

A Comparison of the Twenty-Eight Lunar Mansions between Dabaism and Dongbaism

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Abstract

The present study compares the twenty-eight lunar mansions of Dabaism and Dongbaism, from the perspective of pronunciation, writing, and star atlases, with new data of Daba calendars collected from my fieldwork. I try to decipher the questionable Dongba stars documented by scholars before according to Daba stars, since they share similarities, with reference from the commonly shared 28-lunar mansion systems among Tibetan, Sanskrit, and Chinese. One of the differences between Dabaism and Dongbaism is the choice of starting lunar mansion. According to records about the stars "on duty" on the first day of each month in Dongba classics, I suggest the star from the constellation "human" should be in agreement with the Dongba tradition. In this case, the starting lunar mansion in Dabaism could be an additional written proof of this tradition.

Keywords: Dabaism; Dongbaism; calendar; twenty-eight lunar mansions; the starting lunar mansion

Introduction

Dabaism and Dongbaism are very ancient (primordial) local religions of Na and Naxi People living in South-West China. Dabaism and Dongbaism have the same origin and have developed in the regions where they are widespread according to an independent path for a long time in history. Systematic investigations of Dongbaism started in 19th century, with the arrival of Christian priests in South-West China. They studied the ethnic cultures of those territories. The local writing system, called Dongba scripts, is now recognized (and well-known) as the unique pictographic writing still alive all over the world. The cognate belief of Dongbaism, Dabaism, has remained untouched over time, being attested in a remote mountainous area. Traditionally, from the dawn of time, Dabaism and Dongbaism use lunar mansions in order to calculate the dates. Some of the records about their lunar mansions can be found in Dongbaism classics that have been written in Dongba scripts (as shown here in Table 2).

Since the discovery of Daba calendars in 1930s, the atavistic calendars and the only written texts of Dabaism discovered so far, some studies have been done on them in order to decipher the

ancient symbols, including [1, p. 32], [2, p. 43], [3], [4]. However, the interpretation of these symbols still needs to be worked in-depth. Firstly, they have used Chinese characters to write down the pronunciations of the symbols in local language, which is quite different from Chinese phonemic system. Secondly, the versions of the calendars have not been documented clearly in some of the publications so that the number and meanings of the symbols are varied from version to version.

During my two-month fieldwork in January and July, 2011, on the border area of Yunnan and Sichuan Provinces, I have visited ten Daba, the priests of Dabaism, and two Lama, the priests of Tibetan Buddhism. With the cooperation from them, I have interpreted eight Daba calendars from four villages¹ in the area. The Daba scripts are conventional religious symbols used to write down the lunar mansions in the calendar. However, they are not able to transcribe the target language. The interpretations I have collected for the lunar mansions include: the lunar mansions' symbols, IPA transcriptions of their names in Na, translation of Na, IPA transcriptions of the meaning of them in Na, word-by-word translation and interpretation as sentences, and, finally, the conclusion of divination meanings of the lunar mansions. In the following Table 1 it is possible to find an example elicited from my interpretation work. Basing my analysis on the roar data, there are twenty-eight symbols representing the lunar mansions of Dabaism and seven symbols borrowed from Tibetan Buddhism.

Daba Scripts	2.00							
IPA	zwæikt	zwæłkuł						
Chinese	Mă Xīn	Mă Xīng (Hugua)						
IPA	zwæł	tehi	mлI	dzal,	let	χwał	mлI	dzal.
Translation	horse	to sell	NEG.	good,	to buy NEG. good			good.
Interpretation	(On the	(On the day of Hugua), the exchanges of horses are not auspicious.						
Divination Meaning	The day	/ that Hug	gua is "on	duty" is	not go	ood for h	orse exch	ange.

Table 1. Example of Interpretation of Dabaism stars

Due to the sound changes happened in the local language, some meanings of the lunar mansions have remained mysterious since they could not be related to the current vocabulary. However, the designations of the lunar mansions in Dabaism and Dongbaism share the same meanings, but different pronunciation according to the local dialects. This has provided more possibilities in discovering more about the meanings of the stars. In order to do this, I tried to take reference from the twenty-eight lunar mansions in Dongbaism. Many scholars have investigated the twenty-eight lunar mansions. For example, [5, p. 513-517]², [6, p. 28-30]³, [7, p. 92-

¹ The four villages are: Wūjiǎo 屋脚Village, Mùlǐ 木里County, Sichuan Province; Lìjiāzuǐ 利家嘴Village, Mùlǐ County, Sichuan Province; Qiánsuǒ 前所Village, Yányuán 盐源County, Sichuan Province; Wēnquán 温泉Village, Nínglàng 宁蒗County, Yunnan Province.

 $^{^{2}}$ The book of Joseph Rock was published in 1963, while the fieldwork had been conducted at the end of 19th century and the beginning of 20th century.

³ Yáng Zhònghóng's dictionary of the writing system of Dongbaism was written in 1930. However, it has not yet been published. In this paper I take reference from the scanned pages cited in Zhōu Yín's master degree thesis. The scanned pages have been collected by Professor Yù Suìshēng 喻遂生.

95], [8, p. 7-9], [9, p. 319-320⁴, p. 314-315], [10, p. 145-148], [11], [12, p. 377], [13, p. 33], [14, p. 226-228], [15, p. 399]. The characters of the stars have been collected from various regions and the Dongba priests had various interpretations of the stars' characters. Among these data, those provided in [8] have been considered the most convincing version, as they have reached the agreement of many Dongba priests and their locations have been checked with the stars in the sky. Besides this version, the fieldworks conducted by Zhū Bǎotián in É'yà 俄亚Village and Lǐ Guówén in É'luòjǔ 哦洛举Village in Dàdōng Xiāng 大东乡 have also yielded reliable roar information of the Dongba's twenty-eight lunar mansions. According to the materials published so far, the stars and their order are almost the same among different versions in Dongbaism. In most versions the twenty-eight lunar mansions starts with the star called [tş'walts'AJ] and ends with [t'alkuJ]⁵, with the exception of the Divination Figure displayed in [11], which starts with the star called [py³³bu²¹ky³³] and ends with [zy²¹pə²¹].

The pictographic writing system used in Dongba classics can write down the lunar mansions' names as well as to transcribe the language to some extent. Table 2 is an example of Dongba Classic record related to the 28 lunar mansions. It is elicited from Volume 92 of *Nàxī Dōngbā Gŭjí Yizhù Quánjí* 纳西东巴古籍译注全集 [An Annotated Collection of Naxi Dongba Manuscripts].

