Faith in the Stars and Architecture: Astrology as an Interpretation of Religious Permanence and the Birth of Modernity

In 1912, Aby Warburg presented his interpretation of the frescoes at the Palazzo Schifanoia in Ferrara at the 10th International Congress of Art History in Rome. The decision to expound his theory in an academic setting was no coincidence: Warburg's work, and the subsequent studies of Fritz Saxl, sought to centre the attention of art history on the complex world of astrological studies. The history of astrology demonstrated—via iconological analysis—the migration of knowledge from East to West. Warburg's innovation was to superimpose the trauma of historical-artistic paths on this network. Through the Schifanoia frescoes, he could reflect upon how an international comparison with the surviving figurative concepts of Eastern Mediterranean civilisations had generated the stylistic transformation of the human figure in Italian art. Warburg defined astrology as ancient religion's most tenacious form of hidden survival. He traced a path of continuity through art and its relationship to the architectural space hosting it. Astrological illustrations not only enable us to reconstruct the warp and weft of religious permanence but serve as a tool to explain the procedures of iconographic change that led to the Renaissance. After the collapse of paganism, many astrological images survived into the Middle Ages as symbols associated with the essences appropriated by Christianity as its own. A complex store of astrological iconography that migrated from classical cultures and reappeared during the Renaissance's construction of a universal language. Some foretastes emerge in medieval buildings; after a long period in which Christianity and astrology were considered incompatible, astrological language completed and provided meaning to the architecture that welcomed it. Such is the case of the Palazzo della Ragione in Padua. This paper aims to retrace the most significant paths of this migration of symbols through the analysis of such examples of Renaissance architecture as Villa Farnesina in Rome and the aforementioned Palazzo Schifanoia. It will also reflect on the position and training of the architect during the Renaissance and on how astrology was considered both magical thought and a mathematical description that would lead to the discovery of infinity. It is notable that the Farnesina's astrological contents were dictated by Baldassarre Peruzzi, the building's architect.

Keywords: *Astrology, Architecture, Renaissance, Schifanoia Palace, Religion*

A Question of Methodology

The vast majority of reflections on astrological culture and its relationship to art derive from the studies—of indisputable interest even today—of art historians Abi Warburg (1886–1929) and Fritz Saxl (1890–1948). In the final decades of the 19th century, studies of the history of astrology aroused great

interest. They crafted a broad panorama of the topic of migration of knowledge, relying on objective tools such as philological evidence which permitted the drafting of guidelines and control elements for those interested in studying the stars. Ever since his study of Rembrandt and the artist's missed relationship with Italy, Saxl had focused his methodology on the centrality of stylistic facts. Yet he proposed a different path to their study. He studied stylistic change in a field immense in both geographical and chronological terms. Astrology represented, for him, a training ground for the enactment of the instrument of comparison.[1] Changes in representation sparred with thematic consistency. The mechanisms by which astrological images were selected, disseminated, and transformed had operated across a vast expanse of time, from antiquity to the Renaissance and beyond. It was almost impossible to draw stable boundaries between geographical areas for such processes. Yet astrological iconography had scarcely been studied. As Salvatore Settis points out, the timing and methods of knowledge transfer could, in part, be pieced together from the texts of science historians. Scholars of images thus faced an interesting task: the study of astrological iconography, that is, the appearance of constellations and planets over the centuries and in different geographical areas, and how the images populating the sky have transformed in comparison to those created by classical art. Astrology easily lent itself to this "style inquiry". One could adopt a method that maintained maximum consistency in theme and meaning, addressing such important and central themes of art history as the survival of antiquity and exchanges in the dynamics of influence between Italian and Nordic art (Settis 2016, 13).

The cultural encounter between Saxl and Warburg is based on a common methodological vision: the opening of the world of art history to disciplines never explored before. Settis efficiently summarises their operation as appropriating problems and instruments developed outside of art history, then approaching the universe of images, capturing the models and engines of artistic development, verifying their mechanisms through adherence to historical evidence, and using specific philological procedures (Settis 2016, 21).

The history of astrology that gradually emerged, thanks to Warburg and Saxl, allowed for the analysis and redrawing of the migration of knowledge and texts from East to West and vice-versa. It was possible to trace relationships of a genealogical nature among the various images of constellations and planets and create iconographic patterns from them. In his studies of the Schifanoia Palace frescoes, Warburg himself posited, "to what extent can the advent of the stylistic transformation of the human figure in Italian art be regarded as resulting from an international confrontation with the surviving figurative concepts of the pagan civilisations of the Eastern Mediterranean?" (Warburg, Arte e astrologia nel palazzo Schifanoia di Ferrara 2006, 268).

[1]On Saxl and his studies on images and astrological iconography, see his important essay on "Saturno e la malinconia" (Turin, 1983), written with Raymond Klibansky and Erwin Panofsky, and *La storia delle immagini* (Rome and Bari, 1965, 2ª ed 1982).

The grand contribution of these two authors to the world of art history, and to that of knowledge transfer, in general, was to employ astrological illustrations as a special path to the study of the transformation of style. Both helped enrich the landscape of the historical conditions in which the Renaissance bloomed, although (as Gombrich has noted) Saxl attributed a larger role in the transmission of the classical heritage to the Middle Ages (Gombrich 1970, 11).

When we analyse Saxl's path relative to form language as a special instrument for art history, we find that—despite distancing himself from the methodology—he always returned to it and compared it to other instruments. Carlo Ginzburg has noted this lack of distancing from form, raising a fundamental issue in the use of figurative evidence as a historical source: it provides a large quantity of first-hand information that can be interpreted without mediating with the mentality of an age (Ginzsburg 1966, 1016). He argues that approaching a historical problem with the tools offered by art history, as Saxl does—transitioning from a purely formalistic reading to consideration of the individual work of art as something complex that reacts to the historical events encompassing it—is only effective when the iconographic model is employed as one's main tool. Efforts to focus one's historical reading on style facts instead risk running aground. He further observes that to lend concreteness and historical truth to conclusions drawn from stylistic analysis, Saxl resorted to parallel, textual documentation (captions, handwritten notes) (Ginzsburg 1966, 1037).

Ginzburg appears to suggest that iconographic inquiry and the analysis of style seem to somehow diverge, as text, rather than images, found and provide truth to historical interpretation. This thought effectively emphasises the risks of a historicised reading of style as reflecting artistic development, and in general, the historical situation. As Settis argues, iconographic data—unlike stylised facts—are the product of unambiguous mediation between a given cultural, political, and religious environment and the work of art (Settis 2016, 35).

If images are to be used as a historical source, it is crucial to associate the work of art with other historical documents of the same period. Rather than a relationship of equivalence between artistic objects and historical context, this implies mutual support and integration, Settis argues (Settis 2016, 36). Saxl's stance on the study of astrological iconographic sources is to not consider the history of form as completely autonomous, with the chronology of artwork springing from the works themselves. Rather, the aspiration of art history to be a historical science must be supported, on the one hand, by the sequence of events, and on the other, by the power of documentation (Saxl, Le ragioni della storia dell'arte 2005, 251).

Naming the Skies

To orient ourselves amidst the complexity of the migration of knowledge, a sequential line should somehow be drawn so that we can understand the process that led a large share of Eastern culture to influence Western culture in iconographic terms during the Middle Ages and up to the Renaissance.

