

Reading in Rare Manuscripts: Maslama al-Majriti, Shams al-Din al-Khafri, and Nasir al-Din al-Tusi

Professor Mahmuod Naamneh¹

¹ Independent Researcher; Achva Academic College; Al-Najah National University, Palestine.

Email: abusamna@yahoo.com

HNSJ, 2026, 7(10); <https://doi.org/10.53796/hnsj710/54>

Received at 10/09/2026

Accepted at 20/09/2026

Published at 01/10/2026

Abstract

This study examines medieval Arabic Islamic manuscripts associated with Shams al-Din al-Khafri, Nasir al-Din al-Tusi, and Maslama al-Majriti, focusing on the relationship between scientific thought and Sufi interpretations of the creation of the world. Through a comparative reading of the manuscripts discussed in the article, it explores how astronomical concepts, particularly circles and celestial spheres, are connected to metaphysical ideas about existence, causality, and cosmic unity. The discussion considers al-Khafri's *Hal ma la yanhal*, al-Tusi's *Epistle of Remembrance*, and works attributed to al-Majriti, alongside the transmission of Islamic astronomical knowledge to medieval Europe. The study identifies a shared emphasis on circularity as both an astronomical model and a framework for interpreting the relationship between the universe, human understanding, and the divine. It concludes that, within the interpretations presented, scientific inquiry and spiritual reflection are closely intertwined in these scholars' cosmogonic visions.

Key Words: Sufi scientific manuscript; Alfonsine's Book; *Hal ma la yanhal*; Maslama al-Majriti; Shams al-Din al-Khafri; Nasir al-Din al-Tusi; *Epistle of Remembrance*.

قراءة في مخطوطات نادرة: مسلمة المجريطي، وشمس الدين الخفري، ونصير الدين الطوسي

الأستاذ دكتور: محمود نعامنة¹

¹ باحث مستقل؛ الكلية الأكاديمية أحفا؛ جامعة النجاح الوطنية، فلسطين.

بريد الكتروني: abusamna@yahoo.com

HNSJ, 2026, 7(10); <https://doi.org/10.53796/hnsj710/54>

تاريخ النشر: 2026/10/01م

تاريخ القبول: 2026/09/20م

تاريخ الاستقبال: 2026/09/10م

المستخلص

تتناول هذه الدراسة مخطوطات عربية إسلامية من العصور الوسطى مرتبطة بشمس الدين الخفري ونصير الدين الطوسي ومسلمة المجريطي، مع التركيز على العلاقة بين الفكر العلمي والتفسيرات الصوفية لخلق العالم. وتعتمد على قراءة مقارنة للمخطوطات التي يناقشها البحث، لاستكشاف ارتباط المفاهيم الفلكية، ولا سيما الدوائر والأفلاك، بالأفكار الميتافيزيقية المتعلقة بالوجود والسببية ووحدة الكون. وتناقش الدراسة كتاب «حل ما لا ينحل» للخفري، و«رسالة التذكرة» للطوسي، وأعمالاً منسوبة إلى المجريطي، إلى جانب انتقال المعرفة الفلكية الإسلامية إلى أوروبا في العصور الوسطى. وتحدد الدراسة اهتماماً مشتركاً بالدائرية بوصفها نموذجاً فلكياً وإطاراً لتفسير العلاقة بين الكون والفهم الإنساني والإلهي. وتخلص، في حدود التفسيرات المطروحة في البحث، إلى الترابط الوثيق بين البحث العلمي والتأمل الروحي في تصورات هؤلاء العلماء لنشأة العالم.

الكلمات المفتاحية: المخطوطات العلمية الصوفية؛ الكتاب الألفونسي؛ حل ما لا ينحل؛ مسلمة المجريطي؛ شمس الدين الخفري؛ نصير الدين الطوسي؛ رسالة التذكرة.

Introduction

This article reviews medieval Arabic Islamic manuscripts by three thinkers and philosophers: Shams al-Din al-Khafri, Nasir al-Din al-Tusi, and Muslima al-Majriti. These manuscripts explore scientific topics and culminate in a cosmological intellectual conception of the creation of the world. Through these manuscripts, the clear Sufi vision of the world emerges, which these scholars build upon the scientific theoretical platform. The article posits a common thread in these three approaches: a cosmological conception of the creation of the world through scientific theory. This posits a shared understanding of the creation of the world, a conclusion reached after discussing the research hypothesis that there is a common understanding of this conception. The main research question is: How did these scholars elaborate their cosmogonic theory of the creation of the world? The research method is based on reading verified original manuscripts of these scholars.

Shams al-Din al-Khafri and the Manuscript: "Hal ma la yanhal"

Shams al-Din al-Khafri had a great impact on Islamic thought and philosophy; and on the development of astronomy in the Arab world, Islam and the world; and I entered his world and thought through the lectures of Professor George Saliba at Columbia University⁽¹⁾. Shams al-Din al-Khafri was a prominent Muslim philosopher who lived in the fourteenth century⁽²⁾. He was a Sufi; and wrote many books on Islamic philosophy, metaphysics and ethics. His most famous work was his manuscript, "Hal ma la yanhal", which is a profound philosophical text; exploring the nature of existence and the purpose of human life⁽³⁾.

Shams al-Din al-Khafri was born in the town of Khafri in what is now Iran. He studied Islamic jurisprudence and philosophy under many of the leading scholars of his time, including Nasir al-Din al-Tusi and Fakhr al-Din al-Razi. Al-Khafri was also a follower of the Sufi tradition, and he began to follow the Qadiriyya order, which he had learned from his teacher Abu al-Fath al-Dubbi⁽⁴⁾.

