

THE HOROSCOPE OF ISKANDAR SULTAN

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In the spring of 1980, the author was asked to prepare a catalogue of the Persian manuscripts preserved in the library of the Wellcome Institute for the History of Medicine. During preliminary stages of this work a remarkable manuscript came to light which is the subject of the present article. This is the personal horoscope of Iskandar Sulṭān, the grandson of Tīmūr (d. 807/1405). Iskandar ruled in Fars, South West Iran, for five years from 1409 to 1414. He is best known for his interest in the arts and sciences and for his patronage of manuscript production.¹

The manuscript in question contains exquisite examples of the Shiraz School of painting, and adds to the wealth of surviving illustrated manuscripts dedicated to Prince Iskandar^{1a} (e.g. British Library Ms. Add. 27.261); it also throws considerable light on the development of Islamic astrology prior to Ulugh Beg's observations in Samarqand.² But most important of all, it enables us to fix with certainty the long-disputed date of Iskandar's birth; that in turn allows us to determine the authenticity of other manuscripts said to have been commissioned by him.

Soon after its discovery the manuscript was described by the author in the annual meeting of SCOUNL Advisory Committee on Orientalist Materials held at the Wellcome Institute in January 1981. Subsequently a brief notice was published in the Christmas 1981 issue of the *Illustrated London News* announcing the existence of the manuscript; the chief illustration in the Ms., a double page painting (f. 18 and 19) depicting the position of the heavenly bodies at the time of Iskandar's birth, was also reproduced in colour. A more detailed study of the manuscript, however, was delayed because of the priority of completing the catalogue of 629 other manuscripts in the collection, many of which are significant in their own right. In the meantime, Professor L. P. Elwell-Sutton's interest in undertaking a study of the astrological aspects of the manuscript was welcomed. The results of his investigation were presented at the 31st International Congress of Human Sciences in Asia and North Africa held in Tokyo in August 1983 and will shortly be published (see n. 5 below). As the catalogue of the Wellcome Persian collection nears completion it is time to describe in detail this most outstanding manuscript.

Before his death Tīmūr appointed his second son 'Umar Shaykh (d. 812/1409) to the governorship of Fars. 'Umar Shaykh was succeeded by his son Pīr Muḥammad who was assassinated soon after his accession in 1409. He in turn was succeeded by his brother Iskandar, the third son of 'Umar Shaykh.³ Like many other Timurid Princes (e.g. Shāhrukh and Ulugh Beg) Iskandar was a devoted patron of arts and sciences. His wide range of interests included poetry,

the arts of painting and book production as well as astronomy and astrology. During his reign, Shiraz, the most prosperous city in Fars, attracted many calligraphers, artists and other craftsmen; the local school of painting flourished, and many manuscripts were produced. Iskandar seems to have favoured anthologies in small format which included a variety of texts, ranging from poetry by such poets as Nizāmī of Ganjah to astrology and mathematics. It is therefore not surprising that his personal horoscope was meticulously written, and lavishly illuminated, at the beginning of the second year of his rule (22nd Dhu'l-Hijjah, 813/April 18, 1411. f. 68b).

The compiler of the horoscope is Maḥmūd b. Yaḥyā b. al-Ḥasan al-Kāshī, called 'Imād al-Munajjim, of whom no other work seems to be known. Judging from the identity of personal names and *nisbas*, and the tendency of specialized skills to be cultivated within families, he is probably the grandfather of Ghiyāth al-Dīn Jamshīd b. Mas'ūd b. Maḥmūd al-Kāshī (d. 832/1428), the celebrated mathematician and astrologer of Ulugh Beg's court in Samarqand.⁴ Maḥmūd al-Kāshī prepared the horoscope from observations previously made at the time of Iskandar's birth (Dushanbah 3rd Rabī' I, 786/Monday April 25, 1384). The date, which is established for the first time by this manuscript, appears on folio 2a followed by its equivalents in Jalālī (Malikshāhī), Yazdijirdī, Rūmī/Iskandarī and the Chinese-Uighur calendars.

