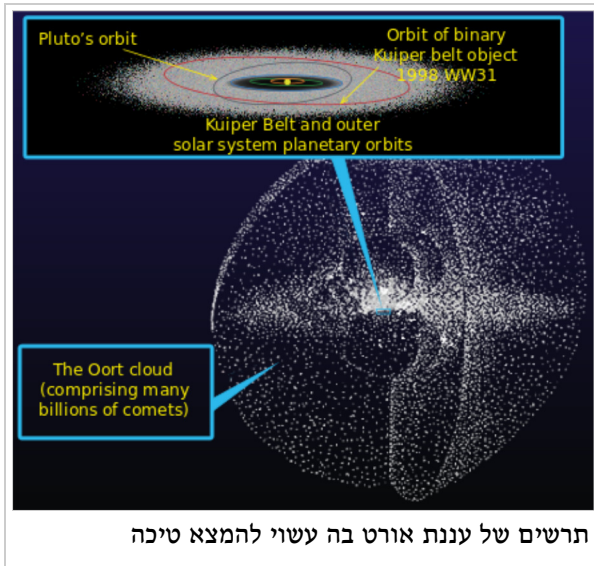


טיכה (כוכב לכת משוער)

מתוך ויקיפדיה, האנציקלופדיה החופשית



טיכה (באנגלית: Tyche) הוא כינוי לכוכב לכת משוער במערכת השמש באזור עננת אורט. אם תמצא הוכחה תצפיתית, טיכה צפוי להיות כוכב הלכת הגדול ביותר במערכת השמש, בעל קוטר הגדול פי 1.4 מזה של כוכב הלכת צדק ומסה פי 4 ממנו. קיומו של כוכב זה מוטל במחלוקת, אך יש לציין כי גם לפני גילוי נפטון התאוריה המדעית הקדימה את גילוי העובדות. חוקרים מאוניברסיטת לואיזיאנה (University of Louisiana at Lafayette) טוענים שהתנהגותם של אסטרואידים במערכת השמש החיצונית מצביעה על קיום כוכב הלכת. אך ב-2014 לפי תצפיות של טלסקופ החלל WISE, נאס"א פסלה אפשרות לקיומו^[1].

תוכן עניינים

- 1 היסטוריה
- 2 ניסיונות גילוי
- 3 קישורים חיצוניים
- 4 הערות שוליים

היסטוריה

הפרופ' דניאל ויטמאייר וג'ון מאטיס מאוניברסיטת לואיזיאנה הגיעו למסקנה כי ייתכן וקיים כוכב לכת ענק בעננת אורט, וזאת על פי ניתוח תנועתם של שביטים שהגיעו אל פנים מערכת השמש. תנועתם של שביטים אלה הושפעה מנוכחותה של מסה משמעותית בעננת אורט, מסה שוויטמאייר העריך כמסה הגדולה פי 4 ממסתו של צדק. ויטמאייר פרסם את השערתו לראשונה ב-1999.

לפי חישוביו של ויטמאייר זהו כוכב לכת חדש, הגדול ביותר במערכת השמש. קוטרו גדול פי 1.4 מקוטרו של צדק ומסתו פי 4 והוא מצוי במרחק של כ-15,000 יחידות אסטרונומיות מהשמש או כרבע שנת אור, אך עדיין בתוך עננת אורט, שמעריכים כי היא משתרעת עד מרחק של כ-50,000 יחידות אסטרונומיות מהשמש. להערכתו, הרכבו יהיה דומה לזה של צדק ושבתאי, ענק גזים המכיל בעיקר מימן והליום והוא מקיף את השמש במחזור של בערך 1.8 מיליון שנים.

ישנם חוקרים המאמינים כי גם אם ימצא כוכב הלכת, הוא לא בהכרח כוכב לכת מקורי של מערכת השמש, ורוב הסיכויים כי הוא נוצר במקום אחר, ונלכד עם השנים בכוח הכבידה של השמש.

לכוכב הלכת המשוער ניתן שם זמני "טיכה" (Tyche), על שם האלה במיתולוגיה היוונית טיכה, השולטת במזל ובשגשוג של העיר. רק אם יינתן אישור סופי לגילוי, יתן לו האיגוד האסטרונומי הבינלאומי (IAU) שם רשמי.

ניסיונות גילוי

המדענים מקווים לגלותו בעזרת החום והקרינה שהוא מפיק. ייתכן ובגלל מבנהו ומסתו הגדולה הוא עשוי להיות חם יותר מאשר סביבתו הקפואה וגם משום ההתקררות האיטית יותר שלו לאחר היווצרותו. ההערכה היא כי טמפרטורת פני השטח של טיכה היא כ-73 מעלות צלזיוס מתחת לאפס, הרבה מעבר לטמפרטורה של עצמים בסביבתו, הקרובה לאפס מוחלט. לשם כך

הם נעזרים בטלסקופ החלל WISE. טלסקופ זה, ששוגר בדצמבר 2009, רגיש לאורכי גל בקרינה תת-אדומה, קרינה הנפלטת מגופים קרים, שאינם כוכבים קורנים.