The synthetic framework that served as a map for Saxl was drawn, in part, by Boll, who argued that the cradle of astrology and astronomy (the two were indistinguishable, initially) was Babylon, with possible intrusions by the Sumerians and Egyptians (Boll, Bezold e Gundel 1987).[2]

Several phases in this process can be distinguished, without however necessarily constituting a timeline. The first was the observation of the skies, which led to the identification of stars and groups of stars. This recognition led to the tendency to catalogue, group, and describe.

The second phase was the naming of stars and constellations. At some point, the names began to be drawn from the gods and heroes of mythology. A true process of mythologising the skies was thus activated. Finally, the last stage—perhaps the most interesting for our treatise—is the doctrine of the influence of the stars over earthly events. As Settis states, once the stars and constellations received mythological names, all the properties and characteristics of the Greek gods and myths about them were transmitted to the star and lent themselves to the task of interpreting every constellation in which that planet figured (Settis 2016, 23). The influence of the star and the influence of that god became the same thing: as if the Name had taken on a power of its own (Boll, Bezold e Gundel, 67).

According to Boll, the first stage of observing and describing the sky is an element of classical Greek culture, derived in part from Babylon and Egypt. The mythologisation of the sky corresponds to the end of the sixth century. The doctrine of influence that forms the basis of astrology corresponds to Greece's Hellenic period.

Astronomical knowledge, on the other hand, was assimilated early on by the Greeks: Thales of Miletus and the astronomical notions possessed by the Ionian Greeks come to mind. Astronomical studies allowed for careful observation of the sky, which contributed to the understanding of cycles and the movement of the stars.[3]

His complex and rich series of contributions will not be explored here. Nonetheless, he dominated the Greek view of astronomy up to the time of Ptolemy and the publication of the latter's masterful work, known by the

[2]The fundamental text for understanding Boll's research path is *Storia dell'astrologia* by Boll, Bezold and Gundel.

[3]With the *Phaenomena* of Eudoxus of Cnidus, written arout 370-360 BC, the Greeks had a complete description of the celestial sphere, with the position of the stars and constellations and the recognition of every single star that made up the constellations. Eudoxus' model was not immobile, but an armillary sphere with rings. Each ring corresponded to the rotation of the sky. The model was both geometrical and kinematic. Eudoxus enriched his model with homocentric sphere theory, which served to explain the motion of planets.

Arabic title *Almagest.* The following centuries evinced only commentary on the fundamental *Syntaxis* (Settis 2016, 24).

Astrology instead owes its development not to astronomers but to a poet, Aratus of Soli. His 275 BC poem *Phenomena* explored the sphere of Eudoxus. With the appearance of this astrology-focused narrative, the science of astronomy was definitively spliced. As Repellini points out, through works like that of Aratus Hellenistic citizens developed a view of contemporary astronomy as divided into an uncontroversial half, within reach because based on observable phenomena; and another, more esoteric half, founded on nonphenomenal entities (Repellini 1985, 126).

This method of popularising astronomical knowledge represented, on the one hand, a strong demand for astronomical knowledge; yet on the other, a definite divorce of mathematical and specialised astronomy from the public.

Aratus' publication was immensely successful, despite numerous astronomical inaccuracies openly criticised by Hipparchus. His extraordinary popularity in ancient times was certainly not due to engaging writing. Literary critics viewed the poem as rather arduous and boring. It was probably due to the subject matter, which was not discussed using specialist language but was readily available through the mnemonic power of verse. His skies were also "mythologised", the constellations named for Cassiopeia, Perseus, and Andromeda, for ease and recognisability. For the easiest way to recognise constellations is to view them as drawings composed of imaginary lines (Settis 2016, 24-25). A simple drawing of stars is associated with such a powerful preexisting iconographic system as to influence and determine how stars are drawn.

In the 8th century, Ptolemy's texts were rediscovered in Byzantium and commented on until the fall of the empire (Boll, Bezold e Gundel, 45). In Byzantine culture, they encountered the already-consolidated interest of Arab astrologers in the themes of star reading and naming. Up to that point, Arabic astrology had been based on Greek works in translation. The doctrine of planetary conjunctions took shape with the Arabs. The translated Greek texts also spread to Persia and India.[4]

Astrology found its place in Western Europe when it returned through the Arabs, especially in the courts of Spain and Sicily. Frederick II's well-known astrologer, Michele Scroto, will be discussed later on. Although Christianity attempted to deny mythological astrology due to its link with paganism, it was later forced to open up to mythological knowledge. Thanks to the Arabs, the latter entailed a set of astronomical scientific notions that were difficult to refute, especially with the empirical cultural instruments at the Church's disposal. Settis writes: "The *philosophorum deliramenta* were meant to be rejected to the extent that they presumed to replace the Christian God or man's free will. But if the natural laws governing the motion of planets and stars and their influence on the sublunary sphere could be drawn from the observation

[4]Justinian's closure of the Athens school (529) drove many Greek scholars to emigrate to the court of Khosrow (531–579). The texts were translated first into Middle Persian, then Arabic, and thus returned to Greece and the West.

and description of the skies, weren't these laws no less manifestations of God's will?" (Settis 2016, 29).

Arabic mediation, therefore, represented not merely a vehicle of transfer, but a form of legitimacy.[5]

We are Children of the Stars

There is an illustration in a 15th-century Greek manuscript—the Greek Parisian 2419—which we know to be copied from an earlier Syriac manuscript. The illustration depicts the figure of a man enclosed in a circle and surrounded by zodiac signs. The signs are divided into male signs on one side and female on the other. Each emits a ray directed towards the corresponding limb of the body (See Figure 1).

The medieval and Renaissance illustrations which depict man as the mirror of the universe are rooted in late antiquity. Although the evidence is not indisputable, careful analysis of the man at the centre of the image reveals a club and fabric draped on his arm. This suggests a correspondence with depictions of Hercules, for example, who is almost always shown with a club and lion skin. Like the Persian Mithra, he was venerated as a cosmic divinity (Saxl, Macrocosm and Microcosm in Mediaeval Pictures 1957).

If we go back to cosmological myths of Iranian origin—as Saxl explains in detail—we find the narrative of the creation of the first man, "Mortal Life, which was created in the likeness of the universe: he shone like the Sun, his width was equal to his height, the sky was his skin, the Earth his flesh, the mountains his bones, the rivers his veins. The seawater was his blood, the ocean his stomach, the plants his hair, and minerals were his bone marrow. This idea of the microcosm is also found in ancient India and other cultures, and transmigrated into late antiquity. We know that in Hellenistic times, the myth of the first man was translated into astrological language, assuming that the body of mortal man was made in the likeness of the first man: the signs of the zodiac formed his trunk and limbs, the fixed stars his teeth, the heavenly wind his nose, the seven planets the seven openings of his head. This step allows us to make a leap. That is, what was initially only a metaphor became definitively associated with the human condition and destiny (Saxl 2016, 47).

[5]For a better understanding of the dynamics of transmigration of astrological knowledge, see the frameworks proposed by Gundel and Gundel at the end of their *Astrolumena*, Wiesbaden, 1985, p. 383.

Figure 1. *Hercules as ruler of the world and the correspondence between his limbs and the zodiac signs [caption from KBW], ms. gr. 2419, XV cent., fol. 1r, Paris, Bibliothèque Nazionale*
Source: http://www.engramma.it/eOS/index.php?id_articolo=2133.

