

# The *Fardārāt* in Mundane Astrology

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As I mentioned in the first part of this series on the *fardārāt* in astrology,<sup>1</sup> there is no written remnant of the Middle Persian or Sasanian astrology but we are given an account of it as written or reported by astrologers writing in Arabic after the rise of Islam. The astrologers writing in Arabic but drawing on Persian sources were Māshā’allāh (d. c. 815), Nawbakht al-Fārisī and ‘Umar ibn al-Farrukhān al-Tabarī, the last three of which were among the Persian astrologers present at the casting of the horoscope for the foundation of Baghdad for 30 July 762. We understand also from these writers that many of the Persian developments of astrology included for example, Persian astronomical tables and time cycle theory,<sup>2</sup> the theory of the conjunctions of Saturn and Jupiter, and the *fardāriyāt*<sup>3</sup> of the planets. I will briefly touch on the first two of these developments, i.e. time cycles and the great conjunctions, because of their relevance to the mundane astrology that is practiced in the years following these Arabic writers.

## ASTRONOMICAL TABLES, TIME CYCLES, & THE CONJUNCTIONS OF SATURN AND JUPITER

A characteristic of the Sasanians was their mixture of Greek and Indian material.<sup>4</sup> In India and then in Sasanian Persia, astronomical systems were based on the assumption of a series of mean conjunctions of all the planets at Aries 0° spaced at equal intervals in time. The mean longitudes of the planets for any given date then could be determined once it is known how many revolutions each mean planet makes between successive mean conjunctions and how much time has elapsed since the last mean conjunction.

The Indians devised several such astronomical systems:<sup>5</sup>

- The *Paitāmahasiddhānta* (c. 400-450) of the *Viṣṇudharmottarapurāṇa* known as the *Sindhind*, assumed a Grand Conjunction of the mean planets, their apogees, and their nodes at Aries 0° at the vernal equinox of -1,972,947,101, and another in 2,347,052,899; the day begins at dawn. It gave a time cycle of 4,320,000,000 years.
- The *ārddharātrika* (midnight) system of Āryabhaṭa I (c. 500), known as *al-Arkand* in the Arabic world. Āryabhaṭa follows the orthodox division of the *Mahāyuga* into four unequal *yugas* whose ratios to each other are 4:3, 3:2, and 2:1:

*Kṛtayuga*      = 1,728,000 years

<sup>1</sup> See my article, “The *Fardārāt* in Nativities”.

<sup>2</sup> Some of which are derived from Indian models.

<sup>3</sup> The term *fardāriyāt* here is the word given as an abstract noun referring to a planets rulership of any of its kinds of *fardārs*. Literally *fardārship* in the same way as *sālhudāhīya* (Lord of the year) for *sālhudāhship* (lordship of the year).

<sup>4</sup> See David Pingree’s, *Astronomy and Astrology in India and Iran*, Isis, Vol. 54 No. 2 (June 1963), pp229-246.

<sup>5</sup> See, *The Thousands of Abu Ma’shār*, by David Pingree (Studies of the Warburg Institute Vol. 30) especially pp. 28-29

$Tretāyuga$  = 1,296,000 years  
 $Dvāparayuga$  = 864,000 years  
 $Kaliyuga$  = 432,000 years.

A Grand Conjunction of the mean planets only at Aries 0° is assumed for -3,891,101, and another at the end of *Kaliyuga* in 428,899; since *Kaliyuga* itself is supposed to begin with a Grand Conjunction of the mean planets only at Aries 0° at midnight of Thursday – Friday, 17-18 February -3101, the mean planets must make an integer number of revolutions every 432,000 years.

- The *audayaka* (sunrise) system of the *Āryabhaṭīya* of Āryabhaṭa 1 known as *al-Arjabhar*. In this work the same assumption regarding a Grand Conjunction of the mean planets only at Aries 0° at the beginning of *Kaliyuga* was made, but this was now dated at dawn of Friday, 18 February -3101. Furthermore, the lengths of the four yugas were equalized:

$Kṛtayuga$  = 1,080,000 years  
 $Tretāyuga$  = 1,080,000 years  
 $Dvāparayuga$  = 1,080,000 years  
 $Kaliyuga$  = 1,080,000 years.

This means that the Grand Conjunctions of the mean planets only at Aries 0° which mark the beginning and the end of the *Mahāyuga* must be dated respectively -3,243,101 and 1,076,899.

- A Yuga of 180,000 years is attested for the original *Old Sūryasiddhānta* (c. 450), which was converted to the *ārddharātrika* system by Lāṭadeva in c. 505, and which displays system I in its modern version. This assumed a conjunction of the mean Sun and mean Moon – and probably of the mean planets – at Aries 0° in -3101 and another in 176,899.

In Iran, there existed astronomical literature in the form of the *Royal Tables* (*Zig i Šahriyārān*)<sup>6</sup>, which are known to us only from citations in Arabic treatises, especially those of al-Bīrūnī. The first, composed in about 450 AD, was dependent for the one parameter that we know to have been in it on the *Brāhmapakṣa*<sup>7</sup> of Indian astronomy. The second was composed in 556 AD, under Kōsrow I Anōšīravān, on the basis of the Indian *zīj al-Arkand*, which evidently belonged to the *Ārdharātrikapakṣa*. For some unknown reason Kōsrow's astronomers preferred this work to Ptolemy's, which they also consulted. This version of the Royal Tables was used by Māshā'allāh (q.v.) in his *Kitāb fī al-qirānāt wa-'l-adyān wa-'l-milāl*,<sup>8</sup> written about 810.

