

Ancient Chinese constellations

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Abstract. China, a country with a long history and a specific culture, has also a long and specific astronomy. Ancient Chinese astronomers observed the stars, named and distributed them into constellations in a very specific way, which is quite different from the current one. Around the Zodiac, stars are divided into four big regions corresponding with the four orientations, and each is related to a totem, either the Azure Dragon, the Vermilion Bird, the White Tiger or the Murky Warrior. We present a general pattern of the ancient Chinese constellations, including the four totems, their stars and their names.

Keywords. China, constellations, mansions

1. Introduction

Three enclosures, four symbols and twenty-eight mansions characterise the ancient Chinese constellations. This division of the starry sky began to appear in China before the Zhou and Qin dynasties. The three enclosures refer to three areas around the North celestial pole: the Purple Forbidden enclosure, the Supreme Palace enclosure and the Heavenly Market enclosure. The four symbols are distributed near the ecliptic Zodiac and the lunar orbit and are represented by four totems: the Azure Dragon of the East, the Vermilion Bird of the South, the White Tiger of the West and the Black Tortoise of the North. Every symbol was divided into seven sections which were known as mansions. There are twenty-eight mansions in this system and the Moon goes through approximately a mansion every day, reflecting the lunar month. The twenty-eight mansions[†] were named Horn, Dipper, Legs, Well, Neck, Ox, Bond, Ghosts, Root, Girl, Stomach, Willow, Room, Emptiness, Hairy head, Star, Heart, Rooftop, Net, Extended net, Tail, Encampment, Turtle beak, Wings, Winnowing-basket, Wall, Three stars, Chariot, as shown in Fig. 1.

2. Tables of star names

The following tables are a comparison list of star names both in traditional Chinese characters and in English. They are classified in seven tables according to the three enclosures and the four animal images which they belong to[‡].

3. Implications

Ancient Chinese astronomy has taken an important rôle in both the Chinese culture and the world astronomical culture. Chinese ancestors divided the constellations and denominated the stars in a quite different way as the Greeks did. It will be an interesting

[†] see also http://baike.baidu.com/view/17723.htm?fr=ala0_1_1

[‡] http://www.lcsd.gov.hk/CE/Museum/Space/Research/StarName/c_research_chinengstarzone.b.htm