אם הגילוי יאושר, אנו עשויים להבין טוב יותר את מערכת השמש ואת השפעתו של טיכה על הדינמיקה של השביטים המצויים בעננת אורט. כוח הכבידה שלו יכול להסיט שביטים ממסלולם, להעיף אותם החוצה ממערכת השמש, או לקרבם למסלול בעל קרבה מסוכנת לכדור הארץ.

במרץ 2014 הודיעה נאס"א שתצפיות מטלסקופ החלל WISE פוסלות את האפשרות לקיום אובייקט מסדר גודל של שבתאי ומעלה במערכת השמש החיצונית^[2].

קישורים חיצוניים

- ראיות משביטים לגוף מסיבי בעננת אורט החיצונית (J. J. http://www.ucs.louisiana.edu/~jjm9638/MS7292.pdf), Matese, P. G. Whitman, D. P. Whitmire, אוניברסיטת לואיזיאנה, 1999.
- אבי בליזובסקי, האם כוכב לכת ענק בקצה מערכת השמש אחראי לחלק מהשביטים? (http://www.hayadan.org.il/search-begins-for-giant-new-planet-1502116), באתר "הידען", 15 בפברואר 2011
- יגאל פתאל, האם נמצא כוכב הלכת הכי גדול במערכת השמש? (http://www.ynet.co.il/articles/0,7340,L-4028391,00.html), באתר ynet, 14 בפברואר 2011

הערות שוליים

- ↑ no theres no proof of a giant planet in the outer solar system (http://blogs.discovermagazine.com/badastronomy/2011/02/14/no-theres-no-proof-of-a-giant-planet-in-the-outer-solar-system)
- ↑ A SEARCH FOR A DISTANT COMPANION TO THE SUN WITH THE WIDE-FIELD INFRARED SURVEY EXPLORER (http://iopscience.iop.org/0004-637X/781/1/4)

קטגוריות: גופים טרנס-נפטוניים | כוכבי לכת משוערים

-
- שונה לאחרונה ב־23:40, 26 בנובמבר 2014.
 - הטקסט מוגש בכפוף לרישיון Creative Commons ייחוס-שיתוף זהה 3.0; ייתכן שישנם תנאים נוספים. ראו תנאי שימוש לפרטים.



تاكيي (كوكب)

من ويكيبيديا، الموسوعة الحررة

Tyche (كوكب افتراضي)

تاكيي Tyche هو لقب أعطي لكوكب غازي عملاق افتراضي يقع في سحابة أورط عند حافة للنظام الشمسي، أقترح وجوده عام 1999 بواسطة عالم الفيزياء الفلكية جون ماتيزي و باتريك ويتمان ودانيال وايتمير من جامعة لويزيانا بأمريكا. وقد قدموا أدلة على وجود لمثل هذا الكوكب اعتماداً على ملاحظة مدارات المذبات، ولاكن معظم المجتمع الفلكي يبدي تشككه من وجوده.

محتويات

- 1 المدار
- 2 الكتلة
- 3 أصل التسمية
- 4 المصادر

المدار

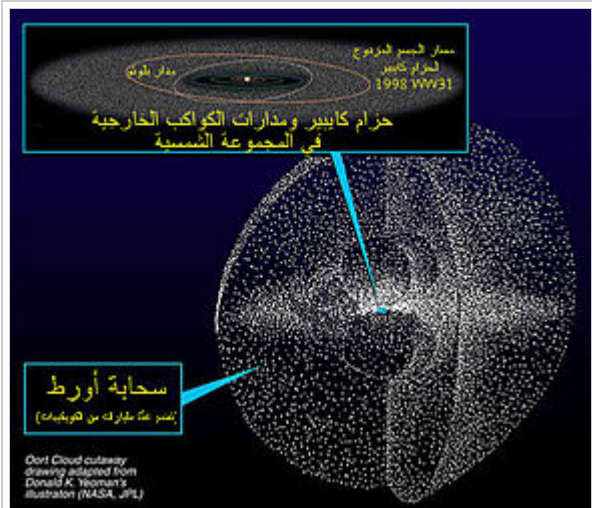
كما افترض ماتيزي وباتريك مدار الكوكب سيكون على بعد 500 مرة من بعد كوكب نبتون، أي مايعادل 2.2×10^{12} كيلومتر من الشمس. ذلك يقارب ربع سنة ضوئية. ولاكن هذا يبقى من ضمن حدود سحابة أورط . أي أن له فترة مدارية تساوي تقريباً 1.8 مليون سنة .

