

Korean Meteorological Archives Series 4

Meteorological, Astronomical, and Seismological Observations from Ancient Korea





Sottae

Wooden rods topped with domestic or wild ducks, go-betweens between the heavenly realm and human settlements

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Twilight on a Lotus Pond in Winter

(Honsin Pond, Gopyeong-li, Hwayang-eup, Cheongdo County, North Gyeongsang Province.

Selected for exhibit in the 2011 KMA [Korea Meteorological Administration] Photography Contest)

Preface

Koreans have been looking up at the heavens and watching natural events for millennia. Having closely observed changes in the sky, on the ground, and in the sun and the stars, they have been keeping meticulous records on those phenomena since antiquity, at times risking their lives to preserve the minutes through the endless ordeals of their long history. These chronicles from the past fascinate us because the soul of the scribes survives intact in every letter and between the lines.

This collection of observations is the first offspring of joint efforts by natural scientists and historians. We have pooled our expertise to study the observations of natural phenomena from before the 10th century as recorded in the *History of the Three Kingdoms* and the *Memorabilia of the Three Kingdoms*, and compare them with the Chinese records. We have supplemented the arcane entries with comments and photographs, in the hopes of making them more accessible to a 21st-century audience. We might even be a step behind, considering that two decades have gone by since our neighbors in China published similar collections.

The *History of the Three Kingdoms* offers us 424 meteorological, 218 astronomical and 97 seismological observations. In particular, droughts were among the best-documented meteorological events, while solar eclipses were mentioned most frequently among astronomical phenomena. And although the *Memorabilia of the Three Kingdoms* only contains 8 meteorological, 5 astronomical, and 2 seismological observations, its discussion of the construction of the Cheomseongdae (Star Gazing Tower) during the reign of Queen Seondeok is evidence that Korea had erected the world's oldest astronomical observatory as early as the 7th century.

We wish to take this opportunity to express our boundless thanks to CHO Hi-Ku (Professor Emeritus, Meteorology, Yonsei University), NHA Il-Seong (Professor Emeritus, Astronomy, Yonsei University), and PARK Seong-Rae (Professor Emeritus, History of Science, Hankuk University of Foreign Studies), and for their fastidious proofreading of this work from its very earliest stages, and our gratitude to Dr. AHN Young Sook (Korea Astronomy and Space Science Institute), Mr. KIM Sang-Won (Korean Academy of Meteorology and Climate), Mr. OH Yong Hae (Earthquake Monitoring Division, Korea Meteorological Administration), PARK Chan-heung (Korean History, Korea University), Professor PARK Chang Bom (Astronomy, Korea Institute for Advanced Study), JEONG Yong Seok (Society for Ancient History of Korea), and Professor JIN Sung-Kyu (History, Chung-Ang University) for their novel insights. Last but not least, we would be remiss not to mention Mr. LEE Wonbae (Gonam Shell Mound Museum) for his painstaking research that laid the groundwork for this volume, and Dr. Ken Crawford (Regents' Professor Emeritus, Meteorology, The University of Oklahoma), who was kind enough to review the manuscript. It is our hope that this fruit of our labors will give the readers a better understanding of natural phenomena and history, and contribute to research endeavors in related fields.

The original, Korean version of this volume was published in September 2011 to generous encouragement, which has spurred us on to reach out to a wider audience with a translation in English a few 22th months.

We encourage the readers to keep an eye out for this series, in which the present volume marks the first of many more to come.

July 2013



Parched Mother Earth
(Songjeong-dong, Buk-gu, Ulsan Metropolitan City. Selected for exhibit in the 2009 KMA Photography Contest)





Snow Flowers of Mt. Taebaek
(Sodo-dong, Taebaek City, Gangwon Province. Selected for exhibit in the 2008 KMA Photography Contest)





Rainbow at Jeodong Port, Ulleung Island
(Jeodong-li, Ulleung-eup, Ulleung County, North Gyeongsang Province.
Selected for exhibit in the 2010 KMA Photography Contest)