There is yet another leap to be made: the association of this iconographic model with Catholic faith and culture. Without delving too far into a complex list of examples demonstrating the Church's absorption of late antique cosmological and astrological culture, one image is sufficient: the microcosm contained in the Lucca manuscript of Hildegard's *Liber divinorum operum*. In this illustration, man is at the centre of the celestial spheres. His arms are open and his head and feet touch the innermost circle. The human figure's height corresponds to its width, even as the height of the firmament coincides with its width. The winds surround the man, and the rays of the seven planets touch his head and feet. God appears on high, embracing the universe of which the man-microcosm is the centre (Saxl 2016, 52).

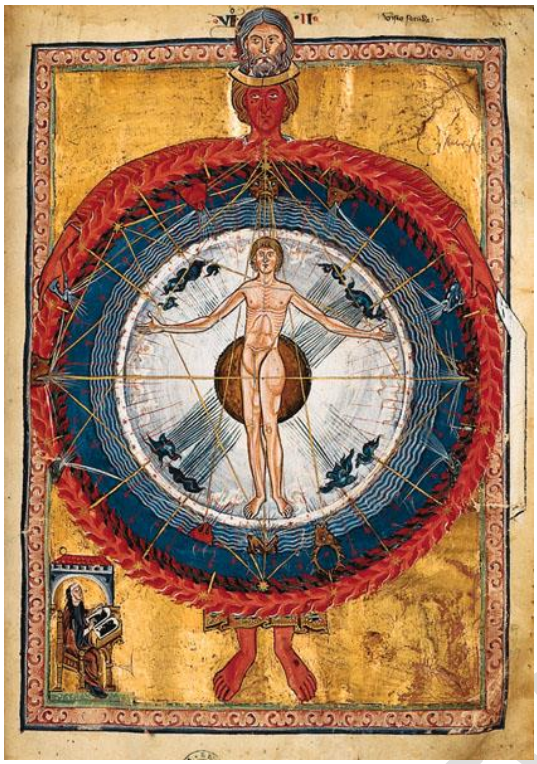

Figure 2. *Hildegarda di Bingen, Liber divinorum operum, beginning XIII cent., Lucca, Biblioteca Governativa, ms.1942, fol. 9*
Source: http://www.engramma.it/eOS/index.php?id_articolo=2133

In reality, Hildegard's use of these cosmological images did not reflect the dynamism of ancient doctrines. For her, they were simple symbols representing the universe's influences on man. They were useful illustrations to teach ethics and Christian doctrine by which she framed her life (Cristiani e Pereira 2003).[6]

Such use of the symbols was fairly common throughout the 12th century, save in Spain, where the Arabic influence assigned another type of use and value to these images. Arabic and Jewish translators were active in Spain and Southern Italy, spreading the cosmological theories of late antiquity but above all—and this was their novelty—the practices associated with them. The dynamic and divinatory character of Hellenistic cosmology determined its use. Pagan doctrines, on the one hand, and doctrines drawn from the biblical account of creation, on the other, developed and coexisted during the late Middle Ages (Centanni e Bergamo 2016).

Aby Warburg discovered a 14th-century manuscript that illustrated concepts quite similar to those exhibited in Hildegard's book. He argued that the manuscript probably derived from a copy produced during the time of King Alfonso the Wise, a recognised expert in astrology (Warburg 2016, 343). Its

[6]For more on Hildegard's book, see the following Cristiani, Pereira 2003 bibliography: Cristiani Marta, Pereira Michela (ed.), *Il libro delle opere divine di Ildegarda di Bingen*, with an introductory essay by Marta Cristiani; translation by Michela Pereira, Milan 2003.

pages depict scenes of human life, organised in circles, and a system of sectors influenced by the cosmos.[7]

The final stage of this complex and rich journey takes us to the beginning of the emergence of what we know as modern thought.

In one depiction of the microcosm from the beginning of the 15th century, the figure of an atypical man appears: imprisoned in a web, as Saxl describes it, of motion determined by the stars. If we compare this image with the figurations of man often found during the Renaissance, we discover how new and revolutionary the conception of man in modern times is: no longer a passive victim of cosmic forces, he struggles. As Pico of Mirandola argued, man is the most elect of creatures. Nothing on earth equals his mind and soul, and he can rise above the heavens (Della Mirandola 1946, 416).

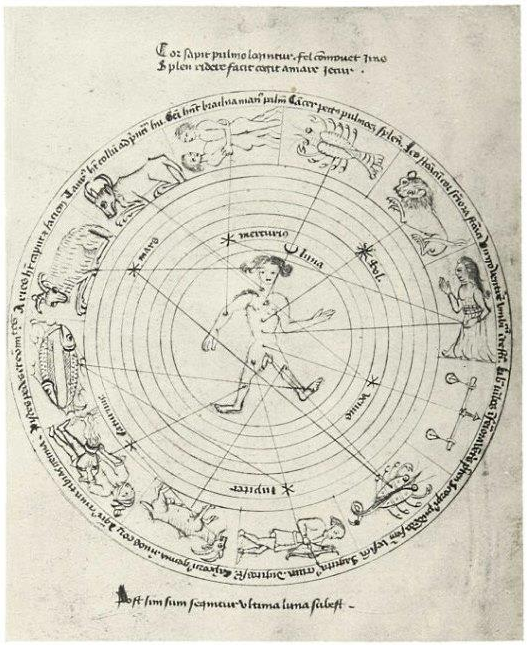

Figure 3. *Microcosm. Paris, Bibliothèque nationale, ms lat. 11229, fol. 45r (XV cent.)*
Source: https://www.gutenberg.org/files/46572/46572-h/46572-h.htm

Interest in Predicting the Future: Permanence and Transformations

Scholars of the cultural dynamics of medieval and Renaissance civilisation are well aware that knowledge of astrology is indispensable for understanding both its iconography and the cultural practices of society. There was no difference between astronomy and astrology during these two eras. Knowledge welcomed astrology as an indispensable tool. The study of stars was not

[7]Miniature from a 14th-century Spanish manuscript of the *Picatrix*, the Moon straddling a hare. The 28 sectors identify the 28 stations of the moon. In each station, the professions astrologically connected to it [caption from KBW], 'paranatellonta' (stars that rise together) of the moon, Rome, Vatican Library, Cod. Vat. Reg. lat. 1283, fol. 23v.

conducted as an abstract science, but with a practical purpose, namely the prediction of the future (Saxl 2016, 163).

As is easily intuited, astrology played an important role at the end of classical antiquity. Its importance was such that several Olympian gods were replaced by astral figures. For example, Saturn and Venus no longer appeared as gods of the Periclean age, but in the guise of demons. In its attempt to eradicate astrology, Christianity was forced to embark on a difficult battle, in some cases reaching hard-fought compromises. The figure of Christ eventually dethroned the planets. In the end—save for the days of the week, which in the early Middle Ages still retained their planetary names—astrology was definitively eradicated and disappeared.

We also owe the possibility of seeing the position of each star on celestial maps to Ptolemy's tables.