The last set of Royal Tables was written under Yazdagird III in the 630s or 640s AD and was translated into Arabic by Tamīmī; we have only fragments of this translation. From these it appears that the planetary equations were computed by means of the Indian model employing a double epicycle and that the dimensions of these epicycles

<sup>6</sup> Or the *Zīj al-Shahriyār*

<sup>7</sup> See footnote 1 on page 3

<sup>8</sup> A book on conjunctions, Religions, and communities; an astrological history of mankind.

were mostly taken from the *Ārdharātrikapakṣa*.<sup>9</sup> ‘Alī ibn Sulaymān al-Hāshimī<sup>10</sup> mentions some sixteen *zījes*, from Greek,<sup>11</sup> Indian<sup>12</sup> and middle Persian (Sasanian)<sup>13</sup> sources.

The whole idea behind identifying the mean motions of the planets over a specific and determined period of time also established what came to be known as “*the World Year*”.<sup>14</sup>

The Idea of a ‘world-year’ is old and there exists a whole network of interrelations between Babylonian, Greek and Hindu doctrines. The ‘Great Year’ and the ‘Doctrine of Eternal Return’ is found in several Greek sources such as in Plato’s *Timaeus*. Aristotle called Plato’s ‘perfect year’, the ‘greatest year’, and said that in the winter of this ‘year’ (world epoch) a flood (*kataklysmos*) takes place and in the summer a conflagration (*ekpyrosis*). The Pythagoreans believed in the ‘eternal return of all things’. The Stoic philosophers held the same opinion as the Pythagoreans.<sup>15</sup> They taught that there will be a conflagration caused by the planets and afterwards the world will be recreated and everything will be as before.

Beside Greek thought, Berossos who came to Greece about 300 B.C., taught the Babylonian idea that a conflagration will take place when all planets come together in Cancer and a deluge when they come together in Capricorn. A certain part of the ‘Great Year’ was, according to the chronology of Berossos,  $120 \times 3600 = 432\,000$  years.<sup>16</sup>

In the Hellenistic world, the three predominant periods of the ‘world year’ were formed from the factor 12 multiplied by powers of 10:

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<sup>9</sup> Between the second and fifth century A.D. a branch of non-Ptolemaic astronomy was transmitted to India. During this period five schools of astronomy came about, called the five *pakṣas*. These five *pakṣas* were: Brāhmapakṣa, Āryapakṣa, Ārdharātrikapakṣa, Saurapakṣa, and Ganeśapakṣa. So this is the Indian name for the 2<sup>nd</sup> system in my list of four above.

<sup>10</sup> Flourished sometime in the second half of the ninth century, probably somewhere in the central lands of Islam. Virtually nothing is known about him other than the fact that he wrote a rather uncritical work on *zījes* (astronomical handbooks) that nevertheless preserves a great deal of otherwise unknown or little known information. This book, *Kitāb fi ‘ilal al-zījāt* (Explanation of *Zījes*), was written at a time before Ptolemaic astronomy had become the dominant astronomical tradition in Eastern Islam. As such, it contains considerable material about the Indian and Persian astronomical traditions, at least insofar as they were received and preserved during this early period of Islamic science. (*Encyclopedia of the History of Science, Technology, and Medicine in Non-Western Cultures* – a comprehensive reference work from Springer).

<sup>11</sup> Ptolemy's *Almagest* and Theon's *Canon*.

<sup>12</sup> the *Arjabhar*, the *Zīj al-Arkand*, the *Zīj al-Jāmi*, the *Zīj al-Hazūr* and others

<sup>13</sup> *Zīj al-Shāh* or *Royal Zīj* in Pahlavī, dated c. 450, see B. L. van der Waerden and E. S. Kennedy in *JAOS* 83, 1963, 323 and 325.

<sup>14</sup> To understand more of this concept I recommend two excellent papers on the subject. The first is an academic paper by E.S. Kennedy & B. L. Van der Waerden: The World-Year of the Persians, *Journal of American Oriental Society* #83 (1963) p. 315-327; and The Great Year in Greek, Persian and Hindu Astronomy, by B. L. Van der Waerden published by Mathematical Institute University of Zurich, (1978).

<sup>15</sup> Nemesios: *Anthropology* 38, p. 309 (ed. Matthaei).

<sup>16</sup> Berossos gives the figure of 120 *saroi* as the sum of the regnal years of the mythical kings before the Flood, where 1 *sar* is 3600 years. P. Schnabel: *Berossos* (Leipzig 1923) p. 261-263

- a) The "Chaldaean Dodekaeteris" of 12 years, mentioned by Censorinus, also called *Dodekaeteris of Zeus* (i.e. of the planet Jupiter) and ascribed to Orpheus or to Zoroaster.
- b) A Persian period of 12 000 years, consisting of 12 millennia, each governed by a zodiacal sign.<sup>17</sup>
- c) The Great Year of Orpheus of 120 000 years.<sup>18</sup>

In India, the Hindu *Laws of Manu* and the *Mahābhārata* both contain passages on one system of *Yugas*, i.e. cosmic periods that were used. Within is explained the unit of time of "the years of the gods" consisting of 360 ordinary years. It is therein explained that the Kaliyuga (the present yuga) consisted of 1200 'years of the gods' which simply gives us  $1200 \times 360 = 4320\,000$  years. It is interesting to note the similarity to Berossos' 'great year'. Both of these ages are a well-defined part of their respective epoch teachings and suggest perhaps a connection of Babylonian philosophy to Hindu. It is equally interesting that the sum total of the four Hindu ages is 12 000 'years of the gods' and it is again difficult not to see the correlation with the Persian period of 12 000 years.