The manuscript itself, measuring 265 × 170 mm, contains 86 folios, while the written surface, containing 29 lines to the page, measures 160 × 110 mm. The original binding has been replaced with an eighteenth century European binding. The text, written in clear and well developed Naskh, is undoubtedly the work of an accomplished calligrapher, according to the colophon al-Kāshī himself (*min 'amalihī wa-taḥrīrihī . . .* f. 68b). Sub-titles, quotations and numbers are written in red, blue and gold. Throughout the text there is no distinction between the letters *Kāf* and *Gāf*. The same is true in some cases for *Thā* and *Tā*. The letters *Chā* and *Pā* are not dotted, and the letters *Tā*, *Qāf* and *Yā* appear in some places with, and in others without, dots.

The manuscript opens with an illuminated head-piece in the form of a rectangle filled with minute flowers and patterns of individual symmetrical forms (circles, triangles etc.). The patterns are mostly outlined in black ink and filled with green, dark blue, crimson-red and gold (Pl. 1). The fineness and symmetrical design of these patterns, and the use of gold against the blue and crimson backgrounds are typical of the Shiraz School of painting. On the central medallion of this head-piece appears the common invocation *bi-smillāh al-raḥmān-al-raḥīm* written in a highly decorative *ruqā'*.

The text itself opens with the normal invocation *Shukr va sipās va ḥamd-i bī qiyās Ṣāni'-i Parvardgār . . . rā* "boundless praise and eternal thanks giving be to the Lord the Creator . . .". In the same passage al-Kāshī refers to God as *Āfarīnandah-yi badr va hilāl* "the creator of the Full moon and the Crescent"

making an allusion to the special terminology of the ensuing subject-matter, a common practice in the exordia of Islamic manuscripts. On the same folio are quoted 9 separate verses from the Qur'ān, all referring to the heavenly bodies, followed by an invocation of the prophet Muḥammad in 3 lines. The first reference to Iskandar himself appears on f. 2a which provides us with the title of the Prince as *Jalāl al-Ḥaqq wa-al-salṭānah wa-al-Dunyā wa-al-dīn amīrzādah Iskandar*. On the same folio also appears the title of 'Umar Shaykh as *Ghiyāth al-Ḥaqq wa-al-Dunyā wa-al-dīn amīrzādah 'Umar Shaykh* and finally that of Tīmūr as *Quṭb al-Ḥaqq wa-al-dunyā wa-al-dīn amīr Tīmūr Gūrakān*. There follows the date of Iskandar's birth as mentioned above. The place of birth is given as *Ūzgand*, in the fifth clime (*az buqā'-i iqlīm-i panjum ki ān Ūzgand ast . . .* f. 2a; the present day Uzgen in Soviet Kirghizia, 40.48N Lat. 73.14E Long.).

al-Kāshī then turns to the important task of describing his mathematical calculations for the horoscope. These include calculating the estimated Ascendant at the time of birth, estimating the moment of conception and calculating the longitudes and the latitudes of the planets. There follows a passage on the motions of Mercury at the time of birth which is illustrated by a diagram (f. 4b). These calculations are discussed in detail by L. P. Elwell-Sutton who concludes that the section on the longitudes and the latitudes of the planets is incomplete and here at least one folio is missing.⁵ al-Kāshī's other calculations, in this section, concern the distance of the planets from the equator and the position of the *sihām* or Lots. A list of 84 influential fixed stars and an explanation of some astrological concepts such as the *hīlāj* and the *kadkhudā* follow. Here, with a description of the zodiacal position, the mathematical section ends. Throughout this section, as well as the rest of the work, al-Kāshī quotes various astrologers such as Ptolemy and Abū Ma'shar of Balkh (Ja'far b. Muḥammad, known in the West as Albumasar d. 273/886). In the case of Ptolemy two sources are specified, namely the *Apotelesmatikē syntaxis* or *Tetrabiblos* translated into Arabic as *Kitāb al-arba'ah maqālāt fī aḥkām al-nujūm* and the *Centiloquium* in Arabic *Kitāb al-thamarah* (e.g. f. 22b); but for the others sources are not named. A passing reference to the *Kitāb al-mawālīd* (f. 22b), for instance, does not specify which of the following works he has in mind: the *Kitāb al-mawālīd*, a book on nativities by Ptolemy, or the *Mawālīd al-rijāl wa-al-nisā'* a treatise on horoscopes by Abū Ma'shar (preserved in the Ms. Berlin no. 5881).

