

**Star-Crossed Empires: Cross-Cultural Examination of Astrology in
Byzantine and Ottoman Empires**

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To everyone who was with me in this process...

Abstract

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Proposed study examines the similarities and differences in astrology between Ottoman and Byzantine empires. The questions addressed will start with how they defined astrology. Since the borders between astronomy and astrology were not as certain as it is now this is an important question to start. Then how astrology was perceived in both societies will be examined. The practitioners of astrology are also important as a result who important astrologers were and what were their duties or work is another chapter in the discussion. How the characteristics of Zodiac signs are interpreted and how they were explained is another point of inquiry. Finally the astrological illustrations will be investigated in order to show the possible interactions between the empires in question. A sixteenth century ottoman manuscript, *Metali'ü 's-Sa'adet ve Yenabiü's-Siyadet* by Seyyid Mehmet bin Emir Hasan Suudi, and a twelfth century Byzantine astrological poem by John Kamateros will be used as primary sources for the characteristics of Zodiac signs. In terms of illustrations, the aforementioned *Metali'ü 's-Sa'adet* provides very valuable sources and for the Byzantine illustrations a fourteenth century manuscript, Ambrosianus H 57 sup., among the few illustrated Byzantine astrological treatises will be benefitted. Even both cultures inherited the same Hellenistic heritage in terms of the science; the evolution of it might differ. Proposed study is a descriptive work which answers aforementioned questions and ends with an analysis by the author.

Özet

Yıldızı Düşük İmparatorluklar: Bizans ve Osmanlı İmparatorlukları'nda Astrolojinin Kùltürler Arası İncelemesi

Şu an okumakta olduğunuz araştırma Osmanlı ve Bizans İmparatorluklarının Astroloji alanındaki benzerlik ve farklılıklarını konu etmektedir. Orta çağlarda astroloji ve astronominin bu kadar keskin çizgilerle ayrılmadığı düşünülerek, öncelikle astrolojinin her iki devlette de nasıl tanımlandığı konu edilcektir. Daha sonra her iki toplumdaki astroloji algılayışı ve farklı grupların astroloji karşısındaki tutumları konu alınacaktır. Astrolojinin konu aldığı bir makalede, astrologlara da yer verilmesi gerekmektedir. Her iki devletteki önemli astrologlar, görevleri ve ürettikleri eserler anlatılacaktır. Burçların nasıl tanımlandığı ve eserlerde nasıl anlatıldığı da makalede sorulacak diğer bir soru. Son olarak astroloji konulu el yazmalarındaki minyatürler incelenerek iki devlet arasında bu alanda yaşanmış olabilecek olası etkileşimler araştırılacaktır. Seyyid Mehmet bin Emir Hasan Suudi tarafından on altıncı yüzyılda Türkçeye çevrilmiş olan *Metali'ü 's Sa'adet ve Yenabii's Siyadet* adlı el yazması ve on ikinci yüzyılda John Kamateros tarafından yazılmış olan astroloji hakkındaki şiir, burçların özelliklerini muhteva etmeleri bakımından bu çalışmada ilgili bölümde kaynak olarak kullanılacaklar. Bunun dışında minyatürler için de Osmanlı kaynağı olarak *Metali'ü 's Sa'adet* ve Bizans kaynağı olarak da on dördüncü yüzyılda yazılmış olan Ambrosianus H 57 sup. kullanılacaktır. Her iki kültürün de aynı Helenistik mirasa sahip olmalarına rağmen bu mirası kullanım ve geliştirme bakımından farklılık gösterecekleri düşünülmektedir. Elinizdeki araştırma yukarıdaki sorulara cevap

vermeyi amaçlayan betimsel bir çalışmadır. Elde edilen bilgiler ışığında makalenin sonunda yazar tarafından bir analiz yapılacaktır.

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Table of Contents

Introduction.....	1
Chapter I: Literature Review	4
Literature Review about Astrology in the Byzantine Empire.....	4
Literature Review about Astrology in Ottoman Empire.....	9
Chapter II: Astrology and Astrologers.....	14
Astrology in Byzantine Empire	14
Astrology in the Ottoman Empire.....	30
Chapter III: Zodiac Signs.....	39
Byzantine Empire.....	39
Ottoman Empire.....	46
Analysis.....	60
Chapter IV: Planet Representations	64
Ambrosianus H 57 Sup	64
Metali’ü ‘s-Sa’adet ve Yenabiü’s-Siyadet	68
Analysis.....	75
Conclusion	84

Table of Figures

Picture 1 Aries and Mars.....	86
Picture 2 Venus, Sun, Mars.....	86
Picture 3 Taurus and Venus	87
Picture 4 Mars, Moon, Mercury.....	87
Picture 5 Gemini and Mercury.....	88
Picture 6 Sun, Mars, Jupiter.....	88
Picture 7 Cancer and Moon.....	89
Picture 8 Moon, Mercury, Venus.....	89
Picture 9 Leo and Sun.....	90
Picture 10 Mars, Jupiter, Saturn.....	90
Picture 11 Libra and Venus.....	91
Picture 12 Jupiter, Saturn, Moon.....	91
Picture 13 Virgo and Mercury.....	92
Picture 14 Mercury, Venus, Sun.....	92
Picture 15 Scorpio and Mars.....	93
Picture 16 Venus, Sun, Mars.....	93
Picture 17 Sagittarius and Jupiter.....	94
Picture 18 Saturn, Moon, Mercury.....	94
Picture 19 Capricorn and Saturn.....	95
Picture 20 Sun, Mars, Jupiter.....	95
Picture 21 Aquarius and Saturn.....	96
Picture 22 Moon, Mercury, Venus.....	96
Picture 23 Pisces and Jupiter.....	97

Picture 24 Mars, Jupiter, Saturn.....	97
Picture 25 Sun.....	98
Picture 26 Moon.....	99
Picture 27 Jupiter	100
Picture 28 Venus.....	101
Picture 29 Saturn.....	102
Picture 30 Mars	103
Picture 31 Mercury.	104
Picture 32 Tres Riches Houres.....	105

Star-Crossed Empires: Cross-Cultural Examination of Astrology in Byzantine and Ottoman Empires

Introduction

Proposed study is a cross-cultural examination of selected aspects of astrology within the framework of two empires: Byzantine Empire and Ottoman Empire. The significance and importance of astrology in determining people's lives in two seemingly 'religious' empire, is an interesting subject of inquiry. I used the term religious because the Byzantines saw themselves as the protectors of Orthodox faith and made it their duty to spread it to other people, as in the case of the Russians. Likewise Ottomans used *ghaza* and *cihad* against non-Muslim people and after taking over the caliphate they claimed themselves as the champions of Muslim faith. The side by side existence of religious faith and astrology intrigued me to do further research in the area. Astrology is used almost interchangeable with astronomy in the past although it was clear by 14th century that astronomy was the theoretical part while astrology was the practical¹. In order not to cause any confusion it is important to note that this paper will focus on astrology as an occult science while including certain astronomical elements since astronomy is necessary for astrological interpretations and they co-existed over the course of centuries in both empires. Other occult practices, divination and magic will be only slightly mentioned but mostly left out for the aim of the study is to compare astrological practices. The focus will be on three aspects of

¹ Anne Tihon, "Astrological Promenade in Byzantium in the Early Palaiologan Period", *The Occult Sciences in Byzantium*, ed. Magdalino & Mavroudi (Geneva: La Pomme d'or) 2006, 265

astrology, namely astrologers, zodiac signs and illustrations of planets in the manuscripts. For the first aspect the time period will be start with the ninth century in Byzantine Empire and cover the rise and fall of astrology over the centuries with a focus on the twelfth century. Yet for the Ottoman Empire the main focus will be the sixteenth century, especially the last part of it during which there is an increasing interest in astrology, with some information about the fifteenth and seventeenth centuries. The last two aspects, zodiac signs and illustrations, will be investigated in light of certain manuscripts. For the Byzantine Empire the manuscript, Ambrosianus H 57 Sup in the Bibliotheca Ambrosiana, Milano, will be used together with its illustrations. In order to get information about the characteristics of Zodiac signs, I will translate the relevant parts from the twelfth century poem of John Kamateros. As for the Ottoman Empire *Metali'ü 's-Sa'adet ve Yenabiü's-Siyadet* which is available in English translation as the *Book of Felicity* will be used. The time periods were chosen according to the times the main sources were produced. The 12th century poem was chosen because of the availability; as a result the detailed account of the 12th century will be narrated in order to better understand the context in which it was produced. Similarly, the availability of an English translation was the reason for the use of the Ottoman manuscript in this paper. The time it was produced was the last decade of the 16th century. In order not to digress, the proposed work will focus on the reign of Murad III with certain remarks about the previous and later sultans.

The proposed study assumes that there will be similarities between the Byzantine and Ottoman astrology because they used the same sources as well as differences because those same sources were interpreted by different scientists throughout time. The time gap between the twelfth and the sixteenth centuries and the evolution of the science during that time might also result in discrepancies. Another reason for the differentiation would be due to the use of different Handy Tables by different scholars. However, because of the uniform nature and common roots of the astrology there should be similarities. In order to support this hypothesis comparative historical analysis will be used. The data will be scanned through certain questions and in the end the qualitative data will be examined and compared. Even though astrology in Ottoman and Byzantine Empires was studied separately, no attempt has done to compare them before. The interaction between Byzantium and the Arabs was studied by important scholars like D. Pingree and M. Mavroudi but it was not specifically focused on the Ottoman and Byzantine Empires. The proposed study aims to achieve that goal in light of the information gained from the sources.

Chapter I: Literature Review

Literature Review about Astrology in the Byzantine Empire

There are early works in the 19th and 20th centuries about the Byzantine astrology by German and French authors, however; because there are no English translations they will not be included here. David Pingree, who produced much valuable work in the area, will be one of the main authors who are cited in this paper. His work about the manuscript of the Commentary of Theon of Alexandria on Ptolemy which is also one of the main sources of this paper Ambrosianus H 57, will be of great benefit. In the article he first dates the manuscript and then speculates about its origin. He draws parallel between another manuscript, Laurentianus 28, 7, which he thinks the current manuscript is mainly copied from. He concludes his essay with the explanation of the illustrations in the manuscript.² A second work by him is about astronomy and specifically Gregory Chioniades. After narrating important astronomers and their work, the author gives information about an important manuscript, Laurentianus 28, 7.³ In another article he examines the transmission of astrology among the cultures over time; not as a linear transmission. The interaction works both ways in different directions over time. In terms of the field of science, between the Byzantines and the East, the interaction starts with translation so the author focuses on the documents. The author examines certain words that would indicate the document in question is a translation, such as an Arabic word which was repeatedly used in Byzantine

² David Pingree, "An Illustrated Greek Astronomical Manuscript. Commentary of Theon of Alexandria on the Handy Tables and Scholia and Other Writings of Ptolemy concerning Them," *Journal of the Warburg and Courtauld Institutes*, 45(1982), 185-192.

³ David Pingree, "Gregory Chioniades and Palaiologan Astronomy," *Dumbarton Oaks Papers* 18(1964), 133-160.

sources instead of a concept that has a Greek equivalent. He mentions in his article the transmission of astrology among Indians, Greeks, Persians, Byzantines, Syrians, Arabs, and Western barbarians.⁴ Moreover, Pingree has a more specific work about the work of Rhetorius of Alexandria which; the work of Rhetorius was first used by Theophilus of Edessa, then used in Bagdad, the Abbasid court, by Mashallah, and by Arab and Egyptians finally by Byzantine astrologers.⁵ The last article by Pingree is about Palaiologan astrology specifically and the school of John Abramius which was a famous center for learning and study of astronomy and astrology in Constantinople. Through various horoscopes and the manuscript Laurentianus 28, 7, he explains the astrological intellect and practice in the late Byzantine Empire. He found mention of Abu Mashar in Laurentianus 28, 7.⁶ Additionally some encyclopedic works also will be used such as Oxford Dictionary of Byzantium where the authors are mostly Pingree and Kazhdan. Paul Magdalino is also among the scholars who produced very valuable works in the history of science in Byzantium. His book “*L’Orthodoxie des Astrologues: La Science entre le Dogme et la Divination à Byzance (VII^e – XIV^e siècle)/The Orthodoxy of Astrologers: Science between Dogma and Divination in Byzantium (7th and 14th centuries)*” the author starts his narration with the defense of astrology before Stephen of Alexandria and passes on to his time and how astrology made a comeback after him during the so called “dark ages” of Byzantium. The third chapter is about the ninth and tenth centuries, when learning

⁴ David Pingree, “Classical and Byzantine Astrology in Sassanian Persia” *Dumbarton Oaks Papers*, 43(1989), 227-39.

⁵ David Pingree, “From Alexandria to Baghdad to Byzantium. The Transmission of Astrology” *International Journal of the Classical Tradition*, 8, 1, (2001), 3-37.

⁶ David Pingree, “The Astrological School of John Abramius” *Dumbarton Oaks Paper*, 25(1971), 189-215

and book production was at its height; the author calls it the age of first Byzantine humanists. For the eleventh century he focuses on writings of Michael Psellus and Anna Comnena. They both have the same approach to astrology that they appreciate the theoretical part and learning of it but the practice is not tolerated. The fourth chapter is about the prominence of astrology with Manuel Komnenos. The last chapter is titled as the last renaissance of Byzantium where the author explains the importance given to learning and the study of sciences both in the Laskarid court in Nicaea and in Constantinople after the re-conquest by Palaiologans.⁷ Another such book of Paul Magdalino is the one he co-edited with Maria Mavroudi, the *Occult Sciences in Byzantium*. The book has eleven chapters by different authors; each examines a specific aspect of the occult. Four of them will be cited in the present paper. The first one is by Maria Mavroudi where she first explores the occult and science studies in Byzantium and reveals the insufficiency of the studies in the field. She introduces certain dichotomies and concepts to reconsider. She also examines the view of society and court circles towards astrology separately. What are high and low cultures of astrology and what are some handicaps in defining those concepts. She explains the clergy's, high officials' and emperors' inclination towards astrology and in what terms it can change. While introducing important questions about the study of the occult sciences, she also quotes important works in the field.⁸ The second chapter is by Paul Magdalino himself, it is about the occult sciences in relation to the imperial power. He bases his argument on primary sources, writings of Byzantine

⁷ Paul Magdalino, *L'Orthodoxie des Astrologues: La Science entre le Dogme et la Divination à Byzance (VII^e – XIV^e siècle)*, (Paris: Lethielleux, 2006).

⁸ Maria Mavroudi, "Occult Science and Society in Byzantium: Considerations of Future Research" ed. P. Magdalino & M. Mavroudi in *The Occult Sciences in Byzantium* (Geneva: La Pomme d'or, 2006), 39-96.

historians and intellectuals, while interpreting the rise or fall of astrology in different time periods.⁹ The third one is by David Pingree who traces works of Mashallah translated to Greek which survived in three manuscripts.¹⁰ The last one is by Anne Tihon, who narrates the rise of astrology during the Palaiologan times. She proves her point through anecdotes from George Acropolites, George Pachymeres, the Persian astrology in Byzantium, Theodore Metochites, Nikephoras Gregoras and Theodore Meliteniotes. She concludes that the rise of astrology was unstoppable until the end of Byzantine Empire.¹¹ Paul Magdalino also has many other essays in different books where he directly or indirectly commented on astrology¹². Maria Mavroudi also contributed to the field with many essays and research. Among her many works, the aforementioned book chapter together with two others will be mentioned here. In one she examines the exchanges between Arabic and Byzantine writers during the Palaiologan period. She argues this was not specific to the period but there was a continuous interaction among the cultures starting with the Hellenistic period. After explaining the political changes started in the tenth century, she investigates the result of these changes in intellectual exchanges. She uses Gregoras' letters in

⁹ Paul Magdalino, "Occult Science and Imperial Power in Byzantine History and Historiography (9th-12th Centuries), ed. P. Magdalino & M. Mavroudi in *The Occult Sciences in Byzantium* (Geneva: La Pomme d'or, 2006), 119- 162.

¹⁰ David Pingree, "The Byzantine Translations of Mashallah on Interrogational Astrology" ed. P. Magdalino & M. Mavroudi in *The Occult Sciences in Byzantium* (Geneva: La Pomme d'or, 2006), 231-43.

¹¹ Anne Tihon, "Astrological Promenade in Byzantium in the Early Palaiologan Period" ed. P. Magdalino & M. Mavroudi in *The Occult Sciences in Byzantium* (Geneva: La Pomme d'or, 2006), 265-290.

¹² Paul Magdalino, "The Byzantine reception of Classical Astrology" ed. Catherine Holmes & Judith Waring in *Literacy, Education and Manuscript Transmission in Byzantium and Beyond*, (Leiden: Brill, 2002), 33-58. & Paul Magdalino, *Tradition and Transformation in Medieval Byzantium*, (USA: Variorum, 1991). & Paul Magdalino, *The Empire of Manuel I Komnenos, 1143-1180*, (Cambridge: Cambridge University Press, 1993).

order to further explain her point.¹³ How the church perceived astrology was also studied by certain scholars, as will be pointed out later, astrology and religion were in conflict from time to time. The article examines the Church's reaction to astrologers in the early Byzantine Empire.¹⁴ Maria Mavroudi has two other works that are not directly related to the subject but worth mentioning. In the first one she examines the Islamic divination in relation to its eastern and western neighbors. She begins with the origins of the divination in Ancient Near East and tells us the spread of it over time and across people. She mentions dream interpretation, ornithomancy, physiognomy, bibliomancy, geomancy, *falnama* and touches upon very briefly on astrology claiming it is not superstition but a rational enterprise based on empirical observation.¹⁵ The second work is about a dream interpretation book the *Oneirocriticon of Achmet*. She argues that the *Oneirocriticon* is the Christian adaptation of Islamic Arabic dream interpretation books which she finds similar to the contemporary Islamic dream books. She analyzes the language, the origin and other similar works in her book. Then she examines the ways that how the author of the book Christianized an Islamic work and draws parallels with the Arabic narrations of the same kind.¹⁶ Demetra George wrote an essay about the defence of astrology by Manuel Comnenos and its refutation by theologian Michael Glykas. After setting the historical background, the author explains how Manuel's relation with astrology on one side

¹³ Maria Mavroudi, "Exchanges with Arabic Writers during the Late Byzantine Period" in Sarah Tyler Brooks ed. in *Byzantium, Faith and Power (1261 - 1557): Perspectives on Late Byzantine Art and Culture* (New York: Metropolitan Museum of Art, 2006).

¹⁴ Efstratios Theodossiou et al., "Astrology in the early Byzantine Empire and the Anti-Astrology Stand of the Church Fathers," *European Journal of Science and Technology*, 8, 2(2012), 7-24.

¹⁵ Maria Mavroudi, "Islamic Divination in the Context of Its Eastern and Western Counterparts," Serpil Bağcı, Massumeh Ferhad ed. in *Falnama: The Book of Omens* (London: Thomas and Hudson, 2010), 221-229.