To come back to my original point in this section, it is these different epochs in these different systems<sup>19</sup> that were used to determine the mean motions of the planets. And it is these tables of mean motions that were used by the Sasanian Persians<sup>20</sup> to determine the conjunctional theories of Saturn and Jupiter. These were the basis of the Royal Tables (*Zīj al-Shahriyār*) used by Māshā'allāh and Abu Ma'shār alike. Abu Ma'shār's values for the periods of Saturn and Jupiter appear to also derive from the Indian *Sindhind*, and his enumeration of their revolutions within a period of 360,000 years is based on a Persian interpretation of the massive cycles of world-history devised by Indian astrologers.<sup>21</sup> It was a Persian innovation to give prominence to religions and dynasties and the use of conjunctions of the superior planets in making predictions. This stands in contrast to Ptolemy's use of eclipses of the Sun and Moon in *Tetrabiblos*. It is not just Abu Ma'shār<sup>22</sup> who used this conjunctional theory but also Māshā'allāh<sup>23</sup>, 'Umar<sup>24</sup>, Kankāh al-Hindi<sup>25</sup> and Nawbakht all used this same "conjunctional theory" based on a time cycle sequence to explain world history. The universal astrology of the

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<sup>17</sup> This is the world year used by Māshā'allāh in his book on historical astrology, cf. *The Astrological History of Māshā'allāh*, by Kennedy and Pingree, p. vii. Also E. S. Kennedy: *Ramifications of the World Year Concept in Islamic Astrology*, Ithaca 26 VIII – IX 1962 (Hermann, Paris), p. 23-45, especially Chapter IV.

<sup>18</sup> *Das Grosse Jahr des Orpheus*. Hermes 81(1953) p. 481-484, B. L. van der Waerden.

<sup>19</sup> The ārddharātrika (midnight) system of Āryabhaṭa I (c. 500) was just one of 4 systems in India. Very similar to it was the audayaka (sunrise) system by the same Āryabhaṭa I. Both systems use a *Mahāyuga* of 4,320,000 years.

<sup>20</sup> The Persians used the *Paitāmahasiddhānta* (c. 400-450) system which assumed a Grand Conjunction of the mean planets, their apogees, and their nodes at Aries 0° at the vernal equinox of -1,972,947,101, and another in 2,347,052,899. This system was known to the Arabs as that of the *Sindhind*.

<sup>21</sup> See Pingree's, *The Thousands of Abu Ma'shār*, pp. 31- 2.

<sup>22</sup> The Book of Religions and Dynasties (On the Great Conjunctions), *Kitāb al-milal wa-d-duwal*.

<sup>23</sup> The Astrological History of Māshā'allāh, *Kitāb fī al-qirānāt wa-'l-adyān wa-'l-milal*

<sup>24</sup> In his book, *kitāb al-Qirānāt wa-tahwīl as-sinīn*.

<sup>25</sup> Pingree tells us in his paper *From Astral Omens*, pp. 56-62, that al-Hindi wrote a book called, *The book on judgements according to the dawrs and the fardārs and the conjunctions and shift of religions and dynasties*. Abu Ma'shār, according to the *Mudhākarāt* ('memoirs') of his pupil Sādān, referred to Kankah al-Hindi as an expert in conjunctional astrology.

Persians is based on the theory of the conjunctions of the two superior planets, Jupiter and Saturn, which take place every twenty years and from which a theory of larger conjunctional cycles<sup>26</sup> emerges. This pattern is not found among Hellenistic or Indian astrologers.

So the universal astrology coming from Sasanian Persia to Arab astrologers is based largely on three main concepts:

1.) A concept of a world-year, with roots common to most ancient schools of thought, from Plato to the Hindu's to the Babylonians. From al-Sijzī in a text called *Al-Jami' al-Shāhī* there is this definition of the “world-year” which was commonly accepted amongst the astrologers of the medieval Arabic period:

(f. 23a: line 1). A world-year, according to the generality of the astrologers, is from the time of arrival of the planets at the first of Aries until the time of their return (2) to the end of Pisces, without there being a difference in their amounts (i. e., longitudes)... The Persians (ahl Fārs) and some of (8) the Babylonians said that the world-years are 36[0],000 solar years, of which there are 365 days, (9) 15 minutes, 3[2] seconds, (and) 24 thirds, without requiring their apogees and nodes (to be at Aries 0?).

2.) A concept of historical astrology determining the rise and fall of religions and dynasties based on the conjunctions of the two superior planets, Jupiter and Saturn.

3.) The establishment of millennial Chronocrators, which were arrived at by dividing the aforementioned world-year among the planets and signs. These divisions gave several kinds of cycles. Some of them, as Abu Ma'shār reconstructs in his book “*The Thousands*”<sup>27</sup>, are of Indian and Sasanian origin and are divisions of time in cycles of 1000, 100, 10 and 1.<sup>28</sup> The two time cycles of thousands were these:

#### 1. The *Tasyīrāt*:

These are directions of a significator<sup>29</sup> and the degrees they were moved were called *qisma*, which is the Arabic word meaning “*allotment*”, “*apportioned*”, “*destiny*”, and “*that in which one has a share*”. It comes from *qismat*, the Persian equivalent to the Greek word *moira*.

- a.) The mighty *qisma* moves 1° along the equator every 1000 solar years; therefore, it makes one revolution in one "world-year" or 360 000 solar years.
- b.) The big *qisma* moves 1° along the equator every 100 solar years; therefore, it makes 10 revolutions in a “world-year”. One revolution takes 36 000 solar years

<sup>26</sup> There were described 3 main types of conjunctions of the superior planets Jupiter and Saturn. The first is from the positions in the horoscopes of the revolution of the years in which the conjunction of the two superior planets occurs in the spring tropical sign (Aries), happening every 960 solar years. The second is from the two superiors' positions in the horoscopes of the revolutions of the years in which their conjunction occurs when they shift from one triplicity to another, occurring every 240 solar years. The third is from the two superiors' positions in the horoscopes of the revolution of the years in which their conjunction occurs in each sign, happening every 20 years.