Cry of Echo Sand Mountain
(Dunhuang City, Gansu Province, China.
Participation Award, 2011 KMA Photography Contest)

Editors' Notes

- This volume is a selection of passages on meteorology, astronomy, earthquakes, and other weather-related events as documented in the *History of the Three Kingdoms* (henceforth *History*) and the *Memorabilia of the Three Kingdoms* (henceforth *Memorabilia*).
- The excerpts from the “Annals” of the *History* were rearranged in chronological order, whereas those from the “Treatises” and the “Biographies” are shown as they appear in the original text, in the absence of detailed chronological information. As for the *Memorabilia*, entries based on folktales have been omitted wherever possible; most of the excerpts are therefore from the more factual entries.
- We chose as our standard translations Chung et al. 1997 for the *History* and Kang et al. 2003 for the *Memorabilia*.
- In our annotations, we followed the afore-mentioned standard translations, but reworded them somewhat when the language in the references was unclear or difficult to understand. We have also added new annotations when necessary.
- For the Julian calendar version of traditional dates, we have relied on Han 2001 and Ahn 2002. Consecutive dates are indicated as such, while discontinuous dates are separated with *and* and/or a comma.



Summer Story (Thunderbolt)
(Sikjongsan, Dong-gu, Daejeon Metropolitan City.
Selected for exhibit in the 2009 KMA Photography Contest)

Examples: 3rd–4th lunar months → April 18–June 15; 3rd and 8th lunar months → April 21–May 19 and September 16–October 14.

- The descriptions of a king’s genealogy and ascent to the throne that precede the entries about that king’s reign in the “Annals” in the *History* are called “*naeryeok bumun*” (abridged biography). Meteorological observations featured in these descriptions have been subsumed under the first year of that king’s reign; e.g., the entry in which King Beolhyu predicts wind and cloudy conditions was undated, so we have subsumed it under the year 184, the year King Beorhyu came to power.
- When meteorological observations occur between two dated events, they have been subsumed under the date for the earlier event.

Example: Tributes were presented in the 2nd month. There was a mighty drought. Tributes were presented in the 5th month. → There was a mighty drought in the 2nd month.

- National capitals were referred to as “*wangdo* (왕도 王都 royal city),” “*gyeongsa* (경사 京師),” “*gyeongdo* (경도 京都),” or “*gyeongseong* (경성 京城).” We used the modern names for the corresponding cities, taking into consideration changes in the capitals of the Three Kingdoms.
- The source chapter is indicated using the initials for the corresponding “Annals.”

Examples: Annals of Silla 1 → AS 1; Annals of Goguryeo 1 →AG 1; Annals of Baekje 1 → AB 1

Meteorological, Astronomical, and Seismological Observations



History of the Three Kingdoms

“Annals”

“Treatises” and “Biographies”

Memorabilia of the Three Kingdoms

Tally of Major Observations by Phenomenon

Tally of Major Observations by Era

Bibliography

History of the Three Kingdoms (Goguryeo, Baekje and Silla) “Annals”

1) The traditional calendar divided the year into four 3-month-long seasons beginning with the first lunar month. That is, spring was from the first lunar month to the third, summer from the fourth to the sixth, autumn from the seventh to the ninth, and winter from the tenth to the twelfth. We have retained reference to the number of the month and the name of the season in fidelity to the original text.

2) This entry is corroborated by the *Book of Han*, a Chinese history text, which records, “There was a solar eclipse on the first day (*xinchou*) of the 4th month of the 4th year of Wufeng (五鳳 [era name]) [under Emperor Xuan of Han] 19 *du* relative to the Net (畢宿) constellation.” (“The Five Elements,” Book 27 of the *Book of Han*) Aside from solar eclipses, for which we have used Park 2002 as reference, we have compared the entries on astronomical phenomena in the *History* with those in Chinese records.

3) This is the Julian counterpart for the day *sinchuk* [Stems - and - Branches date; see Appendix E], first day of the 4th lunar month. The Julian counterparts for all the dates in this volume are based on Ahn 2002. Due to the lack of ancient Korean almanacs, there are limits to converting the lunar dates into their Julian equivalents, but we have added the Julian dates to help the readers understand these observations better.