Al-Khafri spent most of his life traveling and teaching, his writings reflect the influence of his travels and interactions with scholars from all over the Islamic world. He traveled constantly to gain insight into the cultures and ideas of scholars and Sufis in various parts of the Islamic world. This rich contact led to an abundance of his output, as Al-Khafri wrote extensively and in many fields of knowledge, including astronomy, theology, ethics, metaphysics, and Islamic Sufism⁽⁵⁾.

Al-Khafri's philosophy was deeply rooted in Islamic theology and metaphysics. He believed that the ultimate goal of human life, and the ultimate purpose of man in life, was to attain a

⁽¹⁾ George Saliba is a professor of Islamic and Arabic Studies at Columbia University since 1979; he taught at the American University of Beirut; he excelled in teaching the exact sciences; after obtaining the first and second degrees with distinction in the subject of methods of teaching mathematics; he traveled to the United States to complete his doctorate at Stanford University; but he stopped for five years with Arabic manuscripts to change the direction of his specialization to study Islamic civilization and Arabic sciences starting from rare manuscripts. He obtained a master's degree in the study of Islamic sciences from the University of Berkeley; then a doctorate in Islamic sciences from Stanford University. Among his most important studies: Saliba, 1995. Saliba, 1998. Saliba, 2011. Saliba, 2015. See his foreign studies at: Saliba. 1999. Saliba., 1994. Saliba, 2007. George, Saliba 2004 and others.

⁽²⁾ Shams al-Din al-Khafri was born in Jahrom in 1550 AD in Iran. He is one of the prominent figures of the tenth century AH. He was distinguished as a scientist in the heavens and became famous in Persia. Al-Khafri wrote a number of books, some of which were translated from their original manuscripts into various contemporary languages. Among his most famous works are: Ithbat al-Wajib; Ithbat al-Hayul (Hayul is the incarnate self of God); al-Takmilah fi Sharh al-Tadhkirah al-Nasiriyyah; and most important of all is the manuscript Hal ma La Yanhal. See in this regard: George, Tarabishi, 276.

⁽³⁾ See: Chittick, 1989, 23-45

⁽⁴⁾ See: Seyyed Hossein, 2006

⁽⁵⁾ See: Aminrazavi, 2015.

state of closeness to God, and to realize his true nature as a servant of God. Al-Khafri saw the material world as a temporary and illusory reality that distracted man from his spiritual path. He believed that true knowledge could only be obtained through direct experience of God, and that this experience could be achieved through mystical practices such as meditation ⁽⁶⁾.

This is evident in his famous manuscript, **Hal ma la yanhal**. In this philosophical treatise, Al-Khafri explores the nature of existence and the purpose of human life. The title of the book translates as “that which cannot be attained by any means but itself” and reflects the central idea of the text, which is the nature of absolute truth. Al-Khafri argues that absolute truth is an indescribable, transcendent reality that transcends human understanding. He believes that this reality can only be experienced through direct intuition; and that the ultimate goal of human life is to achieve this experience ⁽⁷⁾.

Al-Khafri’s ideas about the nature of reality and the purpose of human life had a major impact on Islamic philosophy and Sufism. His emphasis on the direct experience of God and his rejection of purely intellectual approaches to understanding the nature of reality were particularly influential on later Sufi thinkers ⁽⁸⁾.

In his manuscript, **Hal ma la yanhal**, Al-Khafri presents a cosmogonic conception of the creation of the world, in which he delves into the nature of existence and circles. He begins with the idea that the universe is circular in the logic of its creation ⁽⁹⁾. In this work, Al-Khafri offers a unique perspective on metaphysics, exploring the relationship between circularity and existence ⁽¹⁰⁾.

The central premise of **Hal ma la yanhal** (Solve What Is Not Solved) revolves around the idea that existence is inherently circular. Al-Khafri argues that the universe, human existence, and even divine attributes are circular. He suggests that circles serve as a fundamental pattern and principle underlying the reality of the creation of the world ⁽¹¹⁾.

Shams al-Din al-Khafri sees circles as having a significant ontological significance. He argues that circles symbolize perfection; they describe the completeness of creation and the created. They serve as a fundamental structure that manifests itself in various aspects of existence. Al-Khafri asserts that circles are not merely geometric shapes but have profound metaphysical implications.

In his book **Hal ma la yanhal** (Solve What Is Not Solved), Al-Khafri explores the circularity of existence from multiple angles; examining the cyclical nature of time, the interconnectedness of beings, and the repetition of patterns in the universe. Al-Khafri asserts that these circular dynamics reflect the inherent unity and coherence of existence ⁽¹²⁾.

Al-Khafri asserts that these circular dynamics reflect the inherent unity and cohesion of existence.

Furthermore, Al-Khafri suggests that circularity extends to the realm of divine attributes. He argues that divine attributes, such as knowledge, power, and beauty, are not linear or

⁽⁶⁾ See: Aminrazavi, 2015.

⁽⁷⁾ See: Ockey, 2014, 1181.

⁽⁸⁾ See Saliba, 341-343.

⁽⁹⁾ This is what the famous Sufi Muhyiddin Ibn Arabi referred to in his manuscript of his Book Insha’ al-Dawa’ir, which sees the circularity of the universe and the logic of creation, justifying this in his letter. This is what we will detail later in the coming chapters.

⁽¹⁰⁾ See: Pourjavady, 2011, 39-40.

⁽¹¹⁾ See: Saliba, 1994, 15-38.