<sup>27</sup> *Kitāb al-Ulūf*, see Pingree's, *The Thousands of Abu Ma'shār*

<sup>28</sup> It must be noted that Abu Ma'shār strictly avoids their use in his book on Historical astrology.

<sup>29</sup> In general these significators were ascendant degrees of a “beginning chart” or “conjunctional chart of the superiors”, or the degree of their conjunction for example. Therefore, not only was the lord of the sign the *qisma* was important, but also the lord of the bounds and any participating planets in those bounds.

- c.) The middle *qisma* moves  $1^\circ$  along the equator every 10 solar years, and makes 100 revolutions in a “world-year”; therefore, each revolution takes 3 600 solar years.
- d.) The small *qisma* moves  $1^\circ$  along the equator every 1 solar year, and makes 1000 revolutions in a “world-year”. One revolution then takes 360 solar years.<sup>30</sup>

## 2. The *Intihā'āt*

Simply, these are ‘profections’ of signifiers. *Intihā'āt* means ‘conclusion’ or ‘completion’ and refers to the sign in which it came relative to the cycle used.

- a.) The mighty *intihā'* moves one zodiacal sign every 1000 solar years; therefore, it makes one revolution in 12000 solar years and 30 revolutions in a “world-year”.
- b.) The big *intihā'* moves one zodiacal sign every 100 solar years; therefore, it makes one revolution in 1 200 solar years and 300 revolutions in a “world-year”.
- c.) The middle *intihā'* moves one zodiacal sign every 10 solar years; therefore, it makes one revolution in 120 solar years and 3 000 revolutions in a “world-year”.
- d.) The small *intihā'* moves one zodiacal sign every 1 solar year; therefore, it makes 30 000 revolutions in a “world-year”.<sup>31</sup>

## THE *FARDĀRĀT* IN THE SCHEME OF THE WORLD YEAR

Other systems like the *fardārāt* appear to be a Sasanian innovation originating from natal astrology<sup>32</sup> and like the ‘years of the planets’ are an extension of concepts already existing in Hellenistic astrology. Although the *fardārāt* also appear in Abu Ma’shār’s *Thousands*, other than the first *fardārīyāt* series, they have no relationship to the same *Thousands* system of cycles. And unlike the other *Thousands* cycles, the *fardārīyāt* were used with the conjunctional theory of the superiors. The following are the mundane *Fardārāt*.

### The Mighty *Fardārāt*

The Mighty *fardārāt* have three distinctive features: 1) it is a period of 360 solar years, each cycle being ruled by a combination of a zodiacal sign and a planet, beginning with Aries and Saturn, 2) The mighty *fardār* (dawr) are divided into four quarters after the analogy of the solar year, and 3) they are used, as with all the mundane *fardārāt*, in connection with the great conjunctions of Jupiter and Saturn. Of course it is easy to see why these were discussed in Abu Ma’shār’s *Thousands* since 1 000 mighty *fardār* complete a “world-year” ( $1\ 000 \times 360 = 360\ 000$  years). In practice and in all of the mundane texts however, these were never called the mighty *fardār*. They were called *dawr*.<sup>33</sup> Kankah al-Hindī discusses them in the very first chapters of his opus on historical astrology. They are used in ’Umar’s mundane treatise on the Great

<sup>30</sup> Only this *Tasyīrāt*, in the context of the Great Conjunctions, was used by astrologers in the medieval Arabic period for making mundane predictions.

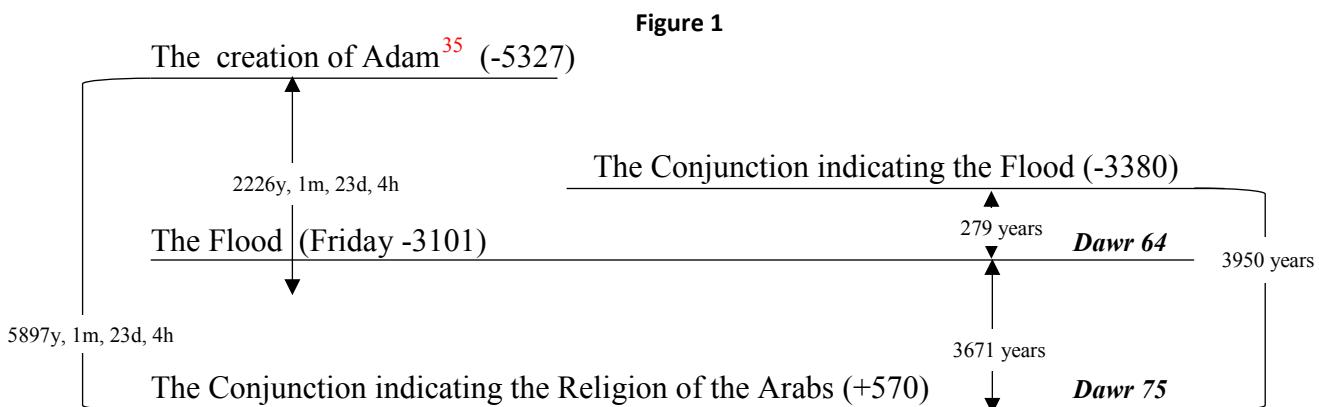
<sup>31</sup> Again only this *Intihā'āt* was used within the context of the Conjunctional theory by astrologers in mundane work! Most often the signifier being profected was the ascendant of some “beginning” chart or the degree of an important great conjunction or the ascendant degree of some great conjunction.

<sup>32</sup> The *fardārāt* according to al-Andarzaghar ibn Zādānfarrūkh

<sup>33</sup> This was a common Arabic word for ‘revolution’, ‘rotation’, or ‘period’.

