



**Banner: nebulous cluster Westerlund 2 in Carina.**  
**Credit: NASA, ESA and the Hubble Heritage (STScI/AURA)-ESA/Hubble Collaboration**

**Patrizia Nava**

## **The Dark Star**

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### **Nebula M22 in the natal chart of stargazers**

#### ***Abstract***

*Nebulae are incredibly beautiful sky objects that generally get a bad press, since they are often related to eyesight problems and sometimes violence. Some of these objects can be found in the Almagest, but some of them are not included in most of the ancient or modern rosters. Yet they deserve deeper study for their powerful effects on intellectual achievement. Globular cluster M22, in particular, seems to be especially prominent in the charts of stargazers.*

*I have loved the stars too fondly  
to be fearful of the night.  
(Sarah Williams)<sup>1</sup>*

#### **Clouds in the sky**

Asterisms, clusters, galaxies and nebulas are among the most fascinating objects that the deep sky offers to the amazed eyes of stargazers. In spite of their beauty, they generally get a bad press, since

they are often related to eyesight problems, blindness, accidents and even violence by ancient astrological sources, and not without reason. However, as poet Sarah Williams wrote, those who really love the stars cannot be afraid of the night, nor of their dark side. Let's examine them better.

The term *nebulae* (*clouds*), found in traditional astronomical/astrological texts, includes several sky objects of very different nature. From simple asterisms (faint groups of stars with or even without any real physical connection between them), to open clusters (young stars immersed in cosmic dust, held together by the force of gravity), from globular clusters (compact spheroidal globes composed of ancient stars, orbiting around the centre of a galaxy), to galaxies properly called, or even interstellar agglomerates of dust, hydrogen and plasma, still called nebulas by modern astronomers.

Such objects, when theoretically visible to the naked eye, have a basic role in signalling a possible eyesight deficiency, especially when conjunct the ascendant or one of the luminaries.<sup>2</sup> The apparent magnitude of a star is one of the main criteria to define its power and influence (the more brilliant, the more effective); but in the case of nebulas it is quite the reverse: their very lack of brightness is the foundation of their significance. Only perfect and sharp eyes can perceive them in a clear and totally dark sky, and certainly for that reason they have been unanimously and constantly associated with eyesight defects, blindness and, by extension, to the so-called *azemena degrees*, the zodiacal degrees that signal permanent illness or chronic invalidity in Medieval astrology.<sup>3</sup> Because of their prevalent Mars/Moon quality, moreover, they are generally connected to atmospheric turbulence, storms and rains, and sometimes to violent happenings, accidents and potentially dangerous situations.

William Lilly devotes Chapter CXXVIII of his treatise to the topic, following traditional sources faithfully, listing the *nebulae* quoted by Ptolemy, by the Arabs and by medieval practitioners. Among them, the open cluster M44 (*Praesaepe* – Beehive), the Pleiades M45 on the shoulder of the Bull, nebula M8 (*Spiculum* – Lagoon) in the arrow of the Archer, M6 and M7 in the sting of the Scorpion, Berenice's hair and the water of the Water-Bearer. But any other confused and blurred cluster of dust and stars can bring eye defects, violence and storms, allowing us to complete the catalogue of noxious *nebulae* far beyond the traditional rosters.

Two are the necessary criteria to define a nebula: 1) the feebleness of the light perceived (apparent magnitude), which compels the observer to apply ***averted vision*** in order to view it; 2) the difficult ***resolution***, that is the ability to separate the different components (stellar or non-stellar in nature) of the nebula, which is never a single, point source of light, but a composite one.<sup>4</sup> These two features combined produce the impression of a dimming or blurring image typical of those asterisms.

### **Globular clusters of the Northern hemisphere**

The aforesaid criteria of definition are perfectly respected by at least a couple of sky objects, not mentioned, or not identifiable with confidence in the ancient rosters. They are the brightest and more conspicuous globular clusters of the Northern hemisphere, called M13 (the Great Cluster in Hercules) and M22 in Charles Messier's deep sky catalogue.<sup>5</sup>

The official discovery of globular clusters is due to the German astronomer Johann Abraham Ilhe, who observed M22 in 1665 with the aid of his telescope, followed by Edmond Halley who, while catching comets, discovered Omega Centauri in 1677 and M13 in 1714. But it is hard to believe that ancient skygazers never saw them in their exceedingly dark skies, although neither Ptolemy, nor Giovan Battista Hodierna mention them in their catalogues.<sup>6</sup>

According to traditional methods, these globular clusters can be accounted as *nebulae* and consequently astrologically interpreted only if they are visible to the naked eye. And indeed they are, although it is not enough to walk in the night looking up at the sky to see them. Like most nebulas, you will need a very dark sky, a very clear night, a sufficient altitude of the object over the horizon and a piercing eye to perceive them as feeble, undefined flecks against the starry background. You will also need some observational know-how – where to watch and how to watch.



After all, even Herschel used to say that «seeing is in some respect an art, which must be learnt». Our cities are unsuitable places to watch nebulae and faint stars. Light pollution has deprived us of the deep sky.

### **Globular cluster Messier 22**

Also known as NGC 6656, this globular cluster, one of the closest to Earth, is in the constellation of Sagittarius, not far from Kaus Borealis (*Lambda Sagittarii*). A pair of binoculars already shows its circular shape, brighter in the central regions. However, only a more powerful tool, like a small telescope, is able to resolve it into a myriad of stars (it contains about 500,000) on a background that remains nebulous. Charles Messier describes it as “a round and nebulous starless spot”, while William Herschel will be the first, with his superior instruments, to resolve it in its components, described as little reddish stars of the 11<sup>th</sup> magnitude. The estimated age is 12 billion years and its apparent size is 32' of arc, an area equal to the disk of the Moon. Its dimensions allow us to keep an orb of at least 2° in longitude for the conjunction, a relatively wide angle for fixed stars.



**The crammed centre of globular cluster M22 – NGC 6656, as observed by the Hubble Space Telescope. (Credit: ESA/Hubble & NASA)**

I decided to focus especially on M22 for methodological reasons. It is well known that one of the main difficulties using fixed stars in astrology is the fact that few of them are within the zodiac belt, where “bodily conjunction” (*coniunctio*) with planets and luminaries may occur. Actually, most non-planetary celestial objects do not lie on the plane of the ecliptic, but are located far away from

it in the celestial sphere, thus presenting a remarkable positive or negative latitude. M13 in the constellation of Hercules, for example, has a latitude north of  $57^{\circ}51'$ . No bodily conjunction is possible with M13, although astrologers of all times have devised effective systems in order to calculate the influence of objects with great latitude, all the same.