⁽¹²⁾ See: Glen, 2014, 1181-1183

hierarchical but circular in nature. Al-Khafri posits that these attributes are interconnected and form a self-referential holistic system⁽¹³⁾.

To understand the depth of Al-Khafri's theories of circles and spheres, it is necessary to compare them with the theories of the circle proposed by Muhyiddin Ibn Arabi, another influential Islamic Sufi philosopher of the same era. Both Al-Khafri and Ibn Arabi shared an interest in metaphysics, ontology, and the nature of existence, although they approached these topics from different perspectives.

Ibn Arabi's circle theory, as elaborated in his famous book **Fusus al-Hikam**⁽¹⁴⁾, assumes the concept of the "ideal man" as the central figure in a cosmic circle⁽¹⁵⁾. According to Ibn Arabi, the ideal man represents the

perfect embodiment of divine attributes; he functions as a microcosm reflecting cosmic reality. In contrast, Al-Khafri's circle theory focuses more on the existential implications of circles rather than human perspectives. Al-Khafri emphasizes the pervasiveness of existence.

Nasir al-Din al-Tusi's Epistle of Remembrance

Nasir al-Din al-Tusi was a well-known Persian scholar and polymath who made significant contributions to various scientific disciplines, including astronomy, mathematics, philosophy, and theology. His works, including **the Epistle of Remembrance** and other books, played a pivotal role in shaping the understanding of celestial motion and cosmology during the Middle Ages and beyond⁽¹⁶⁾.

Al-Tusi's achievements extended beyond academic circles⁽¹⁷⁾. He served as a court astronomer and advisor to several rulers, including the Ilkhanid Mongol ruler, Hulagu Khan. Tusi established the Maragheh Observatory, an important center for astronomical research and scientific innovation during the Middle Ages. His contributions to astronomy and cosmology revolutionized the understanding of celestial motion and planetary theories⁽¹⁸⁾.

Nasir al-Din al-Tusi was a prominent Persian Muslim musician; He made significant contributions to various scientific fields, including mathematics, astronomy, philosophy, ethics, and theology. **The Book of Life**, also known as the **Book of Ethics**⁽¹⁹⁾, is one of Nasir al-Din al-Tusi's most prominent works, and it is a philosophical treatise on moral behavior and the virtuous life⁽²⁰⁾.

In addition, al-Tusi wrote an important book related to our topic, in which al-Tusi presents his cosmogonic vision of the world; which is **the Book of Remembrance**. **The Book of Remembrance** is one of the most important philosophical and religious works in Islamic history, and was written by the famous Iranian scholar Nasir al-Din al-Tusi. The book was written in the seventh century AH, al-Tusi wrote it during his life span, which extended from 1201 to 1274 AD.

The Book of **Remembrance** is considered one of the greatest works that contributed to the development of Islamic thought and philosophy during that period.

⁽¹³⁾ See: Pourjavady, 2011, 39-40.

⁽¹⁴⁾ See: Cooper, 2014, 1181-1183

⁽¹⁵⁾ See: Saliba, 2011.

⁽¹⁶⁾ See: Lizzio, 2017, 35-55.

⁽¹⁷⁾ See: al-Tusi, 1964

⁽¹⁸⁾ See: Marmura, 2021.

⁽¹⁹⁾ See: for example, the following book attributed to Tusi: Tusi, 2017. See also the following book by Tusi: Bayhaqi, 2006.

See also: Al-Tusi, 2008.

⁽²⁰⁾ See: Seyyed, 1993.

The period in which al-Tusi lived was full of cultural and political transformations in the Islamic world. This period was the focus of many important events, such as the Moroccan occupation of Andalusia and its impact on Islamic civilization. This era also witnessed a renaissance in Islamic thought and science.

The book of **Remembrance** consists of several chapters that cover various topics, starting from philosophy and ending with theology and religious sciences. Al-Tusi divides the book into sections that cover topics such as theology, ethics, Islamic philosophy, and scientific topics. In his book, Al-Tusi deals with Islamic philosophy in depth, where he provides a critical analysis of the concepts of science, knowledge, and existence. Al-Tusi relies on the Greek and Islamic philosophical heritage in interpreting the concepts of existence and non-existence.

The book of **Remembrance** is also considered an important reference in understanding ethics and education in Islam. Al-Tusi talks about human values and ethics, stressing the importance of proper education and the development of good morals. The book of Remembrance (Tadhkira) sheds light on science and knowledge and their role in the progress of humanity. The book is also considered evidence of the balance between science and religion in Islamic thought⁽²¹⁾.

The Book of **Remembrance** is a philosophical and religious masterpiece that serves as a reference for understanding Islamic philosophy and religious thought in the Middle Ages. The book reflects the complexity of Islamic thought; it represents a valuable contribution to the development of doctrine and philosophy in the Islamic world.

In the Book of **Remembrance**, Tusi provides a systematic overview of celestial motion, presenting his own theories alongside the works of earlier astronomers. He proposes a new model of planetary motion based on a combination of precessions and deferrals, which later influenced Copernicus and other great astronomers. In addition, Tusi explores the concept of circular motion, laying the foundation for future developments in this field⁽²²⁾.

Tusi's work on circular motion and celestial bodies made significant contributions to the fields of astronomy and cosmology. Tusi developed a new geometric technique known as the "Tusi pair of circles" to represent circular motion. This method involved two circles rotating in such a way that a point on one circle followed a straight line while the other circle rotated⁽²³⁾.