Conjunctions and of course by Abu Ma'shār in his *Book of Religions and Dynasties* (On the Great Conjunctions).

It is not clear to me at all why the combination of Cancer/Saturn (*dawr* 64) should have been chosen for the Flood, (figure 1) since if one starts from the combination of Aries and Saturn at the beginning of the world-year, the Flood (which occurs in the middle of the world-year) would be at the end of *dawr* 80 (180,000 years = 5 cycles of 84 *dawr* with 80 left over.) It could mean they started in *dawr* 68 as the beginning of the world-year to arrive at *dawr* 64 as the flood. If we were to follow their historical logic of the world-year when all the planets conjoined at 0° Aries, it would seem more logical to start with the 1<sup>st</sup> *dawr* of Aries/Saturn, then the flood should have been Scorpio/Mars in *dawr* 80 and that would have made Libra/Moon in *dawr* 7 the *dawr* of the 'beginning of the Religion' in 571. This makes a whole lot more sense to me since the Ascendant of the Conjunction in the shift of the triplicity to water indicating the religion was in fact Libra.<sup>34</sup> It should also be noted that the Moon is luminary of the chart and in the 10<sup>th</sup> by counting and the 9<sup>th</sup> by division (rulership and religion). So the *dawr* of Libra/Moon fits quite well.



**Table of *dawr*:**

¶	1. ﮫ	13. ♀	25. ☽	37. ♄	49. ☽	61. ♀	73. ♂
♂	2. ♄	14. ☽	26. ♀	38. ♂	50. ﮫ	62. ♀	74. ☽
II	3. ♂	15. ﮫ	27. ♀	39. ☽	51. ♄	63. ☽	75. ♀ <sup>36</sup>
⊗	4. ☽	16. ♄	28. ☽	40. ♀	52. ♂	64. ﮫ <sup>37</sup>	76. ♀
Ω	5. ♀	17. ♂	29. ﮫ	41. ♄	53. ☽	65. ♄	77. ☽
III	6. ♀	18. ☽	30. ♄	42. ☽	54. ♀	66. ♂	78. ﮫ
□	7. ☽	19. ♀	31. ♂	43. ﮫ	55. ♄	67. ☽	79. ♄
ℳ	8. ﮫ	20. ♀	32. ☽	44. ♄	56. ☽	68. ♀	80. ♂
↗	9. ♄	21. ☽	33. ♀	45. ♂	57. ﮫ	69. ♄	81. ☽
⊗	10. ♂	22. ﮫ	34. ♀	46. ☽	58. ♄	70. ☽	82. ♀

<sup>34</sup> This chart #6 in Māshā'ullāh's *Astrological History* and is in Abu Ma'shār's *On the Great Conjunctions* Part 8, Chapter 2. In Abu Ma'shār's chart the ascendant is 27° Libra 54', otherwise Abu Ma'shār's planets are all nearly the same as Māshā'ullāh's.

<sup>35</sup> This is the historical time line according to Abu Ma'shār and used by the Medieval Arabic astrologers.

<sup>36</sup> The beginning of the 'Religion' (Islam) according to these astrologers' Historical astrology.

<sup>37</sup> Astrological history is fitted into this system by locating the beginning of the *dawr* indicating the Flood as the 64<sup>th</sup> in this sequence.

♒	11. ☽	23. ♈	35. ♉	47. ♋	59. ♂	71. ♌	83. ♍
♓	12. ♋	24. ♂	36. ♌	48. ♍	60. ☽	72. ♈	84. ♉

As for its divisions, both al-Bīrūnī and Kankah al-Hindī describe how its quarters are unequal in length, just like the annual seasons. But al- Bīrūnī states that “some people divide them equally into ninety years as if quarters of the ecliptic”. This method is what is found in Abu Ma’shār’s “*On the Great Conjunctions*”<sup>38</sup>. The analogy of the *dawr* with the solar year is described at some length by Kankah, who explains the *dawr* as follows:<sup>39</sup>

(f. 45<sup>a</sup>) I will teach you that the divisions of the period and its termination (intihā’) are four, and the completion of these divisions is like the completion of the year and its divisions. It is 360 years, and the first half of the *dawr* is according to the number of days that the Sun cuts off in the first half of the heavenly circle, i.e. 175½ days, and the second is 184¾ equal solar days, each day being a complete degree. The beginning of the *dawr* is from Pisces 20°<sup>40</sup> when the Sun reaches its limit of increasing, until it returns to that place in Pisces. In this is the ending of the first *dawr*.

As for the four divisions, the first is 90 years, in which is the beginning, growth and perfection of the appearance of each dynasty, and this quarter of the sphere is the season of spring of the year, comparable to the greater period; for in this the plants grow, prosper and are verdant until the Sun <arrives> at Gemini 20°.<sup>41</sup>

Kankah goes on to describe the other three ‘quarters’ similarly, the second ‘quarter’ being 85½ years, the third ‘quarter’ of 90 years, and finally the fourth ‘quarter’ of 94¾ years, which are the same as equinoxes and solstices in a solar year rather than to equal periods like Abu Ma’shār who simply divides each into 90 days! Following are historical events given by Abu Ma’shār to describe the 4 quarters of the *dawr* of the beginning of the Religion:

Quarters	Event	Prorogations of the <i>qisma</i>
1 <sup>st</sup>	Year of the religion (570)	20° Pisces
2 <sup>nd</sup>	Death of 'Utmān (656)	20° Gemini
3 <sup>rd</sup>	Death of Marwān (749)	20° Virgo
4 <sup>th</sup>	Death of al-Wātiq (847)	20° Sagittarius
End of 4 <sup>th</sup>	Death of al-Mutawakkil (861)	

The procedure on how to situate a year within a *dawr* occurs in another work by Kankah.<sup>42</sup> In this text Kankah’s authority is invoked for putting the beginning of the *dawr* 279 years before the Flood (i.e. in - 3380; no mention is made at this point of the conjunction indicating the Flood), and from this initial point it is shown how one can work out both the beginning of, and lordships of, any subsequent *dawr*, and the degree that the prorogation has reached within any subsequent *dawr*. The method is then

<sup>38</sup> Se Section I, Chapter 1 [25] in “*Abu Ma’shār – On Historical Astrology*” Vol. 1

<sup>39</sup> This translation is from Michio Yano’s forthcoming edition of Kankah’s *kitāb fī l-Aḥkām ‘alā l-adwār* (*The book on judgements according to the dawrs and the fardārs and the conjunctions and shift of religions and dynasties*).