One of these, the most popular and attested by the majority, if not the totality of the historical sources, is the method of ecliptic longitude, that is the calculation of the degree of longitude of the so-called *foot* of the star, the point where the circle of latitude that passes through the star (seen as a specific point of the sphere) intersects the ecliptic. To this the use of the parallel and antiparallel of declination, favored by Cardanus, is sometimes added.

Another system, developed by Placidus Titi and by Giuseppe Bezza, is the calculation of the distance of the star from the meridian, computed in hours of time. The star is considered virtually joined to another celestial body or point of the sphere if the respective horary circles coincide.<sup>7</sup>

A third system, promoted by the Australian astrologer Bernadette Brady, involves the use of the so-called *parans*, a modern version of the ancient *paranatellonta*: the star rises, culminates, sets or anticulminates together with planets or angles, during the course of the 24 hours of the day of birth, from dawn to dawn. Although Brady claims to have been inspired by the text on the fixed stars by the Anonymous of the year 379, this extension of the time span beyond the specific instant of birth does not seem to be supported by the ancient source.<sup>8</sup>

All methods can be profitably explored and experimented, but if the latitude of the star is considerable, it will be hopelessly far, visually, from the planet to which it should be joined, and none of the mentioned techniques will be able to transform a virtual conjunction based on the coincidence of a single parameter (either temporal or spacial), into a real bodily conjunction, when the stars involved are really seen close to each other, observing the sky.

This condition of visual closeness is not deemed necessary by all the authors. However, al-Birunī, in chapter 460, *Places injurious to the eyes*, writes:

*One [nebulous star is] in the left hand of Perseus, and this one does not count because its latitude is high, and it is far from the course of the planets. [On the contrary] the Pleiades belong to this series since their latitude is low, the Moon passes by them and the Sun also comes near them.*<sup>9</sup>

But with M22 the issue does not arise. This nebula is very close to the ecliptic, within the boundaries of the zodiac belt: its current tropical coordinates are, in fact,  $8^{\circ}30'$  Capricorn in longitude, with a negative latitude of only  $0^{\circ}45'$ . This position makes it extremely meaningful astrologically, since it is close to the path of the Moon and the planets: the occultations of the cluster by the night luminary, in particular, are quite frequent and lend the Moon that intense coloring that only a true bodily conjunction can give.

### **Facies, in front of the Archer's face**

Ptolemy refers to the constellation of Sagittarius with the following words:

*Of the stars in Sagittarius, those in the point of his arrow have an effect like that of Mars and the Moon; those in the bow and the grip of his hand, like that of Jupiter and Mars; the cluster in his forehead, like that of the Sun and Mars; those in the cloak and his back, like that of Jupiter and, to a less degree, of Mercury; those in his feet, like that of Jupiter and Saturn; the quadrangle upon the tail, like that of Venus and, to a less degree, of Saturn.*<sup>10</sup>

As in all ancient texts where stars are described according to their position in the figure of the constellation, and not through a coordinate system, identification remains doubtful. In particular, «the condensation placed on the face», of a Sun/Mars nature, has been identified by G. Bezza as



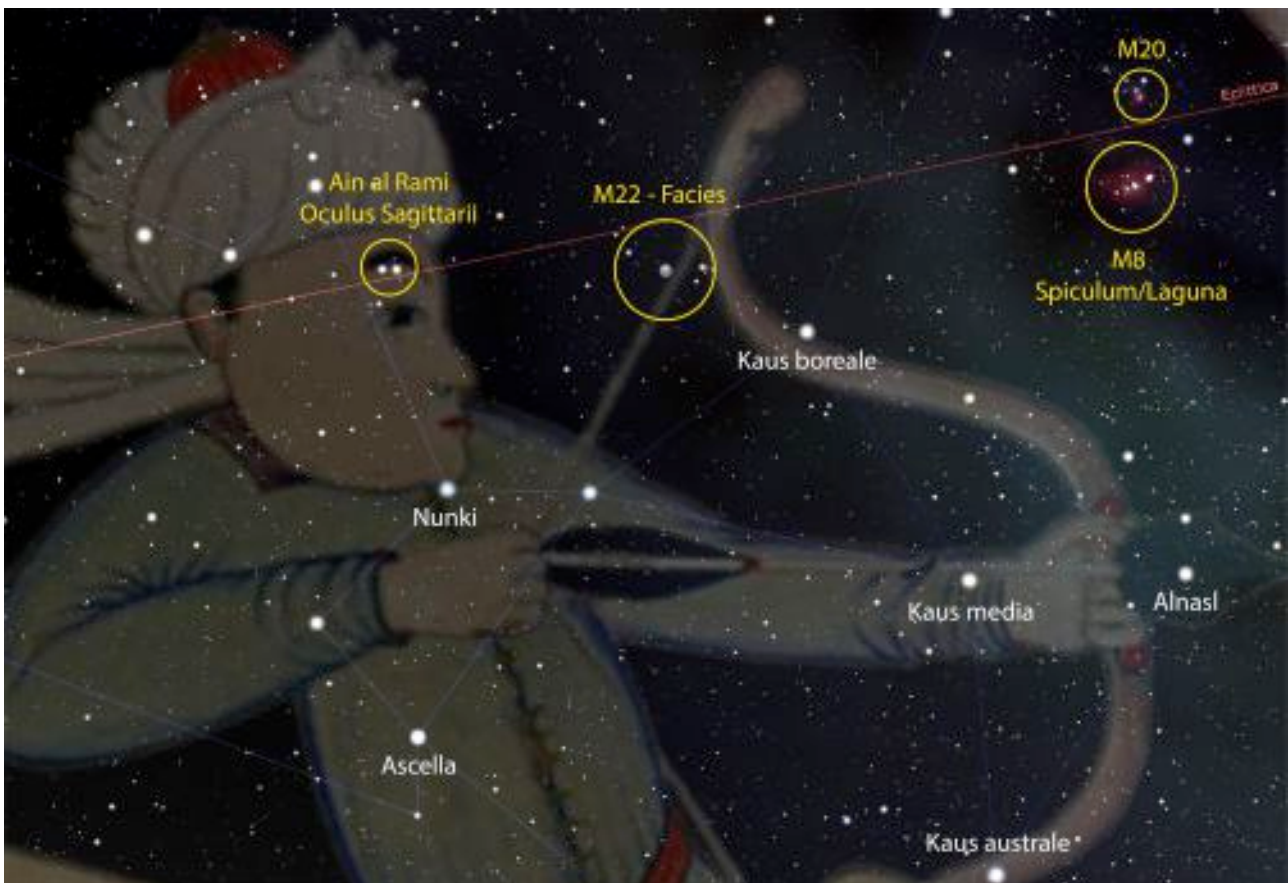
NGC 6530 (open cluster in the nebula M8 Spiculum/Laguna),<sup>11</sup> while Vivian Robson identifies it with Facies, globular cluster M22.

