁶ The lack of surviving records and regulations on book production makes the books themselves the primary source of information on their assembly.¹⁷ Determining time, place, and method of production relies on paleographic studies and comparisons of extant works to develop an understanding of their relationships.¹⁸ There is, for example, evidence that the writer first inscribed the entire script, leaving spaces for the miniatures that painters would insert afterward.

¹¹ Kotzabassi 2017, 39; Lowden 2008, 464.

¹² Kotzabassi 2017, 39; Lowden 2008, 464.

¹³ Kotzabassi 2017, 39.

¹⁴ Kotzabassi 2017, 39-40; Lowden 2008, 463.

¹⁵ Kotzabassi 2017, 39-40; Lowden 2008, 463-4.

¹⁶ Pryor and Jeffreys 2006, 426; Tsamakda 2002, 389.

¹⁷ Lowden 2008, 463.

¹⁸ Tsamakda 2002, 2-4.

Occasional blank spaces in the text indicate where an illustration is missing. The length of each quire also appears to be predetermined, as text can be crammed to fit into its designated section.¹⁹

It is unclear how much creativity was involved in the miniatures. Painters could contribute original, or 'ad hoc,' illustrations, or they could copy images from previous versions of the same work or similar scenes in other manuscripts.²⁰ Even with evidence of copying, painters still demonstrate substantial variation in their styles and artistic choices, likely reflecting individual styles and techniques developed in different geographic regions. *Scriptoria* were developed throughout the Byzantine Empire, resulting in a collaboration of artisans from multiple areas. Experts have analyzed the imagery within Byzantine illuminated manuscripts and found particular characteristics demonstrating the illustrator's stylistic region.²¹ Art reflects its culture, and the history of interactions between the Byzantine Empire and surrounding cultures influenced Byzantine culture and art. At the *scriptoria*, artists from throughout the Mediterranean could gather and work on manuscripts, imbuing them with their unique styles. Analysts distinguish regional styles through distinct patterns of depiction in facial features, gestures, posture, clothing, coloring, and various other artistic attributes, as well as the portrayal of cultural practices indicated by gesture and stance. The interaction between different illustrators and geographic styles is particularly influential in the miniatures of the *Skylitzes Matritensis*.

These characteristics of Byzantine illuminated manuscripts highlight the relationship and complexity of the literature. The Byzantine Empire's borders stretched throughout the Mediterranean world. The miniatures within the manuscripts represent this amalgamation of

¹⁹ Kotzabassi 2017, 49; Lowden 2008, 466; Tsamakda 2002, 11.

²⁰ Tsamakda 2002, 3; Lowden 2008, 467.

²¹ Tsamakda 2002, 3; 378-90; Ševčenko, 1970, 187.

cultures. The resulting variety can contribute to the historical insight this literature provides by giving many different perspectives within a single work. Understanding the interaction of these perspectives with one another, and within the manuscript itself, is crucial. It can be challenging to determine these relationships. The development of each manuscript spanned an extended timeframe, in which various contributors from a variety of time, place, and background carried out their roles with particular intents. An illustrator, for example, might not be concerned with historical accuracy but rather with evoking a scene or emotion. The practice of copying, either previous versions of the same work or similar scenes in other manuscripts, might have eased the illustrators' efforts; however, it also diminished the images' historical accuracy. Combatting these complications is possible through determining available information on a manuscript's development, identifying the various contributors, and judging how they interact in the manuscript. With these careful efforts, the full effect of the manuscript is apparent. This process begins in the next section, which presents the information on the development of the *Skylitzes Matritensis* codex and identifies its various contributors.

The *Skylitzes Matritensis* Codex

The *Skylitzes Matritensis* codex is an illuminated version of the *Synopsis Historiarum*, or *Synopsis of Histories* (Σύνοψις Ἱστοριῶν), a chronology by John Skylitzes (Ἰωάννης Σκυλίτζης), written in the 11th century. As one of the only remaining Byzantine histories addressing the 10th and 11th centuries, *Synopsis Historiarum* is considered incredibly crucial to studies of the Byzantine Empire.²² The *Skylitzes Matritensis* codex is not particularly well preserved, with a significant loss in quire 16 and several missing folios.²³ The most severe loss is of at least an

²² Skylitzes 2010, xii; Tsamakda 2002, 24; Neville 2018, 155.

²³ Tsamakda 2002, 10.

entire quire at the end of the codex, which would have accounted for the rule of Isaac Komnenos.²⁴ The surviving 23 chapters and 574 illuminations cover a history of reigns for the Byzantine emperors from the death of Nikephoros I in 811 to the deposition of Michael VI in 1057.²⁵ *Skylitzes Matritensis* is the only surviving illuminated copy of *Synopsis Historiarum*; the chronicle's text, however, is preserved to varying degrees in 20 manuscripts.²⁶ The illuminated *Synopsis* belongs to the collection of Greek manuscripts kept at the National Library of Spain in Madrid. The history of this book's assembly has been extensively debated.²⁷ The generally held belief is that a copy of the manuscript's text made its way to Palermo, Italy, between 1158-1160. The *scriptorium* of the monastery of San Salvatore in Messina produced several illuminated copies.²⁸ However, it remains unclear whether *Skylitzes Matritensis* is a copy of an illuminated model or an *ad hoc* production.²⁹ The codex is composed of 30 quires and 233 folios, with an accompanying 574 illuminations.³⁰ The miniatures of *Skylitzes Matritensis* are generally unframed and between five and ten centimeters in height. The calligraphy of the main text is written in brown ink, with legends of the miniatures and titles at chapter beginnings in red ink.

The term 'synopsis' refers to a particular style of historiography in which the author presents original content and rewrites the works of predecessors, combining, harmonizing, and abridging them.³¹ Skylitzes incorporates several histories into his chronicle without acknowledging them outside a review of the precursors found in the *prooimion*, an introduction in which the author attests to his truthfulness.³² Incorporating the work of others was not an

²⁴ Tsamakda 2002, 11.

²⁵ Skylitzes 2010, xxiv.

²⁶ Neville 2018, 157; Tsamakda 2000, 128.

²⁷ See a summary of this debate in Tsamakda 2002, 2-3; Ševčenko 1970, 187-8.

²⁸ Tsamakda 2002, 2-4; 16-19.

²⁹ Tsamakda 2002, 17.

³⁰ Tsamakda 2002, 9-11.

³¹ Skylitzes 2010, xii; Neville 2018, 10-11.

³² Skylitzes 2010, xiii; Neville 2018, 11.

uncommon practice at the time. Many historians, like Skylitzes, viewed their genre as a collaboration in which authors would include sections from previous historians into their editions.³³ Based on the *prooimion*, it seems Skylitzes consulted at least 14 sources, although that does not necessarily mean he used text from all of these histories or that there were not others.³⁴ The incorporation of various accounts presents a difficulty in paleographical studies as previous authors' terminology and language are present in the later narrative without acknowledgment. The use of terminology from older sources in conjunction with original text undermines the intentionality of word choice and historical information. For the present study, this confuses any references to specific ship types. There are several examples of Skylitzes or the commentator using particular terminology such as "*dromon*" (δρόμων), "*trireme*" (τριήρης), "merchantman" (όλκάς), or "*drakkar*" (μονόξυλος).³⁵ It is difficult to determine whether these are accurate terms for existing types of ships.

This codex is the work of several contributors, including its primary author, John Skylitzes. Information on the authors of Byzantine literature is often only available within the text, and *Skylitzes Matritensis* provides little. It appears that Skylitzes lived in the 11th century and wrote during the reign of Alexios Komnenos (1081-1118).³⁶ Contemporary Byzantine historians John Zonaras and George Kedrenos refer to him and his *Synopsis Historiarum*, calling

³³ Skylitzes 2010, xii.

³⁴ Skylitzes 2010, xviii; Tsamakda 2002, 23; Neville 2018, 155.

³⁵ The *dromon*, discussed further below, was a Byzantine war-galley referenced from the fourth to the 12th centuries CE (see Pryor and Jeffreys 2006, 4-5; Gardiner 1995, 86-111). The *trireme* was once the Greek three-banked galley referenced from the fifth century BCE to the fourth century CE (see Gardiner 1995, 49-85). By the Byzantine period the term referred to a monoreme galley with each oar pulled by three rowers or a bireme galley with one rower on the lower oar and two rowers on an upper oar. A merchantman is a term used for a ship of commerce. I have chosen to maintain Wortley's translation of *drakkar*, an Icelandic term for 'dragon,' for μονόξυλος as the discussion of this interesting word, literally 'single-logged,' is outside the scope of this thesis. Wortley does not provide an explanation for his translation, although *drakkar* is a Viking term for a large warship. He includes the Greek word in his text, suggesting he was unsure of Skylitzes's intended meaning, (see Skylitzes 2010, 287).

³⁶ Skylitzes 2010, ix.

him either Skylitzes or Thrakesios, likely a reference to his birthplace, the province of Thrakesion in modern-day Turkey.³⁷ Skylitzes seems to have followed a career in the judiciary. Legal documents refer to John Skylitzes, the *droungarios* of the watch, or principal magistrate of the primary judicial tribunal of Constantinople.³⁸ In a letter, Alexios Komnenos addresses John Skylitzes as *kouropalates*, an honorary court title.³⁹ Skylitzes possibly wrote another history in the first decade of the 12th century called the *Continuatio*.⁴⁰ This chronicle's title is not a sure indication that the author is Skylitzes, as it was common practice for authors to write continuations of others' histories.

In the development of the *Skylitzes Matritensis* codex, the first contributors were the copyists. Two hands of copyists are identifiable.⁴¹ A principal copyist wrote every quire except quires 11 and 25, which are the work of a second scribe and exhibit no initials or illuminations, just blank spaces for unexecuted miniatures.⁴² Sometime after the copying of the texts and the insertion of the miniatures, a set of final contributors provided legends and identifications to the representations in red ink. The identity of these scribes is highly debated; some have classified them as the illustrators, others the primary writer.⁴³ The legends could be evidence for a pre-existing illuminated model upon which the *Skylitzes Matritensis* is based.⁴⁴ The mismatch between some legends and their associated miniatures could result from a blending of copied legends and original illustrations. Tsamakda concludes that the scribes of the text and the legends are the same.⁴⁵ At times the legends provide more thorough annotation to the scenarios in the

³⁷ Skylitzes 2010, ix.

³⁸ Skylitzes 2010, ix-x.

³⁹ Skylitzes 2010, x.

⁴⁰ Skylitzes 2010, x.

⁴¹ Skylitzes 2010, x; Tsamakda 2002, 22.

⁴² Tsamakda 2002, 11.

⁴³ Tsamakda 2002, 13.

⁴⁴ Tsamakda 2002, 14.

⁴⁵ Tsamakda 2002, 14.

form of poems. There are eleven poems throughout *Skylitzes Matritensis*, generally focused on the reigns or depositions of particular emperors.⁴⁶

The final group of contributors examined here is the painters who executed the miniatures. Each miniature can portray from one to four scenes and is in close proximity to the text it represents, demonstrating an immediate congruity.⁴⁷ Seven different hands are observable.⁴⁸ These seven painters seem to have worked in close cooperation, occasionally sharing the same quire.⁴⁹ Despite their interaction, individual styles and traits are recognizable and demonstrate a variety of geographic influences. They are easily separated into two groups. Group A consists of two Byzantine illustrators and Group B of five illustrators from regions to the west of Constantinople, who demonstrate significant Arabic artistic influence.⁵⁰ The naming of these painters in this thesis is adapted from Tsamakda: Group A: Painters A1 and A2; Group B: Painters B1, B2, B3, B4, and B5. The painters provide representations varying in style and form, likely demonstrating collaboration between individual style and the incorporation of pre-existing models. The effect of these interactions is an extraordinary work that reflects the variety within Byzantine culture. Below is a brief overview of the characteristics of each painter.

Byzantine Painters

Painter A1: This artisan contributed extensively to seven quires throughout the *Skylitzes Matritensis* codex.⁵¹ Tsamakda distinguishes A1 by his extensive use of vivid colors, with prevalent blues and golds.⁵² The scenes in his miniatures are energetic, showing various

⁴⁶ Ševčenko 1970, 189.

⁴⁷ Tsamakda 2000, 129.

⁴⁸ Tsamakda 2002, 373.

⁴⁹ Tsamakda 2002, 389.

⁵⁰ Tsamakda 2002, 373.

⁵¹ Tsamakda 2002, 373.

⁵² Tsamakda 2002, 373.

expressions and postures among the figures and a dynamic presentation of movement in flowing hair and streaming flags. Painter A1 depicts figures relatively proportionate, with three-dimensional faces through contrasting light and dark strokes.⁵³ Attention is given to the clothing through outlines, folds, and colors, and to the architecture and scenery through small details and patterns. Tsamakda compares the style of Painter A1 to the dynamic portrayals in mosaics from Monreale, dated to the end of the 12th century.⁵⁴ This artist uses various borders throughout his miniatures and gives detailed depictions of water, with rounded waves represented by undulating, white curves.

Painter A2: The second of the Byzantine illustrators contributed little throughout the text, illustrating miniatures in only three quires. Tsamakda notes that these two Byzantine painters demonstrate a significant difference in style. Painter A2's palette relies on hints of green and pink accompanied by less intense red and blue.⁵⁵ While Painter A1 uses gold extensively, A2's use is restricted. The figures depicted by A2 are less elegant, with restrained, static postures, minimal expression, and a lack of dynamic trends.⁵⁶ The miniatures are of lesser quality, with a lack of shading and gradation, and less detailed representations of structures, and, at times, a lack of any accompanying scenery.

Western Painters

Painter B1: This western-influenced artist contributed to eight quires throughout *Skylitzes Matritensis*. Blue and red dominate, with the use of gold for imperial figures, soldiers, and architecture. This artisan executes vivid and lively representations of figures, with particular

⁵³ Tsamakda 2002, 373.

⁵⁴ Tsamakda 2002, 380.

⁵⁵ Tsamakda 2002, 375.

⁵⁶ Tsamakda 2002, 375.

attention to the complexion, facial structure and expression, and detailed renderings of clothing.⁵⁷ Garments exhibit gradation and a variety of colors and highlights. The buildings and other objects, in contrast, can be rendered flatly in comparison.⁵⁸ Several miniatures, such as depictions of figures seated on the ground in folio 101r, demonstrate Arabic influence. This artist depicts many representations of foreign nationalities, either on their own or interacting with Byzantines. B1 illustrates dynamic waves and detailed landscapes around the sea.

Painter B2: This painter contributed to two quires. His style is remarkably similar to that of Painter B1. Tsamakda notes that, at times, they can only be distinguished by close examination due to their use of red, blue, and gold, as well as gradation.⁵⁹ Painter B2 uses dark lines to outline certain characteristics. The faces of his figures are light-complexioned, broad, and expressionless, with light red cheeks.⁶⁰ Although detailed, representations of architecture and figures are clumsier and less natural. This artist uses borders and depicts rolling waves through nuances of blues. Rather than filling the entire miniature with scenery, B2 outlines depictions of the sea and leaves the surrounding layout blank.

Painter B3: This painter also contributed to two quires. This artist demonstrates a restricted use of color, with a wide prevalence of salmon and darker colors.⁶¹ Figures tend to have thin legs in opaque tights rather than bare. The people, edifices, and costumes are of a distinctly Arabic style.⁶² The faces, shown redundantly in profile, are disproportionate, with large eyes and little to no expression. This artist also uses outlines to portray the sea, with no indication of the surrounding landscape.

⁵⁷ Tsamakda 2002, 376.

⁵⁸ Tsamakda 2002, 376.

⁵⁹ Tsamakda 2002, 376.

⁶⁰ Tsamakda 2002, 376.

⁶¹ Tsamakda 2002, 377.

⁶² Tsamakda 2002, 377.

Painter B4: Throughout *Skylitzes Matritensis*, this painter provided only six miniatures. B4 is an example of the Romanesque style, a western style from the second half of the 12th century.⁶³ Dark colors predominate, with the use of gold in the architectural representations.⁶⁴ Painter B4's depiction of the sea shows the characteristic undulating swells seen in other miniatures, but rather than showing waves up-down, these slope to the left. These elegant miniatures are of excellent quality.

Painter B5: This artist was an extensive contributor, providing miniatures for six quires. The colors in these miniatures are vibrant but thinly applied.⁶⁵ There are inconsistencies in the proportions of figures and the depictions of clothes. This painter uses colors to indicate space, a function not seen elsewhere in the codex.⁶⁶ This artist does not depict the sea or any type of landscape. Figures and structures are seen on a blank background. There is a strong Arabic influence evident in these miniatures, particularly in depictions of architecture, thrones, and figures.⁶⁷

The *Skylitzes Matritensis* is a collaboration of various professionals who contributed their efforts to bring Skylitzes's *Synopsis Historiarum* to life. While knowledge of the assembly of Byzantine manuscripts is minimal, the product of these various contributors suggests a close interaction achieved at a professional *scriptorium*. Nevertheless, mismatches in the content of the manuscript's text, legends, and images indicate that this collaboration was not faultless. The following section outlines the methodology used to study the relationships in *Skylitzes Matritensis* and to address the issues that come with the study of nautical imagery.

⁶³ Tsamakda 2002, 377.

⁶⁴ Tsamakda 2002, 377.

⁶⁵ Tsamakda 2002, 378.

⁶⁶ Tsamakda 2002, 378.

⁶⁷ Tsamakda 2002, 378.

Considerations and Methodology

The above sections establish the context for this study while illustrating the complex relationships between the text and images in *Skylitzes Matritensis* that impact the information this manuscript can provide. Difficulties in the analysis of nautical imagery further complicate any available information. While research on nautical imagery has been crucial in filling gaps in the archaeological record, imagery is not a perfect source of information on vessel types and ship construction or maritime culture.⁶⁸ The main issue arises from the fact that illustrators are rarely shipbuilders. At times, they are not even familiar with the vessels they portray, resulting in various errors in representation. The value of artistic depictions is not found by determining precise historical accuracy but rather by understanding the goals and methods of the illustrators.⁶⁹ These miniatures are creative interpretations of the world.⁷⁰ Artists depict scenes that highlight essential characters and their attributes in size and detail. In nautical imagery, these highlighted figures are often portrayed at the expense of the vessel's representation. Examples of this may be the depiction of passengers shown disproportionately more prominent than their transport or the elimination of a vessel's features and details for the sake of simplicity or from a limitation of space. The depiction of watercraft in a two-dimensional image inherently distorts perspective and proportion, as it is difficult to illustrate the complexity of a vessel in a limited, flat space.⁷¹ The interpretation of nautical imagery must consider the limitations and conventions of the artist, both in their knowledge of what they depict and in their medium.⁷² As this thesis will discuss, however, these complications do not render the study of nautical imagery in

⁶⁸ Wachsmann 2019, 3.

⁶⁹ Wachsmann 2019, 5.

⁷⁰ Betancourt 2016, 1.

⁷¹ Wachsmann 2019, 6.

⁷² Martin 2001, 5.

Byzantine illuminated manuscripts impossible. Instead, these same considerations form the grounds for thorough research, a holistic approach, and meticulous methodology.

Establishing the context for the *Skylitzes Matritensis* codex, including its likely time and place of assembly and the identity of the contributors, is crucial to understanding the relationship between these images and the related nautical culture. The miniatures can be viewed in light of their content and connections to miniatures by the same illustrator or others. These comparisons provide a basis for establishing trends and patterns. Chapter II of this thesis gives a profile for each nautical miniature. This profile summarizes the historical context for each image, as provided by Skylitzes's *Synopsis Historiarum*, and incorporates my translation of the commentator's accompanying legends and identifications. Particular attributes and measurements of each of the vessels are also recorded and discussed. After providing a comprehensive examination of and description for each craft represented in the manuscript, Chapter III identifies and discusses the emerging trends and patterns. The patterns in the representations help to determine what information the manuscript offers on the physical characteristics and constructions of Byzantine ships. The examination will also provide insight regarding the illustration of watercraft in Byzantine illuminated manuscripts. Finally, Chapter IV concludes with a summary of the contributions of the *Skylitzes Matritensis* codex to understanding Byzantine ships and imagery, and a supposition of how this study could be helpful for other manuscript studies.

Aspects of Byzantine Ship Construction

A final consideration for the parameters of this study is the structure and appearance of the vessels contemporary to *Skylitzes Matritensis*, both to the events it describes and particularly to the period of its illustration. This period was a time of substantial nautical development in the Mediterranean. During the middle Byzantine era, between the sixth and 11th centuries, shipwrights gradually transitioned from constructing vessels shell-first with edge joined planking to assembling them by erecting the skeleton of frames and then applying the planking. This transition, the philosophy behind it, and its various stages have been the focus of several studies.⁷³ During this time, in the sixth century, rigging also shifted from primarily square sails to primarily lateen sails, triangular and set on slanted yards.⁷⁴ While essential elements of ship construction changed, other aspects continued to be guided by traditional principles. Ship types between the sixth and 11th centuries were part of a long tradition of Mediterranean construction, and whether built shell-first or frame-first, they reflected that tradition. In terms of propulsion, these vessels either relied on oar power and were generally termed galleys or relied on wind harnessed by the sail and were labeled round ships. The functional imperative of each, a platform for naval combat or a means of transport for commodities, affected their overall dimensions. Naval galleys were long and narrow in beam, while round ships, as the name suggests, had beamy hulls to maximize cargo space. Although both ships would have sailed the Mediterranean, the vessels depicted in *Skylitzes Matritensis* are almost entirely galleys. Before studying the depictions, this section will first present the current understanding of galley design.

⁷³ See Pulak 2018, 242-7 for an excellent summary of the theory behind this process, the different non-linear stages, and further literature on the transition. Also Whitewright 2008. Volume 1 describes the history and aspects of this transformation, while Volume 2 is a compendium of imagery and archaeological evidence for the transformation.

⁷⁴ McGrail 2001, 159; Pryor and Jeffreys 2006, 153.

The Byzantine Galley

After the Battle of Actium in 31 BC, Augustus reorganized the Roman Empire's fleets to rely primarily on oared warships suitable for patrolling and policing its waters: single- (monoreme) or double-banked (bireme) galleys. As noted, galleys were long and narrow, built for speed and, when equipped with a ram or artillery, power. Throughout the first millennium of the Christian Era, various galley types developed to serve the navies emerging throughout the Mediterranean. The last half of the eighth century and the early ninth century, which correspond to the earliest portion of *Skylitzes Matritensis*, witnessed ongoing competition between the Byzantines and Arabs for control of the Mediterranean. The emperor in Constantinople needed a competent fleet to meet the challenge posed by new neighbors who raided his territories and, at times, engaged in open warfare. The heart of that navy, and the principal focus of the *Skylitzes Matritensis*'s miniatures, was the Byzantine *dromon*.

The term *dromon* (δρόμων) comes from *dromos* (δρόμος), the term for a road or racecourse. The word has a long history; in the sixth century, it first designated a cataphract monoreme galley that was likely among the first rigged with a lateen sail.⁷⁵ In the ninth century, *dromon* referred to an aphract, double-banked warship. By the 10th century, the term had come to describe all galleys large enough for battle and designate the largest and most heavily armed military vessels.⁷⁶ *Dromon* could thus refer to several galley types with some shared traits. The characteristics and construction of the *dromon* are described in several Byzantine treatises, most notably the chapter "On Naval Warfare," in Leo VI's *Taktika* (905-906), the anonymous treatise Commissioned by the Patrikios and Parakoimomenos Basil (906), and an excerpt from the *Taktika of Admiral Nikephoros Ouranos* (late 10th century).

⁷⁵ Pryor 1995, 101; Hocker 1995, 94.

⁷⁶ Hocker 1995, 94.

The *dromon's* backbone or spine consisted of the keel, stem, and sternpost, and, in later versions, the keelson. Floor timbers, futtocks, and paired half frames comprised the framing. The vessel would likely have had a length-to-breadth ratio of approximately 8:1.⁷⁷ The various sizes of *dromons* required different numbers of rowers. Larger *dromons* were biremes, with two sets of rowers stacked in two banks. In bireme *dromons*, both the top group of rowers, called *thranitai*, and the lower level, called *zygioi*, rowed through oarports called *tremata*. To prevent water from entering through the ports, leather sleeves, known as *askomata* in Classical Greek and *manikellia* in Byzantine Greek, were fixed to the ports and fit around the oars' shafts.⁷⁸ The oarport strake was above the topmost of the wales, either two or three in number.⁷⁹ The number of rowers varied. The *ousiakos*, manned by an *ousia* of 108 men, had one hundred rowers, each rowing their own oar and split evenly between the two levels.⁸⁰ The *pamphylion* with one-and-a-half *ousia* had two *thranitai* per oar above and one *zygios* per oar on the lower bank.⁸¹ The largest of *dromons*, the *chelandion*, carried 200 oarsmen. Three *thranitai* rowed the upper oars while the lower oars remained with singular *zygioi*.⁸² There were also monoreme *dromons*, called *moneres* or *galeai* (singular *galea*). A single level of rowers rowed the *galea*.⁸³

Although customarily rowed, these galleys would also have had large lateen sails.⁸⁴ The larger, bireme *dromons* would have had two masts: a mainmast near midship with a slightly smaller sail and a foremast closer to the bow carrying the larger sail.⁸⁵ The *galea* would have had a single mainmast slightly forward of amidships. Iconography shows the masts raking

⁷⁷ Pryor 1995, 105.