Vol. 92,	"Yǐ S	ĭzhě V	Vánglíng	de s	Shírì, Y	uè, X	līng, Zhà	ın Wá	inglíng	de D	òngxiàng
以死者亡灵的	的时日、	月、星	し 占亡灵的	动向"	[Astrolog	gy abou	t the Mov	ement c	of Deads	s accordi	ng to the
day, month, a	ind star '	on duty	/"]" ⁶								
201	-	17									
最田····································											
Dongba	50	لمت ا	400		7	Ð	(0)	3	众		
Scripts			/ -		•	4-	-	³	~		
IPA	iə ²¹	pe ²¹	ts'e ³³	do ²¹	duu ²¹	ŋ i ³³	py ³³	bu ²¹	kv ³³	to ⁵⁵	dər ³³
Chinese	yī yuè		yuè	xiàn	yī	rì	běnbŭgŭ		shàng	lún	
English	the 1 st	month	month	see	the 1 st	day	Altair Loc. on duty				
Translation	The first day of the first month, Altair is the star on duty.										

Table 2. Example of Interpretation of Dongbaism stars

There are also atavistic figures of the 28 Mansions in Dongbaism besides the Dongba classics recording the sentences that interpret the divination meanings of the stars. One example is the Divination Figure documented in [11], as reported in Figure 1. The inner circle lists the twelve stars "on duty" of the first days of each month. The outer circle displays the twenty-eight lunar mansions.

⁴ Zhōu Rǔchéng's material has been collected in 1958. It has been cited in a confidential way in Zhū Bǎotián & Chén Jiǔjīn (1985), pp. 319-320.

⁵ The transcriptions of the stars' names are different in various versions because of the dialect issue. Here I use the transcription from Lǐ Líncàn (1972) as representatives.

⁶ The example is cited from Zhōu Yín (2008: 47-48), who has added annotations to each Dongba characters on the basis of the original philologic work in *Nàxī Dōngbā Gǔjí Yizhù Quánjí*. According to the additional annotations in Zhōu Yín (2008: 47-48), **47-48**), **4**



Figure 1. Divination Figure Interpreted in [11]

There are also comparative studies of the twenty-eight lunar mansions with the main cultures around Dongbaism. For example, the correspondence of the twenty-eight lunar mansions among Naxi, Chinese, Tibetan, and Sanskrit researched by [5, II, p. 513-517]. However, there are also scholars consider the twenty-eight lunar mansions knowledge originated from the astronomical observation of ancestors of Na and Naxi People and passed down via local religious classics [16, p. 301].

Materials accessible so far suggest both similarities and differences of the twenty-eight lunar mansions between Dongbaism and Dabaism in the perspective of the stars' names and the shape of the stars' characters. In the present study, I try to compare the twenty-eight lunar mansions in the two cognate local religions in order to discover the correspondence between the two systems in an exhaustively way and to solve questions noted in previous research about the lunar mansions' names. Further on, I try to display the relationship of the twenty-eight lunar mansions in Dabaism and Dongbaism with those in other main-stream cultures.

Methodology

Investigating about the Dabaism lunar mansions, I have checked through the characters of the stars/asterisms in Daba's calendars and I have found out the correspondences of the characters among the eight versions of calendars. In Dabaism there are thirty days every month and twelve months in one year. Moreover, four to five days would be added according to the locations of the stars in the sky. The days are marked by twenty-eight lunar mansions in a certain order. With the repetition of the twenty-eight lunar mansions, each day of the whole year is represented by one mansion. I take the first circulation of twenty-eight lunar mansions from the beginning of the first

month, the month of tiger, in Daba's calendar, for numbering them. Among these hand-writing calendars, the ones from Wūjiǎo Village and Lìjiāzuǐ Village have been most exhaustively and correctly explained. The two Daba priests contributed to the work are $\bar{A}w\bar{o}$ 阿窝 and Mùpà 木帕. The two most ancient calendars in Qiánsuǒ Village are held by Daba Hé Lǔzuǒ 何鲁左 and Lama \bar{A} Lǔzuǒ 阿鲁左, the two most respected priests in the village. In the Tibetan calendar held by Lama \bar{A} Lǔzuǒ, the stars' names of Dabaism have been transcribed in Tibetan scripts on the pages of the first month. Lamas use the Daba calendar as an additional reference to Tibetan calendar when they have to establish days for rituals. However, they don't know exactly the meanings of the stars' names. The calendar from Wēnquán Village is very ancient and damaged. The owner Daba $\bar{A}w\bar{u}$ was not able to interpret the stars' symbols.

Studying the Dongbaism lunar mansions, I have selected the highly reliable first-hand materials collected by other scholars and I have compared these versions of Dongba's twenty-eight lunar mansions. These materials include: [8], [9], and [11].⁷ The nuances among different versions are annotated under star groups in Section 3.

Among the recordings of twenty-eight lunar mansions in Dongbaism, most of them start with "Liù Xīng" (the constellation "six stars"). A plausible reason for this is a kind of tradition set in the beginning of the studies on this topic, seeking for the similarity of Naxi People's lunar mansions with Chinese constellations. In Rock's dictionary, one of the earliest work on Dongbaism lunar mansions, ^{mon} [³Ch'wua-¹ts'ěr-²k'o] and ^{mon} [³Ch'wua-¹ts' ěr ¹gv] are the first two stars. The second of them corresponds to "Kàng Xiù" 亢宿, the constellation of the "neck" (of the "dragon" in the east) in Chinese twenty-eight lunar mansions, which is the second in the series. Yáng Zhònghóng also connected "Liù Xīng" with "Jiǎo Xiù", the constellation of the "horn" (of the "dragon" in the east) in Chinese twenty-eight lunar mansions. Since "Jiǎo Xiù" is the first in Chinese lunar mansions, He considered "Liù Xīng" the first star in Naxi People's lunar mansions. Lǐ Líncàn follwed this tradition [8], as well as Zhū Bǎotián & Chén Jiǔjīn did [9]. The only exception is the Divination Figure interpreted in [11], in which "Liù Xīng", ^{mon} [tş'ua⁵⁵ts'ə²¹k'o³³], is the eighth in the sequence of lunar mansions.

Basing my analysis on the results of the comparison within both Dabaism and Dongbaism, I analyze the two 28-lunar mansion systems of Dabaism and Dongbaism. As mentioned above, Dabaism and Dongbaism are the eastern branch and western branch of the same local religion. The local dialects of Dabaism and Dongbaism are also considered eastern and western dialects of the same language. The eastern dialect is called Na and the western dialect is called Naxi according to the endonyms in each of the dialects. People speaking different dialects, Na or Naxi, could not communicate without learning each other's dialect. However, linguistic studies have discovered systematic phonemic correspondences between the two dialects [17, p. 112-113], [18]. Considering the sound correspondences between Na and Naxi, I take the relationship of the stars from Dabaism

⁷ Data about twenty-eight stars Lǐ Líncàn (1972) were collected from Zhōngdiàn 中旬 County, Díqìng 迪庆 Prefecture, Yunnan Province. The first-hand materials in Zhū Bǎotián & Chén Jiǔjīn (1985) were collected in their fieldwork in É'yà Village, Mùlǐ County, Sichuan Province, with three Dongba priests in 1981. The information about their fieldwork has been recorded in Zhōu Yín (2012). The translation of the Dongba classic named "Bógé 博格Figure" by Zhōu Rǔchéng is recited from Zhū Bǎotián & Chén Jiǔjīn (1985). The Chinese translation of "Bógé Figure" is "the Figure of Frog" according to Lǐ Guówén (2006: 108). The Divination Figure interpreted in Lǐ Guówén (2006) was discovered from É'luòjŭ Village, Dàdōng Xiāng, Lìjiāng, Yunnan Province.

and Dongbaism reflected by pronunciation of the stars' names into first account, while the similarities remained in the shape of the symbols/characters of the stars as secondary criteria.

