

Articles

TIBETAN SCIENCE AT THE COURT OF THE GREAT KHANS

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One of the most important effects of the Mongol conquests for world history was a perceptible jump in creative technological and scientific work. This was not merely the transmission Westward of the Chinese inventions of gunpowder and rockets, two items presumably ideally suited to the early Mongols. Several other fields of civilized culture also benefited from the Mongols' activities. However, the Mongols are generally still seen as (at best) passive participants in such activity. Indeed, they are charged instead with superstitious belief in all sorts of bogus pseudo-science foisted off on them by clever foreigners. In particular, although the Mongols are commonly thought to have been rather indifferent to religion, those who have followed what the Western sources say about the Mongols' interest in Tibetan Buddhism ascribe that interest to fascination with, or respect for, magical tricks.

There is no denying that the Western sources, at least, all agree on the Mongols' love of magic tricks. (It should not be overlooked that the foreign magicians first perfected their skills in countries where the people were apparently even more addicted to magic than the Mongols were. And the European observers were at least as fascinated by the magic tricks as were the Mongols.) But—leaving aside the Mongols' desire to collect taxes from yet another nation, and Khubilai's desire to adopt the system of Tibetan Imperial Preceptors to the Tangut court for the Mongols and make it the Great Khanate's own legitimation system¹—was fascination with magic the main reason for the

Mongols' particularly strong interest in the Tibetans and their religion? An examination of the sources reveals other good reasons for the Mongols' choice of the Tibetans over all other contenders.

The very first historically attested meeting between a high Tibetan leader and a Mongol lord proved to be of fundamental importance for the whole subsequent history of Tibetan-Mongolian relations. This was, of course, the meeting of Saskya Paṇḍita Kun-dga' Rgyal-mtshan with Kōdān (Tib. Godan), son of Ögedei. Kōdān was a powerful prince based in the former Tangut state, which had included parts of northeasternmost Tibet. Saskya Paṇḍita was called to Kōdān's court basically to surrender Tibet to the Mongols, who as usual merely wished to collect taxes from the country without the bother of conquering it. It is unnecessary to review all of the circumstances, by now well-enough known, surrounding this event and its aftermath.² However, an often-noticed but little-known incident took place at this meeting: Saskya Paṇḍita cured Kōdān of an illness. According to Rashīd al-Dīn, Kōdān was "somewhat sickly," and for that reason had been passed over as successor to Ögedei. Whatever his sickness was, it was serious enough to be mentioned in many of the abbreviated Tibetan sources on the period as well.³ The Fifth Dalai Lama's history, for example, says that Kōdān "was afflicted by an illness of the chthonic deities." Although it is known that Saskya Paṇḍita studied medicine,⁴ and even wrote a little work on curing cases of poisoning,⁵ the sources seem to indicate a religious healing rather than a medical one. In any case, the Fifth Dalai Lama and other authors do not tell us specifically what particular sickness Saskya Paṇḍita cured with his "blessing."⁶ However, as János Szerb has pointed out, in a little-noticed text written by 'Phagspa—who was with Saskya Paṇḍita at the time this took place—it is stated that "due to his [that is, Saskya Paṇḍita's] blessing, (Kōdān) speedily produced a son." This son was none other than the influential Prince Jibik Temür, to or for whom 'Phagspa wrote a good number of little works in addition to the one mentioned above.⁷

One can only speculate on the impression Saskya Paṇḍita's successful treatment may have had on the Mongols at Kōdān's court, but the record with respect to Tibetan doctors at the court of the Great Khans is unequivocal. In addition to curing various individuals of sickness,⁸ the two most important Tibetans at the court of the Great Khan Khubilai, 'Phagspa and later Dampa, were in charge of keeping the ruler in good health. Writing about the situation supposedly at the time of Temür Öljeitü, Rashīd al-Dīn says—"those two *bakhshis* are all powerful. They

have made their *nökers*, who have a knowledge of medicine, attendants on the Qa'an in order to prevent Temür Qa'an from taking too much food or drink."⁹ According to Marco Polo, the Khan's physicians and astrologers went with him just about everywhere.¹⁰