Furthermore, al-Tusi proposed a model of the celestial spheres known as the "Tusi Paired Spheres," which provided a solution to a long-standing problem regarding the motion of the lunar apogee. His approach demonstrated the interconnectedness of the celestial bodies.

A central theme of the book is the relationship between the mind and the body. Tusi rejects the idea that the mind and body are separate entities as some philosophers have suggested. Instead, he argues that the mind is a property of the body and that the two are interconnected. Tusi sees the mind as a substance produced by the brain, and it is through this substance that we are able to think, reason, and experience consciousness⁽²⁴⁾.

Another important theme of the book is the concept of "causality." Tusi argues that causality is a fundamental aspect of the universe and that everything that happens ultimately has a cause. He rejects the idea of chance or randomness and believes that the universe is governed by natural laws that can be understood and studied, most notably the circular logic of the

⁽²¹⁾ See: Gacek, 2009.

⁽²²⁾ See: Hill, 2017, 66-76.

⁽²³⁾ See: Leaman, 2000.

⁽²⁴⁾ See: Griffel, 2021.

heavens, which is a cause for scientific contemplation; which is based on a profound philosophy: cause and effect; reason and effect; complete and incomplete. Al-Tusi sees that the universe has a circular logic, and in this he agrees with Muhyiddin Ibn Arabi, who believes in the theory of "creating circles"; and these circles are also circumscribed, reminiscent of the circles of Al-Khawarumi, Al-Majriti, and Abd al-Rahman al-Sufi ⁽²⁵⁾.

In his book, Al-Tusi also explores the nature of the soul and its relationship to the body; as Al-Tusi believes that the soul is a substance distinct from the body but closely linked to it. He argues that the soul is responsible for our consciousness and our ability to think and make decisions.

Tusi's Book of **Remembrance**, (Tadhkira), had a major impact on Islamic philosophy and has been widely studied and commented upon by later scholars. His ideas on the relationship between mind and body and causality were particularly influential and are still discussed by philosophers today ⁽²⁶⁾.

In summary, the book is an important work in Islamic philosophy. Tusi explores the nature of human consciousness, the relationship between mind and body, and the concept of causality. Tusi's ideas are still studied and discussed by philosophers today, and his contributions to philosophy will have a lasting impact

Maslama al-Majriti Between the Spheres and the Circles

Al-Majriti was a famous Arab astronomer, mathematician, and astrologer from the 10th century AD. The focus is on his important work on astrolabes, especially his role in **Alfonsine's book** on the construction of the astrolabe. Alfonsine's book, associated with the court of Alfonso X of Castile in the 13th century, is a collection of astronomical and mathematical knowledge that reflects the transfer and adaptation of Islamic scientific progress to medieval Europe.

The Middle Ages witnessed a vibrant exchange of scientific knowledge between the Islamic world and Europe. Maslama al-Majriti, born in the 10th century in the Iberian Peninsula, played a pivotal role in this intellectual exchange. His contributions to astronomy, mathematics, and astrology, especially in the field of the astrolabe, have left a lasting legacy.

Alfonsine's book, mentioned above; A remarkable example of the assimilation of Islamic scientific knowledge into medieval European scholarship. This book, which drew heavily on Islamic sources, had the work of Maslama al-Majriti as its cornerstone ⁽²⁷⁾.

Majriti's contributions to astronomy included advances in the study of celestial bodies, such as the moon and stars. His mathematical works were influential in fields such as geometry and trigonometry, laying the foundation for future developments in these areas of science ⁽²⁸⁾.

Maslama al-Majriti's expertise in the construction and use of astrolabes made him a key figure in medieval Islamic astronomy. His writings on astrolabes became essential to Alfonsine scholars as they attempted to compile a comprehensive guide to the construction of these astronomical instruments.

Maslama al-Majriti's treatises on astrolabes, originally written in Arabic, were translated into Latin and incorporated into Alfonsine's book. This inclusion was an important step in the transmission of Islamic scientific heritage to medieval Europe ⁽²⁹⁾.

⁽²⁵⁾ See: Seyyed Hossein, 2008, 1-14.

⁽²⁶⁾ See: Gutas, 2021.

⁽²⁷⁾ See: Saliba, 1994, Sezgin, 2003. Julio, 2008, 7-25. Stearns, 2009.

⁽²⁸⁾ See: Ragep, 1996

⁽²⁹⁾ See: Swerdlow. 2001, 123 -160.

One of the most prominent works of Maslama al-Majriti is the **Epistle on Spiritual Machines or Epistle on the Instruments of Spiritual Communication**. In this work, he presents his theory of "circles" or "rings" (Arabic: Tawafer), which has connections to both metaphysics and astrology⁽³⁰⁾. Maslama al-Majriti's view of the universe is that it is circles; meaning that the logic of the creation of the universe is circular. This logic was certainly the idea upon which the great universe and the human mind were built; which begins with an idea and ends with it in the end; the same Sufi logic that led to the result of "The inability to realize awareness is awareness"; which is the journey of the circular cosmogonic conception of the creation of this world: the feeling that man is a point in the circle and that there must be a total circle that created the first point, so the inability to comprehend the absolute totality of the circle is a certainty that leads to the conviction of the inevitability of the existence of the circle; and the inevitability of the complete circle being what created the missing point.

The theory of circles postulates that celestial bodies exert their influence on the Earth through a series of concentric circles or rings. Each planet is associated with a specific circle, and al-Majriti believed that the interactions between these circles affect events and the Earth⁽³¹⁾. This concept is reminiscent of the Ptolemaic model of the universe, in which planets move in circular orbits around the Earth.