الكتلة

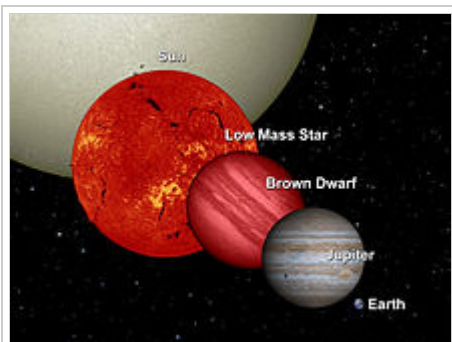
في عام 2011، افترض ماتيزي وباتريك ان للكوكب المنشود كتلة تعادل أربع أضعاف كتلة المشتري ودرجة حرارة تعادل 200 كلفن (-73°C)، بفضل الحرارة المتبقية من عملية تكوينه وآلية كلفن هلمهولتز. وسيكون ضخم بالقدر الكافي لخضوعه لتفاعلات اندماج نووي بداخله، وهي عملية تحدث للأجسام التي تفوق كتلة المشتري ب13 مرة. على الرغم من أن تاكيي أضخم من المشتري، إلا أن حجمه يقارب حجم المشتري لان المادة المتحللة بالكواكب الغازية العملاقة تؤدي إلى زيادة بالكتلة وليس الحجم.

أصل التسمية

Tyche أو تاكيي بالعربية (وتعني "fortune" بالإغريقية أي الثروة) هي إلهة الثروة والرخاء عند



رسم توضيحي لسحابة أورط ، وسحابة هيل وحزام كويبر



مقارنة بين حجم كل من الشمس وقزم أحمر وكوكب المشتري والارض

الإغريق .

المصادر

تلسكوب الفضاء الأمريكي "وايز" يكتشف الكوكب "تايكي" المفترض في حافة المجموعة الشمسية؟ ، مركز قطر لعلوم الفضاء والفلك .

+ هذه بذرة مقالة بحاجة للتوسيع. شارك في تحريرها.

مجلوبة من "http://ar.wikipedia.org/w/index.php?title=كوكب_تايكي&oldid=14739778"

تصنيفان: كواكب | أجرام وراء نبتونية

- آخر تعديل لهذه الصفحة كان يوم 15 يناير 2015 الساعة 21:49.
- النصوص منشورة برخصة المشاع الإبداعي. طالع شروط الاستخدام للتفاصيل.



تایکی

Tyche - پورتال مناظره و گفتگو

www.monazereh.ir/translate/en/69756 ▾ [Translate this page](#)

Tyche (اسطوره‌ی یونان) تایکی (خدای بخت - روم باستان Fortuna): برجسب ها: Tyche - بازدید از صفحه
اول. اشتراک. Facebook · Twitter · Google+ · Digg · Reddit ...

<http://www.monazereh.ir/translate/en/69756>

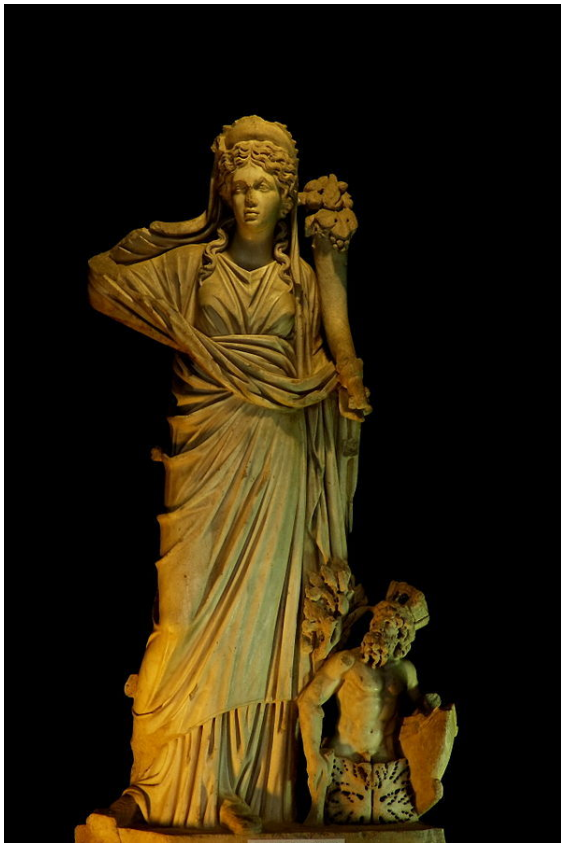
Fortuna

For other uses, see *Fortuna* (disambiguation).

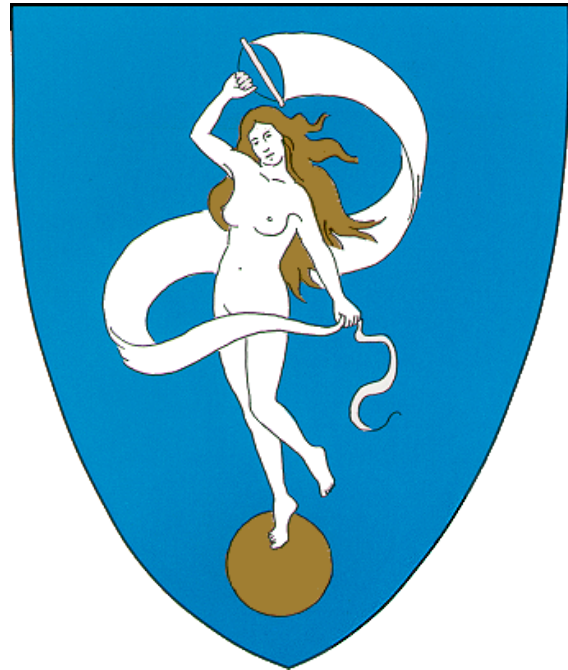
Fortuna (Latin: *Fortūna*, equivalent to the Greek goddess Tyche) was the goddess of fortune and personification of luck in Roman religion. She might bring good luck or bad: she could be represented as veiled and blind, as in modern depictions of Justice, and came to represent life's capriciousness. She was also a goddess of fate: as *Atrous Fortuna*, she claimed the young lives of the princeps Augustus' grandsons Gaius and Lucius, prospective heirs to the Empire.^[1]