More prominent in the sources than medicine is the science of astrology.¹¹ All sources agree that the Mongols were overwhelmingly influenced by their astrologers. In fact, it is clear from the descriptions of John of Plano Carpini and William of Rubruck that the Mongols' own traditional beliefs emphasized astrology and other forms of soothsaying to an unusual degree. According to these writers, the Mongols consulted the *qam*, or shamanistic priest of traditional Mongol religion, before doing practically anything. The head *qam* determined auspicious days and times for various activities, and was somewhat knowledgeable about the motions of the sun, moon, and planets. The *qams* were also in charge of religious activities generally and thus took care of the shrines for the images of the Mongol gods. Möngke Khan himself told William of Rubruck, "God has given you the Scriptures and you do not keep them; to us, on the other hand, He has given soothsayers, and we do what they tell us, and live in peace."¹²

Almost from the moment of creation of their world empire, the Mongols were besieged from all directions by proselytizers of the major organized religions of the Middle Ages. Priests, monks, and mullahs, holy men and frauds of various types, descended upon the Mongol court in force, determined to convert the most powerful nation in the world to their own religion. The Mongols, however, who were after all smart enough to conquer most of the world, had not become fools overnight. They investigated each of the competing religions, in so far as the teachers they met could explain them, and made some fairly astute comments about them.¹³ Of all the religious teachers that they met, only the Tibetan Buddhists (and to a minor degree the less numerous Kashmiri Buddhists) were skilled in the one thing that the Mongols traditionally demanded of their *qam*: astrology. The sources, both East and West, state that the Tibetans were outstanding in this field,¹⁴ and indeed 'Phagspa, for example, wrote a large number of texts dealing with astrology.¹⁵

When we turn from the early descriptions of Plano Carpini and Rubruck to the somewhat later one of Marco Polo, the *qam* is no longer mentioned specifically, and seems almost to have disappeared. Instead, nearly all the ceremonies and prognostications the Mongol rulers required, which were formerly

performed by the shamans, are now said to be performed by Tibetan lamas,¹⁶ who had exactly the same preeminence at the Mongol court as the *qams* had formerly. Although the change-over was undoubtedly not as smooth as it seems from the sources, one is struck by the close match between the activities of the shamans and the lamas. Lest it be thought that any of the competing religions would have done the same if only given the chance, a look at any of the European or Islamic accounts shows just how unwilling the Christians and Muslims were to perform such services (although some individuals or sects, particularly the Nestorian Christians, did their best to be accepted). The same could certainly be said for the Chinese Confucians. Although the Taoists were apparently willing to cooperate, in their case it would seem that the Mongols' suspicion of the Chinese in general ruled out the possibility of any success by the Taoists, especially for such a sensitive job.

In addition to the fields of medicine and astrology, the Tibetan *bakhshis* were skilled in alchemy; short texts on alchemical subjects are to be found in the collected works of several of the Sakyapa masters.¹⁷ The sources indicate specifically that *bakhshi* alchemists served the Mongols at the courts of the Great Khan Khubilai and the Ilkhan Arghun; one can assume they served other rulers as well.¹⁸

The last field of scientific endeavor which deserves mention is linguistics. This is a field in which we today can more readily appreciate the achievement of the Tibetans; for perhaps their greatest scientific work for the Great Khans was the creation of what could be called the world's first multilingual transcription system. According to the Chinese account in the *Yüan shih*, this system, now known generally as "the 'Phagspa Script," was created by 'Phagspa in response to Khubilai's order to devise an official writing system for the Mongol empire. Both the Chinese¹⁹ and the Tibetan sources remark on the excellence of this alphabet, which was used to write texts in several languages, including Mongol, Tibetan, and Chinese, in an unusually precise transcription.