⁷⁸ Pryor 1995, 105; Pulak, Ingram, and Jones 2015, 67.

⁷⁹ Pulak, Ingram, and Jones 2015, 50, 52.

⁸⁰ Hocker 1995, 94.

⁸¹ Hocker 1995, 94.

⁸² Hocker 1995, 94.

⁸³ Pryor 1995, 102.

⁸⁴ Pryor 1995, 103.

⁸⁵ Pryor 2006, 237.

slightly forward and fashioned with an accentuated curve at the masthead.⁸⁶ This curvature, called the *carchesion*, is a feature of lateen rigging that allowed the yard to move across the front of the mast when tacking.⁸⁷ These lateen sails were massive and required long yards for support, likely composed of two spars bound together.

Byzantine sources do not describe the *dromon's* rigging. The best comparable descriptions are those for later 13th-century Sicilian galleys that Charles I of Anjou commissioned.⁸⁸ The contracts specify several rigging elements. *Amantus* (plural *amanti*) was the term for the halyard. It was raised and lowered by a block-and-tackle system at the deck. Two *amanti* ran up to the *carchesion*, rove through its sheaves, and then were tied to the yard on either side of the mast.⁸⁹ An assembly of *troccia*, *nucis*, and *bucarie* allowed the yard to move along the mast. *Troccia* is the term for a truss that held the yard to the mast. *Nucis* (nuts) were round trucks through which the truss was roved, allowing the yard to move up and down the mast, while *bucarie*, ribs set between the trucks, kept the rigging from tangling.⁹⁰ Three sets of tackle controlled the vertical movement of the yards. At the forward end or foot of the yard were the *orsies* (singular *orsia*), pairs of tackle running fore and aft that controlled the yard's angle relative to the centerline. There were two vangs, or braces, at the head of the yard, called *seste*, which braced it in either direction.⁹¹ The sail's vertical position was further controlled by *pogiae* (singular *pogia*), sheets attached to the clew of the sail. Finally, each mast was supported by a system of shrouds called *candeles* (singular *candele*).⁹²

⁸⁶ Pryor and Jeffreys 2006, 245.

⁸⁷ Pryor and Jeffreys 2006, 246.

⁸⁸ Pryor 1995, 110.

⁸⁹ Pryor 1993, 58.

⁹⁰ Pryor 1993, 62; Pryor and Jeffreys 2006, 247.

⁹¹ Pryor 1995, 112.

⁹² See Pryor 1993 for his complete reconstruction of this rigging system and the galleys of Charles of Anjou.

There were several structures and defenses associated with the *dromons*. Bireme *dromons* were at times equipped with the mechanisms for dispensing Greek fire, a liquid incendiary propelled onto enemy vessels via a siphon housed on the prow.⁹³ If the *dromon* carried Greek fire, a siphon would be located at the prow and sheltered by a castle, a protective fortification.⁹⁴ Other castles could be situated on either side of the hull near amidships from which marines, or *milites*, could fight.⁹⁵ Because of its smaller size and use for scouting and communication, the *galea* is unlikely to have had such features. Beneath the foredeck at the bow, a projecting spur, called a *calcar*, that could enable boarding or shearing off enemy oars replaced the waterline ram, or *embolos*, of earlier galleys.⁹⁶ Galleys could also have an aft structure called the *kabratos*, where the captain sat at the stern. Above this structure was a pair of recurved wings called the *paraptera* or “side wings.” A horizontal post connecting each *pteron*, or wing, provided a crutch for the massive yards when lowered, which was customary when entering battle.⁹⁷ On each side of the hull quarter rudders steered the vessel and were protected by *epotides*, lateral cheeks that prevented damage to the rudders.⁹⁸

Imagery, treatises, and nautical tradition support the association of these characteristics with the Byzantine *dromon*. The standard *dromon* at the time of the *Skylitzes Matritensis* was a bireme vessel, with two lateen sails, identifiable in sheer view by the curving *paraptera* at the stern, castles at stern and bow, and the protruding spur. Smaller versions of the *dromon*, such as the *galea*, were rowed by a single bank of 50 rowers.⁹⁹ This vessel was designed for scouting

⁹³ Pryor 1995, 105.

⁹⁴ Pryor 1995, 103.

⁹⁵ Pryor 1995, 105-6.

⁹⁶ Casson 1995, 153; Pryor 1995, 103.

⁹⁷ Pryor and Jeffreys 2006, 216-7.

⁹⁸ Pryor and Jeffreys 2006, 218. The Anonymous author inaccurately states that the *epotides* was accompanied by a *parexeiresia* at the stern. The *parexeiresia* was a Classical outrigger around the upper bank of oars.

⁹⁹ Pryor 1995, 105.

purposes and military communications and had a single mast.¹⁰⁰ They are also most commonly illustrated in *Skylitzes Matritensis*. Recent excavations have unearthed *galeai* and confirmed their design and construction elements.

Because naval vessels sank in violent confrontations where minimal weight was crucial, they did not have sufficient equipment or ballast to assure their burial in the silt and sand of the sea bottom. They are rarely preserved in the archaeological record. Only recently has material evidence for oared Byzantine warships been found. Rescue excavations at the Istanbul site of Yenikapı, the Theodosian Harbor of Constantinople, supplied revolutionary information on Byzantine vessels in the Middle Ages. A catastrophic event thankfully gave rapid burial to the sunken ships and assured a high degree of preservation.¹⁰¹ The wrecks span the fifth to the 10th century and afford crucial evidence for the transitions in shipbuilding.¹⁰² The Institute of Nautical Archaeology (INA) studied eight of the 32 ships excavated at Yenikapı; six are round ships. The other two, YK2 and YK4, are *galeai* from the eighth to the 10th centuries.¹⁰³ The extensive remains of YK4, in particular, confirm aspects that could previously only be surmised from literary and iconographic sources. The hull remains covered an area of approximately 18 x 11 m. Fifteen strakes survived on the port side and eight on the starboard side. Both galleys demonstrate the value of military vessels. The material used, imported European black pine that is more resistant to rot, indicates the importance attributed to the galleys.¹⁰⁴ The port side of YK4 is preserved to the third wale, above which a section of the oarport strake, the first archaeological evidence for that strake, also survives. The surviving portion of the oarport strake has one partial

¹⁰⁰ Pryor 1995, 106; Pryor and Jeffrey 2006, 190; Pulak 2018, 62.

¹⁰¹ Pulak, Ingram, and Jones 2015, 68.

¹⁰² Pulak, Ingram, and Jones 2015, 68; Pulak 2018, 237-8.

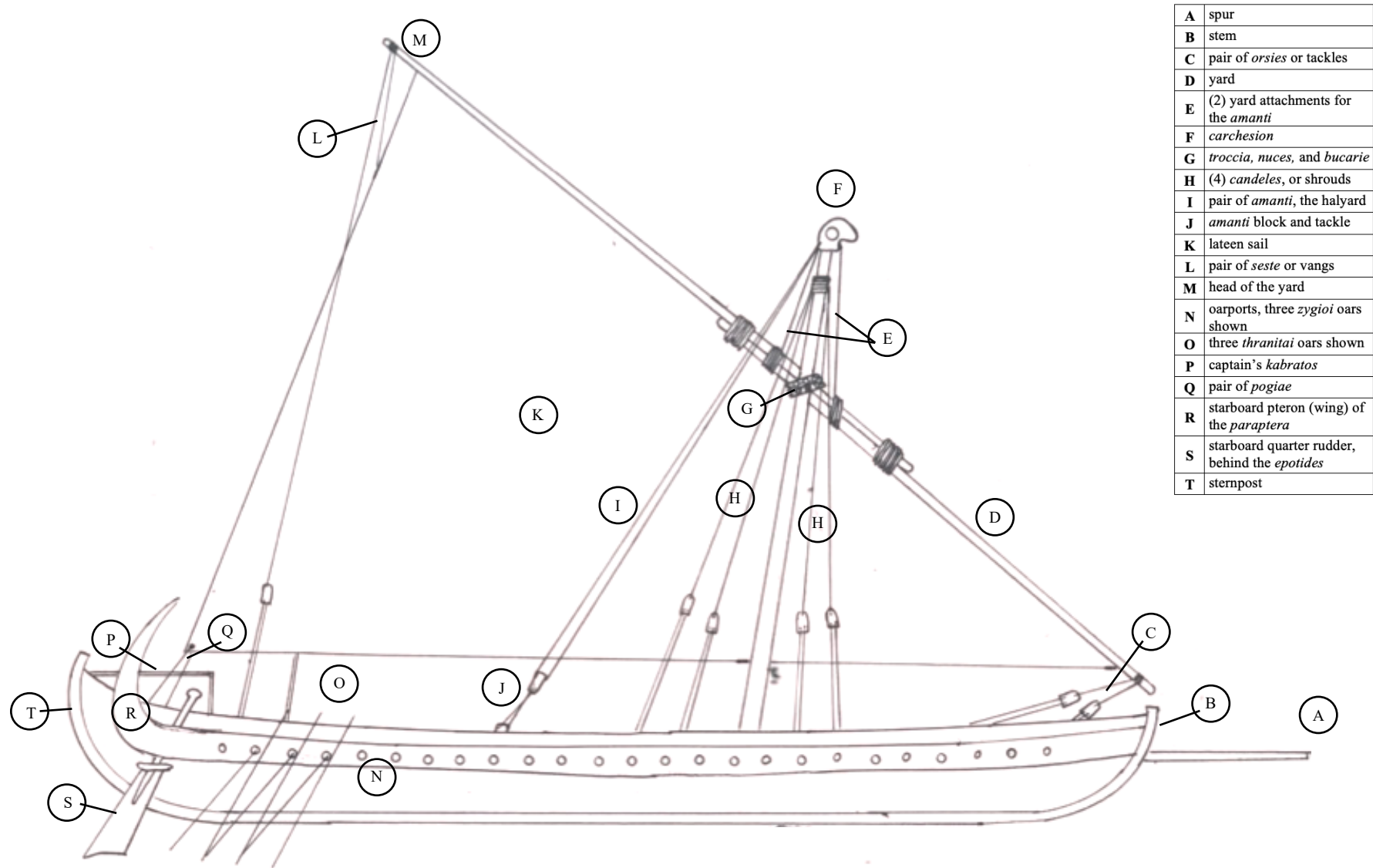
¹⁰³ Pulak 2018, 264.

¹⁰⁴ Pulak, Ingram, and Jones 2015, 63, 68; Pulak 2018, 263, 277.

and two full ports.¹⁰⁵ A circle of stain with small tack holes indicates where the *manikellia* was attached to the ports.¹⁰⁶ The lowest of the three wales has dovetail notches to receive the rowers' benches. While no evidence for the mast was preserved, evidence of reinforcement amidships suggests its location on galley YK4. Even in their partial state, the remains of the two galleys confirm specific aspects of *galeai*, and by extension, *dromons*.

¹⁰⁵ Pulak 2018, 266.

¹⁰⁶ Pulak, Ingram, and Jones 2015, 67.



A	spur
B	stem
C	pair of <i>orsies</i> or tackles
D	yard
E	(2) yard attachments for the <i>amanti</i>
F	<i>carchesion</i>
G	<i>troccia</i> , <i>nuces</i> , and <i>bucarie</i>
H	(4) <i>candeles</i> , or shrouds
I	pair of <i>amanti</i> , the halyard
J	<i>amanti</i> block and tackle
K	lateen sail
L	pair of <i>seste</i> or vangs
M	head of the yard
N	oarports, three <i>zygioi</i> oars shown
O	three <i>thranitai</i> oars shown
P	captain's <i>kabratos</i>
Q	pair of <i>pogiae</i>
R	starboard pteron (wing) of the <i>paraptera</i>
S	starboard quarter rudder, behind the <i>epotides</i>
T	sternpost

Figure 1: Reconstruction of a monoreme *dromon*. Olivia Brill.

Other Mediterranean Navies

The *Skylitzes Matritensis* miniatures do not only portray the Byzantine navy. Two other navies are the Muslim and Rus. The first recorded Muslim fleet took to the sea in 648 CE, when the future caliph Mu'awiya was said to have amassed 1700 vessels.¹⁰⁷ For the next three centuries, hostilities between Muslims and Byzantines continued sporadically. They generally occurred around the Italian peninsula and the Aegean Sea, although battles reached Constantinople several times throughout the seventh and eighth centuries.¹⁰⁸ Under Basil II, the Byzantine navy temporarily gained control of the Mediterranean with decisive victories in 1035 and 1038. The Byzantine-Muslim struggle features throughout *Skylitzes Matritensis* and is depicted in several nautical miniatures. As for Byzantine warships, we have little information on Muslim ships. They are not represented in the archaeological record, while written sources and iconography are scarce. However, the terminology for Muslim vessels suggests a close kinship with Byzantine types, as indicated by the use of *dromon* to designate Muslim ships in both Greek and Arab sources.¹⁰⁹ Other ship names also seem to have developed from Greek words: *shalandi* (from *chelandion*), *akation* (from *akatos*), *dermin*, *darmin*, *dromonarios* (variations of *dromon*), and *ghurab* (from *karabos*) illustrate that Arab ship terminology descended from Byzantine nomenclature.¹¹⁰ There were also terms proper to the Arabic language: *shini* (plural *shawani*), a 140-oared galley, *satoura*, and *oit'a*, military vessels.¹¹¹ The term *harrāqa* designates a ship that was equipped with Greek fire.¹¹² Little is known about

¹⁰⁷ Hocker 1995, 91.

¹⁰⁸ Hocker 1995, 92.

¹⁰⁹ Pryor 1995, 107; Hocker 1995, 94-5.

¹¹⁰ Hocker 1995, 95; Pryor 1995, 107.

¹¹¹ Pryor 1995, 107.

¹¹² Hocker 1995, 95.

have had spurs, rigging, and castles if built in the same way as their Byzantine namesakes and were both monoreme and bireme rowed vessels.¹¹³

Hardly anything is known of the Rus vessels and navy. As mentioned above, Skylitzes uses the unique term μονόξυλος (monoxylos), literally 'single-logged,' in association with the Rus. Kievan Rus was a loose federation of principalities, founded in the mid-ninth century by Scandinavian Vikings, also known as Varangians or Rus. They traveled via rivers to the Black Sea, their constructions were likely quite different from the Mediterranean galleys and could have been dugouts, as the name implies.¹¹⁴ Studies of Kievan Rus shipbuilding suggest two vessel types called *korabl* and *lodya*.¹¹⁵ These vessels were similar in dimensions and rigging and were likely 'clinker built'- a method of construction where overlapping hull planking was fastened together with metal rivets.¹¹⁶ Both of these terms appear in Rus illuminated manuscripts describing the 10th-century incursions that are also accounted for in *Skylitzes Matritensis*. These images show full hulls with vertical strips of planking, sometimes accompanied by rows of rivets. As a comparative study of these images is outside the scope of this thesis, it must suffice to note that these vessels' depictions are unlike those in *Skylitzes Matritensis*. The illustrators are unlikely to be depicting Rus characteristics, but instead are drawing what is familiar to them.

Conclusion

This summary supplies background for the current study of vessel portrayals in the miniatures of *Skylitzes Matritensis*. Knowledge of vessel characteristics from the period helps determine specific vessel types and decide whether representations are accurate. However, the

¹¹³ Pryor 1995, 107.

¹¹⁴ Hocker 1995, 92.

¹¹⁵ Ovsiannikov *et al.* 1996, 336.

¹¹⁶ Steffy 2013, 11.

small size and two-dimensional nature of illustrations limits the information they can provide. Many of the vessels described above, especially those excavated at Yenikapi, are differentiated by their deadrise, framing, and other internal structures. Such characteristics are not visible in a sheer view of the vessel's exterior on the water. The middle and late Byzantine eras witnessed a critical transformation in Mediterranean shipbuilding. The artists working on *Skylitzes Matritensis* chose not to depict interior developments of the hull. Still, an understanding of contemporary shipbuilding methods assists the analysis of the manuscript. Although the artists do not represent all the construction characteristics and might be mistaken in what they depict, they illustrate their perspective and understanding of distinctive ship features. Determining the artistic range from fanciful rendition to false representation to accurate portrayal requires that one combine a sophisticated appreciation for contemporary vessel types and close examination of the miniatures. Having established what one might expect in accurate depictions of Byzantine vessels, it is now time to examine the miniatures.

CHAPTER II

NAUTICAL IMAGERY IN *SKYLITZES MATRITENSIS*



Figure 2: Folio 14v, bottom: Painter A1, Emperor Leo V

Context: Leo, the Commander of the Anatolikon theme, mounts a successful coup against Michael I Rangabe (813 CE). Michael, his wife Prokopia, and their children take refuge in the Church of the Mother of God in Pharos, but Leo finds them. He banishes Michael to the island of Prote, where the former Emperor lives the rest of his life as a monk, while his sons are castrated and exiled with Prokopia.¹¹⁷

Legend: “Emperor Michael and his wife, Prokopia, flee to the church of Pharos, where they become monks.” A legend identifies “the monastery of Pharos.”

Image: This galley is more rounded than might be expected, with a full hull and high ends. It is composed of curved planking that alternates between dark brown and black, possibly indicating the pitched timbers of planking. There are approximately eight strakes. Eight oars emerge over the caprail, gathered at the aft half of the vessel, and there are no oarports. The mast in the center

¹¹⁷ Skylitzes 2010, 8-9.

of the galley has a raised yard, from which hangs a lateen sail. While the yard is set perpendicular to the mast, suggesting a square sail, the period of depiction, the triangular shape of the sail, and the *carchesion* on the masthead confirm that it is a lateen sail. The yard is inaccurately depicted on the opposite side of the mast as the sail; the yard crosses the mast on the port side, while the sail billows to starboard. Four shrouds support the mast, two on either side. Vangs are visible by the stern and *orsies* at the bow. The three vangs are inaccurate; there should be two, as is the case for the *orsies*. The minimalistic *paraptera* indicates the stern is to the right and is accurately depicted slightly higher than the bow. The beaked *carchesion* at the masthead curves forward. While the features of the galley are correctly oriented, the occupants are backward. The helmsman sits at the bow, facing right, towards the stern, and handling a single quarter rudder.¹¹⁸ The rowers face both right and left, rather than uniformly facing the stern, and are all gathered at the stern rather than the bow.

This image does not match either Skylitzes's text or the accompanying legend; Skylitzes relates how the entire royal family was removed from the Church of Pharos and separated for exile. In contrast, the legend describes only Michael and his wife Prokopia fleeing to the Church of Pharos. No children seem to be depicted, perhaps because of the difficulty in depicting different proportions or to emphasize the importance of the emperor and empress. Because of the orientation of the vessel and its occupants, it is impossible to tell which direction the illustrator intended to depict. The galley could be approaching the Church of Pharos, displayed on the island in the left of the miniature, as indicated by the bow of the vessel. Alternatively, the helmsman's location could indicate the vessel leaving the island or Painter A1's attempt to depict a vessel approaching stern-first, the common Mediterranean practice when banking a vessel. This

¹¹⁸ A rudder is a timber with a flat blade that rotates on an axis to divert water and control the direction of the vessel. Until the medieval period, the practice was to mount one on each stern quarter. See Steffy 1994, 278-9.

image immediately exhibits issues of the disconnect between text, legend, and miniature, and the difficulty in interpreting static images of dynamic scenes.



Figure 3: Folio 15r: Painter A1, Emperor Leo V

Context: Skylitzes gives a digression explaining the circumstances surrounding Leo V's succession. A member of the senate, Bardanios Tourkos, contemplates a coup. With three companions, Bardanios seeks the counsel of a prophetic monk who lived near Philomilion. The monk counsels Bardanios to desist. After observing the three companions, the monk then prophesies that two would achieve the throne, while one would be proclaimed Emperor but never reign. The three companions are Leo V, future emperor Michael II, and Thomas the Slav, who would mount a prolonged revolt against Michael II.¹¹⁹

Legend: "Concerning the prophecy of the monk of Philomilion."

Image: The hull of this galley is very similar to that seen in Figure 2. It is full, with a lively sheer and alternating strakes of brown and black. The mast, yard, and rigging are similar to those in the

¹¹⁹ Skylitzes 2010, 9-11.

previous miniature. The mast once again separates the yard and sail. There are two shrouds on either side of the mast. Two other grey lines that emerge from each end of the yard and extend to the mast could indicate the edges of the sail, though the sail seems to be wider than these lines. They do not represent any rigging. The vang at the stern and the *orsies* at the foot of the yard are accurately represented by two lines each. The vessel shows the same issues of orientation as in Figure 2. The monk's tower at the right of the miniature suggests that the galley is traveling from the left of the image toward the tower. However, the sternpost, indicated here by an exaggeratedly curved *paraptera*, is closest to the tower. The galley could be approaching the coast stern-first, although the helmsman sits on the opposite end of the vessel. The *carchesion* at the masthead inaccurately curves towards the stern. The occupants are also oriented incorrectly. The helmsman sits at the bow, and the remaining passengers, representing Bardanios and his companions, gather at the opposite end and face the bow. Six oars are visible beneath the hull; three are shown entirely on the depicted side while the other three emerge below the vessel from the opposite side. Together, Figures 2 and 3 indicate the artist's lack of experience with the correct orientation of watercraft. It seems possible that in an effort to show vessels approaching the shore stern-first, Painter A1 confused accurate positioning.



Figure 4: Folio 20v, bottom: Painter A2, Emperor Leo V

Context: An iconoclast and trusted adviser of Emperor Leo V, Theodotos Melissenos, deceives the Emperor into believing the extraordinary abilities of a monk living in Dagisthe. Through this monk, Melissenos convinces the Emperor to issue a proclamation outlawing icons (815 CE). The patriarch Nikephoros refuses to give up the devotion and is exiled to Prokonnesos (Proikonnesos).¹²⁰

Legend: “The exile of the famous patriarch Nikephoros.”

Image: A color difference immediately announces the change in illustrators. The hull of this galley, however, is remarkably similar to those in Figures 2 and 3. The vessel is full with a lively sheer and highly exaggerated ends. The galley’s deep orange-red color, with darker scarlet wales, could be a testament to the status of Nikephoros, even although the miniature represents his exile. The miniature is incredibly grand for a portrayal of exile. Another notable difference is the vessel’s lack of any spar or rigging. As in Figures 2 and 3, the orientations of the galley and its occupants are opposite of one another. The *paraptera* indicates the stern at the right of the galley. The tripartite split suggests the artist’s melding together of the two wings of the *paraptera* and the sternpost, which should not be extended equally with the wings. The bow exaggeratedly rises

¹²⁰ Skylitzes 2010, 17-18.

and curves towards the helmsman, who is inaccurately standing at the bow. A single quarter rudder enters the water on the opposite, starboard side and is hidden from the viewer by the galley. The second quarter rudder could possibly be the long oar held at an oblique angle by a second occupant who stands with the huddle of passengers and four rowers. Though the angle of the oar is correctly oriented, the depicted stance and grip of this helmsman is awkward and ineffective. Almost all of the passengers are sitting facing the bow; only the inaccurately depicted helmsman and a second occupant next to him stand facing the bow. At the bow, Nikephoros kneels with his hands folded in prayer facing the stern. The tip of a final oar from the starboard appears near the bottom of the hull. No structures or land are depicted among the blue, bubbling mound of the sea.



Figure 5: Folio 21r, top: Painter A2, Emperor Leo V

Context: While the patriarch Nikephoros is embarking to Prokonnesos, Theophanes the Confessor, the abbot of a monastery in Agros in Bithynia, divinely perceives the patriarch's passage. Theophanes salutes Nikephoros with candles and incense.¹²¹

¹²¹ Skylitzes 2010, 18.

Legend: “The abbot of Argos, holy Theophanes the Confessor, accompanies the patriarch Nikephoros with incense and candles.” The legend also identifies “The famous patriarch Nikephoros passing by.”

Image: This image immediately follows folio 20v and continues the story of the exile of Patriarch Nikephoros. This miniature depicts the same galley as that in Figure 4, but in this instance, the vessel's orientation is correct in respect to the position and orientation of the rowers and helmsman. The vermilion galley with scarlet wales maintains a deep, rounded hull and accentuated endposts. Both ends feature a three-pronged depiction of wings and post. This feature is inaccurate for the bow. The higher position of the right side of the galley indicates the position of the stern, where the helmsman accurately sits, as he and the rowers have switched placement within the vessel. These shifts result in a nearly identical copy of the galley in Figure 4, but with mirrored occupants. It is difficult to determine if these changes simply show a different perspective or result from the illustrator's misunderstanding of positioning and orientation on a vessel. A gathering of three people holding candles stands to the left of the wavy border of the water. The image shows no land or scenery outside the water.