At the end of the mathematical section appears the most remarkable illustration of the manuscript (f. 18b and 19a). This elaborate double-page painting depicts the position of the heavens at the moment of Iskandar's birth (Pl. 2). On the four outer corners of the painting appear four angels carrying presents including a golden crown. A large circle in the middle is divided into twelve sections representing the astrological houses. In each house near to the centre of the circle there is a smaller circle filled with a conventional drawing of a sign of the zodiac. The planets are personified as they usually are in Islamic

astrological texts.⁶ Venus in the third house, for instance, appears as a young woman playing the lute and Mars in the fifth house as a warrior with a sword in one hand and a severed head in the other (Pl. 2a). The faces, head-gear, clothing and other objects in the scene, though minute, are shown in great detail. The crimson-red and golden colours of clothes are mostly outlined in black ink against the background of a rich blue sky. The sky itself is here and there filled with unrealistically elongated golden clouds which are typical of landscape painting of this period. On the outer margins of the folios 18 and 19 are written two verses of a poem not otherwise identified and possibly composed by the author. These verses appear in highly decorative *ruqā'*:

Baḥr-i ramal-i muthamman-i maḥdhūf

-U--/-U--/-U--/-U-

Ay humāyūn ṭāli'at-rā Sa'd-i Akbar mushtarī

"O you whose royal fortune beggars even the propitious Jupiter himself . . .

Sharḥ-i anjum bā tu khidmat rasm kard u chākiri

"The stars in their courses ever kneel before you in service."

On folio 20b begins the second major section of the work, namely the interpretation of the astronomical findings. This section opens with an illuminated head-piece similar to that of the first folio in its general form but different in details. In this head-piece the colours green and crimson red are more prominent. On the central medallion, which has an oval shape, and on a white background appears the invocation *tawakkaltu 'alā al-ḥayy alladhī lā yanām* "I have put my trust in (God), the living one, who sleepeth not". The writing this time is in *naskh* style and in comparison to the first head-piece is of a larger size. The text begins with the claim that the astrologer can repel some of the evil forces influencing the fortune of a native (. . . *ḥakīm daf'-i ba'dī az nuḥūsat mītavānad kard* f. 20b). To support his argument al-Kāshī quotes Ptolemy in the *Kitāb al-thamarah*. He then begins to describe the findings related to each of the twelve astronomical houses, predicting for Iskandar good health, a long life and victory in wars. However he maintains that the prince has some hostile relations envious of his position. This latter reminds the present-day reader of the hostility which, almost three years after the compilation of the horoscope, broke out between Iskandar and his uncle Shāhrukh and proved to be fatal for Iskandar. In general, al-Kāshī retains a favourable tone throughout his predictions. This section ends with a number of astrological tables.

In the third section starting on folio 65b the astrologer predicts the important events of Iskandar's life from the age of 28 to 40 on a yearly basis. (The reader

is reminded that at the time of the compilation of the horoscope Iskandar was 27 years old). This section, like the other two, contains an illuminated head-piece similarly decorated with minute flowers and symmetrical patterns. Blue and crimson-red are this time the prominent colours. Written in gold against the crimson background of the central medallion the invocation reads *Allāhu rabb al-tawfīq* "Allah is the Lord of success". The text begins with a brief section covering all the twelve years. Then follows a more detailed account devoting a separate passage to each year. Here happy and prosperous days are predicted until the year 34. At the end of this year, however, hostile and fearful events are to be expected, though according to the astrologer these will soon be overcome. In reality Iskandar's unlucky years started earlier and his tribulations were never overcome.

Here attention should be drawn to two decorative tinted drawings in the manuscript. These are two full-page figures, of a dragon on f. 1a and a phoenix on f. 86b. Both drawings are examples of the influence of Chinese on Persian painting. The extremely fine outlines of each drawing are done in black ink and filled with faint grayish blue, pink and shades of gold. The four outer corners of each illustration are decorated with slightly smaller drawings of plants and birds executed in the same style (Pls. 3 & 4). The final category of illustration is the minute marginal drawings on the outer borders of each page. The marginal drawings show birds, animals and plants, a total of 499 different miniature compositions (Pls. 5 & 6).