Her father was said to be Jupiter and like him, she could also be bountiful (*Copia*). As *Annonaria* she protected grain supplies. June 11 was sacred to her: on June 24 she was given cult at the festival of *Fors Fortuna*.^{[2][3]}

1 Cult



Fortuna and Pontus



Heraldic Fortuna in the arms of Glückstadt.

Fortuna's Roman cult was variously attributed to Servius Tullius – whose exceptional good fortune suggested their sexual intimacy^[4] – and to Ancus Marcius.^[5] The two earliest temples mentioned in Roman Calendars were outside the city, on the right bank of the Tiber (in Italian Trastevere). The first temple dedicated to Fortuna was attributed to the Etruscan Servius Tullius, while the second is known to have been built in 293 BC as the fulfilment of a Roman promise made during later Etruscan wars^[6] The date of dedication of her temples was 24 June, or Midsummer's Day, when celebrants from Rome annually floated to the temples downstream from the city. After undisclosed rituals they then rowed back, garlanded and inebriated.^[7] Also Fortuna had a temple at the Forum Boarium. Here Fortuna was twinned with the cult of Mater Matuta (the goddesses shared a festival on 11 June), and the paired temples have been revealed in the excavation beside the church of Sant'Omobono: the cults are indeed archaic in date.^[8] Fortuna Primigenia of Praeneste was adopted by Romans at the end of 3rd BC in an important cult of *Fortuna Publica Populi Romani* (the *Official Good Luck of the Roman People*) on the Quirinalis outside the Porta Collina.^[9] No temple at Rome, however, rivalled the magnificence of the Praenestine sanctuary.

Fortuna's identity as personification of chance events was closely tied to *virtus* (strength of character). Public officials who lacked virtues invited ill-fortune on themselves and Rome: Sallust uses the infamous *Catiline* as illustration – “Truly, when in the place of work, idleness, in place of the spirit of measure and equity, caprice and pride invade, fortune is changed just as with morality”.^[10]

An oracle at the Temple of Fortuna Primigena in Praeneste used a form of divination in which a small boy picked out one of various futures that were written on oak rods. Cults to Fortuna in her many forms are attested throughout the Roman world. Dedications have been found to *Fortuna Dubia* (doubtful fortune), *Fortuna Brevis* (fickle or wayward fortune) and *Fortuna Mala* (bad fortune).

She is found in a variety of domestic and personal contexts. During the early Empire, an amulet from the House of Menander in Pompeii links her to the Egyptian goddess Isis, as Isis-Fortuna.^[11] She is functionally related to the God *Bonus Eventus*,^[12] who is often represented as her counterpart: both appear on amulets and intaglio engraved gems across the Roman world. In the context of the early republican period account of Coriolanus, in around 488 BC the Roman senate dedicated a temple to Fortuna on account of the services of the matrons of Rome in saving the city from destruction.^[13]



Vatican, Rome, Italy. Statue of Fortune. Brooklyn Museum Archives, Goodyear Archival Collection

Her name seems to derive from *Vortumna* (she who revolves the year).

The earliest reference to the *Wheel of Fortune*, emblematic of the endless changes in life between prosperity and disaster, is from 55 BC.^[14] In Seneca's tragedy *Agamemnon*, a chorus addresses Fortuna in terms that would remain almost proverbial, and in a high heroic ranting mode that Renaissance writers would emulate:

“O Fortune, who dost bestow the throne's high boon with mocking hand, in dangerous and doubtful state thou settest the too exalted. Never have sceptres obtained calm peace or certain tenure; care on care weighs them down, and ever do fresh storms vex their souls....great kingdoms sink of their own weight, and Fortune gives way 'neath the burden of herself. Sails swollen with favouring breezes fear blasts too strongly theirs; the tower which rears its head to the very clouds is beaten by rainy Auster.... Whatever Fortune has raised on high, she lifts but to bring low. Modest estate has longer life; then happy he who'er, content with the common lot, with safe breeze hugs the shore, and, fearing to trust his skiff to the wider sea, with unambitious oar keeps close to land.”^[15]

Ovid's description is typical of Roman representations: in a letter from exile^[16] he reflects ruefully on the “goddess who admits by her unsteady wheel her own fickleness; she always has its apex beneath her swaying foot.”

2 Middle Ages



The humiliation of Emperor Valerian by king Shapur I of Persia (260) passed into European cultural memory as an instance of the reversals of Fortuna. In Hans Holbein's pen-and-ink drawing (1521), the universal lesson is brought home by its contemporary setting.