¹⁶ Steven M. Oberhelman, "A Byzantine Book on Dream Interpretation: The *Oneirocriticon* of Achmet and Its Arabic Sources by Maria Mavroudi" *Speculum*, 79,1 (Jan 2004), 246-249.

and Glykas' on the other shows us the two sides of a coin. She concludes her work with a summary and analysis of Manuel's and Glykas' arguments.¹⁷

Literature Review about Astrology in Ottoman Empire

There has been a lot of scholarly work about Ottoman astrology recently, namely a book *Osmanlı Astroloji Literatürü Tarihi* (The history of Ottoman Astrology Literature) edited by Ekmeleddin İhsanoğlu who was the author of many books in Ottoman Science literature as well as many essays. The aforementioned book is part of a series of books about Ottoman Science Literature including Mathematics, Geography, Music, Military Arts, Natural and Applied Sciences, and Medical Sciences. In this specific book, he gives an overview of astrology in Ottoman Empire as to how it was practiced and how it was seen. With a detailed account of the works and authors in the area together with a complete list of astrologers and records about them in Ottoman sources *Osmanlı Astroloji Literatürü Tarihi* is an important work in terms of getting an overview of astrology in the Ottoman Empire.¹⁸ Ekmeleddin İhsanoğlu with his knowledge in Ottoman Science also contributed to a larger work titled as *Ottoman Civilization* edited by Halil İnalçık and Günsel Renda. His chapter about Ottoman science is a survey of the evolution of science in Ottoman Empire covering works from

¹⁷ Demetra George, "Manuel I Komnenos and Michael Glykas: A Twelfth-Century Defense and Refutation of Astrology" *Culture and Cosmos*, 5, 1-2(2001).

¹⁸ Ekmeleddin İhsanoğlu, *Osmanlı Astroloji Literatürü Tarihi ve Osmanlı Astronomi Literatürü Tarihi Zeyli*, (İstanbul: IRCICA, 2011).

cartography to astronomy.¹⁹ Another recent contribution is by Donald R. Hill *Gökyüzü ve Bilim Tarihi: İslam Bilim ve Teknolojisi* (Sky and the History of Science: Islamic Science and Engineering). This is a more comprehensive work including the whole Islamic world and history with a focus on mathematics, chemistry, physics, engineering and astronomy rather than astrology.²⁰ A very valuable contribution to the field came from M. Moleiro who had the work translated and is the editor of an important Ottoman manuscript called *The Book of Felicity*, originally *Metali'ü 's-Sa'adet ve Yenabiü's-Siyadet*. Aside from the translation of the manuscript by Yorgos Dedes²¹ there are three other articles. The first one is about the political and social conditions of the Ottoman Empire during the time of Murad III who was the ruling sultan when the manuscript was produced and the time period called the sultanate of women. The authors examine the subject in all aspects starting from the early 16th century together with harem politics, internal and foreign affairs, structural changes in military, governance and wartime economy of Ottoman Empire.²² Another article in the *Book of Felicity* is by Günsel Renda. She starts her narration with a general overview of painting in the Ottoman Empire which is practiced in the form of manuscript illustration. She then examines the patronage starting from the reign of Mehmet II and continues to the 16th century as to what were the trends, what kinds of manuscripts are popular and who were the prominent characters in Ottoman painting at the time. She characterizes the Reign of Murad III as the golden age of

¹⁹ Ekmeleddin İhsanoğlu, "Science in Ottoman Empire" in H. İnalçık & G. Renda ed. *Ottoman Science and Society*, (Ankara: Kültür Bakanlığı, 2002), 318-343.

²⁰ Donald R. Hill, *Gökyüzü ve Bilim Tarihi: İslam Bilim ve Teknolojisi*, (İstanbul: Boyut, 2010)

²¹ Yorgos Dedes, "The Ascension of Felicity and the Fountains of Nobility, Translation of the Ottoman Text," in *The Book of Felicity* ed. M. Moleiro (Barcelona: M. Moleiro:2007), 197-433.

²² Miguel Angel de Bunes Ibarra & Evrim Türkçelik, "The Ottoman Empire of Murad III: the Consolidation of the Sultanate of Women," in *The Book of Felicity*, ed. M. Moleiro (Barcelona: M. Moleiro, 2007), 11-41.

Ottoman Painting during which we know of a prominent artist: *Nakkaş Osman*. Lastly, she examines the selected works of Osman from the *Book of Felicity* and analyzes them by comparing them with other works of him.²³ The third article by Stefano Carboni, specifically deals with the descriptions of manuscripts. Since there are many valuable images but very little explanation about them; he thinks it is important to reveal the iconographical and non-written meaning behind the illustrations. After a brief introduction he explains each painting with a short iconographical analysis and if it is a part of story with the story behind that one scene illustration.²⁴ The manuscript will be a source of information about Ottoman astrology and the planet illustrations in the book will be used as a source for the proposed paper. Another important scholar, Salim Aydüz, more specifically focused on *Müneccimbaşılık* (the post of chief astrologer) in the Ottoman Empire in his articles titled as *Osmanlı Devletinde Münecimbaşılık Müessesesi* (The office of the chief astrologer in Ottoman Empire) he examines deeply the duties of astrologer, function and usage of astrology and astronomy, place of astrology and astrologer in the society and at court as well as documenting the official records about the astrologers in the Ottoman Empire. He also produced many essays about fixed stars, constellations and Zodiac signs in Islam.²⁵ ²⁶ There are two works by the same author in the topic of *Müneccimbaşılık* in the proposed work because they are both relevant to the main subject of the first chapter. Stefano Carboni contributed to the field with his work titled as *Following the Stars: Images of the*

²³ Günsel Renda, "Ottoman Painting in the Sixteenth Century," in *The Book of Felicity*, ed. M. Moleiro (Barcelona: M. Moleiro, 2007), 43-67.

²⁴ Stefano Carboni, "Description of the Miniatures" in *The Book of Felicity*, ed. M. Moleiro (Barcelona: M. Moleiro, 2007), 69- 196.

²⁵ Salim Aydüz, "Osmanlı Devletinde Münecimbaşılık," in *Osmanlı Bilimi Araştırmaları* ed. F. Günergün, (İstanbul: İ.Ü. Edebiyat Fakültesi Yayınları, 1995), 159-207.

²⁶ Salim Aydüz, "Osmanlı Devletinde Münecimbaşılık" *Belleten*, 70, vol 257 (Ankara: Türk Tarih Kurumu, 2005), 167-264.

Zodiac in Islamic Art which is published after an exhibition in the Metropolitan Museum of Art where he explain the images of zodiac in different media from the Islamic world until the fourteenth century. The book is important in terms of revealing the origins of Islamic iconography of the Zodiac,²⁷ unfortunately his remaining works are in Italian and not available for the present paper because of the language barrier. Adnan Adıvar is among the prominent figures in the political and intellectual history of Turkey. He produced works on Ottoman Science; one of them being *Osmanlı Türklerinde İlim* (Science among the Ottoman Turks) which was first published in French while the author was in exile and then in Turkish. It is a survey of science in Ottoman Empire from 13th to 19th centuries. He also produced works that examine the relation between the science and the religion starting with antiquity and covering many other nations.²⁸ Zeren Tanındı is another prominent art historian who has many works about the Ottoman Painting and one about astrological illustrations in the Ottoman Empire. In the aforementioned work, she compares the illustrations of the *Book of Felicity* with *Kitab al-Bulhan* which the former was based on. Moreover, she also offers a comparison between *Kitab al-Bulhan* and its contemporaries in terms of art historical iconography.²⁹ The PhD dissertation of Ali Nihat Kundak is another important contribution to the field in terms of the illustrations of the zodiac signs and the planets. He focuses on the 18th century but compares his main work, *Tercüme-i İkdü'l-cümân fi târîh-i ehli'z-zam'an*, a world history, with previous

²⁷ Stefano Carboni, *Following the Stars. Images of Zodiac in Islamic Art*, (New York: The Metropolitan Museum of Art, 1997).

²⁸ Feza Günergün, "Adnan Adıvar's Works in History of Science: Prior to the La Science chez la Turcs Ottomans and Thereafter" *Osmanlı Bilim Araştırmaları*, 7, 2(2006), 13-54.

²⁹ Zeren Tanındı, "Astrological Illustrations in Islamic Manuscripts," in *I. Uluslararası Türk-İslam Bilim ve Teknoloji Tarihi Kongresi 14-18 Eylül 1981/ I. International Congress on the History of Turkish-Islamic Science and Technology 14-18 September 1981 Bildirler/Proceedings*, (İstanbul: İ.T.Ü. Mimarlık Fakültesi Baskı Atölyesi, 1981), 71-90.

Islamic manuscripts as well as the European ones in order to explain the iconography of the miniature.³⁰ Eva Baer's article, about the representations of planets where she examines the specific illustrations from the *Book of Felicity*, will be used in the art historical analysis of this paper.³¹ K. Weitzmann wrote mostly about sciences other than astrology like medicine or astronomy yet the parallels he draws between Islamic scientific illustrations and Greek illustrations are worth mentioning.³² Lastly, even though the article mostly dealt with prophecy and prognostic practices in 15th and 16th centuries, before the reign of Murad III, Fleischer's article will be included in the present work.³³

³⁰ Ali Nihat Kundak, "18. Yüzyıl Osmanlı Minyatüründe Yıldızlar ve Burçlar: Tercüme-i İkdü'l-cumân Fî Târîh-i Ehli'z-zamân" (PhD diss., Mimar Sinan Güzel Sanatlar Üniversitesi, 2011).

³¹ Eva Baer, "Representations of 'Planet-Children' in Turkish Manuscripts" *Bulletin of the School of Oriental and African Studies*, 31,3(1968), 526-33.

³² G.R. Levy, Review, ed. G.C. Miles, in *Archaeologia Orientalia in Memoriam Ernst Herzfeld*, (New York: J.J Augustin, 1952), 244-66.

³³ Cornell Fleischer, "Ancient Wisdom and New Sciences: Prophecies at the Ottoman Court in the 15th and Early 16th Centuries", in Serpil Bağcı and Massumeh Ferhad ed. *Falnama the Book of Omens* (London: Thomas and Hudson, 2010), 231-243.

Chapter II: Astrology and Astrologers

Astrology in the Byzantine Empire

In the Byzantine Empire there were two scientific tradition; namely, “high” and “low” sciences. Astronomy was included in the former and taught throughout the empire. Astrology and Alchemy was in the latter group even though it seldom officially taught but practiced by the same intellectual group.³⁴ For the teaching of astronomy, texts of the 4th to 7th century “high” science were still recoverable in 9th century. Even though some of those texts were lost during the Latin occupation of Constantinople, a few of them were recovered during the revival attempt of Palaiologoi and copied. As for “low” sciences the preservation was more difficult. Astrology and other kinds of “low” sciences were popular at different times among rich people but its practitioners were looked down upon. Additionally, the practitioners themselves didn’t treat the treatises of the old famous scientists with the respect that a scholar might do.³⁵ For a formal encyclopedic definition of the concept, one might look at the main source of information about Byzantium: the *Oxford Dictionary of Byzantium*. Astrology is defined in its database as a “science” that makes predictions about the future according to the positions of planets, 12 Zodiac signs and 12 astrological houses.³⁶ There are four main subfields of astrology. The first one is genethliology which

³⁴ David Pingree, Scientific Tradition, *Oxford Dictionary of Byzantium*, Oxford University Press, 1991, 2005.

³⁵ Pingree, Scientific Tradition, ODB.

³⁶ David Pingree & Alexander Kazhdan, Astrology, *Oxford Dictionary of Byzantium*. Oxford University Press, 1991, 2005.

relies on the casting of a horoscope and its interpretation at the birth of a person. The second one is catarchic astrology in which the most favorable moment for starting a business is determined. Military astrology and the astrology which was applied to medicine can be included as subgroups of this one since the astrologer needs to define a certain time to start the business. The third one is interrogational astrology where a horoscope is cast at the moment that the person came to the astrologer with a specific question in order to answer that question. And the fourth one is political astrology where horoscopes are cast and predictions are made about a whole nation or a state considering their historical cycles.³⁷ Pingree and Kazhdan argue that Political astrology passed to Byzantine Empire later, between 800-1000 when Arabic texts began to be translated.³⁸ Then they divide Byzantine astrology into three phases: collection of classical astrology between the 4th and 7th centuries, translation and inclusion of Arabic sources in the 10th and 11th centuries and collection and edition of all texts between the 11th and 14th centuries.³⁹

Our knowledge of Byzantine astrologers is determined by written sources. Earliest known astrological authors are Pancharios and Maximos, the latter wrote a poem about catarchic astrology.⁴⁰ What comes next is the introduction of Paul of Alexandria which was about genethliology in the tradition of earlier authors. In the fifth century we see Hephaiston of Thebes wrote about Astrological effects based on Ptolemy and Dorotheos of Sidon. In this century we mainly see reliance on classical authors and enriching their texts with treatises in

³⁷ Pingree & Kazhdan, ODB.

³⁸ Ibid.

³⁹ Ibid.

⁴⁰ Ibid.

terms of astrological works.⁴¹ Following the chronological order, we see Olympiodoros' commentary on Paul of Alexandria based on lectures given at Alexandria in 564. In the early 7th century Rhetorios of Egypt compiled the richest collection of Byzantine Astrological texts. It was mostly about genethliology with some information about catarchic astrology.⁴² After a certain gap Theophilos of Edessa wrote about genethliology, catarchic, interrogational astrology, and astrological history. Moreover, he used not only Classical Greek authors but also Islamic and Indian sources.⁴³ Leo the Mathematician wrote some works on genethliology in the 9th century and there are some horoscopes surviving from the 10th century probably by astrologers, like Demophilos. Around 1000 a wave of translation from Arabic sources started. Works of famous Muslim astrologers as well as commentaries of Muslim astrologers on Classical Greek authors were translated.⁴⁴ In the late 13th and early 14th centuries Metochites and his student Nicephoros Gregoras made important contributions to astronomy.⁴⁵ Nicephoros Gregoras taught philosophy, mathematics and astronomy.⁴⁶ He was opposed to astrology but believed in the effects of the Moon on humans, probably because of, the authors argued, its effects on tides.⁴⁷ The most important Palaiologan astrologers are John Abramios and his student Eleutherios Zebelenos. In late 14th century they revised the Classical Greek and Early Byzantine astrological texts as well as translated works of Arabic and Persian authors.⁴⁸

⁴¹ Ibid.

⁴² Ibid.

⁴³ Ibid.

⁴⁴ Ibid.

⁴⁵ Theodossiou et al. "Nicephoras Gregoras: the greatest Byzantine astronomer" *Astronomical and Astrophysical Transactions*, 25 no: 1 (2006), 3.

⁴⁶ Theodossiou et al. *Nicephoras Gregoras*, 4.

⁴⁷ Ibid, 12.

⁴⁸ Pingree & Kazhdan, *Astrology*, ODB.

In the Byzantine Empire there was not a continuous and well established astrologer tradition in court. Yet there were mentions of astrologers close to court circles and court astrologers themselves in certain texts. Around 792, under the rule of Constantine VI and Empress Irene Pankratios, there was an appointed court astrologer.⁴⁹ We also know that astronomers like Metochites and Nicephoros Gregoras were close to the emperor and entrusted with important duties.⁵⁰

Mathematikos was the name that was commonly used by astrologers and astronomers of Byzantium. It might explicitly reflect the distinction between high sciences and low sciences. An astrologer who considers himself as a part of the intellectual community not a person who practices it at the popular level may choose to call himself Mathematikos. Magdalino argues that the distinction between astrology and astronomy was at a theoretical level. *Astrologia* was specifically used for astrology while *Astronomia* could mean to cover both astronomy and astrology. Apart from astrology, astronomy could have been used in two other places: the first one is calculating the Easter and serving the church. The second one is to teach in schools as a science.⁵¹ In spite of the fact that astrology was taught as a part of *Quadrivium* (Curriculum in Byzantine schools that consists of arithmetic, geometry, music and astronomy)⁵² it does not mean it was taught at an elaborate sophisticated level. As mentioned earlier, while astronomical manuscripts survive from earlier periods of time, astrological ones

⁴⁹ Paul Magdalino, The Byzantine Reception of Classical Astrology, in *Literacy, Education and Manuscript Transmission in Byzantium and Beyond*, ed. by Catherine Holmes & Judith Waring (Leiden: Brill), 2002, 36.

⁵⁰ Theodossiou et al. *Nicephoros Gregoras*, 3.

⁵¹ Magdalino, *Byzantine Reception of Astrology*, 34.

⁵² Alexander Kazhdan, *Quadrivium*, *Oxford Dictionary of Byzantium*, Oxford University Press, 1991, 2005.

did not.⁵³ This is mostly because astronomical manuscripts were used by both astrologers and astronomers not because there was a lesser interest for astrology.⁵⁴ Magdalino argues that astrology was perceived as “the black sheep of the academic family.”⁵⁵ One of the main criticisms that were directed towards astrology was that it reminded people of worshipping the stars, sun and the moon.⁵⁶ This reminds us of one of the problems of studying the occult in Byzantium. The pagan background of astrology became an obstacle because the stand Church took against paganism was reflected on the stand it took against the occult sciences.⁵⁷

Not only academia but also the Church was against astrology as mentioned earlier. Astrology assumes that human fate is determined by the stars. However, this assumption contradicts with the Orthodox idea that people have free will in their actions and decisions. Besides, since God himself uses celestial bodies to announce certain events, the church fathers encounter certain problems. God informed the Magi about the coming of Jesus with a star.⁵⁸ How it is possible to claim that celestial bodies do not have any influence on earthly matters? This was also one of the arguments that Manuel Komnenos used when a certain priest (will be discussed in detail below) disapproved of astrology.⁵⁹ Another important thing to note is that, it was not always astrologers who modified their discourses to be in line with Orthodox faith but in certain times Church modified its

⁵³ Magdalino, *Byzantine Reception of Astrology*, 35.

⁵⁴ *Ibid*, 36.

⁵⁵ *Ibid*, 37.

⁵⁶ *Ibid*, 37.

⁵⁷ Mavroudi, *Occult Science and Society*, 58.

⁵⁸ Pingree & Kazhdan, *Astrology*, ODB.