In addition to Ptolemy's astronomical work, an astrological treatise known as the *Tetrabiblos* gained ground. Although the 19th century's contempt for astrology caused it to be forgotten, scholar Franz Boll reassessed the work. Franz Boll's studies of Claudius Ptolemy paved the way for critical editions of the *Tetrabiblos* and the pseudepigraph *Karpòs*. Boll collected important pages in the *Spaera* and in the *Catalogus codicum astrologicorum graecorum*, published by Franz Cumont. A path opened that was the product of classical philology, the history of religion, and historical investigations that gathered momentum thanks to the availability of texts on ancient astrology and its implications for philosophical concepts, religious beliefs, and the daily life of man (Faracovi O. 2000).

The early Middle Ages drew knowledge from such late Latin writers as Pliny, Macrobius, and Isidore. Medieval translations made it possible to study the original Greek sources. This rediscovery provoked a change in how intellectuals approached the problem of God, nature, and morals (Saxl 2016, 163).

In 1910, almost on the eve of the Great War, a large number of periodicals devoted to astrology began to appear and many remarkable books were published. This awakening of interest in astrology, and in particular in its predictive facet, was rooted in an ancestral desire to feel oneself a part of the cosmos, on the one hand, and the need to control, predict, and prevent the dangers of chaos and war, on the other.

Pagan astrology gained ascendency in the 12th century in part for the same reason. In this era, disquiet over such events as the Crusades, for example, must have fed into deep dissatisfaction with the Christian religion, no longer able to completely satisfy the spiritual needs of man. A breach opened for the revival of paganism.

Two channels enabled the rebirth of astrology in the 12th century: diffusion through English academics travelling to Spain and a reawakening in Southern Italy. [8] Yet the interest of the English was limited to nonfigurative domains. They created an imaginative and speculative form of astrology rather

[8]For those who study the history of cosmological phenomena, England is a special field, as the evolution of thought there has been less conditioned by outside influences.

than images of the planetary divinities.[9] In Southern Italy, by contrast, the astrological revival resulted in the rediscovery of pictorial depictions of the ancient gods and their myths. The planetary divinities of the era bore little resemblance to their classical counterparts: tradition had been interrupted, and the images of the gods were reinvented based on textual descriptions (Saxl 2016, 165).

To better understand this passage, consider the depictions of Saturn sitting and then falling, illustrating the planet's rising and setting. The most interesting feature is how the planet's representation is modelled after human life and nature because the demon could thus influence the fate of ordinary mortals. Saturn is a man who oversees time and the wheel of fortune's rising or sinking into the abyss, depending on the vagaries of fate.

The wide reach and familiarity of these beings contributed to their survival in Christian culture. Various aspects of society were associated with figures of pagan derivation. The person responsible for this adaptation was Michael Scot, who lived from the end of the 1100s to around 1236. He was Scottish and came to the court of the Swabian Emperor Frederick II as an astrologer. His popularity at court was undisputed because he was able to invent new types adapted to everyday life. As Saxl describes, Mars and Venus are the warrior and the beautiful maiden, Saturn appears as a half farmer, half warrior, Jupiter is a high judge, and Mercury is portrayed as a bishop (see Figures 4-5).[10]

[9]Saxl reports an episode that explains the attitude of the English towards the astrology of Southern Italy and Spain. In 1158 and 1159, Abrāhām ibn 'Ezrā, one of the most renowned Spanish astrologists, visited London and announced that a global catastrophe would strike in the year 1186. Spanish and Italian astrologists had predicted the catastrophe long before, based on the rare conjunction of many planets in a single sign. At the time, London enjoyed much stronger ties to Toledo compared to today, so it is no wonder that such a prediction provoked a wave of terror. The bishop of Canterbury himself ordered a three-day fast to invoke the grace of God and mitigate the catastrophe predicted by Italian and Spanish astrologers for the year 1186 (Saxl 2016, 180).

[10]Mercury represents culture because in late antiquity, Hermes was called Trismegistus. He was believed to be the author of a collection of mystical religious writings. Hermes was also identified with Thoth, the Egyptian god of wisdom. It was precisely this half-barbarian, half-Greek god-- not the Roman version-- who was revived. So it was that bishops and ecclesiastics were placed under his jurisdiction (Saxl, La Fede negli astri. Dall'antichitá al Rinascimento 2016, 165).

Figure 4. *Saturn, Jupiter, Venus, Mercury, Michael Scot, Ordo Stellarum fixarum, Vienna, National Bibliothek, ms lat. 2352, fol. 27 r (Saturn)m 27 v (Jupiter), 28 v (Venus and Mercury) (ca. 1392-93)*

Figure 5. *Saturn, Jupiter, Venus, Mars, Michael Scot, Introductorium magnum. Munich, Bayerische Staatsbibliotheck, Clm 10268, fol 85 r (ca. 1340)*

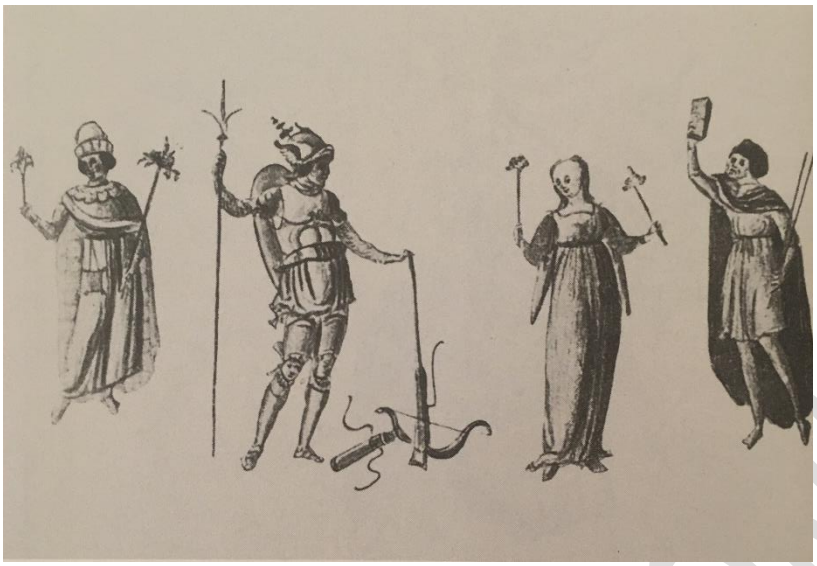

Figure 6. *The planets Jupiter, Mars, Venus, and Mercury. Michael Scot, De XLVIII imaginibus zodiaci, Vienna, National – Bibliothek, ms lat. 3394, fol. 235 r (Jupiter and Mars), 235 v (Venus and Mercury). (ca. 1480)*
Source: *(Saxl 2016, fig. 42)*

As Saxl points out, it is not difficult to recognise, in these entirely new figurative schemes, the Babylonian astral divinities: Nergal (Ninib), the fearsome god of war; Marduk, the judge and lord of fates; Ištar, the goddess of joy; Nabū, the god of scribes.

This Babylonian derivation clarifies the iconography of some medieval depictions. For example, the figure of the Sun on the bell tower of Florence's cathedral, represented as a king holding a sceptre in his left hand and the solar disk in his right. This image corresponds to the Babylonian Šamaš, known as the king of the gods. The process of "Christianisation" of ancient figures also appears more comprehensible. In Padua's Great Hall, for example, the sun is depicted with the imperial crown; in the Chapel of the Eremitani in the same city, he appears in the guise of the pope, king of the Church. Mercury, who in Viennese 3394 appears as a man holding a book (see Figure 6), becomes a bishop with a book in the Munich Latin manuscript (see Figure 4). Even Jupiter (descended from Prince Marduk), for example, undergoes a substantial transformation in Viennese 2352 and in the Munich Latin manuscripts 10268. Mercury is Nabū the scribe, the erudite, who becomes a bishop. As "scribe", Nabū is depicted in Florence's Spanish Chapel; as a teacher on Giotto's bell tower and in the frescoes of the Eremitani choir in Padua; as a learned man before his book on the column capital of the planets at the Doge's Palace in Venice; and next to his lectern, on which a globe stands, in the Great Hall of Padua (Nabū was the patron of astronomy) (Saxl 2016, 140-141).