The results of the comparison are presented in the following section. I have chosen the symbols from Lìjiāzuǐ Village as the representative scripts of Dabaism stars, since they are ancient but also clearly written. The interpretations of the symbols and the meanings of the stars are based on the interview with Daba priests from Lìjiāzuǐ Village, Wūjiǎo Village, and Qiánsuǒ Village, with justification according to my knowledge of the local language. For Dongbaism stars, I have used Zhū Bǎotián's material from É'yà Village as the main object for comparison and the stars atlases drew by Zhōu Rǔchéng as additional references for the interpretations of the stars' names. The variations appeared in other versions of twenty-eight stars systems are noted at the end of each group of the stars. The starting point is the constellation of "human", with respect to the habits of Daba priests I have interviewed in fieldwork, who always explain the 28 lunar mansions from "Pami".

In Section 5 I try to present the 28 lunar mansions in Dabaism and Dongbaism in the Cultures' background by listing the corresponding stars in Chinese, Tibetan, and Sanskrit, with reference to the comparative studies of the 28-lunar mansion systems in different cultures in [19, p. 50-52], [20, p. 308-309], and the table comparing 28 (or 27) lunar mansions of Tibetan, Sanskrit, and Chinese in [21] and [22]. For the additional reconstructions of mid-Chinese and old-Chinese, [23] and [24] have been referred. Most of the locations of Daba and Dongba lunar mansions and their relationship with Chinese and European star names have been discovered by Lǐ Líncàn [8], with the cooperation from Dongba priests. Later on, Zhū Bǎotián [9] has made complementary discoveries and observations for some of the non-identified stars on the basis of that.

The Comparison of the 28 Lunar Mansions of Dabaism and Dongbaism

In this section I explain the details of the comparison between Dabaism and Dongbaism stars. The stars have been grouped according to the meanings of their names. These star groups can be considered as constellations of Dabaism and Dongbaism, since they are generally body parts of animals or human.

Daba Scripts	28	1	2				
	0(0	\$	00				
IPA	p ^h æ-lmi	niidii	zwæłkuł				
	4						
Chinese	"Pami"	"Nizhi"	Mă Xīng <u> </u>				
Dongba Scripts	22		23				
			300				
IPA	pyJbuJ		zualdzel				
Chinese	Háozhū	Xīng 豪程	Mă Xīng				
Star Atlas	000		° ° °				
Annotation	1) In Dal	paism "Pami" and "Nizhi" are from '	'Rén Xīng人星', the constellation				
	"human"	. According to Daba $Aw\bar{o}$, this const	ellation corresponds to "Niúláng				
	Xīng牛郎	霍' in Chinese ("Deneb" in English).					
	In the m	In the materials of Lǐ Líncàn and Zhōu Rǔchéng "Háozhū Xīng" (literally it					
	means "	means "the star of 'porcupine") is the Dongbaism designation for Chinese					
	constella	tion "Niú牛". According to the notes	of Zhōu Rǔchéng, there are two				

stars belonging to the constellation "human": [py-lby-lky-1] "Niúláng
Shēn牛的?" (the body of the "human") and [py-lby-lmæ-l] "Niúláng Wěi
生现定" (the tail of the "human"). The star atlas for the tail of the "human" is
Left. The two stars in correspondence in the Divination Figure interpreted in
Lǐ Guówén (2006) are the first two stars in the sequence: @#[py ³³ bu ²¹ kv ³³] and @*[py ³³ bu ²¹ mæ ³³].
2) "Mă Xīng" (the constellation "horse") is written as Decadaria [zualmoltselkul] in
[8, p. 9] and 魯榮 [zua ³³ tse ³³] in [11].

Daba	3	4	5	6			
	-		-	0			
Scripts	R	20	() ()	0			
IPA	рл-к ^h wл-	pʌldzɯl	dzui-kui-	рл∙кшЈр [⊾] шЈ			
Chinese	Wā Zuĭ	Wā Niào	Shuĭ Xīng	Bái Wā Xīng			
	Xīng	Xīng	水星	白蛙星			
	蚰猩	蛙家星					
Dongba	24	25	26	27	28		
Scripts	× ×		では	2 >	夺飞		
IPA	pa-1k'u-1	palbyl	paimæi	nælgul	t'algəl		
Chinese	Wā Zuĭ	Wā Zhī Xīng	Wā Wěi	Wā Wěijiān	Shíwěi Xīng		
	Xīng	蝴娃	Xīng	Xīng	时尾星		
			蜡星	蛙尾尖星			
Star Atlas	0000	00000		000	000000		
Annotation	1) "Wā Zuĭ	Xīng" is the me	outh of the c	onstellation "fro	g", "Wā Niào		
	Xīng" is the	urine of the "fro	og", "Shuĭ Xī	ng" is the star of	`"water", "Bái		
	Wā Xīng" is	s a white star fro	om the conste	llation "frog", "	Wā Zhī Xīng"		
	is the limb of the "frog", "Wā Wěi Xīng" is the tail of the "frog", "Wā						
	Wěijiān Xīng" is the tail-peak of the "frog", "Shíwěi Xīng" is "the tail						
	of time".						
	2) "Wā Wě	i Xīng" appear	s only in the	e materials coll	ected by Zhū		
	Băotián, in v	which the star's a	atlas is depict	ed as 🤔.			