*Facies, M22 Sagittarii, the nebula in the Archer's face. Influence: it is of the nature of the Sun and Mars, and causes blindness, defective sight, sickness, accidents and a violent death.*<sup>12</sup>

Bernadette Brady suggests that, instead of pointing out visual defects like all nebulae, Facies, on the contrary, would indicate keenness of eyesight, a penetrating stare, the sharp eye and the infallible aim of the archer who studies and hits his target with ruthless determination. Intense intellectual and emotional concentration on the goal to be achieved is the result of this placement, typical of focused and determined people, able to think and act effectively.

*Facies represents the penetrating stare of a lethal weapon. [...] It gives a penetration of action that has no regard for others, and can therefore make a great leader or a dictator. If Facies is the only difficult star in the chart, then it will suggest being focused.*<sup>13</sup>

A stimulating interpretation, although it is worth remembering that Facies (M22) is not the “Archer’s eye”, and should not be confused with Ain al Rami, *Oculus Sagittarii*. Actually, the real eye of the archer is a small asterism located on the ecliptic at 12°28’ of tropical Capricorn, composed of two very close and weak stars, Nu1 and Nu2, traditionally catalogued among the ancient nebulae. But Facies is in front of Ain al Rami, the Archer’s eye. It is a nebulous condensation that can obscure the view, but it is also a sort of lens through which the archer must necessarily look to aim at the goal to be achieved. It is a tool to take aim, to shoot the arrow towards the target: the analogies between the Sagittarius arc, where the nebula is found, the sights of a weapon and a telescope checker that serves to centre the object to be observed, to point far away, to see more and more deeply what the limits of the naked eye do not allow to perceive, are evident.



The constellation of the Archer with nebulas Oculus Sagittarii, Facies and Spiculum (© P. Nava/Stellarium)

Diana K. Rosenberg, the late American astrologer who dedicated a monumental work to fixed stars, defines Facies M22, the cluster just in front of the Archer's face, as a lens of perception and imagination, which characterizes the explorers of mind and knowledge, brilliant, eloquent and research-oriented individuals, extremely impulsive and independent. Sometimes convinced of their own superiority, they can, in extreme cases, manifest intolerance and authoritarian severity (Adolf Hitler had Facies with the Moon), or they can suffer from, or fight against acts of social or intellectual ostracism. They live under constant pressure and tension, carrying in them the sense of a destiny, a mission, a personal or universal goal to be achieved.

*Like the star-gazers among them (astrophysicists, astronomers and astrologers have placements here), who, as they study the heavens, are actually looking at distant images of the deep past, they tend to take courage and guidance from ancient traditions, and will uphold their perceived truths in spite of any and every obstacle. [...] Most are day-to-day warriors, neither seeking nor expecting a life of simplicity and ease. They work hard for recognition and respect, and sense that they are here to struggle – if no great challenge appears, they will seek it out!*<sup>14</sup>

Rosenberg goes on reminding us of *Liber Hermetis*, according to which these degrees relate to prophesy and augury: there is indeed an element of intense intuition here, and an attempt to see «the whole picture, the possible or probable future». Wounds or problems with the eyes, face and head (Manilio said that the Archer produces people with a single eye – and closing one eye is one of the simplest ways to aim), along with chronic diseases and possible accidents are sometimes connected to this placement in nativities; fires, eruptions, battles, even nuclear explosions, in mundane charts.<sup>15</sup>

### **The lens of Facies in the charts of stargazers**

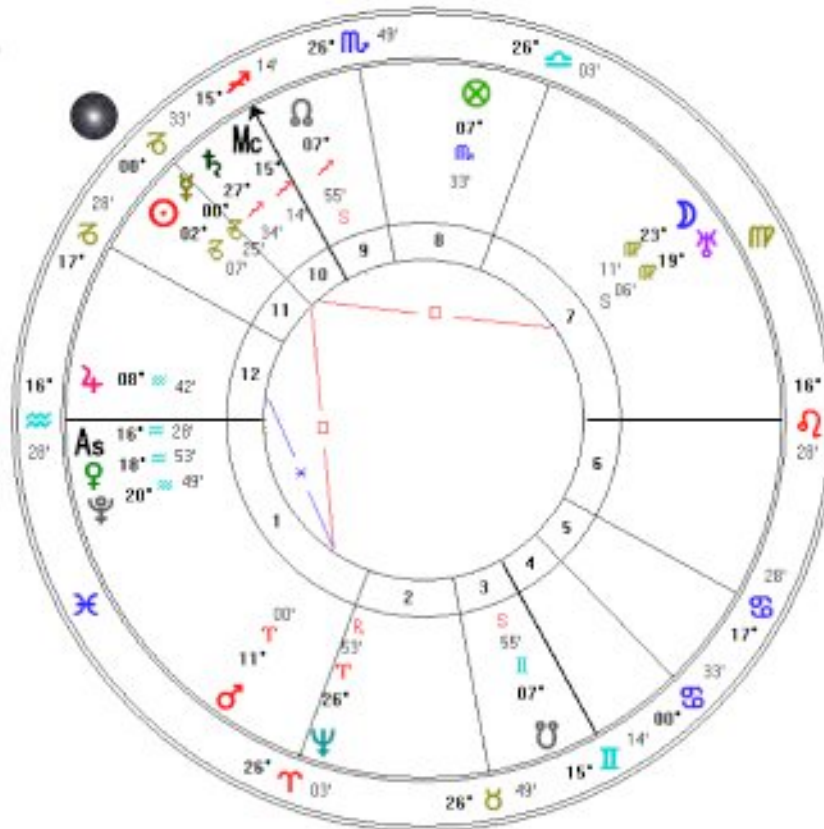
The extreme focalisation that even noxious stars and nebulas gift the fortunate (or the unfortunate!) that have them prominent in their natal charts, can lead to outstanding intellectual achievement. James Joyce had the globular cluster M22 rising at the ascendant, and he suffered from chronic illness, very bad eyesight (in 1930 he had already gone through 25 operations), and an obsession for language that made of him a genius of literature. It is as if the physical, often chronic, sensorial limits indicated by these stars stimulate, almost as compensation, an irrepressible desire to see and understand in depth, farther, beyond the limits of the physical body, using the nebula in front of the eyes of the Archer like a lens, able to reveal the reality that is more distant or difficult to perceive.