As we continue to draft a very hypothetical reconstruction of the geographical influences on astrological iconography, we find that in the Hellenistic age—from the time of Alexander—Greek culture and religion become widespread in the East. Eastern beliefs also arrived in the West,

melding with Greek ones. Astronomy, or stargazing, was not of great interest to Greek thought, as the Babylonians and Egyptians had already undertaken the study of celestial and natural phenomena for centuries, with great results. This lack of interest meant that for a short time, astronomy could advance in the absence of religious implications. After Alexander the Great, Eastern culture permeated the Greek world, forcing Hellenistic scientists to review their reflections. Figures referencing the stars, with other names and figures, appeared alongside such mythological names and figures as Hercules, Perseus, and Andromeda. This is one reason why a second, "barbarian" sphere, the so-called *Sphaera Barbarica*, appeared next to the Greek one at some point in late antiquity. It associated names taken from Babylonian and Egyptian astronomical culture with the constellations.[11]

In the face of this multitude of names—a mixture of Greek, Babylonian, and Egyptian references—astronomers imposed order, dividing the celestial sphere into 360 sections, one for each day of the year. The stars included in a section came to govern the specific corresponding day. This mechanism of astrological attribution distanced the simple observation of the sky. Interest in the astronomical hieroglyphics of destiny appeared in its place (Warburg 2006, 253).

The *Sphaera Barbarica* was translated into Latin for the first time in Southern Italy when Michael Scot was at the court of Frederick II. It was, however, translated not from Greek but from an Arabic version of the text, written at the beginning of the Arabic domination. Its diffusion and success were proven by the large number of illuminated manuscripts drawn from this model. Each page of the *Sphaera* was generally divided into three rows of figures: at the top, the constellations of a section of the sky as passed down in Indian doctrine; at the middle, those of the Persians; at the bottom, the Greek ones.[12]

Abū Ma' šar (d.886) made the first attempt to wed the Persian and Indian spheres with the Greco-Roman one. But no illustrated manuscripts of his text exist. The illustrations of *Sphaera Barbarica* date back to the rebirth of

[11]As Boll notes, in late antiquity Greek astronomy was enriched with constellations known to barbarian peoples, with no connection to the classical sphere. Depictions of an Egyptian *sphaera*, containing both Greek and Egyptian constellations, date back to the Hellenistic era. But there is no evidence of the existence of both Eastern and Western manuscripts containing illustrations of Teucer's work, the most important one in this field. It is, however, very likely that other illustrated manuscripts about this sphere once existed. See, on this subject, F. Boll, *Sphaera*, University of Michigan Library (January 1, 1903).

[12]As Saxl points out, in truth this division was not so sharp, as all three rows were based on the Greek system and most divinities and constellations were of Greek origin. Medieval scholars took them at face value, unable to imagine what modern scholars would hypothesise and demonstrate: that the medieval West received from India-- through the Arabs-- its own patrimony of astrological beliefs which, having emigrated to the East for some time, returned with an Eastern veneer, clearly adorned with several elements embraced during the eastern voyage (Saxl, La Fede negli astri. Dall'antichitá al Rinascimento 2016, 168).

astrology during the Middle Ages. The most important is the British Museum's Sloane 3983.[13]

The text was made accessible through several Latin translations. It became so influential that Alfonso the Wise and King Wenceslaus of Bohemia enriched it with illustrations in the 12th century. At the end of the 1400s, Duke Borso d'Este (1413–1471) had the court calendar illustrated according to the Indian decans of Abū Ma' šar. (Warburg 2006, 265) A careful analysis of Sloane 3983 reveals that the illustrator contemporised the figures in keeping with the customs of the era, and these figurations became canonical. Directed at a narrow and very learned audience with an interest in reconstructing the Greek-Eastern patrimony, this manuscript of the *Sphaera Barbarica* never became popular. The illustrations recall Michael Scot, but it is important to understand that the illustrations of Abū Ma šar are not based on Eastern models. His constellations and planets have a Western character. There is, however, one aspect that leads Saxl to argue that some of the depictions of specific planets are Eastern in origin. (Saxl 2016, 171)It would otherwise be impossible to explain why, in the 1400s, we find Mars represented with a severed head, Venus with a lute, or Jupiter and the Sun seated on the ground in an oriental fashion. The same zodiac signs appear to derive from an Arabic model, that of Andaló di Negro (Hauvette 1914), an astronomer who transferred to the court of King Robert of Anjou at Naples (Thorndike 1934, 191).[14]

Figure 7. *Albumazar*, Treatise on astrology, *Sloane MS 3983, c. 1350-75*
Source: https://www.bl.uk/collection-items/instruments-including-a-harp-viola-lute-and-hurdy-gurdy-from-albumazars-treatise-on-astrology

[13]The Western depictions of these constellations can be divided into three types: the Vatican Library's Latin Reginense 1283, in which the three spheres are concentric with the Indian one outermost, the Babylonian one in the middle, and the Ptolemaic innermost; the Latin Munich 826 from the fund of King Wenceslaus, wherein each 10-year period is depicted in a small panel; and the final one, which the London manuscript belongs to.

[14](Hauvette 1914)

If we return to Spain, with a manuscript that in all likelihood originated in the circle of King Alfonso X of Castile, known as "the Wise", we find a diagram in which the figure of a scorpion (or bull) appears in the centre, surrounded by a series of 30 different images – animals, men, and women. Each zodiac sign encloses a 30-degree portion of the ecliptic, corresponding in turn to a one-month interval. The entire zodiac chart covers an arc of 360 degrees and comprises 12 signs. As each degree represents one day in the sun's path, astrologists had to associate each degree with a star in order to predict—from each day's constellation—the nature of those born on that day. They created a purely fantastical sphere. This is the reason why only a few figures seem familiar to us. Astrology lost touch with astronomical observation (Saxl 2016, 165).