<sup>40</sup> This is in fact the sidereal degree of the vernal equinox and the same value as Abu Ma’shār gives for the position of the *qisma* in the horoscope of the conjunction indicating the religion.

<sup>41</sup> These mundane works are as yet unpublished but these are citations taken from Charles Burnett and Michio Yano who are translating the material from Kankāh and ʻUmar.

<sup>42</sup> This text survives only in Latin.

applied to calculating the *dawr* and the degree for the time when the conjunction shifted from the airy triplicity to the watery one, indicating the beginning of the Islamic religion.

### **The Big *Fardārāt***

The big *fardārāt* is a period of 78 solar years, the lordship of which is shared by the twelve zodiacal signs in the following way:

Aries	12 years
Taurus	11 years
Gemini	10 years
Cancer	9 years
Leo	8 years
Virgo	7 years
Libra	6 years
Scorpio	5 years
Sagittarius	4 years
Capricorn	3 years
Aquarius	2 years
Pisces	1 year

### **The Middle *Fardārāt***

The middle *fardārāt* are periods of 75 years each. Each middle *fardār* is ruled by one of the seven planets or the two lunar nodes **in the order of their exaltations**; thus one cycle of middle *fardārāt* equals  $75 \times 9$  or 675 years. The order of the planets and lunar nodes is as follows:

<b>Planet:</b>	<b>Exaltation:</b>
Sun	Aries (19°)
Moon	Taurus (3°)
Ascending Node	Gemini (3°)
Jupiter	Cancer (15°)
Mercury	Virgo (15°)
Saturn	Libra (21°)
Descending Node	Sagittarius (3°)
Mars	Capricorn (28°)
Venus	Pisces (27°)

### **The Small *Fardārāt***

The small *fardārāt* is 75 years total, which is divided into nine *fardārīyāt* and distributed to the seven planets and the two lunar nodes. The number of years assigned to the small *fardārīya* of each of the planets and lunar nodes is as the same as in natal astrology but the order of their lordships of these *fardārīyāt* is that of their exaltations as follows:

Planet:	Exaltation:	Years:
Sun	Aries (19°)	10
Moon	Taurus (3°)	9
Ascending Node	Gemini (3°)	3
Jupiter	Cancer (15°)	12
Mercury	Virgo (15°)	13
Saturn	Libra (21°)	11
Descending Node	Sagittarius (3°)	2
Mars	Capricorn (28°)	7
Venus	Pisces (27°)	8

According to the Persians, the ruler of the first *fardārīyāt* in any small *fardār* is the ruler of the corresponding middle *fardār*. That is to say that the small *fardār* are the participators with the middle *fardār* (except in the nodal periods) in the same way the natal *fardār* have participators. The following table shows this system:

Middle <i>fardārīyāt</i>	Middle Years	Small <i>fardārīyāt</i>	Small Years	Starts	Ends <sup>43</sup>
⊕	75	⊕	10	0	10
		☽	9	10	19
		Ω	3	19	22
		☽	12	22	34
		☽	13	34	47
		☽	11	47	58
		☽	2	58	60
		☽	7	60	67
		☽	8	67	75
☽	150	☽	9	75	84
		Ω	3	84	87
		☽	12	87	99
		☽	13	99	112
		☽	11	112	123
		☽	2	123	125
		☽	7	125	132
		☽	8	132	140
		⊕	10	140	150
Ω	225	No Participants		150	225
☽	300	☽	12	225	237
		☽	13	237	250
		☽	11	250	261
		☽	2	261	263
		☽	7	263	270

<sup>43</sup> Up to but not including.

		♀	8	270	278
		○	10	278	288
		ꝝ	9	288	297
		ꝑ	3	297	<b>300</b>

ꝝ	375	ꝝ	13	300	313
		ꝑ	11	313	324
		ꝝ	2	324	326
		ꝑ	7	326	333
		♀	8	333	341
		○	10	341	351
		ꝝ	9	351	360
		ꝑ	3	360	363
		ꝑ	12	363	<b>375</b>

ꝑ	450	ꝑ	11	375	386
		ꝝ	2	386	388
		ꝑ	7	388	395
		♀	8	395	403
		○	10	403	413
		ꝝ	9	413	422
		ꝑ	3	422	425
		ꝑ	12	425	437
		ꝝ	13	437	<b>450</b>

ꝝ	<b>525</b>	<i>No Participants</i>	450	<b>525</b>
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ꝑ	600	ꝑ	7	525	532
		♀	8	532	540
		○	10	540	550
		ꝝ	9	550	559
		ꝑ	3	559	562
		ꝑ	12	562	574
		ꝝ	13	574	587
		ꝑ	11	587	598
		ꝝ	2	598	<b>600</b>

ꝝ	675	♀	8	600	608
		○	10	608	618
		ꝝ	9	618	627
		ꝑ	3	627	630
		ꝑ	12	630	642
		ꝝ	13	642	655
		ꝑ	11	655	666

		♂	2	666	668
		♂	7	668	<b>675</b>

The Significations of the *Fardārāt* according to Abu Ma'shār:<sup>44</sup>

#### Part Eight, Chapter Two

[14] As for how to know the indication of the *fardār* of each planet among them of terrestrial events, one should observe if they (the years) are in one of the three *fardārs*<sup>45</sup> belonging to the Sun: This is an indicator of joy coming to the king of Babylon, together with an increase of their (the Babylonians') honour, kingdom, and victory, and their introduction of Sunnas which did not exist <before>; an abundance of changes of locality and journeys; support for them, and submissive obedience towards them from the people of the regions, together with the large number of conquests over cities, their victory over enemies, the prevalence of joy among the subjects, and an abundant yield from the fruits.