Finally on f. 68b the text finishes with a colophon in ornate Arabic (Pl. 7) which attributes the '*amal* "illustration", as well as the *tahrīr* "copying", of the manuscript to al-Kāshī himself (p. 198 above). While there is no confusion as regards the meaning of the term *tahrīr*, the translation here favoured for the term '*amal* might need further clarification. It would be difficult to establish a standard terminology for manuscript illustration since the signature of the artist does not usually appear in the colophon. This is due to the fact that, normally, illustrations were executed after the completion of the text. In contrast to the situation with metal and woodwork, therefore, examples of the signatures of manuscript illustrators are scarce. However, the term '*amal* usually refers to manual work and in metal and woodwork it is frequently used to denote decoration or illustration.⁷ Furthermore, there are examples of the use of the term '*amal*, though not as often as *naqsh* and *raqam*, with reference to painting.⁸ It may not seem unreasonable, therefore, to assume that al-Kāshī used the term in the same sense, which would imply that he was the artist of the illustration. On the other hand it may be thought conceivable that the word '*amal* referred to the author's scientific work in calculating the horoscope and it could well be more probable that the illustrations were executed by a practised professional artist (the same of course could have been said for the calligraphy in which al-Kāshī's proficiency has not

been recorded anywhere else. But here the claim of the colophon is quite explicit).

Here, although the text ends, the manuscript continues with another 18 folios of astronomical charts and two folios of poetry. The poem, which discusses the concept of God, with a clearly *ṣūfī* approach, is written in a much later *nasta'liq* hand and is signed by a certain Qādir 'Alī. No further information is provided as regards the date or origin of this additional text. The paper and the script, however, suggest an approximate date in the mid-18th century, when, presumably, these two folios were added to the horoscope during the rebinding.

The present paper has provided a general survey of the content and the illustrations of this significant manuscript. Much room is left to carry the study further, particularly into the astrological aspects of the work. More information, for instance, is likely to be found regarding the author al-Kāshī in the writings of his grandson Ghiyāth al-Dīn Jamshīd. At the same time a survey of the astronomical quotations in the horoscope might enrich our knowledge of the writings of Abū Ma'shar. Also a comparison between the illustrations of this Ms. and other existing works produced for Iskandar (e.g. the Lisbon Ms.) would be of interest. But regardless of the outcome of any further studies, the manuscript in question can be considered one of the most significant examples of book production in early 15th century Iran, as well as a valuable sample of the pre-Samarqand astrological observation and interpretation. Furthermore, it provides the interesting information that Ulugh Beg's noted court astronomer Jamshīd al-Kāshī was the descendant of a distinguished family of astronomers in the Timurid service.

NOTES

¹ Basil Gray, *Persian painting*, Geneva: Albert Skira, 1961, p. 71–79.

^{1a} For a historical treatment of Iskandar see: Eric Schroeder, *Persian miniatures in the Fogg Museum of Art*, Cambridge: Harvard University Press, 1942.

² Aydin M. Sayili, *The observatory in Islam and its place in the general history of the observatory*. Ankara: The Turkish Historical Society 1960, pp. 260–89.

³ Khvānd Amīr, *Tārīkh-i ḥabīb al-siyar*. Tehran: Kitābkhānah-i Khayyām, 1333sh./1954, pp. 560–74.

⁴ J. Vernet, "al-Kāshī", *Encyclopaedia of Islam*, 2nd ed., Leiden: E. J. Brill, 1978, Vol. IV, pp. 702–03.

⁵ L. P. Elwell-Sutton, "A royal Timurid nativity book" (Paper presented at the 31st International congress of Human Sciences in Asia and North Africa, Tokyo, August 1983), forthcoming in *Studia Islamica*.

⁶ G. Fehérvári and M. Shokoohi, "A signed bronze vessel with human figures", *Islamic art and architecture*, Malibu, 1981, pp. 37–42.

⁷ L. A. Mayer, *Islamic astrolabists and their works*. Geneva: Albert Kunding, 1956, p. 13–15. And by the same author: *Islamic woodcarvers and their works*. Geneva: Albert Kunding, 1958, pp. 17–19.

⁸ Esin Atil, *The brushes of the masters: drawings from Iran and India*, Washington, D.C.: Freer Gallery of Art, 1978, p. 47.