Fortuna did not disappear from the popular imagination with the ascendancy of Christianity by any means.^[17] Saint Augustine took a stand against her continuing presence, in the *City of God*: “How, therefore, is she good, who without discernment comes to both the good and to

the bad?...It profits one nothing to worship her if she is truly *fortune*... let the bad worship her...this supposed deity".^[18] In the 6th century, the *Consolation of Philosophy*, by statesman and philosopher Boethius, written while he faced execution, reflected the Christian theology of *casus*, that the apparently random and often ruinous turns of Fortune's Wheel are in fact both inevitable and providential, that even the most coincidental events are part of God's hidden plan which one should not resist or try to change. Fortuna, then, was a servant of God,^[19] and events, individual decisions, the influence of the stars were all merely vehicles of Divine Will. In succeeding generations Boethius' *Consolation* was required reading for scholars and students. Fortune crept back into popular acceptance, with a new iconographic trait, "two-faced Fortune", *Fortuna bifrons*; such depictions continue into the 15th century.^[20]



Albrecht Dürer's engraving of Fortuna, ca 1502

The ubiquitous image of the Wheel of Fortune found throughout the Middle Ages and beyond was a direct legacy of the second book of Boethius's *Consolation*. The Wheel appears in many renditions from tiny miniatures in manuscripts to huge stained glass windows in cathedrals, such as at Amiens. Lady Fortune is usually represented as larger than life to underscore her importance. The wheel characteristically has four shelves, or stages of life, with four human figures, usually labeled on the left *regnabo* (I shall reign), on the top *regno* (I reign) and is usually crowned, descending on the right *regnavi* (I have reigned) and the lowly figure on the bottom is marked *sum*

sine regno (I have no kingdom). Medieval representations of Fortune emphasize her duality and instability, such as two faces side by side like Janus; one face smiling the other frowning; half the face white the other black; she may be blindfolded but without scales, blind to justice. She was associated with the cornucopia, ship's rudder, the ball and the wheel. The cornucopia is where plenty flows from, the Helmsman's rudder steers fate, the globe symbolizes chance (who gets good or bad luck), and the wheel symbolizes that luck, good or bad, never lasts.



Fortuna lightly balances the orb of sovereignty between thumb and finger in a Dutch painting of ca 1530 (Musée des Beaux-Arts de Strasbourg)

Fortune would have many influences in cultural works throughout the Middle Ages. In *Le Roman de la Rose*, Fortune frustrates the hopes of a lover who has been helped by a personified character "Reason". In Dante's *Inferno* (vii.67-96) Virgil explains the nature of Fortune, both a devil and a ministering angel, subservient to God. Boccaccio's *De Casibus Virorum Illustrium* ("The Fortunes of Famous Men"), used by John Lydgate to compose his *Fall of Princes*, tells of many where the turn of Fortune's wheel brought those most high to disaster, and Boccaccio essay *De remedii dell'una e dell'altra Fortuna*, depends upon Boethius upon the double nature of Fortune. Fortune makes her appearance in *Carmina Burana* (see image). The Christianized Lady Fortune is not autonomous: illustrations for Boccaccio's *Remedii* show

Fortuna enthroned in a triumphal car with reins that lead to heaven,^[21] and appears in chapter 25 of Machiavelli's *The Prince*, in which he says Fortune only rules one half of men's fate, the other half being of their own will. Machiavelli reminds the reader that Fortune is a woman, that she favours a strong, or even violent hand, and that she favours the more aggressive and bold young man than a timid elder. Even Shakespeare was no stranger to Lady Fortune:

*When in disgrace with Fortune and men's eyes
I all alone bewep my outcast state... — Sonnet
29*

3 Pars Fortuna in astrology

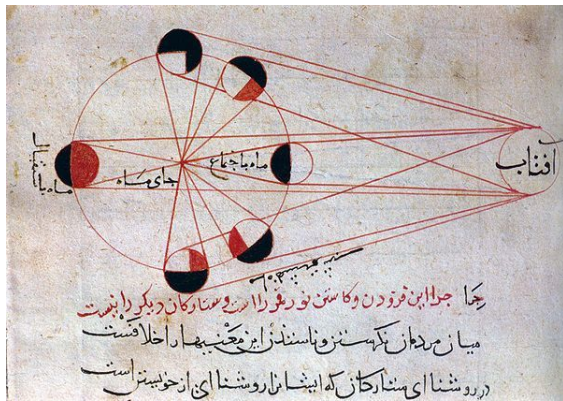


illustration by Al-Biruni (973-1048) of different phases of the moon, from the Persian *Kitab al-tafhim*

In astrology the term 'Pars Fortuna' represents a mathematical point in the zodiac derived by the longitudinal positions of the Sun, Moon and Ascendant (Rising sign) in the birth chart of an individual. It represents an especially beneficial point in the horoscopic chart. In Arabic Astrology, this point is called Arabian Parts.^[22]

The procedure followed for fixing one's *Pars Fortuna* in ancient and traditional astrology depended on the time of birth, viz., during daylight or night time (whether the Sun was above or below the horizon). In modern western astrology the day time formula only was used for many years, but with more knowledge of ancient astrology, the two calculation methods are now often used.