⁵⁹ See George, *Manuel Komnenos & Magdalino, L'orthodoxie des astrologues* below.

discourses to make room for “soft” astrology.⁶⁰ Nevertheless, even though the astrology was also practiced at the popular level, astrologers of late and middle Byzantium were part of an educated elite community who had close ties with the court.⁶¹ People draw parallels between rhetoric and astrology because of the use of same philosophic language.⁶² It was associated with the orient; moreover, Chaldean was a synonym for an astrologer.⁶³

The importance of and the general attitude to astrology varied over time. In the early formative years of the Byzantine Empire, astrology was widespread. It was integrated into everyday life; moreover there is a much later legend that Constantine the Great chose the foundation day of Constantinople by consulting a famous astrologer, Valens.⁶⁴ There are many important astrologers and one “Apostate” Emperor, Julian, during the early years.⁶⁵ Julian wanted to restore the old religion, by diminishing the power of the church, or at least form a mixed religion for the state with old gods and the new god.⁶⁶ The church, on the other hand, was strictly against the practice of astrology but not astronomy.⁶⁷ Basil of Caesarea and Gregory of Nyssa were among the enemies of those who make predictions based on the stars.⁶⁸ Another opponent was John Chrysostom who wrote that it was not the job of ‘astronomy’ to determine people’s birth, yet what he meant was astrology.⁶⁹

⁶⁰ Magdalino, *L'orthodoxie des Astrologues*, qtd. in Mavroudi, *Occult Science and Society*, 67.

⁶¹ Magdalino, *Byzantine Reception of Astrology*, 37.

⁶² *Ibid*, 38.

⁶³ *Ibid*, 39.

⁶⁴ Theodossiou et al., *Astrology in the Early Byzantine Empire*, 8.

⁶⁵ *Ibid*, 10.

⁶⁶ *Ibid*, 11-12.

⁶⁷ *Ibid*, 18.

⁶⁸ *Ibid*, 19.

⁶⁹ *Ibid*, 20.

In order to understand the prominence of astrology over time one should look into certain periods. Magdalino divides Byzantine astrology into four phases. According to him, the appointment of Stephen of Alexandria to teach *quadrivium* marks the beginning of the first phase. Emperor Heraclius ordered him to correct the handy tables according to the latitude of Constantinople.⁷⁰ Since the Handy Tables are the basis of astrology and making or correcting them requires a high level of knowledge in astronomy, this implies the importance of astrology at the time. The second phase corresponds with the golden age of Islamic Science as well as the revival of the astronomy and astrology learning in Byzantium. The famous astronomer of the 9th century, Leo the Mathematikos, and even the Church Fathers had information about “soft” astrology. Further, the appointment of court astrologers occurred in this phase.⁷¹ In the eleventh and twelfth centuries, the third phase, with translations from Arabic the interaction was increased.⁷² It was not long before the end rising popularity of astrology with aforementioned Manuel I Komnenos against strong reactions by Orthodox circles.⁷³ The fourth revival of astrology and astronomy with the return to classical traditions but still keeping the eastern influence happened in 14th and 15th centuries.⁷⁴ This time in the area of astrology there was a clash between the cultural heritage and the infidel enemy.⁷⁵

The relation between the ruling elite and astrology is a changeable yet inseparable one. Astrology or the occult practices offer the ruler “inside

⁷⁰ Magdalino, *Byzantine Reception of Astrology*, 40.

⁷¹ *Ibid*, 41.

⁷² *Ibid*, 44.

⁷³ *Ibid*, 44-5.

⁷⁴ *Ibid*, 45.

⁷⁵ *Ibid*, 46.

knowledge” about the future. And the ruler can provide the occult scientist means to do his research, pursue his career and basically a job. Yet, Magdalino argues, there is always the possibility that the occult scientist can play on both sides of the game.⁷⁶ To give an example to the use of astrology, one might start with Leo the Mathematician. He was mostly known for his knowledge in mathematics and philosophy but he also practiced “soft” astrology. Soft astrology is a concept that implies deriving conclusions from the movements of stars about the future yet it is acceptable. In the case of Leo, he made a prediction about the end of a drought correctly while he was the archbishop of Thessalonica. Another reason that Leo’s use of astrology was acceptable is that he did not make political interpretations except for two cases which he interpreted correctly, the fall of Michael III’s Caesar and rise of Basil to the throne.⁷⁷ In the tenth century, during the reign of Constantine VII Porphyrogenitus, astrology was not highly esteemed. As a result, in the books he commissioned, about history of the empire, the emperors who were associated with astrology are the ones whom Constantine regarded as bad.⁷⁸ Yet another 10th century figure Leo the Deacon thought it is the mathematicians, astrologers, who should predict the earthquakes and interpret the passing of comets correctly.⁷⁹ Another pattern of attitude towards astrology was that it was seen as “low” which means it is associated either with the people of the past (i.e. Pagans) or with the people in the East.⁸⁰ Another implication of that is the

⁷⁶ Magdalino, *Occult Science and Imperial Power*, 119.

⁷⁷ *Ibid*, 125.

⁷⁸ *Ibid*, 127.

⁷⁹ *Ibid*, 136.

⁸⁰ *Ibid*, 127.

minorities seemed as the practitioners of the occult sciences like Jews, Armenians or foreigners.⁸¹

The general attitude towards astrology was not always stable as indicated above. When we came to the eleventh century, there are certain important figures and events related to astrology that are important in the course of history of Byzantine science. Michael Psellus an eleventh-century-writer mentions astrology in his *Chronographia* in two instances. One is about Michael V who condemned Empress Zoe, his adoptive mother, in spite of the words of the astrologer he consulted. Psellus thinks the existing astrologers of the time were not educated enough.⁸² Psellus claims he is in position of judging those astrologers because he studied the science and helped many astrologers but he did not make the improper use of it because he does not believe that human life is influenced from the movements of stars. In another discussion he restates this idea and declares his faith saying that a divine power stopped him.⁸³ Following Psellus' line of thought, Anna Komnena, daughter of Alexius I and the author of *the Alexiad* where she narrated her father's reign, displayed a similar position in relation to astrology.⁸⁴ She gives the names of important astrologers of her father's time, states the incidents that they predicted certain events correctly beforehand, yet claims she is against the practice of the science even though she studied the theoretical part.⁸⁵ Similarity of the attitudes towards the astrology brings into the mind that Anna read Psellus also this might be the safe approach of

⁸¹ Mavroudi, *Occult Science and Society*, 89.

⁸² Magdalino, *Occult Science and Imperial Power*, 136; see also Magdalino, *L'orthodoxie des Astrologues*, 95-96.

⁸³ Magdalino, *Occult Science and Imperial Power*, 136-7; see also Magdalino, *L'orthodoxie des Astrologues*, 94-95

⁸⁴ Magdalino, *Occult Science and Imperial Power*, 140; see also Magdalino, *L'orthodoxie des Astrologues*, 96 & 99.

⁸⁵ Magdalino, *L'orthodoxie de Astrologues*, 98-99.

intellectuals with occult interests during the time.⁸⁶ However, Magdalino argues, Anna has another motive in behaving so. She was writing during the reign of Manuel I, her nephew who was a strong believer in astrology. She might want to exaggerate the grandeur of her father's reign during which he did not need to consult astrologers.⁸⁷ When we come to 12th century we encounter the reign of Manuel I Komnenos who was a firm believer in astrology. He consulted astrologers before deciding his political and military actions. It is also known that his astrologers warned him about certain planetary alignments.⁸⁸ Manuel's interest must be seen through the twelfth century intellectual renaissance in Byzantium and the Latin west triggered by the translations of ancient scientific works from Arabic.⁸⁹ Manuel was a devotee of astrology which does not result from mere acceptance of superstition as Choniates argued. On the contrary he was well educated and well-read who lived at a time when astrology was a part of cultural and familial heritage.⁹⁰ John II Komnenos stated that his last born will be a better emperor and the proof came through "prediction" and "prophecies" of Beloved man of God.⁹¹ Prophecy is another topic that is not necessarily related to the astrology but the word "prediction," which is mostly the connotation for astrological interpretation. Manuel's father believed in astrology or at least the interpretation of certain signs.⁹² Manuel supported astrological works, translation of astrological texts in his court. In this way he was in direct contact with ancient

⁸⁶ Magdalino, *Occult science and Imperial Power*, 140 & 142.

⁸⁷ *Ibid*, 142.

⁸⁸ Demetra George, 'Manuel I Komnenos and Michael Glykas: A Twelfth-Century Defense and Refutation of Astrology', Part 1, *Culture and Cosmos*, 5 no 1, (2001), 22

⁸⁹ *Ibid*, 10.

⁹⁰ *Ibid*, 11 & see also Magdalino, *Occult science and Imperial Power*, 147-57

⁹¹ *Ibid* 11.

⁹² George, *Manuel Komnenos*, 12.

sources which is the reason why he is knowledgeable about the topic.⁹³ Choniates narrates certain events when emperor consulted astrologers and postponed certain actions such as attack of the army. The emperor was severely criticized for his actions. During the birth of his child Manuel was looking at the astrologer more than he looked to his wife. Even during his sickness he did not believe that he will die because his astrologers told him that he will live for another fourteen years.⁹⁴ Around 1170s a letter which criticizes the believers of astrology and denounces its believers as heretics was given to Manuel by patriarch. Given his personal position in relation to astrology and as emperor, “Defender of the Faith” he did not allow himself to be charged as heretic so he started an intellectual debate on the topic.⁹⁵ However, everyone was not sharing this positive opinion about astrology. Glykas was a scholar who had opposing ideas to Manuel and did not hesitate to say that out loud. He was a *grammaticos* to the emperor and interestingly he himself has an occult interest in his youth yet changed later in his life. There is certain evidence suggesting that he was Michael Skidites who was convicted of sorcery and blinded.⁹⁶ Manuel and Glykas exchanged letters. While Glykas severely criticized him, Manuel wrote a defense of astrology. Manuel’s aim was to show that there is a kind of astrology that does not contradict Christian beliefs. He admits that there is a kind of astrology which is impious and argues that stars are intelligent and influenced through magic. Lastly he quotes holy people and kings who are definitely not heretics but used astrology.⁹⁷ Moreover he acknowledges that there is the chance of mistakes in astrological predictions

⁹³ Ibid, 15.

⁹⁴ Ibid, 16-17.

⁹⁵ Ibid, 18.

⁹⁶ Ibid, 18 & 19.

⁹⁷ George, *Defense & Refutation of Astrology*, 23.

because God's will is over the natural law. Examples he used are the Star of the Magi and the eclipse at the crucifixion.⁹⁸ As seen above, Manuel's aim was not to prove that was hundred percent true every time but to prove that is not a heretic practice.⁹⁹ Glykas' refutation, on the other hand was a sarcastic one which offers counter arguments or different interpretations of Manuel's examples. He claims Manuel's sources are inadequate or wrong.¹⁰⁰ He was defending, like most of the astrologers throughout the history, stars act as signs not as causes of events.¹⁰¹ Manuel's aim was to distinguish between the astrological science in which stars are seen inanimate and "illicit astral magic" where stars are "living causative agents."¹⁰²

This intellectual renaissance continued into the 13th and 14th centuries. Astrology enjoyed a prominent position.¹⁰³ Tihon distinguished astronomy and astrology as follows. Astronomy is based on Ptolemy's *Almagest* and astrology is based on his *Tetrabiblos*.¹⁰⁴ *Tetrabiblos* is the basic reference book for astrology which argues about the usefulness of predicting the future through the observation of stars. This is a complete manual for Hellenistic horoscope astrology which sees astrology as a probabilistic tool. In *Tetrabiblos*, astrology was defined as a series of predictions which were made through the geocentric system that was described in the *Almagest*, the basis of astronomy.¹⁰⁵ Towards the end of the 13th century people were well aware of the causes of

⁹⁸ Ibid, 23.

⁹⁹ Ibid, 24.

¹⁰⁰ Ibid 25.

¹⁰¹ Ibid, 26. & for a more detailed analysis of arguments see also Magdalino, *L'Orthodoxie des Astrologues*, 114-132.

¹⁰² Magdalino, *Occult Science and Imperial Power*, 156-157.

¹⁰³ Anne Tihon, *Astrological Promenade in Early Palaiologan Period*, 265.

¹⁰⁴ Ibid, 266.

¹⁰⁵ Theodossiou et al, *Astrology in Early Byzantine Empire*, 7-8.

celestial phenomenon. For example, as we learn through George Acropolites' writings. He narrates an event from the court of Nicea in which the Empress Eirene asks a young astronomer about the explanation of an eclipse. He gives the scientific explanation that the moon was interjected between the Sun and the earth but the court physician and the empress mock the young one in front of the other people.¹⁰⁶ Acropolites narrating the event criticizes the empress for mocking and also for not believing the scientific explanation. His later comment is rather interesting. He interprets the eclipse as the death of empress together with a comet appeared six months ago.¹⁰⁷ George Pachymeres around the same years wrote a book that covers the entire subjects of the *quadrivium* for teaching geometry, arithmetic, astronomy and music. In the book, the part about astronomy explains houses, exaltations, decans etc. but the author condemns astrologers who cast nativity horoscopes. His stand against astrology is because it excludes free will.¹⁰⁸ Yet he does not hesitate to argue that an eclipse might indicate the death of an emperor.¹⁰⁹

In the same time period there was also the rise of Persian astronomy with observatories that makes them the source of information and the home of the most advanced science. Choniades translated some of the Persian astronomical treatises.¹¹⁰ The translation of Persian treatises and almanacs was widespread.¹¹¹ The intellectual activity included book translations, production of tables and ephemerides (tables that have position of sun, moon, planets and lunar nodes with

¹⁰⁶ Tihon, *Astrological Promenade in Early Palaiologan Period*, 267-268.

¹⁰⁷ Ibid, 268.

¹⁰⁸ Ibid, 271-272.

¹⁰⁹ Ibid, 272-273.

¹¹⁰ Ibid, 274.

¹¹¹ Ibid, 276.

10 day intervals). However, a trend this big also has its opponents like Gregoras who makes fun of prophecies by people who use the science of the Persians and Chaldeans.¹¹² The court of Trebizond was especially prominent during this time. Chrysokokkes, a scholar who believes in the importance of astrology for medicine, writes a defense of astrology in which he referred to Manuel I Komnenos' defense, argued that each creature has its own energy and planets are no different. They can give signs but cannot act. Even though they lack souls they can take energy from the creator.¹¹³ Theodore Metochites who was very much devoted to Ptolemy's astronomy even thought that astronomy was among the first of sciences. He disagrees with the idea that it can harm Christian faith.¹¹⁴ Inspired by the *Tetrabiblos*, he argues that the sun and the moon and planets can affect the generated nature through their movements but he disagrees with the influence of stars on human affairs.¹¹⁵ Another important astronomer of the mid fourteenth century was Nikephoras Gregoras who trusts himself a lot in the calculation of eclipses yet he does not interpret them in any way.¹¹⁶ He argues that in spite of his skills in the area he did not pursue the study of astrology because of his faith in God.¹¹⁷ He was also a court astronomer who proposed the emperor a new way of calculating Easter which was one of the important duties of an astronomer in Byzantium.¹¹⁸ Another astronomer and a strong antagonist of astrology was Theodore Meliteniotes around the same time. He did not think that there is an acceptable level of astrology. Quoting Gregory of Nazianus, he argued astrology

¹¹² Ibid, 277-278.

¹¹³ Ibid, 279-280.

¹¹⁴ Ibid, 280-281

¹¹⁵ Ibid, 281- 281.

¹¹⁶ Ibid, 283-286.

¹¹⁷ Ibid, 286.

¹¹⁸ Mavroudi, *Exchanges with Arabic Writers*, 70.

should glorify the God, not predict the future. He is not against the learning and study of astronomy; he even took the Persian astronomy to the curriculum of the Patriarchal School.¹¹⁹ John Abramius, another prominent Palaiologan scholar who had an astrological and astronomical school, also copied and edited important works. He might be the one who cast a horoscope for the entry of Andronicus to Constantinople and the one who composed the astrological manuscript Laurentianus, 28, 7. It is known that the Laurentianus 28, 7 was copied in his school but in order to understand the horoscopes deeper examination is needed.¹²⁰ Laurentianus 28, 7 is the source for Ambrosianus H 57 sup, used in this paper.¹²¹ In order to find the tone of the astrologer who cast horoscopes in favor of Andronicus but against his enemies, Pingree analyzes his interpretations during which he reveals how good an astrologer and astronomer Abramius is.¹²² He and his school did not only contribute to the scholia but copied and edited ancient texts and translated Arabic and foreign texts.¹²³ It is known that his school used works of Abu Mashar. His name was mentioned in the texts in twice instances as the source of information.¹²⁴

While examining the astrology of a certain state one should consider the interactions with the surrounding states over time. It is briefly mentioned above yet, it needs a deeper explanation. In order to explain the interactions in terms of astrology one can start with Greeks. Greeks in the second century passed astrology to Indians who mixed it with their own military astrology and produced

¹¹⁹ Tihon, *Astrological Promenade in Early Palaiologan Period*, 289.

¹²⁰ Pingree, *Astrological School of John Abramius*, 193.

¹²¹ Pingree, *An Illustrated Greek Manuscript*,

¹²² Pingree, *Astrological School of John Abramius*, 196-199.

¹²³ *Ibid*, 202.

¹²⁴ *Ibid*, 200 & 204.

historical astrology. In historical astrology conjunctions of Saturn and Jupiter over the thousands of years provide a structure for rise and fall of empires, religions, rulers and dynasties.¹²⁵ Translation of Mashallah's work into Greek started in the early 11th century.¹²⁶ This translation coincided with the aforementioned revival of learning, copying and editing trend in Byzantium that started with Constantine Porphyrogenitus. As noted earlier both in Laskarid court in Nicaea and in the Palaiologan time astrology was practiced. Intellectuals and practitioners of occult were using not a national corpus but a product of centuries of interaction. Palaiologan authors and readers were aware of the cultural achievements of the ancient Near East and used their classical authors' texts in their scientific works.¹²⁷ Byzantines were not only translating the works of prominent astrologers of the Arab world but also the ancient Greek sources which were translated into Arabic in previous centuries. They were more useful in terms of addressing the current problems and did not include the obscure pagan concepts that ancient sources have.¹²⁸ The interaction was not limited to translation. Byzantine scholars went to Tabriz to "gain an even more profound level of knowledge" more than they gained in Constantinople, at least which was the case for Gregory Chioniades. He studied medicine and astronomy in Tabriz and when he came back he was honored with royal favor and much admiration.¹²⁹ Chioniades and his students translated Islamic sources in Arabic and Persian. They used them as manuals and reference books.¹³⁰ This interaction was not twofold. Other

¹²⁵ David Pingree, *Byzantine Translations of Mashallah*, 233.

¹²⁶ *Ibid*, 231. See also Magdalino, *Occult Sciences and Imperial Power*, 138.

¹²⁷ Mavroudi, *Exchanges with Arabic Writers*, 22.

¹²⁸ *Ibid*, 63.

¹²⁹ *Ibid*, 65.

¹³⁰ *Ibid*, 66.

neighbors of Byzantines, the Latins were also in the game. They also translated the ancient Greek original works from Arabic to Latin after the crusades.