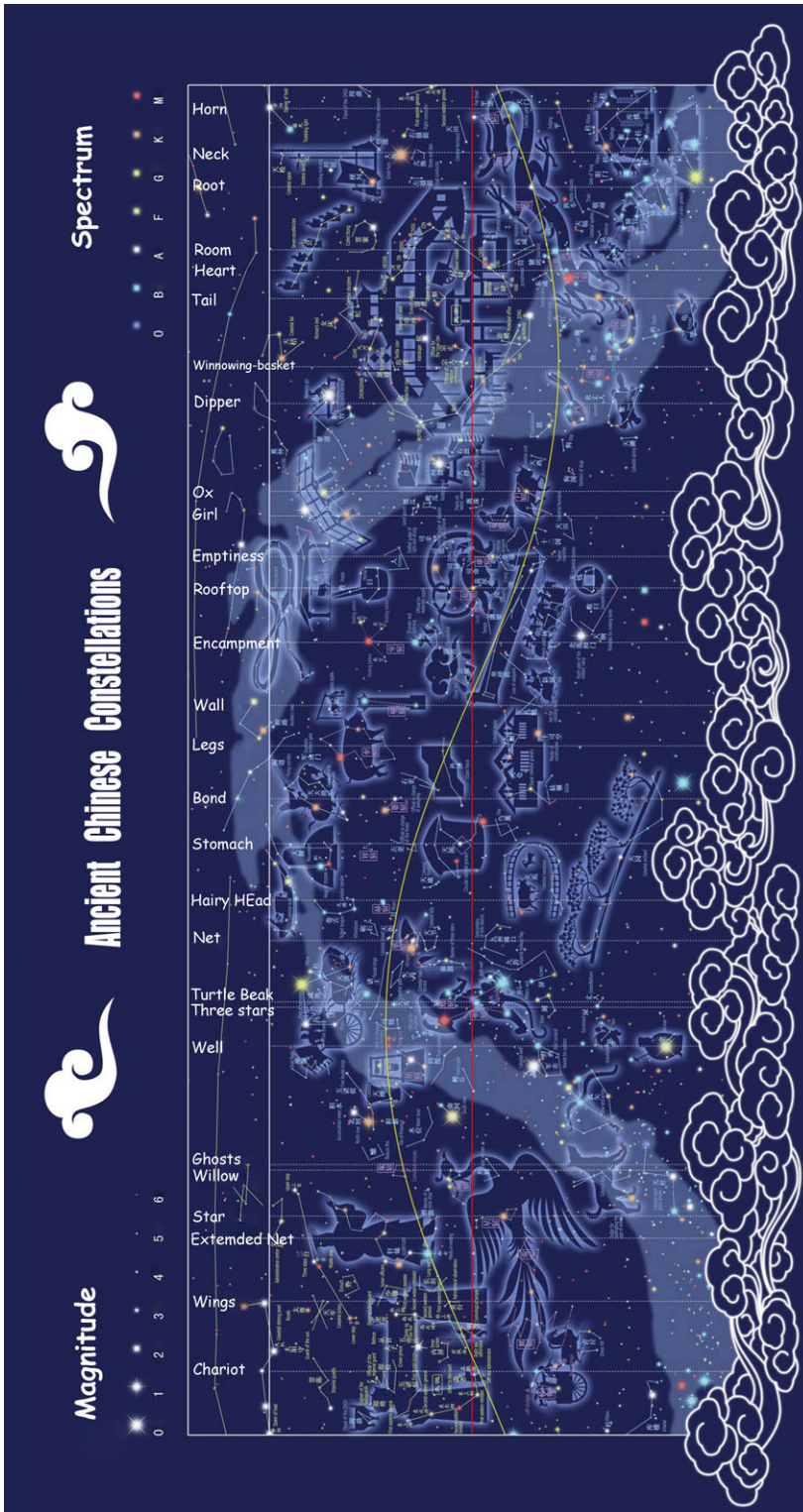


Figure 1. Ancient Chinese constellations. Artwork by Zuoqing Guanxing.

Table 1. The First Enclosure: Purple Forbidden Enclosure

紫微垣 Purple Forbidden Enclosure				
北極 Northern pole	紫微左垣 Left wall		紫微右垣 Right Wall	
太子 Crown prince	左樞 Left pivot	右樞 Right pivot	三公 Three excellencies	
帝 Emperor	少宰 Second premier	少尉 Second chief judge	相 Prime minister	
庶子 Son of Concubine	上弼 First minister	上輔 First minister	天理 Judge for nobility	
後宮 Imperial Concubine	少弼 Second minister	少輔 Second minister	太陽守 Guard of the Sun	
天樞 Celestial pivot	上衛 First imperial guard	上衛 First imperial guard	太尊 Royals	
四輔 Four Advisors	少衛 Second Imperial guard	少衛 Second imperial guard	天牢 Celestial prison	
勾陳 Curved Array	少丞 Second prime minister	上丞 First prime minister	勢 Eunuch	
天皇大帝 Great Emperor of Heaven	少宰 Second premier	天乙 Celestial Great One	文昌 Administrative centre	
天柱 Celestial Pillar	上弼 First minister	太乙 First Great one	內階 Inner steps	
御女 Maids-in-waiting	少弼 Second minister	內廚 Inner kitchen	三師 Three top instructors	
女史 Female protocol	上衛 First imperial guard	北斗 Northern dipper	八穀 Eight kinds of crops	
柱史 Official of royal archives	少衛 Second Imperial guard	天樞 Celestial pivot	傳舍 Guest house	
尚書 Royal secretary	少丞 Second prime minister	天璇 Celestial rotating jade	天廚 Celestial kitchen	
天床 Celestial bed		天機 Celestial shining pearl	天棓 Celestial flail	
大理 Chief judge		天權 Celestial balance		
陰德 Hidden virtue		玉衡 Jade sighting-tube		
六甲 Six Jia		開陽 Opener of heat		
五帝內座 Interior seats of five emperors		搖光 Twinkling brilliance		
華蓋 Canopy of the emperor		輔 Assistant		
杠 CanopySupport		玄戈 Sombre lance		

Table 2. The Second Enclosure: Supreme Palace Enclosure

太微垣 Supreme Palace Enclosure				
五帝 Seats of the five emperors	太微左垣 Left wall	太微右垣 Right wall		
太子 Crown prince	上宰 First premier	右執法 Right law administrator	上台 Upper step	
從官 Retinue	東上相 First eastern minister	西上將 First western general	中台 Middle step	
幸臣 Officer of honour	東次相 Second eastern minister	西次將 Second western general	下台 Lower step	
五諸侯 Five feudal kings	東次將 Second eastern general	西次 Second western minister	虎賁 Emperor's bodyguard	
九卿 Nine senior officers	東上將 First eastern general	西上相 First western minister	少微 Junior officers	
三公 Three excellencies	上宰 First premier	郎將 Captain of the bodyguards	長垣 Long wall	
		郎位 Official of imperial guard	靈台 Astronomical observatory	
		常陳 Imperial guards	明堂 Cosmological temple	
		三台 Three steps	謁者 Usher of the court	

work to carry out a comparison between these two systems. Ancient Chinese constellations were rooted in a strong belief of harmony among the heaven, the Earth and human beings. By studying the stories behind the the names of the stars, one learns ancient Chinese astronomy and also Chinese history and philosophy as well.