Maslama Majriti combined this astronomical perspective with Sufism, suggesting that the positions and movements of celestial bodies have spiritual and metaphysical implications. The idea was that by understanding and attuning to the influences of these celestial circles, individuals could gain insight into spiritual matters and even communicate with higher realms.

It is important to note that al-Majriti's theories were rooted in the scientific and philosophical knowledge of his time, which included elements of classical Greek thought and Islamic intellectual traditions. While some of his ideas may seem archaic or speculative by modern standards, they reflect medieval scholars' attempts to understand the natural world and its connection to the divine⁽³²⁾.

If we were to make a quick comparison between him and al-Khwarizmi, we would say that al-Khwarizmi and Maslama al-Majriti were influential figures in the Islamic Golden Age, but their contributions were in different fields, and their comparative thought may not be readily apparent. Let us briefly explore each of their contributions:

In the field of contributions, al-Khwarizmi, often referred to as the "father of algebra," was a mathematician, astronomer, and geographer. His most famous works include **The Compendium on Calculation by Completion and Balancing, which laid the foundation for the science of algebra**. The term "algebra" itself is derived from the title of this work⁽³³⁾.

Contributions:

Al-Khwarizmi introduced systematic methods for solving linear and quadratic equations, and played a crucial role in introducing the Indian numerals (now known as Arabic numerals) to the Islamic world, which later spread to Europe.

In contrast, Maslama al-Majriti was a polymath who made contributions in various fields, including astronomy, chemistry, mathematics, and philosophy. His most important work is the **Epistle on the Instruments of Spiritual Communication**, in which he presented his

⁽³⁰⁾ See: Lorch, 1991, 1-41.

⁽³¹⁾ See: Kennedy, 1956, 398-401.

⁽³²⁾ See: King, 1992.

⁽³³⁾ See: Burnett, 1997, 493-510.

theories about the celestial spheres and their influence on terrestrial events. This work combines elements of astrology, metaphysics, and Sufism.

Al-Majriti's contributions were diverse, encompassing both scientific and metaphysical ideas. He made efforts to integrate mystical and spiritual concepts with scientific understanding, especially in the area of celestial influences.

While their specific contributions differ, a comparative perspective can shed light on a broader theme in Islamic science during the Golden Age. Both scholars were part of a vibrant intellectual community that sought to combine scientific research with philosophical and spiritual reflection. The exchange of knowledge between different cultures and the preservation and translation of classical works played a crucial role during this period, fostering an environment in which scholars could build on the achievements of previous civilizations.

In short, while al-Khwarizmi focused on foundational work in mathematics, especially algebra, al-Majriti's contributions were more diverse, incorporating a mix of astronomy, mysticism, and metaphysics. However, both reflect the richness and diversity of intellectual pursuits during the Islamic Golden Age.

Abstract and Conclusions

This extensive study has demonstrated the cosmogonic intellectual visions of three medieval Muslim scholars; Shams al-Din al-Khafri; Nasir al-Din al-Tusi; and Maslama al-Majriti.

These names, the first four of which were famous astronomer;. All of these also gathered the convergence in Islamic Sufism: they all delved into Islamic Sufism.

Their view of the universe as circles; meaning that the logic of the creation of the universe is circular. This logic was certainly the idea upon which the great universe was built, as well as the human mind; which begins with an idea and ends with it in the end; the same Sufi logic that led to the result of " The inability to comprehend perception is perception "; It is the journey of the cosmogonic circular perception of the creation of this world: the feeling that man is a point in the circle and that there must be a total circle that created the first point, so the inability to comprehend the absolute totality of the circle is a certainty that leads to the conviction of the inevitability of the existence of the circle; and of the inevitability that the total circle is what created the missing point.

The theories of these circles assumed that the celestial bodies exert their influence on the Earth through a series of concentric circles or rings. Each planet is associated with a specific circle, and they believed that the interactions between these circles affect events and the Earth. This concept reminded us of the Ptolemaic model of the universe, where the planets move in circular orbits around the Earth.