Daba	7	8	9			
Scripts	×	0 0 0 0 0 0	Ş			
IPA	qʰįltʂælqʰ.t̥l	qʰįltsælgylmil	(solthal)njælhyt			
Chinese	"Kezha" Jiǎo	"Kezha" Shēn	Hóngyăn Xīng			
	"科扎"角	"科扎"身	红腥			
Dongba	1	2	3			
Scripts	100000000000000000000000000000000000000	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	D=Q ALL			
IPA	tş'ualts'ʌJk'al	tş'ualts'ʌlgolmol	miəlhyl			
Chinese	Liù Xīng Jiǎo 六星角	Liù Xīng Shēn 六星身	Hóngyăn Xīng			
Star Atlas	000	000	0000			
Annotations	1) "Kezha Jiǎo" is the horn of the constellation "six stars", "Kezha					
	Shēn" is the body of th	ne "six stars". In [8] only	one star/asterism from			

the constellation "six stars" has been chosen to mark the days. It is written as ³³ [tş'walts'ʌJ] and translated as "Xiōngdì Xīng兄弟星", literally means "the star of the brother". In [11] "Liù Xīng Jiǎo" is written as ³³ [tş'ua⁵⁵ts'ə²¹k'o³³].
2) "Hóngyǎn Xīng" is the constellation "red eye". In [11] the name of ⁴⁴ ⁴⁴ ⁴⁵ "Hóngyǎn Xīng" is [miə²¹hy²¹no⁵⁵kə²¹].

Daba	10	11		12	13	
Scripts	000	00		00	0	
IPA	soltµa]roj	soJthallol		soJthaJtşhw∧ ImiI	soJthaJkt	սվե _ր աղ
Chinese	Sān Xīng	Sān Xīng Sł	ıŏu	Sān Xīng	Sān X	īng Bái
	Tóu	三星手		Chuōmī	Xīng	
	三星头			三星"戳咪"	三星白星	1
Dongba	4	4-b	5		6	7
Scripts	tot	000	000		60	の羊
IPA	sult'olk'a	sw+t'oJlaJ	sɯlt'olgo		dziJku∙	dzi√mæ
	1		-lmo-l			4
Chinese	Sān Xīng	Sān Xīng	Sān Xīng		Shuĭtóu	Shuĭwěi
	Jiăo	Shŏu	Shēn		Xīng	Xīng
	三星角		三星身		水头星	水尾星
Star	000		00		00000	000
Atlas						
ons	"Chuōmī" (t stars", "Sān Xīng Jiǎo" is the "three sta 2) The latter Bái Xīng" in "Shuǐtóu Xīn the tail of the 3) The lunar constellation from this con The star atlat the similar sl the meaning Shēn" correp the first two days are the Dongbaism,	he meaning Xīng Bái Xīn the horn of t rs". two lunar ma n Dabaism a g" means the e "water". r mansion nu "three stars" nstellation in s of "Sān Xīn nape with the of "Chuōmī" bond to the 12 stars from th head and the they are the	of the word ng" is a white he "three star unsions in Do ccording to head of the " unbered as " in [8], whic other Dongb ng Shēn" in 2 symbol of th remains unk 2 th star in Da e constellatio hand of the horn and the	stars", "Sān X remains unkn e star from the star from the s", "Sān Xīng S ngbaism corres the pronunciat 'water" and "Sl '4-b" is the se h is different f ba materials tha Zhōu Rǔchéng ne 11 th star in I nown. The evic baism is slim. on "three stars" in e body of the ' ries versions.	wwn) of the "three states of the states of the second stare in the second stare is the conduction of the second stare is data is Dabaism. If dence for "In order the chosen to a Dabaism.	the "three ars"; "Sān he body of 'Sān Xīng eir names. ng" means from the econd star ed as "5". "5. It has Moreover, 'Sān Xīng o sum up, o mark the . While in

4) The star f [kuJp'urJdzʌJky1] in [8, p. 7] is identified as "Tiānláng Xīng 天狼星" ("Sirius"). Its short form, [dziJku1] "Shuǐtóu Xīng", appears in Zhū Bǎotián [9, p. 314] and Zhōu Rǔchéng [9, p. 320]. Similarily, the star 奋 kuJp'urJdzʌJmæ1] in [8, p. 8], located as "Nánhé Xīng 南河星" ("Procyon"), is shorten as [dziJmæ1] "Shuǐwěi Xīng" in Zhū Bǎotián and Zhōu Rǔchéng's materials. However, the transcriptions in [11] are similar to those in [8, p. 8-9].
5) Basing my analysis on the pronunciations of the two stars' names transcribed in [8, p. 8-9] and [11] I connect "Tiānláng Xīng" (or "Shuǐtóu Xīng") and "Nánhé Xīng" (or "Shuǐwěi Xīng") to the star "Sān Xīng Bái Xīng" in Dabaism, since the first two syllables of two stars in Dongbaism

are the same as the last two syllables of the star in Dabaism.

Daba		15				
Scripts	Ê	Ê				
IPA	hołkuł	kʌJkɯl				
Chinese	Yějī Xīng 野鸡星	Yīng Xīng 鹰星				
Dongba	8	9(22-b)				
Scripts	20	C				
IPA	fvlkml	gəlkml				
Chinese	Yějī Xīng	Yīng Xīng				
Star Atlas	\odot					
Annotations						

	combination of two ideograms, pheasant and eagle: شرافي المشركة. It could be
	the lunar mansion for "eagle".

Daba	16	17	18	19-b			
Scripts	D	0.0	9	000			
IPA	boJk ^h wA	boJdzur-	bolmæl	bolmat			
Chinese	Zhū Zuĭ Xīng	Zhū Niào Xīng	Zhū Wěi Xīng	Zhū Yóu Xīng			
	猪嘴星	猪尿星	猪尾星	猪油星			
Dongba	10	11		12			
Scripts	Case Case	20		E o			
IPA	buJk'u-	bulto-		bulmal			
Chinese	Zhū Zuĭ Xīng	Zhū Yāo Xīng		Zhū Yóu Xīng			
		猪腰星					
Star Atlas	00	000		000			
Annotations	1) "Zhū Zuĭ Xīn	g" is the mouth of	the constellation "p	oig", "Zhū Niào			
	Xīng" is the urine	e of the "pig", "Zhi	ū Wěi Xīng" is the t	ail of the "pig",			
	"Zhū Yóu Xīng"	is the fat of the "pi	g", and "Zhū Yāo X	ing" is the waist			
	of the "pig".						
	2) Most of the ve	ersions of twenty-ei	ght lunar mansions	in Dabaism and			
	Dongbaism have	three stars from the	e constellation "pig"	for marking the			
	days, with the ex	xception of the cal	endar from Lijiāzuĭ	Village, which			
	has four stars from the constellation "pig". The third one, numbered as						
	"18", is the one not included in other calendars of Dabaism. The similar						
	pronunciations of	f the two words, "ta	ail" and "fat", could	be the origin of			
	this additional sta	ur.					

