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AZI DAHĀKA'S ASTRONOMICAL OBSERVATORY

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FROM the Ābān Yasht § 29 we learn that Azi Dahāka had adored the Aredvi sūrā anāhitā in the country of Bawri, *i.e.* Babylon. The Pahlavī *Būndahishn* traces his descent from Tāz, brother of Hōshyang, and when he came to the throne occupied by Yima Khshāeta, he was supposed to have been a foreigner who conquered the country and removed the ruler from it. Being descended from Tāz, he is called a Tāzi; this term is used as the eponymous name of the Arabs, and hence they are called the Tāziyān.

In the Pahlavī text, *Satrīhā-i-Aērān*, edited by Dastūr Jāmašpī Mīnōcheherjī Jāmāsp-Āsā, and translated by Dr. Jivanji Jamshedji Modi, we find the following sentence :

‘S aṭrastān-i Bāwīr Bāwīr pa kh vatāyih-i Jam karṭ; vaṣ Tīr Apākhtar ānō bē-bast, u mārī hapt dwāzdah-i akhtarān u apākhtarān u hashtom bahara pa yāṭū-y-ih o Mitr Vāwīrī bēnamāt.’

Translation : “Babel founded the city of Babel during the reign of Jam ; he fixed the planet Mercury thither, and showed to the sun of Babel with sorcery the seven *and* twelve names of constellations and planets, and the eighth apportionment.”

This translation will not be intelligible without notes on the exegesis of words used in the text.

The Avestan ‘b-a-w-r-i’ is found in *Atharva Veda* XI, I, 31 sq. as ‘b-a-bh-r-i’. The *Atharva Veda* ‘b-a-bh-r-l’ must have stood for ‘b-a-bh-r-u’, the primary meaning of which is “brown, tawny, tan-coloured”. The epithet ‘b-a-bh-r-u’ is applied to the horses of Indra, and of Rudra. The same epithet is applied to one who is bald-headed through disease. A man with deep brown or red hair is called ‘b-a-bh-r-u-s’. Again, ‘b-a-bh--r-u’ is the name of a ‘desa’, *i.e.*, “country”. The Vedic ‘b-a-bh-l-u-s-a’ has the meaning of “brownish.”

In the Ancient-Persian Cuneiform Inscriptions the country is named 'b-a-b-i-r-u'.

In the OLD TESTAMENT, *Genesis* XI. 1-9, we read the story of the Tower of Babel. From the time of the deluge the primitive men settled in Shinar, *i.e.*, Babylon, after many wanderings. They had inherited from their ancestors one common mode of speech. Finding enough materials suitable for the construction of edifices, they began to make and burn bricks, and using the bitumen for cement, they built a city and a tower of great elevation. The name 'Babel' given to the place where the tower was erected was, according to the *Genesis*, due to the "confusion" of tongues, brought over themselves by the builders by a divine interference, the Ebraists thus deriving the word as being of Hebrew origin.

The purposes to which this edifice was appropriated must have varied with the changes in opinions and manners which successive ages brought. Consecrated at first by the monotheistic children of the Deluge, it was used by the Sabians perhaps as a temple of the sun, and as the Babylonians were students of Astronomy, the temple was crowned by an astronomical observatory to study the stars in the heavens. (See Kitto's '*Cyclopaedia of Biblical Literature*,' 1893, pp. 121-122).

According to the commonly received chronology of the *Bible*, the "confusion of tongues" took place a hundred years after the flood; according to the Septuagint 530 years after, and according to the opinion of Josephus, slightly emended by Dr. Hales 600 years after.