Figure 6: Folio 26r, bottom: Painter A1, Michael II

Context: After reigning seven years, Leo V faces a coup that seeks to place Michael II on the throne. In response, Leo imprisons Michael; however, rebels free Michael and attack Leo at mass, killing him on Christmas Day. After Leo's death, his wife and their four children are sent to the island of Prote, where his sons are castrated.¹²²

Legends: "Those of Michael forced out the king, his wife, and his four sons."

"The sailors heard a voice carried out from heaven announcing the murder of the Emperor."

Image: The image is poorly preserved. On the left of the image, a figure appears to push a small crowd away from a domed building, perhaps the palace. At least five individuals appear in a boat at sea in the right scene of the miniature, rowing towards an island. What remains of the vessel indicates a small, rounded hull, with the alternating shades of dark brown and black, as seen in Figures 2 and 3. One endpost, on the right, is more dramatically curved in and splits into the typical bifurcated wings of the *paraptera*, indicating the stern. The bow is shorter and less accentuated. The position of the legend directly above the vessel suggests a lack of spar or rigging. At least three oars enter the water near the stern; it seems that, once more, Painter A1 has positioned the occupants of the vessel inaccurately. No helmsman or quarter rudders are

¹²² Skylitzes 2010, 24-27.

discernable. Although this vessel is rowed, its small size and few oars suggest it could be a small, coastal rowboat rather than a galley. The closeness of the landscape further implies this conclusion.



Figure 7: Folio 29v: Painter A1, Emperor Michael II

Context: Thomas the Slav, the final member of the prophecy from the monk of Philomelion, uses Leo's assassination as an excuse to mount a rebellion. Skylitzes provides a brief origin story for Thomas, detailing his arrogance, insubordination, and several crimes he committed against a benefactor. Out of fear of punishment and reproach, Thomas flees to the Arabs.¹²³

Legend: “Thomas flees to the Arabs (Ἀγαρηνούς).”

Image: This beautifully rendered and preserved miniature shows the flight of Thomas the Slav or Thomas the Rebel. Despite the context, the miniature seems to suggest a triumphant expedition rather than a dishonorable flight.¹²⁴ In contrast to the previous vessels, this fantastical

¹²³ Skylitzes 2010, 32. The term Skylitzes uses for the Arabs is technically “Hagarene,” a term for the Muslim conquerors of Syria, Mesopotamia, and Egypt.

¹²⁴ Tsamakda 2002, 70.

galley is much more stylized and colorful. The hull strakes are red and wales and caprail gold. The galley's bow, on the right of the miniature, has a much more inward exaggerated curve, which is inaccurately depicted with *paraptera*-like bifurcated wings. This end of the vessel is certainly the bow, as indicated by the positions of the occupants and the small spur. The stern projections are much shorter, with a single, curving *pteron* in front of the upright sternpost. There are nine oars; the five starboard ones are shown in their entirety, while only the blades appear from under the hull for the remaining four on the port side. The starboard oars are rowed over the golden caprail, and there are no oarports. The helmsman, correctly situated sitting at the stern, holds a single quarter rudder. The port quarter rudder is unused and positioned parallel to the vessel with its blade projecting beyond the stern. Although the helmsman's position is accurate, the rowers inaccurately sit gathered in the stern and facing the bow. At the bow, Thomas sits apart and slightly larger than the other occupants. This positioning, although inaccurate, is potentially an intentional artistic attempt to highlight Thomas. Along with the artist's bold use of gold and red, Thomas's placement creates a splendid depiction rather than shameful. A calm blue sea fills most of the miniature, surrounded by a thick, dark brown border. A simple structure sits on a small island, and to its right, the galley. The characteristic dynamism and movement of Painter A1 are apparent. A banner and the occupants' hair stream in the wind. Three trumpeters sound their horns.



Figure 8: 31v, top: Painter A1, Emperor Michael II

Context: Thomas’s civil war advances quickly, beginning in the Anatolikon Theme and spreading “like the cataracts of a river- not of water but of blood- which inundated the earth.”¹²⁵

Thomas destroys the army Michael II sends, killing half of them. He then equips warships and transport ships to approach Abydos and cross the Hellespont.¹²⁶

Legend: “The fleet (στόλος) of Thomas and Thomas outside Abydos with the army.” The legend also identifies “Abydos.”

Image: This detailed, captivating scene depicts the approach of Thomas the Slav and his armada. The round citadel of Abydos is on the right, and, to its left, a fleet of least seven galleys approaches. The galleys vary in size and number of occupants, but all have full hulls, exaggerated endposts, and hull strakes indicated by alternating shades of brown and black. None of them have spurs or rigging and spars. The top two galleys are similar in size. The left one has an accurately placed *paraptera* beside two quarter rudders: an in-use starboard quarter rudder and a port quarter rudder at rest. Although several oars emerge near the hull's bottom, a single rower sits facing the stern. This galley is accurately positioned. The galley to the right is slightly

¹²⁵ Skylitzes 2010, 34.

¹²⁶ Skylitzes 2010, 33-36.

blocked by the first. Presumably, all vessels are traveling in the same direction, towards the right. The right end of this vessel, which should, therefore, be the bow, inaccurately shows the classic depiction of a *paraptera*. The rowers are gathered in the forward half of the galley, facing the stern. The second group of vessels includes four smaller galleys and a large flagship. Examined from left to right, the second galley conceals the forward half of the first galley. The first galley's visible stern depicts an exaggerated *paraptera* and a quarter rudder. Although the second vessel is not well preserved, the *paraptera* and a quarter rudder are visible at the stern; there are at least ten oars shown near the bow. The helmsman for this vessel is exaggeratedly larger than the other occupants. This vessel also appears to be carrying horses, although no change in the hull shape is observable. The third vessel is the most poorly preserved of the group and seems to be blocked by two neighboring galleys. At least five oars are visible on the starboard side, in the forward half of the vessel. The fourth galley is poorly preserved on its aft end. At the bow, there are at least three curved, pointed posts. The number and size indicate an inaccurate use of multiple *ptera* to show several layered vessels. Unfortunately, few other attributes are distinguishable. Twelve oars are evenly spaced along the entirety of the galley in the foreground. The last galley, the flagship of the fleet, is depicted above the third and fourth vessels in the lower group. It is as long as these two vessels combined. An exaggeratedly large helmsman holds a single quarter rudder below the *paraptera*. At amidships stands a large, golden fortified tower with two banners. The size and towers suggest that this could be a *chelandion*, the largest of the *dromons*. A further special designation on this vessel includes a gold-colored top wale. The occupants gathered in the bow and dressed in civilian tunics could be the commanders of the armada. A colossal figure, dressed in red, is likely Thomas. This miniature is the first example of overlapping vessels. As shown in later images, several artists depict large fleets by portraying a

galley in its entirety in the foreground, with others positioned beyond it represented by repeated endposts. As a single endpost is visible for many of these vessels, the artists tend to depict the recognizable, exaggerated stern, even when the orientation is inaccurate. Painter A1 shows a variety of ships transporting soldiers, horses, siege towers, and military equipment. The surviving details, such as the expressions of the occupants and horses, and small features in the armor and citadel of Abydos, are exquisite. The sea is a smooth, light blue surface, with a border colored in gold.

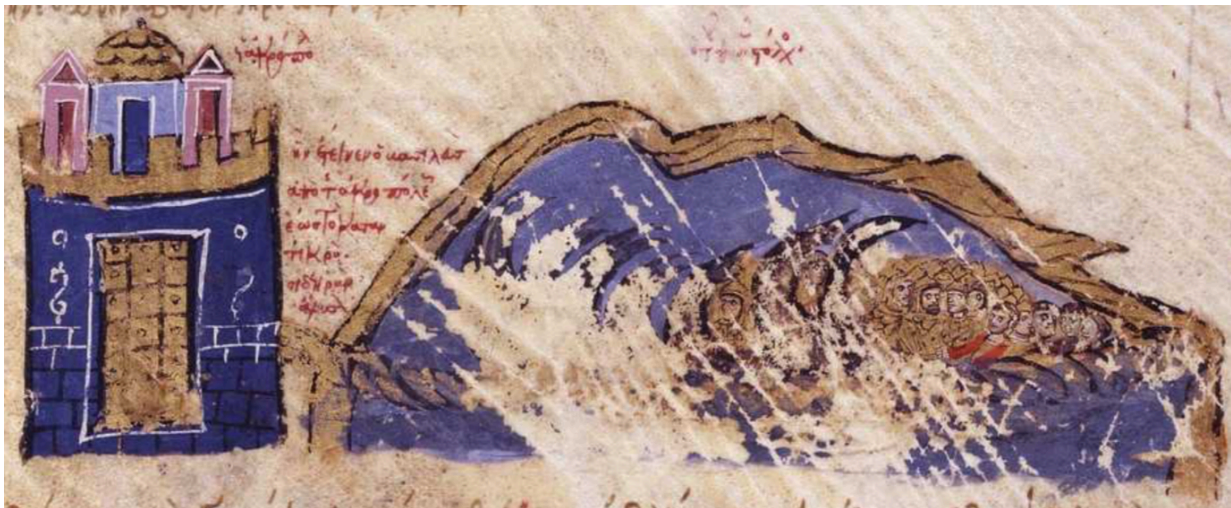


Figure 9: Folio 32r: Painter A1, Emperor Michael II

Context: Michael II assembles a force under Katakylas and Olbianos. However, “like a spring flood from the high mountains,” Thomas scatters these forces.¹²⁷ In great fear, the Emperor stretches an iron chain from the Acropolis of Constantinople to the opposite town, protecting the inner sea, the Golden Horn, and the vessels sheltered there.¹²⁸

Legend: The legend identifies “The Acropolis” and “The fleet (στόλος) of Thomas.”

¹²⁷ Skylitzes 2010, 36.

¹²⁸ Skylitzes 2010, 36-37.

“The Emperor stretched the iron chain from the acropolis to the opposing [shore].”

Image: This image, unfortunately significantly degraded, shows the victorious armada of Thomas the Rebel hemmed in by the legendary iron chain, which stretched across the Golden Horn, a critical waterway where the Bosphorus and the Sea of Marmara meet. A thick, golden coast, outlined in black, frames the calm blue sea. On the left of the image, a twisted, golden chain emerges from the base of a vibrant blue, red, and gold citadel. Poor preservation prevents a clear view of the chain as it stretches before the vessels and extends to the opposite shore at the right of the image.

The representation of the armada is not well preserved, and the chain obstructs the majority of their hulls. The most distinguishing feature is the characteristic, upward swooping *paraptera*. To represent multiple vessels, Painter A1 has shown approximately seven of these. Like Figure 8, this miniature exemplifies the practice of using multiple endposts to represent a large number of overlapping hulls without having to illustrate each vessel in its entirety. The multiple wings, along with the crowds of helmeted heads, denote a fleet of substantial size. The depiction, however, does not seem to match the event it portrays. Although the chain was extended to keep the fleet out of the Sea of Marmora, the vessels appear to already be in the Golden Horn. This may be a misunderstanding or an imprecise depiction. While the fleet would eventually breach the shackle and enter the Golden Horn, a portrayal of that event would likely show the chain broken.



Figure 10: Folio 33v: Painter A1, Emperor Michael II

Context: Despite the promising beginning of the civil war, Thomas cannot overcome the defenses of Constantinople. He manages to bypass the iron chain and, after several unsuccessful assaults, decides to attack the city by land and sea. During that time, however, Michael assembles an organized army and a second fleet. Thomas strikes Constantinople from land and the Bay of Blachernae and loses on both fronts.¹²⁹

Legend: “The fleet (στόλος) of Thomas” and “The city” are identified.

Image: On the right of the image, Constantinople is represented by a citadel topped with seven soldiers. Two vessels to its left assault Constantinople from the bay. The vessels are not well preserved. They are dark brown in color and, where that has faded, light brown outlines of the hulls are visible, suggesting the sequence of illustration. The stern of the galley on the right overlaps the bow of the galley on the left. Both *paraptera* are visible; on the left galley, however, there is only a single wing. As there are no helmsmen, it is difficult to determine which end is which, but, presumably, the bow faces the citadel to the right. The occupants of the left vessel

¹²⁹ Skylitzes 2010, 38-39.

stand with weapons ready, prepared to fight. In the galley on the right, two occupants, incorrectly facing the bow, hold oars. All of the passengers are shown disproportionately large.



Figure 11: Folio 34v, bottom: Painter A1, Emperor Michael II

Context: After various losses, Thomas attempts to rally by ordering his fleet from the Helladikon theme to join him at Blachernae. The imperial fleet attacks them at Berydes, capturing several of Thomas's vessels and burning others with *πυρπολοῦσι πυρί*- Greek fire.¹³⁰

Legend: "The Roman fleet (στόλος) sets ablaze the opposing fleet (στόλος)."

Image: As one of the only surviving depictions of Greek fire, this is probably the most well-known image from *Skylitzes Matritensis*. A single ship represents each fleet: on the left, an imperial galley, and on the right, a galley of Thomas's fleet. They are similar in structure; the hulls are relatively full, rounded, and lacking any exaggerated curves. The endposts are not tall or accentuated, and the sterns lack wings. The imperial galley has a mast with a lateen sail. A pair of shrouds appear on either side of the mast, but no other rigging is depicted. At first, it

¹³⁰ Skylitzes 2010, 40.

appears that the masthead does not show the characteristic beaked *carchesion*. The *carchesion* is actually visible from the back, as indicated by the two small marks in the masthead that represent the pair of sheaves. As in Figures 2 and 3, the mast separates the yard and sail. Each galley has two rowers and four oars, two from either side of the hull. The helmsman at the stern of the galley at the left wields a single quarter rudder. The imperial vessel is adorned with two round shields, one golden and a second, light blue one. Forward of the helmsman, a single marine sits, carrying a spear. Two other men at the bow employ the mechanism for Greek fire. One, shielded by the foremost rower, pumps the fuel while the second directs the siphon, which projects out from the vessel and is vaguely trumpet-shaped. The galley from Thomas's fleet, on the right, has very few distinguishing features. Besides the two rowers, a third occupant sits in the bow. Smoke spews over the insurgents who face their bow as the Byzantines attack them with Greek fire and smoke spews over the insurgents. Their facial expressions are duly anguished.



Figure 12: Folio 35v bottom: Painter A1, Emperor Michael II

Context: The *basileus* of the Bulgars, Mortagon, comes to the aid of the besieged Michael II, despite the Emperor previously rejecting his offer of assistance. Thomas withdraws from

Constantinople to face Mortagon and is defeated. Thomas's fleet, at Constantinople, hears of the defeat and defects to the Emperor.¹³¹

Legend: "The vessels (ναυτικοί) of the apostate Thomas go over to the Emperor Michael the Stammerer."

Image: A vessel representing the imperial forces and one representing the deserting fleet of Thomas are pictured. To their left, there is a simple, unidentified building. The two dark brown vessels sit on a calm blue sea. The occupants of the imperial vessel at the left face the stern to the right, where the helmsman, facing the bow, sits beneath the *paraptera*. Damage to the image makes the oars difficult to distinguish; there appear to be six, although one is likely a quarter rudder. The rebel vessel has the same rounded shape, although neither end has the characteristic wings. A helmsman can clearly be distinguished, on the right of the galley, holding a quarter rudder. Each of the other two occupants has an oar, but six oars emerge below the vessel, three from each side, suggesting other occupants. The occupants of the deserting galley wear tunics, while those in the imperial galley wear armor and helmets.

¹³¹ Skylitzes 2010, 40-41.



Figure 13: Folio 38r, top: Painter A1, Emperor Michael II

Context: After his various defeats, Thomas flees to Adrianople. The citizens turn him over to Michael II, who orders him killed. Despite the end of the rebellion, two cities, Kabala and Saniana, remain opposed to the Emperor. When their leaders, Choireas and Gazarenos, respectfully, are out on a raid, the citizens lock them out of the cities. The men attempt to flee to Syria but are captured and killed.¹³²

Legend: “The apostates Choireas and Gazarenos, having been seized by those protecting the citadel, are impaled.”

Image: This miniature portrays two scenes. On the left, citizens force Choireas and Gazarenos out of a citadel and toward a small vessel. To the right, there is a naval battle between the apostates’ vessel and another, filled with soldiers. At the far right of the miniature, an armored figure stands on a small, wooded island. This image does not match either the text or the legend. Skylitzes writes that the rebels were captured at the border of Syria and killed; it is the illustrator’s choice to depict that as happening at sea. The legend states that the citadel’s protectors impaled the apostates, but the image does not show this. The details of the hulls are

¹³² Skylitzes 2010, 42-44.

not well preserved. The leftmost vessel is a small, dark brown vessel with slightly exaggerated ends. It is rowed with at least five oars, three shown on the starboard side and at least two others on the port side, protruding below the hull. Neither shows accentuated *ptera*. The representations of the two other boats on the right, one with a brown hull in the center and one with a black hull at the right, are similar but impossible to determine in any detail. All are disproportionately smaller than their occupants.



Figure 14: Folio 38v: Painter A1, Emperor Michael II

Context: While Michael II combats the rebellion of Thomas, a second threat emerges. The Arabs of Iberia, called Saracens by Skylitzes, outgrow their land and demand that their leader, Amermoumnes, colonize new territories. Amermoumnes gladly accepts. He builds a fleet of longships and begins raiding the Byzantine islands while surveying for a suitable colony.¹³³ Legend: “The Arab fleet (στόλος Σαρακηνῶν) went out against the Romans with their leader Amermoumnes and the Iberians and those other people who joined them.”

¹³³ Skylitzes 2010, 44-45.

Image: The depiction shows three Saracen galleys, although only the legend and context differentiate them from previously depicted Byzantine vessels. The hulls are round with *paraptera* shown when the sterns are visible, aft of the helmsmen. Painter A1 has once more portrayed rowing inaccurately; the rowers, correctly placed towards the bow, face both directions throughout all the vessels. There are four rowers and four oars in the galley at left, three rowers and five oars in the middle galley, and four rowers and nine oars in the galley at right. The left and right galleys both show the helmsmen with two quarter rudders. Painter A1 has also depicted rowers facing the wrong direction in the vessel at right, one of whom awkwardly holds two oars. The depictions of body armor and helmets are similar to those shown previously. A figure in the left galley, differentiated by his blue tunic, is likely Amermoumnes. This image is the first to depict the navy of another nationality, but Painter A1 does not seem to be concerned with differentiating naval construction styles.



Figure 15: Folio 39r: Painter A1, Emperor Michael II

Context: Because of Thomas's revolt, the Arabs meet no resistance. Eventually, they reach Crete. Amermoumnes addresses his people, saying, "This is the land in which honey and milk

flow.” In the spring, Amermoumnes returns to Crete with 40 ships and anchors at the Cape of Charax. While some of the men are out foraging, he orders all the ships burned. He quells the returning soldiers’ anger by explaining that Crete is ideal for them to restart their lives in a new colony.¹³⁴

Legend: “Amermoumnes enters the Cape of Charax and, having built a fortress, burns down his whole fleet (στόλος).”

Image: The image depicts three empty vessels alight. To the left, Amermoumnes is seated and outlined by a light, wavy shape, that could represent a light structure or mountains in the distance. He is flanked by two soldiers in armor. Four figures stand by the burning galleys on the right. Two, standing, are lighting the vessels on fire while two others kneel in anguish at the site. The ships resemble the simpler ones Painter A1 has portrayed in the miniatures of folios 34v, 35v, and 38v (Figures 11, 12, and 14). The hulls are rounded, symmetrical, and colored in alternating shades of brown. The ends curve up slightly, and neither has wings. There are no projections or other distinguishing features. Lines indicate parts of the hulls, and a few oars burn with the vessels. To accomplish this burning, the sailors would have hauled the boats on land and supported them upright. Although waves indicate the sea directly beneath the boats, the position of the soldiers suggests they are drawn up on land. The position of the oars could suggest they are being used as supports to keep the vessels upright on land.

¹³⁴ Skylitzes 2010, 46.



Figure 16: Folio 39v, top: Painter A1, Emperor Michael II

Context: Michael II delegates the Arab incursion to the *protospatharios* Photeinos, the commander of the Anatolikon theme. Photeinos requests a tremendous force to frighten the Arabs, now called Cretans in Skylitzes’s text. The Emperor then dispatches a large force under Damianos, a Byzantine general, to Crete. In the encounter, the Hagarenes mortally wound Damianos, and Photeinos escapes to report their defeat to the Emperor.¹³⁵

Legend: “The Romans” (or Byzantines) and “The Cretans” (Arabs, now called Κρήται) are identified, as well as “The deceased general Damianos.”

Image: This image contains two scenes. On the left, a golden frame surrounds three galleys occupied by soldiers. The border overlays one of these, cutting off its bow. This scene is captioned “Ῥωμαῖοι,” (Romaioi), designating the Byzantines. To the right, the Cretans battle the Byzantines, called Romans, and between the two forces lies the body of Damianos. The hulls in the left scene are colored a dark, greyish brown. They are arranged in two rows. In the top row, the right galley partly covers the galley at left. Below, a third, poorly preserved galley is just visible. They are variously oriented. The left endpost of each is visible. In the top left vessel and

¹³⁵ Skylitzes 2010, 46.

the bottom vessel, these appear to be the bows, which are curved and end in a single point. The top right galley displays a pair of stern wings that are pronouncedly curved. The lack of uniformity once more shows the artist's misunderstanding. Even considering that vessels could turn to approach the shore stern-first, the orientation is inaccurate, as the vessel depicted closest to shore approaches bow first, without a helmsman. The two vessels at left each have a pair of quarter rudders, but the helmsmen are shown among the other occupants, all facing toward the shore. The rudders are inaccurately placed at the bows.



Figure 17: Folio 40v, top: Painter A1, Emperor Michael II

Context: With the end of Thomas's revolt, Michael II turns his attention to Crete. He sends a fleet of 70 ships under the command of Krateros, commander of the Kibyrrhaiote theme. After a long, evenly matched battle, Krateros is victorious.¹³⁶

Legend: The legend identifies "The Romans" and "The Cretans."

Image: While this image's format mimics the miniature in folio 39v (Figure 16), it consists of a single scene. On the left, the Byzantine fleet sits at the shore. The sea is a blue quarter circle,

¹³⁶ Skylitzes 2010, 47-48.

outlined by a golden shoreline. This shoreline does not cut off the ships that lie over it. To the vessels' right, the Byzantine army, led by the general Krateros, charges the Arabs. The label of “Romans” is placed over the vessels, while that for the Arabs is over their forces at left. While the text states that Michael II sent 70 ships, only three galleys are represented in the image. They are shallow and elongated compared to those previously depicted in folio 57v (Figure 16) by Painter A1, who has given them little attention. There are no spars, rigging, or distinguishing features such as the spur or *paraptera*. Although there are no occupants shown in the galleys, several oars can be barely distinguished. At least four pairs of oars, one for either side, are depicted on the bottom vessel.



Figure 18: Folio 41r, top: Painter A1, Emperor Michael II

Context: After defeating the Arabs, Krateros and the Byzantines relax in their victory. They are easy prey when, at night, the Arabs fall upon their camp. Only Krateros escapes with his life, fleeing on a merchant ship. Not finding his body, the Arabs pursue Krateros, capturing him on the island of Kos, where they crucify him.¹³⁷

¹³⁷ Skylitzes 2010, 48.

Legend: “The Arabs (here called Ἀγαρηνοὶ), having pursued and come upon the Roman general Krateros, hanged him from blocks of wood.”

Image: Although the group of Arabs is the same, the commentator switches his identification of them back to “Hagarene.” This miniature presents two scenes. On the left, two galleys, presumably Arab and Byzantine, are depicted facing each other. There are no distinguishing characteristics to determine nationality. The vessels are identical in features and resemble those seen in the miniatures of folios 29v, 31v, 32r, and 33v (Figures 7, 8, 9, and 10). The hulls are deep and rounded, and the exaggeratedly curved sterns end with *paraptera*. The full bows are not excessively tall or curved. The galley at left is colored bright red, while the color for one at right is significantly degraded. Sections, such as the stern wings, appear to be dark brown. Underneath the coloring, the outlines of both hulls are visible. The depiction of red suggests that the left galley is Byzantine. Neither has any spar or rigging. These would be stowed away to prevent accidents during a battle; however, Painter A1 does not consistently exclude them in all naval engagement depictions, such as folio 34v (Figure 11). Despite the battle, a few rowers and oars are in use, two on each vessel. Each vessel also has pair of quarter rudders. On the right vessel, one quarter rudder sits unused and projects from the stern on its side, as in folio 29v (Figure 7). This scene's military nature is indicated by the significant number of spears on each vessel and the armored *militēs* on board. On the right of the miniature is a depiction of the execution of general Krateros. The characteristic movement in images by Painter A1 emanates in the soldiers' positions, the fluttering flags, and the unlucky deceased who fall into the sea. The sea is a light blue, with a dark border surrounding it and dividing the battle and the execution.