Daba	19	20-b	20	21	22		23	
Scripts	800	2 million	à	De	12		e)	
IPA	ziJzył	zɨJzylqʰĮl	zɨlqʰːl	ziJii	zɨJŋj∧I		zɨJgγℲ	
Chinese	Piānniú	Piānniú Sì	Piānniú	Piānniú	Piānniú		Piānniú	
	Sì	Jiǎo	Jiăo	Ěr	Yǎn		Zhăng	
	犏牛四	犏牛四角	犏牛角	犏牛耳	犏牛眼		犏牛掌	
Dongba	13		14	15	16	17	18	
Scripts	~ ~		200	2°°°	and the	80	000	
IPA	zyJnvl		zy√k'a]	zyJhə⁺	zyJmiəJ	zyJtcərℲ	zyJgu¹	
Chinese	Zhīnǚ		Zhīnǚ	Zhīnǚ Ěr	Zhīnǚ	Zhīnǚ Bó	Zhīnŭ	
	Zuĭ		Jiăo	织女耳	Yǎn	织女脖	Shēn	
	织女嘴		织女角		织女眼		织女身	
Star Atlas	00000		200	2020	6) 00	2000	000	
Annotations	1) The ph	onemic transci	ription of th	ne constella	tion's name	in Na is [zi], whose	
	Romanized	Romanized transcription is "Zi". The Daba priests from Wūjiǎo 屋脚Village and						
	Lìjiāzuǐ 利	家嘴Village di	id not give	a shared an	d well-establ	ished transl	ation of the	
	name of the	e constellation	called "Zi".	They consid	er it just as a	name. The	priests from	

Qiánsuǒ 前所Village translated it as "mdzo". "Mdzo" is the Tibetan form for a kind of local livestock, which is also called "Yak-cow hybrid" in English. In various versions of Dongba's 28 lunar mansions the constellation of "Zi" is read as [zyJ] or [dzyJ] (Zhōu Rǔchéng's work cited in [9]). Lǐ Líncàn [8, p. 8] and Zhōu Rǔchéng [9, p. 320] have kept the symbol as the translation of this word in all the related entries. Zhū Bǎotián ([9, p. 314-315]) has translated it as "Zhīnǚ", the legendary fairy in the story of "Deneb and Vega". Lǐ Guówén has used the Chinese character "Ruǐ滾" as a close transliteration of the local word and suggests that it could be a kind of animal [11]. Since the pronunciation of the constellation's name is similar among all the versions of calendars, while the translation has not yet been recognized and shared, I propose an interpretation, in this paper, according to hints from the different points of view: a) the stars from this constellation are different parts of its body including "horn"; b) Daba priests from Qiánsuǒ Village have given a plausible explanation, indicating this animal, which is common in their region. For that reason, I prefer to call it "Piānniú Xīng" in the current stage, using the translation of Qiánsuǒ Dabas.

2) "Piānniú Si" is the constellation of "mdzo". Literally, the name means the whole body of "mdzo". "Piānniú Sì Jiǎo" means the horns of the "mdzo" on four facets. "Piānniú Jiǎo" is the horn of the "mdzo", "Piānniú Ěr" is the ear of the "mdzo", "Piānniú Yǎn" is the eye of the "mdzo", "Piānniú Zhǎng" is the foot of the "mdzo". In Qiánsuǒ Village, there is not the star named as "the foot of the 'mdzo", but "Piānniú Shēn" ("the body of the 'mdzo"), which is written as 🏠.

3) "Zhīnů Zuǐ" is the mouth of the "mdzo", "Zhīnů Jiǎo" is the horn of the "mdzo", "Zhīnů Ěr" is the ear, "Zhīnů Yǎn" is the eye, "Zhīnů Bó" is the neck, "Zhīnů Shēn" is the body.

4) The 19th star in Daba's calendar has similar star atlas with the 13th in Dongba's 28 lunar mansions documented in [9, p. 314].

5) The lunar mansion numbered as "20-b" in Dabaism scripts comes from the calendar in Lìjiāzuǐ Village. The name is the combination of the 19th and 20th lunar mansions from the calendars in the versions from Wūjiǎo Village and Qiánsuǒ Village considering the syllables in the names.

6) The first in the star group from the constellation "Ruǐ" in [11] is & # [zy²¹kv³³ly³³] "Ruǐ Tóu Xīng蕊头星" (the head of the "mdzo"). While "Ruǐ Zuǐ Xīng蕊嘴星" (the mouth of the "mdzo") is not included in the Divination Figure.

7) There is not the star of the eye of the "mdzo" in the Divination Figure interpreted in [11], which is included in other versions of Dongbaism twenty-eight lunar mansions. However, as a compensation for the number of stars, it contains [zy²¹tcə³³] "Ruǐ Bó Xīng蕊脖星" (the neck of the "mdzo") and [zy²¹ts'i²¹] "Ruǐ Jiān Xīng蕊肩星" (the shoulder of the "mdzo"), while in other versions of Dongbaism twenty-eight lunar mansions exists either of these two stars.

8) There is not the body of the "mdzo" in the Divination Figure interpreted in [11]. In [8, p. 8] there is a star written as 不不 [zyJt'u1] "ふXīng Zhī Yāo" ふ星之腰 (the waist of the "mdzo"). According to the annotation of this entry, it could also be read as [zyJzyJgv1], the body of the "mdzo".

Dongba	19	19-b	20	21	21-b			
Scripts	2º	5	so pe	35	88 HE			
IPA	zyJdvJ	zyJt'ɯ]	zyJbał	zyJbət	zyJmæ∙l			
Chinese	Zhīnǚ Dù	Xīng Zhī	Zhīnǚ Yīn	Zhīnŭ Jiǎozhǎng	Zhīnǚ Wěi			
	织女肚(胃)	Yāo	织女阴	织女脚掌	织女尾			
		る星之腰						
Star Atlas	2000	0000	0000	0000				
Annotations	1) Here are the f	ive stars from the	constellation "	mdzo" only spotted	in Dongbaism			
	materials, but not	in Dabaism.						
	2) "Zhīnǚ Dù" is	the stomach of the	e "mdzo", "🎝	Xīng Zhī Yāo" is th	ne waist of the			
	"mdzo", "Zhīnǚ Y	Tin" is the vagina o	f the "mdzo", "	'Zhīnü Jiǎozhǎng" is	the foot of the			
	"mdzo", "Zhīnǚ V	Věi" is the tail of the	e "mdzo".					
	3) There is not the	e lunar mansion n	amed as the w	aist of the "mdzo" i	n Zhū Bǎotián			
	(1985) and [11].							
	4) In [8, p. 8] the star "Zhīnǚ Wěi" is documented. It has similar pronunciation as the							
	24 th star in [11]. I	24 th star in [11]. However, Lǐ Guówén interprets it as "Ruǐ Yóu Xīng 蕊油星" (the fat						
	of the "mdzo") [1	1].						