The formula for calculating the day time Part of Fortune (PF) is (using the 360 degree positions for each point):

$$PF = \text{Ascendant} + \text{Moon} - \text{Sun}$$

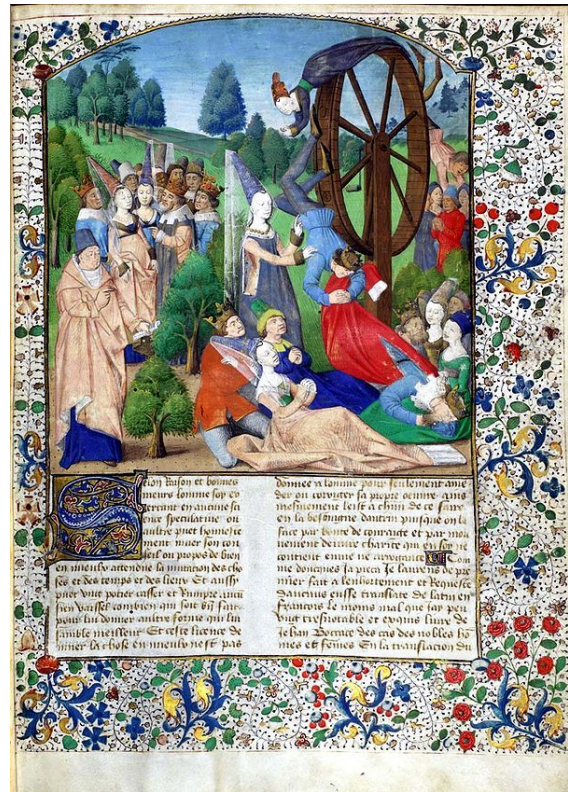
The formula for the night-time Part of Fortune is $PF = \text{Ascendant} + \text{Sun} - \text{Moon}$

Each calculation method results in a different zodiac position for the Part of Fortune.^[23]

Al Biruni (973 – 1048), an 11th-century mathematician, astronomer and scholar, who was the greatest proponent

of this system of prediction, listed a total of 97 Arabic Parts, which were widely used for astrological consultations.

4 Aspects of Fortuna



Lady Fortune in a Boccaccio manuscript

- **Fortuna Annonaria** brought the luck of the harvest
- **Fortuna Belli** the fortune of war
- **Fortuna Primigenia** directed the fortune of a first-born child at the moment of birth
- **Fortuna Virilis**, "Manly Fortune," was celebrated only by women
- **Fortuna Redux** brought one safely home
- **Fortuna Respiciens** the fortune of the provider
- **Fortuna Muliebris** the luck of a woman. Typical of Roman attitudes, the fortune of a woman in marriage, however, was *Fortuna Virilis*.
- **Fortuna Victrix** brought victory in battle
- **Fortuna Augusta** the fortune of the emperor^[24]
- **Fortuna Balnearis** the fortune of the baths.^[24]
- **Fortuna Conservatrix** the fortune of the Preserver.^[25]

- **Fortuna Equestris** fortune of the Knights.^[25]
- **Fortuna Huiusce Diei** fortune of the present day.^[25]
- **Fortuna Obsequens** fortune of indulgence.^[25]
- **Fortuna Privata** fortune of the private individual.^[25]
- **Fortuna Publica** fortune of the people.^[25]
- **Fortuna Romana** fortune of Rome.^[25]
- **Fortuna Virgo** fortune of the virgin.^[25]
- **Pars Fortuna**

5 See also

- Carmina Burana (Orff) (opening theme: “O Fortuna”)
- Column of the Goths
- Fortune favours the bold (*Fortes fortuna adiuvat*)