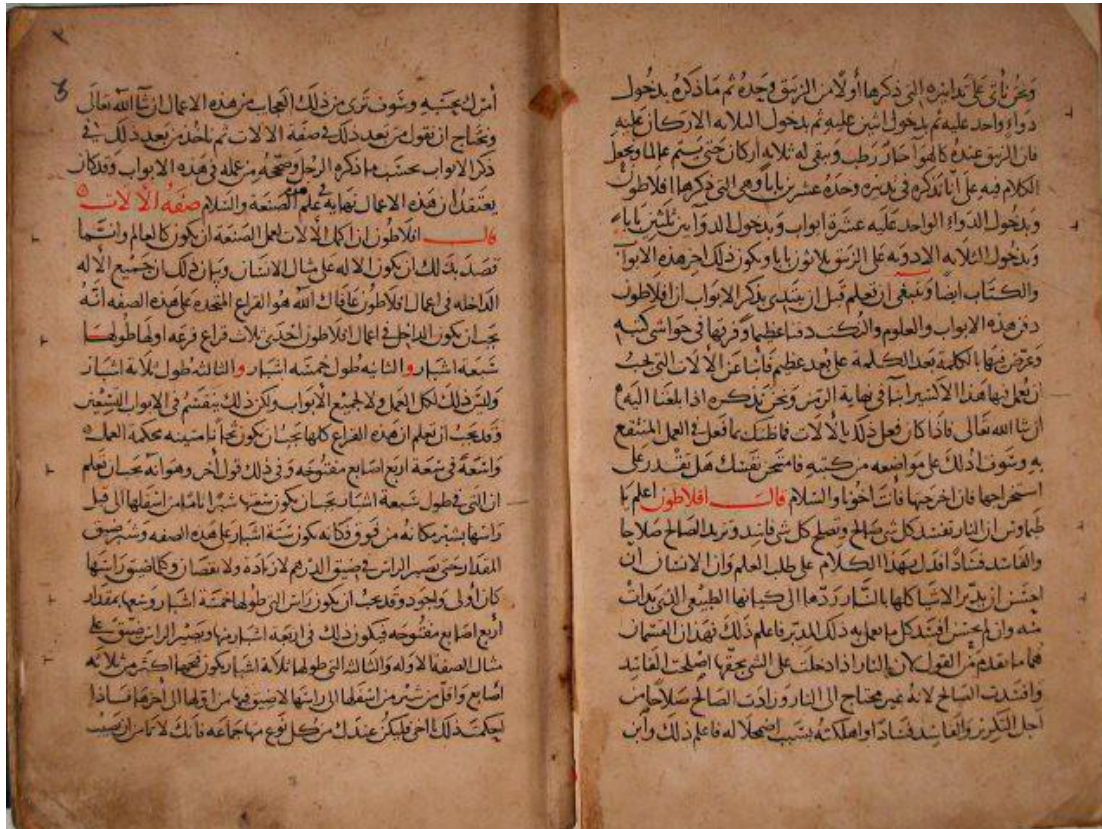
They combined this astronomical perspective with Sufism, which indicates that the locations and movements of the celestial bodies have spiritual and metaphysical effects. The idea was that by understanding and attuning to the influences of these celestial circles, individuals could gain insights into spiritual matters and even communicate with higher realms.

List of sources and references

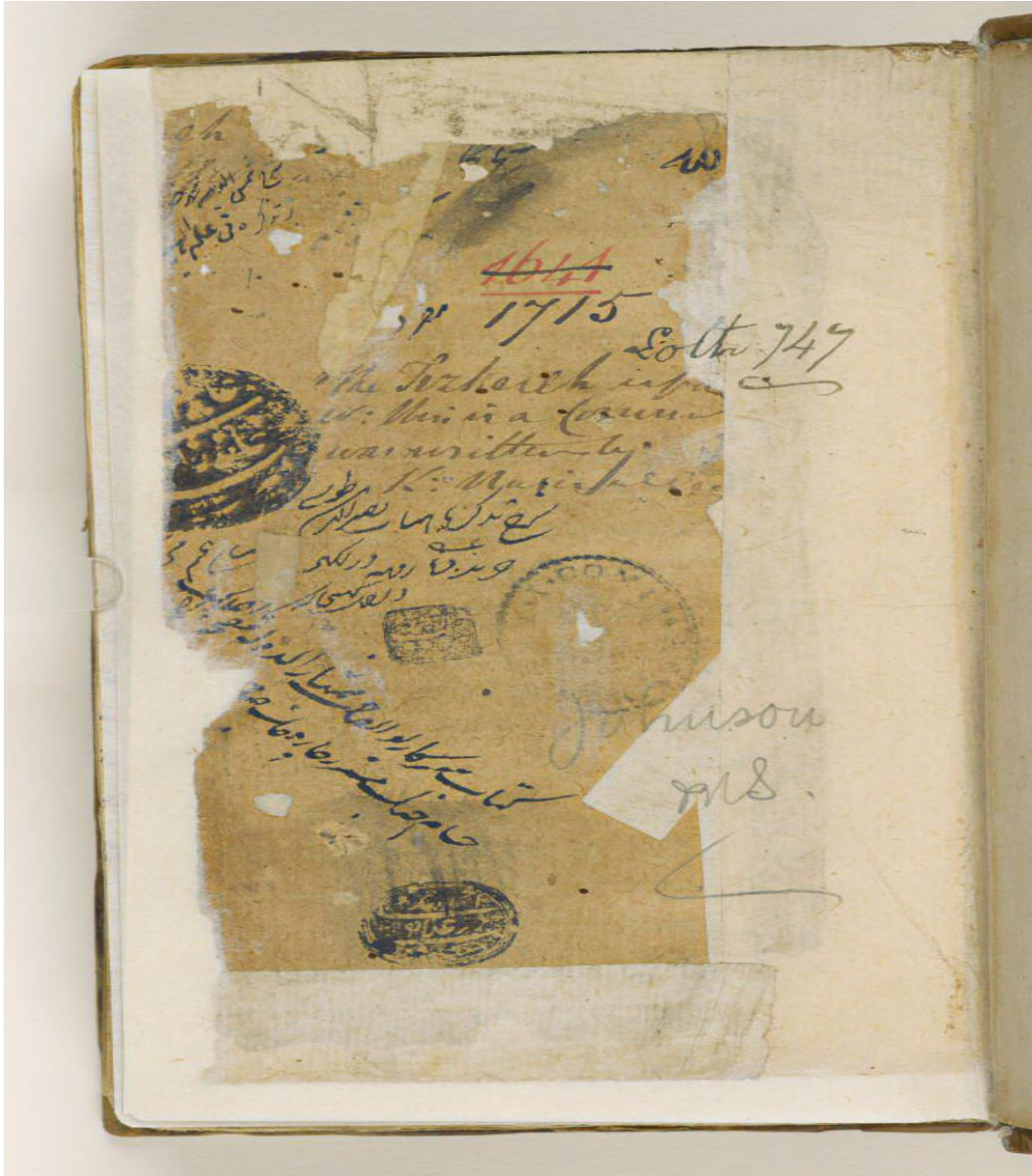
- Al-Majriti, Muslima. *The Book of the Ultimate Sage and the Most Deserving of the Two Results to Present*. Hamburg-Germany: Auckstein Press, 1927.
- Al-Majriti, Muslima. *The Comprehensive Epistle*. Damascus: Arab Scientific Academy, 1949-1951.
- Al-Tusi, Nasir al-Din. (1964). *The Philosophy of Al-Hayaa*. Tehran: Kitab Furushi-i Danishgahi.
- Aminrazavi, Mehdi. (2015). *Philosophy in the Islamic World: A Very Short Introduction*. Oxford University Press.
- Bayhaqi, Shams al-Din. (2006). *Kitab al-Hayat*. Edited by Hadi Husaini Shariati. Intesharat-e Ilmi va Farhangi.
- Burnett, Charles. (1997). "The Coherence of the Arabic-Latin Translation Program in Toledo in the Twelfth Century." *Science in Context*, 10(4), 493-510.
- Chittick, W. C. (1989). *the Sufi Path of Love: The Spiritual Teachings of Rumi*. Albany, NY: State University of New York Press.
- Cooper, J. M. (1997). *Plato: Complete works*. Hackett Publishing.
- Gacek, Adam. (2009). *Arabic Manuscripts: A Vademecum for Readers*. Leiden: Brill.
- Glen, Cooper, M. (2014). "Khafrī: Shams al-Dīn Muḥammad ibn Aḥmad al-Khafrī al-Kāshī", in *Hockey Thomas; Trimble, Virginia; Williams, Thomas R.; Bracher, Katherine (eds.), Biographical Encyclopedia of Astronomers*, New York, NY: Springer New York, 1181-1183.
- Griffel, Frank. (2021). "Tusi." In *Stanford Encyclopedia of Philosophy*, edited by Edward N. Zalta. Accessed September.
- Gutas, Dimitri. (2021). "Nasir al-Din Tusi." In *Stanford Encyclopedia of Philosophy*, edited by Edward N. Zalta. Accessed September.
- Hill, Donald. (2017). "The Development of Islamic Ethics." *Routledge Handbook of Religion and Ecology*, edited by Willis Jenkins, Mary Evelyn Tucker, and John Grim, 66-76. Routledge.
- Kennedy, Edward S. (1956). "Al-Maslama al-Majriti and the Rise of Muslim Mathematical Astronomy." *Isis*, 47(4), 398-401.
- King, David A. (1992). "Astronomy in the Service of Islam." *Variorum Reprints*.
- Leaman, O. (2000). *A Brief Introduction to Islamic Philosophy*. Cambridge: Polity Press.
- Lizzio, Anna. "An Introduction to Virtue Ethics in Islam." *Journal of Islamic Ethics* 1, no. 1 (2017): 35-55.
- Lorch, Richard. (1991). "The Alphonsine Tables in the Twelfth Century: (2) Astronomy and Cosmography in the Schools." *Journal for the History of Astronomy*, 22, 1-41.
- Marmura, Michael E. (2021). "Islamic Ethics: Classical and Contemporary Perspectives." In *The Stanford Encyclopedia of Philosophy*, edited by Edward N. Zalta. Accessed September.
- Ockey, Thomas. (2014). *Biographical encyclopedia of astronomers*. New York: Springer, 1981.