4) The original text reads “*pae* star” (패성 字星). According to the *Seoungwanji* (Records of the Astronomical and Meteorological Observatory) published in the Joseon Dynasty, a *pae* star is a star that radiates in all directions, while a “*hye* star” (혜성 彗星) radiates in a single direction. This volume does not distinguish between the two.

5) The East and the West share very few constellations that match up perfectly. Wang Liang is part of Straddler (箕宿 奎宿), one of the western lunar Mansions (see note 6), and makes up part of the Cassiopeia constellation in Western astronomy. The w-shaped Cassiopeia was viewed in the East as three separate constellations—Wang Liang, Whip, and Flying Corridor. The same phenomenon

54 BC

There was a solar eclipse on the first day (*sinchuk*) of the 4th month (summer¹).²⁾

(4th year of Hyeokkeose Geoseogan; May 9;³⁾ AS 1)

49 BC

There appeared a comet⁴⁾ in the Wang Liang (왕량 王良⁵⁾ constellation in the 3rd month (spring).

(9th year of Hyeokkeose Geoseogan; April 14 – May 12; AS 1)

44 BC

There appeared a comet in the Triaster (삼 參⁶⁾ constellation in the 4th month (summer).

(14th year of Hyeokkeose Geoseogan; May 18 – June 16; AS 1)

41 BC

Agriculture and sericulture were encouraged [by the King] so as to reap the most benefit out of the land.⁷⁾

(17th year of Hyeokkeose Geoseogan; AS 1)



Jolbon, first capital of Goguryeo of Ancient Korea (Wunü Mountain Fortress, Huanren, Liaoning Province, China).

35 BC

Auspicious clouds⁸⁾ appeared to the south of Gollyeong⁹⁾ in the 7th month (autumn). They were blue and red.

(3rd year of King Dongmyeongseong; August 6 – September 3; AG 1)

34 BC

The area was shrouded in clouds and fog¹⁰⁾ in the 4th month (summer), so that people could not see any light for as long as 7 days.

(4th year of King Dongmyeongseong; April 28 – May 27; AG 1)

There was a solar eclipse on the last day (*imsin*) of the 6th month (summer).¹¹⁾

(24th year of Hyeokkeose Geoseogan; August 23; AS 1)

28 BC

There was a solar eclipse on the last day (*gihae*) of the 4th month (summer).¹²⁾

(30th year of Hyeokkeose Geoseogan; June 19; AS 1)

26 BC

There was a solar eclipse on the last day (*eulmyo*) of the 8th month (autumn).¹³⁾

(32nd year of Hyeokkeose Geoseogan; October 23; AS 1)



Hanseong, first capital of Baekje of Ancient Korea (Mongchon Mud Fort, Songpa-gu, Seoul, Korea).

is discussed by the Chinese as well, in the "Annals of Emperor Xuan," Book 8 of the *Book of Han*.

6) In antiquity, Eastern astronomy classified constellations into 28 groups based on the trajectory of the moon, and named these groups the 28 Mansions (28个宿). It is unclear whether the character 參 that appears in this entry refers to Triaster, one of the 7 western Mansions, or whether it refers to a constellation consisting of 7 stars with the same name. The determinative star of Triaster is ζ Orionis.

7) Crop layers ranging from before the Three Kingdoms to the present day were found in Gyeongju (capital of Silla) in 2007, and have provided important data for studying the climate and agriculture of the corresponding periods. In particular, analysis of plant opal from the 14th buried layer confirmed the cultivation of rice (Han et al, 2009).

8) This is the first observation of clouds in the *History*. Cloud iridescence refers to clouds appearing as though they were multicolored as a result of light waves refracted by water drops inside the clouds. The most common hues are green and peach, but the shapes of the clouds vary greatly.

9) This seems to refer to the vicinity of Jolbon, which King Dongmyeongseong (Jumong) chose as the state capital after he founded Goguryeo. The Gwanggaeto Stele spells it as "Holbon (忽本)," which is believed to be somewhere near the Wunu Mountain Fortress north of Huan ren County, Liaoning Province, China. King Yuri (myeong) moved the capital to Gungnaeseong in AD 3 (22nd year of Yuri).