[15] If the *fardārīya* belongs to the Moon, this indicates a large amount of chaos of management of the kings of the Babylonian people in their administration, and that their orders have little effect; they practice justice and become famous because of this; the conditions of their womenfolk are good, the land tax increases, and wealth becomes abundant.

[16] If the *fardārīya* belongs to the Head, this indicates the expansion of the kingdom of the Babylonian people, the arrival of letters to them from the regions <expressing> obedience and submissiveness to them, together with benefit coming to them from the kings of all the regions; their building of cities and villages, their attack on their enemies, their victory over them, and the intensity of their respect among the kings; and an abundance of fertility in the whole of its *fardār*; but sometimes illnesses affecting their heads such as headaches and the like occur to its (the kingdom's) kings.

[17] If the *fardārīya* belongs to Jupiter, this indicates the increase of honour of the kings of Babylon, the extension of their kingdom, the victory over their enemies and their obedience to them, their orders to dig watercourses, the prosperity of the cultivated land, the abundance of the land tax, the increase of the yield, and a large amount of arable land and plants; and this condition will endure for the whole of its *fardār*, except that distress occurs to them because of their relatives; they are blessed with children, they make them governors of districts, they are endowed with good fortune, and they are delighted with their relatives; they invade the Byzantine land, and killing and capturing multiply in it; and the condition between the Persian people and the Arabs is good.

[18] If the *fardārīya* belongs to Mercury, this indicates the prevalence of health among the kings of Babylon and their children, and the increase of their honour, dignity, and authority; the kings make their sons governors, they perform good works among their slaves, servants, and attendants, but sometimes they arrest and punish some of their servants, and fine them; then they are freed after that; journeys of the kings of the Babylonian people increase, they defeat their enemies wherever they turn, they conquer cities; the learned, the ascetics, the diviners, the astrologers, and the scribes increase; harm comes to the people because of the demand of land tax from them and their rough treatment by the elders; gossip and false rumours increase at the doors of the kings; affliction comes to the people of the climes, except the Persians who increase in their well-being; anxiety, grief, worries, immorality, deception, and treason increase; poverty and need come to the people; justice and goodness spread among the people; the kings order the digging of rivers and

<sup>44</sup> Abu Ma'shār: *On Historical Astrology*, (*Kitāb al-milāl wa-d-duwal* or *The Book of Religions and Dynasties*), from the Arabic original translated by Charles Burnett and K. Yamamoto, Published by Brill

<sup>45</sup> The three *fardārs* are, presumably, the big, middle and small *fardārs* described above.

the building of cities; trade is active in the land of Babylon; aquatic things like pearls, fish, and water birds increase, but sometimes the kings are worried by hidden matters.

[19] If the *fardāriya* belongs to Saturn, this indicates plenty of griefs and anxieties in the land of Babylon, harms occurring in the land of Persia, the disgrace of its people, their defeat, and their change of locality; the appearance of terrible signs and portents in the sky increases; the people become poor, false rumours increase, the kings invade each other's <lands>, and war intensifies among them; illnesses and death happen to the people, affliction and death prevail among most of the people of the climes, but the people of Babylon are saved from this; the grain and the fruit grow for them, and its land is fertile.

[20] If the *fardāriya* belongs to the Tail, this is an indicator of the appearance of immorality, the burdensome of matters for the people, and the good condition of the people of Persia, India, and the Byzantine Empire.

[21] If the *fardāriya* belongs to Mars, this is an indicator of the good condition of the Persian people and their power during two years of its (the *fardārs*) years; depression and harms come to the Byzantines, and honour comes to the Babylonian people accompanied by freedom from harms and diseases, together with the abundance of the yield and of fertility; the Persian people launch an attack on against the Byzantines, together with an abundance of killing among them; the collaboration of the village people with each other, together with plenty of maliciousness; and sometimes illnesses and wounds come to them.

[22] If the *fardāriya* belongs to Venus, this indicates the occurrence of safety and joy in most of the climes in the whole of its *fardār*; the good condition of the people of Babylon, the Arabs, and the Byzantines; the people practise gratitude, loyalty, love, favour, piety, and diligence in worship, together with the appearance of good signs and portents in the sky and on the earth; women strive to live chastely; the kings exchange presents, and letters and missives flow between them; the yield of the earth increases, and their cultivated land prospers; the kings and their subjects rejoice in wealth and children; pearls, the catch of the sea, water birds, the offspring of sheep, and fertility increase; justice, safety, food health, soundness, and piety appear; but affliction, evil, and injustice hit the people of India, and the kings order the digging of a large watercourse.

Without a doubt most of these significations are the result of teachings and charts concerning the regions for which Abu Ma'shār speaks; many of which we do not have available to us so understanding the reasoning and judgment behind them is difficult. It has been my experience with reading and studying Abu Ma'shār's text that he is usually speaking from the context of his current historical period, charts and teachings. So to understand them as he has given them we need to see all the background information he is working with. In many of his teachings he does give us some of that information but not always as is the case here. A good example is in the section on the *fardāriyāt* where he specifically gives the reader a real-time example for calculating them.