Many astronomers and astrologers have used the lens of Facies as if it were a telescope to penetrate the universe with a sharp gaze - one that some of them lacked in their body - compensating for the physical limit with an extreme and determined intellectual focus.

### **Tycho Brahe**

No need of lenses or optical instruments for Tycho Brahe – his eyesight was particularly sharp, as was his character – but the same focused and determined attitude, the stubborn sense of being right, of having something to say and to struggle for. Born to an aristocratic family in Knutstorp (then Denmark, now Sweden) on the 14<sup>th</sup> of December 1546 O.S. at 10.47, he was the official astrologer of the King of Denmark and author of an incredible amount of systematic, precise and meticulous star observations. He thought that exact astronomical data should be used to increase the reliability of astrological prediction, and he finally proposed a semi-heliocentric system in contrast with the traditional Ptolemaic system. He had the Sun and Mercury with M22.

**Tycho Brahe**  
**Male Chart**  
 14 Dec 1546, mar  
 10:47 UMT -0:52:32  
 Knutstorp, Denmark  
 55°N58'46" 013°E08'05"  
 Geocentric  
 Tropical  
 Placidus  
 True Node



Tycho Brahe – Facies: 1°59 Cap, PM 303°54. Sun: 2°06 Cap, PM 303°03. Mercury: 0°25 Cap, PM 302°09.<sup>16</sup>  
 (© P. Nava/ Solar Fire)

### William Herschel and his sister Caroline

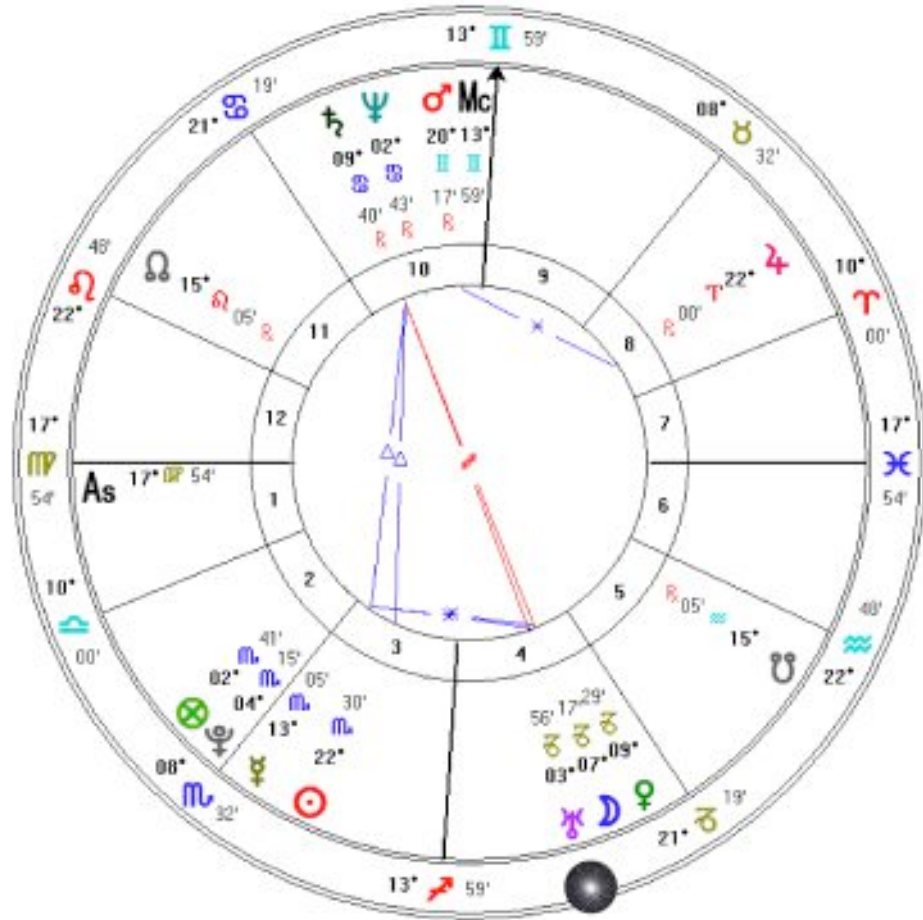
William Herschel, born in Germany in Hanover on November 15, 1738 (time unknown, rectified by Starkman at 01.15 am), a naturalized British musician and astronomer, was a skilled and renowned telescope manufacturer: during his career he completed more than 400 pieces. He used to grind and polish the mirrors and lenses of his own instruments, among which the most famous was certainly the “40-foot telescope”, a reflector of 12 metres of focal length, at the time the largest in the world. He published several catalogues of nebulae (he was the first observer to resolve M22 into tiny stars) and became famous above all for the discovery of the planet Uranus on the 13<sup>th</sup> of March 1781. In the chart of Herschel the celestial lens of Facies is actually pointed at the planet Uranus!

His sister Caroline Lucretia Herschel, who was herself a proficient astronomer and observer although living somewhat in the shade of her famous brother, had her share of physical handicaps. Anyway, she was able to produce a catalogue of nebulae, to discover at least eight new comets, and was the first woman to become an honorary member of the Royal Astronomical Society. A lunar crater and asteroid 281 Lucretia are dedicated to her memory. She was born in Hanover on March 16, 1750 (time unknown); she had Facies with the North Node.