10) This is the first instance of fog on record in the *History*.

11) A solar eclipse only occurs on the first day of the lunar month, yet the *History* records a few instances of solar eclipses occurring on the last day of the month. This is because the synodic month in use at the time was slightly longer than it is today (Hyun 1979). The same event was recorded in the article for the day *renshen* in the 6th month of the 5th year of Jianzhao (建昭) in "Treatise on the Five Elements," Book 27 of the *Book of Han*.

12) The same event is recorded in the article for the day *jihai* in the 4th month of the first year of Heping (河平) in "Treatise on the Five Elements," Book 27 of the *Book of Han*.

13) The same event is recorded in the article for the day *yimao* in the 8th month of the 3rd year of Heping in “Treatise on the Five Elements,” Book 27 of the *Book of Han*.

14) This is the first instance of thunder on record in the *History*.

15) The capital of Baekje during this period was Wiryeseong (probably the general area of Seoul and Gwangju in Gyeonggi Province on the banks of the Han River). Unless specified otherwise, entries dating back to before 475, when Baekje moved its capital to Gongju, were likely based on observations made in Seoul. The average blooming day for peach trees is April 15 (KMA 2003).

16) The same event was recorded in the article for the day *yiyou* in the 2nd month of the 2nd year of Yongshi (永始) in “Treatise on the Five Elements,” Book 27 of the *Book of Han*.

17) This is the first instance of drought on record in the *History*.

18) The same event is recorded in the article for the day *xinwei* in the 7th month of the 4th year of Yongshi in “Treatise on the Five Elements,” Book 27 of the *Book of Han*.

19) Heart (心星) may refer to the 5th Mansion (心宿) or the Heart constellation that is part of the Heart Mansion. The same event is also recorded in the “Treatise on Astronomy,” Book 26 of the *Book of Han*.

20) King of Buyeo, and eldest son of King Geumwa. He died in AD 22 (5th year of Daemusin of Goguryeo), when Goguryeo invaded Buyeo.

21) This is the first instance of heavy snow on record in the *History*.

22) River Drum is a 3-star constellation in the 9th Mansion Ox (牛宿). The “Annals of Emperor Ai” of the *Book of Han* likewise records the appearance of a comet on River Drum in the article for the day *yiyou* in the 3rd month of 4 BC (3rd year of Jianping [建平]).

23) As Ahn 2002 does not specify any day *giyu* for this month, we have substituted the entire month of February for the date the eclipse reportedly occurred.

24) The same event is recorded in the article for the day *xinchou* in the 1st month of the 1st year of Yuanshou (元壽) in “Treatise on the Five Elements,” Book 27 of the *Book of Han*.

16 BC

It thundered,¹⁴⁾ and peach trees and plum trees flowered in the 10th month (winter).¹⁵⁾

(3rd year of King Onjo; November 2 – 30; AB 1)

15 BC

There was a solar eclipse on the last day (*euryu*) of the 2nd month (spring).¹⁶⁾

(43rd year of Hyeokkeose Geoseogan; March 29; AS 1)

There was drought¹⁷⁾ in the spring and summer that caused famine and an outbreak of plague.

(4th year of King Onjo; AB 1)

13 BC

There was a solar eclipse on the last day (*sinmi*) of the 7th month (autumn).¹⁸⁾

(4th year of King Onjo; August 30; AB 1)

7 BC

Mars stood guard over Heart (심성 心星)¹⁹⁾ in the first month (spring).

(13th year of King Yuri(myeong); January 31 – March 1; AG 1)

6 BC

Daeso (대소 帶素)²⁰⁾ launched an invasion with 50,000 men in the 11th month (winter), but turned back with his army after many froze to death in the heavy snow.²¹⁾

(14th year of King Yuri(myeong); December 11 – January 9; AG 1)

4 BC

There appeared a comet in the River Drum (하고 河鼓)²²⁾ constellation on the day *giyu* in the 2nd month (spring).