References

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Table 3. The Third Enclosure: Heavenly Market Enclosure

天市垣 Heavenly Market Enclosure			
帝座 Emperor's seat	天市左垣 Left wall	天市右垣 Right wall	
候 Astrologer	魏 WEI	河中 HEZHONG	天紀 Celestial Discipline
宦者 Eunuch official	趙 ZHAO	河間 HEJIAN	女床 Woman's bed
斗 Dipper for liquids	九河 JIUHE	晉 JIN	貫索 Coiled thong
斛 Dipper for solids	天槍 Celestial spear	鄭 ZHENG	七公 Seven excellencies
列肆 Jewel market	齊 QI	周 ZHOU	
車肆 Commodity market	吳越 WUYUE	秦 QIN	
市樓 Municipal office	徐 XU	蜀 SHU	
宗正 Official for royal clan	東海 DONGHAI	巴 BA	
宗人 Official of Religious Ceremonies	燕 YAN	梁 IANG	
宗 Patriarchal clan	南海 NANHAI	楚 CHU	
帛度 Textile ruler	宋 SONG	韓 HAN	
屠肆 Butcher's shops			

Table 4. Seven Mansions which belong to Azure Dragon

角宿 Horn Mansion	亢宿 Neck Mansion	氐宿 Root Mansion	房宿 Room Mansion	心宿 Heart Mansion	尾宿 Tail Mansion	箕宿 Winnowing- basket Mansion
角 Horn	亢 Neck	氐 Root	房 Room	心 Heart	尾 Tail	箕 Winnowing basket
平道 Flat road	大角 Great horn	亢池 Boats and lake	鈎鈐 Lock	積卒 Group of soldiers	神宮 Changing room	中山 Zhongshan
天田 Celestial farmland	左執法 Left law administrator	帝席 Mattress of the emperor	鍵閉 Door bolt		天江 Celestial river	杵 Pestle
周鼎 Tripod of the ZHOU	右攝提 Left conductor	梗河 Celestial lance	罰 Punishment		傳說 FUYUE	
進賢 Recommending virtuous man	折威 Executions	招搖 Twinkling indicator	東威 Eastern door		魚 Fish	
天門 Celestial gate	頓頑 Trials	天乳 Celestial milk	西威 Western door		龜 Tortoise	
平 Judging	陽門 Gate of YANG	天輻 Celestial spokes	日 Sun			
庫樓 Arsenal		陣車 Battle chariots	從官 Retinue			
柱 Pillars		車騎 Chariots and cavalry				
衡 Railings		騎陣將軍 Chariot and Cavalry general				
南門 Southern gate		騎官 Imperial guards				

Table 5. The Seven Mansions which belong to Vermilion Bird

井宿 Well Mansion		鬼宿 Ghosts Mansion	柳宿 Willow Mansion	星宿 Star Mansion	張宿 Extended Net Mansion	翼宿 Wings Mansion	軫宿 Chariot Mansion
井 Well	四瀆 Four channels	鬼 Ghosts	柳 Willow	星 Star	張 Extended net	翼 Wings	軫 Chariot
鉞 Battle axe	闕丘 Palace gate	積尸 Cumulative corpses	酒旗 Banner of wine shop	天相 Celestial premier	天廟 Celestial Temple	東甌 DONGOU	左轄 Left linchpin
水府 Official for irrigation	軍市 Market for the soldiers	燿 Beacon fire		天稷 Celestial cereals			右轄 Right linchpin
天樽 Celestial wine cup	野雞 Wild cockerel	外廚 Outer kitchen		軒轅 Xuanyuan			長沙 Changsha
五諸侯 Five feudal kings	天狼 Celestial wolf	天記 Judge to estimate the age of animals		御女 Maids-in- waiting			青丘 Green hill
北河 North river	丈人 Grandfather	月 Moon		內平 High judge			軍門 Military Gate
積水 Accumulated water	子 Son	天狗 Celestial dog					土司空 Master of Con- struction
積薪 Pile of firewood	孫 Grandson	天社 Celestial earth god's temple					器府 House for Musical Instru- ments
水位 Water level	老人 Old man						
南河 South river	弧矢 Bow and arrow						