Byzantine in the Palaiologan period also translated Latin versions of Arabic works.¹³¹ The Byzantine Scholars who used Arabic sources were aware of the Hellenic background of Islamic Science and how much Islam contributed to it but they thought “ancient Egyptian and Near Eastern wisdom is dead in the lands of its birth.”¹³²

Astrology in the Ottoman Empire

The Ottoman tradition of science was based on Islamic especially Seljuk tradition. *Medrese* was the educational institution for all sciences as well as hospitals and *Muvakkithane* (Time keeping house) where education was given in a master-apprentice manner.¹³³ *Muvakkithanes* were generally built in the *külliyes* (Mosque complex) and were responsible for determining the praying times. They were also another place where astronomy was taught.¹³⁴ *İlm-i nücum*, the science of stars, was practiced in the Ottoman Empire. The name was meant to cover both astronomy and astrology.¹³⁵ In addition to the importance of astrology education, for better astronomical observations, an observatory was founded in İstanbul during the reign of Murad III; unfortunately it was a short-lived one.¹³⁶ Until the 19th century astrology and

¹³¹ Ibid, 66.

¹³² Ibid, 69.

¹³³ Ekmeleddin İhsanoğlu, “Science in the Ottoman Empire,” in *The Ottoman Civilization*, ed. by İnalçık & Renda, 319-20.

¹³⁴ Ibid, 320.

¹³⁵ Salim Aydüz, Osmanlı Devletinde Müneccimbaşılık, *Osmanlı Bilimi Araştırmaları*, 1, no: 1 (1995): 159.

¹³⁶ İhsanoğlu, *Science in Ottoman Empire*, 321.

astronomy was inseparable and the word “*müneccim*” (astrologer & astronomer) was meant a scholar who deals with both.¹³⁷ Astrology was the mystical interpretation of astronomy and known as *ilm ahkam al-nujum* among the scholars. It was the philosophy of astronomy.¹³⁸ One can define astrology as “the art of making interpretations about future of humans, animals and plants from the movement and position of stars and planets and from certain meteorological and geological events.”¹³⁹ Muslims gained their knowledge about astrology through Babylonian, Assyrian, Greek and Persian works as well as pre-Islamic works of Arabs. Mashallah who lived in 8th century and Abu Mashar who lived a century later are counted as the fathers of astrology in the Islamic world.¹⁴⁰ In the Turco-Islamic states which existed before Ottoman Empire, there were observatories and scholars who encouraged to observe sky both because it was a science and because they believed that the stars can be guides in daily affairs as well as the future.¹⁴¹ Ottoman astrology was influenced by Iranian scholars and observatories in the beginning.¹⁴² There was always a close link between astronomy and astrology. The astronomers of Islamic rulers were also astrologers. Starting with Abbasid caliph Abu Ca’far al-Munsur (d. 775) caliphs and sultans had astronomers and astrologers.¹⁴³

¹³⁷ Aydüz, *Müneccimbaşlık*, 1995, 159.

¹³⁸ Ekmeleddin İhsanoğlu, *Osmanlı astroloji literatürü tarihi ve Osmanlı astronomi literatürü tarihi zeyli / History of Ottoman astrology literature and supplement to the history of Ottoman astronomy literature (Vol. I)*, (Istanbul: IRCICA): 2011, XXVI.

¹³⁹ İhsanoğlu, *Osmanlı Astroloji Literatürü*, XLVI.

¹⁴⁰ Ibid, XXVIII.

¹⁴¹ Aydüz, *Müneccimbaşlık*, 1995, 160.

¹⁴² Ibid, 163.

¹⁴³ İhsanoğlu, *Osmanlı Astroloji Literatürü*, XLV.

Around 15th century, an official post for an astrologer emerged in the Ottoman Empire.¹⁴⁴ It was called *Müneccimbaşı* (meaning chief astrologer). This, of course does not mean Ottoman sultans did not have astrologers before this date. This post is significant because it gives the astrologer an administrative duty and control over the rest of the astrologers in the empire.¹⁴⁵ There is no mention of a court astrologer during the reign of Mehmet II, but we know he consulted astrologers during his reign. The first court astrologer was probably employed during the reign of Bayezid II.¹⁴⁶ *Müneccimbaşıs* were among the “*birun erkani*” who has an official post but does not live within the palace.¹⁴⁷ Once appointed, they stayed in their posts until their death, even though there are some cases which they were taken from the duty but without any specific reason.¹⁴⁸ Katip Çelebi argues that *ilm-i nücum* has three subtopics; while two of them deal with astronomy, one deals with astrology.¹⁴⁹ According to him, an astrologer should have knowledge about these areas: the first is to know how to calculate the calendar and to use the astrolabe. The second is to know the science of stars, constellations and zodiac signs. The third is to know how to make horoscopes and calendars and to calculate stars’ movement. And the fourth one is to know how to interpret those movements.¹⁵⁰

As an official the most important duty of the *Müneccimbaşı* is making the calendar at the start of the vernal equinox. This specific one consists of two calendars: *Rakam Takvimi* which shows months and days and *Ahkam Takvimi*

¹⁴⁴ İhsanoğlu, *Science in Ottoman Empire*, 321 & Aydüz, *Müneccimbaşılık*, 1995, 159.

¹⁴⁵ Aydüz, *Müneccimbaşılık*, 1995, 159.

¹⁴⁶ Ibid, 164.

¹⁴⁷ Ibid, 166.

¹⁴⁸ Ibid, 168.

¹⁴⁹ Ibid, 159.

¹⁵⁰ Ibid, 167.

which has interpretations of *Müneccimbaşı* about that year as what to do and what not to do.¹⁵¹ *Ahkam Takvimi* consists of three parts. In the first part, there are quotations from Koran and hadith of Prophet Mohammad about the topic and explanations of zodiacal interpretation for the sultan and important officials.¹⁵² In the second part every month is narrated starting from the current *nawruz* (vernal equinox) till the next one.¹⁵³ In the third part, eclipses, their duration and kind are narrated. *Ahkam Takvimi* is where the astrologer has a chance to represent his knowledge and skill in astrology. If their interpretations are not correct, it was a loss of prestige.¹⁵⁴ For example, in seventeenth century, *Müneccimbaşı* of the time Hüseyin Çelebi rightly predicted the death of Sultan Murad IV.¹⁵⁵ He does not openly write that but imply it by using the phrase “*Nâ-Murad.*”¹⁵⁶ “Na” is privative prefix in Persian. The astrologer by saying Murad will no longer be present implied his time of his death. On the contrary, another 17th century *Müneccimbaşı* Hüseyin Efendi wrongly calculated the eclipse time for *cülûs* (the payment of the Janissaries) and misestimated the time of Sultan Mehmet IV’s death. The Sultan lost his prestige because everyone thought he will die and Hüseyin Efendi fell out of favor.¹⁵⁷

Independent of the success or the failure of the astrologers, during the reigns of certain sultans astrology was more prominent. Ottoman sultans perceived the casting of horoscopes to determine the lucky time as a tradition.

Tradition was as important as the religious law Sharia for them. Even though they

¹⁵¹ Ibid, 175-6.

¹⁵² Salim Aydüz, Osmanlı Devletinde Müneccimbaşılık Müessesesi, *Belleten*, 70 no: 257 (2005), 222.

¹⁵³ Aydüz, *Müneccimbaşılık Müessesesi*, 2005, 222.

¹⁵⁴ Ibid, 223.

¹⁵⁵ Ibid, 221.

¹⁵⁶ Ibid, 203.

¹⁵⁷ Ibid, 224.

did not think of it as a proper science or thought it is anti-religious; they performed it.¹⁵⁸ Murad III was an exception. He was fond of astrology and other occult practices. He built an observatory where Dolmabahçe Palace stands today.¹⁵⁹ His interest in history, divination and marvels together with his bibliophile character led him to commission a number of works in aforementioned areas.¹⁶⁰ He was also the follower of a Sufi sheikh of *Khalwati* order, known as a pious sultan. He commissioned a theological treatise, *Siyer-i Nebi*. He was a spiritual man and also a poet. He never led the army or left the palace.¹⁶¹ In the same period not only the sultan but also the women in harem were getting stronger and active in book patronage. Production of *Metali'ü 's-Sa'adet ve Yenabiü's-Siyadet* for Murad III's daughters was just one example.¹⁶² This period coincides with the time that mothers of princes stop going to *sancak* with their sons which results the presence of a strong royal family in the court.¹⁶³ While some sultans and their entourage were prominently favored astrology; others were openly opposed to it like Abdülhamit I and Selim III.¹⁶⁴ They were among the aforementioned group who tolerated existence of the court astrologers just because it is in the traditional law. Unlike them there are some sultans who were very fond of astrologers like Mehmet IV, Mustafa III.¹⁶⁵ They were also praised

¹⁵⁸ Ibid, 226.

¹⁵⁹ Ibarra & Türkçelik, *The Ottoman Empire of Murat III*, 37.

¹⁶⁰ Emine Fetvacı, "Circulation, Audience and the Creation of a Shared Court Culture" in *Picturing History at the Ottoman Court* (Bloomington: Indiana University Press, 2013), 43.

¹⁶¹ Ibid, 44.

¹⁶² Ibid, 36.

¹⁶³ Ibid, 43.

¹⁶⁴ Aydüz, *Müneccimbaşılık Müessesesi*, 2005, 226-7.

¹⁶⁵ Ibid, 227.

by astrologers themselves. *Müneccim-i sani* Yakup Efendi refers to Mustafa III as *Necm-i Selatin* and to Selim II as *Zeyn 'ün Necm*.¹⁶⁶

Apart from the calendars mentioned earlier, *Müneccimbaşı* also prepared horoscopes. There are three kinds of horoscopes: *mesial* (interrogations, questions), *ihiyarat* (elections), and *doğum zayıçesi* (genethlialogy). The first one is about simple daily matters and employed when one has a specific question or matter in mind. The second one is cast in order to determine the lucky time. The third one is prepared to determine the life of a person at birth.¹⁶⁷ Another kind of astrology that was practiced by the *Müneccimbaşı* was called *Melhame*. It etymologically means a great war. As a branch of astrology it aims to determine the times of certain events like abundance, scarcity, drought and sickness.¹⁶⁸ *Melhame* also covers natural events like eclipses, earthquakes, rainbows, comets, rain and snow. It is divided into 12 months; each month is narrated under one “*bab*” and at the end there is a section about zodiac signs, and phases of moon. By using the astronomical and meteorological information, the *Müneccimbaşı* made inferences about the future.¹⁶⁹ Additionally, horoscopes called, *Tal-i Mevlud*, predicting the life of sultans and princes, are cast by astrologers.¹⁷⁰ This was a separate duty, a crucial one since they implied important events, such as deaths in their calendars.¹⁷¹

It was believed that stars, planets, sun and moon have an influence on people’s lives. As a result, some people consulted astrologer before taking action.

¹⁶⁶ Ibid, 228.

¹⁶⁷ Aydüz, *Müneccimbaşılık*, 1995, 181.

¹⁶⁸ İhsanoğlu, *Osmanlı Astroloji Literatürü*, XLVIII.

¹⁶⁹ Ibid, LV.

¹⁷⁰ Aydüz, *Müneccimbaşılık Müessesesi*, 2005, 224.

¹⁷¹ Ibid, 223.

Lucky time (*uğurlu saat, eşref saati*) is the most correct time to perform a certain duty; it was determined by astrologer after careful observation and interpretation of heavenly beings.¹⁷² Ottoman sultans, too, consulted the astrologer on the eve of important events; some believing the necessity of it, some because it is tradition while others were openly opposed to the practice of astrology.¹⁷³ Some events for which sultans get astrologers to cast horoscopes were: *cülûs* (distributing money to janissaries), appointment of grand viziers, movement of army for the attack, movement of ships, the time that statesmen wear their robe of honor, the time to lay the foundation of a public building and for the declaration of war.¹⁷⁴

Muslims fast during one month in a year. They stop eating when the first rays of the sun are seen in the sky until sunset. One of the duties of *Müneccimbaşı* is preparing *İmsakiye*, the calendar according to which fasting times are determined. The name of the month is *Ramazan* (Ramadan), and the chief astrologer should prepare the calendar in the last ten days of *Şaban*, the previous month.¹⁷⁵ Another duty of *Müneccim* that one can add to the list is to translate works of important Muslim astrologers.¹⁷⁶ In a survey among 1086 surviving Ottoman astrological works, İhsanoğlu found that 877 of them are in Turkish as opposed to 138 in Arabic and 61 in Persian.¹⁷⁷

While making calendars and casting horoscopes, astrologers relied on Handy Tables. Handy Tables show the place of planets at a certain time in the sky and determined according to the observation time of Saturn that is 30 years. In

¹⁷² Ibid, 228.

¹⁷³ Ibid, 226-7.

¹⁷⁴ Ibid, 234-7.

¹⁷⁵ Aydüz, *Müneccimbaşılık*, 1995, 179.

¹⁷⁶ İhsanoğlu, *Osmanlı Astroloji Literatürü*, LI.

¹⁷⁷ Ibid, LVIII.

order to make a handy table, one should be really skilled in Mathematics and Astronomy. Because of the knowledge, observation and work it requires, Handy tables are composed by the great scholars of an era for very long periods of time. Ottomans used Uluğ Bey's handy tables.¹⁷⁸ Nevertheless, the first known Ottoman calendar was made according to *Zic-i İlhani* and in Persian.¹⁷⁹ Later in the 18th and 19th centuries, they used more updated versions by western scholars.¹⁸⁰

Astronomy and its ill-treated sister astrology was widely practiced in the Ottoman Empire. They were closely linked to one another.¹⁸¹ People believed that the rise or station of a star in their sign will influence their future.¹⁸² It was used in different areas of life such as determining the lucky time to do a certain thing.¹⁸³ It can be used to foresee abundance, scarcity, and drought or epidemic sicknesses. Each day of the week has its own planet and is also influenced by stars.¹⁸⁴ According to İmam Şafii astrology is Haram (forbidden by the religion) if one believes it the stars themselves which affects the events and people. However, if one believes it is thanks to God that stars move in a certain way and things happen in a certain way astrology can be lawful.¹⁸⁵ There is a tradition used by Sabians (Also known as Sabeans who were mentioned in Koran as among the people of the book together with Jews and Christians) called *Da'vat al-kavakıp* which means calling the spirits of the seven planets in order to defeat the enemy or learn something that is unknown.¹⁸⁶ The last example was more close to the magical

¹⁷⁸ Aydüz, *Müneccimbaşılık*, 1995, 176.

¹⁷⁹ İhsanoğlu, *Osmanlı Astroloji Literatürü*, LI.

¹⁸⁰ Aydüz, *Müneccimbaşılık*, 1995, 177.

¹⁸¹ İhsanoğlu, *Osmanlı Astroloji Literatürü*, XLV.

¹⁸² Ibid, XLVI.

¹⁸³ Ibid, XLVII.

¹⁸⁴ Ibid, XLVIII.

¹⁸⁵ Ibid, XLIX-L.

¹⁸⁶ Ibid, L.

side than the scholarly side since it includes manipulation of planets. As İmam Şafii argued above, it is the “*haram*” part because the stars are called for help not God.

Chapter III: Zodiac Signs

In this section, how the characteristics of Zodiac signs were interpreted will be the topic of inquiry. Both primary sources narrated Zodiac signs with their three decans. A decan is a ten-day period within the 30-day period of a sign. Each sign has three decans and each decan has its own planet.¹⁸⁷ Decade was also used interchangeably with decan but for the proposed study decan will be preferred.

Byzantine Empire

In this section proposed paper will examine a 12th century poem by John Kamateros. John Kamateros, in the introduction of his poem dedicates his book to the emperor Manuel Komnenos. He stated that the proposed work is astronomy in verse by John Kamateros the philosopher, about twelve signs of Zodiac, planets, fixed stars, decans, comets, terms, fortune and ill-fortune, genethliology, horoscopes, time of life, earthquakes, thunder, lightning, figures, climates, comets etc. length.¹⁸⁸

Kamateros in his narration of the signs first starts with astrological characteristics of that sign i.e. male then the time of the sign, and planets associated with that sign, the constellations and stars in the sky at that time. He continues with the three decans, their personal and physical characteristics. He adds the sicknesses and important crisis that each decan might encounter at specific ages. For every decan he specifies a part of the body where a person who

¹⁸⁷ Ibid, 199.

¹⁸⁸ Ludwig Wiegler, *Studien zu dem Unedierten Astrologischen Lehrgedicht des Johannes Kamateros*, (Würzburg: KLG. Universitätsdruckerei von H. Stürtz, 1902), 3. See also, Magdalino, *L'Orthodoxie des Astrologues*, 111.

was born in that decan will have a mark. He adds the intervals between planets in that sign and their effects, and then explains the astrological zones of each and the position of the stars and so on.¹⁸⁹ Since this is not a translation project, I will only focus on the parts in which the author narrated the three decans in order to be able to compare it with the Ottoman writings.

Aries (*κριος*): People born in the first decan of Aries one will have more than one wedding first one in the youth and the second one will be very happy. They will have good and thin bodies. They will go through many dangers and important crisis which will be impossible to escape after a certain time. People who were born during the second decan will be wealthy and increase that wealth over time. They will be in distress about the sicknesses in early ages. They will be wise but not that wealthy, they will teach or train others. They will have beautiful eyes. They are quick to get angry. There are dangers for them. People who were born in the third decan of Aries will become humble and be in distress greatly. They will be separated from their father and live abroad. He will grieve for the unlucky death of the first wife and will take another. They will have a daughter and will have light blond curly hair. They will be good looking. There is danger from those related to him by blood.¹⁹⁰

Taurus (*ταυρος*): People who were born in the first decan of Taurus will have a gratifying life but toilsome life and have many friends. They will not take virgin women. They will have wealth more than they have known before. Their

¹⁸⁹ Ludwig Weigl, *Johannes Kamateros*, 10-54.

¹⁹⁰ *Ibid*, 12-13 (215-260).

eyes and lips are big. They will be well known with bitter words. There is danger in certain ages... (The second and third decans are missing from the text.)¹⁹¹

Gemini (*διδουμοι*): (The first decan of Gemini is also missing) People who were born in the second decan will lose their wealth after the death of their parents. They are bright and become wealthy from the work of their house above their ancestors/sons. They will take the honor of appointing as priests. They will take women from their kin or blood. From the position of the stars the author says he will live badly with women. They will have a well-shaped face. They will face important crisis in the middle of their lives. People of the third decan will be in distress in youth, danger and loss will be great. They will take foreign women in their house and there is danger that none of them are fortunate. They will be thin faced and yellowish. There will be danger in certain years and they will have daughters.¹⁹²

Cancer (*καρκινος*): people who were born in the first decan of Cancer will be good and quiet, they acquire many invention in their lives. They are full of care and have many friends. They suppress the hateful ways of living. They are very unfortunate in terms of weddings and might be very sad because of them. In their youth they will have thick hair and pleasing eyebrows. There is danger when they look away from their kin. People of the second decan will increase their wealth. They will be better than their brothers in the eyes of their parents but these will see their death. They are lawful and civilized. They will not be luck in terms of women and children. They will have a dark skin and big chin. Danger will not give up on them and give distress. People of the third decan are wise and noble

¹⁹¹ Ibid, 17 (401-410).

