

10. THE ZODIACAL LIGHT.

SIR,—In two very interesting papers in our Journal (J.R.A.S., N.S., x, p. 344, and xii, p. 327) Sir James Redhouse has identified the Zodiacal Light with the “False Dawn” of Oriental poems and lexicons. I venture to question this and to submit that the “false dawn” is nothing but the first or early dawn. This is the view of Lane, Arab. Dict., 1345, col. 3, where he explains the phrase *zanabu-s-sirḥān* (wolf’s tail) as the false dawn, i.e. the first dawn, and observes that this nearly agrees with the Greek *λυκόφως*. I submit that the zodiacal light is a rare phenomenon even in India, and that it is presumably still rarer in Persia, as being further from the equator, and therefore cannot be the false dawn which is represented in the dictionaries quoted by Sir James as a thing of daily occurrence. Thus the Turkish translation of the Qāmūs says, “There are two dawns, one the false dawn the other shows itself later.” During a residence of more than thirty years in Bengal I never, to my knowledge, saw the zodiacal light in the morning, though I once saw it very brilliant in the western sky at Calcutta for two or three evenings. Other Anglo-Indians seem to have been equally unfortunate, and Sir James Redhouse admits in his first paper that it is only observable in one or perhaps two months of the year in the morning, viz. in October and November.

According to Abul Fazl, as translated by Colonel Jarrett, the Persian for the zodiacal light is *nezak*, a short spear or javelin. In the *Āin Akbari* he speaks of the cosmogony of the Greeks and says, “The elemental spheres are nine in number The second is of Air It is here that comets, zodiacal light, luminous streams and meteors, and the like have their origin” (Jarrett, iii, 38). In the original, Bib. Ind., 2nd ed., p. 24, l. 11, the words are

ذوات الأذئاب و نيازك و اممده و ذوات القرون و مانند آن

Here the plural *neyāzak* is used. Perhaps the true reading of the words that follow it is *أمداء ذوات القرون*, i.e. pillars possessed of horns. At least there is no conjunction in a manuscript copy of the *Āin* in my possession. Colonel Jarrett has a note in which he quotes Humboldt as remarking that the term *nezak* was first used by the Persian astronomers with reference to the light observed in 1688, and to which Cassini gave the name of the Zodiacal Light. I may add that *nezak* or its plural *neyāzak* corresponds to the *neza-i-otishān* of Vullers' Dict., ii, 1387, col. 1, which he renders "radii solis orientis et occidentis," and to the *neza ba kaf* of Steingass. It also corresponds to the *neza ba chast* which Abul Fazl uses in the *Akbarnāma* (Bib. Ind., 3rd ed., 222, nine lines from foot) when speaking of the various forms of comets. Possibly one reason why eastern writers have not specially noticed the zodiacal light is because they regarded it as a form of comet. According to Abul Fazl, Hindus reckoned that there were a thousand astral bodies (Jarrett, id.). In the *Akbarnāma*, in the place already referred to, which is a long description of comets in general and of Cornelius Gemma's comet of 1577 in particular, he is more moderate and says that the Hindu books describe more than a hundred kinds of comets, but that the Greek treatises mention only seven kinds. He also says (*Akbarnāma*, iii, 222, second line from foot), "Some Greeks are agreed that hairy comets (*zū zūāba*) appear in the east at sunrise, and tailed ones (*zūzanab*) in the west at evening, and apparently this is the result of repeated observations." It will be observed that Abul Fazl is writing in the *Āin* of the Greek cosmogony, and that apparently he attributes to them a knowledge of the *neyāzak* or zodiacal light.

In his first paper Sir James Redhouse quotes the Bahār-i-'Ajam as saying that the false dawn is compared to the tail of a wolf "by reason of its length and *slenderness*." But I think Sir James must have taken his quotation from Vullers, i, 900, col. 2, and not verified the reference, for in the lith. ed. of the Bahār-i-'Ajam of the Newal

kishore press, 1894, p. 457, col. 2, s.v. *dum-i-gurg*, the word is not باریکی *bārīkī*, as in Vullers, but تاریکی *tārīkī*, darkness or blackness. It thus corresponds to the *ṣabḥ azraq*, azure, or dark blue, morning of Omar *Khayyām*, quatrain 200 of Whinfield's ed. and translation, p. 135 of ed. 1901, and which he renders by "cold grey light."

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P.S.—Is not the phrase "the false dawn" paralleled by "the doubtful dusk" of "In Memoriam," canto xcv?

11. NOTES FROM THE TANJUR.

DEAR PROFESSOR RHYS DAVIDS,—Nanjio's Catalogue of the Chinese Tripiṭaka makes mention (p. 374) of an author whose name, in Chinese *Wu . sin*, 'without nature,' Nanjio conjecturally restores in Sanskrit as *Agotra*. Only one work (No. 1171 (1)) is ascribed to him, namely, a commentary on the *Mahāyānasamparigraha* of Asaṅga. A second commentary, by Vasubandhu, on the same work is included in the volume, and the text itself is recorded under Nos. 1183-4 and 1247.

Asaṅga's work is plainly identical with one contained in the Tanjur (*Mdo*, lvi, foll. 1-47) under the title *Mahāyānasamgraha*. This is followed by two commentaries: (1) a *Bhāṣya* by Vasubandhu (foll. 129-212), and (2) a *Mahāyānasamgrahopanibandhana* (foll. 212-342) by an Upāsaka Bhadanta *Ño . bo . ñid . med*. This is no doubt the person represented by the Chinese *Wu . sin*. Wassiliew, in Tāranātha's account of this author (see the Index), renders the Tibetan by *Asvabhāva*, but *Asvarūpa* would be equally possible. *Virūpa*, which is generally not translated, would probably be *gzugs . med* (though *no . bo* sometimes = *rūpa*), and *Abhāva* would be insufficient.—Believe me, yours faithfully,

F. W. THOMAS.