Table 6. The Seven Mansions of the White Tiger

奎宿 Legs Mansion	婁宿 Bond Mansion	胃宿 Stomach Mansion	昴宿 Hairy Head Mansion	畢宿 Net Mansion	觜宿 Turtle Beak Mansion	參宿 Three Stars Mansion	
奎 Legs	婁 Bond	胃 Stomach	昴 Hairy head	畢 Net	天關 Celestial gate	觜 Turtle beak	參 Three stars
王良 Wangliang	天大將軍 Great general of the heaven	大陵 Mausoleum	天阿 Celestial river	附耳 Whisper	天節 Celestial tally	司怪 Deity in charge of monsters	伐 Punishment
策 Whip	左更 Official in charge of forest	積尸 Heaps of corpses	齊 QI	天街 Celestial street	九州殊口 Interpreters of nine dialects	座旗 Seat flags	玉井 Jade well
附路 Auxiliary road	右更 Official in charge of pasturing	天船 Celestial boat	卷舌 Rolled tongue	天高 Celestial high terrace	參旗 Banner of three stars		鈇鉞 Axe
軍南門 Southern military gate	天倉 Square celestial granary	積水 Stored water	天譴 Celestial slander	諸王 Feudal kings	九斿 Imperial military flag		軍井 Military well
閣道 Flying corridor	天庾 Ricks of grain	天廩 Celestial foodstuffs	礪石 Whetstone	五車 Five chariots	天園 Celestial orchard		屏 Screen
外屏 Outer fence		天囷 Circular celestial granary	天陰 Celestial YIN force	柱 Pillars			廁 Toilet
天溷 Celestial pigsty			芻蒿 Hay	咸池 Pool of harmony			屎 Excrement
土司空 Master of construc- tions			天苑 Celestial meadows	天潢 Celestial pier			

Table 7. The Seven Mansions of the Murky Warrior

斗宿 Dipper Mansion	牛宿 Ox Mansion	女宿 Girl Mansion	虛宿 Emptiness Mansion	危宿 Rooftop Mansion	室宿 Encampment Mansion	壁宿 Wall Mansion	
斗 Dipper	牛 Ox	女 Girl	趙 ZHAO	虛宿 Emptiness	危 Rooftop	室 Encampment	壁 Wall
天禽 Celestial keyhole	天桴 Celestial drumstick	離珠 Pearls on ladies' wear	越 YUE	司命 Deified judge of life	墳墓 Tomb	離宮 Resting palace	天廄 Celestial stable
天弁 Market officer	河鼓 Drum at the river	敗瓜 Rotten gourd	左攝提 Right conductor	司祿 Deified judge of rank	蓋屋 Roofing	騰蛇 Flying serpent	土公 Official for earthworks and buildings
建 Establishment	左旗 Left flag	瓠瓜 Good gourd	鄭 ZHENG	司危 Deified judge of disaster and good fortune	虛梁 Temple	雷電 Thunder and lightning	霹靂 Thunderbolt
天雞 Celestial cock	右旗 Right flag	天津 Celestial ford	魏 WEI	司非 Deified judge of right and wrong	天錢 Celestial money	土公吏 Official for materials supply	雲雨 Cloud and rain
狗 Dog	織女 Weaving girl	奚仲 XIZHONG	韓 HAN	哭 Crying	人 Humans	壘壁陣 The line of ramparts	鉄鎖 Sickle
狗國 Territory of dogs	漸臺 Clepsydra terrace	扶筐 Basket for mulberry leaves	晉 JIN	泣 Weeping	杵 Pestle	羽林軍 Palace guard	
天淵 Celestial spring	輦道 Imperial passageway	十二國 Twelve countries	燕 YAN	璃瑜 Jade ornament on ladies' wear	白 Mortar	天綱 Materials for Making Tents	
農丈人 Peasant	羅堰 Networks of dykes	周 ZHOU		天壘城 Celestial ramparts	車府 Big yard for chariots	北落師門 North gate of the military camp	
鰲 River turtle	天田 Celestial farmland	秦 QIN		敗臼 Decayed Mortar	造父 ZAOFU	糠 Chaff	
	九坎 Nine water wells	代 DAI			天鈎 Celestial hook	八魁 Net for catching birds	