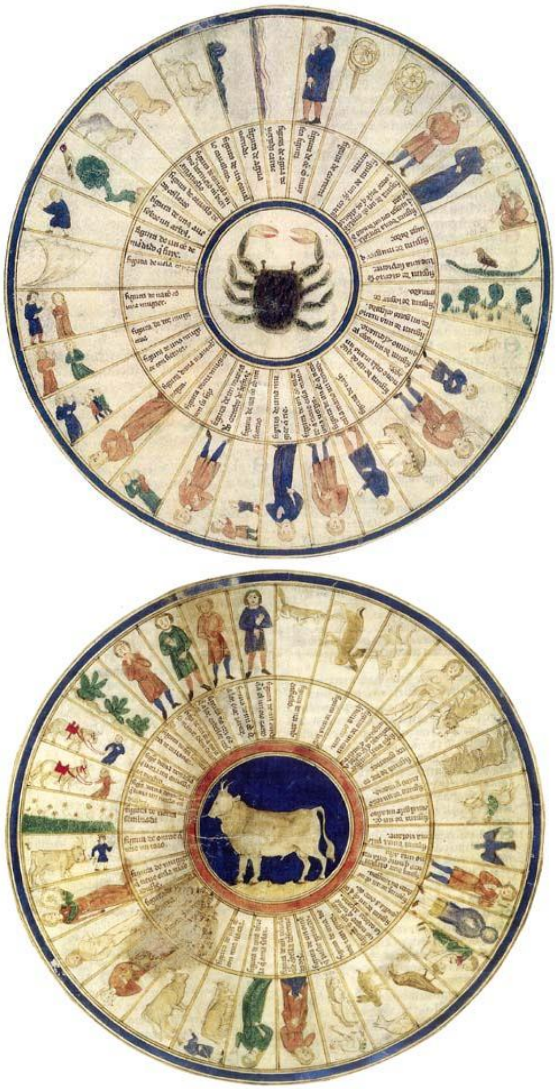

Figure 8. *The signs of Cancer and Taurus, surrounded by the 30 daily "faces",* Libro de astromagia. *Biblioteca Vaticana, ms Regin. Lat. 1283 (XIV cent., first half)*
Source: https://www.cervantesvirtual.com/obra-visor/imagenes-magicas-la-obra-astromagica-de-alfonso-x-y-su-fortuna-en-la-europa-bajomedieval/html/e12ecb23-b8d4-46c0-a2a0-ca9a692b991a_18.html

An Astrological Cycle of the Late Middle Ages: The Palazzo Della Ragione in Padua

Figure 9. *Great Hall of the Palazzo della Ragione, Padua*

Of interest to the narrative construction of this text is the existence of miniatures, conceived for a 14th-century (or at the earliest, 13th-century) manuscript, that lie outside the illustrated manuscripts of the late antique era. The illustrations of the *Decem continens tractatus astronomie,* by Guido Bonatti (13th century),[15] represent scenes of everyday life in Italy at the time: a sick person in bed, a marriage contract, a sick person before the city gates. There is no apparent relationship to astrology, nor do they represent constellations and planets. What they do represent, for the first time, is a sort of textbook containing the answers that the cosmos can provide to everyday problems. (see Figure 9)

The most elaborate cycle of astrological depictions known to us, in Padua's Palazzo della Ragione, also dates to the 14th century. It consists of more than 300 figures that unequivocally present iconographic concordances with several figures in Bonatti's manuscript. The figures of the frescoes are divided into three bands. The contents of the second and third rows have been

[15]Bonatti was an Italian mathematician, astronomer, and the most celebrated astrologer of the 13th century. He served as advisor to Frederick II, Holy Roman Emperor, Ezzelino da Romano III, Guido Novello da Polenta, and Guido I da Montefeltro. He was a 13-century scientist and physician at the court of Frederick II.

extensively studied and explained[16] (Barzon 1924). They depict, in order, apostles, zodiac signs, and images of the respective months, planets, and children of the planets. (see Figure 10)

What remained to be interpreted were the figures of the upper row. Burges (Burges 1858) tried to explain the links between the depictions of the Salon and the images contained in a singular book of astrology, the *Astrolabium planum*, attributed to Pietro d'Abano (1250-1315).[17] Yet neither Burges nor Barzon systematically examined the correspondence between the upper-row figures and those of Peter of Abano: a failure that Saxl tried to remedy in his publication (Saxl 2016, 281).

Figure 10. *Great Hall of Reason in Padua, side wall*

[16]See also A. Barzon, *I cieli e la loro influenza negli affreschi del Salone in Padova*, Padua 1924, which contains reproductions of all the hall's frescoes. Among the older books dedicated to the hall is the collective publication *Il Palazzo della Ragione di Padova* (Venice, 1964) with texts by L. Grossato, *La decorazione pittorica del Salone* (p. 45–67), and N. Ivanoff, *Il problema iconologico degli affreschi* (p. 69-84).

[17]Pietro d'Abano was an Italian philosopher, physician, and astrologer. He was a professor of medicine, philosophy and astrology at the University of Paris and, from 1306, at the University of Padua; moreover, he is considered the first proponent of Padua's Aristotelianism.

Figure 11. *ANGELUS (JOHANNES), Astrolabium planum in tabulis ascedens, [Venice, Luc' Antonio Giunta, 1 December 1502]*
Source: https://collections.nlm.nih.gov/bookviewer?PID=nlm:nlmuid-9410622-bk

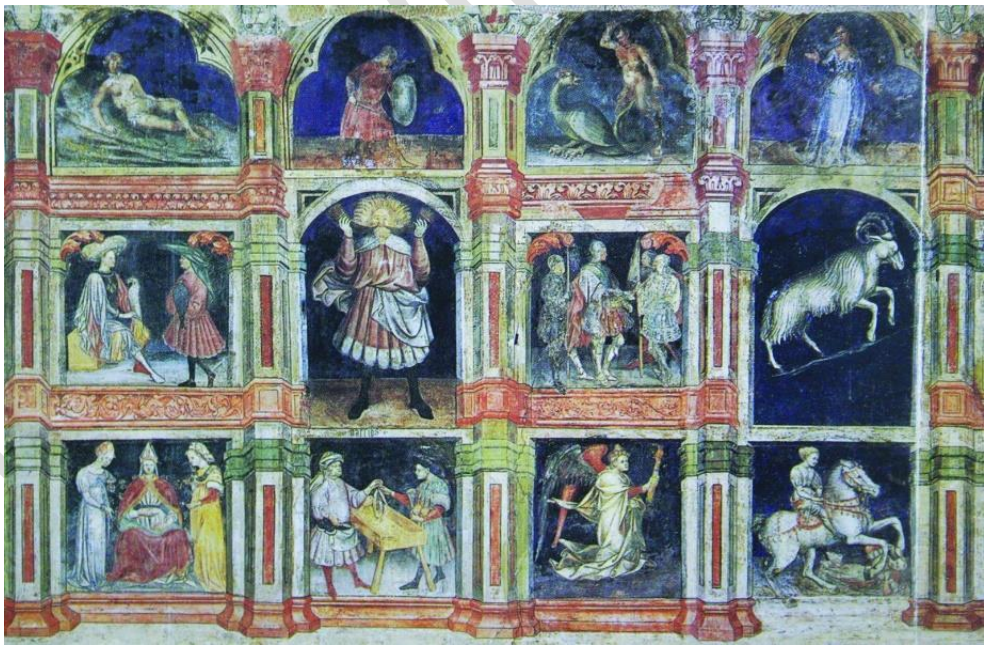

Figure 12. *Great Hall of Padua, wall painting. In the upper band: fantastic constellations, among them Aries, the corresponding month of Mars (playing the double horn) and the sons of the planet of Aries, Mars (14th century) [KBW caption], frescoes*

Franz Boll discussed the historical genesis of the *Astrolabium* in his *Sphaera*. Warburg ascertained that the manuscript model for the *Astrolabium* was Reginense code 1283 (Warburg, Divinazione antica pagana in testi e immagini dell'etá di Lutero 2016, 343). (see Figures 11-12)

The Palazzo Schifanoia in Ferrara

In the midst of the revival of interest in the ancients in the 15th century, astrology did not lose its link with the deformation of classical iconological culture deriving from the Arabs. There was, instead, a true growth in interest. Subjects portrayed only in manuscript illustrations or small paintings in the 13th and 14th centuries began to be reproduced in large-scale frescoes during the Renaissance. Perhaps the most relevant example is the Palazzo Schifanoia in Ferrara, where we find all the elements of the *Spaera Barbarica* already mentioned in this text. The figures depicted are Eastern in origin, as can be seen clearly in the depiction of the sign of Aries. A dark-skinned man in strange dress, a woman with an exposed leg, and a man holding an arrow with a ring appear. These images reference Eastern, not classical, culture. Thus we find a certain continuity between late medieval astrology and that of the early Renaissance (Saxl 2016, 170).