Figure 19: Folio 44r, top: Painter A1, Emperor Theophilos

Context: The next maritime miniature comes after Michael II’s nine-year rule, during the reign of his son, Theophilos. During a routine ride through the city and marketplace, Theophilos notices a merchantman (ὄλκᾶς) of unequal beauty and size.¹³⁸ He is taken aback not only by its magnificent appearance but also upon discovering the owner to be his empress, Theodora. He admonishes her in public for shaming his divine purpose as emperor.”¹³⁹

Legend: There are identifications for the left ship as “The Imperial Vessel (σκάφος)” and the figure as “The Emperor Theophilos”

Image: Painter A1 has taken several licenses with this image. There are two vessels: on the right, what is likely the empress’s merchantman, although no masts and sails typical to merchantmen are shown, and, on the left, the imperial galley.¹⁴⁰ This image demonstrates the artistic emphasis

¹³⁸ Skylitzes 1973, 51.

¹³⁹ Skylitzes 2010, 53-54.

¹⁴⁰ The digression from the text has caused confusion in the interpretation of this image. Tsamakda notes, correctly, that Painter A1 assumes the incident takes place on a ship, though Skylitzes states that Theophilos stands near the stern rather than on the stern. Because of this, Tsamakda assumes Theophilos stands on the glorious merchantman and that the second vessel is included to indicate the merchantman’s size and beauty.

given to imperial vessels; although the empress's ship is described as fantastic and large, it pales in comparison to the imperial galley. The galley is markedly more considerable and colorful. The two vessels share a similar wildly exaggerated hull shape. The forward halves are low and lack defined stems. In contrast, the sterns are more pronounced and incurving than ever. On the imperial galley in particular, the *ptera* tower over the occupants, and nearly reach amidships. The smaller merchantman has similarly curved wings, although much less imposing. Additionally, it is colored brown, while the imperial galley is painted scarlet with wales in gold, the standard decoration of the imperial galley. The space between the two vessels has eroded, but there might be a spur projection from the bow of the imperial galley. Both vessels include a helmsman. While the imperial helmsman, with two quarter rudders, stands at the stern, the helmsman in the merchantman at right is incorrectly placed at the bow and holds a single quarter rudder. Neither ship is shown with spars or rigging, although both have rowers. The six rowers of the imperial galley are placed at the bow and incorrectly face various directions. Three rowers are gathered in the stern of the merchantman, and all erroneously face the bow. Emperor Theophilos stands at the stern of the galley, wearing an ornate blue tunic and a crown upon his head. Beside him, several other ornately dressed passengers are illustrated. The scene has no depiction of the empress or indication of the emperor's admonishing. The fluttering banners, several spears, and six blasting trumpets seem instead to indicate a triumphant naval expedition. The portrayals of dynamism and movement throughout this miniature are customary to Painter A1.



Figure 20: Folio 44r, bottom: Painter A1, Emperor Theophilus

Context: Theophilus orders the empress’s merchantman destroyed, along with all its rigging and cargo. He then severely rebukes Theodora, threatening her life if she ever embarks on similar schemes.¹⁴¹

Legend: The legends identify “The sailors going out” and “the ship (σκάφος) burning.”

Image: In the bottom half of the image, the story continues with the burning of the empress’ vessel at the emperor’s command. There are several differences in the depiction of the same merchantman between the two images of folio 44r. The hull is slightly deeper and more symmetrical, with no end projections. The stern, on the right, is indicated by a diminutive *paraptera*. The merchantman is now accurately shown with a mast, from which shrouds extend, although there is no yard or sail. The *carchesion* curves towards the bow and the circular sheave is indicated in its center. Like Figure 19, the details are vivid, and movement is suggested by the sailors’ hair and hassled dispositions, as well as the leaping flames.

¹⁴¹ Skylitzes 2010, 54.



Figure 21: Folio 110v, top: Painter B1, Emperor Leo VI

Context: While there are many images to accompany the reigns of Michael III (842-867) and Basil I (867-886), the next nautical image is seen in the chapter on Leo VI. After his wife dies in childbirth, Leo constructs the Holy Apostles Church in her honor. While the navy is assisting the construction of this church, a fleet of Arabs, who have continued combatting the Romans, captures Tauromenion, the last Byzantine stronghold in Sicily (902 CE).¹⁴² The Arabs take the island of Lemnos, seizing many prisoners.¹⁴³

Legend: The legend identifies “Tauromenion” and a group of “Hagarenes (Αγαρηνοί).”

Image: This is the first nautical depiction by one of the “western” illustrators. At the right of the miniature, several vessels, representing galleys, line the shore. The sea is dark blue with lighter lines of waves. There is a slim outline around the sea, as well as around the island to its left. A citadel stands at the top, while at the shore, the Arabs, armed with spears, drag prisoners to the ships.

The differences in the depictions of ships are immediately apparent. Rather than rounded hulls, with swooping bows and sterns, these black galleys are straight and shallow. The trumpet-

¹⁴² While no context is given for this fleet in the passage, the fall of Tauromenion (also called Taormina) is considered the end of the Muslim conquest begun in 827 CE (see Jeffreys et al. 2008, 267).

¹⁴³ Skylitzes 2010, 175.

shaped stems curve inward and are colored scarlet. The caprails of the lower two vessels are colored gold. The *paraptera*'s paired wings, colored scarlet like the stems, are much slimmer and less curved than those depicted by the earlier Byzantine-trained illustrators. At the bow, beneath the stem and above the waterline, there is a straight, forward projecting spur. On the topmost vessel, an Arab soldier uses the spur as he steps off the boat. The spur projection recalls those seen in the miniatures of folios 29v and 44r top (Figures 7 and 19), illustrated by Painter A1. While the projection's identity was less evident in those miniatures, the context here definitively indicates a spur, used for boarding enemy ships. The spur is even with a dark line that extends the galley's length, indicating the main wale. The galleys are crewless and without masts, rigging, or oars. Painter B1 illustrates the complete hull even depicting the submerged sections.



Figure 22: Folio 111v: Painter B1, Emperor Leo VI

Context: The Arab-Byzantine conflict continues. Leo of Attaleia commands the Arab fleet. He defeats the Byzantine *droungarios* of the fleet (δρουγγάριος τῶν πλωϊμῶν) and captures Thessalonica.¹⁴⁴

¹⁴⁴ Skylitzes 1973, 182; Skylitzes 2010, 176-77.

Legend: Several legends identify “Thessalonica,” “The Arabs (Ἀγαρηνοὶ),” and “Roman prisoners” being led to the “Arab Fleet (στόλος Ἀγαρηνῶν).”

Image: This miniature is one of the most stunning in *Skylitzes Matritensis* with its colorful representations of Thessalonica and the Hagarene fleet. The fleet is on the right of the miniature, moored near the shore, and waiting to take on the Roman captives. To the left, fortification towers represent the walls of Thessalonica, where two groups of men are engaged in battle. To their right, between the city and the fleet, a group of Hagarenes leads their prisoners toward the galleys. The fleet is arranged in five rows, the lower three of which contain two crafts each, for a total of eight galleys.¹⁴⁵ The hulls of the overlapped galleys are painted black, while those that overlay them are brown. The galleys retain the shallow, elongated hulls seen in folio 110v (Figure 21). While they lack the trumpet-shaped, inward curving stem, they retain the spur and *paraptera*, which is black like the hull. The sterns display an intricately designed gold decoration between the pair of projections. This is likely a decorated stern, whose three-dimensional nature has been skewed in the illustration. Each of the vessels has bright red oars and a pair of quarter rudders at the stern that rest between the wings. While in previous miniatures, oars extended over the caprail, in this miniature, they protrude through circular oarports in the hull, depicted just above the main wale.

¹⁴⁵ Tsamakda incorrectly summarizes this photo as depicting four vessels stacked over one another. Counting the stern ornaments, there are only four. However, five bows are depicted on the opposite side. While the stern ornaments are distinct, Painter B1 has shown rowers covering at least one, the second from the top. Upon further examination, the lower three vessels are seen to be two overlapping vessels, for a total count of eight vessels. The number represented is not particularly important; however, this image does represent the difficulty in determining details of vessel images and, thus, in accurate conclusions. (see Tsamakda 2002, 146.)



Figure 23: Folio 123v: Painter B2, Emperor Constantine VII Porphyrogenites

Context: This image occurs in the account of Emperor Constantine VII's reign (913-959). The *parakoimomenos* Constantine Doukas attempts to take control of the empire from Constantine VII's regents. The regents request the protection of Romanos Lekapenos, the *droungarios* of the fleet. Lekapenos lures Doukas to inspect the navy and arrests him.¹⁴⁶

Legend: "Romanos" is identified, as well as "Constantine the Parakoimomenos."

Image: On the left, Romanos Lekapenos directs his men to throw Doukas on board one of five galleys moored stern-first. Many of the characteristics seen in the previous images depicted by Painter B1 appear in this miniature by Painter B2. Each galley has a *paraptera* at the stern represented by two strokes of red paint. The trumpet-shaped stem, colored gold, protrudes above a thin spur projection. The fleet is arranged in three rows, the lowest two of which contain two overlapping vessels. In the lowest pair, the galley at left overlaps the one at right, and in the pair above the overlapping is reversed. A unique feature is the depiction of a wavy line above the top of each galley. As they are moored, this is likely a covering that could be pulled over the galley to protect it when not in use. Even although the galleys are anchored, white oars are illustrated protruding from oarports above the main wale. The lowest galley in full view, at left, has nine

¹⁴⁶ Skylitzes 2010, 198-201.

oars, the other two galleys in full view have eight each. The partially visible galley at the bottom right has six, and the one above at left has five visible oars. Features such as the oars and wing projections at the stern are represented merely as strokes, and the stems are uneven in shape. No quarter rudders are portrayed.



Figure 24: Folio 124r, top: Painter B2, Emperor Constantine VII

Context: Empress Zoë , Constantine VII’s mother, sends emissaries to demand an explanation for Doukas’s arrest. When they arrive, the sailors, loyal to Lekapenos, drive them off with stones.¹⁴⁷

Legend: “The royal dignitaries” and “the sailors” are identified.

Image: This miniature shows the sailors gathered in two galleys moored stern-first, hurling rocks toward the dignitaries on shore to their left. A light blue area represents the sea with dark wavy lines and a black, wavy outline. These galleys are identical to those in the miniature of folio 123v (Figure 23). Here, they are arranged in two rows of two, with the galleys at left overlapping those on right. Each galley has a pair of slim, red wings, a golden trumpet-shaped stem, a slight spur,

¹⁴⁷ Skylitzes 2010, 201.

and white oars projecting from oarports. Of those in full profile at left, the bottom galley has eight oars, and the top galley has nine. Of the partially displayed galleys, the bottom galley has three oars, and the top galley has four. The unique wavy lines are here depicted in light gold. They extend across the unoccupied vessels and stop just short of the occupants, suggesting the sailors have moved back the cover.



Figure 25: Folio 124r, bottom: Painter B2, Emperor Constantine VII

Context: The morning after Doukas’s arrest, Empress Zoë discusses the situation with the regents. The emperor’s teacher, Theodoros, who urged the emperor to reach out to Lekapenos, blames the crisis on the damage the Phokas family had inflicted on the imperial family.¹⁴⁸

Legend: The legend identifies “The Boukoleon” palace and “Empress Zoë.”

Image: The miniature does not match the passage from the text. Skylitzes describes Zoë addressing the regents; there is no mention of her speaking with the sailors. In this miniature, the Empress Zoë leans out of her palace and speaks to a group of sailors in their galleys, moored stern-first. The five galleys are arranged in three rows; the lower two rows consist of two vessels

¹⁴⁸ Skylitzes 2010, 201.

with the left overlapping the right. The two lower galleys on the right each have eight oars protruding from oar ports. The top vessel has nine oars. Finally, of the two partially displayed galleys on the right, the bottom galley has four oars, and the upper galley has five oars. Only the three fully displayed galleys have *paraptera*; the lowest is colored red while the upper two are colored gold. Every feature, including the trumpet-shaped stem, the aft wing projections, the white oars, and the wavy line over the empty galleys, is similar to the previous two miniatures.



Figure 26: Folio 129v, bottom: Painter B1, Emperor Romanos I Lekapenos¹

Context: Lekapenos uses the support of the navy to secure his reign. As emperor, he must face the tribes of the Rus, a Scandinavian people from an eastern European principality whose capital is Kiev. They are also called Kievan Rus. In June of 941 CE, a Rus fleet of 10,000 ships mounts an attack against Constantinople.¹⁴⁹ The *patrikios* and *protobestiarios* Theophanes destroys them with Greek fire. The Byzantine army, under the command of Kourkouas, the *domestikos ton scholon*, then attacks the retreating Rus. Skylitzes describes the many atrocities the Rus had committed against their enemies, crucifying, staking, and using them for target practice.¹⁵⁰

¹⁴⁹ The number of ships is most certainly a historical exaggeration.

¹⁵⁰ Skylitzes 2010, 221.

Legend: “Those that had been seized from among the Rus by Kourkouas flee from those shooting arrows [at them].”

Image: This image depicts the Rus's atrocities, particularly their use of Byzantine captives as target practice. To the left, Rus warriors shoot arrows at prisoners tied to poles while other captives await their fate. On the right, the Rus fleet, consisting of three galleys moored stern-first, waits at the shore. Although depicting vessels of a completely different shipbuilding tradition, as discussed in Chapter I, Painter B1 still displays the same boat type. There is no indication of clinker construction, double-ended hulls, or other characteristics believed to be associated with Rus ship construction; only the textual context differentiates these vessels as such. As in his other images, Painter B1 includes an inward curving, trumpet-shaped gold stem at the bow, here golden, red wings at the stern, and a thin spur at the bow. The moored vessels have no visible oars, although the oarports above the main wale are clearly depicted. Painter B1 has also included a thick, red wavy line just above the sheerline to represent the protective canvas covering the galleys, as seen in depictions by Painter B2. This is the only example of its depiction by Painter B1. In the legend, the commentator has interpreted Byzantines as shooting at the Rus captured by Kourkouas; it is more likely that this miniature depicts the tortures the Rus enacted on Byzantine prisoners, as Skylitzes describes.¹⁵¹

¹⁵¹ Tsamakda 2002, 167.



Figure 27: Folio 130r: Painter B1, Emperor Romanos I Lekapenos

Context: After their defeat at Constantinople, the Rus attempt to retreat, but Theophanes confronts them. The Rus are again defeated, and most of their boats are sunk or destroyed.¹⁵²

Legend: The legends identify “The Romans” and “The Rus.”

Image: This fascinating miniature shows the naval battle between the fleets of the Byzantines and the Rus. Eleven galleys battle on a dark blue sea, with light lines indicating waves. The vessels are arranged in three columns, with three Byzantine galleys in two columns at left, and two Rus galleys in the column at right. At the far right of the image are three disoriented and empty Rus galleys. The inability of the painters to differentiate traditions of naval construction is apparent. Although the Byzantine and Rus fleets are portrayed, the vessels are nearly identical in appearance. The hulls are colored a light, rusty brown on the lower half and dark brown above the line of the main wale. Outside of the endposts that are hidden where vessels overlap, the trumpet-shaped stems and straight spur projections above the waterline appear on every bow and *paraptera* at every stern. Each vessel has oars emerging through oarports, and quarter rudders. The number of helmsmen varies. In the left and middle columns, the bottom two galleys have

¹⁵² Skylitzes 2010, 221-22.

two helmsmen each, while the top galleys have no helmsman and one helmsman, respectively. All the Rus galleys at right are shown without helmsmen. The number of oars also varies greatly. In the left column, from bottom to top, the number of oars is eight, five, and five. Interestingly, the top two galleys each have one empty oarport. In the middle column, from bottom to top, the number of oars is 12, 10, and 8. The top two galleys each once more have an empty oarport. In the right column, there are 11 oars for each galley, along with one empty oarport. The empty galleys on the right, from bottom to top, have nine, nine, and 10 oars, respectively. These oars are crossing, upright, and at angles, demonstrating that the rowers have abandoned the galleys and the oars are unmanned.

The only distinction between vessels is the color of the trumpet-like stems and the wings; they are red, brown, and gold. It seems that Painter B1 was not purposeful with this coloring. The Rus vessels, identified by the commentator on the far right, are the only vessels with red stems; however, a third Rus vessel, at top, has a dark brown stem and blue *paraptera*. The two final Rus vessels, which are being boarded, have gold stems. Only two Byzantine stems are shown, in the middle column on the top and bottom. These stems are gold and brown, respectively. Overlap covers the bows of the remaining four Byzantine watercraft. The visible Byzantine *paraptera* are all colored red, except for the center galley at the left, which is colored brown. The most distinguishing characteristic between the Rus and Byzantine vessels is the condition of the occupants. As mentioned above, the Rus' vessels are either being abandoned or captured, and the far right, empty Rus vessels fall out of formation as they sink.



Figure 28: Folio 132v: Painter B1, Emperor Constantine VII

Context: In an attempt to reclaim the throne from Romanos Lekapenos, Constantine VII turns Romanos's son, Stephen, against his father. Stephen overthrows his father in the 26th year of Romanos Lekapenos's rule and exiles him to the island of Prote.¹⁵³

Legend: "Emperor Romanos, once the *droungarios* of the fleet (δρουγγάριος τῶν πλωϊμῶν), was banished by his son, Emperor Constantine."

Image: The legend incorrectly refers to Constantine as the son of Romanos, although he was Romanos's son-in-law. This miniature is entirely outlined by a wavy, dark line, in which the island of Prote stands in the light blue sea. The morose emperor sits at the stern of a straight-sheered galley traveling from the left. Seven alternating rowers incorrectly face the bow, four on the starboard and three on the port side. Although the eighth rower is not visible, four grey oars emerge over the caprail and four others below the hull, without oarports. The emperor sits further aft than possible; the slim *paraptera* serves as a seat. The *paraptera* is once more shown with an exaggerated sternpost, as seen in folio 29v (Figure 7). The helmsman stands before him, controlling a single, grey quarter rudder with both hands. The main wale and spur are indicated

¹⁵³ Skylitzes 2010, 224-26.

by a slim, black spur that extends the galley's length. The bow features the typical trumpet-shaped stem, colored gold.



Figure 29: Folio 134v, top: Painter B1, Emperor Constantine VII

Context: Having cleared the way for his own rule, Constantine VII arrests, tonsures, and exiles Romanos's sons, Stephanos and Constantine. Constantine VII is at last able to rule; however, conspiracies remain to bring back Romanos I or Stephanos. Both schemes are revealed, and their contributors are punished.¹⁵⁴

Legend: The commentator identifies “the confiscation of the plotters” and “the exile of the plotters.”

Image: Several figures lead a group of naked, bound prisoners out of a palace structure on the left of this miniature. Poor preservation obscures the right of this miniature and the galley with eight occupants. It seems to resemble that of folio 132v (Figure 28) in shape and dimensions. The galley is colored a lighter, ruddy brown, with the distinctly darker spur extending the length of the galley and projecting at the bow. Five gray oars emerge over the caprail on the starboard side. Despite the number of oars, seven rowers sit facing the bow. The two wings of the *paraptera* are colored red. The helmsman, standing at the stern, holds two quarter rudders, one in

¹⁵⁴ Skylitzes 2010, 230-31.

each hand. In this miniature, it appears that the foremost rower is fully depicted in place of the trumpet-shaped stem.



Figure 30: Folio 138v, top: Painter B1, Emperor Constantine VII

Context: The Arabs continue to threaten Byzantine provinces. Emperor Constantine VII sends a large army and fleet to the island of Crete in 949 CE under the command of Constantine Gongyles. When Gongyles reaches Crete, the Arabs launch a surprise attack and easily overcome the Romans.¹⁵⁵

Legend: “The Arabs (Ἀγαρηνοὶ) defeated and slaughtered the Romans.”

Image: A slim black border outlines three sides of the miniature. The sea is a conglomerate of waves, and a large island takes up the right half of the image. At this island, six galleys rest at the shore. They are arranged in two columns, four on the left and two on the right. The sterns face the island, correctly portraying the Mediterranean custom of banking a vessel stern-first. The *paraptera*'s wings are bright red and, as in other Western painters' miniatures, straight. There is no indication of spars or rigging; however, all of the vessels have a row of oarports. The section of the hull above the main wale is a lighter brown than the lower half; the two halves are

¹⁵⁵ Skylitzes 2010, 236-37.

delineated by wale which terminates with the spur at the bow. There are no spurs on the two galleys in the column at right. In the first column of four galleys, brown oars emerge from the ports positioned and are positioned toward the stern as if rowed rather than at rest. There are no oars in the right two galleys. Four of the vessels have pairs of quarter rudders. The rudders are stowed between the wings of the *paraptera*; two angle down towards the water, the other two rest parallel to the hull out of the water. The trumpet-like stems are colored red and gold.



Figure 31: Folio 140r: Painter B1, Emperor Romanos II

Context: The Byzantines’ conflict with the Arabs outlasts the reign of Constantine VII, extending into the rule of his son, Romanos II. Romanos sends Nikephoros Phokas, the *domestikos ton scholon*, to Crete in the year 960 CE Phokas defeats the Arabs and continues over the next seven months to besiege the cities of Crete.¹⁵⁶

Legend: The legend identifies “The Romans and Nikephoros Phokas.”

Image: This image is similar to the miniature in folio 138v (Figure 30). Five Byzantine galleys rest stern-first at an island. Rather than spaced out, they overlap one another vertically. On the island, the soldiers also overlap one another in one mass of helmets, as in folio 138v (Figure 30).

¹⁵⁶ Skylitzes 2010, 240-41.

The hulls are deeper at the stern. The upper planking with the oarports is a light brown and is separated from the darker hull by the combined main wale and spur. No oars or quarter rudders are present. The *paraptera* are upright and straight, alternating between brown and red, and the wings are depicted by large strokes of color with slim black dividing lines. The trumpet-like stems are colored either red or gold but are all outlined in red. The spurs are long and slight.



Figure 32: Folio 145r, top: Painter B4, Emperors Basil and Constantine

Context: Romanos dies after thirteen years of reigning and is succeeded by his sons, Basil II Bulgaroktonos (962-1025) and Constantine VIII (962-1028), along with their mother, Theodora. An immediate challenge to their rule comes from Nikephoros Phokas, the victorious general, who is declared emperor by the army. Nikephoros Phokas is popular with many citizens and officials in the imperial court. The *parakoimomenos* Basil orders the destruction of the properties of Phokas's enemies and sends the imperial fleet to welcome Phokas to Chrysopolis.¹⁵⁷

Legend: No legend given

¹⁵⁷ Skylitzes 2010, 247-49.

Image: This is the only nautical image illuminated by Painter B4, who made only a few contributions to *Skylitzes Matritensis*. Painter B4 exhibits a unique, vibrant Romanesque style.¹⁵⁸ Here, three galleys, representing the Byzantine imperial fleet, sail from the left towards Chrysopolis, shown on the right. The fleet nears the citadel, and the foremost galley has turned around, so that the stern and helmsman approach first, while the other two retain their position with their bows facing forwards. The positioning is accurate; the rowers all face the stern where the helmsmen stand facing the bow. There is no mast or rigging. These vessels are the first biremes recognizably shown in the manuscript; the visible rowers, two on each galley, row long red oars over the caprail while below four or five white oars protrude through oarports. The red oars, which are shown in full length, display a swelling near the middle, which may represent counterweights or reinforcement pieces to mount the oars on the tholepins or the caprail. Each helmsman holds a single, red quarter rudders with both hands. The swelling seen on the red oars does not occur on the shaft of the quarter rudder, as they would not have rested against a tholepin or on the caprail. The trumpet-like stems are the same color as the hull and are mirrored by a similarly shaped, dark brown sternposts between the wings of the *paraptera*. The spur is much more substantial than those depicted by Painters B1, B2, or B3, and is mirrored by a small aft projection. From the spur to the stern projection, a light blue line runs along the hull, representing a wale, although it is curved rather than straight. Another unique characteristic is the gold caprail, with multiple lines indicating decorative grooves on the caprail.

¹⁵⁸ Tsamakda 2002, 377.