- Pourjavady, Reza. *Philosophy in Early Safavid Iran: Najm al-Din Mahmud Al-Nayrizi and His Writings* (2011), 39-40.
- Ragep, F. J., & Slade, P. M. (1996). "Nasir al-Din al-Tusi's Memoir on Astronomy (al-Tadhkira fi cilm al-hay'a): A Critical Edition." Sources in the History of Mathematics and Physical Sciences, Saliba, George. "Islamic Astronomy." In *A History of Arabic Astronomy: Planetary Theories During the Golden Age of Islam*, pp. 256-389. New York: New York University Press, (1994).
- Saliba, George. "Rethinking the Roots of Modern Science: Arabic Manuscripts in European Libraries", *Occasional Papers (CCAS), Center for Contemporary*, (1999).
- Saliba, George. (1994). "A History of Arabic Astronomy: Planetary Theories During the Golden Age of Islam." New York University Press.
- Saliba, George. (1994). *A History of Arabic Astronomy: Planetary theories during the golden age of Islam*. New York: New York University.
- Saliba, George. (1994). "A Sixteenth-Century Arabic Critique of Ptolemaic Astronomy: The Work of Shams Al-Din Al-Khafri". *Journal for the History of Astronomy*. 25 (1), 15-38.
- Saliba, George. (1995). *History of Arab Astronomy: The Book of the Authority*. Beirut: Center for Arab Unity Studies.
- Saliba, George. (1998). *Arab Scientific Thought: Its Origins and Development*. University of Balamand: Center for Christian-Islamic Studies.
- Saliba, George. (2004). And others. *The arts of fire: Islamic influences on glass and ceramics of the Italian Renaissance*. United States of America, 2004.
- Saliba, George. (2007). *Islamic Science and the making of the European Renaissance*. United States of America: MIT.
- Saliba, George. (2011). *Islamic Science and the Making of the European Renaissance*. United states of America: MIT Press.
- Saliba, George. (2011). *Islamic Sciences and the Rise of the European Renaissance*. Beirut: Arab House of Sciences – Publishers.
- Saliba, George. (2015). *Landmarks of Originality and Creativity in Late Scientific Commentaries and Explanations*. Rabat: Al-Furqan Foundation for Islamic Heritage.
- Seyyed Hossen, Nasr. (2006). *Islamic Philosophy from Its Origin to the Present: Philosophy in the Land of Prophecy*. SUNY Press.
- Sezgin, Fuat. (2003). "History of the Arabic Sciences: Astronomy in the 11th Century." Institute for the History of Arabic-Islamic Science at the Johann Wolfgang Goethe University.
- Stearns, Justin L. (2009). "Astrolabe." In *Encyclopedia of the History of Arabic Science*, edited by Roshdi Rashed. Routledge.
- werdlow, Noel M. (2001). "The Derivation and First Draft of Copernicus's Planetary Theory." Tarabishi, George. *Dictionary of Philosophers*. 3rd ed. Beirut: Dar Al-Tali'ah, 276.