Daba	24	25	26	27				
Scripts	E. C		8	æ				
IPA	la¹hỹJkʰw∧J	şildzildyl	şwælq ^h wʌl	mæJq ^h wʌ-I				
Chinese	Hǔ Zuǐ Xīng	Ròu Shí Xīng	Tóu Xīng	Wěi Xīng				
	虎嘴星	肉食星	头星	尾星				
Dongba			11-b	12-b				
Scripts			ซื	36				
IPA			şualk'ual	hyJk'ua l				
Chinese	Jí Xīng吉星							
Star Atlas								
Annotations	1) The 24^{th} and 25^{th} st	ars in Dabaism have n	ot been spotted in Don	gbaism materials of				
	the twenty-eight lunar mansions. "Hǔ Zuǐ Xīng" literally means "the mouth of the							
	'tiger'". "Rou Shí" is called "Shezidu" in local language. According to my knowledge							
	of the language, the fit	rst syllable could mea	n "meat" and the secor	nd syllable could be				
	"to eat".							
	2) The stars numbered							
	mansions in [8, p. 8],							
	and 12 th stars in [8, p.							
	according to the shape							
	in [8, p. 9] could be the counterpart of the 15 th star in Daba's calendar. As noted by the							
	annotations of the entries, the locations of these two stars, "11-b" and "12-b", had not							
	been confirmed in the sky. According to the meaning of the syllables, the two stars'							
	names mean "the higher star" and "the lower star".							

The Correspondence of the 28 Lunar Mansions between Dabaism and Dongbaism

Starting from the detailed comparison among the stars in last section, we can realize that the twenty-eight lunar mansions in Dabaism are quite unified, shared, and widespread, since they are almost the same in five versions of the calendar from four villages. Conversely, the four versions of Dongba's twenty-eight lunar mansions show various differences, from the stars' names to the order of the stars. Some of the variations could be errors generated when the knowledge about astrology was passed down from masters to disciplines.

In this section I present the simplified table about the correspondences of the twenty-eight lunar mansions between Dabaism and Dongbaism. Data in Table 3 are the conclusion of the analysis done in last section, from multi-perspectives including pronunciation of the star's name, the meaning of the star's name, the stars' atlas, and the order of the stars. As mentioned before, I consider the constellation "human" as the starting point, following the interpretation habit of Daba priests spotted in my fieldwork. The number in the brackets is the number of stars/asterisms chosen from that constellation in order to mark the days.

Dabaism	Rén Xīng (2)	Mă Xīng	Wā Xīng		"Kezha" Jiǎo	"Kezha" Shēn
	5()	8	(4)			
Dongbaism	NiúlángXīng	Mă Xīng	Wā Xīng	Shíwěi	"Liù Xīng" (1-2	2)
	(1-2)		(3-4)	Xīng		
Constellation	"human"	"horse"	"frog"		"six stars"	
Dabaism	Hóngyăn Xīng	Sān Xīng (3)	Sān Xīng (No.4)	Yějī Xīng	Yīng Xīng
Dongbaism	Hóngyǎn Xīng	Sān Xīng (2)	Shuĭtóu	Shuĭwěi	Yějī Xīng	Yīng Xīng
			Xīng	Xīng		
Constellation	"red eye"	"three stars"			"pheasant"	"eagle"
Dabaism	Zhū Xīng	Piānniú Xīng	Hŭzuĭ	Ròushí	Tóu Xīng	Wěi Xīng
	(3-4)	(4-5)	Xīng	Xīng		
Dongbaism	Zhū Xīng (3)	Piānniú Xīng			"the high star"	"the low star"
		(9-11)				
Constellation	"pig"	"mdzo"	unknown	unknown	unknown	unknown

Table 3. The Correspondence of the 28 Lunar Mansions between Dabaism and Dongbaism

Table 3 shows the similarities of the twenty-eight lunar mansions between Dabaism and Dongbaism. The twenty-eight mansions can be divided into several star groups, which could be called Daba/Dongba constellations. The ten constellations in both Dabaism and Dongbaism include: the constellation "human", the "horse", the "frog", the "six stars", the "red eye", the "three stars", the "pheasant", the "eagle", the "pig", the "mdzo". The star of "head" and the star of "tail" in Dabaism are named as "the higher star" and "the lower star" in Dongbaism. "Shíwěi Xīng" (the tail of "time") in Dongbaism has not a counterpart in Dabaism, while "Hǔzuǐ Xīng" and "Ròushí Xīng" in Dabaism have not counterparts in Dongbaism.

The fixed order of these star groups provides an important clue in order to figure out the locations of some stars that have been noted in researches as questions. For example, "Tóu Xīng" and "Wěi Xīng" are two stars spotted in all the eight versions of Dabaism calendars, but not included in most of the Dongbaism twenty-eight lunar mansions with the exception in [8, p. 8]. In that dictionary two stars with similar names and written in similar ideograms have been recorded.

However, the locations of them in the sky have remained unknown. In this case, the relatively unified Dabaism calendars could be a reference for discovering the identities of these two stars.

Table 3 also summarizes the nuances between Daba priests and Dongba priests in selecting stars in order to mark the days. For example, 1) two lunar mansions from the constellation "human" are chosen in Dabaism, while one or two stars are chosen in Dongbaism; 2) the constellation "frog" is used to mark four days in Dabaism, while four to five days in Dongbaism; 3) two stars are from the constellation "six stars" in Daba's lunar mansions, while one or two come from this constellation in Dongbaism; 4) in Dabaism three stars are from the constellation "three stars", while in Dongbaism the number is two; 5) there are two stars, "Shuǐtóu Xīng" and "Shuǐwěi Xīng", from Dongbaism, corresponding to the fourth star from the constellation "three stars" in Dabaism; 6) the stars from the constellation "mdzo" in Dabaism are four to five, while in Dongbaism, nine to eleven stars from this constellation are among the 28-lunar mansion systems.

Here I discuss now about the first star in these twenty-eight lunar mansions in Dabaism and Dongbaism. In most versions of Dongba's materials the twenty-eight lunar mansions begin with the constellation "six stars". One exception discovered so far is the Divination Figure interpreted in [11]. The stars from this Divination Figure have been deciphered with the contribution from Dongba Hé Kāixiáng 和开祥 from Lǔdiàn Xiāng 鲁甸乡. They start with Opv33bu21kv331. the star from the constellation "human". Dongba classics with the records of the stars "on duty" on the first day each month have also been presented in [11]. According to these records, the star "on duty" on the first day of the first month is \mathfrak{B}^{33} [py³³bu²¹mæ³³], which also belongs to the constellation "human". Zhou Yin has collected the records about the star "on duty" on the first day of each month among the one-hundred volumes of Nàxī Dōngbā Gǔjí Yìzhù Quánjí纳西东巴古籍译注全集 [An Annotated Collection of Naxi Dongba Manuscripts] [6, p. 47-54]. These records show that the star $[py^{33}bu^{21}kv^{33}]$ (the body of the "human") is "on duty" of the first month and the star [tshua⁵ ⁵ tshər²¹gv³³] (a star from the "six stars") is "on duty" of the fourth month. Since the twenty-eight lunar mansions follow a certain order in order to mark the days, the starting point does not add much change to the interpretation of them. However, the records about the star "on duty" on the first day of each month in Dongba classics could be a proof of the tradition that the constellation "human" is the starting point of the 28-lunar mansion system. The 'exceptional' case in Dongbaism stars, actually, coincides with the situation in Dabaism stars, as the Dabaism calendars I have seen during fieldwork all start with the star from the constellation "human". Nevertheless, I suggest the star called [py³³bu²¹kv³³] "Bǐbǔgū比讨姑" from the constellation "human", being the first star of the twenty-eight lunar mansions, should be more consistent to the tradition of Dongba culture.

