

The year of the Maga

Varāhamihira, a Maga Brāhmaṇa¹, in his Pañcasiddhāntikā², has described the Persian year of 365 days, with 12 months each of 30 days, and 5 additional days thus:

- I.23 *dyugaṇe rūpābhyadhike paṃcartugūṇoddhṛte magābdāḥ syuḥ*
triṃśaddhakte śaṣaṃ jñenaṃ rāśyaṃśakendrāṇām
24 *kamalodbhavaḥ prajeśaḥ svargeśaśāstrudramanyuvasavaḥ*
kamalānalāntaravayaḥ śaśīndragonirṛtayaḥ kramaśaḥ
25 *harabhavagurupitṛvaruṇā baladevasamīraṇau yamaścaiva*
vāk śrīdhanadau girayo dhātrī vedhāḥ paraḥ puruṣaḥ

‘I.23 Increase the ahargaṇa (i.e., the number of sāvana days elapsed since a certain epoch) by one. Divide it by 365. The quotient represents the years of the Maga. Divide it by 30. The remainder is to be known as belonging to the lords of the degrees of the signs.

24 Kamalodbhava, Prajeśa, Svargeśa, Śāstr, Rudra, Manyu, Vasu, Kamalā, Anala, Anta, Ravi, Śaśn, Indra, Go, Nirṛti in order;

25 Hara, Bhava, Guru, the pitṛ, Varuṇa, Baladeva, Samīraṇau, Yama, Vāk, Śrī, Dhanada, the Giri, Dhātrī, Vedhāḥ, Paraḥ Puruṣaḥ.

The passage of Varāhamihira deals with the fraction d_y of one year elapsed since the “new” period of the Persians, and the lord of the degree (the day of the month), d_m .³ This date, according to him, is 1 317 124 days after the Kaliyuga which corresponds to A.D. 505 March 21, Monday. “As the Ahargaṇa begins on Monday, and as one day has to be added to it, it is clear this year is made to begin on Sunday, 20th March, 505 A.D.”⁴ If the five intercalary days are inserted at the end of the (Persian) month Ābān, then this date will correspond to the day Ohrmazd of the month Ādar. Spring begins on the 19th day of March of this year.

Indeed the passage gives us the historical date of the last intercalation in the Sasanian epoch. The Persians had two kinds of solar years:

One, a “vague” year (*uśmurdīg*, or *rōzvihēzagīg*), described by Varāhamihira;

¹. See Jehangir E. Sanjana, “Varāhamihira: an Iranian name”, *Dinshah Irani Memorial Volume*, Bombay, 1948, 115-22.

². The pañcasiddhāntikā was edited with a translation and commentary in 1889 by G. Thibaut and Sudhākara Dvivedī from two manuscripts. A paper on some of the obscure passages of this book was read by M.P. Khareghat, on 12th March 1895, before the Bombay Branch of the Royal Asiatic Society. O. Neugebauer and D. Pingree has prepared a new translation and commentary of it. See *Pañcasiddhāntikā. The Astronomical Work of Varāhamihira*, G. Thibaut & Sudhakar Dvivedi, (Benares, 1889), Varanasi, 1997; Muncherji P. Khareghat, “On the Interpretation of certain passages in the Pañcha Siddhāntikā of Varāhamihira, an old Hindu Astronomical Work”, *The Journal of the Bombay Branch of the Royal Asiatic Society*, 19, 1895, 109-41; O. Neugebauer & D. Pingree, *The Pañcasiddhāntikā of Varāhamihira*, I-II, København, 1970-1971.

³. $d_y = [a + 1]_{365}$, $0 \leq d_y < 365$

$d_m = [d_y]_{30}$, $0 \leq d_m < 30$

⁴. Khareghat, op. cit. 120.

The other, a leap year (*zamānvihēzagīg*), that keeps seasons in their proper place by the intercalation of a month (*anāmag*) in more or less 120 years.

The year with an intercalary month was exactly the year before our period 505 (March 21):

Zamānvihēzagīg	Ušmurdīg
Ādar	Ābān
Day	Ādar
Vahman	Day
Spendārmed	Vahman
Fravardīn	Spendārmed
Urdvahišt	Fravardīn
Hurdād	Urdvahišt
Tīr	Hurdād
Amurdād	Tīr
Šahrever	Amurdād
Mihr	Šahrever
Ābān	Mihr
<i>Anāmag</i>	Ābān
Panzag	Panzag

table 1

This table shows some changes in the Persian calendar:

The epagomenal days (*panzag*) of the “vague” and leap years are added at the end of the month Ābān (and not Spendārmed). The first day of the next year falls on the day of the vernal equinox. And, after a number of centuries, the names of the months in both kinds of years coincide again. The year of the new period is thus:

Zamānvihēzagīg	Ušmurdīg
Ādar	Ādar
Day	Day
Vahman	Vahman
Spendārmed	Spendārmed
Fravardīn	Fravardīn
Urdvahišt	Urdvahišt
Hurdād	Hurdād
Tīr	Tīr
Amurdād	Amurdād
Šahrever	Šahrever
Mihr	Mihr
Ābān	Ābān
Panzag	Panzag

table 2

The first day of the above (leap and vague) years, that is, *māh ī ādar rōz ī ohrmazd* (= A.D. 505 March 21, Monday), marks the new period. According to Bērōnī this day, in the sixth century, was called *Absāl ī Vahār*

(*absāl* < **pa-sarda*- ‘near the year/ summer; springtime’), and the feast of this day *Vahār-jašn* ‘the feast of (the beginning of) spring’.⁵

As we see in the first table, by changing the place of the epagominae from the month *Spendārmed* to the month *Ābān*, the Persian astronomers deleted five additional days from the vague year. The X^vārazmians and Sugdians did not follow this “heresy” (nor the Armenians); for this reason, the Persian year commenced five days before the X^vārazmian/ Sugdian year, and the first day of the month *Nāwsārcī* (*Nausardīc*) fell on the sixth day (*Hurdād*) of the month *Fravardīn*.