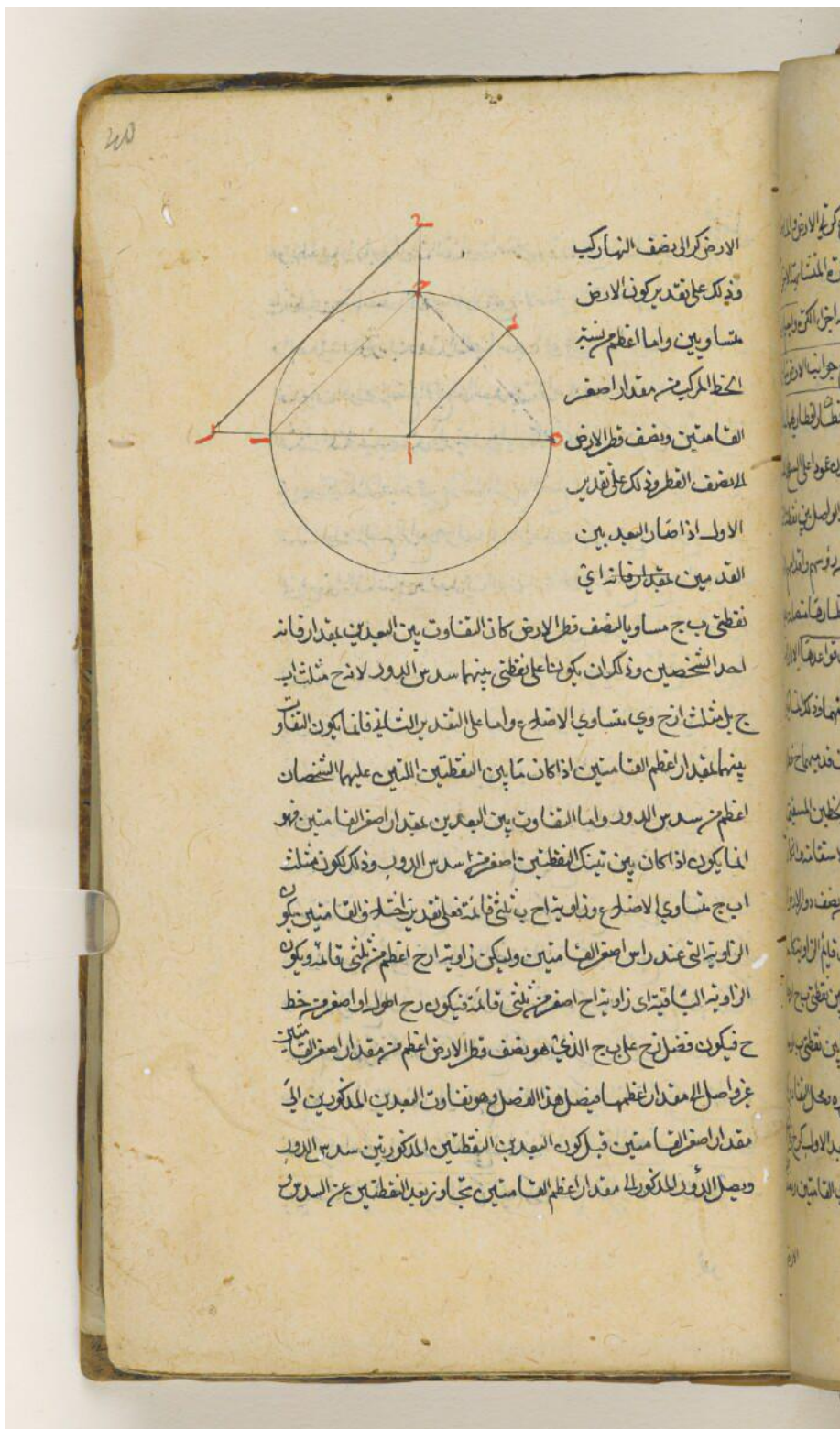
Appendix 1: From the book “Al-Tadhkira”, The Epistle of Remembrance, by Nasir al-Din al-Tusi: Copyright: Qatar Digital Library



Appendix 11: From the manuscript of the Rank of the Sage by Maslama al-Majriti:
Copyright reserved to Wikipedia



Appendix 12: From the manuscript of the book Al-Tadhkira “the Book of Remembrance” by Shams Al-Din Al-Khafri: All rights reserved for the Digital Library in Qatar.



Appendix 13: The Encircling Circles for Understanding the Principle of the Logic of the Earth and the Spheres: The Manuscript of Al-Tadhkira "the Book of Remembrance" by Shams al-Din al-Khafri: A. Copyright and publishing rights reserved to the Digital Library in Qatar