¹⁹² Ibid, 17-18 (412-443).

but if they are low born they remain that way. Upon the death of their parents they will diminish their wealth because of women. They might be among the ranks of army and become prominent but might change their armor. They are well fed, yellowish, light blue eyed and a little fat. They will delight in blood and remain in the army. There are many dangers from which there is no escape.¹⁹³

Leo (*λεων*): People of the first decan constitute those who rule the crowd and people. They are benefactors, sharp, keen and make people subordinate. They do not look down upon women. They have along and reddish face and they work hard on foot. They will encounter much danger. In the second decan of the Leo, Alexander the Great of Macedonia was born. People in this decan have the ability to rule with absolute power in their horoscope. They make many people subject to tribute. They are also sensible, beneficent and the discoverers of gold. They have a broad beautiful chest, subtle thigh and foot and are pleasant in their words. They might have dangerous crisis related to kidney and work. People of the third decan are intelligent and friendly. There is danger of death or harming their body because of a struggle with the ruler. They might leave their possessions and enjoy benefits of life and women. They have a reddish face and large eyes. They are weak towards women. They behave bravely.¹⁹⁴

Virgo (*παρθενος*): They say about people who are born in the first decan of Virgo that they are good but voluptuary and friendly. They will not have many women but only the adulterous wife with whom they fall in love. They will pray for a doctor when they fall. They are brave and cold but have beautiful eyes and a fair form and face. They will have dangers. People who were born in the second

¹⁹³ Ibid, 21-22 (538-580).

¹⁹⁴ Ibid, 25-26 (682-715).

decan are made up of the ones who are educated, keen and love joy. They will inherit his father's property but they will look down upon their family's property. As a gift from Venus, people of this decan are good musicians and singers. They will take big benefits from great men. They are well looking, thin faced and pious. They are notorious, wealthy wise and intelligent and might command many. They will see extreme dangers and are ill-fated. People of the third decan are moderate, wealthy, generous, pious, and have good fortune. Teaching for earning their living is suitable to them. They will grieve on account of their children and women. They will have a deadly situation in their middle age. They have a good nose and small head. Their death will be with the sword.¹⁹⁵

Libra (ζυγος): people who were born in this decan bring their parents great joy. However the loss is not small either. These people go to foreign lands and leave their native land but come back again eventually. They are moderate in their lives and see the advance of their children. They should be careful against fire and about certain important crisis. People of the second decan are wealthy and glorious who are destined to rule other people. They receive much honor from their travels and gifts from the ruler. They see the progress of their children and gain their desires in life. They might have trouble from the problems related to their lower back and they will look away from their kin in their lives. People of the third decan are brave, with decency, friendly and well known in their lands. However, they are unlucky in terms of women. They will bring up a son by a virgin and this son has a good fortune who will wear a crown and rule. They have

¹⁹⁵ Ibid, 29 (810-846).

a yellowish face and beautiful eyes. For the muscle power one must blame Jupiter. He should be careful about dangerous crisis in certain times of year.¹⁹⁶

Scorpio (*σκορπιος*): people born in the first decan of Scorpio are quick witted and just and educated. They remain in their family and cause much loss while passing from one place to another. They hold sway their possessions and favor the good natured and brilliant. With the influence of Venus, they can be good artists or craftsmen of gold and silver. Their women are favorable, their sisters are lawless and their children are mighty. They will have lovely big eyes. They will always recover from troubles in life. People of the second decan will have great wealth, be educated, sweet in their word and thoughts. They will get the greatest of they can find for themselves. But they might be the slave of free men. They are talented in many arts and music. They might get burned or have spasm when Aries is seen. People of the third decan will have losses but have an astonishingly good fortune but might be prone to illness. They will have a good soul and body. They will not pay attention to beautiful women. They are unstable towards fights and slaves. From Venus they will have the skill in music and the art of speech.¹⁹⁷

Sagittarius (*τοξοτης*): People who were born in the first decan of Sagittarius are jealous but good natured. They can save themselves from dangers and will see the death of their parents whom they received much support as they were brought up. As a result of their good nature they can be high priests or army officials. They will see much benefit and wealth from women. They have beautiful eyes and eyebrows. People of the second decan might be poor and sickly

¹⁹⁶ Ibid, 32-33 (923-970).

¹⁹⁷ Ibid, 36-37 (1065-113).

because of their spouses but will do much good besides. They might get through a very bloody dissection. After a certain appointment they will gain much gold and silver. People of the third decan are brought up by their parents nicely and educated to be an administrator. They are destined to rule and will be greater than the kings. Jupiter will grant them glory and kingly qualities. They will make people subordinate to them. If Saturn is seen it will provide money and good fighting qualities. They will have beautiful eyes.¹⁹⁸

Capricorn (*αιγοκερως*): People of first decan will be the older sibling, deep and educated. There will be those who hate him and love him. Danger will come from the family and those who they love. But they will not be able to harm and cause the damage. They will have much wealth and make people subordinate to themselves. They will have dangers throughout their lives. People of the second decan will see the death of their family. They will go away from home and have much loss. They will be judged by the God for their unstable, adulterous and fornicating character. He might be taken hostage. They will have beautiful eyes. People of the third decan will be brought up in much wealth and are educated yet quick to get angry, quick witted and insolent. There is the danger of head concussion.¹⁹⁹

Aquarius (*υδροχοος*): People who were born in the first decan are full of themselves but righteous. They will distribute honors. They are very good with women. They might take refuge but come back with gains. They will see the death of their child. They have a characteristic face. People who were born in the second decan are extremely miserable but better if they do not have children. Their life

¹⁹⁸ Ibid, 40-41 (1202-1240).

¹⁹⁹ Ibid, 44-45 (1353-1395).

will be full. They will sail and see even the end of the world. They cannot anticipate having the boundaries. For the people of the third decan Jupiter gives the ability to make others subordinate. They have a wonderful yellowish complexion and might have many children.²⁰⁰

Pisces (*ιχθεις*): People of the first decan of Pisces will suffer because of their children. If they work well, they might make people subject to them. There is danger coming from close. The weaknesses, terribleness and abnormalities will be better when they are of age and they will be delighted. People of the second decan will remain where they were born and increase their wealth. They will be philanthropic, educated and know the heavenly arts. They will get married but be separated later. People of third decan are friendly; they might have a big mark on their bodies. They will see the death of their women and children. Their dwelling must be by the sea. They will fight with great men. They will consume what came from their ancestors and are prone to luxury and profane things.²⁰¹

Ottoman Empire

In order to give an idea about how zodiac signs are interpreted in the Ottoman Empire, this study will examine parts from the *Metali'ü 's-Sa'adet ve Yenabiü's-Siyadet* and how the twelve signs were narrated in it. The author, Seyyid Mehmed Suudi, takes each decan of each sign and narrates them separately.²⁰² Seyyid Mehmet Suudi first narrates the appearance of a person who

²⁰⁰ Ibid, 48-49 (1489-1535).

²⁰¹ Ibid, 52-53 (1630-1673).

²⁰² Yorgos Dedes, "The Ascensions of Felicity and the Fountains of Nobility, Translation of the Ottoman Text" in *The Book of Felicity*, ed. M. Moleiro (Spain: M: Moleiro EditorS.A., 2007), 199.

was born under that decan of that sign and moves on to characteristics of each according to the twelve houses of the zodiac.²⁰³ The author starts the narration of each sign with “The wise Abu Mashar says” letting the reader to know his source.²⁰⁴ The characteristics of each decan of each sign have their specific qualities, which are explained under the main headings of the twelve houses; such as, the first house is related to outer appearance and basic personality qualities, the second house is related to wealth, the third house is related to siblings and moving, the fourth house is about parenting and property, the fifth house is about children, the sixth house is related to health and diseases, the seventh is about marriage and partnership, the eighth is related to death, ends, fear and troubles, the ninth is about travels, the tenth is related to authority and deeds, the eleventh is expectations, and finally the twelfth is about enemies.²⁰⁵ Now we can look at each sign separately.

Aries (*Hamal*): All three decans have reddish- pale complexion and blue eyes. They are all swift and live long lives. They get rich later in life. They are not very lucky in terms of benefiting from siblings but they might have one good brother or good sisters. They get inheritance from the family. In terms of disease, they suffer mostly from hotness.²⁰⁶ For the first decan Suudi suggests oxymel²⁰⁷ and sherbet for the second.²⁰⁸ People who were born under all three decans enjoy women and have many in their lives. They all travel a lot and their most beneficial travels are the ones that they went towards the East. Only first decan is good with

²⁰³ Ibid 199.

²⁰⁴ Ibid, 212.

²⁰⁵ Ibid, 212-247.

²⁰⁶ Ibid, 212-4.

²⁰⁷ Ibid, 212.

²⁰⁸ Ibid, 213.

men of authority while other two should stay away from them. They all turn out to be honorable and respected men who get everything they want in life. They have enemies in their close circles but defeat them eventually. Tuesday seems to be the lucky day for all three while Saturday night is good for the first two decans.²⁰⁹

Taurus²¹⁰ (*Delv*): While the first and the third decans are reddish to fair complexion, the second one has a yellow tendency in terms of complexion²¹¹. They all seem to have a long life and suffer from fatigue. All three decans earn their wealth through different means from agriculture to trade and to an official post. There is no good coming from their brothers but they will still be good to them. They are a blessing to their mothers and fathers. The first two decans would not get inheritance from their parents or will spend it all²¹² and the third would lose his mother before his father.²¹³ They will all have many children but except for the second decan²¹⁴ who will see many benefits from a child skilled in mathematics and writing, they won't see any goodness from their children. Cold is the main source of diseases and they are all quick to get sick and except for the first decan, quick to get well. They will take many wives but no good will come out of them. There is fear of falling from a high place or drowning, if they survive these they will have a long life. They do not travel much but rather make one long journey. Their words will be listened to and people of high esteem will help them

²⁰⁹ Ibid, 212-214.

²¹⁰ Ibid, 215-217.

²¹¹ Ibid, 216.

²¹² Ibid, 215 and 216.

²¹³ Ibid, 217

²¹⁴ Ibid, 216

to reach felicity. They either have very few or no enemies because of their good and forgiving nature. Their good day is Friday and bad day is Tuesday.²¹⁵

Gemini²¹⁶ (*Javza*): All three decans have a fair complexion. People of the first decan are skinny with long fingers. They will earn most of their wealth from arts or inheritance. They won't see any goodness from their brothers or parents and will be separated. They will have many sons. Diseases will come from hotness and blood. They should be careful when eating with women. They will love women and get benefits in return. If they survive the pain of an injury, they will have a long life. They will travel a lot but it would be better if they go to the West. They will be a leader and people both love and fear them. Their enemies will be mostly women but won't harm them.²¹⁷ People who were born in the second decan have a rosy glow, nice beard, beautiful eyes and a small head. They know how to keep a secret. They can excel in tailoring, embroidery or be a scribe. Their wealth will come from buying and selling. Their brothers will be beneficial to them. Their mothers will die early and leave them a good inheritance. Their children will be mostly female. If they survive, after taking a wound from an iron, they might have a long life. Their lust will dominate and they will be keen on women and intercourse. They have the evil eye. They will take many wives and get inheritance from them. They enjoy travelling but won't find time to do it. They will benefit from a slave girl. Travelling by sea and towards the West is better. They will have good relations with the Sultan. They will have many expectations but limited income. There will be people around them who look like

²¹⁵ Ibid, 215-7

²¹⁶ Ibid, 218-220.

²¹⁷ Ibid, 218.

friends but they are actually enemies.²¹⁸ People who were born in the third decan have a short but beautiful body. They know how to treat different people according to their nature. They will deal with rich people. They will acquire their wealth from service and trade. They will dominate their brothers and find comfort with them. They might lose a parent as a child and as an adult they will be separated from them. They will have many daughters and one son from a slave girl. They will see no good from their wives and their diseases will result from wetness and phlegm and should also fear from kidney and chest pain. Their likely cause of death will be bowel pain or spleen. They are keen on travelling and mostly to the West. They will like being in the presence of sultans. They will have many expectations but achieve them with the help of women. They will have many enemies but they won't harm them.²¹⁹ For all three decans, their good day is Wednesday and the bad day is Friday.²²⁰ Because of the very different characteristics attributed to the three decans of Gemini, I chose to narrate them separately.

Cancer²²¹ (*Saratan*): All three decans have a fair and bright complexion. The author specifically mentions that the third decan is the ascendant of the Prophet Joshua.²²² They will all go pilgrimage and reach high ranks. The first decan can make ends meet but can't acquire wealth.²²³ The second decan gets very rich through agriculture.²²⁴ The third decan will lose money and recover

²¹⁸ Ibid, 219.

²¹⁹ Ibid, 220.

²²⁰ Ibid, 218-220.

²²¹ Ibid, 221- 223

²²² Ibid, 223

²²³ Ibid, 221.

²²⁴ Ibid, 222.

later.²²⁵ They won't see any benefit from brothers and even suffer because of them. They don't see much goodness from their parents too, but they are good sons. They will all have many girls and a son from a slave girl. Wetness and phlegm is the source of their illnesses. They will all marry more than three times but see no good. Their death will come from chest pain. Travelling towards Mecca will be very advantageous. They like to be close to sultans and attain their wishes with help from a highly esteemed man. They will all have many enemies around but will be victorious over them.²²⁶

Leo²²⁷ (*Asad*): The first decan is dark skinned and tall. They complete and sort other people's affairs. They appreciate eloquence and are companions to the dignitaries.²²⁸ The second decan has a fair complexion and squint eyes. They are keen eaters and can make their livelihood from anything. They attract evil eye and can be influenced by magic.²²⁹ The third decan has reddish to fair color, with large faces and thick arms. They will fulfill other's needs.²³⁰ They will all have fear of drowning. Their wealth will come from agriculture or through other people. Their brother will not be very good yet their sisters will be better. Their parents will favor them over other siblings.²³¹ Leos of the first decan will have one son who is a blessing to them; the second decan will have none while the third decan will have many. Hotness, headaches and diseases related to head and eyes are in the picture. They will take many wives. The cause of death might be urinary infections or diarrhea. They should be cautious if they enter into the presence of a

²²⁵ Ibid, 223.

²²⁶ Ibid., 221-3

²²⁷ Ibid, 224-6

²²⁸ Ibid, 224.

²²⁹ Ibid, 225.

²³⁰ Ibid, 226.

²³¹ Ibid, 224-226.

sultan. Travelling will be beneficial. They will get their expectations and their words will be listened. Even though they will have many enemies, none would be able to harm them. Their good day is Sunday and bad day is Monday.²³²

Virgo²³³ (*Sünbüle*): The first decan of Virgo will have a fair complexion, pale skin, good beard with small head and eyes. They will love composition, knowledge, jewelry and delicate objects. They will be popular but will suffer because of it. They will profit by land and by a rich woman.²³⁴ The second decan will have a fair complexion as well with almond eye, medium height and dark hair. They love entertainment and embark on things beyond their reach. They are trustworthy and considerate. They will try so hard to earn money but will waste it immediately.²³⁵ The third decan will have dark skin and be beautiful. They will love poetry and knowledge. They can be an accountant, scribe or engineer. At the age of 51, he will be head of his tribe.²³⁶ They will all be separated from their brothers who are not doing any good to them. They will get good inheritance from their parents.²³⁷ The first two decans will have three to five wives²³⁸ while the third decan will profit from slave girls.²³⁹ They will all have many children. They should be careful about diseases from coldness and wetness and also internal diseases. Travelling to the West will be for their benefit but they should watch out for their companions. They are not meant for serving but they should do other businesses. They will obtain their wishes and also have many friends yet should be careful about enemies. They might have enemies from their family and they

²³² Ibid, 224-226.

²³³ Ibid, 227-229.

²³⁴ Ibid, 227.

²³⁵ Ibid, 228.

²³⁶ Ibid, 229.

²³⁷ Ibid, 227-9.

²³⁸ Ibid, 227 & 228

²³⁹ Ibid, 229.

should also fear from the sultan. Their good day is Wednesday and bad day is Sunday.²⁴⁰

Libra (*Mizan*): people of this sign are beautiful in all decans. Their words are powerful and they themselves are trustworthy.²⁴¹ The first decan will be fond of military.²⁴² The second one is quick tempered²⁴³ and the third one is inclined to God and tied to the family.²⁴⁴ Trade is good for all while unlawful money can cause trouble.²⁴⁵ The first two decans have bad relationships with their brothers and will be separated from their mothers.²⁴⁶ The first two decans will have children at an early age, while the third one might not have any. Phlegm is the common disease among them while they might get sick from various reasons. They are fond of women and marry several times yet women are not good to them, they even cast spells. They will have one or two near death experiences in their lifetimes. If they survive, they will lead a long life. Mecca is good for all of them while travelling to the West is also beneficial.²⁴⁷ For the first decan it is bad to serve someone because he might get accused, its better if he becomes a tradesman²⁴⁸ and for last two decans their expectations will be met in time and they will be close to the sultan and reach high ranks.²⁴⁹ Accountants and scribes

²⁴⁰ Ibid, 227-229.

²⁴¹ Ibid, 230- 232.

²⁴² Ibid, 230.

²⁴³ Ibid, 231.

²⁴⁴ Ibid, 232.

²⁴⁵ Ibid, 230-232.

²⁴⁶ Ibid, 230 & 231.

²⁴⁷ Ibid, 230-232.

²⁴⁸ Ibid, 230.

²⁴⁹ Ibid, 231 & 232.

are bad for the first two decans, they might have enemies among them.²⁵⁰ Their good day is Friday and bad day is Saturday.²⁵¹

Scorpio (*Akreb*): All three decans of Scorpios have fair to red complexion. Their eyes and eyebrows are beautiful.²⁵² People of the first decan are quick tempered, take their revenge, do not fear from death and love Muslim people. They will have so much wealth that they will be tired of it. They like to buy places, slaves and imarets.²⁵³ People of the second decan are generous, sweet spoken, considerate of others but fear from an injury from iron or a ruler. They might engage in trickery to get wealth.²⁵⁴ The third decan loves entertainment and play. They do not consider the results of their actions carefully. They are brave and have mastery in arts related to iron and fire. Wealth will come from an esteemed person.²⁵⁵ All three decans won't see much benefit from their brothers. They will love their parents but will lose one before the other.²⁵⁶ For the first two decans, if their first child is male it is good²⁵⁷ but for the third one there is fear.²⁵⁸ They will all suffer from diseases related to head. They love women and take several wives. Some evil might come from women. They will like travel and go around a lot. All three decans mingle with sultan and dignitaries. They will attain their wishes but after hardship. There are enemies around them, they should be careful. Their good day is Tuesday and bad day is Thursday.²⁵⁹

²⁵⁰ Ibid, 230 & 231.