In conclusion, one of the most compelling reasons that led the Mongols to patronize the Tibetans was the fact that they fit perfectly into the cultural niche occupied by the traditional Mongol shamans. The Tibetans were uniquely qualified and willing to provide the Mongols with what they desired and needed in the area of "high-tech science," meaning in particular a highly developed tradition of medicine and astrology belonging to a respectable civilized religious culture. It should be pointed out also that the references to Tibetans in the foreign

sources on the Mongols deal nearly exclusively with just these activities, although magic also is treated prominently in the European sources (which seems to indicate that the Europeans were more fascinated by magic than were the Persians, Tibetans, or Chinese, who hardly mention the subject). Moreover, it seems from Marco Polo's account that the Tibetans performed their astrological services only for the ruling house.²⁰ The Great Khans thus still had soothsayers, while at the same time the Mongols became a part of the civilized world, and—as is now hopefully becoming well-known—acquired the trappings of civilized legitimacy as world rulers with their acceptance of the *cakravartin* kingship ideology of the Tibetan Buddhists. As a bonus the Tibetans, the most intensely literate foreigners of the period, introduced the Mongols to the most highly sophisticated metaphysical system of the day, Tibetan Buddhism.

NOTES

1. See the article by Elliot Sperling in this volume.
2. See T. Wylie, "The First Mongol Conquest of Tibet Reinterpreted" (*HJAS*, 37 [1977] 103–133), and J. Szerb. "Glosses on the Oeuvre of Bla-ma 'Phags-pa. I: On the Activity of Sa-skya Paṇḍita" (M. Aris and A. S. S. Kyi, ed., *Tibetan Studies in Honour of Hugh Richardson* [Warminster, 1980(a)] 290–300, and the corrections to the latter article in id., "Glosses on the Oeuvre of Bla-ma 'Phags-pa. II. Some Notes on the Events of the Years 1251–1254" (*AOH*, 34 [1980(b)] 263–285.
3. For a summary of references up to 1979, see Szerb. 1980a:294 n. 7 and cf. the bibliography in Szerb, 1980b: 281–285.
4. Dalai Lama V, *Rdzogs-ldan gzhonnu'i dga'ston dpyidkyi rgyalmo'i glu-dbyangs*, Peking, 1957; repr. Peking, 1981, p. 95.
5. *Ibid.*, p. 94.
6. *Saskyapa'i bka' 'bum*, 5: *Pandita Kun-dga' rgyal-mtshan gyi bka' 'bum*, Tokyo, 1968, pp. 428-2-3 to 429-4-2.
7. *Saskyapa'i bka' 'bum*, 7: *Chos-rgyal 'Phagspa'i bka' 'bum*, 2 (Tokyo, 1968) p. 257-1-6.

After this paper was already in press, I was informed by Leonard Van der Kuijp that this account of the healing of Kōdān seems to be historically inaccurate, and that in fact Jibik Temūr was born before Saskya Paṇḍita's visit. Pertinent information may be found in several sources, including *Saskyapa'i bka' 'bum*, : *Ngor Chen Kun-dga' bzangpo'i bka' 'bum* (Tokyo, 1968-1969), and 'Jam-dbyangs blo-gter dbangpo, *Lam'bras slob-bshad* (Dehra Dun, 1983-1985). Professor Van der Kuijp also noted that numerous other examples of Tibetans giving Mongol lords medical

treatment may be found scattered throughout the literature. Unfortunately, the publication schedule of this *Journal* did not allow me the time to investigate any of this.

8. *Yüan shih*, 202:4519: Dampa Kun-dga'-grags (Chi. Tan-pa kung-chia ko-la-ssu) cured the wife of the official Yüeh-ti-mi-shih of a "strange disease," and cured Ch'eng-tsung of sickness by praying for him. On Dampa, see the short biographies in *Yüan shih*, loc. cit., and *Fo tsu li tai t'ung tsai*, Taisho No. 2036, pp. 725c-727a. For further references, see L. Petech, "Sang-ko, a Tibetan Statesman in Yüan China" (*AOH*, 34 [1980]) p. 195 n. 9