The Correspondence of the 28 Lunar Mansions among Dabaism, Dongbaism, and Mainstream Cultures in Neighborhood and Their International Designations

As mentioned above, the constellations have their own names in Dongbaism and Dabaism. The different designations from Chinese or European constellations reflect different perspectives and imaginations about the stars. The designations of the stars in Dabaism and Dongbaism show their own cultural characteristics, which are also shared among the ethnic groups in South-West China: the notions of animals are widely used in order to give the stars their names (stars' naming process). For example, the constellation covering the same area as "mdzo" is called "bharal" in Pumi's lunar

mansions [25, p. 81], while the corresponding region in Yi People's lunar mansions is occupied mainly by the constellation "rhinoceros" [26, p. 106].

However, the 28-lunar mansions system is shared among India, Babylon, Arabia, and China. A (especially Tibetological and Indological) comparison could provide more perspectives in order to identify the position of Dabaism/Dongbaism as a local religion in the whole cultural background. Table 4 shows my work for this comparative attempt. The reference to the International star names could be found in the last two columns as well.

	Dabaism	Dongbais	Constell	Chinese	Tibet	Sanskrit	English	European
	2 40 415111	m	ation in	0	an	Summer	Name	Constella
			Dabais				of the	tion
			m and				Star/Ast	
			Dongba				erism	
			ism					
28	p ^h ælmil	py-lboJ /	"human	Hégŭ-2	(gro	(viṣṇu)	Altair	Aquila
1	nildil	pyłbyJky	"	河鼓二8	bzhin	× 11 /		1
	-k «C- ·	1 &		ha⊷*gaj)			
		py l byJm		kuX←*ka?	,			
		æ		Kuzty Kui				
2	zwæłkuł	zualmolt	"horse"	Húguā匏瓜 ⁹	(byi	(abhijit)	Hugua	Delphinu
	C C	selkul /		bæw←*bru	bzhin	× 3 /	U	s
		zualdzel		kwæ←*k ^w ra)			
3	pa-1k ^h wa-1	patk'ot	"frog"	Shì室	khru	pūrva-	Markab	Pegasus
-	F	P		syit←*s-tit	ms	proșthap	and	8
				synt s-m	stod	adās	Scheat	
						(pūrva-	(α Peg	
						bhādrapa	and β	
						dās)	Peg)	
4	pʌldzɯl	palbyl		Bì壁	khru	uttara-	Algenib	Pegasus
	1	1 2		pjiek←*pjek	ms	proșțhap	and	and
				rj rj	smad	adās	Sirrah	Androme
						(uttara-	(y Peg	da
						bhādrapa	and α	
						dās)	And) 10	
5	dzui-kui-l	(paimæi		(Kuí 奎	(nam	(revatī)	(Legs)	Androme
)		kwej←*kkhwe	gru)			da and
)				Pisces
6	pʌᡰkɯ⅃pʰɯ⅃	naJŋgvi		Lóu娄	tha	aśvayuja	Bond	Aries
	-	-		luw←*C-ro	skar	u	(Asteris	
							m) ¹¹	
		t'alkul		Wèi 胃	bra	bharaņī	Stomac	Aries

Table 4. 28 Lunar Mansions in Dabaism and Dongbaism Compared to those in Tibetan, Chinese,
and Sanskrit Cultures / Traditions

⁸ "Hégǔèr" belongs to the Chinese constellation "Niú 牛" (ngjuw←*ŋwɨ).

⁹ "Hugua" belongs to the Chinese constellation "Nǚ女" (nrjoX←*nra?).

¹⁰ The combination of "Shi" and "Bi" in Chinese constellations is the "Great Square of Pegasus" in European constellations.

 $^{^{11}}$ The Chinese constellation "Lóu" refers to the asterism "Bond", which includes Hamal (α Ari), β Ari and γ Ari.

				hjwijH ←* Gwit	nye		h	
				S	nye		(Chines	
				5			e	
							Constell	
							ation) 12	
7	qʰɹltʂælqʰɹl	tş'wa]ts'	"six	Mǎo 見	smin	kṛttikās	Pleiades	Taurus
/	ຊ- ₁ ແຈສ ເຊ-1		stars"	Mǎo 昴			riciaues	Taurus
		tş'ualts'	stars	mæwX←*mm	drug			
		ış ua iis Alk'al &		ru?				
8	qʰiltʂælgylmil			unknown ¹³				
		tş'ua]ts'						
		∧Jgołmo						
0	.~ 1 ~	4		The late		1 • •	4111	
9	ŋjæJhγ̃∙l	mi∧JhyJ	"red	Bì 毕	snar	robiņi	Aldebar	
			eye"	pjit←*pit	ma	(brāhmī)	an	
10	sojt _p ajroj	sɯɬt'oJ	"three	Shēn 参	lag	ārdrā	Orion's	Orion
			stars"	srim←*s-r-l i m		(bāhū)	Belt	
11	solthallo	sw₁t'o」la		Fá 伐			Orion's	
		1		(Punishmet)			Broads	
				bjot ← *bjat			word	
12	solthaltshwal			unknown			unknow	
	mil						n	
13	soJt ^h aJku ¹ p ^h u	kɯ]p'ur]		Tiānláng	(nabs	(punarva	Sirius	Canis
]	dz∧Jkył		Xīng天狼星	so)	sū		Major
				then←*hlin		[yamaka		
				lang←*C-rang		u])		
		kɯlp'url		Nánhé			Procyon	Canis
		dz∧Jmæ+		Xīng南河星 ¹⁴				Minor
				nom←*nim				
				ha←*gaj				
14	hołkuł	tş'vJk'o∙	"pheasa	Guǐ 鬼	rgyal	brhas-	Beehive	Cancer
			nt"	kjwijX ←*kwi j		pati	Cluster	
				2				
15	ka]kui	fv1le1ka1	"eagle"	Wŭdìzuò-			Denebol	Ursa
		kɯ√	0	1五帝座一			a	Major
				nguX←*nga?				
				tejH←*teks				
16	bolkhwał	boJk'o1	"pig"	Xuānyuán	(mch	(maghās)	Regulus	Leonis
			10	Shísì轩辕十四	u)	(0	
				xjon←*xjan				
				hjwon←*wjan				
17	boldzud	bolt'o]		Xuānyuán			Algieba	
- '		30-00		Shí'èr			1 inglood	
				轩辕十二15				
				+ +1X →				

¹² The asterism "Wèi" includes 35 Ari, 39 Ari, and 41 Ari.