## William Herschel

### Male Chart

15 Nov 1738, sab  
01:15 LMT -0:38:56  
Hanover, Germany  
52°N24' 009°E44'  
Geocentric  
Tropical  
Placidus  
True Node



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William Herschel – Facies: 4°39 Cap, PM 106°06. Uranus: 3°56 Cap, PM 105°38.  
(© P. Nava/ Solar Fire)

## Johann Elert Bode

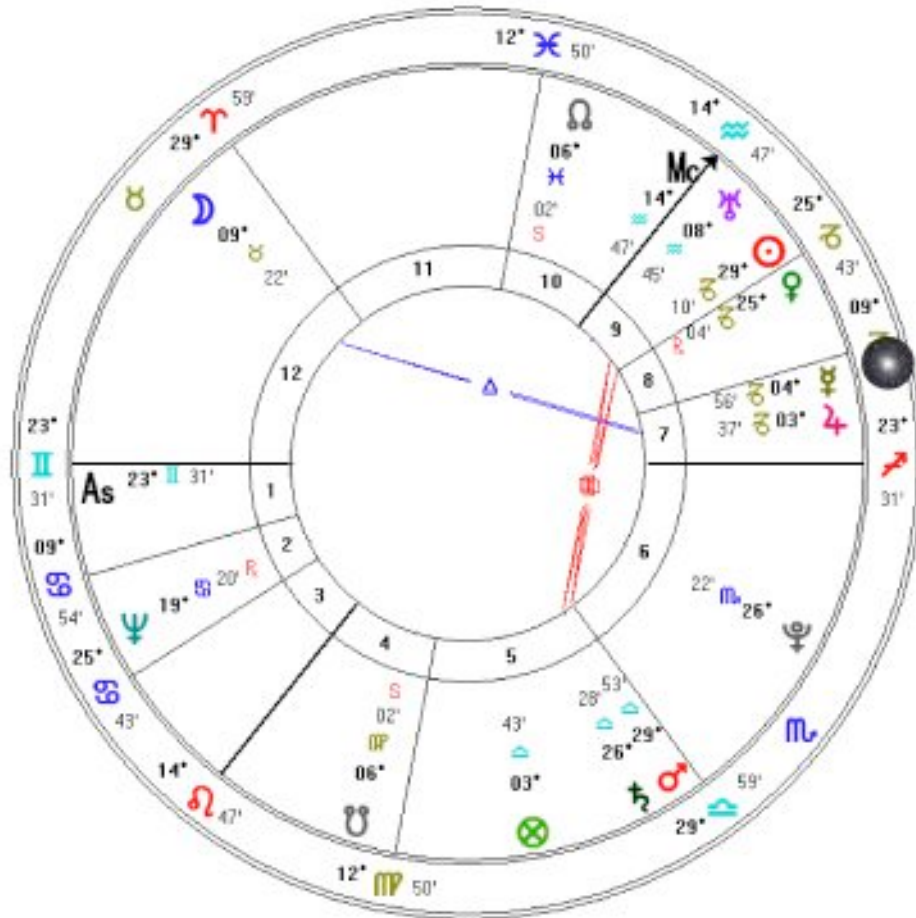
It was the German astronomer Johann Elert Bode (Hamburg, January 19, 1747 at 13.15) to calculate the orbit of the new planet discovered by Herschel and to suggest its current name, Uranus. Still remembered for the Titius-Bode Law that bears his name and for the discovery of the Bode galaxy (M81), he was director of the Berlin Observatory and author of a wonderful *Uranographia*, an illustrated celestial atlas. The Mercury/Jupiter/Facies conjunction in the 7th house, all of them observed by the Moon and with Mercury lord of the ascendant, shows the physical as well as intellectual effect of this placement: at a young age he was wounded with a penknife losing his right eye. Manilio *docet*: the Archer produces people with a single eye...



## Johann Elert Bode

### Male Chart

19 Jan 1747, gio  
13:15 LMT -0:39:56  
Hamburg, Germany  
53°N33' 009°E59'  
Geocentric  
Tropical  
Placidus  
True Node



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Johann Elert Bode – Facies: 4°46 Cap, PM 198°15. Mercury: 4°56 Cap, PM 204°34.  
(© P. Nava/ Solar Fire)

## Eugenio Garin

The fertile combination “bad eyesight / eagerness to see and understand everything anyway”, as well as a profound interest in the stars, past and present, is also found in the birth chart of Eugenio Garin (Rieti, May 9, 1909, 1.20 pm – the Moon with M22), a very authoritative scholar, historian and philosopher, deeply convinced of the importance of rigorous philological work. “The philosopher with bottle glasses”, as a poem by one of his students recites – thick lenses seem to be a necessary tool for many of those who have to deal with the nebula in front of the archer's eye – was one of the most brilliant and acute scholars of humanistic culture, and developed a long-lasting interest in Renaissance astrology. His essay *Lo zodiaco della vita. La polemica sull'astrologia dal trecento al cinquecento* (*Astrology in the Renaissance: The Zodiac of Life*) was published in 1976 and translated in several languages.

## Eugenio Garin

### Male Chart

9 May 1909, dom

13:20 CET -1:00

Rieti, IT

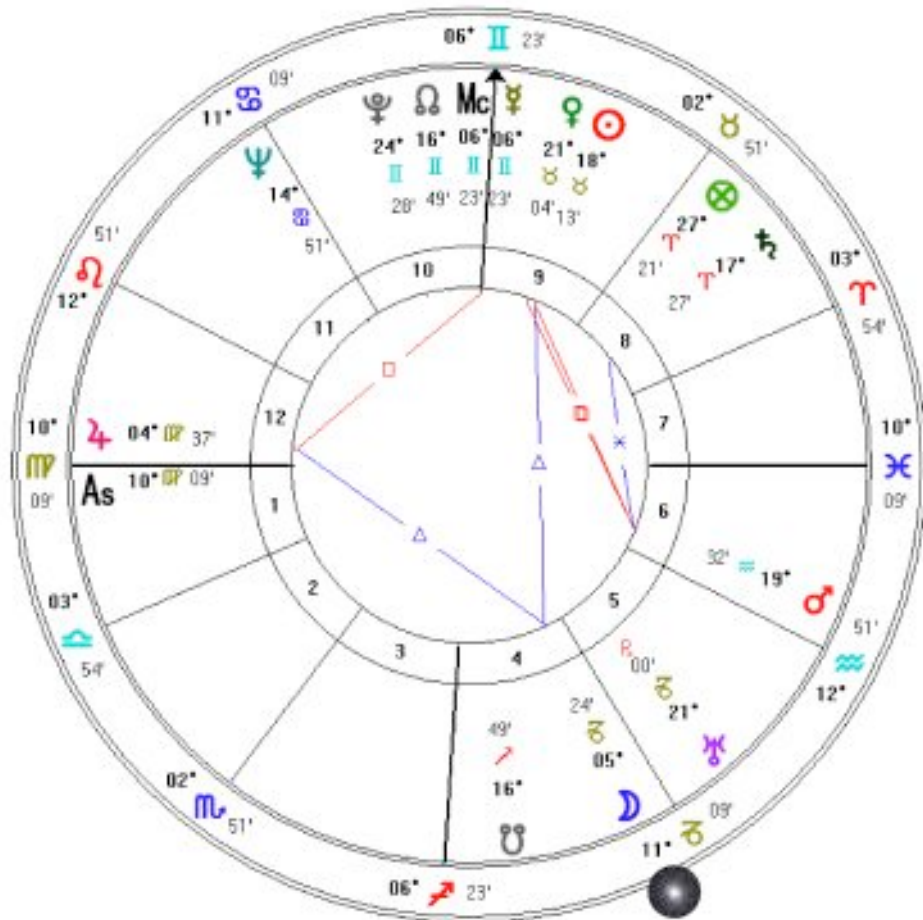
42°N24' 012°E51'