From the passage quoted above, from the Pahlavi text we learn that 'Bāwīr' was the name of the person who laid the foundation of the city and of the tower, which were both named after him, that they were founded and erected during the reign of the Pishadādian King Yima Khshæta, in whose rule the great Deluge took place, after a lapse of the first 900 years of his reign. As the Avestan literature names 'Azi Dahāka' 'Bawrōiš daiñhavē', *i.e.*, "of the country of Bawri," in the same way as the Sanskrit literature refers to 'Babhridesa,' we can identify the 'Bāwīr' of our Pahlavi text with the 'Azi Dahāka of the Avestan. Perhaps he belonged to one of the races of giants such as the Anachim, referred to in '*Numbers*' XIII. 32-33: "It is a land that eateth up the inhabitants;" may be he belonged to one of the three branches or clans of the Anachim, named Ahiman

('Numbers,' XIII. 22); Compare Vedic Sanskrit 'Ahimanyu ("the Maruts enraged like serpents").

The founder of the Bāwīr must have been named 'Bawri' in the Avestan on account of the deep brown colour of his hair, on account of his brown, tan-coloured skin, and on account of his being bald-headed through the fell disease of leprosy. The word became 'Babiru' in Ancient-Persian Cuneiform and was still further transformed to 'Bāwīr' in the Middle-Persian dialect of Pahlavī, and we find in Arabic, the neo-Persian 'bābil' arabicised and read 'bābul.'

When the long lost sacred word was re-written by Ezra in about 398 B.C., the great restorer of the text of the Israelitic Scripture and the interpreters took the word 'Bābel' to mean "confusion;" in fact, the English word 'babble' is traceable to the Hebrew 'bēbel,' the myth of the "confusion of tongues" had so strongly taken hold of the minds of the interpreters of the Bible.

In 1914, when I made an attempt to explain the myth of Sanhavācha and Arenavācha, I had made an attempt to show that the Aryan star myth could only be properly explained with the help of Babylonian, Phoenician and Greek mythical literature. I am to-day making an humble attempt to show that the story of the "tower of Bābel" and of the consequent "confusion of tongues" can the better be interpreted from a Pahlavī work based on old Avestan texts, written about nine centuries after Lord Jesus.

An interesting question of comparative genealogies may be taken up one day by the students of the Avestan and Israelitic Scriptures. I will refer only in passing to the great identity of 'Bāwīr' with Nimrod. Of course it must sound very strange to scholars to accept the statement of the author of the 'Satyihā-i Aērān' that a man named 'Bāwīr' had founded the tower named 'Bāwīr', *i.e.* "Babel", as well as a large city named after him. The Israels knew it by the name of "Shinar". Let the learned outside the charmed circle of Iranists consider this statement as critically as they can, and see if they can gain some new information out of it.

Noah is the ninth descendent of Adam. Yima Khshaeta is the ninth descendent of Gayōmaretam. Azi Dahāka is the fourth descendent of Tāz, who is a brother of Haoshynha and the fourth descendent of Gayōmaretan; Azi Dahāka, moreover, is the ninth descendent of Aīra Mainyu (!!), his mother Vadhagh, the eighth

descendent of Añra Mainyu (!!!), having been the spouse of Khrutāsp, the third descendant of Tāz.

We have now to see the relationship between Noah and Nimrod to whom the interpreters of the Old Testament ascribe the foundation of the Tower of Babel, and as late as in 1863, the great archaeologist Mr. Rich discovered the mound with remains of buildings on its summit, which bears the name of Birs Nimrod even to-day. (See Kitto's *Cyclopaedia*, p. 619). Nimrod was the son of Cush son of Ham son of Noah, *i.e.*, Nimrod was the great grandson of Noah, whereas the tie of relationship between Yima Khshaeta and Azi Dahāka is that of cousins. Yima Khshaeta was the fifth descendant of Haoshyañha, and Azi Dahāka the fourth descendant of Haoshyañha's brother Tāz. Haoshyañha, the seventeenth ancestor of Aira son of Thraētaona, is the founder of the Iranian race, whereas Tāz, the fourth ancestor of Azi Dahāka, is the founder of the race of the Arabs, the Tāziyān.