Yet if we examine some details (for example, the figure of a man who is very poor in appearance, in both his clothes and his wrinkled face; and kissing lovers, drawn from the scene of the kingdom of Venus), we have the impression of facing substantial changes, although both are based on the achievements of astrology during the 13th and 14th centuries. The difference is that in the 13th century, astrology was a novelty newly arrived from the East, which had not yet had the time to lose all the exotic and fantastic trappings of its journey; it became fully integrated by the 15th century. As Saxl points out, the distance which had separated astrological paganism from medieval Christianity in the 13th and 14th centuries and enabled the return to exotic sacrifices and prayers no longer existed when humanism began to permeate European civilisation through the rediscovery of the classics (Saxl 2016, 171).

This phenomenon of cultural metabolism can be seen in the palace at Ferrara, where the realism of the paintings transforms even the strangest Eastern demons into courtiers with a distinctly Ferrarese appearance. This leads us to conclude that astrology was considered part of daily life in 15th-century Italy. These images, updated to reflect14th - and 15th-century customs, do not, in their totality, reproduce the celestial vault; on the contrary, they line the walls in bands, much more similar to the composition of a manuscript page. As Warburg has shown, they portray Indian and Persian constellations that the West gained awareness of through a 9th-century author, Abū Ma´ ša, and the Hebrew and Latin translations of his work. They are images of demonic beings, derived from the Egyptians, who divided each zodiac sign into three decades of 10 degrees each. Each sign is governed by three faces known as decans.

The fresco series at Ferrara's Palazzo Schifanoia in Ferrara originally depicted the twelve months. Each month is divided in three parallel bands

stacked atop each other, the figures about half life-size. The Olympian gods, riding triumphal chariots, appear in the top band. The bottom one is dedicated to daily activity at the court of Duke Borso d'Este (1413-1471). The central part portrays the astral divinities and is divided into three segments. Each zodiac sign is depicted in the centre, flanked by enigmatic figures that we recognise as complex and fantastical Eastern symbols who lost their original Greek appearance in crossing over to Asia Minor, Egypt, Mesopotamia, Arabia, and Spain (Warburg 2019, 31).

Multiple artists worked on the fresco, and we are indebted to Fritz Harck and Adolfo Venturi for carrying out a complex stylistic analysis of the entire cycle. To Venturi we also owe the discovery of the only documentary evidence, a letter dated 25 March 1470 which states that Francesco del Cossa created the first three months (March, April, May). (see Figures 13-14)

In the March fresco, Pallas is portrayed bearing the Gorgon on her chest and a spear in her hand. She is borne along by a triumphal chariot pulled by unicorns. To her left, a group of Athenian scholars is pictured, including doctors, jurists, and poets: likely a representation of real-life Ferraresi of the time. To the right of the chariot, a group of women are intent on sewing and weaving; according to astrology, those born under the sign of Aries are gifted with special skill in handling wool (Warburg 2019, 44).[18]

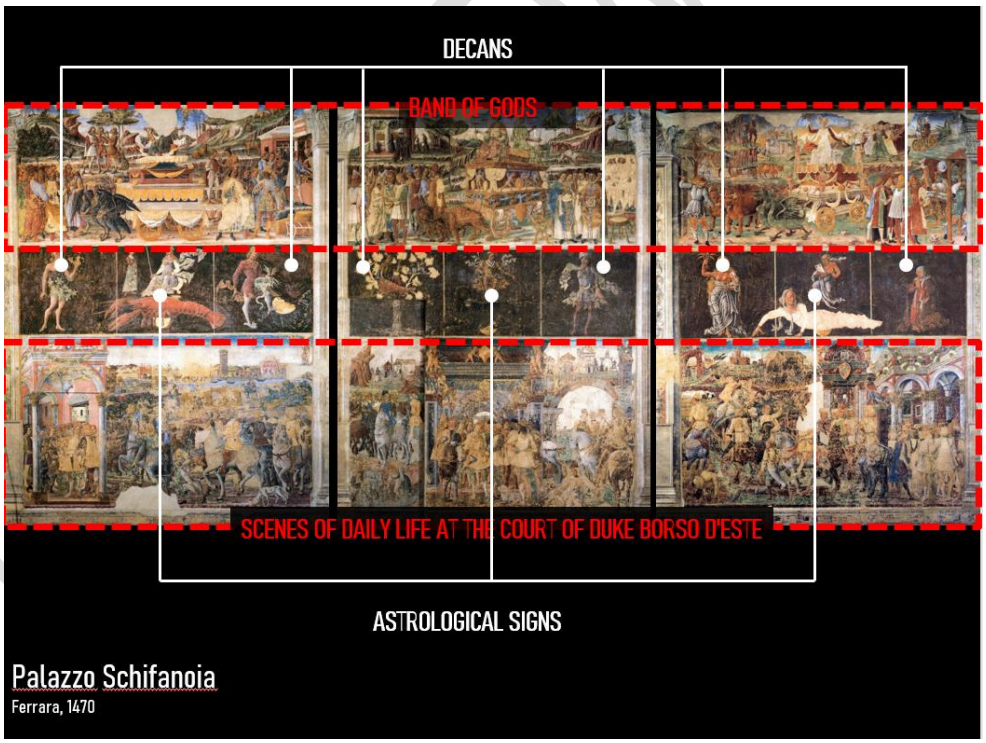

Figure 13. *Interpretation scheme of the Schifanoia Palace frescoes (handwriting elaboration by the author)*

[18]This analysis, in itself quite interesting, applies to each month the fresco is divided into. For an exhaustive treatment, see Warburg and Saxl's analysis on the entire cycle.

Figure 14. *Schifanoia Palace in Ferrara and Palace of Ragione in Padova: a comparison (handwriting elaboration by the author)*

Agostino Chigi and Astrology

The iconographic apparatus we have seen in the palaces of Padua and Ferrara appeared on the walls of religious buildings with some delay. An example is the Church of San Francesco in Rimini, commissioned by Sigismondo Malatesta, also known as the Temple precisely because of the astrological symbols adorning its interior. Its pagan character was heavily criticised.

Pagan lords of heaven began to appear on church domes at the beginning of the 15th century. These images of constellations were inspired by those depicted in Greek baths and Qusair 'Amra. One example is the cupola of the Old Sacristy of San Lorenzo, the burial site of Cosimo de' Medici, or the dome of the Pazzi Chapel in Florence, where images of the stars may be glimpsed. They reproduce the exact image of the sky as it would have appeared to a Florentine observer at a certain time of day.