Geocentric

Tropical

Placidus

True Node



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Eugenio Garin – Facies: 7°02 Cap, PM 116°12. Moon: 5°24 Cap, PM 114°34.  
The apparent diameter of the nebula is 32'. (© P. Nava/ Solar Fire)

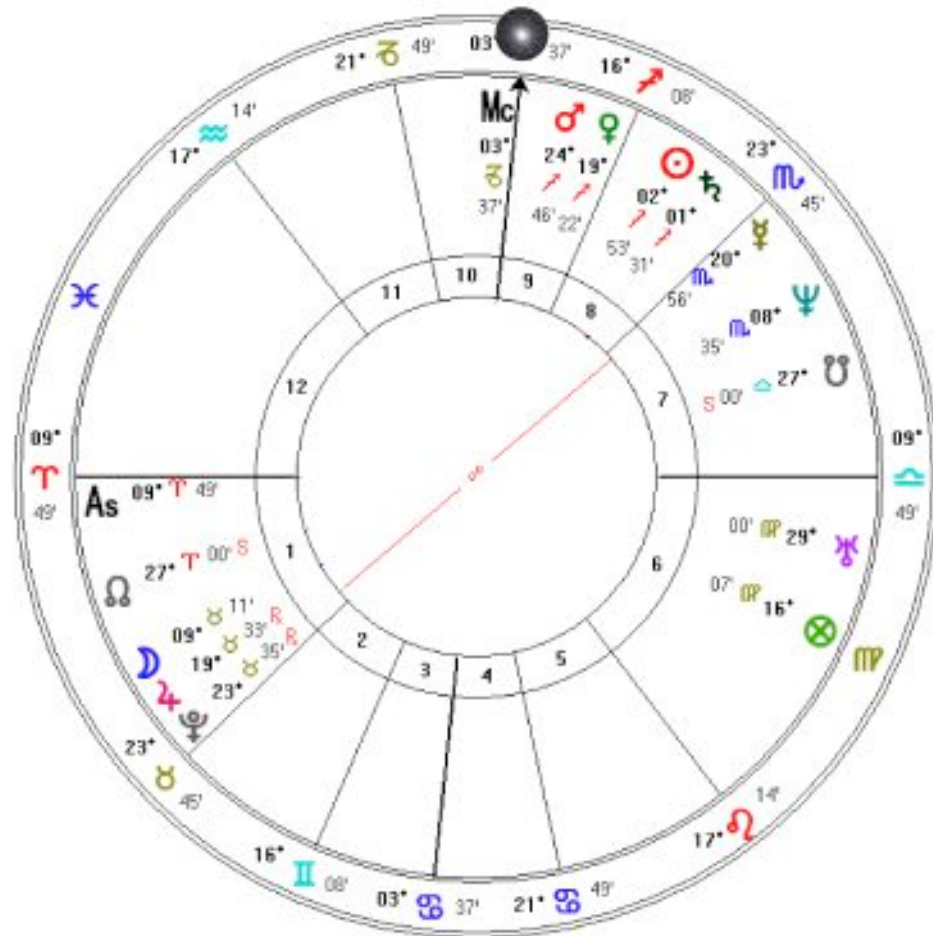
## Baruch Spinoza

The brilliant philosopher Baruch Spinoza is another example of difficult life and intellectual success of the first magnitude (Amsterdam, November 24, 1632 at 2.00 pm). Born to Jewish parents forced to convert to Christianity, he himself suffered the effects of racial, religious and academic intolerance (a typical effect of the difficult influence of Facies), which, above all because of his courageous philosophical positions, earned him the ban and excommunication on the part of the Jewish community, and later the indexing of his works by the Catholic Church. Of a shy, ascetic and independent character, reluctant to accept appointments and honours, which, in his opinion, would have limited the autonomy and absolute freedom of his intellectual research, he earned his living by grinding lenses for telescopes and microscopes. He was a friend and collaborator of the astronomer Christiaan Huygens, with whom he designed different types of optical instruments, including a 40-foot telescope. He lived in hotel rooms in the utmost simplicity and poverty. Suffering from chronic respiratory disorders, he died at the age of 44 for the aggravating effects of inhaled glass dust, due to carving optics. The lens of Facies culminates at the Midheaven in his chart.

## Baruch Spinoza

### Male Chart

24 Nov 1632, mer  
14:00 LMT -0:19:36  
Amsterdam, NETH  
52°N22' 004°E54'  
Geocentric  
Tropical  
Placidus  
True Node



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Baruch Spinoza – Facies: 3°10 Cap, PM 269°13. MC: 3°37 Cap, PM 270°00.  
(© P. Nava/ Solar Fire)

## Lepaute, Cannon, Leavitt and Payne

Several women pioneers of astronomy such as Nicole-Reine Lepaute (January 5, 1723, Paris – Facies with Mercury: the years of hard mathematical calculations made her almost blind), Annie Jump Cannon, deaf (December 11, 1863, Dover Delaware), Henrietta Swan Leavitt, variabilist and discoverer of the period-luminosity relationship of the Cepheids, deaf (July 4, 1868, Lancaster MA) have consistent placements, but the absence of a reliable birth time does not allow to accurately place the Moon, which in the last two cases is located in the first Face of tropical Capricorn. Cecilia Payne (May 10, 1900, Wendover UK), Professor Emeritus at Harvard University where she carried out fundamental studies on the correlation between spectral class and temperature of the stars, also discovering the chemical composition of the Sun, has Saturn in conjunction with M22.