[12] As for how to know to which celestial bodies the *fardāriyāt* belongs, one turns to the complete years of Yazdigird and one always begins by subtracting 18 from them; then the remainder is divided by 75. From whatever remains which does not complete 75 cast out the years of the planets according to their succession in the order of the *fardārs*. Begin the casting out from Saturn, and the planet at which <the number> ends, whether there is a remainder or not, is the lord of the *fardār*, and the amount of its *fardār* that has passed is equivalent to the number remaining; then what follows those numbers will succeed in the year which succeeds <that> year (?).

The "complete years of Yazdigird" minus 18 years gives the years from the beginning of the Abbasid Dynasty. So he is using a relevant example in his time frame. What is of

course most helpful to us today is what he says directly following his significations of the *fardāriyāt*.

[23] Whatever we have mentioned concerning the indications of these planets, if they (the planets) are in a good condition, they indicate the increase of all the laudable matters indicated by them. If the matter is opposite to that, they indicate the decrease of all the laudable matters indicated by them, and sometimes the badness is total, accompanied by the annulment of most of the beneficial matters. Whatever judgements we have described, from these *fardārs* in this chapter and in the other chapters of the other parts <of the book>, if the testimony that the celestial bodies have from the positions of <their> spheres at the times of the general Beginnings and the particular revolutions <of the years> agrees with these indications, this is one of the reasons determining the truth of the indication. If the matter is contrary to this, the matter of the judgement according to the location we have described of the celestial bodies at the time of the revolution <of the year> should incline from these <certain> judgements.

[24] For example, if one of the *fardārs* has predominance or the indication for a change of locality and movements of kings, and the conjunction in the revolution <of the year> or the greater luminary is in <one of> the positions indicating stationarity, such as the cardines and the like, what is most necessary is this, when the matter is like that, the pronouncement of the judgement concerning movement should incline towards holding back that <movement>. Likewise, if Venus is in a good condition in one of the revolutions <of the years>, and one of indicators indicates the badness of the things belonging to Venus, the indication shows a tendency towards moderateness of the matter in the condition <of its badness> or its goodness. The same can be said about the indications of the other celestial bodies for the other indications related to them. When one of the celestial bodies at the times of the revolutions <of the years> agrees with the testimonies of the indications of the *fardārs* and of others, this is the strongest and truest indication,...

As Abu Ma'shār tells us in his discussion of the natal *fardār*,<sup>46</sup> regardless of the “natural significations” of the planets ruling and their participators,

...the significations of the stars in their firdars are both peculiar to themselves and in partnerships with others. In addition to these matters, it is necessary to examine whether the significations of these stars at the fixing of the nativity were either bonified or corrupted, and to also give an opinion concerning the particular effects in relation to the disposition of the stars in the inception...

In other words we need to include in our judgement what the indications mean relative to the disposition of the rulers in the beginning chart, which in the case of nativities is the nativity. In the case of mundane astrology that is some beginning chart, e.g. a revolution of a particular year or a great conjunction, or even simply a lunation prior to a conjunction or revolution of a year! All of these were considered “beginning” charts in certain situations.

To use an example I will postulate the beginning chart for Norway as the revolution of the year when they were given their sovereignty from Sweden in 1905. Subtracting the “beginning” from our current date we obtain the following:  $2013 - 1905 = 108$  years. If we look at the big *fardārāt* first then we would divide our 108 by 78 years<sup>47</sup> which gives us the following:  $108/78 = 1,3846$ . That is to say that there is completed 1 full cycle of the big *fardārāt* and ,3846 of the new cycle. If we multiply our remainder by 78 we will find how many years of the current cycle that represents:  $,3846 \times 78 = 30$  years. So starting with Aries we add the years to see what *fardāriyāt* we are currently in:

<sup>46</sup> Cf. *On Solar Revolutions*, Book IV chapter 8 (translated from the Greek by Robert Schmidt).

<sup>47</sup> The total of 1 cycle of big *fardārāt* is 78 years.

Aries	12 +
Taurus	11 = 23 +
Gemini	10 = 33

We find that with all the years of Gemini we arrive at 33 so the current year #30 is in the *fardārīyāt* of Gemini.

For the Middle and small *fardārīyāt*, the procedure will be similar but we would divide the 108 years by 75 instead.<sup>48</sup> For the sake of simplicity we will just look at the table of Middle and Small *Fardārāt* above and find 108 years in that. The period falls in the Moon's middle *fardārīyāt* and Mercury's small *fardārīyāt*.

So the *fardārāt* in this period are:

Big <i>fardārāt</i> :	= Gemini's <i>fardārīyāt</i>
Middle <i>fardārāt</i> :	= Moon <i>fardārīyāt</i>
Small <i>fardārāt</i> :	= Mercury's <i>fardārīyāt</i>

Making a judgement of the signification would require looking at the “beginning” chart in 1905 and the chart of the revolution of the year in 2013. In the “beginning” chart we would consider the condition of the ruler of Gemini (Mercury) and planets in Gemini. We would look at the Moon as well. We would compare their condition in the “beginning” with their current condition and their relation to the LOY and ascendant of the yearly revolution etc. I am not going to go into that detail here because that is a class on its own.

I have noticed many astrologers today using the same *fardārāt* as in natal astrology. However, it is abundantly clear that these medieval Arabic astrologers did not use the natal *fardārāt* in mundane astrology. The mundane *fardārāt* were similar to but definitely not the same since order and participation was a different scheme.

Steven Birchfield A.M.A

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<sup>48</sup> That is the number of years for each middle *fardārīyāt*.