Examples of celestial buildings prior to the Farnesina have been known since antiquity, as it was natural to consider the house of the divinised monarch as an image of the universe. Even medieval fantasy was permeated, in both East and West, by this conception. The ceilings of countless churches and chapels are adorned with gold stars on a blue background. But there were no apparent attempts in the Christian Middle Ages to decorate, in the spirit of ancient or Islamic astrology, the ceiling of a sacred place with images of the zodiac and other constellations. The medieval cathedral's starry sky is anonymous, with no place for pagan heroes: Perseus and Hercules, Draco and

the Corona Borealis, Aquila, Gemini and Pisces. The Church banished the constellations even from civic palaces (Saxl 1957, 308).

Similarly, the Farnesina vault is characterised by a close relationship between a celestial configuration, correctly observed and depicted from an astronomical point of view, and the life of the individual. In the middle, Fame proclaims the star-decreed glory of a man who can be none other than the founder himself, Agostino Chigi.[19]

As Fritz Saxl explains in detail in his book, the Farnesina images have nothing in common with the strange figurations of the Paduan and Ferrara cycles. The entire program is governed by a series of zodiac signs. The first, Aries, appears to face those arriving in the hall from the Loggia of Psyche. The other signs continue leftward, in the customary sequence, through Pisces. Amidst the zodiac signs, corbels feature the constellations of fixed stars situated in the sky in the immediate vicinity of the corresponding sign: that is, Eridanus next to Aries, Auriga next to Gemini, Argo Navis next to Cancer, etc. That this fundamental pattern was not recognised up to now, despite its simplicity, is in some measure due to the artist himself, who intentionally hid it beneath the mythological veil of the decoration (Saxl 2016, 307).

Likewise, in designing the ceiling decoration scheme the artist even avoided symbolising the cosmic regularity of the stars. Indeed, he did not assign an equal place to every zodiac sign or planet, favouring the representation of mythological (Jupiter and Europa, Leda and the swan, Erigone seeking her father) rather than astronomical elements. Thus we even find the two signs that follow Virgo in the zodiac, Libra and Scorpio, crammed into a single compartment adjacent to that of Diana. Nor is their myth narrated in this space. Only their symbolic figures appear on the blue background, with two conversing

[19]The Via della Lungara chosen by Chigi was situated at the foot of the Janiculum Hill, on the opposite side of the bend of the Tiber, outside the walls yet still inside the Leonine City and adjacent to the Trastevere district. Known for its bucolic qualities but above all, its proximity to the Vatican and the nucleus of the historical centre on the opposite riverbank, it was characterised by vineyards and religious institutions in the 15th century. Pope Julius II amended the route of the Lungara in the 16th century, inserting it-- together with another strategic road on the other side of the river, the Via Giulia-- into his ambitious urban plans. Several individuals of extremely high social status chose to build their homes on the Lungara, attracted by the beauty of the landscape and abundant space. These conditions permitted the construction of villas with different architectural characteristics compared to those in Rome's historical centre. (Caperna 2013) In 1505, Agostino Chigi acquired land with vineyards to build his main residence, relegating Via dei Banchi-- where his rented home was located-- to a minor role. This choice, though apparently lacking any specific meaning, in reality speaks to Chigi's far-sighted vision in moving his place of business. No longer the chaotic, noisy, crowded, promiscuous scene of the Ponte Rione, but a bucolic, fortified site, where it was possible to exercise power not only over practical functions, but in more subtle and elaborate ways. Agostino Chigi created a true court around this villa, as if he were a pontiff or a monarch. The villa's design was entrusted to a young architect, also from Siena, Baldassarre Peruzzi (1481-1536). The structure adopted the same layout of a loggia with jutting wings that we find in Innocent XVIII's Villa Belvedere, and especially the Villa Volte Alte in Siena, perhaps designed by Francesco di Giorgio (1439–1502) for Agostino Chigi's father, Mariano, and completed by Peruzzi for his brother Sigismondo. This explains the choice of Peruzzi as the architect of the Villa Farnesina (Samperi 2011, 117-118).

Olympians in between. From the left, Mercury descends in flight towards Mars, who offers his sword in a gesture of friendship. This representation signifies that the planet Mars is in Libra. Nearby, Mercury is in Scorpio (Saxl 2016, 311).

In summary, the astral configuration represented is the following: Jupiter in Aries, the Moon in Virgo, Mars in Libra, Mercury in Scorpio, the Sun in Sagittarius, Venus in Capricorn, and Saturn in Pisces. One wonders—a question halfway on the path between astronomy and astrology—when is such a configuration evident in the sky? Dr Arthur Beer of Hamburg identified the date as 1 December 1466 (Cugnoni 1878). Now we know that Chigi must have been born around 1465. There is reason, then, to doubt Hermanin's presumption that the ceiling of the Farnesina depicts the birth of its founder.[20] (see Figure 16)

We glimpse something distinct here from the frescoes at Padua and Ferrara, which offer the representation of a general cosmological system. In contrast, the ceiling of the Farnesina is like the Florentine cupolas: the realistic image of an astral configuration connected to a significant event. But it is no less characteristic for the way in which "gravity" and realism of the cosmic image are veiled in decoration. The relationship of dependence, filiation almost, between men and the stars is not represented by the style of the Paduan frescoes. In contrast to their depiction in the 15th-century manuscripts, these gods are not akin to common men (here Saturn is god of the fields rather than a simple farmer, as the men of the 15th century perceived him). They resemble men in their subjection to the passions of love and hate, like the gods of Ovid. Yet they are also—like those divinities—infinitely far removed from the daily lives of men.

[20]Thanks to Pope Alexander VII, we have an early biography of Agostino Chigi, later published by Giuseppe Cugnoni, that cites his presumed date of birth (MCDLXV). Subsequently, a document was discovered in the Siena State Archives demonstrating that the date of birth hypothesised by Saxl was a mere two days off. The document states: "Agostino Andrea di Mariano Chigi was baptised on 30 November 1466 and was born on the 29th of this month at the hour of 9.30". Rowland notes that it was unusual for baptismal directories to report time of birth. This directly links him to the common pursuit of astrology, as time of birth is only needed to calculate the ascendant (Rowland 1984).

Figure 16. *Villa Farnesina Chighi: astrological diagram of the ceiling (handwriting elaboration by the author)*

In summary: in Padua and Ferrara, the frescoes seem almost enlarged pages of a manuscript, with a realistic style of representation. In the Farnesina, the ceiling glorifies more than it represents. The astrological content is portrayed discreetly; a classical, Ovidian feeling dominates the environment. These astral divinities are beings who bear nothing in common with the Christian God and saints. They are Homer's superhuman figures.

There is one thing to consider, however: nothing in the Farnesina ceiling alludes to the Christian spiritual world. Yet another monument, which owes its existence to the same patron, teaches us that we would make a mistake if we imagined this Renaissance man to be a pure "pagan." The dome of Agostino Chigi's funeral chapel in Santa Maria del Popolo in Rome also depicts constellations. Yet the ceiling mosaic does not represent a specific configuration of the sky, although planets also appear there in combination with the zodiac signs. An angel appears above each one, and in the centre, God the Father dominates all. This dome is the counterpart to the Farnesina ceiling. Evidently, it means that although the course of the world is determined by the planets and their position, these are not free: compelled as they are to obey the will of God. This conception of man's relationship with the cosmos is quite different from the pagan one. It reconciles the astronomical world of pagans with the empire of the triune God. For Agostino Chigi and his painter Baldassarre Peruzzi, the planets were beings tied to fate, intermediate figures between demons and Homeric demigods. Yet they remained tools of the hand of God.

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