9. J. A. Boyle, transl., Rashid al-Din, *The Successors of Genghis Khan*, N.Y., 1971, p. 302. In connection with this source, I would like to remark that the longstanding mystery of the name "Kanba" (Boyle) or "Kinba" (Quatremère) is undoubtedly due to a common scribal error, or to a misreading of the way the word was written in the Persian original (our library's copy is not at the present time available to me). In Arabic script, especially the way Persians write it, the "crossing" stroke of the letter "kaf" is commonly not connected with the base portion of the letter, and it is frequently unclear to which letter the stroke should belong. Context normally tells the reader in cases of doubt, but with foreign names context is of no assistance. In this case, if the "kaf" stroke is attached to the second rather than to the first prong of the word, what is produced is the name Pakba. (The dots for the "pe" could perhaps be the kasra noted in Quatremère's "Kinba"). 'Phagspa (whose name is pronounced today the same as Rashid al-Din's *Pakba*) and Dampa thus are the two Tibetan lamas to receive special mention in both the *Yüan shih* and Rashid al-Din's history, despite the latter source's attribution of both to the time of Temür Öljeitü.

10. It is, however, necessary to note that despite the relatively high level attained by medical science in Tibet by the thirteenth century, and despite the great amount of high-quality medical literature in Tibetan that was available, no explicit reference to *scientific* Tibetan medicine (see the next note) is made in any of the major sources on the Great Khanate.

11. I use the word "science" in the sense of Thomas Kuhn and the recent reformulation of his ideas by Shigeru Nakayama, i.e., a paradigm-based scholarly tradition. The idea of what "science" is or ought to be is unclear in the modern English-speaking world, and the matter is thus the source of controversy. See the discussion in my paper, "The Scholastic Method in Medieval Tibet and the West," forthcoming in the commemoration volume for Turrell V. Wylie.

12. C. Dawson, *The Mongol Mission* (New York, 1955) p. 12 (John of Plano Carpini) and pp. 195, 197–201 (William of Rubruck).

13. For example, the comments of Khubilai in Marco Polo, pp. 119–120:

On what grounds do you desire me to become a Christian? You see that the Christians who live in these parts are so ignorant that they accomplish nothing and are powerless. And you see that these idolaters do whatever they will . . . They banish bad weather in any direction they choose and perform many marvels. And, as you know, their idols speak and give them such predictions as they ask. But, if I am converted to the faith of Christ and become a Christian, then my barons and others who do not embrace the faith of Christ will say to me: "What has induced you to undergo baptism and adopt the faith of Christ? What virtues or what miracles have you seen to his credit?" For these idolaters declare that what they do they do by their holiness and by virtue of their idols. Then I should not know what to answer, which would be a grave error in their eyes. And these idolaters, who by their arts and sciences achieve such great results, could easily compass my death. But do you go to your Pope and ask him on my behalf to send me a hundred men learned in your religion, who in the face of these idolaters will have the knowledge to condemn their performances and tell them that they too can do such things but will not, because they are done by diabolic art and evil spirits, and will show their mastery by making the idolaters powerless to perform these marvels in my presence. On the day when I see this, I too will condemn them and their religion. Then I will be baptized. . .

14. Marco Polo, pp. 111, 131 ("their *Bakhshi*, that is, the adepts in astrology"), 174; *Yüan shih*, 202:4519.

15. See 'Phagspa op. cit., texts nos. 284–294 (pp. 244–3–2 to 256–2–6).

16. Marco Polo, 109–111, 128, 131.

17. See for example Vol. 4 of the *Saskyapa'i bka' 'bum*, Vol. 2 of the works of Gragspa Rgyal-mtshan, text No. 68 (p. 35–3–4 to 35–4–3), *Sman chenpo'i bcud-len*.

18. On Khubilai, see Quatremère, p. 190 n.; on Arghun, see Quatremère, p. 194 n.

19. *Yüan shih*, 202:4518. Use of 'Phagspa script throughout the empire (but including the use of traditional local scripts along with it) was ordered in the sixth year of the Chih-yüan period.

20. Marco Polo describes the large number of *ordinary* astrologers, who served the needs of the people of Khanbaliq (traders are given particular attention by the author) on pp. 158–160. These were, he says, "Christians, Saracens, and Cathayans, about 5,000 astrologers and soothsayers . . ." (p. 158).