The beginning of Chapter IX of *Genesis* does not mention even one word as to who founded the city and tower of Babel: "as they journeyed from the east, . . . they found a plain in the land of Shinar; and they dwelt there." Who were they? Certainly, the families of Ham, Shem, and Japhet, the three sons of Noah, by whom the nations were divided in the earth after the flood. There is no mention of Nimrod having founded the city and tower of Babel. According to *Genesis* X. 10: "And the beginning of his kingdom was Babel, and Erech, and Accad, and Calneh, in the land of Shinar." The writer of *Genesis* has presumed the foundation of the cities named above, and Nimrod, "the mighty hunter before the Lord," possessed himself of these cities, which had already been brought into existence by others before him. The indigenous traditions of ages, and the existence in ruins even to-day of Birs Nimrod are proofs positive of Nimrod's hand in the erection of the tower of Babel. After the handing over of the Pahlavi passage to great researchers of biblical studies, there is a clear certainty of truth being dug out from the mud and the bottom of the well by those whose only motto is truth and nothing but the naked truth in all its inborn glory.

If Azi Dahāka was brown, tawny, or tan-coloured as per the meanings of the Vedic and Sanskrit 'babhri' and 'babhru', Nimrod's father Cush is supposed to have been the progenitor of the Cushites, *i.e.* the Ethionians.

Whether ever the "dabble," the "confusion of tongues," took place owing to the erection of the huge superstructure, the name of which has still remained in spite of the rolling away of mighty millennia of time, and the noble edifice itself still surviving in spite of ignoble efforts of opponents and foes at its destruction, after the publication of this thesis, necessarily meagre in details, friends and confrères will raise the question, if not ridicule, at the "confusion of the races," the Hamites and the Tāzīs, made in this paper. Can it ever be possible to equate and identify Nimrod the great—grandson of Noah, Nimrod the Hamite, with Azi Dahāka the Semite, Azi Dahāka the Tāzī?

I will only make a reference in passing to the disagreement in the two statements, found in the *Genesis* and in the *Satrīhā-i-Ačrān*. According to the *Genesis* the city and the tower of Babel were founded after the deluge; according to the *Satrīhā-i-Ačrān*, Bāwīr founded the city of Bāwīr during the reign of Jam. It is possible that the city of Babel, as per the latter statement, was no doubt founded during the remaining years of the reign of Jam after the deluge.

Now we come to the important part of the statement, that of establishing the Astronomical Observatory. The first portion of the statement mentions the fixing of the planet Mercury. Bāwīr, i.e. Azi Dhāka, must have settled early in his time the risings and settings of the planet Mercury, the orbit of which is nearest that of the Earth. Being a planet which is not visible all the days of the year, the high elevation of the observatory erected on the tower of Babel must have afforded enough facilities to the Babylonian star gazers to fix the diurnal motions of Mercury during those times of private civilization. The language used in the sentence being ambiguous, there is likelihood of different meanings being attributed to the text. Dr. Jivanji's meaning "fixed there (the direction of) the planet Mercury" seems to be quite appropriate. Bāwīr must have erected the tower on the day of the exaltation of Mercury in Gemini, in such wise as that the planet could be seen every from the same fixed point of the tower, and its latitude and declination were fixed for all the days in the year.

The word 'm-ā-r-i' in the text has no relation to the constellation of the dragon. 'Mārī' simply means "a word", "a word used as a name." The twenty-one words of the 'ahuna-vairyā' formula which