6 Notes

- [1] Marguerite Kretschmer, “Atrox Fortuna” *The Classical Journal* **22.4** (January 1927), 267 - 275.
- [2] Samuel Ball Platner and Thomas Ashby, *A Topographical Dictionary of Ancient Rome*; (London: Oxford University Press) 1929: on-line text.
- [3] Ovid, *Fasti* VI. 773-786.
- [4] Varro, *De Lingua Latina* VI.17.
- [5] Plutarch; see Samuel Ball Platner and Thomas Ashby, *A Topographical Dictionary of Ancient Rome*; (London: Oxford University Press) 1929: on-line text.
- [6] Livy, 'Ab Urbe Condita', 2.40.
- [7] Billington, S., Green, M. 'The Concept of the Goddess' (London, New York, 1996), 133-134.
- [8] Hornblower, S., Spawforth, A., 'The Oxford Classical Dictionary' (Oxford, New York), 606.
- [9] Hornblower, S., Spawforth, A. 'The Oxford Classical Dictionary' (Oxford, New York), 606.
- [10] *Verum ubi pro labore desidia, pro continentia et aequitate lubido atque superbia invasere, fortuna simul cum moribus immutatur*, Sallust, *Catilina*, ii.5. His view of *fortuna* is discussed in Etienne Tiffou, “Salluste et la Fortuna”, *Phoenix*, 31.4 (Winter 1977), 349 - 360.
- [11] Allison, P., 2006, *The Insula of Menander at Pompeii: Vol.III, The Finds; A Contextual Study*, Oxford: Clarendon Press
- [12] Greene, E.M., “The Intaglios”, in Birley, A. and Blake, J., 2005, *Vindolanda: The Excavations of 2003-2004*, Bardon Mill: Vindolanda Trust, pp187-193
- [13] Livy, *Ab urbe condita*, 2:40
- [14] Cicero, *In Pisonem*.
- [15] *Agamemnon*, translation by Frank Justus Miller (on-line text)
- [16] Ovid, *Ex Ponto*, iv, epistle 3.
- [17] Howard R. Patch, *The Goddess Fortuna in Medieval Literature*, 1927 is the basic study.
- [18] Augustine, *City of God*, iv.18-18; v.8.
- [19] Selma Pfeiffenberger, “Notes on the Iconology of Donatello’s Judgment of Pilate at San Lorenzo” *Renaissance Quarterly* **20.4** (Winter 1967:437-454) p 440.
- [20] As Pfeiffenberger observes, citing A. Laborde, *Les manuscrits à peintures de la Cité de Dieu*, Paris, 1909: vol. III, pls 59, 65; Pfeiffenberger notes that there are no depictions of a *Fortuna bifrons* in Roman art.
- [21] Noted by Pfeiffenberger 1967:441.
- [22] "http://www.skyscript.co.uk/fortune.html David Plant, “Fortune, Spirit and the Lunation Cycle”". Cafeastrol-ogy.com. Retrieved 2014-04-28.
- [23] “David Plant, "op. cit."". Skyscript.co.uk. Retrieved 2014-04-28.
- [24] http://www.thaliatook.com/OGOD/augusta.html
- [25] “Fortuna”. Mlahanas.de. Retrieved 2014-04-28.

7 References

- David Plant, “Fortune, Spirit and the Lunation Cycle”
- Part of Fortune
- Howard Rollin Patch (1923), *Fortuna in Old French Literature*
- Lesley Adkins, Roy A. Adkins (2001) *Dictionary of Roman Religion*
- Howard Rollin Patch (1927, repr. 1967), *The Goddess Fortuna in Medieval Literature*
- Howard Rollin Patch (1922), *The Tradition of the Goddess Fortuna in Medieval Philosophy and Literature*
- J. Champeaux, *Fortuna. Vol. I. Recherches sur le culte de la Fortuna à Rome et dans le monde romaine des origines à la mort de César; Vol. II. Les Transformations de Fortuna sous le République* (Rome, École Française de Rome, 1982-1987).

- Narducci, Emanuele, Sergio Audano and Luca Fezzi (edd.), *Aspetti della Fortuna dell'Antico nella Cultura Europea: atti della quarta giornata di studi, Sestri Levante, 16 marzo 2007* (Pisa: ETS, 2008) (Testi e studi di cultura classica, 41).

8 External links

- Michael Best, “Medieval tragedy”
- Arya, Darius Andre (January 27, 2006) [2002]. *The Goddess Fortuna in Imperial Rome: Cult, Art, Text*. Theses and Dissertations from The University of Texas at Austin. Austin: University of Texas at Austin. hdl:2152/152. (login required) or Darius Andre Arya, “The Goddess Fortuna in Imperial Rome: Cult, Art, Text”
- "Fortuna". *Collier's New Encyclopedia*. 1921.

9 Text and image sources, contributors, and licenses

9.1 Text

- **Fortuna** *Source:* <http://en.wikipedia.org/wiki/Fortuna?oldid=662472806> *Contributors:* Michael Hardy, GTBacchus, Mdeberts, Александър, EALacey, Dysprosia, Renato Caniatti-enwiki, Wetman, Robbot, Flauto Dolce, Tobycat, Mervyn, David Edgar, GreatWhiteNortherner, Gtrmp, Jyril, Home Row Keysplurge, Bacchiad, Antandrus, Joyous!, Mike Rosoft, Rich Farmbrough, Silence, Dbachmann, Martpol, Paul August, Stbalbach, Arael, Aecis, Kwamikagami, Shanes, Smalljim, Polylerus, Jumbuck, Deacon of Pndapetzim, [?], Reikku, Mel Etitis, Woohookitty, Amanmadh, Uncle G, Bkwilwm, Dysepsion, Rjwilmsi, CristianChirita, FlaBot, Wavelength, Hede2000, Yamara, K.C. Tang, NawlinWiki, Ype, D. F. Schmidt, Emijrp, Lt-wiki-bot, Fram, SmackBot, AnOddName, Vilerage, Gilliam, BenAveling, Jmsanta-enwiki, DennisTheTiger, FordPrefect42, Skoglund, Rrburke, SashatoBot, John, The Man in Question, Midnightblue-owl, Dr.K., Dia^, Daggerstab, Rwfammang, MarcelLionheart, Thijs!bot, Anita13, Missvain, Whogue, Seaphoto, Biggz48, Samuel Erau, JAnDbot, Leuko, Cynwolfe, Bongwarrior, VoABot II, T@nn, Smooth0707, Doug Coldwell, Froid, MartinBot, Mermaid from the Baltic Sea, Kimse, Johnbod, DavidApi, TXiKiBoT, Broadbot, Shouriki, AlleborgoBot, NHRHS2010, SieBot, StAnselm, Lucasfbrbot, Yintan, Zakhx150, ClueBot, ChandlerMapBot, DragonBot, Quercus basaeachicensis, Nvvchar, Abstractica, Darkicebot, Wutwutinthabutt, Addbot, Frignator, Glane23, 5 albert square, Luckas-bot, Yobot, AnomieBOT, JackieBot, Mintrick, Xqbot, XZeroBot, GrouchoBot, Omnipaedista, Mattis, Haploidavey, FrescoBot, Louperibot, Jonesey95, RedBot, MondalorBot, Ynnis, Urg writer, Lotje, EmausBot, John of Reading, Littlemissmachiavelli, ZéroBot, PBS-AWB, Insert coins, Wysinygaa, Brandmeister, ClueBot NG, Davidiad, CitationCleanerBot, Fr Pavel, Samwalton9, Goodell, SFK2, Wolf-rider-33-, Snowsuit Wearer, Library Guy, Artlover87, Infinite0694 and Anonymous: 77