Figure 33: Folio 146v: Painter B3, Emperor Nikephoros II Phokas

Context: The new emperor, Nikephoros II Phokas (963-969), continues to battle against the Arabs. Nikephoros sends the *patrikios* Manuel to take back Sicily, which fell to the Arabs (Σαρακηνοὶ) of Africa during the reign of Basil I the Macedonian (867-886).¹⁵⁹

Legend: No legend provided

Image: This miniature shows the Byzantine fleet sailing to Sicily. It is the first nautical image by Painter B3 and portrays a variety of vessels. A slim, undulating black border outlines the scene on the left, right, and bottom. Within are four vessels. There are three galleys, the top two and bottom right vessels, similar to those depicted by Painters B1 and B2. They are straight with fuller sterns. The two vessels on the right are larger and are rowed by two banks of oarsmen. The *thranitai* (the upper level) row over the caprail, while the *zygioi* (lower level) row through oarports. The rowers accurately face towards the stern and lean back as they pull their oars, all colored white. The longest bireme galley, at the lower right, is rowed with six oars at either level, while the galley above it is rowed by three *thranitai* and four *zygioi*. The top left, monoreme galley has only three rowers. Each of these vessels has a straight pair of wings for the *paraptera*

¹⁵⁹ Skylitzes 2010, 252.

and a trumpet-shaped stem, colored red or gold. The main wale, below which are the oarports, extends to form the spur at the bow. The final vessel is markedly different from the other three and is similar to the depictions by Byzantine illustrators. As it is a rowed vessel, it is likely a galley; however, the deep, rounded, symmetrical hull more closely resembles what might be expected for a round ship built for cargo capacity. It has no *paraptera*, spur, or trumpet-shaped stem; instead, each end of the vessel curves up and inward in symmetrical curves that end with slight flares. Painter B3 may be attempting to depict a supply vessel accompanying the military galleys. At the stern of each boat stands a helmsman; on the two left vessels, they each hold a single quarter rudder. The lower right galley's helmsman carries two quarter rudders, while the top right galley has two helmsmen, each wielding a single quarter rudder.



Figure 34: Folio 147r, top: Painter B3, Emperor Nikephoros II Phokas

Context: Skylitzes gives the account of how the Arabs (Σαρακηνοὶ) took Sicily during the reign of Basil I, who sends Nikephoros, the grandfather of Nikephoros Phokas, to regain the island.

While there, Nikephoros Phokas orders the release of several captured Italians. He leaves the Italians behind to live in peace in their own country.¹⁶⁰

Legend: No legend provided

Image: Nikephoros Phokas boards one of three vessels, leaving behind a group of thankful Italians. The vessels of this miniature resemble the fourth boat of folio 146v (Figure 33). They are double ended with round, deep hulls and symmetrical, exaggeratedly curved endposts. As with the boat in folio 146v (Figure 33), there is no *paraptera*, spur, or trumpet-shaped stem. Curved black lines throughout the brown hull indicate the wales and planking. All of the oars here seem to emerge from the hull, although the oarports are not depicted. At times, such as in the leftmost vessel, the oars may emerge over the caprail, but the shafts are faded and difficult to decipher. The oars appear very close to the top wale but inconsistently. On the upper boat, the oars emerge below the line of the wale; on the second, they come from the wale line, and on the third, they appear above the wale. This miniature is one of the few that shows people boarding a vessel, here, by a ladder reaching from land to the stern, designated by the helmsman and a quarter rudder. Two of the boats are shown with a single quarter rudder and a helmsman, while the third has a notable space at the stern. The two vessels on the right have gatherings of occupants equally spaced near the bow; they resemble groupings of rowers seen in other miniatures. These may be an upper level of rowers depicted at rest without oars. Realistically, however, the oars would be visibly stowed outside the vessel.

¹⁶⁰ Skylitzes 2010, 252-53.



Figure 35: Folio 147v, top: Painter B3, Emperor Nikephoros II Phokas

Context: The Byzantines again lose Italy to the Arabs under the reign of Constantine VII and his mother. A peace treaty is arranged, in which the Byzantines pay an annual tribute. During the reign of Emperor Romanos I, the Byzantine representative in Italy is slain. The emperor dispatches the *patrikios* Kosmas to negotiate a peace treaty with King Dandulf, the king of Longobardia.¹⁶¹

Legend: No legend provided

Image: A block of three vessels sits in the wavy water, outlined on three sides by an undulating black border. The *patrikios* Kosmas receives orders from Emperor Romanos on the left and reappears on the right, boarding one of the vessels by a ladder. This vessel is distinguished by a decorative line of gold just below the caprail. The boats are difficult to determine due to their overlapping depiction; the curvatures on the left side of the vessels and the three distinct rows of white oars indicate three vessels, although endposts for only two are visible. Once more, these resemble the symmetrical fourth boat of folio 146v (Figures 33), with a deep, round hull and tall end posts. No projections or trumpet-shaped stems appear. A group of passengers sits in the fully depicted upper vessel, which Kosmas is boarding. They are evenly spaced. This miniature

¹⁶¹ Skylitzes 2010, 253. Longobardia is a region of southeastern Italy.

indicates that this artist's focus is not an accurate rendering of watercraft; these are hastily and crudely depicted.



Figure 36: Folio 147v, bottom: Painter B3, Emperor Nikephoros II Phokas

Context: Kosmas disembarks in Italy and proceeds to negotiate with King Dandulf. ¹⁶²

Legend: No legend provided

Image: This image provides a continuation of the above scene and a nearly identical depiction of the vessels. Here, the galleys sit in the outlined body of water on the left, and Kosmas descends the ladder from the upper galley. On the right, Kosmas addresses King Dandulf. These overlapping vessels are even more difficult to distinguish; while there seem to be three rows of oars once more, the alternating lengths suggest the possibility of a larger bireme, depicted below a small monoreme galley. It is possible that was the intention in the previous image as well; either version, three monoreme galleys or a monoreme and bireme galley, are inaccurately depicted. Painter B3 appears to have taken great care in closely replicating the previous image, with the same number of levels or groups of oars, same clothing, and identical faces.

¹⁶² Skylitzes 2010, 253.



Figure 37: Folio 149v, bottom: Painter B3, Emperor Nikephoros II

Context: The next maritime image illustrates an incident during Constantine VII's reign (913-959). Constantine VII and the Arabs reach a new peace treaty after Constantine attempts to conquer them and is defeated. The Arabs, however, then break the treaty and attack Calabria. Constantine sends an army and fleet against them, with Karveas and Moroleon as the admirals, and the patrikios Marianos Argyros as leader of the land force.¹⁶³

Legend: No legend provided

Image: Poor preservation mars many of the details of this miniature. In the scene on the left, Constantine VII addresses a group of three men. To the right, the Byzantine forces are represented by armed soldiers and a fleet of three brown vessels. Two overlapping vessels sit above a single larger galley, as long as the two combined. The bottom vessel is identical to those depicted by Painters B1 and B2; it is long compared to its depth and has a pair of red wings and a red trumpet-like stem. The main wale is represented by a single black line that extends beyond the hull to form the spur at the bow. The top two vessels, slightly overlapping, share the characteristics seen in the previous images by B3. They are smaller, symmetrical, and have

¹⁶³ Skylitzes 2010, 255-56.

deeper hulls that curve, double-ended, at the ends. No helmsmen are depicted, and while all of the vessels have oarports beneath their main wale, none contain oars. The rowers are all facing the sterns of their vessels, but this could indicate that they are awaiting orders.



Figure 38: Folio 157r, top: Painter B5, Emperor Nikephoros Phokas

Context: The widow of Constantine VII, Theophano, weds Nikephoros II Phokas. She eventually separates from him and conspires to bring back John Tzimiskes, previously placed under house arrest for conspiracy. With Theophano's help, Tzimiskes infiltrates the palace by sneaking into the harbor, where her supporters draw him up to the court in a basket. He and his accomplices kill the emperor as he sleeps.¹⁶⁴

¹⁶⁴ Skylitzes 2010, 268-80.

Legend: “The imperial palace and John Tzimiskes” are identified. “The Empress Theophano draws up Tzimiskes.” Five poems accompany this miniature.¹⁶⁵ “A Verse against Theophano” and “Votive offering for the emperor Nikephoros” address Theophano and the assassination of Phokas, respectively; the other three poems, on Phokas, are untitled.¹⁶⁶

Image: This image's focus is the palace, which takes up the majority of the miniature. To its left, a small, slight vessel holds two companions and Tzimiskes, who receives the basket lowered by Theophano. The unique style of Painter B5 in his depiction of watercraft is evident. The slight, symmetrical vessel represents a small rowboat. The hull is composed of two sections of planks, the top half, or sheer strake, is a faded, light blue, and the lower strake, seen underwater, is a light, ruddy brown. Darker lines indicating wales extend beyond the endposts, although this could result from degradation and running colors. The two ends curve in and downward dramatically, forming almost complete circles and terminate with wide, flaring ends, resembling lotus decorations. It is impossible to tell if Painter B5 specifically attempts to depict a bow and a stern; each end is identical, and there are no helmsman or oars shown. The depiction is stylized and delicate. The full spread of folio 157r is included below to show the poems above and beside the nautical miniature at the top of the folio.

¹⁶⁵ Tsamakda 2002, 26.

¹⁶⁶ Ševčenko 1970, 189-190; Tsamakda 2002, 26.



Figure 39: Folio 157r



Figure 40: Folio 159r, top: Painter B5, Emperor John Tzimiskes

Context: After the death of Nikephoros II Phokas, John Tzimiskes takes control of the Empire and the young sons of Romanos II, only seven and five years old. He banishes Theophano and her accomplices to the island of Proikonnesos.¹⁶⁷

Legend: “John Tzimiskes” is identified, with the legend “Theophano is exiled.”

Image: On the left of this image, Tzimiskes banishes Theophano from the palace. She is led down a walkway by two men and turns back toward the new emperor. At the right, she is seated, crying, in a shallow vessel. The small rowboat is depicted in two main sections; purple planks form the upper half of the hull, and light, golden brown planks the lower half. The upper blue section extends past the identical endposts, and forms two broad projections; the one on the right has stepped layers. The endposts curve into fluted lotus ends, resembling those seen in folio 157r (Figure 38). Both images likely represent the same type of rowboat. Two rowers, each with a single oar, sit opposite of Theophano. Although there is no helmsman depicted, two quarter rudders rest at an angle behind the exiled empress.

¹⁶⁷ Skylitzes 2010, 272.



Figure 41: Folio 167v: Painter B5, Emperor John Tzimiskes

Context: John Tzimiskes’s reign is troubled by external threats. Most notably, the emperor continues to fight the Arabs and the Eurasian Scyths. After Byzantine victories at Preslav and Dorostolon, the emperor joins his troops. He brings his fleet and assaults the walls of Dorostolon.¹⁶⁸ The account of these events provides the first use of the term *monoxylai*

(μονόξυλοι), used to describe the vessels of the Scyth. Wortley translates this word as *drakkar*.¹⁶⁹

Legend: The legends identify “the Emperor John Tzimiskes,” “the fleet (ὁ στόλος),” and “the Scyths (οἱ Σκύθαι).”

Image: The focus of this miniature is the emperor and his men as they chase mounted Scythians into the citadel of Dorostolon on the right of the scene. In the background of this scene, two stylized representations of vessels indicate the imperial fleet. These renditions are mere outlines in brown ink. A thick line forms the lower half of each hull, and extends into curving endposts, which terminate in fluted, floral ornaments. A pair of thinner lines form the sheerline of the vessel. Three pairs of vertical lines join the sheer and base. Otherwise, the vessels are uncolored.

¹⁶⁸ Skylitzes 2010, 285-86.

¹⁶⁹ Skylitzes 1973, 302. Skylitzes 2010, 287.



Figure 42: Folio 168v: Painter B5, Emperor John Tzimiskes

Context: John Tzimiskes banishes the *kouropalates* Leon and his son Nikephoros for conspiracy. Their punishment of blinding is not carried out. Instead, they bribe their guards and escape.¹⁷⁰

Legend: “Leon, the kouropalates and Nikephoros, his son” are identified.

Image: This is one of the few miniatures in the codex dedicated to representing watercraft, with no other scenery shown. Leo and his son Nikephoros flee their exile in a hull composed of variously colored sections. The main base, colored a light brown, extends into the stem and sternpost. Above the base and between the two endposts is a red band, topped by a slim, blue layer that extends beyond the endposts to form projections at either end of the vessel. This undoubtedly is the main wale. The forward projection, representing a spur, ends in a point. The aft projection has no accurate parallel. The upmost layer, representing the sheer strake, is also red

¹⁷⁰ Skylitzes 2010, 288.

and terminates at the endposts. These bright colors suggest an important vessel rather than that of an exile. Eight pairs of vertical lines are evenly spaced across the top strake. Both endposts feature fluted ornaments that distinctly resemble flowers. This miniature offers a simple depiction of rigging. A single mast, slightly forward of amidships, is rigged with a lateen sail. The mast extends past the yard, but there is no beaked *carchesion* shown on the mast head. A thick line renders an angled yard. Two heavier lines, one near amidships and one at the bow crossing the stem, portray the edges of a quadrilateral lateen sail. A vang extends aft from the head of the yard and disappears behind the left arm of the helmsman. A pair of faint rigging elements extend from the yard near the bow toward the mast. These may be the *orsies* that control the angle of the yard, though their location is inaccurate as they should be closer to the yard end. This depiction of rigging seems incomplete and could be the sketches laid out before the final painting, which was never completed. The numerous strokes forming the yard support this theory. Five figures occupy the vessel; a helmsman stands at the stern beside Leon and Nikephoros, and two rowers, one on either side, sit near the bow. The helmsman wields a single quarter rudder, and the rowers accurately sit in the bow facing the stern, each holding a single oar.



Figure 43: Folio 182r: Painter B5, Emperor Basil II

Context: During the reign of Emperor Basil II, Bardas Phokas declares himself emperor (987 CE). He sends the *patrikios* Kalokyros Delphinas to Chrysopolis. The emperor defeats Delphinas and then hangs him.¹⁷¹

Legend: The legends identify “Emperor Basil, son of Emperor Constantine” and “Delphinas.”

Image: The faded vessels are part of the scenery rather than the focus of the miniature. The principal scene depicts the hanging of Delphinas. The vessels’ depiction is faded but also appears unfinished. Three horizontal lines indicate three bases. On the left of these, seven curved endposts are staggered chaotically. They are exaggeratedly curved and end with pronounced floral ornaments. On the right side of the lines, however, only three endposts are shown. These are shorter and less exaggeratedly curved. Painter B5 seems to be representing a fleet through the repetition of endposts, as Painter A1 did in folio 32r (Figure 9).

¹⁷¹ Skylitzes 2010, 252-53.



Figure 44: Folio 208v: Painter B1, Emperor Michael IV

Context: There are no images of seafaring in the miniatures illustrating the reigns of Constantine VIII or his son-in-law, Romanos III. The next maritime image shows a scene from the reign of Michael IV, the Paphlagonian (1034-1041). Michael is the second husband of Zoë, the daughter of Constantine VIII. He has epilepsy, and his brother, John Orphanotrophos, rules in his stead. Orphanotrophos exiles the *patrikios* Constantine Dalassenos to the island of Plate and arrests his son-in-law, Constantine Doukas.¹⁷²

Legend: “John, the brother of the emperor Michael,” “Dalassenos,” and “Constantine Doukas,” are all identified, although Constantine erroneously so. The legend reads, “Dalassenos arrives at the palace.”

Image: This image sees the return of Painter B1, whose last nautical depiction was 140r (Figure 31).¹⁷³ As with Painter B1’s other miniatures, this image is very detailed and precise. The legend

¹⁷² Skylitzes 2010, 370-73.

¹⁷³ The author of this depiction was challenging to determine. Both artists A1 and B1 are characterized by precision and clarity, as well as in inclusion of details. The vessel itself resembles those depicted by Painter A1. In addition, Painter A1 has provided all other examples of thick, gold borders around the sea, such as in folios 31v, 32r, and 41v (Figures 8, 9, and 18). Painter B1 typically employs the slim, undulating black border. However, the depiction of waves, the details of the citadel, and the features of the characters indicate the artisan is Painter B1, as Tsamakda concludes.

announces the arrival of Dalassenos; however, the miniature likely shows Dalassenos being charged on the right and then exiled on the left.¹⁷⁴ The vessel differs from the other representations by Painter B1. Previously, this artist has depicted long and slender naval galleys. Here, the artist has illustrated a small rowboat. The hull exaggeratedly curved with full ends, particularly the stern, which faces towards the shore. Painter B1 has depicted caprails on both sides of the hull, a feature rarely seen in this manuscript. The caprail of the starboard side is visible behind the occupants. The port side, shown in its entirety, is a dark brown with black, curving lines indicating the strakes and wales. At the stern, a rower stands, awkwardly holding an oar in each hand. The depiction is identical to those in folios 132v and 134v (Figures 28 and 29). Both endpost terminals, colored red, are decorated with at the bow a trumpet-shaped ornament, that curves inward to the vessel's interior.



Figure 45: Folio 212r, bottom: Painter B1, Emperor Michael IV

Context: This image depicts the defeat of the Arabs in Rhemata by George Maniakes and the reconquering of Sicily.¹⁷⁵

¹⁷⁴ Tsamakda 2002, 235.

¹⁷⁵ Skylitzes 2010, 378-80.

Legend: The legend identifies “the Romans,” “Maniakes,” and the fortress of “Rhemata.”

Image: The layout of this intricate image resembles that seen in previous miniatures, such as those in folios 110v, 111v, and 129v (Figures 21, 22, and 26). The vessels are docked at the left, while the Byzantines (identified as Romans) and Sicilians battle to the right. The five galleys show the characteristic form of Painter B1. They are shown entirely, with the lowest portion of the hull shown faintly through the water. The lower four vessels alternate between red and yellow *paraptera*, with a dividing, dark line between the two wings. The stems alternate between straight brown posts and curved, red trumpet-shaped stems. Each has a heavy spur, which is a continuation of the main wale spanning the length of the galley. Above the wales is a row of oarports, which are not shown with oars. There are also no quarter rudders. At the top of the column of galleys is the largest and most ornate, designating it as a flagship. Its *paraptera* is golden and intricately curled at the ends. The stem is also golden. A square outline at the stern could represent a *kabratos*, the cabin for a captain. Across the sheerline are removable wooden protective panels, outlined in black and filled with a cross-work pattern of red lines. Painter B1 has given extra attention to this ship’s depiction and included extra wales below the main wale, extending from the spur. The oarports are also carefully drawn and evenly spaced.



Figure 46: Folio 219v, bottom: Painter B5, Michael V Kalaphates

Context: After the death of Michael IV, Empress Zoë takes power. She adopts Michael’s nephew, the son of Stephanos, and crowns him Emperor Michael V. Michael V then seizes power from Zoë and banishes her. However, the people revolt and bring Theodora, the sister of Zoë, to the Great Church from the monastery at Petrion. There they declare her and Zoë empresses. In the face of this uprising, Michael brings back Zoë and presents her, clothed in imperial purple, to the people at the Hippodrome.¹⁷⁶

Legend: “Petrion” is identified, along with “Theodora” and “Empress Zoë .”

Image: In this miniature, Painter B5 depicts four scenes arranged from left to right. On the far left, Theodora boards a rowboat to depart from the Petrion monastery. To the right, she is preparing to disembark. The following two scenes show Theodora and Zoë embracing, then Zoë sitting crowned in the church of St. Sophia.¹⁷⁷ These various scenes are artistic interpretations as Skylitzes does not describe the sisters’ meeting. The identically depicted vessels in the center of this miniature are disproportionately small compared to Theodora. They are slight, small

¹⁷⁶ Skylitzes 2010, 391-94.

¹⁷⁷ Tsamakda 2002, 245.

rowboats. The flared endposts curve in toward the boat. In the left scene, Theodora boards via a gangplank. An occupant reaches to aid her, and a rower sits in the bow with an oar in each hand. In the next scene, the oars are at rest, and the rower extends his hands to help Theodora exit the vessel. These rowboats are similar to those depicted in folios 157r and 159r (Figures 39 and 40).



Figure 47: Folio 222r, top: Painter B5, Emperor Constantine IX

Context: Zoë recalls Constantine Monomachos from Milytene, where John Orphanotrophos had banished him. The text mentions that Monomachos is brought back to the capital aboard a *dromon*. When he arrives, he weds Zoë.¹⁷⁸

Legend: “Constantine Monomachos, having come by *dromon* (δρόμων), went to marry the empress.”

Image: This image shows a single vessel. The commentator and Skylitzes have identified this vessel as a *dromon*, but it varies little from previous depictions by Painter B5. It is certainly not

¹⁷⁸ Skylitzes 2010, 397.

an accurate depiction of the Byzantine galley. The hull is composed of several longitudinal sections. A light brown lower hull extends at the ends to form tall, curved endposts, similar to those in folio 168v (Figure 42). The ruddy, upper segment, representing the main wale, extends beyond the end posts on each side, forming a spur at the bow and an aft projection. Above this are a second light brown section and a final darker, ruddy section at the sheer. The stern is partly hidden where Monomachos leans against it, though one wing may be discerned. The tall stem at the opposite end is unrealistically tall and curves inward to form a complete circle. At the bow, two rowers each pull a single oar over the caprail. No oarports are shown. The galley is disproportionately small and lacks any defining characteristics of a *dromon*, instead resembling a small rowboat.



Figure 48: Folio 224r: Painter B5, Emperor Constantine IX Monomachos

Context: Georgios Maniakes, who had previously defeated the Arabs in Sicily, kills the *protospatharios* Pardos, who was appointed his successor, and declares himself emperor. Emperor Constantine IX sends a letter to Maniakes asking him to lay down his arms.¹⁷⁹

¹⁷⁹ Skylitzes 2010, 402-03.

Legend: “The emperor Constantine Monomachos dispatching letters to Maniakes.” A second legend identifies “*Georgios Maniakes*.”

Image: There are two scenes. On the left, Emperor Constantine sends two delegates. On the right, one representative, not seen on the left, hands the communication to Maniakes, sitting on a throne. Behind Maniakes’s throne, three vessels rest, partially blocked by the throne. The visible, right extremities of the vessels have a curved endpost and spur. While this could indicate the bow, Painter B5 has routinely drawn spurs on both the bow and stern, such as in folios 168v and 222r (Figures 42 and 47). These boats have no distinguishing characteristics. The hulls are simply rendered, shallow, and flat, without oars, steering, or rigging.



Figure 49: Folio 225v, bottom: Painter B5, Emperor Constantine IX

Context: The Scyths attempt an expedition against Constantinople (1043 CE). Vladimir, the ruler, puts together a large army, and sets out aboard *drakkars* (μονόζυλοι) against the capital.¹⁸⁰ Constantine IX sends an embassy to remind Vladimir of their treaty and asks him to lay down his arms. Vladimir, however, is insulted after the killing of an illustrious Scyth in an altercation between Scyth merchants at Byzantium. He sends the envoys away.¹⁸¹

¹⁸⁰ Skylitzes 1973, 430.

¹⁸¹ Skylitzes 2010, 404-05.

Legend: “Constantine Monomachos dispatching ambassadors to Vladimir, and Vladimir sends back the ambassadors of the Emperor.”

Image: This poorly preserved miniature resembles that of folio 224r (Figure 48). The two sovereigns are shown on thrones: Constantine, on the left, with a red background, and Vladimir, on the right, with a blue background. The emissaries appearing in each scene are the same. Beside Constantine's throne, there is a single vessel, colored a bright, ruddy brown. The boat has flaring, floral decorations on its ends, similar to those seen in folio 219v (Figure 46). Under each endpost, there is a rectangular projection. The miniature, especially the vessel depiction, is degraded, but it is apparent that Painter B5 has given the vessel little attention and rendered it only in solid profile.



Figure 50: Folio 226r, top: Painter B5, Emperor Constantine IX Monomachos

Context: Constantine Monomachos prepares the imperial fleet. The passage states that the emperor boards an imperial *dromon* and challenges Vladimir at Pharos.¹⁸²

Legend: The legend identifies “Emperor Constantine Monomachos.”

¹⁸² Skylitzes 2010, 405.

Image: This image depicts the imperial navy and the emperor's imperial *dromon*. Painter B5 uses the technique of showing repeating endposts to indicate a multitude of vessels on the left. The lead vessel is portrayed in full view, followed by the fleet designated by mirroring each end of the vessel twice to the left and right. Each galley is light gold with dark lines indicating strakes. On the outermost galley in the fleet, the strake below the sheer strake is colored a deep blue. Above this strake, the sheer strake has evenly spaced pairs of vertical lines, as seen in folio 168v (Figure 42). The overlapping depictions make it challenging to determine whether every vessel is depicted with projections, but the outermost endposts on the left and right do have stern projections and spurs, respectively. This suggests, as seen in the other miniatures, that Painter B5 has inaccurately shown a 'spur' on both the bow and stern. The repeating multiple endposts are identical and recurve to form flared, floral ornament. Five oars and three rowers seem to be associated with the outermost vessel. It is possible these oars are shown projecting from the hull and that the pairs of vertical lines represent oarports, although they do not align with the oars. Three helmsmen stand forward of each of the three endposts on the left, and each holds a single quarter rudder. To the right is a single, larger vessel in which the emperor sits, designating the imperial *dromon*. Although longer than the other vessels shown in this image, it is nearly identical to the fully illustrated galley to its left. The hull has three strakes, all colored golden-brown. The uppermost strake has nine pairs of vertical lines. The endposts are taller and more substantial than those on the galley at left. The galley is rowed by a group of five rowers, facing the stern, and six oars, which emerge over the caprail. Behind the emperor, at the stern, stands a helmsman with a single quarter rudder. It is interesting that, although this is the imperial *dromon*, there are no distinguishing features, such as the differently colored strakes on the left vessel or any decorations. It is most clearly distinguished by size.