are used as the names of the twenty-one Nasks of the Avestan Scriptures are called 'Mārī'. In the same way, the author of the 'Satrīhāī-Āetrān' uses the term 'mārī' for the seven and twelve names of the planets and the constellations used as ciphers by the ancient Babylonians. We will not be taking the lustre out of the glorious work of the erection by Bāwīr of the tower of Bābel, if we uphold the Iranian tradition of Yima Khshaeta, Azi Dhāka's predecessor, having organized the solar year, counting the beginning of the year with the day of Hormezd of the month of Fravardīn. Firdausi of immortal fame has mentioned it in his *Shah Namah*, and the writing of another immortal poet and philosopher of Irān, *Omar Khayyām* has been lately unearthed and printed by a young scholar of Teheran, Dr. Minuvi. In his *Noroz Namah*, *Omar Khayyām* has shown how from the time of Jamsīd, the calculations of the solar year were made and all astronomical phenomena had begun to be studied. Bāwīr, Jamsid's successor, did the greater work of erecting the astronomical observatory on the tower of Bāwīr, erected by him on the city of Bāwīr founded by him. He selected a spot which became the centre of the world in respect of astronomical studies. The word 'Mārī' used in this text shows that Bāwīr had invented the ciphers for the astronomical names of planets and constellations for the first time in the life of the world.

The last, though the hardest nut to crack, is the significance of the phrase 'haştom bahara' = "the eighth apportionment." In his astronomical observatory, Bāwīr seems to have demonstrated the path of the sun in the twelve constellations and the conjunction of the sun with the various planets during his passage into the constellations. The "eighth apportionment" is, very likely, a reference to the division of the 360 degrees of the Zodiac into eight parts of 45° each.

The word 'yātūyīh' (= "sorcery") seems to be a word ill understood by the civilized world, just like the word "miracle." 'Yātūyīh' (= "Sorcery"), as usually understood means "magic, witchcraft", "divination by the assistance of evil spirits." The Iranian writers have certainly ascribed to Azi Dahāka the powers of divination with the help of the evil spirits. The *Dinkart*, Book VII, Chapter IV. 72 refers to "several matters of evil portent which Dahāk had perpetrated with sorcery in Bāwīr (=Bābel), mankind had proceeded to idol-worship by means of that delusion, and thereby arose the destruction of the world; by means of the victorious Revelation,

the Word of Zarathushtra, proclaimed against that sorcery, it was entirely disintegrated and made ineffective."

In this connection *Dinkart*, Book III, Chapter 288 throws some historic light, where we are told : " One instigation of Dahāk against the admonition of Jamšēt of preparing an accumulation as provision during summer and winter, Dahāk advised the accumulation of revenge in the mind with unforgiveness, and to return the revenge even to the ninth generation, and enjoined the commencement of a scripture with these ten advices of his, harmful to the creatures, as against ten admonitions of Jamšēt beneficial to the creatures, and to preserve the same in Auruşaltm (Jerusalem). And thereafter, say that Abraham, the Dastōbar (=Religious Leader) of the Jews, acted accordingly, and Musa (=Moses) whom they consider the Gēliṭa (=prophet) of the Jews and as of divine radiance, completed it, and the super-eminent Işū (=Jesus) had heard of him Musa and promulgated it. And all the Gēliṭas (=prophets) of the Jews keep it in their possession and believe in it."

This statement of the *Dinkart*, which was written about 1150 years ago, shows the influence the ' Bible ' of Dahāk had in times after him, on the views and opinions of Abraham Moses, Lord Jesus and the other Jewish Prophets.

To make the "confusion" of the stories of history the worst confounded, I will quote Albirūnī, Dr. C. Edward Sachau's *Chronology of Ancient Nations*, p. 100 :

" Western authors relate that, during the reign of this last King (Thonos Konkoleros, *alias* Sardanapalus), the prophet Jonah was sent to Nineveh, and that a foreigner, called Arbak (Arbaces) in Hebrew, *Dahāk* in Persian, and *Dahhāk* in Arabic, came forward against this king, made war upon him, put him to flight, killed him and took possession of the empire, holding it till the time when the Kayanians, the kings of Babylonia, whom western authors are in the habit of calling Chaldaeans, brought the Empire under their sway. The reign of Arbaces lasted seventy-two years."