9.2 Images

- **File:ADurerFortunaengraving.jpg** *Source:* <https://upload.wikimedia.org/wikipedia/commons/2/23/ADurerFortunaengraving.jpg> *License:* Public domain *Contributors:* Web Gallery of Art: Image Info about artwork *Original artist:* Albrecht Dürer
- **File:Allegory_of_Fortune_mg_0010.jpg** *Source:* https://upload.wikimedia.org/wikipedia/commons/1/1a/Allegory_of_Fortune_mg_0010.jpg *License:* Public domain *Contributors:* Rama *Original artist:* Anonymous (Holland)
- **File:Commons-logo.svg** *Source:* <https://upload.wikimedia.org/wikipedia/en/4/4a/Commons-logo.svg> *License:* ? *Contributors:* ? *Original artist:* ?
- **File:FortuneWheel.jpg** *Source:* <https://upload.wikimedia.org/wikipedia/commons/1/10/FortuneWheel.jpg> *License:* Public domain *Contributors:* ? *Original artist:* ?
- **File:Glueckstadt_Wappen.png** *Source:* https://upload.wikimedia.org/wikipedia/commons/6/61/Glueckstadt_Wappen.png *License:* Public domain *Contributors:* Info: Kommunale Wappenrolle Schleswig-Holstein *Original artist:* Lothar Leissner from Itzehoe; slightly modified by ClausG
- **File:HumiliationValerianusHolbein.jpg** *Source:* <https://upload.wikimedia.org/wikipedia/commons/a/a2/HumiliationValerianusHolbein.jpg> *License:* Public domain *Contributors:* Web Gallery of Art: Image Info about artwork Museum link *Original artist:* Hans Holbein the Younger
- **File:Lunar_eclipse_al-Biruni.jpg** *Source:* https://upload.wikimedia.org/wikipedia/commons/6/62/Lunar_eclipse_al-Biruni.jpg *License:* Public domain *Contributors:* Scanned from: Seyyed Hossein Nasr (1976) *Islamic Science: An Illustrated Study*, World of Islam Festival Publishing Company ISBN 090503502X *Original artist:* Abū Rayḥān al-Bīrūnī
- **File:S03_06_01_020_image_2557.jpg** *Source:* https://upload.wikimedia.org/wikipedia/commons/3/38/S03_06_01_020_image_2557.jpg *License:* Public domain *Contributors:* Brooklyn Museum *Original artist:* William Henry Goodyear
- **File:She-wolf_suckles_Romulus_and_Remus.jpg** *Source:* https://upload.wikimedia.org/wikipedia/commons/6/6a/She-wolf_suckles_Romulus_and_Remus.jpg *License:* Public domain *Contributors:* Own book scan from Emmanuel Müller-Baden (dir.), *Bibliothek des allgemeinen und praktischen Wissens*, I, Deutsches Verlaghaus Bong & Co, Berlin-Leipzig-Wien-Stuttgart, 1904. Image copied from de:Bild:Kapitolinische-woelfin 1b-640x480.jpg *Original artist:* Benutzer:Wolpertinger on WP de
- **File:TomisFortuna2.JPG** *Source:* <https://upload.wikimedia.org/wikipedia/commons/5/5a/TomisFortuna2.JPG> *License:* CC-BY-SA-3.0 *Contributors:* Own work *Original artist:* CristianChirita
- **File:Wikisource-logo.svg** *Source:* <https://upload.wikimedia.org/wikipedia/commons/4/4c/Wikisource-logo.svg> *License:* CC BY-SA 3.0 *Contributors:* Rei-artur *Original artist:* Nicholas Moreau

9.3 Content license

- Creative Commons Attribution-Share Alike 3.0