¹³ According to Zhū Bǎotián (1985), [ts̥'ualts' Λ Jgolmol] is split from the Chinese constellation "B쇒, even if the pronunciation of the stars suggests these two stars belong to the same constellation in Dabaism/Dongbaism constellations.

¹⁴ "Tiānláng Xīng" and "Nánhé Xīng" are two stars belonging to the Chinese constellation "Jǐng♯" (tsjengX←*s-kenŋ?).

¹⁵ Lǐ Líncàn (1972) describes "Xuānyuán Shí'èr" and "Tàiwēiyòuyuán" as the head and leg parts of the constellation "Leonis". They have been specified as the Chinese stars corresponding to [bolt'ol] and [bolmaJ] in Zhū Bǎotián (1985).

	18	bolmat	bolmal		Tàiwēyòuyuán			Two	
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$								among	
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$								-	
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$					5			Leo, 0	
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From Table 4 we can see that besides the local cultural elements in naming the stars, the etymological traces indicate plausible deep correspondences among some of the lunar mansions in different cultures. For example, the name for Pleiades in Tibetan means "six girls". It is analogous to the Indian idea according to which the six stars of this constellation are six nannies of the god Skanda even if the Sanskrit name for it means "something sharp for cutting" [21, p. 6-7]. In a similar way, the Pleiades in Dongbaism have an informal name meaning "six brothers" that defines the constellation. It is said that there were sixty stars in the asterism. They would have been eaten by 'Big Dipper' and only six would have been retained, which are now called "six brothers" [8, p. 7]. Taking "Aldebaran" as another example, the Tibetan name derives from the adjective "red" and

[&]quot;Xuānyuán Shí'èr" (γ- Leo) belongs to the Chinese constellation "Xīng星" (seng←*seŋ). "Tàiwēiyòuyuán" belongs to " Tàiwēiyuán" (the Supreme Palace Enclosure), one of the three enclosures in traditional Chinese astronomy.

¹⁶ This asterism has been located in the region between "Jiǎo 角 kæwk←*krok" and "Jī 箕 ki←*ki" and mainly coincides with the constellation "Scorpius" (Lǐ Líncàn 1972: 8; Zhū Bǎotián 1985: 323). The star in Dongbaism called [zyJdvJ] is interpreted as "Dàhuǒ Xīng 大火星" in Chinese, corresponding to "Antares" (α Sco) in English. It belongs to the Chinese constellation "Xīn心" (sim←*sim).

means "red girl", while the Daba/Dongba name for it means "red eye". Moreover, "The Orion's Belt" and "the Orion's Broadsword" are one constellation in Tibetan (*lag*) and Sanskrit (*bāhū*) that means "the two hands". Further on, the two lunar mansions named as "chu stod" and "chu smad" in Tibetan (literally meaning "upper water" and "lower water" [21, p. 7-8]) are also a pair with similar meanings in Dabaism and Dongbaism . The main syllables of the lunar mansions' names , $[q^hwA^{\dagger}]$ in Na and [k'uaJ] in Naxi, could be "footprint" in the vocabulary. This interpretation could also correspond to the illustration of "Jī" and "Dǒu" as "footprint of ox" and "footprint of elephant" in *Módēngjiā Jīng* 摩登伽经 [A Classic of Buddhism Entitled *Matangi*] [27]. The two modifiers in the lunar mansions' names mean "upper" ([swæ⁴] in Na and [suaJ] in Naxi) and "lower" ([mæJ] in Na and [hyJ] in Naxi), respectively.

There are also traces of the original naming process of the 28 lunar mansions in Dabaism/Dongbaism, Tibetan, Indian, and Chinese. Some stars in Dabaism and Dongbaism are the same with the ones in other main cultures. As it is shown in Table 4, the stars from the constellation "frog" coincide with four stars in the commonly shared 28 lunar mansions; the "Beehive Cluster" is also chosen in all the five 28 lunar mansions listed above. However, some are chosen from the same constellations, even if not being the determinant stars used to name the constellations in other 28-lunar mansion systems. For example, "Hégǔ-2" (Altair) and "Húguā" (Hugua) in Dabaism and Dongbaism belong to the constellations called "Niú‡ (ngjuw—*ŋwi)" and "Nǔ \pm (nrjoX—*nra?)" in Chinese, respectively. Moreover, besides some non-identified stars, Wǔdìzuò-1 ("Denebola") and Tàiwēiyòuyuán ("Right Wall", two among σ Leo, ι Leo, θ Leo, and δ Leo) are two stars/asterisms from the Sānyuán Ξ lunar mansions. The use of stars in the middle area of the sky could be a relic of ancient astrological systems recorded in Chinese literature, where the sky is divided into five regions: east, south, west, north, and middle [20, p. 290].

I have also discovered an interesting 'error' in transmission of astronomical knowledge. In the fifth row, the star [pa+mæ+] in Dongbaism is spotted only in the materials of [9, p. 315]. The star's name means "the tail of the 'frog'". According to [25, p. 81], it is the Naxi translation from Yi People's star called [noŋ tsu], which is a localized name for Tibetan "nam gru" by Yi People. As a 'shift' of stars, the star located as "Lóu娄" (Bond) in Dongbaism refers to "Kuí 奎" in Tibetan system, while "Wèi 胃" (Stomach) is indeed the Tibetan designation for "Lóu娄".

Conclusion

In this paper I have summarized the interpretation of the eight Daba calendars (the only ancient [proto-]literature of this local religion available so far) analyzed during my fieldwork and the available materials of Dongba twenty-eight lunar mansions, explaining the differences among various versions.

The high uniformity among Dabaism calendars could suggest that they were records of a commonly used calendar in that region at a certain period in history and could provide data in order to explore the Dongba's twenty-eight lunar mansions.

I have also tried to clarify the issue concerning the choice of the first mansion in the twentyeight lunar mansions. Since the classics and knowledge of Dabaism and Dongbaism have been mainly transmitted orally, variations have been generated among different family / clan factions. The Daba calendars contain relatively concise information compared to Dongba classics, as they are written with isolated symbols for the stars. However, they coincide with the records in Dongba classics about the stars "on duty" on the first day of each month, which show to be different from most of the materials of Dongba's twenty-eight lunar mansions. In this case, the starting star recorded in Daba's calendars could be an additional written evidence of the first star throughout the tradition.

The comparative study conducted among Dabaism/Dongbaism, Tibetan, Sanskrit, and Chinese has provided a comprehensive perspective aimed at considering the relationships of Dabaism/Dongbaism with the main stream neighboring cultures. Moreover, it has been helpful in finding out possible answers to unclear stars noted in previous research.

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