Figure 51: Folio 226r, bottom: Painter B5, Emperor Constantine IX Monomachos

Context: The two naval forces stand across from one another, but the Scyths remain moored in their harbor while the emperor waits for them to make a move. When evening comes, and neither has made a move, the emperor sends a peace delegation once more. Once more, Vladimir sends them back.¹⁸³

Legend: “Constantine Monomachos again sends ambassadors to Vladimir,” and “Vladimir again dishonorably sends the ambassadors back.”

Image: Once more, two thrones, one for Constantine one for Vladimir, are depicted. In this miniature, both have a blue background. Behind Constantine’s throne, Painter B5 has illustrated three overlapping vessels. They are distinguished by their endposts, which are only visible on the left side. The end posts curve inward and end with a flared ornament. The upmost vessel seems to have a projection below the visible endpost. As with other miniatures illustrated by Painter B5, there appears to be little attention given to an accurate depiction of ships. These vessels are included for the sake of the story and as scenery.

¹⁸³ Skylitzes 2010, 405.



Figure 52: Folio 226v: Painter B5, Emperor Constantine IX Monomachos

Context: The emperor sends Basil Theodorakanos with three swift vessels to see if the Scyths can be provoked into attacking. Basil sails right into the midst of the Scyths, burning seven vessels with Greek fire and sinking three more. He leaps aboard one vessel and slays all aboard, who are dumbfounded at his daring.¹⁸⁴

Legend: “Constantine Monomachos sends Basil Theodorakanos with three triremes (τριήρεις) to attack the Scyths.” A more extended legend is incomplete, “Theodorakanos, thrusting himself upon the middle [of the fleet], burns seven of their vessels (σκάφη)...”

Image: To depict the two fleets, Painter B5 has used repeating endposts to indicate three vessels. The Byzantine fleet is on the left. The frontmost galley is fully represented, and to its right, two other endposts designate the rest of the fleet. These vessels are dark, golden brown, with curved endposts that terminate with the characteristic flair. The frontmost galley has a longitudinal line representing the main wale that divides the hull and forms projections at the bow and stern. These projections are also visible on the two ends of the two galleys behind it. There is a group of three rowers and four oars gathered in the bow of the frontmost vessel. Opposite them is a standing helmsman who holds a single quarter rudder at an unrealistic and uncomfortable angle,

¹⁸⁴ Skylitzes 2010, 406.

with his arm angled behind him. In front of this first group of galleys is the lead galley from which Theodorakanos leaps to the enemy vessel. Theodorakanos's lead galley is nearly identical to the one fully depicted in the group at left. It is deeper, and the endposts are less pronounced. Alternating shades of brown indicate the strakes. One dark strake, corresponding to the main wale, projects beyond the bow and stern. Although the image is faded, Theodorakanos does not appear to be using the spur to board the enemy vessels, reinforcing the assumption that Painter B5 does not understand the use of the spur. The group of three galleys at the right represents the Scyth fleet. The middle vessel in the group is shown in the forward most position; the vessels to its starboard and port are slightly behind. They are rendered identically, with tall, curved endposts that end with the typical flared ornaments. Any differentiation in color within the hulls has faded. No rowers or helmsmen are shown in these galleys, although the aftermost one shows at least four soldiers facing Basil as he boards the Scyth vessel.



Figure 53: Folio 227r: Painter A1, Emperor Constantine IX Monomachos

Context: The Scythians question whether they can be victorious if three vessels alone could inflict such damage. At the sight of the entire fleet approaching with the emperor, they make a hasty

retreat. They sail into reefs and submerged rocks in their haste, destroying many of their vessels and exposing their men to attack.¹⁸⁵

Legend: This legend is damaged. The *Romans... kill the Scyths*.

Image: The same artisan, Painter A1, provides both the first and last maritime images in *Skylitzes Matritensis*. In this miniature, the sea is framed by two sections of land. The depiction demonstrates the chaos of battle, as figures move to climb over one another and combat across the vessel and land. The vessel in the center is deep and round, colored a very dark brown, almost black. The endpost on the right appears to be the stern as it has the characteristic pointing wings of the *paraptera*. However, Painter A1 has depicted this feature on both the bow and the stern in previous images. A figure leaping from the vessel to the land conceals the other end. The five other occupants of the vessel are either fighting or dead, and the battle eliminates the need to depict a helmsman or oars. Interestingly, and inexplicably, the vessel features a gilded strake delineating its bottom, sweeping up to the end of the *paraptera*.

¹⁸⁵ Skylitzes 2010, 406.

CHAPTER III SYNOPSIS

The descriptions above of the 51 nautical miniatures highlight the seven painters' variety of style. This section will summarize each painter's typical vessel representation and unique traits before synthesizing trends throughout the manuscript. While each artist exhibits diversity among his miniatures, a typical vessel depiction emerges for each painter. One of the measurements not discussed above, which will be provided below, is an average length-to-height ratio in the vessel renderings. In nautical studies, the ratio of length-to-breadth of a vessel indicates the vessel's potential function.¹⁸⁶ As discussed in Chapter I, round ships intended for transport are bulkier, with a smaller length-to-breadth ratio that provides them with a boxy shape and ample cargo space. On the other hand, military galleys have a higher length-to-breadth ratio that provides a sleek, streamlined profile for speed. As mentioned earlier, artists were, however, not necessarily familiar with these proportions. Additionally, two-dimensional images do not provide a view of breadth. It is possible, instead, that artists suggested the proportions of their vessels through length and height. The measurements below are the ratios of the height taken near the center of the hull to the maximum length between the endposts. This measurement eliminates the effects of wildly exaggerated posts and decorations that do not reflect the hull's dimensions. The average length-to-height ratio was then calculated for each painter and incorporated into his profile. The following summaries express the trends that can be seen throughout the *Skylitzes Matritensis* codex, either those uniquely depicted by a single painter or those that were common to their area of training, either in the Byzantine Empire or western provinces.¹⁸⁷

¹⁸⁶ Steffy 1994, 10-11.

¹⁸⁷ Also see Appendix A, Tables 1-7 for the characteristics of each vessel in the miniatures, sorted into tables by Artist.

Painter A1

The most prolific Byzantine artist, Painter A1, provides 18 miniatures, which together portray approximately 47 galleys. While A1 contributed the first and last images examined in the codex, most of his contributions are in the first half of *Skylitzes Matritensis*. He depicts various subjects, including exile, travel, military conflict, and the unique depiction of an imperial merchantman, illustrated as a galley, in folio 44r (Figures 19 and 20). The typical galley for Painter A1 has a full hull, in which parallel curved lines of alternating shades of brown depict the strakes and the wales. Painter A1 uses color to indicate particularly important vessels, such as the imperial galley in folio 44r top (Figure 19). Painter A1 also depicts Thomas the Slav in a gilded galley in folio 29v (Figure 7), although the scene represents Thomas going into exile. The average length-to-height ratio among vessels by Painter A1 is 3.9:1, with a range of 2.8:1, represented by the right galley in folio 35v (Figure 12), to 5.8:1 found in two vessels, both at the left in their images, in folios 41r and 44r top (Figures 18 and 19). Painter A1 routinely depicts the *paraptera* as a tall, exaggeratedly curved pair of pointed wings. While the *paraptera* was a feature of the stern, Painter A1 tends to represent it on whichever end of the ship is visible, and it is often inaccurately portrayed on the bow or at times on both ends of the vessel.

A1 provides the majority of rigging and spar depictions (Figures 2, 3, 11, and 20). These depictions typically show a single lateen sail on a mast set near amidships. The rigging portrayed is usually the vang and *orsia*, which controlled the position of the yard. These miniatures provide simplified representations of how rigging might appear from a distance; and, at times the number and placement of these lines are inaccurate. The vessels are generally rowed with oars that emerge over the caprail. A helmsman stands at one end, usually holding a single quarter rudder. Painter A1 demonstrates consistent issues with orientation; at times, the vessels are traveling

backward, such as in folios 14v and 15r (Figures 2 and 3). The occupants can also face the wrong direction, such as in folios 35v and 38v (Figures 12 and 14). Painter A1 provides a single depiction of the spur at the bow in folio 29v (Figure 7). He also provides several representations of ship castles and military devices, such as the simplified representation of Greek fire in folio 34v (Figure 11). The depiction of Thomas's fleet in folio 31v (Figure 8) provides representations of horse transports and likely a larger *dromon*, such as the *chelandion*, equipped with castles. The shape of these galleys, however, does not differ from the smaller galleys represented in other figures. Painter A1 also does not differentiate between Byzantine, Saracen, or Rus galleys, as seen in folios 38v and 41r (Figures 14 and 18). Although his miniatures are detailed, they are often erroneous and misleading.

Painter A2

The second Byzantine driver, Painter A2, provides two nautical images with nearly identical vessels depicted in each. The miniatures are consecutive and portray the exile of the patriarch Nikephoros. The galleys' hulls are shown full with exaggeratedly rising curves at both ends. They are a bright red-orange, with parallel, curving dark brown lines representing strakes and wales. The average length-to-height ratio in these vessels is approximately 4:1. Painter A2 depicts the *paraptera* very crudely as a set of two or three prongs at the end of an endpost. These prongs indicate the two wings of the *paraptera* and, for the third prong, the end of the sternpost. In folio 21r (Figure 5), the *paraptera* is inaccurately shown on both the bow and stern. In folio 20v (Figure 4), the *paraptera* is shown on the same end as the rowers, demonstrating Painter A2's inability to depict direction accurately. The vessel is depicted traveling stern-first. In this image, a second helmsman stands beside the group of rowers and holds a large quarter rudder at

an impossible angle. Folio 20v accurately situates the rowers and two standing helmsmen, each handling a quarter rudder. These vessels lack spurs or any other military features, suggesting they are galleys used for travel, as the scenario necessitates.

Painter B1

This western-trained painter contributes ten miniatures in which 44 galleys appear. As with Painter A1, the miniatures depict various scenes, including travel, naval battle, exile, and several depictions of vessels beached near a land battle. Amphibious tactics are sometimes suggested, as the soldiers are depicted attacking both on land and from the sea. The galleys that Painter B1 portrays are long and shallow with a nearly straight sheer. The bows are shown with a gradually rising rake while the full stern rounds abruptly. The length-to-height ratio in the hulls is approximately 5.7:1. The hulls are colored a dark brown and are usually divided longitudinally by a black main wale. Above the wale is the oarport strake, sometimes colored a lighter brown. The wale extends past the stem and forms a thin, straight spur. The stem's terminus is trumpet-shaped and colored, often red or gold, and curves back toward the vessel's interior. The *paraptera* at the stern consists of a pair of straight, red strokes rising at an oblique angle from the sheerline. These wings are usually outlined. Because of the distinct characteristics depicted of the bow and stern, the vessels are usually accurately oriented with the passengers facing the correct direction and the vessel traveling bow-first. The majority of the galleys are shown empty. When rowing, occupants sometimes inaccurately face the bow, such as in folios 132v and 134v (Figures 28 and 29). Helmsmen generally stand at the stern, holding a quarter rudder in each hand. At times, when galleys are shown moored, the quarter rudders rest out of the water such as in folios 111v and 138v (Figures 22 and 30). The galleys in folio 111v feature intricately

decorated sterns. A gilded stem and *paraptera*, and a protective structure are other unique features B1 depicts on the flagship in folio 212r (Figure 45). Painter B1 provides nearly identical renderings of all galleys, even in folio 130r (Figure 27), which portrays a naval engagement between the Rus and Byzantines. Like the miniatures of Painter A1, these are detailed and vivid, although not remarkably accurate in their renderings, particularly in the lack of any rigging.

Painter B2

This artisan contributed three miniatures and represented 14 vessels. The scenes always portray a military fleet moored stern-first at the shore. The hulls have an average length-to-height ratio of 5.7:1. Painter B2 is notable for his consistency. The galleys are colored a dark brown and have shallow hulls, with full sterns and gradually rising bows. Their shape is similar to those depicted by Painter B1. The hulls are divided by a black line, indicating the main wale and spur. The stems terminate in a trumpet-shape and are gilded. The *paraptera* is represented by a pair of thin red strokes of paint that are not outlined, although a single dark line divides the wings. Light grey oars emerge from oarports in the upper half of the hull. No rowers are ever depicted holding oars. No helmsmen appear even though quarter rudders are shown in folio 124r bottom (Figure 25) resting between the wings of the *paraptera*. A unique feature of these figures is the undulating line, in red or gold, along the sheer. As the vessels are shown moored, this likely represents a removable canvas stretched over the galley. In the top and bottom images of folio 124r, the line does not cross over occupants when they are depicted in the galleys.

Painter B3

The five miniatures by Painter B3 provide depictions of 16 vessels. These vessels are of two types. Painter B3 depicts four galleys in two miniatures, folios 146v and 149v (Figures 33 and 37), similar to those portrayed by Painters B1 and B2. These galleys are long and shallow with an average length-to-height ratio of 4.9:1. They are colored dark brown and have trumpet-shaped stems, colored either red or gold. The *paraptera* are similar to those of Painter B2; Painter B3 uses two strokes of red to indicate the wings at an oblique angle. A black line, representing the main wale, extends along the length of the vessel and projects at the bow as the spur. Oarports, seen on two of the galleys of this type, are inaccurately depicted along the main wale rather than above it. In the two vessels with oarports, a second row of oars held by rowers emerges over the caprail. Each of these vessels has at least one helmsman who handles a single quarter rudder. In folio 146v (Figure 33), one galley has two helmsmen, each holding a quarter rudder. The second type of vessel is a rowed round ship portrayed 12 times throughout all five miniatures. Three of these miniatures, in folios 147r and 147v (Figures 34, 35, and 36), show travel by an envoy. The ships are arranged in overlapping columns, making measurements difficult. The average length-to-height ratio for all ships of this group is approximately 3.7:1. The vessels of this type in folios 146v and 149v (Figures 33 and 37) accompany galleys. The hulls are symmetrical and deep, with exaggerated endposts. The endposts are identical in shape, without a spur or *paraptera*. There are no oarports, and the grey oars emerge over the caprail. Although actual round ships would be primarily sailed, there are no depictions of masts or rigging. Only folios 146v and 147r (Figures 33 and 34) show helmsmen standing at the stern and each holding a single quarter rudder. However, many of the miniatures show the vessels moored at the shore, explaining the infrequent depictions of a helmsman. The vessels are generally

accurately oriented and seem to follow the tradition of mooring stern-first. In folios 147r and 149v (Figures 34 and 37), the rowers face various directions; however, they are still waiting to embark. The depictions in folios 147r. and 147v (Figures 34, 35, and 36) show the envoy Kosmas boarding and disembarking by a ladder.

Painter B4

A single maritime image with three galleys is attributed to Painter B4. The galleys are nearly identical, with full sterns and bows. Their average length-to-height ratio is 4.4:1. They are colored dark brown with a lined, golden caprail. The stems and sternposts are depicted on each end by trumpet-like posts; those at the bow are taller. The sterns also have tall *paraptera* that are relatively straight. The bow has a long, thick spur that is mirrored at the stern by a short projection. Between these two projections is a light blue, curved wale. Each galley has two rowers sitting visibly and holding a single dark brown oar each. Below the ‘wale,’ there are four or five white oarports from which white oars emerge. The galleys are all accurately oriented and positioned, and the one closest to the citadel has reversed to approach stern-first.

Painter B5

The final artisan provides 12 miniatures with approximately 35 vessels. These are the least accurate and most fanciful depictions in the *Skylitzes Matritensis* codex. Painter B5 repeatedly suggests multiple vessels in his miniatures through the repetition of endposts, restricting the depictions of entire ships. Of those that are fully rendered, the average length-to-height ratio is approximately 5.2:1. The representations show very slight hulls that are rendered in layers of different colored strakes. The top strake often features a series of evenly spaced pairs

of vertical lines. The strakes are most often colored a light, golden brown, with a few strakes of red and blue. The bows and sterns have curving endposts that almost form a complete circle. A flared ornament, which resembles a flower in some of the more detailed representations, caps these endposts. While these could be understood as inaccurately depicted *paraptera* on the sterns, it is evident that Painter B5 has not attempted to depict that feature intentionally. The middle strake of several vessels extends past the stem and sternpost to form a spur and an aft projection, as seen in folios 168v, 222r, 225v, 226r, and 226v (Figures 42, 47, 49, 50, and 53). When rowers are depicted, they are shown side by side facing the stern and each rowing a single oar over the caprail. The helmsmen stand at the stern and hold a single quarter rudder. There is one depiction of rigging in folio 168v (Figure 42). Although this image is detailed and focused on the vessel, it is a crude depiction of rigging. It shows a mast, quadrilateral lateen sail, *seste*, and pair of *orsies*. The lack of accuracy suggests this is simply a sketch before the final illustration. Many of the vessels by Painter B5 are stylized renditions included for the sake of the scene and, at times, are no more than mere outlines. The miniatures show a variety of settings, including naval battle, travel, and exile. Depictions by this illustrator are notable for the lack of any portrayal of water or scenery.

Tsamakda observes the inconsistencies, disproportions, and exaggerations seen in his figures, stances, clothing, and scenery.¹⁸⁸ These are reflected in B5's illustrations of watercraft. The vessels vary in size and proportions and rarely have accurate features. These vessels' defining characteristic is the symmetrical curving endposts, which generally end with a flair that resembles botanical features in some of the more detailed images. These endposts resemble neither the Byzantine nor western stems. Painter B5 offers distinctly stylistic caricatures of

¹⁸⁸ Tsamakda 2002, 378.

vessels. While Painter B5 sometimes illustrates construction features such as the spur and rigging in folio 168v (Figure 42), even this detailed image has problems with proportion and authenticity. The vessels in B5's miniatures are often included as scenery in the background and are significantly smaller than the main scene. Painter B5 presents a strong Arabic influence, like the other western miniatures, but his stylistic presentation prevents comparison to the other artists. While the other painters are discussed in the following sections, B5 is generally excluded unless otherwise noted.

Trends throughout *Skylitzes Matritensis*

Interaction with Terminology and Text

The first characteristic of the *Skylitzes Matritensis* codex miniatures to be examined is the relationship of the miniatures and the text, provided in both *Skylitzes's* Synopsis and other contributors' legends. As mentioned in Chapter I, *Skylitzes Matritensis* describes and illustrates Byzantine, Rus, and Arab fleets in a variety of events from throughout three centuries. *Skylitzes* and the copyist scribes use particular terminology in their description of events, categorizing vessels as τριήρης (*trieres*)- trireme; δρόμων (*dromon*)- *dromon*; ὀλκάς (*holkas*)- merchantman, and the intriguing use of μονόξυλος (*monoxylos*) translated as drakkar for the vessels of the Rus. With the exception of drakkar, specific designations such as *dromon* and *trireme* refer exclusively to Byzantine vessels. The fleets of the Rus and Arabs are described with terms such as ναῦς (*naus*): boat; στολος (*stolos*): fleet; πλοῖον (*plouion*)- sailed thing; and σκαφος (*skaphos*)- skiff, boat. These terms are diminutive and generally suggest a smaller vessel. However, rather than indicating size, this is a literary technique to glorify the Byzantine navy over its adversaries. The diverse uses of terminology, however, does not correlate to differences in depictions. For

example, Painter B1 depicts the fleets of the Byzantines, Rus, and Arabs without distinction. Context and clothing are the only variations. As mentioned above in the section on Byzantine naval construction (see pages 16-26), the naval galleys of these different nationalities likely developed to resemble Byzantine galleys closely. The lack of distinction, however, is most likely to be attributed to the artists' goals. This codex is not a guide to watercraft. The vessel depictions are designed to be recognizable by their audience, but the artists are not familiar enough to convey details of particular vessels mentioned in the text. The representations should not be considered nautical directories, but instead recognizable and familiar renditions for a Byzantine audience.

Orientation

Issues of orientation are apparent in miniatures from all of the illustrators. Orientation is of two kinds: the positioning of the vessel's occupants and characteristics and the vessel's direction of travel within the miniature. There is an apparent relationship between these two, as the orientation of the features and audience can, at times, be the indication of the vessel's direction. For example, the helmsman or *paraptera* might determine the stern, while the spur would indicate the bow. However, these features are not reliable. In many instances, various features are portrayed incongruously. For example, between the two images by Painter A2 in folios 20v and 21r (Figures 4 and 5), the occupants' positioning and the direction the vessel travels within the miniature are flipped, but the vessel itself is identically oriented. The result is a vessel traveling stern-first in folio 20v (Figure 4), and the vessel traveling bow first in folio 21r (Figure 5), although many other features are erroneously depicted. Painter A1 presents similar difficulties as he inconsistently places various hull features, such as the *paraptera*. It appears

opposite the helmsman, beside the helmsman, and at times on both ends.¹⁸⁹ It is easy to assume that all the artists, Byzantine and western trained, tend to depict the rowers in the bow and the helmsman at the stern. Painters B1, B2, B3, and B4, due to the more distinct form of their galleys, are much more consistent and accurate in the orientation of their hull features, occupants, and vessel shapes, although at times rowers are incorrectly shown facing the bow.

The position of the vessels' features and passengers is complicated by the challenge of determining in which direction the vessel is traveling. When the characteristics and passengers are oriented in two opposite directions within a single miniature, such as in folios 39v, 44r, and 145r (Figures 16, 19, and 32), it can be difficult to determine whether this is simply in error or an intentional attempt to show vessels in reverse. As mentioned above, it was the custom to approach and moor a vessel stern-first in the Mediterranean. Painters B1, B2, B3, and B4 were undoubtedly aware of this practice and consistently portray their galleys secured stern-first. In folio 145r (figure 32) by Painter B4, the galley closest to shore has been intentionally flipped to approach stern-first. The symmetry of the vessels by Painters A1 and A2 makes determining the orientation at shore challenging, although folio 39v (Figure 16) seems to portray a vessel maneuvering to approach stern-first. In general, there is a lack of consistency in orientation among the painters; however, it is significantly more prominent in the miniatures by Painters A1 and A2. Because these painters depicted more symmetrical vessels, it can be challenging to determine orientation and direction as their indicative features are inconsistently portrayed. There seems to be some awareness of the accurate location for the rowers, helmsman, and *paraptera* and the practice of docking stern-first. Still, depictions of these familiar characters are not consistent.

¹⁸⁹ For these examples see: opposite: fols. 15r, 29v, 35v, and 44r top (Figures 3, 7, 12, and 19); beside: fols. 32r, 33v, 38v, 39v, 41r, and 44r top (Figures 9, 10, 14, 16, 18, and 20); both: 31v (Figure 8)

Proportion

The miniatures in the *Skylitzes Matritensis* codex demonstrate an unsurprising lack of accurate proportions. Every image, indeed, shows the vessels disproportionately smaller than their occupants. The proportion of the vessels' characteristics may also be exaggerated, such as the size of *paraptera* and other endpost ornaments. These disparities recall the illustrators' purpose, not to depict a vessel accurately, but rather to portray a scene and enliven a text. The characters in the miniature are much more significant than the vessel.

However, the proportions of these miniatures are not entirely baseless. The artists' profiles above provide an average length-to-height ratio for each of the illustrators. Within each miniature set, a trend emerges of depicting vessels in military scenes with a longer length-to-height ratio, and vessels in depictions of travel, exile, or trade with smaller length-to-height ratios. For example, the ratios of approximately 3:1 are common in the miniatures of exile scenes depicted by Painter A1. In contrast, the ratio of 5.8:1 is seen on the large, fortified *dromon* in Thomas's fleet depicted in folio 31v (Figure 8). The ratios of the two different types of vessels depicted by Painter B3 suggest different military and merchant vessels in folios 146v and 149v (Figures 33 and 37). The depictions of scenes of exile by Painter B1 have a diminished length-to-height ratio as well, although no change in hull form accompanies this. These vessels, from folios 132v, 134v, and 208v (Figures 28, 29, and 44), have ratios 6:1, 5.5:1, 4.7:1, respectively. These contrast with the galleys in folio 110v (Figure 21) and their ratios of 7.3:1, 7:1, and 6.3:1. The patterns of dimensions exhibited by the painters suggest that illustrators could use length and height to portray boxier or sleeker vessels for their portrayals of travel or military scenes.