²⁵¹ Ibid, 230-232.

²⁵² Ibid, 233-235.

²⁵³ Ibid, 233.

²⁵⁴ Ibid, 234.

²⁵⁵ Ibid, 235.

²⁵⁶ Ibid, 233-5.

²⁵⁷ Ibid, 233 & 234.

²⁵⁸ Ibid, 235.

²⁵⁹ Ibid, 233-5.

Sagittarius (*Kaus*): all three decans have dark skin and beautiful face. They are good with people, brave and have good morals. Trade and plants are good sources of income for them but they will get wealth later in their lives.²⁶⁰ People of the first decan will have lovely relations with their brothers²⁶¹ whereas the second and third decans won't see any benefit from brothers.²⁶² They will be obedient and loving to their parents and get inheritance or estate after their death. They will mostly have male children. Diseases might be of various causes. They will have three wives. The cause of death may be drowning. East is a good direction for them to travel.²⁶³ Being in service of others is not good for first decan; they should pursue his livelihood in trade or fine arts. They are keen on requests of friends but should refrain himself from social life. They should be cautious against blue eyed soldiers.²⁶⁴ People of the second decan are in good relations with dignitaries get their wishes through them, mostly women. They are dear to friends and love entertainment. They should watch out for blow of arms.²⁶⁵ People of the third decan will benefit greatly from service to the sultan but they should watch out for a former slave. They do not get all the wealth they hoped for. Friends will not be as good as they seem.²⁶⁶ Their good day is Thursday and bad day is Tuesday.²⁶⁷

Capricorn²⁶⁸ (*Kadi*): people who were born on the first decan of Capricorn have a fair complexion, hairy torso. They are hasty talkers but have a sound

²⁶⁰ Ibid, 236-8.

²⁶¹ Ibid, 236.

²⁶² Ibid, 237 & 238.

²⁶³ Ibid, 236-8.

²⁶⁴ Ibid, 236.

²⁶⁵ Ibid, 237.

²⁶⁶ Ibid, 238.

²⁶⁷ Ibid, 236-238.

²⁶⁸ Ibid, 239-241.

judgment. Their wealth will be scarce until 35 but then they will earn much more.²⁶⁹ People of the second decan will have a red and white complexion and thick lips. They are quick to get mad, hasty in business and might start a new business before finishing the old. They spend all their earnings and buy always cheap things but might come across a hidden treasure.²⁷⁰ People who were born in the last decan of Capricorn have a beautiful posture, round head, almond eyes, wide forehead and bushy eyebrows. They are very thoughtful, know to keep a secret and eat a lot. They can acquire some wealth and they will get inheritance or find a hidden treasure.²⁷¹ None of the three decans will see much benefit from their brothers. They will be separated from their family when young.²⁷² The first two decans will outlive other siblings and see benefit from their families²⁷³ whereas the third one sees harm from their parents. They will have children in their midlife and benefit them.²⁷⁴ People of the second decan will have nine sons; if their first born is female, it is good.²⁷⁵ People of the first decan will have children very late in life but those will be good children.²⁷⁶ All three are prone to illness and causes of their illness are wetness and spleen. They love women and enjoy their friendship. They will take many wives but will not stay long with any of them. There's fear from spleen, cough and prison. They are keen on travel. There is profit in relations with the sultan and dignitaries. They get their wishes but they need to sacrifice something such as money.²⁷⁷ People of the first decan

²⁶⁹ Ibid, 239.

²⁷⁰ Ibid, 240.

²⁷¹ Ibid, 241.

²⁷² Ibid, 239-241.

²⁷³ Ibid, 239-240.

²⁷⁴ Ibid, 241.

²⁷⁵ Ibid, 240.

²⁷⁶ Ibid, 239.

²⁷⁷ Ibid, 239-241.

are men of consideration so they have very few enemies.²⁷⁸ For people of the second decan, there is fear from sultan and a faction will be their enemy.²⁷⁹

Finally, people of the third decan will have enemies from family. But they will be victorious over their enemies.²⁸⁰ Their good day is Saturday and bad day is Sunday.²⁸¹

Aquarius²⁸² (*Dalv*): People of the first decan have fair to red complexion, upright posture and almond eyes. They do not hold malice but they also do not consult on anything. They are keen on travel, love to plan and mingle with dignitaries. They will get money from trade and unlawful ways. Relatives will take from them but will not give back and even slander them. They are not very obedient to their parents, later they get a large inheritance. Their first child will be male. Their diseases will result from indigestion, coldness and heart ache. They will stay long with their first wives and will take another wife from outside of their circle. Cause of death is cold and wetness. They are keen on travel, go to Mecca but there is profit if they go to the North and the West. They are afraid of serving the sultans and should escape from magic. They get what they want. There are enemies from those they converse and from their family.²⁸³ People, who were born in the second decan of Aquarius, will become handsome and intelligent. Their words are sweet; they might be a scribe, accountant or poet. They will spend everything they earn, trade is good for them. They will outlive their brothers but there will be hostility with a brother because of a woman. They

²⁷⁸ Ibid, 239.

²⁷⁹ Ibid, 240.

²⁸⁰ Ibid, 241.

²⁸¹ Ibid, 239-241.

²⁸² Ibid, 242-244.

²⁸³ Ibid, 242.

will not see much benefit from their parents either; they will be separated from them. They will have many children, the first one being male; one of them will be a scribe. They will be very sickly as children; the reasons will be coldness and wetness. They will take several wives, two of them virgins and the others are widows. They will suffer in their hands. Their death will be during intercourse, or because of internal diseases. Travel is good for them; rather than staying in one place, they should go westwards. They should offer their service, otherwise, will be in trouble with the sultan. They will not leave the world without attaining their wishes. They will have enemies among relatives.²⁸⁴ People, who were born in the last ten days of Aquarius, will be beautiful, persevering and caring. They will be quick to get mad and quick to calm down. They will not care if what they are doing is good or bad. They will not know the value of money until they lose it. They will have few brothers who need them but they will not need their brothers. They are a blessing to their parents but they will neither benefit from nor approve their own children. Their illnesses will result from cold breezes, wetness, phlegm and knee aches. Their first wives will be very diligent and noble but they will die and people of the third decan will take their second wives. They have the fear of violence and their cause of death will be related to heart aches. They like to travel and their good direction is west. There is risk of two soldiers slandering them to sultan but they will escape from danger. Their family and relatives engage in animosity.²⁸⁵ Their good day is Saturday and bad day is Friday.²⁸⁶

²⁸⁴ Ibid, 243.

²⁸⁵ Ibid, 244.

²⁸⁶ Ibid, 242-244.

Pisces²⁸⁷ (*Hut*): People who were born in the first decan of Pisces will have a dark skin, medium posture, socialize with nobility, engage in a craft other than their family's and look for the conclusion of things.²⁸⁸ People of the second decan have a light complexion, bushy eyebrows, and eloquent tongue. People who were born in this decan are like heroes, act upon their own sound judgment and do not say how they really are.²⁸⁹ People who were born in the third decan have a pale to red complexion. They might get into trouble because of enemies but will survive. There is fear from rabid bite, iron injury and fire burn. They provide for orphans and like friends.²⁹⁰ The wealth will come to them through various channels but they will spend it. They cannot see any goodness from their brothers.²⁹¹ The first two decans will have good relations with parents²⁹² but the third decan will see harm from their fathers.²⁹³ They will mostly have female children and reach felicity on account of them. They will get sick mainly because of hotness, wetness, phlegm and various aches. They get many wives and slave girls. It is better for them to travel by the sea and in the direction of the North.²⁹⁴ For the people of the first decan it is also good to travel westwards and to Mecca. They will do whatever is right even if it is against their own interests. They are very trustworthy and do not engage in any animosity as a result they almost have no enemies. They will be happy in their businesses and get their wishes with patience.²⁹⁵ People of the second decan will practice an art that the sultan needs.

²⁸⁷ Ibid, 245-7.

²⁸⁸ Ibid, 245.

²⁸⁹ Ibid, 246.

²⁹⁰ Ibid, 247.

²⁹¹ Ibid, 245-7.

²⁹² Ibid, 245 & 246.

²⁹³ Ibid, 247.

²⁹⁴ Ibid, 245-7.

²⁹⁵ Ibid, 245.

They will have a solid friend whom they will take great help. If they are patient they will be with their family and get what they want. Even though they have many enemies they cannot harm them.²⁹⁶ People of the third decan will be loved by dignitaries and receive honors. They will achieve what they want but suffer because of their friends. Women are dangerous to them and there are enemies among the holders of ranks. However, they do not need to fear, because the planets favor them.²⁹⁷ Their good day is Thursday and bad day is Saturday.²⁹⁸

Analysis

In terms of the way Zodiac signs are narrated I expected to find much more similarities than I encountered. This might be due to several facts. The first one is for the Ottoman manuscript I used an English translation. Because of the geographical barriers, the original of the Ottoman Manuscript is in France, I was unable to reach the actual work. The second one is my level of Byzantine Greek might not be enough to fully understand John Kamateros' poem. Even though I had the actual text in this case, language barrier was an obstacle. Yet again, I tried my best to carefully read, understand and analyze both documents. The third reason might be that the Ottoman and the Greek worlds might lack the uniformity in terms of the characteristics of Zodiac signs that we have today. In twelfth and sixteenth centuries astrology was a science that was still developing. Even though

²⁹⁶ Ibid, 246.

²⁹⁷ Ibid, 247.

²⁹⁸ Ibid, 245-247.

they used the same sources²⁹⁹, the evolution of the interpretation might have been different.

In both narrations people who were born under Aries will get rich later in their lives. They will marry many times and might have enemies in their close circles.³⁰⁰ People whose sign are Taurus will engage in toilsome businesses. Their words will be influential.³⁰¹ People of Gemini are good looking but not lucky in terms of wives. They will have many daughters. They will increase the money they inherited.³⁰² In the narration of Cancer their fair-yellowish complexion is common. There are similarities in the relation of people and money in the second and the third decans. They will not see any good from their siblings or wives but they are dutiful children.³⁰³ The physical traits, namely reddish face and a well-built body are common in the narration of Leo. They will acquire wealth and power and their words will be important.³⁰⁴ All decans of the Virgo said to be wealthy and intelligent. The first decans have their beautiful eyes and face in common. The second decans are both said to be as educated and love the joys of life. And the third decans are good at teaching.³⁰⁵ People whose Zodiac sign is Libra will have one major crisis in their lives and are unlucky with women. They

²⁹⁹ There was a wave of translations from Arabic into Greek after the year 1000 and continued throughout eleventh and twelfth centuries. See footnotes 42, 70, 87 and 124 to understand the intellectual environment John Kamateros was writing. Pingree argued that Ambrosianus H 57 is mainly the updated version of Laurentianus 28,7 with further additions. Moreover, Abu Mashar was mentioned at least twice in Laurentianus 28, 7(See footnote 7), and in the *Book of Felicity* the author, Suudi, starts his narration of each sign with “The wise Abu Mashar says” letting us know his source (See footnote 200). Both of these facts lead us to the conclusion that the main sources were the same.

³⁰⁰ See footnotes 186 and 205.

³⁰¹ See footnotes 187 and 206.

³⁰² See footnotes 188 and 212.

³⁰³ See footnotes 189 and 217.

³⁰⁴ See footnotes 190 and 223.

³⁰⁵ See footnotes 191 and 229.

will be separated from their homelands but will be back again.³⁰⁶ For the Scorpio common points are in terms of their wealth and their mastery in certain arts and crafts.³⁰⁷ In both narrations people who were born during Sagittarius are good natured and will see benefit from their parents.³⁰⁸ One common point for Capricorn is that they are very fond of women. They will have many wives. The first two decans will have long lives.³⁰⁹ The first decans of Aquarius in both works are full of themselves and close to the esteemed people. The second decans travel a lot. And the third decans become superior to other people.³¹⁰ Finally, for the Pisces the most visible similarity is their closeness with the sea related businesses and their interest in women.³¹¹

Apart from the similarities in the same signs or decans the gendered narration of both writers is striking. It is narrated as only men can have Zodiac signs. Women exist as siblings, mothers or wives. It is intriguing though, for Murad III to commission this kind of a book for his daughters. The order of the narration, which starts with physical appearance, and continues with wealth, family, siblings, women, children, illnesses and ends with enemies, is in line with the attributions of the twelve houses in the Zodiac circle. Another surprising similarity was that there are very specific comments in some signs as if they are secretly written to give a message to the patron or to warn them about certain dangers. For example, the third decan of Aquarius was told to be careful about two soldiers during a war because they might mislead the sultan with their

³⁰⁶ See footnotes 192 and 238.

³⁰⁷ See footnotes 193 and 248.

³⁰⁸ See footnotes 194 and 256.

³⁰⁹ See footnotes 195 and 264.

³¹⁰ See footnotes 196 and 278.

³¹¹ See footnotes 197 and 283.

words.³¹² Similarly, the first decan of Sagittarius was warned against the soldiers with blue eyes.³¹³ The first and the second decans of Libra, should be cautious about scribes and accountants.³¹⁴ One might trace a similar secret message in John Kamateros' poem, too. Leo is a sign that people who were born under that sign are destined to rule in both texts. However, for the third decan of Sagittarius Kamateros said people who were born under this decan will be greater than all the kings.³¹⁵ Could this be Manuel's or his son's sign? As it is understood from the few examples I outlined, both of the texts require a deeper examination within their contexts and time periods to fully understand their whole corpus.

³¹² Dedes, *The Book of Felicity*, 244.

³¹³ *Ibid.*, 236.

³¹⁴ *Ibid.*, 230-231.

³¹⁵ Wiegler, *Johannes Kamateros*, 40.

Chapter IV: Planet Representations

Ambrosianus H 57 Sup

The manuscript chosen for this paper is one of the few Greek astronomical manuscripts which have illustrations. It is called Ambrosianus H. 57. *Sup* and kept in Biblioteca Ambrosiana; Milan, Italy. It has commentary of Theon of Alexandria on Ptolemy's hand tables, scholia and other writings.³¹⁶ It consists of 180 parchment folios each measuring 24 cm *16.4 cm. The illustrations are executed by same artists on seven folios. The manuscript was not originally bound in this order which is indicated by the numbers entered in the upper right of the beginning page of each quire and the lower center of the last. There are twenty two quires each with eight folios but 19th has 10 folios. Folio 163 seems to be an extra leaf maybe it was the guard leaf of the original. Rest of the script after folio 171 is not numbered and seems like a later addition.³¹⁷

Folio 180 is the guard leaf and taken from another manuscript. It has the dates 1432-3 and 1437-8 on it which meant the manuscript is bound in its present state before 1430s. As for the date of the manuscript, Pingree points out a couple of anecdotes, for example, on folio 21^v the author of the manuscript mentions the date 1357/8 as current.³¹⁸ However, in “*κανων βασιλεων*” where the reigns of the rulers are narrated, the original scribe ends his list with Andronicus III (1328-1341) and John V (1341-1391).³¹⁹ A second scribe makes additions after 1448 as understood from the last emperor he adds, John VIII (1425-1448). A third scribe

³¹⁶ Pingree, *An Illustrated Greek Manuscript*, 185.

³¹⁷ *Ibid*, 185.

³¹⁸ *Ibid*, 185.

³¹⁹ *Ibid*, 186.

adds Constantine XI (1449-1453) and the Ottoman Murad II, probably around 1451 after Murad's death. Finally a fourth scribal note adds the description of manuscript on folio 163 mentioning it has been thirteen years since the fall of Constantinople, yet curiously adds the date 1491/2. Pingree thinks it's inexplicable.³²⁰ For what we know about the manuscript we can conclude that it was copied around 1358 in Constantinople, had a series of owners, and mainly copied from Laurentianus 28, 7.³²¹ Laurentianus 28, 7 is another astronomical manuscript which was copied in 1343/4.³²² Different from aforementioned Laurentianus, the scribe of Ambrosianus H 57sup. added, first, a more complete version of handy tables with royal canons, geographical tables, right and oblique ascension tables. The second is an incomplete table of consuls and geographical table by the scribe. The third, two works on astrolabe.³²³ Another different aspect from Laurentianus is the illustrations. On the first page where the opening of Theon starts, there is a place intended for illustration however, there is no specific space allocated to other illustrations. The painter chose the margins of the pages³²⁴ especially where the equation table of the each planet starts.³²⁵ The planets are represented as naked humans except for Mars and only Moon and Venus are females and the rest are males. They sit on or carry the symbols of the zodiacal signs of their astrological houses, exaltations and in some cases dejections. Apart

³²⁰ Ibid, 186.

³²¹ Ibid, 186.

³²² Ibid, 186.

³²³ Ibid, 190.

³²⁴ Ibid, 190.

³²⁵ Ibid, 191.

from the planet illustrations there is an astronomer using a parallactic instrument.

326

Representations of the Planets and Zodiac Signs

Representation of the Sun (see Picture 25): It is located on the bottom left of folio 97. The Sun is illustrated as a naked man riding a lion representing Leo, its house and a ram representing Aries, its exaltation.³²⁷

Representation of the Moon (see Picture 26): It is located on the bottom right of folio 97. Moon is illustrated as a dark naked woman sitting on a crab, representing Cancer its house and there is a bull on her lap representing Taurus, its exaltation. Four stars surround her and the tail of a scorpion is visible, Scorpio being its dejection.³²⁸

Representation of Saturn (see Picture 27): It is located on the bottom of folio 113. Saturn is a naked man riding on a goat, representing Capricorn its house and a man bending down pouring water from a pot representing Aquarius its house. The goat and the man who pours water wear a yoke representing Libra its exaltation, on their necks. Saturn puts his right hand on a standing, naked, two-headed man representing Gemini. In this case the dejection of Saturn, Aries, might be substituted with Gemini which lies in Saturn's perigee.³²⁹

Representation of Jupiter (see Picture 28): It is located on the folio 116^v. Jupiter as a naked man sits on two fish facing the opposite direction representing Pisces, its house and a centaur holding a bow in his right hand representing

³²⁶ Ibid, 191.

³²⁷ Ibid, 191.

³²⁸ Ibid, 191.

³²⁹ Ibid, 191.