Apart from the testimony of the new period of the Persians, Varāhamihira has given the Sanskrit names of the thirty days of the month. M.P. Khareghat first realized the Persian background of these names. We give here Varāhamihira’s list and their Pārsīg equivalents:

- 1 *Kamalodbhava*, a name of Brahmā, corresponding to *Ohrmazd* (*ahura mazdā*).
- 2 *Prajeśa* ‘lord of living beings’, name of the deity who presides over the procreation of offspring, corresponding to *Vahman* (*vohu manah*).
- 3 *Svargeśa* ‘lord of heaven’, corresponding to *Ardvahišt* (*aša vahišta*).
- 4 *Śāstrī* ‘ruler’, corresponding to *Šahrever* (*xšaθra vairya* ‘choice-deserved rule’).
- 5 *Rudra* m. ‘roarer’.
Pers. *Spendārmed* (*spəntā ārmaiti* f.).
- 6 *Manyu* m. ‘spirit, mind’.
Pers. *Hurdād* (*haurvatāt*).
- 7 *Vasu*, the *Vasu* ‘the good or bright ones’.
Pers. *Amurdād* (*amərətātāt*).
- 8 *Kamalā* f., a name of Lakṣmī.
Pers. *Day(-ped-ādur)* (*daδvah*).
- 9 *Anala* ‘fire’, the deity of fire, corresponding to *Ādur* (*ātar* ‘fire’).
- 10 *Anta* ‘end; death’. Khareghat takes it as a (mis-)transliteration for *Anāhitā*.
Pers. *Ābān* (*apam*, cf. Sr 1.10 *arəduyā āpō anāhitayā*).
- 11 *Ravi*, the deity of sun, corresponding to *X^varšēd* ‘sun’ (*hvarə.xšaēta*).
- 12 *Śāśn*, *Śāsi*^o, the deity of moon, corresponding to *Māh* ‘moon’ (*māh*).
- 13 *Indra*, the Indian Jupiter Pluvius or lord of rain, corresponding to *Tīr* (*tištrya*).
- 14 *Go* m. f. ‘ox; cow’, corresponding to *Gōš* (*gao* m. f. ‘ox; cow’).
- 15 *Nirṛti* f., name of a goddess (or, *Niyati* f.).
Pers. *Day(-ped-mihr)* (*daδvah*).
- 16 *Hara* m. ‘seizer, destroyer’, a name of Śiva, corresponding to *Mihr* (*miθra*).
- 17 *Bhava* m. ‘coming in existence, origin’.

⁵. See ٤٨، ٤٩، الآثار الباقية،

- Pers. *Srōš* (*sraoša*).
- 18 *Guru* m. ‘a venerable person’.
Pers. *Rašn* (*rašnu*).
- 19 *Pitr*, the *Pitr* ‘the fathers, the (deceased) ancestors’, corresponding to *Fravardīn* (*ašaunqm fravašinqm*).
- 20 *Varuṇa* m. “Can it be Varāṇa closely akin to the classical Varhrān for Vahrām, which has been converted into the familiar Varuṇa?”
(Khareghat)
Pers. *Vahrām* (*vərəθrayna*).
- 21 *Baladeva* ‘wind’, corresponding to *Rām* (*rāman*, identified with *vayu* ‘space; air’; the Yasna-text in honour of Vayu is called the *Rām Yašt*).
- 22 *Samīraṇau* ‘wind, breeze’, corresponding to *Vād* (*vāta* ‘wind’).
- 23 *Yama* m.
Pers. *Day*(-ped-dēn) (*daōvah*).
- 24 *Vāk*^o, *Vāc* f. ‘voice; saying’, corresponding to *Dēn* (*daēnā māzdayasni*).
- 25 *Śrī* f. ‘radiance, beauty; prosperity’, a name of Lakṣmī or Sarasvatī, corresponding to *Ard* (*aši*).
- 26 *Dhanada* ‘wealth-giving’, m. name of Kubera.
Pers. *Aštād* (*arštāt*).
- 27 *Girayo*, the *Giri* ‘the mountains’.
Pers. *asmān* (*asman*).
- 28 *Dhātrī* f. ‘female supporter’, the earth, corresponding to *Zamyād* (*zam* ‘earth’).
- 29 *Vedhāḥ* (*vedhas* adj. ‘pious’, m. ‘arranger’), corresponding to *Mahrspend* (*mānθra spəṇta*).
- 30 *paraḥ Puruṣaḥ* (*para-puruṣa* m. ‘the Supreme Spirit’, a name of Viṣṇu).
Pers. *Anērān* (*anaγranqm raocanjqm*).

Raham Asha