Helmsman

Every illustrator, except for Painter B2, whose vessels are shown moored at shore, portrays helmsmen. As mentioned above, in the discussion on orientation, the helmsmen are, at times, depicted erroneously at the bow. This section will, however, focus on the depictions of stance and helm grip. Mediterranean vessels of this time were operated by a pair of quarter rudders, one to port and one to starboard. These massive oars would have been controlled by a tiller and loom system, which allowed the helmsman to pivot the blades easily at an angle to the hull.¹⁹⁰ The quarter rudders were protected by the *paraptera* meeting the hull, also called the *epotides* in the Byzantine sources discussed above. Generally, Painters A1, A2, B3, B4, and B5 illustrate a single helmsman holding one quarter rudder, often in one hand, and on the visible side of the vessel. In contrast, Painter B1 always depicts two quarter rudders. All of these depictions, however, are inaccurate. Helmsmen are usually shown standing; however, they have a relaxed stance, with bent arms to hold the quarter rudder or quarter rudders at the end of their looms. There are no depictions of the tiller structure, and there are no clear depictions of the protection provided by the *paraptera*. It seems that for the sake of simplicity, and likely due to lack of knowledge, the illustrators have not entirely provided the helmsmen with the necessary support or proper stance to guide their vessels. Folio 20v (Figure 4) by Painter A2 provides the most exaggerated depiction of a helmsman, standing at the center of the galley with straight arms handling a quarter rudder.

An interesting presentation by Painters B1 and B2 is the pair of quarter rudders stowed between the wings of the *paraptera*.¹⁹¹ Painter A1 also sometimes depicts one quarter rudder at rest, projecting from the vessel's stern, as in folio 29v (Figure 7). These depictions suggest some

¹⁹⁰ Casson 1995, 224; See Steffy 1994, 281 and Figure G-18, 298.

¹⁹¹ Painter B1: folios 111v and 138v (Figures 22 and 30); Painter B2: folio 124r (Figure 25)

awareness of the use of the quarter rudders, although the artists have chosen to simplify their portrayals, rendering them inaccurate but easily intelligible.

Rigging

There are five depictions of vessels with elements of rigging. Painter A1 provides four of these miniatures, and Painter B5 provides one. The rigging of vessels is complicated to portray accurately; it is not surprising, therefore, that the depictions are simplified. Three of the miniatures by Painter A1, in folios 14v, 15r, and 34v (Figures 2, 3, and 11), show a single mast with a yard. A lateen sail hangs from the yard, and its curved sides indicate it is filled with wind. The depictions of the sail indicate the difficulty artists encountered in expressing movement and depth in two dimensions. By the time that the *Skylitzes Matritensis* was illustrated, all vessels would have used fore-and-aft lateen sails, as indicated by the sail's vaguely triangular shape, wider at the head and narrowing toward the foot. Although a lateen sail would not hang from a yard in the manner depicted, this could indicate the difficulty of accurate depiction.

Generally, these images show rigging that consists of two pairs of shrouds, one on either side of the mast, originating near where the mast is intersected by the yard. Folio 14v (Figure 2) shows two more lines at each yard arm, and 15r (Figure 3) provides two at one end and three at the other. Folio 34v (Figure 11) shows no rigging at the yardarms. These lines are likely vang and *orsies*, which were used in pairs. The final depiction is in folio 44r bottom (Figure 20), which depicts the burning of the empress' vessel at Theophilos's command. Although the mast is shown standing, no yard or sail appears. The lack of a yard suggests that it could have been lowered and stowed away in the ship, a common practice. The pairs of shrouds on either side of the mast remain. The final depiction of rigging, by Painter B5, is possibly a preliminary sketch

before the final painting. In folio 168v (Figure 42), there is a single mast forward of amidships. Two heavy lines on either side, near amidships and near the bow, indicate the sides of a quadrilateral lateen sail. The yard is depicted at an angle, as might be expected for a lateen rigging. A pair of *orsies* seems to be depicted running from the yard to the mast. Finally, a vang stretches from the yard end and disappears behind the helmsman. Although there is some consistency in including shrouds, vangs, and *orsies*, none of these images effectively depict Byzantine rigging.

Trends Particular to the Sets of Painters

The trends described in this section exhibit a clear distinction between western and Byzantine portrayals. They help determine the different styles that are characteristic of artists from different areas of the Byzantine world.

Hull Form

One of the most obvious distinctions, which has been touched upon in the sections above, is the difference in hull shape depicted by western and Byzantine illustrators. The vessels in Byzantine painters' miniatures are full-bodied, generally symmetrical, and have exaggerated curving *paraptera* that appear at the bow, stern, and at times on both ends. The western galleys are shallow and have a greater length-to-height ratio. They are generally straight-sheered, with gradually rising bows and abrupt, full sterns. The only artist who varies strays this trend is Painter B3, who depicts full-bodied, symmetrical round ships along with narrow, flat-bottomed galleys. The variety of hull forms between and among the groups of artists may suggest that the Byzantine and western illustrators were depicting separate types of ship construction. This,

however, is unlikely. The Mediterranean at this time was a site of interaction and blending. Western and Byzantine cultures interacted and influenced one another in a variety of ways, including in ship design.¹⁹² Rather, the trends of hull depiction in these miniatures seem to emerge from the artists' respective artistic traditions and training. The following characteristics highlight some of these traditions and provide examples of other images that resemble the *Skylitzes Matritensis* miniatures.

Endposts

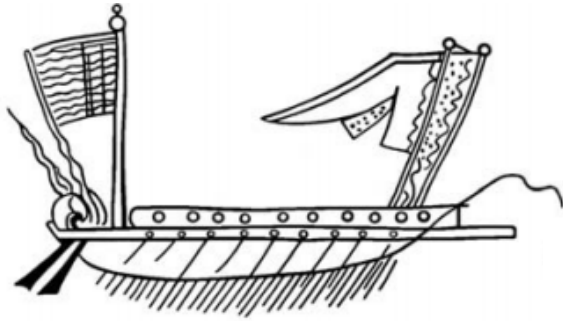
One of the most striking attributes of this collection of miniatures is the *paraptera*. Although all the painters portray this feature, the styles of depictions are distinctly Byzantine and western. The Byzantine-depicted *paraptera* curve exaggeratedly high above the hull, swooping back over the heads of the passengers, while the western tradition of depiction is a pair of straight *ptera* that extend at an oblique angle. Painter A1 provides distinct wings with sharp points, while Painter A2 depicts three projections at the endpost, designating the wings and sternpost. Painter A1 demonstrates great variety; sometimes, the split between the projections is understated, such as in folio 14v (Figure 2). At other times it is wildly exaggerated, such as in folio 44r top (Figure 19). Both painters, as mentioned above, inaccurately portray a *paraptera* on the bow at times. As the *paraptera* is so recognizable, the painters use it at times to indicate more galleys without illustrating the entire hull. The *paraptera* depicted by the western-trained painters are much more consistent. Generally, two distinct, straight wings are depicted at an oblique angle from the sheer of the hull. The wings of the *paraptera* are also most commonly colored red.

¹⁹² See Pryor and Jeffreys 2006, 163-73, for a summary of the interactions and developments of various fleets throughout the Mediterranean in the sixth-ninth centuries.

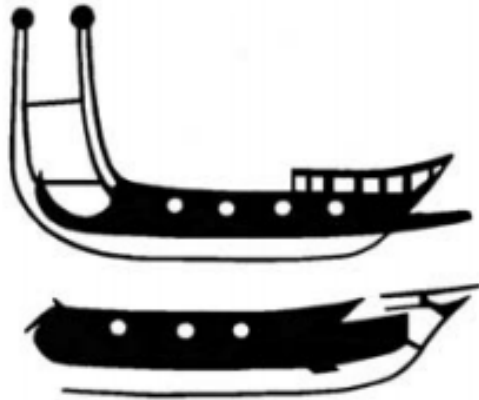
Contemporary imagery helps demonstrate how the *paraptera* could be more accurately depicted and shows how the vessels in *Skylitzes Matritensis* codex bear a resemblance to other depictions.¹⁹³ The miniatures by Painters B1, B2, B3, and B4 have particular likenesses to a series of galley sketches from the *Annales Ianuenses* of Genoa, a 12th-century record of the Republic of Genoa's history (Figures 54a, 54b, and 54c).¹⁹⁴ Many features, indeed, of these miniatures are identical to the depictions by the western painters in *Skylitzes Matritensis*. The sketches are of galleys with trumpet-shaped stems and swooping *paraptera*. These sketches also show a feature of the *paraptera* that is never depicted in *Skylitzes Matritensis*- an athwartship beam joining the two wings near their upper ends that served as a crutch for the yards when lowered. At the bow of these vessels are forecastles, which are not portrayed in the miniatures of the *Skylitzes Matritensis* codex. Many of them, however, show a split in color below the main wale and above the main wale in the section with the oarports. Particularly in Figure 54a, it is evident that the main wale extends to form the spur projection at the box, though this is also suggested in other images.

¹⁹³ Tsamakda 2002, 385.

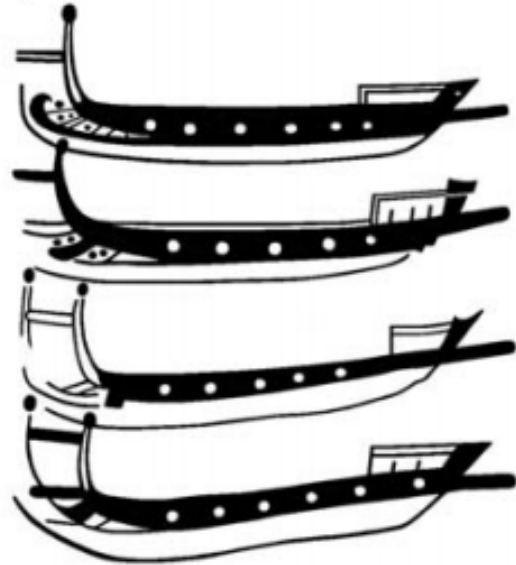
¹⁹⁴ Pryor and Jeffrey 2006, 424; Paris, Bibliotheque Nationale, Ms. Suppl. Lat. 773.



a



b



c

Figure 54a: Galley in *Annales Ianuenses*, entry 1165
Figure 54b: Galleys in *Annales Ianuenses*, entry 1175
Figure 54c: Galleys in *Annales Ianuenses*, entry 1191
 After Pryor 2006, 425

As the miniatures in *Skylitzes Matritensis* provide only a sheer view, they do not portray the distance and support between the two wings. Another similar galley is provided in the manuscript *De Rebus Siculis Carmen*, an early 13th-century manuscript from Sicily or South Italy by Peter of Eboli (Figure 55).¹⁹⁵ The galley illustrated here is similar to those in *Skylitzes Matritensis* with the *paraptera* shown from a side view, a single row of oarports, the main wale and spur, and a trumpet-shaped stem terminus. The parallel pairs of lines seen in the upper sections of the vessels illustrated by Painter B5 could be crude renderings of the raising supports

¹⁹⁵ Pryor and Jeffreys 2006, 429.

seen clearly in this image. The crude renderings in *Skylitzes Matritensis* reflect the novelty of some features, as well as the artists lack of familiarity.



Figure 55: 13th-century Sicilian galley from *De Rebus Siculis Carmen*; After Pryor and Jeffreys 2006, 429.

Spur

The depiction of the spur in *Skylitzes Matritensis* is almost exclusive to miniatures by western-trained Painters B1, B2, B3, and B4. In these depictions, the spur is often depicted as an extension of the main wale that divides the hull into two longitudinal sections. The transition from waterline ram to spur seems to have occurred around the sixth or seventh century CE.¹⁹⁶ Previously, military vessels were equipped with a waterline ram that smashed into the hulls of enemy vessels causing planking seems to yield.¹⁹⁷ The spur, however, was not meant to fracture

¹⁹⁶ See Pryor and Jeffreys 2006, 134-35 for a discussion of the historical sources on the transition from the use of *embolus*, ram, to *rostrum*, spur.

¹⁹⁷ Pryor and Jeffreys 2006, 143.

the hull planking of a vessel, but rather to ride up over the oars, breaking them and paralyzing the enemy ship.¹⁹⁸ Folio 130r (Figure 27), which depicts the naval battle between the Rus and the Byzantines, possibly demonstrates this strategy, as the oars of defeated enemy vessels can be seen hanging uselessly. The spur could also be used as a foothold or bridge for soldiers to propel themselves and board the enemy vessel. The miniatures in folios 110v, 212r, and 226v (Figures 21, 45, and 52) show the spur being used for this purpose. In 226v (figure 52), in particular, the spur is used to board enemy vessels during a naval engagement.

The spur's depiction is prominent among the western illustrators and appears only once in the miniatures by Byzantine illustrators, in folio 29v (Figure 7). The vessel in this miniature shows a small, short projection that appears to be integrated with the stem. It is placed far above the waterline in a position that would not make it effective for any purpose. It is an anomaly in the Byzantine miniatures. In contrast, the depiction of the spur is inherent to western tradition. The spur is depicted by all the western painters, including Painter B5. Painter B3, who provides various hull-forms and possibly ship types, exclusively depicts the spur on the galleys, indicating their military purpose.

Oarports and Rowing

Throughout the images, the groups of rowers are rendered in unrealistic groups with little space for efficient rowing. In addition to their positioning, the rowers are shown pulling their oars in a variety of manners. The Byzantine painters depict a single bank of oars rowed over the caprail, suggesting the use of tholes against which the oars would move, although such small features are not depicted.¹⁹⁹ The western illustrators portray the oars emerging through oarports

¹⁹⁸ Pryor and Jeffrey 2006, 143-44.

¹⁹⁹ A thole, or tholepin, is a pin set vertically in the sheer strake. See Pryor 1994, 281.

in the hull. The depiction of an oarage system with a bank of oars rowed from above the caprail and a second bank rowed through oarports in the hull is one of the most important attributes depicted in *Skylitzes Matritensis*. This is the only consistent feature portrayed that may indicate the type of *dromons*. Although not entirely conclusive, it appears that the majority of galleys in this codex are monoreme *galeai*, based on their single bank of oars. However, several galleys are shown with a bank of oarports and an upper bank of rowers rowing over the caprail from the deck, suggesting larger, bireme *dromons*, such as the *ousiakos* or *pamphylion*. These larger *dromons* are most commonly depicted by the western painters. The depictions of rowers and oarports, although not always entirely accurate, seem to demonstrate intentional characteristics. This can be seen, for example, in folio 146v (Figure 33), where Painter B3 has taken particular care to show the rowers leaning back to make a full stroke. There are consistent portrayals of oarports, evenly spaced rowers, and oar placement.

The history of the *Skylitzes Matritensis* codex and its creation in Sicily suggests that it portrays the distinct oarage system for the newly developed western galley, also called *galea*.²⁰⁰ As with the Byzantine monoreme *galea* mentioned above, the Sicilian *galea* also evolved from the Byzantine *dromon*. This later galley, however, was rowed at a single level in the *alla zenzile* system, where two or three rowers sat at the same bench and each pulled an oar using a stand-and-sit stroke. This was possible through the reintroduction of an outrigger, *apostis*, providing the necessary outboard support for the oar tholes. One level of rowers pulled their oars over the *apostis*, and the second from just below it.²⁰¹ The shared benches and multiple oars resulted in the distinct appearance of clusters of oars along the hull. Pryor and Jeffreys argue that folios 111v, 145r, and 146v (Figures 22, 32, and 33) show galleys designed for the *alla zenzile* system

²⁰⁰ Pryor and Jeffreys 2006, 429; Pryor 1995, 113.

²⁰¹ Pryor and Jeffreys 206, 431.

or a transitional form between the typical *dromons* that were rowed at by two of rowers and later galleys in which all oars were positioned over the *apostis* and each pulled by a rower sitting on a shared bench on the main deck. Their conclusion relies on an interpretation of these galleys as biremes with outriggers. As mentioned above, the western artists tended to depict their hulls with two sections either above or below the main wale. Pryor and Jeffrey interpret the upper section as corresponding to the *apostis*.²⁰² It is difficult, however, to determine from these simplified two-dimensional renditions any three-dimensional construction specifics. The view of the hulls in these miniatures does not provide any perspective from the prow or stern that might demonstrate an overextending *apostis*. However, none of these depictions show the groupings of oars that may be clearly associated with *alla zenzile* style. The challenge of interpreting the representations of oarage systems recalls the difficulties of artistic evidence. It is impossible to say whether the depictions of two banks of rowers, one working their oars over the caprail and the other through oarports, coupled with the historical context suggest an attempt by the artists to depict this rowing revolution. It seems more likely, given the spacing of the rowers and the lack of indications for an *apostis*, that the painters of these miniatures provided simple, recognizable depictions of galleys and rowers.

²⁰² Pryor and Jeffrey 2006, 430.

CHAPTER IV

CONCLUSION

The 51 miniatures and 161 vessels depicted in the *Skylitzes Matritensis* codex offer a cursory typology of Mediterranean vessels. It is not, however, a typology of accurate vessel types. Rather, the painters' interaction with one another allows comparison and sorting of the methods of depiction by western and Byzantine artisans. At times, vessels in the historical chronicle are named with specific terminology, but the painters did not consistently depict the types indicated by the terms. The representation of fleets from various places outside the Byzantine Empire also has not resulted in a change in the portrayal of foreign vessels. Instead, continuity is most observable between the depictions by painters from similar regions. The lack of realistic correlation and the strong relationship between the Byzantine artisans and the western artisans demonstrate the effect that regional styles had on the renditions of these miniatures. Even when working in a close relationship, the painters retained their unique style and characteristic traits, demonstrating a consistency that allows each of their miniatures to be distinguished. The consistency in individual style demonstrates that the goal of illuminated manuscripts was not always cohesion or identical representations. In that regard, the *Skylitzes Matritensis* codex is a celebration of individual style.

The miniatures are not entirely without historical correlation. Archaeology and iconography are often perfect complements, as iconography portrays features not preserved in the archaeological record.²⁰³ The appearance of colors throughout the vessel, especially their reoccurrence on features such as the trumpet-shaped stems and *paraptera*, is an attribute difficult to determine from archaeological remains. The inclusion of two banks of rowers and the

²⁰³ Wachsmann 2019, 3.

repetitive depiction of oarports neatly spaced out confirms theories about features still minimally reflected in archaeology. The depiction of Greek fire is a contribution this codex provides that is not found elsewhere. While the vessel may not represent ship construction fully, the depictions of these features add to the understanding of Byzantine nautical culture.

Most importantly, however, the miniatures in the *Skylitzes Matritensis* codex provide a typology of nautical representations. The connection between these miniatures and those in other manuscripts confirm some stylistic tendencies in the representations of painters trained in Byzantine and western traditions. Rather than portraying historical accuracies, the codex offers iconography that is characteristic of regional artistic traditions.²⁰⁴ With the range of depictions, the *Skylitzes Matritensis* can guide the study of regional influences on vessel depictions and provide context to other illuminated manuscripts. The study of Byzantine manuscripts is aided by understanding the context of their assembly and the identity of their collaborators. In this effort, defining traits are essential and helpful. The attributes, categories, and measurements in these miniatures provide a guide for nautical imagery in other manuscripts and may even be used to identify painters who illuminated multiple manuscripts. This thesis has examined the evidence specifically provided in the depictions of vessels. The works by authors such as Tsamakda consider various attributes, such as scenery, dress, armor, and stance. This thesis attempts to establish the value of an analysis of vessels could provide through a similar examination. This study demonstrates how a holistic approach to the study of nautical representations can see beyond the overwhelming possibility of errors to determine traits that are enlightening to understanding watercraft, manuscripts, and culture.

²⁰⁴ Tsamakda 2000, 141.

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APPENDIX A

Table 1: Vessel Characteristics in Miniatures by Painter A1

Folio	Vessel Designation	L:H Ratio	Location	Misoriented	Mast	Helmsman/ Quarter Rudders	Number of Oars	Oarports	Trumpet- Shaped Stem	Spur	<i>Paraptera</i>	Context
14v	NA	4.2:1	At sea	Yes	Yes	Yes	8	No	No	No	Yes	Exile
15r	NA	4.1:1	At sea	Yes	Yes	Yes	4	No	No	No	Yes	Travel
26r	NA	3.2:1	At sea	Yes	No	Yes	3	NA	NA	NA	Yes	Exile
29v	NA	4.1:1	At sea	Yes	No	Yes	9	No	No	Yes	Yes	Travel
31v	Top left	3.5:1	At sea	Yes	No	Yes	7	No	No	NA	Yes	Naval
	Top right	NA	At sea	Yes	No	NA	6	No	No	No	Yes	Naval
	Bottom left	NA	At sea	No	No	Yes	NA	No	NA	NA	Yes	Naval
	With horses	4:1	At sea	No	No	Yes	9	No	No	No	Yes	Naval
	With castles	4:1	At sea	No	No	Yes	NA	No	No	No	Yes	Naval
	Middle lower left	NA	At sea	No	No	NA	NA	No	No	NA	Yes	Naval
	Middle lower right	4:1	At sea	No	No	NA	7	No	No	No	Yes	Naval
32r	All	NA	At sea	NA	No	NA	NA	NA	No	NA	Yes	Naval
33v	Left	3.1:1	At sea	No	No	No	0	No	No	No	Yes	Naval
	Right	3.5:1	At sea	No	No	Yes	2	No	No	No	Yes	Naval
34v	Left, with siphon	4.4:1	At sea	No	Yes	Yes	4	No	No	No	Yes	Naval
	Right	4.6:1	At sea	Yes	No	No	4	No	No	No	No	Naval
35v	Left	4:1	At sea	Yes	No	Yes	6	No	No	No	Yes	Naval
	Right ^a	2.8:1	At sea	Yes	No	Yes	6	No	No	No	Yes	Naval
38r	Left	2.9:1	At shore	No	No	No	5	No	No	No	No	Military
	Middle	NA	At sea	No	No	No	NA	No	NA	NA	NA	Military
	Right	NA	At sea	No	No	No	NA	No	No	NA	No	Military

38v	Left	4.2:1	At sea	Yes	No	Yes	4	No	No	No	Yes	Arab, naval
	Middle	NA	At sea	Yes	No	NA	5	No	NA	NA	No	Arab, naval
	Right	4:1	At sea	Yes	No	Yes	9	No	No	No	Yes	Arab, naval
39r	Top	4.5:1	Beached	NA	No	NA	6	No	No	No	No	Arab, naval
	Bottom left	3.3:1	Beached	NA	No	NA	6	No	No	No	No	Arab, naval
	Bottom right	3.1:1	Beached	NA	No	NA	6	No	No	No	No	Arab, naval
39v	Top left ^a	NA	At sea	Yes	No	Yes	NA	No	NA	No	No	Military
	Top right	NA	At sea	Yes	No	No	5	No	NA	No	Yes	Military
	Bottom	NA	At sea	Yes	No	Yes	NA	No	NA	No	Yes	Military
40v	Top	4.4:1	At shore	NA	No	NA	0	No	No	No	No	Military
	Middle	4:1	At shore	NA	No	NA	0	No	No	No	No	Military
	Bottom	4.4:1	At shore	NA	No	NA	6	No	No	No	No	Military
41r	Left	5.8:1	At sea	No	No	Yes	3	No	No	No	Yes	Military
	Right	4.2:1	At sea	No	No	No	3	No	No	No	Yes	Military
44r, top	Left	5.8:1	At sea	No	No	Yes	6	No	No	NA	Yes	Imperial
	Right ^a	5:1	At sea	Yes	No	Yes	4	No	No	No	Yes	Merchantman
44r, bottom	NA	3.9:1	Beached	NA	Yes	NA	0	No	No	No	No	Merchantman
227r^a	NA	3.5:1	At sea	NA	No	No	Yes	No	NA	NA	Yes	Military

a: Vessels demonstrating difficulty in determining their orientation. The most likely layout is used, as discussed in the miniatures' profiles.