Sagittarius, its house. There is a crab below his feet representing Cancer its exaltation and he holds a ram on his lap probably a mistake for a goat, Capricorn its dejection.³³⁰

Representation of Mars (see Picture 29): It is located on the bottom of folio 121. Mars is depicted as a warrior in armor and with a sword in his right hand. He sits on a ram representing Aries, its house, holds a scorpion on his lap representing Scorpion, its house, and a crab, representing Cancer its dejection. His foot is on a goat, representing Capricorn its exaltation.³³¹

Representation of Venus (see Picture 30): It is located on the bottom of folio 122^v. Venus as a naked woman sits on a bull representing Taurus, its house. The bull has a yoke on his neck, representing Libra its house. Her left foot is on two fish facing opposite directions, representing Pisces, its exaltation. She herself may be representing Virgo, its dejection.³³²

Representation of Mercury (see Picture 31): It is located on the bottom of folio 125v. Mercury as a naked man was carried on the shoulders of a naked woman representing Virgo its house and exaltation and a naked two-headed man representing Gemini; its house.³³³

It was concluded that the style of the miniatures is basically western with a mix of Byzantine elements. He argues that there is the Islamic tradition behind the iconography because planets are shown with their houses, exaltations and dejections. This is a feature very rarely found in the West. He concludes an artist of Italy or Sicily mixing Italian and French styles who worked in Constantinople

³³⁰ Ibid, 191.

³³¹ Ibid, 191.

³³² Ibid, 191.

³³³ Ibid, 191.

in the 14th century might have contributed to the illustrations yet no artist of this style is documented. This brings the assumption that illustrations are probably later additions.³³⁴

Metali'ü 's-Sa'adet ve Yenabiü's-Siyadet

In the second half of sixteenth century Ottoman painting was living its golden age. Many large sized illustrated works were produced.³³⁵ Not only imperial histories were produced during this period but the topics are varied from daily life to divination; from astrology to geography.³³⁶ One end-result of this interest had become *Metali'ü 's-Sa'adet ve Yenabiü's-Siyadet* is a book on astrology and divination translated from *Kitab al-Bulhan*. *Kitab al-Bulhan* has the work of the famous astrologer Abu Mashar. The Ottoman translation, even though it was not only a translation but included certain additions, is composed by Seyyid Mehmet bin Emir Hasan Suudi. There are two copies of Suudi's illustrated both for Murad III's daughters Fatma and Ayşe sultans. One copy is in France, Bibliotheque Nationale de France (ms. Suppl. Turc 242) and the other is in New York, Pierpont Morgan Library (M.788).³³⁷ The first two sections are on astrology, marvels and demonology and the last section is about divination. The copy in Paris is illustrated by Osman, the famous painter of the 16th century Ottoman court.³³⁸

³³⁴ Ibid, 192.

³³⁵ Günsel Renda, *The Book of Felicity*, Ottoman Painting in Sixteenth Century, 50.

³³⁶ Ibid, 57.

³³⁷ Ibid, 60.

³³⁸ Ibid, 60.

Representations of the Planets and the Zodiac Signs

In *Metali'ü 's-Sa'adet* all signs are shown inside a circle as if seen from a telescope. Their background is a dark blue sky with golden stars and sometimes clouds. The circle of the sign is at the center of the composition placed in a square. The area between the square and the circle is illuminated with gold and various colors and decorated with Ottoman patterns of scrolling motifs, arabesques, flowers, leaves, pendant, medallions and ribbons. There is a title above the aforementioned square starts with “*taksim-i deracat-i burc-i ...*” (the image of the sign of the zodiac ...) and has the sign's name. at the bottom of the composition there are three rectangular which has the representations of the planets associated with three decans of the sign.³³⁹

Aries (see Picture 1) is illustrated as a white ram, galloping as in the astronomical representation of constellation of ram. It is portrayed as a domesticated animal with a blanket and a saddle on it. The planetary lord of Aries, Mars is shown on the ram, a warrior-like figure with a mustache, holds a sword in one hand and a severed head on the other. His headgear is like the ones that Ottoman janissaries wore.³⁴⁰

Planets of the three decans (see Picture 2) are first Mars: a cross legged man holding a mace, wearing a pointed hat and a long red tunic. The second is the

³³⁹ Carboni, *the Book of Felicity*, 74.

³⁴⁰ Ibid, 74.

Sun, a man seated and facing forward. His head is surrounded by bright rays of sun. The third one is Venus, a female figure sitting cross legged and playing ud.³⁴¹

Taurus (see Picture 3) is depicted as a domesticated bull with a richly decorated blanket and other accessories on it, in the walking position. Venus “sits sidesaddle, the posture of female riders, playing a tall oriental harp.”³⁴² She is wearing a yellow tunic and a red long sleeved shirt in it, her hair style is a high vertical chignon.³⁴³

The first planet illustrated below is Mercury as a scribe, a bearded man with a scroll in his right knee and a pen on his hand. The second one is Moon who is a female, seen frontally with a crescent moon around her face wearing a very long sleeved dress. The last one is Mars; a seated man holding a mace leaning on his shoulder with the same pointy head in the Aries illustration (see Picture 4).³⁴⁴

Gemini (see Picture 5) in Islamic art is illustrated as Siamese twins, separated only from their neck up. In this case twins are sitting facing forward but looking at each other. They wear a gold embroidered red tunic. Each one raises his one hand holding a golden square object probably representing a star and with their other hand holding each other. The lord of the sign, Mercury is looking at the figures from slightly far away. He is a tall thin figure, standing with a long sleeved coat a red tunic and large turban. There is a scroll in his right hand and a metal pen and ink box seen as coming out of his pocket with a pen on the inkwell.³⁴⁵

³⁴¹ Ibid, 74.

³⁴² Ibid, 76.

³⁴³ Ibid, 76.

³⁴⁴ Ibid, 76.

³⁴⁵ Ibid, 78.

The planets below (see Picture 6) starts with Jupiter who is a bearded man with a large turban, seated and holding a book of poems of the Koran on his knee. Then comes Mars again seated, holding a mace on one hand a severed head on the other. Finally the Sun is depicted as a seated figure with rays of sun around his face.³⁴⁶

Cancer (see Picture 7) is represented as a naturalistic crab holding a gold crescent of the moon with its claws. There is a woman's face within the crescent with "a tiny mouth a chin dimple, arched eyebrows, small almond eyes and a big nose" and her hair is stretched tight.³⁴⁷

The first planet Venus is a female figure playing a flute or ney. The second one is Mercury a seated scribe with a scroll and a large ceramic inkpot. The third one is the Moon; a cross legged female figure holding a crescent around her face (see Picture 8).³⁴⁸

Leo (see Picture 9) is depicted as a not scary but an amusing lion as if it is floating or swimming in the sky with its longed curved tail, large mane and cat-like expression it looks docile. Sun sitting or standing on his back with rays round his face has a surprised or puzzled expression putting his right hand on his chin.³⁴⁹

The first planet Saturn is a dark skinned man with a white beard, dressed in tight short trousers using a long shovel. Jupiter is a seated man with a beard and a turban and holds a book. Mars is a standing figure with a mace in one hand a severed head in the other (see Picture 10).³⁵⁰

³⁴⁶ Ibid, 78.

³⁴⁷ Ibid, 80.

³⁴⁸ Ibid, 80.

³⁴⁹ Ibid, 80.

³⁵⁰ Ibid, 80.

Arabic word for Virgo is “*sunbula*” meaning ear of a corn. As a result its iconography is different than the established western tradition. Virgo (see Picture 11) is illustrated as three long ears of corn and Mercury is cutting them with a scythe.³⁵¹

Below the aforementioned illustration (see Picture 12), first stands the Sun as a man with rays around his face wearing a white gown. Then comes Venus as a woman dancing and playing clappers. Finally Mercury depicted as a seated scribe with an inkpot and a pen in it reading a scroll.³⁵²

Libra (see Picture 13) is represented by a golden scale. Chains of the bowls on each side are hold by a female figure, representing Venus similar to the Taurus image. She is not playing any instrument this time because she is holding the scale. Her gown is composed of red and yellow with a very long gold belt.³⁵³

Moon is depicted similarly with a female holding a crescent around her head. Saturn is a dark skinned man with a white beard holding a shovel and wearing a pointed head. Jupiter is a seated bearded man with no special attributes might be representing a *kadi* or a judge (see Picture 14).³⁵⁴ His dress is different, too.

Scorpio (see Picture 15) is represented with two scorpions even though the name is singular. This is related to the constellation of Scorpio. In the illustration one scorpion is held by Mars and another is standing in front of him. Mars is dressed for combat with metal arms, helmet and a long sword.³⁵⁵

³⁵¹ Ibid, 80.

³⁵² Ibid, 80.

³⁵³ Ibid, 84.

³⁵⁴ Ibid, 84.

³⁵⁵ Ibid, 86.

Another Mars below is represented in the usual way as a seated young man with a mace leaning on his shoulder. The Sun is a seated man with rays around his face. And the Venus is a female figure playing the tambourine (see Picture 16).³⁵⁶

Sagittarius (see Picture 17), the archer is a half feline half man centaur who is turning backwards to shoot an arrow at its own tail which is a dragon's head. This iconography comes from the astronomical facts. The apogee Sagittarius' constellation is in the Tail of the Dragon. Spots on the feline body might indicate a leopard. The human part must be male but he tied his hair like Venus' images of Taurus and Libra. The planetary lord Jupiter, a bearded man with large turban and a long sleeved coat without any specific attributions, is watching the scene floating in the sky.³⁵⁷

The planet of the first decan, Mercury, is a scribe with a scroll of paper and a pen in his hand wearing a white gown. There is an inkpot in the illustration. The second planet is the Moon, a female figure seated and holding a crescent around her face. The third planet is Saturn a dark skinned man with a white beard. He is depicted as if he is walking out of the frame with a shovel on his hand (see Picture 18).³⁵⁸

In the illustration of Capricorn (see Picture 19), the goat is depicted in the profile as a male goat with long horn and beard. Similar to ram and the bull he is fully accessorized. Saturn is sitting on the goat with his thigh trousers, short sleeved shirt and long sleeved undershirt a long belt and a tall Ottoman hat. As is

³⁵⁶ Ibid, 86.

³⁵⁷ Ibid, 86.

³⁵⁸ Ibid, 86.

the custom he is dark skinned with white beard and bare foot. There is a decorated pick in his hand.³⁵⁹

The first planet below is Jupiter as a seated man with no attributed but with a long scarf on his left shoulder. Mars is seated as usual and holding a mace. Sun is a seated man with rays around his face but wearing a blue gown this time (see Picture 20).

In the image of Aquarius (see Picture 21), Saturn is depicted as a dark skinned man with white beard who is half naked and pulling a rope tied to a bucket from a well; as opposed to western iconography in which a man pours water from a jar.³⁶⁰

Venus is a female playing the flute. Mercury is a seated man reading a book this time. Moon is a female facing forward with a coat that has very long sleeves again with a crescent around her face but she is not holding it this time (see Picture 22).³⁶¹

In Arabic tradition Pisces is a single large fish. Here (see Picture 23) depicted as an oversize trout or pike with a surprised expression on his face because of Jupiter sitting on his back. Jupiter, a bearded man, sits cross legged with his coat open revealing the gold embroidered red tunic underneath. There is a white scarf on his shoulder and an Ottoman turban on his head.³⁶²

³⁵⁹ Ibid, 86.

³⁶⁰ Ibid, 90.

³⁶¹ Ibid, 90.

³⁶² Ibid, 90.

Saturn is a seated dark skinned man with a white beard. He is half naked and holding a pick. Jupiter is drawn similarly with the image above. Mars is a seated young man holding and raising a mace (see Picture 24).³⁶³

Analysis

There are striking similarities in the way that the characteristics of zodiac signs are narrated in *Metali'ü 's-Sa'adet* and in John Kamateros' poem. Both of them divide signs into three decans and explain separately starting with general characteristics; they include physical features of that specific decan. General complexion, distinct bodily or facial qualities, that decan's relation with women, their parents and children, the situation of their health in specific ages, in certain signs the jobs that are suitable for them. Even some prominent figures that were born in that sign (Alexander the Great in John Kamateros,³⁶⁴ Prophet Joshua in the *Book of Felicity*³⁶⁵) are all common in both astrological works. Both narrations are strictly gendered, women are not the subject but find their place in the narration as wives, sisters or enemies. As examining these works one cannot agree more with Mavroudi when she argues both Byzantine and Islamic tradition of astrology shares the same Hellenistic heritage.³⁶⁶ By the Palaiologan times it was known that the Arabs used the Ancient Greek knowledge to advance in the sciences. The translations started in the ninth century by the 13th century the Byzantines knew

³⁶³ Ibid, 90.

³⁶⁴ Weigl, *Johannes Kamateros*, 25-26.

³⁶⁵ Dedes, *The Book of Felicity*, 223.

³⁶⁶ Mavroudi, *Exchanges with Arabic Writers*, 69.

the Arabs improved and made that Ancient Greek knowledge up to date.³⁶⁷ The Ottomans, on the other hand, inherited the Islamic knowledge and improved it.³⁶⁸

Differences were more compared to the similarities. The characteristics of each sign expected to be the same yet showed great varieties. In terms of the content, in Kamateros' poem there was more astronomical information, as opposed to the great divination part of the *Book of Felicity*. For example, Kamateros' poem had information about the positions of fixed stars and planets at the change of each signs³⁶⁹ while *Metali'ü 's-Sa'adet* had information about the occupations attributed to each planet.³⁷⁰

Book illustration is among the most studied areas of Byzantine Art History.³⁷¹ Manuscripts are decorated by scribes or illuminators. Illustrations are added either to spaces left empty by the scribe or to separate leaves. The miniature was first established with a preliminary sketch and covered with pigments. For simpler ornaments color-wash technique was used.³⁷² The topics of illustrated manuscripts are mainly religious. Very few secular texts and some scientific texts are also illustrated. Starting with the ninth century there are important Psalters, gospels and rolls which are illuminated such as *Khludov Psalter*, *Joshua Roll*, *Stavronikita Gospels* and *Theodore Psalter*. During the early Palaiologan time, imitating the Islamic arabesque style, there are intricate ornaments in certain

³⁶⁷ Ibid 63-64.

³⁶⁸ İhsanoğlu, Science in Ottoman Empire, Inalcık and Renda ed. in *Ottoman Civilization*, 320.

³⁶⁹ During the narration of each sign this information existed but left untranslated because it necessitated deeper knowledge in Astronomy and in Byzantine Greek.

³⁷⁰ Renda, Ottoman Painting in the 16th Century, 61. & Dedes, Translation, in *The Book of Felicity*, 248-249.

³⁷¹ Robert Nelson, Book Illustration and Illumination, *Oxford Dictionary of Byzantium*.

³⁷² Ibid.

manuscripts. However, the number of illuminated works was decreasing in 14th and 15th centuries.³⁷³

In the Ottoman Empire manuscript illustration was the main form of pictorial art.³⁷⁴ All arts are centralized under a society of artists who works for the imperial court. We know Mehmet II was a great patron of arts but the formative years of the Classical Ottoman style of painting was during the patronage of Süleyman the Magnificent.³⁷⁵ Illustrated histories were among the most popular kind led by the court historian (*Şehnameci*). *Şehnameci*'s duty was to write epic histories of the early dynastic figures in the Persian verse like Firdausi's *Shahnama*.³⁷⁶ During the reign of Süleyman the Magnificent this *Şehname* was started to be written in Turkish and designed as a roll known as *Tomar-ı Hümayûn*. It is a world history that begins with world history, Adam and Eve, the prophets and finally the Ottoman dynasty. The famous court historiographer of Murad III, Seyyid Lokman was commissioned to make an illustrated book from that collection of histories. As a result, he prepared *Zübdetü't-tevârih* in 1583.³⁷⁷ It is both a genethialogy as it is the illustrated history of a dynasty and a source for religious iconography for the later books because it has the illustrated stories of all prophets. The illustrations were executed by the famous artist of the time, Osman.³⁷⁸ The source for the illustrations of the previous sultans was another work by Seyyid Lokman and Osman, namely *Şemailname* that is based on physiognomy, the science that foretells people's character based on their physical

³⁷³ Ibid.

³⁷⁴ Renda, *Ottoman Painting in the 16th Century*, 45.

³⁷⁵ Ibid 45-47.

³⁷⁶ Ibid 47 & Serpil Bağcı, Filiz Çağman, Günsel Renda & Zeren Tanındı, *Osmanlı Resim Sanatı*, (İstanbul:T.C. Turizm ve Kültür Bakanlığı, 2006), 92-93.

³⁷⁷ Bağcı et.al., *Osmanlı Resim Sanatı*, 131.

³⁷⁸ Ibid, 132.

appearance.³⁷⁹ Interestingly, for the religious scenes Osman used almost real life figures, dressed in the 16th century Ottoman attire. The only religious trait in the illustrations was the halo.³⁸⁰ Other works of Seyyid Lokman and Osman were *Hünernâme*, where the outstanding talents and achievement of Ottoman sultans were narrated³⁸¹; *Sûrnâme-i Hümâyûn* where the circumcision festival of Murad III's son was narrated,³⁸² the last *Şehname* which was written in Persian³⁸³ and the life of Prophet Muhammad, *Siyer-i Nebî*.³⁸⁴

Another field that came to be very popular in the 16th century was that of marvels and divination. Actually prophecy had a considerable place during the consolidation of the Ottoman classical regime between 1520 and 1550. The prophecy books and interpretations about the end of the time and the image of Süleyman as Mahdi, who will conquer Rome, were circulating among the court circles.³⁸⁵ A famous Geomancer, Haydar, visited Süleyman in 1535 assuring him that he is the conqueror of the world and the spiritual leader of the time.³⁸⁶ Murad III himself was preoccupied with dream interpretation and other occult practices.³⁸⁷

When the popularity of the occult subjects coincided with the personal interests of the sultan it led to the production of manuscripts like *Metali'ü 's-*

³⁷⁹ Ibid, 128.

³⁸⁰ Ibid 133.

³⁸¹ Ibid, 140-143 & 146-151.

³⁸² Ibid, 143-146

³⁸³ Ibid, 152-155.

³⁸⁴ Ibid, 157-163.

³⁸⁵ Cornell Fleischer, "Ancient Wisdom and New Sciences: Prophecies at the Ottoman Court in the 15th and Early 16th Centuries", in Serpil Bağcı and Massumeh Ferhad ed. *Falnama the Book of Omens* (London: Thomas and Hudson, 2010), 237-8.

³⁸⁶ Ibid, 240.

³⁸⁷ Ibid, 243.

Sa'adet ve Yenabiü's-Siyadet or *Râznâme*. *Râznâme* was composed of the verses of important poets and intellectuals of the past and present where a random page was opened to tell that person's fortune.³⁸⁸ Another book of this kind, similar to *Râznâme* but this time illustrations being the main actor in telling the fortune, was *Falname*. Many other commissions related to divination, marvels and strange stories can be found in this period.³⁸⁹

The Paris copy of *Metali'ü 's-Sa'adet* used in this study was illustrated by the famous *Nakkaş* of the time, Osman. Osman's style is clear when one compares it to another important work of the time *Zübdetü'-tevarih* again made for Murad III in 1583.³⁹⁰ Osman's use of Ottoman architectural figures his attempts at carefully documenting the architecture and his attempts at three dimensional volumes and perspective reveals his style.³⁹¹ When the figures are considered, Osman's figures have a striking individuality; there is use of different expressions and characters are interacting with each other as is the case in various planetary illustrations in the *Metali'ü 's-Sa'adet*.³⁹²

The iconography of Islamic art was formed in the early periods. They were inspired from Greek originals but with the influence of Arabic culture they changed.³⁹³ The use of mythological elements was eliminated, the physical depiction of the figures was in the central Asian style and the hair and the clothing

³⁸⁸ Renda, *Ottoman Painting in the 16th Century*, 57-58. & Bağcı et.al., *Osmanlı Resim Sanatı*, 189.