## Edwin Hubble

Born in rural Missouri on the 20<sup>th</sup> of November 1889 at a quarter to midnight, after obtaining his doctoral degree he was selected to work at the Mount Wilson Observatory, the greatest astronomical venue in its day. «Hubble's drive, scientific ability, and communication skills enabled

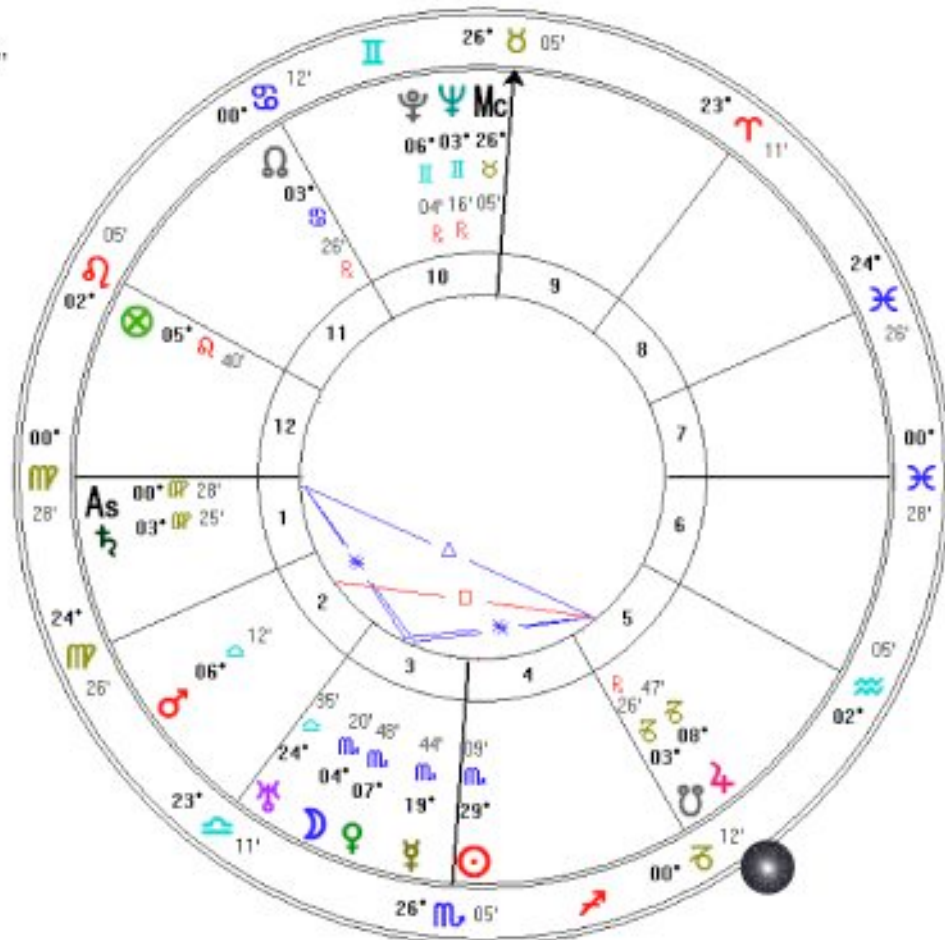


him to seize the problem of the whole universe, and become the recognized world expert of the field». <sup>17</sup> He discovered that many objects previously defined as *nebulae* were actually galaxies and classified them in the so-called *Hubble sequence*. He found a relationship between the distances of the galaxies and their radial velocity as determined from their redshifts (Hubble's Law), leading to the notion of the expansion of the universe. His noted arrogance and eloquence are both features frequently found in Facies people (so is his early death). In his chart, M22 is between the South Node and Jupiter in the fifth.

### Edwin Hubble

#### Male Chart

20 Nov 1889, mer  
 23:45 CST +6:00  
 Marshfield, Missouri  
 37°N20'19" 092°W54'25"  
 Geocentric  
 Tropical  
 Placidus  
 True Node



Edwin Hubble – Facies: 6°45 Cap, PM 125°44. Jupiter: 8°47 Cap, PM 127°46.  
 (© P. Nava/ Solar Fire)