Table 2: Vessel Characteristics in Miniatures by Painter A2

Folio	Vessel Designation	L:H Ratio	Location	Misoriented	Mast	Helmsman/ Quarter Rudders	Number of Oars	Oarports	Trumpet- Shaped Stem	Spur	<i>Paraptera</i>	Context
20v	NA	3.9:1	At sea	Yes	No	Yes	4	No	No	No	No	Exile
21r	NA	4.2:1	At sea	Yes	No	Yes	4	No	No	No	Yes	Exile

Table 3: Vessel Characteristics in Miniatures Painter B1

Folio	Vessel Designation	L:H Ratio	Location	Misoriented	Mast	Helmsman/ Quarter Rudders	Number of Oars	Oarports	Trumpet- Shaped Stem	Spur	<i>Paraptera</i>	Context
110v	Top	6.1:1	At shore	No	No	No	0	No	No	Yes	Yes	Arab, naval
	Middle	7.3:1	At shore	No	No	No	0	No	Yes	Yes	Yes	Arab, naval
	Bottom	6:1	At shore	No	No	No	0	No	Yes	Yes	Yes	Arab, naval
111v	Top	NA	At shore	No	No	Yes	7	Yes	No	Yes	Yes	Arab, naval
	Second	NA	At shore	No	No	NA	8	Yes	No	Yes	No	Arab, naval
	Third, left	NA	At shore	No	No	NA	3	Yes	No	Yes	NA	Arab, naval
	Third, right	5:1	At shore	No	No	Yes	6	Yes	No	Yes	Yes	Arab, naval
	Fourth, left	NA	At shore	No	No	NA	3	Yes	No	Yes	NA	Arab, naval
129v	Fourth, right	5.3:1	At shore	No	No	Yes	8	Yes	No	Yes	Yes	Arab, naval
	Fifth, left	NA	At shore	No	No	NA	3	Yes	No	Yes	NA	Arab, naval
	Fifth, right	4.9:1	At shore	No	No	Yes	11	Yes	No	Yes	Yes	Arab, naval
	Top	7:1	At shore	No	No	NA	0	Yes	Yes	Yes	Yes	Rus, naval
	Middle	7:1	At shore	No	No	NA	0	Yes	Yes	Yes	Yes	Rus, naval
	Bottom	7:1	At shore	No	No	NA	0	Yes	Yes	Yes	Yes	Rus, naval

130r	Top, first from left	NA	At sea	No	No	No	5	Yes	NA	NA	Yes	Naval
	Top, second from left	6.1:1	At Sea	No	No	Yes	8	Yes	Yes	NA	Yes	Naval
	Top, third from left,	7:1	At sea	No	No	NA	4	Yes	Yes	Yes	Yes	Rus, naval
	Top, fourth from left,	NA	At sea	No	No	NA	4	Yes	Yes	Yes	NA	Rus, naval
	Middle, first from left	NA	At sea	No	No	Yes	5	Yes	NA	NA	Yes	Rus, naval
	Middle, second from left	6.1:1	At sea	No	No	Yes	10	Yes	NA	NA	Yes	Naval
	Middle, third from left	5.8:1	At sea	No	No	No	11	Yes	Yes	Yes	NA	Rus, naval
	Middle, fourth from left	NA	At sea	No	No	NA	6	Yes	Yes	Yes	NA	Rus, naval
	Bottom, first from left	NA	At sea	No	No	Yes	8	Yes	NA	NA	Yes	Naval
	Bottom, second from left	5.6:1	At sea	No	No	Yes	11	Yes	Yes	No	Yes	Naval
	Bottom, third from left	NA	At sea	No	No	No	11	No	Yes	Yes	NA	Rus, naval
132v	NA	6.1:1	At sea	Yes	No	Yes	8	No	Yes	Yes	Yes	Exile
134v	NA	5.8:1	At sea	Yes	No	Yes	5	No	Yes	Yes	Yes	Exile
138v	Top, left	5.6:1	Near shore	No	No	Yes	8	Yes	Yes	Yes	Yes	Naval
	Second, left	6:1	Near shore	No	No	Yes	9	Yes	Yes	Yes	Yes	Naval
	Third, left	5.6:1	Near shore	No	No	Yes	8	Yes	Yes	Yes	Yes	Naval
	Bottom, left	4.6:1	Near shore	No	No	Yes	9	Yes	Yes	Yes	Yes	Naval

	Top, right	5.4:1	At shore	No	No	Yes	0	Yes	Yes	No	Yes	Naval
	Bottom, right	NA	At shore	No	No	No	0	Yes	Yes	No	No	Naval
140r	Top	NA	At shore	No	No	No	0	Yes	Yes	Yes	Yes	Naval
	Second	NA	At shore	No	No	No	0	Yes	Yes	Yes	Yes	Naval
	Third	NA	At shore	No	No	No	0	Yes	Yes	Yes	Yes	Naval
	Fourth	NA	At shore	No	No	No	0	Yes	Yes	Yes	Yes	Naval
	Bottom	4.7:1	At shore	No	No	No	0	Yes	Yes	Yes	Yes	Naval
208v^b	NA	4.1:1	At shore	No	No	No	2	No	Yes	NA	No	Exile
212r	Top	5:1	At shore	No	No	No	0	Yes	Yes	Yes	Yes	Naval
	Second	6:1	At shore	No	No	No	0	Yes	Yes	Yes	Yes	Naval
	Third	4.5:1	At shore	No	No	No	0	Yes	Yes	Yes	Yes	Naval
	Fourth	4.9:1	At shore	No	No	No	0	Yes	Yes	Yes	Yes	Naval
	Fifth	4.6:1	At shore	No	No	No	0	Yes	Yes	Yes	Yes	Naval

b: Vessels demonstrating difficulty in determining their orientation. The most likely layout is used, as discussed in the miniatures' profiles.

Table 4: Vessel Characteristics in Miniatures by Painter B2

Folio	Vessel Designation	L:H Ratio	Location	Misoriented	Mast	Helmsman/ Quarter Rudders	Number of Oars	Oarports	Trumpet- Shaped Stem	Spur	<i>Paraptera</i>	Context
123v	Top	7.3:1	At shore	No	No	No	8	Yes	Yes	Yes	Yes	Military
	Middle, left	NA	At shore	No	No	No	5	Yes	No	NA	Yes	Military
	Middle, right	6.1:1	At shore	No	No	No	8	Yes	Yes	Yes	Yes	Military
	Bottom, left	6.1:1	At shore	No	No	No	10	Yes	Yes	NA	Yes	Military
	Bottom, right	5:1	At shore	No	No	No	6	Yes	Yes	Yes	Yes	Military

124r, top	Top, left	6.5:1	At shore	No	No	No	8	Yes	Yes	NA	Yes	Military
	Top, right	5:1	At shore	No	No	No	4	Yes	Yes	Yes	Yes	Military
	Bottom, left	6.3:1	At shore	No	No	No	8	Yes	Yes	NA	Yes	Military
	Bottom, right	3.9:1	At shore	No	No	No	3	Yes	Yes	Yes	Yes	Military
124r, bottom	Top	5.4:1	At shore	No	No	Yes	7	Yes	Yes	Yes	Yes	Military
	Middle, left	4.8:1	At shore	No	No	Yes	8	Yes	Yes	NA	Yes	Military
	Middle, right	NA	At shore	No	No	No	5	Yes	Yes	Yes	NA	Military
	Bottom, left	6:1	At shore	No	No	No	8	Yes	Yes	NA	Yes	Military
	Bottom, right	NA	At shore	No	No	No	4	Yes	Yes	Yes	NA	Military

Table 5: Vessel Characteristics in Miniatures by Painter B3

Folio	Vessel Designation	L:H Ratio	Location	Misoriented	Mast	Helmsman/ Quarter Rudders	Number of Oars	Oarports	Trumpet-Shaped Stem	Spur	<i>Paraptera</i>	Context
146v	Top, left	4.3:1	At sea	No	No	Yes	3	No	Yes	Yes	Yes	Military
	Top, right	5.4:1	At sea	No	No	Yes	7	Yes	Yes	Yes	Yes	Military
	Bottom, left	3.6:1	At sea	No	No	Yes	3	No	No	No	No	Military
	Bottom, right	5.1:1	At sea	No	No	Yes	12	Yes	Yes	Yes	Yes	Military
147r	Top	3.7:1	At shore	No	No	Yes	5	Yes	No	No	No	Travel
	Bottom, left	NA	At shore	No	No	Yes	1	Yes	NA	NA	No	Travel
	Bottom, right	3.3:1	At shore	No	No	No	6	Yes	No	No	No	Travel
147v, top^c	Top	NA	At shore	No	No	No	4	Yes	No	No	No	Travel
	Middle	NA	At shore	No	No	No	4	Yes	NA	NA	NA	Travel
	Bottom	NA	At shore	No	No	No	4	Yes	NA	NA	No	Travel
147v, bottom^c	Top	NA	At shore	No	No	No	4	Yes	No	No	No	Travel

	Middle	NA	At shore	No	No	NA	3	Yes	NA	NA	No	Travel
	Bottom	NA	At shore	No	No	NA	4	Yes	NA	NA	NA	Travel
149v	Top, left ^c	NA	At shore	No	No	No	0	No	No	NA	No	Military
	Top, right ^c	4:1	At shore	No	No	No	0	No	No	No	No	Military
	Bottom	4.8:1	At shore	No	No	No	0	No	Yes	Yes	Yes	Military

c: Vessels demonstrating difficulty in determining their orientation. The most likely layout is used, as discussed in the miniatures' profiles

Table 6: Vessel Characteristics in Miniatures by Painter B4

Folio	Vessel Designation	L:H Ratio	Location	Misoriented	Mast	Helmsman/ Quarter Rudders	Number of Oars	Oarports	Trumpet- Shaped Stem	Spur	<i>Paraptera</i>	Context
145r	Top, left	4.2:1	At sea	No	No	Yes	7	Yes	Yes	Yes	Yes	Military
	Top, right	4.5:1	At sea	No	No	Yes	6	Yes	Yes	Yes	Yes	Military
	Bottom, left	4.6:1	At sea	No	No	Yes	6	Yes	Yes	Yes	Yes	Military

Table 7: Vessel Characteristics in Miniatures by Painter B5

Folio	Vessel Position	L:H Ratio	Location	Misoriented	Mast	Helmsman/ Quarter Rudders	Number of Oars	Oarports	Spur	Rounded Stem (B5)	Rounded Sternpost (B5)	Context
157r	NA	5.5:1	At shore	No	No	No	0	No	No	Yes	Yes	Exile
159r	NA	5.6:1	At sea	No	No	No	2	No	Yes	Yes	Yes	Travel
167v	Top	NA	Beached	NA	No	NA	0	No	NA	NA	NA	Exile
	Bottom	NA	Beached	NA	No	NA	0	No	NA	NA	NA	Travel
168v^d	NA	5.9:1	At sea	No	Yes	Yes	2	No	Yes	Yes	Yes	Military

182^d	NA	NA	At shore	NA	No	NA	0	NA	No	Yes	Yes	
219v	Left	4:1	At shore	No	No	No	2	No	No	Yes	Yes	Military
	Right	4.5:1	At shore	No	No	No	2	No	No	Yes	Yes	Military
222r^d	NA	5:1	At shore	No	No	No	2	No	Yes	Yes	Yes	Military
224r	Top	NA	Beached	NA	No	NA	0	No	Yes	Yes	Yes	Military
	Bottom	NA	Beached	NA	No	NA	0	No	Yes	Yes	Yes	Military
225v^d	NA	7:1	Beached	NA	No	NA	0	No	Yes	Yes	Yes	Military
226r top	Center	5:1	At sea	No	No	Yes	5	No	Yes	Yes	Yes	Military
	Right	6.1:1	At sea	No	No	Yes	6	No	Yes	Yes	Yes	Military
226r bottom^d	NA	NA	Beached	NA	No	NA	0	No	Yes	Yes	Yes	Military
226v	Left group	4.2:1	At sea	No	No	Yes	4	No	Yes	Yes	Yes	Military
	Center	4.1:1	At sea	No	No	Yes	5	No	Yes	Yes	Yes	Military
	Right group	NA	At sea	No	No	No	0	No	No	Yes	Yes	Military

d: With Painter B5, many of the vessels were identical or so badly damaged that individual assessment was difficult. In these cases, the vessels were considered together. In folios 224r, 226r, and 226v, specific groupings are indicated for how the vessels were considered

APPENDIX B

This appendix sorts the miniatures by type of vessel depicted and the groups of painters, Byzantine or western trained. The folio number is provided, as well as the historic date of the event depicted. Finally, all associated terms, from the legends and the text, are listed. The Greek term, its phonetics, and translation are provided. When appropriate, explanations are provided for the context of these terms.

BYZANTINE DEPICTIONS

Table 8: Byzantine Depictions of Muslim Military Vessels




Depicted Vessel(s)	ID	Artist	Depicted Date	Associated Terms
	Fig. 14: Folio 38v	A1	c. 820	Legend: στολος (<i>stolos</i>)- fleet Text: πλοῖον (<i>plōion</i>)- sailed thing; ναῦς (<i>naus</i>)- boat
	Fig. 15: Folio 39r	A1	c. 821	Legend: στολος (<i>stolos</i>)- fleet Text: στολος (<i>stolos</i>)- fleet; ναῦς (<i>naus</i>)- boat
	Fig. 18: Folio 41r	A1	c. 829	Text: πλοῖον (<i>plōion</i>)- sailed thing; ἔμπορικόν (<i>emporikon</i>)- mercantile thing

Table 9: Byzantine Depictions of Rus Military Vessels





Depicted Vessel(s)	Folio	Artist	Depicted Date	Associated Terms
	Fig 53: Folio 227r	A1	c. 1043	Text: στολος (<i>stolos</i>) – fleet; τριήρης (<i>trieres</i>)- trireme [regarding Byzantine vessels at the battle]

Table 10: Byzantine Depictions of Byzantine Military Vessels

Depicted Vessel(s)	Folio	Artist	Depicted Date	Associated Terms
	Fig. 8: Folio 31v	A1	c. 821	Legend: στολος (<i>stolos</i>)- fleet; Text: ναῦς (<i>naus</i>)- boat; στολος (<i>stolos</i>)- fleet; ναυτικός (<i>nautikos</i>)- fleet
	Fig. 9: Folio 32r	A1	c. 821	Legend and text: στολος (<i>stolos</i>)- fleet
	Fig 10: Folio 33v	A1	c. 822	Legend: στολος (<i>stolos</i>)- fleet Text: ναυτικά δύναμις, (<i>nautika dunamis</i>)- naval power; ναυτικός (<i>nautikos</i>)- fleet; σκάφος (<i>skaphos</i>)- skiff, boat






	<p>Fig. 11: Folio 34v</p>	<p>A1</p>	<p>c. 822</p>	<p>Legend: στολος (<i>stolos</i>)- fleet Text: στολος (<i>stolos</i>)- fleet; βασιλικά τριήρης (<i>basilica trieres</i>)- imperial trireme</p>
	<p>Fig. 12: Folio 35v</p>	<p>A1</p>	<p>c. 822</p>	<p>Text and Legend: ναυτικός (<i>nautikos</i>)- fleet</p>
	<p>Fig. 16: Folio 39v, top</p>	<p>A1</p>	<p>c. 822</p>	<p>Text: δρόμων (<i>dromon</i>)- dromon</p>
	<p>Fig. 17: Folio 40v, top</p>	<p>A1</p>	<p>c. 827-829</p>	<p>Text: στολος (<i>stolos</i>)- fleet; ναῦς (<i>naus</i>)- boat</p>
	<p>Fig. 18: Folio 41r</p>	<p>A1</p>	<p>c. 829</p>	<p>Text: πλοῖον (<i>ploion</i>)- sailed thing; ἔμπορικόν (<i>emporikon</i>)- mercantile thing)</p>

Table 11: Byzantine Depictions of Exile









Depicted Vessel(s)	Folio	Artist	Depicted Date	Associated Terms
	Fig. 4: Folio 20v	A2	c. 815	No related nautical terms in legend or text
	Fig. 5: Folio 21r	A2	c. 815	Text: ναῦς (naus)- boat
	Fig. 6: Folio 26r	A1	c. 820	Text: ναῦς (naus)- boat
	Fig. 44: Folio 208v	A1	c. 1034	No related nautical terms in legend or text

Table 12: Other Byzantine Depictions of Travel

Depicted Vessel(s)	Folio	Artist	Depicted Date	Associated Terms
	Fig. 3: Folio 15r	A1	c. 803	No related nautical terms in legend or text
	Fig. 7: Folio 29v	A1	c. 820	No related nautical terms in legend or text
	Fig. 13: Folio 38r, top	A1	c. 823	No related nautical terms in legend or text
	Fig. 19: Folio 44r, top	A1	c. 829-842	Text: ναῦς τίς μυριοφόρον, (naus tis muriophoron)- a vessel carrying 10,000 measures, designating merchantman of large tonnage; ὀλκάς (holkas)- ship of burden; ναῦς (naus)- boat




	<p>Fig. 20: Folio 44r, bottom</p>	<p>A1</p>	<p>c. 829-842</p>	<p>Legend: σκάφος (<i>skaphos</i>)- skiff, boat Text: ναῦς (<i>naus</i>)- boat</p>
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Table 13: Byzantine Depictions of Imperial Vessels

Depicted Vessel(s)	Folio	Artist	Depicted Date	Associated Terms
	<p>Fig. 2: Folio 14v</p>	<p>A1</p>	<p>c. 813</p>	<p>No related nautical terms in legend or text</p>
	<p>Fig. 19: Folio 44r</p>	<p>A1</p>	<p>c. 829-842</p>	<p>Legend: ὁ σκάφος τῆς βασιλίσσης (<i>skaphos te basiles</i>)- skiff, boat of the emperor</p>

WESTERN DEPICTIONS

Table 14: Western Depictions of Muslim Military Vessels



Depicted Vessel(s)	Folio	Artist	Depicted Date	Associated Terms
	<p>Fig. 21: Folio 110v, top</p>	<p>B1</p>	<p>c. 902</p>	<p>Text: στολος (<i>stolos</i>)- fleet</p>
	<p>Fig. 22: Folio 111v</p>	<p>B1</p>	<p>c. 904</p>	<p>Legend: στολος (<i>stolos</i>)- fleet Text: στολος (<i>stolos</i>)- fleet; πλώιμον (<i>plōimon</i>)- a thing fit for sailing</p>

Table 15: Western Depictions of Rus Military Vessels

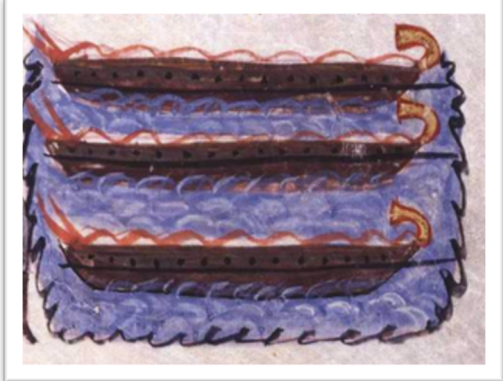


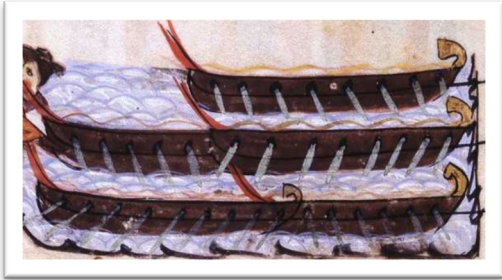








Depicted Vessel(s)	Folio	Artist	Depicted Date	Associated Terms
	Fig. 26: Folio 129v	B1	c. 941	Text: στολος (<i>stolos</i>)- fleet; πλοῖον (<i>plōion</i>)- sailed thing
	Fig. 27: Folio 130r	B1	c. 941	Text: ναῦς (<i>naus</i>)- boat; πλοῖον (<i>plōion</i>)- sailed thing; στολος (<i>stolos</i>)- fleet; σκαφος (<i>skaphos</i>)- skiff, boat
	Fig. 52: Folio 226v	B5	c. 1043	Text: τριήρης (<i>trieres</i>)- trireme; δρομάς τριήρης (<i>dromas trieres</i>)- fast trireme; [both regarding the Byzantine navy]; σκαφος (<i>skaphos</i>)- skiff, boat; στολος (<i>stolos</i>)- fleet

Table 16: Western Depictions of Byzantine Military Vessels

Depicted Vessel(s)	Folio	Artist	Depicted Date	Associated Terms
	Fig. 23: Folio 123v	B2	c. 919	Text: πλώμιον (<i>ploimon</i>)- a thing fit for sailing; στολος (<i>stolos</i>)- fleet; τριήρης (<i>trieres</i>)- trireme
	Fig. 24: Folio 124r, top	B2	c. 919	Text: πλώμιον (<i>ploimon</i>)- a thing fit for sailing; τριήρης (<i>trieres</i>)- trireme
	Fig. 25: Folio 124r, bottom	B2	c. 919	No related nautical terms in legend or text
	Fig. 27: Folio 130r	B1	c. 941	Text: ναῦς (<i>naus</i>)- boat; πλοῖον (<i>plouion</i>)- sailed thing; στολος (<i>stolos</i>)- fleet; σκαφος (<i>skaphos</i>)- skiff, boat
	Fig. 30: Folio 138v, top	B1	c. 949	Text: στολος (<i>stolos</i>)- fleet, ναῦς (<i>naus</i>)- boat, ναυαρχίς (<i>navarxis</i>)- admiral's flagship

	<p>Fig. 31: Folio 140r</p>	<p>B1</p>	<p>c. 960</p>	<p>Text: στολος (<i>stolos</i>)- fleet; ναῦς (<i>naus</i>)- boat</p>
	<p>Fig. 33: Folio 146v</p>	<p>B3</p>	<p>c.963</p>	<p>Text: στολος (<i>stolos</i>)- fleet</p>
	<p>Fig. 34: Folio 147r, top</p>	<p>B3</p>	<p>c. 920</p>	<p>No related nautical terms in legend or text</p>
	<p>Fig. 37: Folio 149v</p>	<p>B3</p>	<p>c. 955</p>	<p>Text: ναυτικός (<i>nautikos</i>)- fleet</p>


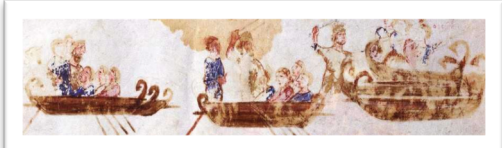
	<p>Fig. 45: Folio 212r, bottom</p>	<p>B1</p>	<p>c. 1037</p>	<p>No related nautical terms in legend or text</p>
	<p>Fig. 52: Folio 226v</p>	<p>B5</p>	<p>c. 1043</p>	<p>Text: σκάφος (<i>skaphos</i>)- skiff, boat; στολος (<i>stolos</i>)- fleet; τριήρης (<i>trieres</i>)- trireme; δρομάς τριήρης (<i>dromas trieres</i>)- swift trireme [both regarding the Byzantine navy]</p>

Table 17: Western Depictions of Embassy Dispatches

Depicted Vessel(s)	Folio	Artist	Depicted Date	Associated Terms
	<p>Fig. 35: Folio 147v, top</p>	<p>B3</p>	<p>c. 935</p>	<p>No related nautical terms in legend or text</p>





	<p>Fig. 36: Folio 147v, bottom</p>	<p>B3</p>	<p>c. 935</p>	<p>No related nautical terms in legend or text</p>
	<p>Fig. 48: Folio 224r</p>	<p>B5</p>	<p>c. 1042</p>	<p>Text: <i>πλοῖον (ploion)</i>- sailed thing</p>
	<p>Fig. 49: Folio 225v, bottom</p>	<p>B5</p>	<p>c. 1043</p>	<p>No related nautical terms in legend or text</p>
	<p>Fig. 51: Folio 226r, bottom</p>	<p>B5</p>	<p>c 1043</p>	<p>No related nautical terms in legend or text</p>

Table 18: Western Depictions of Exile





Depicted Vessel(s)	Folio	Artist	Depicted Date	Associated Terms
	Fig. 28: Folio 132v	B1	c. 944	Legend: πλώιμον (<i>plōimon</i>)- a thing fit for sailing
	Fig. 29: Folio 134v, top	B1	c. 945	No related nautical terms in legend or text
	Fig. 40: Folio 159r, top	B5	c. 969	No related nautical terms in legend or text
	Fig. 42: Folio 168v	B5	c. 970	Text: πλοῖον (<i>plōion</i>)- sailed thing

Table 19: Other Western Depictions of Travel




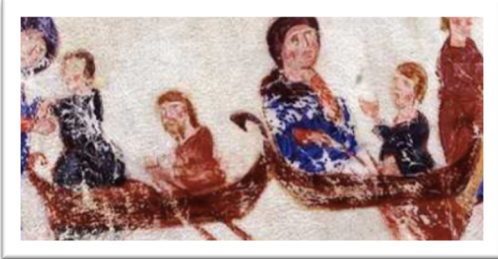


Depicted Vessel(s)	Folio	Artist	Depicted Date	Associated Terms
	Fig. 38, Folio 157r	B5	c. 969	No related nautical terms in legend or text

Table 20: Western Depictions of Imperial Vessels

Depicted Vessel(s)	Folio	Artist	Depicted Date	Associated Terms
	Fig. 32: Folio 145r	B4	c. 963	Text: βασιλειον τριήρης, (<i>basileion trieres</i>)- imperial trireme; βασιλικόν δρόμων (<i>basilikon dromon</i>)- imperial dromon; στολος (<i>stolos</i>)- fleet
	Fig. 41: Folio 167v	B5	c. 970-971	Text: ναῦς (<i>naus</i>)- boat; στολος (<i>stolos</i>)- fleet
	Fig. 46: Folio 219v, bottom	B5	c. 1042	No related nautical terms in legend or text
	Fig. 47: Folio 222r, top	B5	c. 1042	Text: δρόμων (<i>dromon</i>)- dromon
	Fig. 51: Folio 226r	B5	c. 1043	Text: τριήρης (<i>trieres</i>)- trireme; δρόμων (<i>dromon</i>)- dromon