³⁸⁹ Ibid, 58-59.

³⁹⁰ Ibid, 60.

³⁹¹ Ibid, 61.

³⁹² Ibid 63.

³⁹³ Ali Nihat Kundak, *18. Yüzyıl Osmanlı Minyatüründe Yıldızlar ve Burçlar*, 49.

style differed from the Greek originals.³⁹⁴ This style was evolved in time uniting with the culture forming its own iconography in the illustrations of Zodiac signs. Islamic illustrations are adapted from western iconography but assimilated in its own culture. When we compare them to the western depictions, there are no big changes in the illustrations of animals yet in the figures, their style and clothing became Islamized.³⁹⁵ Because of the possibility that certain mythological figures or illustrations in one culture might not make sense to the other, the authors used them as models but changed them according to the Islamic tradition.³⁹⁶ In terms of the comparison of interactions between Greek and Islamic manuscripts, the illustrations of technical treatises, such as Heron of Alexandria can be helpful. In Greek illustrations humans are introduced as a necessity but in Islamic illustrations they were given prime importance. Plant drawings in Dioskorides' illustrations are enriched in Arabic copies.³⁹⁷

While examining the iconographic illustration in the *Book of Felicity*, one needs to consider the common Islamic iconography of planets. Saturn is an old, bearded, dark skinned, Indian with a pickaxe in his right hand. Jupiter is a high ranking official resting against a cushion. Mars is a warrior with a sword in his right hand and a human head in his left hand. Venus is an ud player but can be depicted as a dancer; here she is with a red gown and a white scarf. Mercury is a seated dignitary. The Sun is a golden disk rising behind hills and bushes. Moon like the sun is a night sky.³⁹⁸ Except for the Sun and the Moon which were also

³⁹⁴ Ibid, 49-50.

³⁹⁵ Ibid, 127.

³⁹⁶ Ibid, 128.

³⁹⁷ G.R. Levy, *Review*, 1.

³⁹⁸ Eva Baer, *Representation of Planet Children*, 527.

depicted as humans in the *Book of Felicity*, the iconography of the manuscript is pretty much in the same line with the general trends.

Another topic of inquiry for the proposed paper is the influence of Latin West on Byzantium in terms of illustration. As noted earlier there is a strong western influence in the illustrations of Ambrosianus H 57 sup. For a point of comparison hereby a fifteenth century illustration is introduced here: the *Tres Riches Heures of the Duke of Berry* (see Picture 32).³⁹⁹ Twelve Zodiacal signs surround two naked figures, standing back to back and there are the Hellenistic iconography of Aries for the head, Pisces for feet etc.⁴⁰⁰ The illustration is taken to act as a reference point since there are mentions of western iconography but no visual material.

Ottoman illustrations following a well-established tradition of Islamic book painting display the sign, its planetary lord and each planet associated with each decan separately. All planets are shown as humans wearing Ottoman clothes of the time, in various positions from standing to sitting. There are minor differences between the illustrations of the same planets. All planets are people dressed in the Ottoman fashion of 16th century and depicted, in the style of Osman, as if they are figures from everyday life.

In Byzantine illustrations planets are displayed with symbols of signs that are their houses, exaltations and dejections. Human Figures are naked as is the case in the western iconography. Yet the naturalistic depiction of the deformed

³⁹⁹ Harry Bober, "The Zodiacal Miniature of Tres Riches Heures of the Duke of Berry: Its sources and Meaning" *Journal of Warburg and Courtauld Institutes*, 11(1948), 1.

⁴⁰⁰ *Ibid*, 2.

body parts of Venus⁴⁰¹ lacks the ideal beauty of renaissance paintings in the West.⁴⁰² The impossible positions of Mercury and Saturn contribute to the differentiation of the image from the Western iconography.⁴⁰³ Moreover, when a planet is illustrated, signs that it is related to, exaltations, dejections and houses, are also included in the illustration. It's a composition like the Ottoman illustrations.

At the first glance Byzantine illustrations seemed closer to western ones. However when we examine, there are no examples of planets shown with their exaltations and dejections in western art.⁴⁰⁴ In Ottoman Art, the artist has separate space for the illustration of each planet related to a sign. One might understand that the artist of the Ambrosianus H 57 Sup knew about the Islamic illustrations. Another implication is that the artist might have worked in Constantinople during the last years of Byzantine Empire when there was a closer interaction between the Ottoman and Byzantine Empires. The place of Ambrosianus H 57 Sup illustrations which are in the margins of the manuscript, suggests that they are later additions. This might support the idea that the illustrations are a result of a higher degree of encounter with the Ottoman manuscripts. Another very clear similarity between the two is the two headed man in the illustration of Gemini. In western art two twins represent Gemini but in Ottoman art two headed Siamese twins are used for the illustration of it.⁴⁰⁵ Image of Mars is another common trait.

⁴⁰¹ See Picture 28.

⁴⁰² See Picture 32.

⁴⁰³ See pictures 29 and 31.

⁴⁰⁴ See Pingree above.

⁴⁰⁵ See pictures 5 and 29.

In both illustrations Mars is a warrior with full armors. In spite of the fact that in Byzantine manuscript all other human figures are naked.⁴⁰⁶

Analyzing two different and unique manuscripts belonging to two different empires was too wide for the proposed research so I limited it to the three aspects: astrologers, perception of astrology and the illustrations. However, each of the manuscripts in this study deserves to be studied separately. The time gap and the evolution of the astrology overtime remained two questions I could not adequately address. Further research might focus on the origins of both manuscripts. A person qualified in Greek, Turkish and Arabic might work on John Kamateros' poem, *Metali'ü 's-Sa'adet* and a work of Abu Mashar or Mashallah to trace the common source that these manuscripts are copied or more generally to see if there is a common source or not. Another possibility for the further research can be the better analysis of the illustrations. The dating of Ambrosianus H 57 Sup is problematic and needs clarification. A more detailed art historical analysis of both manuscripts might be a good contribution to the field.

⁴⁰⁶ See Picture 15 and 30.

Conclusion

I aimed to offer a descriptive analysis of astrology, astrologers, characteristics of Zodiac signs and planet illustrations. Even though the similarities in terms of illustrations are limited as one can see that both Byzantine and Ottoman scientists used same sources in their studies, narrated their subject matter in the same way and because a part of the court and daily life throughout the history. There were rise and falls of astrology depending on the individual ruler or the intellectual trends of the time. Astrology suffered from the same monotheism in both empires in different times. The religious characteristics of the empires sometimes worked for the sake of astrology as was the case in the Byzantine Empire during the time of Manuel I Komnenos. He, a devotee of astrology wrote a defense of it when it was deemed as heresy by certain priests.⁴⁰⁷ In the Ottoman Empire, the central system of administration led to the existence of a position for an astrologer in the court. The *Müneccimbaşı*, who was in charge of all astrologers in the empire, practiced astrology within the entourage of the Sultan who was also the caliph, shadow of god on earth. However, depending on the ruler, there were times during which astrology was strictly prohibited. In the Byzantine Empire even the teaching of astronomy was removed from the *quadrivium* and did not restored for more than a century.⁴⁰⁸ In the Ottoman Empire Abdülhamit I and Selim III were strictly opposed to the use of astrology and they only let the existence of *Müneccimbaşı* because it was tradition.⁴⁰⁹ Striking similarities in the characteristics of the Zodiac signs was a result of the

⁴⁰⁷ See Magdalino, & George above.

⁴⁰⁸ See Magdalino above.

⁴⁰⁹ See Aydüz above.

use of same sources. Arab intellectuals who inherited a corpus of knowledge composed in the Late Antiquity and carried it a step further. Byzantines who were aware of this situation benefitted from their advanced knowledge. During the last centuries of Byzantine Empire the practitioners of astrology were using the same body of knowledge that Ottoman Empire inherited from the prominent Islamic scientists. This the reason why the words of wise Abu Mashar that were mentioned in the *Book of Felicity* in the chapter of Zodiac signs are resembling the words of John Kamateros on three decans of each sign who was writing after a series of translations from Arabic sources in the previous centuries. Astrology was practiced and despised at the same time yet it survived in ancient texts, enriched throughout the years with additions by many cultures, unified in one single corpus and reached us until today still practiced by many.

ILLUSTRATIONS



Picture 1 Aries and Mars



Picture 2 Venus, Sun, Mars.



Picture 3 Taurus and Venus



Picture 4 Mars, Moon, Mercury.



Picture 5 Gemini and Mercury



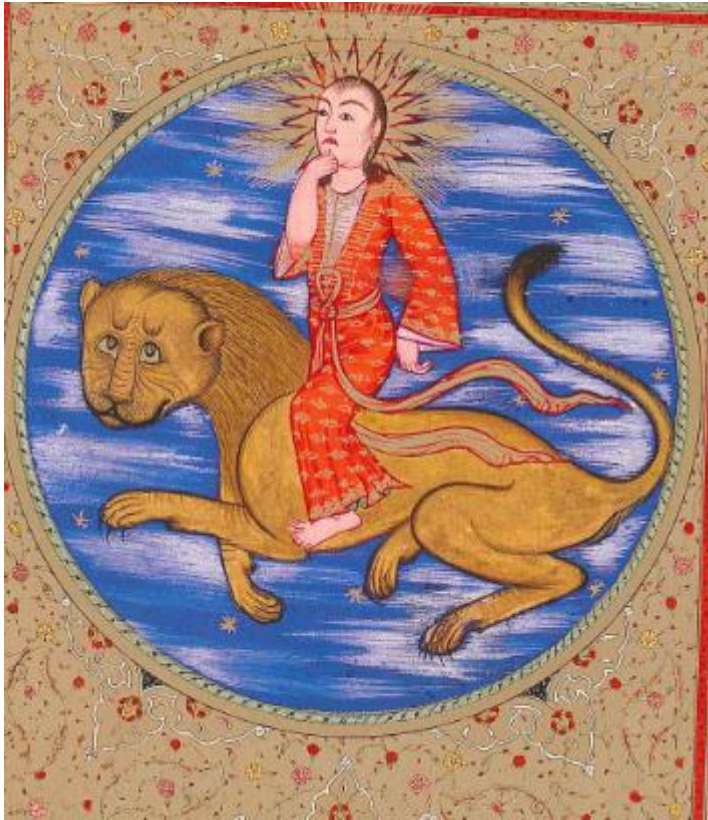
Picture 6 Sun, Mars, Jupiter.



Picture 7 Cancer and Moon



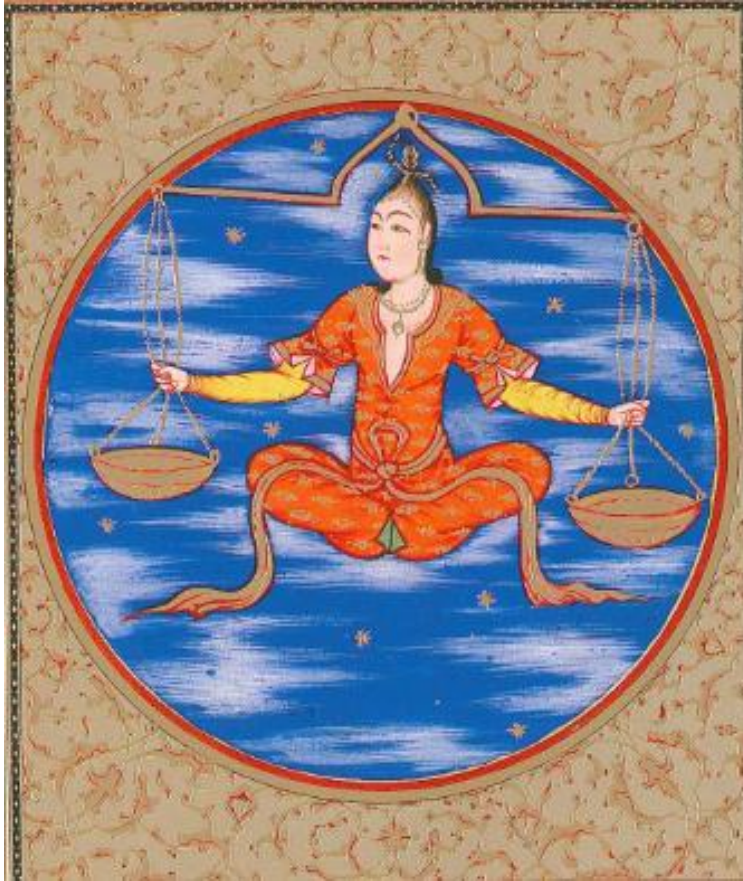
Picture 8 Moon, Mercury, Venus.



Picture 9 Leo and Sun.



Picture 10 Mars, Jupiter, Saturn.



Picture 11 Libra and Venus.



Picture 12 Jupiter, Saturn, Moon.



Picture 13 Virgo and Mercury.



Picture 14 Mercury, Venus, Sun.



Picture 15 Scorpio and Mars.



Picture 16 Venus, Sun, Mars.



Picture 17 Sagittarius and Jupiter.



Picture 18 Saturn, Moon, Mercury.



Picture 19 Capricorn and Saturn.



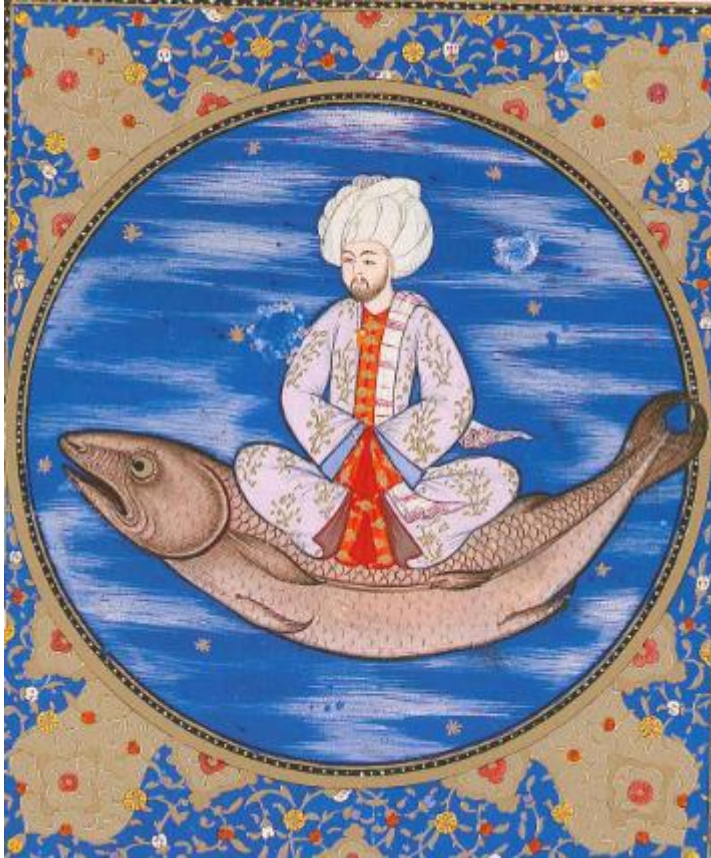
Picture 20 Sun, Mars, Jupiter.



Picture 21 Aquarius and Saturn.



Picture 22 Moon, Mercury, Venus.



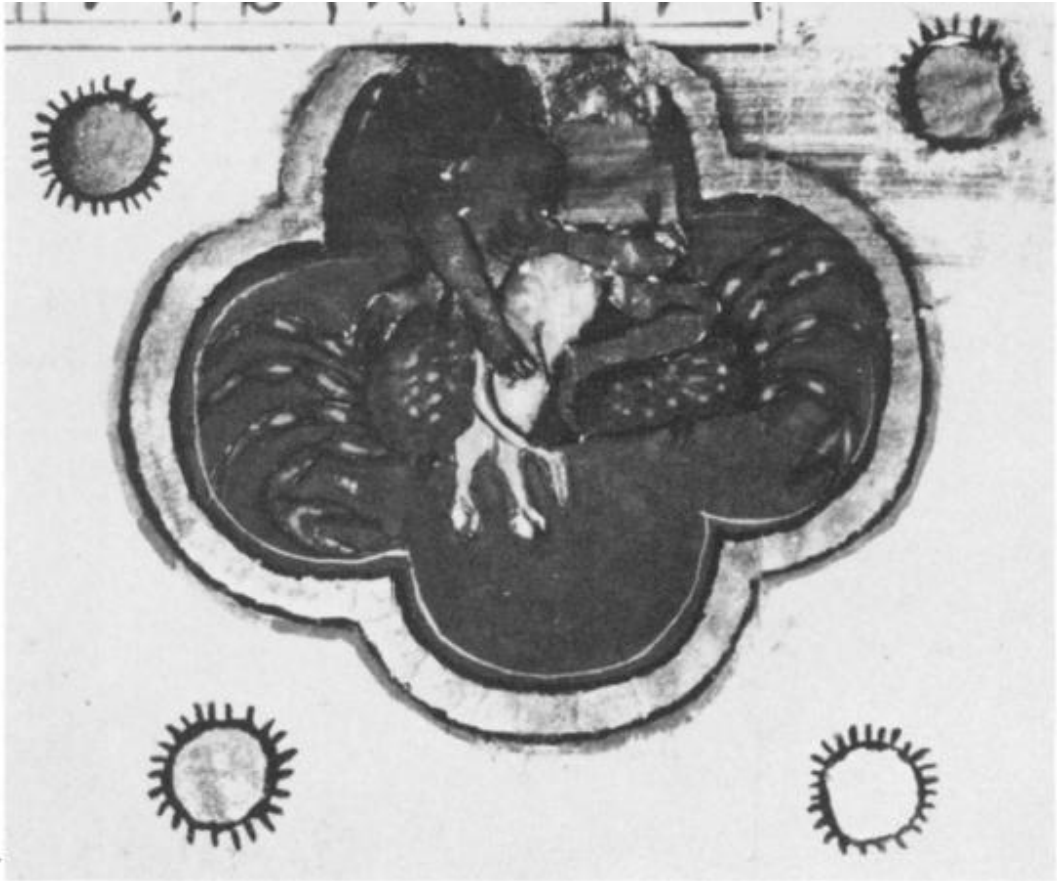
Picture 23 Pisces and Jupiter.



Picture 24 Mars, Jupiter, Saturn.



Picture 25 Sun



Picture 26 Moon



Picture 27 Jupiter



Picture 28 Venus



Picture 29 Saturn



Picture 30 Mars



Picture 31 Mercury.



Picture 32 Tres Riches Heures

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