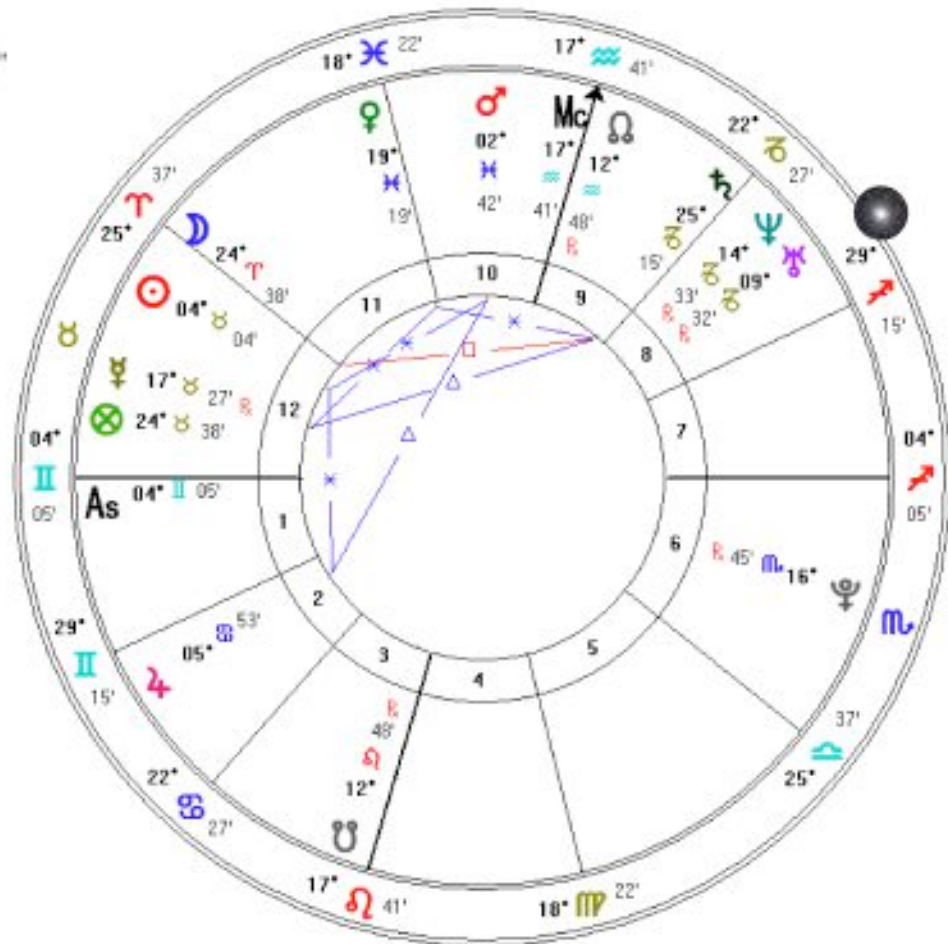
### The Hubble Space Telescope

But perhaps the most astonishing connection between the lens of Facies and the lenses of a telescope can be found in the chart for the launch of the Hubble Space Telescope, named after the famous cosmologist. Most of the wonderful astronomical pictures we can admire today were taken by this orbiting telescope, which was launched on the 24th of April 1990, at 08:33:51 from Cape Canaveral, Florida, and is still in operation. The chart shows Facies with Uranus and exactly conjunct Edwin Hubble's natal Jupiter.

## Hubble Space Telescope launch

### Event Chart

24 Apr 1990, mar  
 08:33:51 EDT +4:00  
 Cape Canaveral, Florida  
 28°N24'20" 080°W36'18"  
 Geocentric  
 Tropical  
 Placidus  
 True Node



HST launch – Facies: 8°10 Cap, PM 221°18. Uranus: 9°32 Cap, PM 223°14.  
 (© P. Nava/ Solar Fire)

## Enrico Fermi and Werner Heisenberg

To the numerous examples of astronomers and astrologers<sup>18</sup> we could add the explorers of the microscopic and of the infinitely small, those who penetrate matter with a curious gaze, scientists of nuclear and quantum physics such as Enrico Fermi (Jupiter and Saturn in the ninth with Facies) and Werner Heisenberg (Mars with Facies).<sup>19</sup> Their studies on nuclear energy that led to the creation of nuclear reactors and, unfortunately, to the production of the atomic bomb are also connected with the difficult nebula M22.

<sup>1</sup> From the poem *The Old Astronomer* by English poet Sarah Williams (1837 or 1841-1868). These lines have become the motto of the AAAP (Amateur Astronomers Association of Pittsburgh, Pennsylvania)

<sup>2</sup> William Lilly, *Christian Astrology*, ch. CXXVIII, p. 581: «It's commonly found true that any Native, having the lights so posited near or with these fixed Stars, shall not die before he suffer some defect, or hurt in his Eyes; and this blemish shall be inseparable if the Luminary who declares it is Angular.»

<sup>3</sup> From the Arabic *az-zamāna*, which means an incurable disease or defect or a chronic illness. Because of the precession of the equinoxes, those degrees do not correspond any more to the position of the fixed stars and nebulae that gave origin to the definition.

<sup>4</sup> *Averted vision* is a well-known observing technique for viewing faint objects making use of peripheral vision. The observer should not look directly at the object, but a little off to the side, allowing the peripheral portion of the retina,

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rich in rods, to detect even a very dim light, instead of using the central fovea, rich in cone cells, specialized in seeing only bright light and colours.

<sup>5</sup> The French astronomer Charles Messier (1730-1817) published his famous catalogue of 110 nebular objects in 1774. His aim was to help comet-hunters distinguish the nucleus of newly discovered comets from already known and catalogued diffuse objects.

<sup>6</sup> Neither M22 nor M13 are mentioned in Hodierna's *De admirandi coeli characteribus*, Palermo 1654, in spite of his being an experienced observer of nebulae. Nor, by the way, is M31 (the easily visible Galaxy of Andromeda) mentioned in Ptolemy's *Almagest*, an omission hard to account for.

<sup>7</sup> The so-called PM (Placidus Mundoscope) degree I make use of in this paper gives equivalent results.

<sup>8</sup> Bernadette Brady, *Brady's Book of Fixed Stars*, S. Weiser, York Beach 1998. See also: Anonymous of the Year 379 in *CCAG V/1* pp. 194-211.

<sup>9</sup> Al-Birunī, *The Book of Instruction in the Elements of the Art of Astrology*, edited by R. Ramsay Wright, Luzac & Co., London 1934, p. 272.

<sup>10</sup> Claudius Ptolemy, *Tetrabiblos or the Quadripartite Mathematical Treatise*, translated from the Greek paraphrase of Proclus by J.M. Ashmand, Davis and Dickson, London 1822, ch. 9.

<sup>11</sup> Giuseppe Bezza, *Le dimore celesti*, Xenia, Milano 1998, p.190. M22 does not appear in Ebertin-Hoffmann, *Fixed Stars and their interpretation*, 1971.

<sup>12</sup> Vivian Robson, *The Fixed Stars and Constellations in Astrology*, Astrology Classics 1923-2005, p.165.

<sup>13</sup> B. Brady, cit., p. 297.

<sup>14</sup> Diana K. Rosenberg, *Secrets of the Ancient Skies. Fixed Stars & Constellations in Natal and Mundane Astrology*, A.S. Press, New York 2012, vol.2, p. 441.

<sup>15</sup> D.K. Rosenberg, *ivi*, p. 442.

<sup>16</sup> PM = Placidus Mundoscope for the calculation of *in mundo* aspects.

<sup>17</sup> From a celebration speech for the centennial of Hubble's birth. Quoted by Marcia Bartusiak in *The Day we Found the Universe*, Vintage Books, New York 2010<sup>2</sup>, p. xvi.

<sup>18</sup> Other astronomers with interesting Facies conjunctions with planets or angles are also: Bart Jan Bok, Lawrence Hugh Aller, Friedrich Eberhard Becker, Eugene Cosserat, Johann Gottfried Galle (discovered Neptune), Jacobus Cornelius Kapteijn, Edmond Lescarbault, Percy Seymour (astrophysicist, ostracized because a supporter of astrology), Maximilian Wolf, Luis Zimmer. But a wide orb of 3° might include great astronomers/astrologers like Galileo Galilei (M22 with the North Node) and Johannes Kepler (M22 with Mercury). Astrologer Elsbeth Ebertin, who died of suffocation during a war bombing, had North Node partile Facies. Her son, cosmobiologist Reinhold Ebertin, had Jupiter with Facies.

<sup>19</sup> Enrico Fermi, Rome, September 29, 1901, at 7 pm. Werner Heisenberg, well known for the Uncertainty Principle that bears his name, born in Wurzburg in Germany on December 5, 1901, at 4.45 pm.