(54th year of Hyeokkeose Geoseogan; February 26 – March 27;²³⁾ AS 1)

2 BC

There was a solar eclipse on the first day (*sinchuk*) of the first month (spring).²⁴⁾

(56th year of Hyeokkeose Geoseogan; February 5; AS 1)



The Five Tombs (Tap-dong, Gyeongju, Korea), one of which is occupied by Silla founder Hyeokkeose. Silla was one of the three kingdoms of Ancient Korea.

1 BC

In the 11th month, the King went as far as Gugok (구곡 臼谷)²⁵⁾ to storm the Udu Mountain Fortress of the Nangnang,²⁶⁾ only to turn back soon afterward because of heavy snow.

(18th year of King Onjo; December 15 – January 13; AB 1)

AD 2

There was an earthquake in the 8th month (autumn).²⁷⁾

(21st year of King Yuri (myeong); August 27 – September 25; AG 1)

There was a solar eclipse on the last day (*musin*) of the 9th month (autumn).²⁸⁾

(59th year of Hyeokkeose Geoseogan; November 23; AS 1)

AD 3

There appeared two dragons at a well in Geumseong (금성 金城)²⁹⁾ in the 9th month (autumn). It thundered and rained³⁰⁾ all of a sudden, and lightning struck the South Gate of Geumseong.³¹⁾

(60th year of Hyeokkeose Geoseogan; October 15 – November 12; AS 1)

AD 6

There was a solar eclipse on the first day (*byeongjin*) of the 10th month (winter).³²⁾

(3rd year of Namhae Chachaung;³³⁾ November 10; AS 1)

25) Believed to refer to either Chuncheon, Gangwon Province, or Yangju, Gyeonggi Province.

26) Opinions diverge on the identity of the Nangnang that the earlier articles of the *History* discuss: some argue that it was an administrative district under Chinese rule, others that it was a diminished version of Jinhan (진한 辰韓), and still others that it was a small state in Okjeo.

27) This is the first instance of an earthquake on record in the *History*.

28) The same event is recorded in the article for the day *wushen* in the 9th month of the 2nd year of Yuanshi (元始) in “Treatise on the Five Elements,” Book 27 of the *Book of Han*.

29) A royal castle built in 37 BC (21st year of Hyeokkeose) in the capital of Silla.

30) Quantitative measurements of precipitation were made in the Joseon Dynasty using the Chugugi (측우기) rain gauge; invented in 1441). The Chugugi-based nationwide rainfall-measuring network that had been destroyed during the Hideyoshi invasions was restored in the 1770s, and although a large part of these extensive records disappeared in the political turmoil that continued well into the Modern Era, rainfall records for Seoul after the 1770s remain nearly intact, serving as valuable data for studying long-term climatic variations.

31) Traditionally, natural phenomena such as thunderstorms, lightning, solar eclipses, and sun halos were sometimes linked to the rise and fall of a monarch or state. That is, observations of these events did not confine themselves to objective descriptions of developments in nature, but instead intimated the belief that the heavenly realm and the human world were on a par and affected each other. Given the article reporting the death of Hyeokkeose Geoseogan in the 3rd month of the following year, this entry may be implying the king’s passing.

32) The same event is recorded in the article for the day *bingchen* in the 10th month of the 1st year of Jushe (居攝) in “Biography of Wang Mang,” Book 99 of the *Book of Han*.

33) Chachaung (차차웅 次次雄) was a term for addressing the top political leader. Geoseogan (거서간 居西干), Isageum (이사금 尼師今), and Maripgan (마립간 麻立干) likewise referred to the supreme

ruler. Maripgan was later replaced by the Chinese form of address "Wang" (왕).

34) Hanseong probably refers to either the general area of the Baekje capital Wiryeseong or Wiryeseong itself.

35) Given that Baekje had a position entitled Ilgwanbu (日官部), the *ilja* probably went by the alternate name "*ilgwan*," which referred to the astrologer responsible for monitoring changes in the patterns of the sky and natural disasters, and divining their significance. The same term appears in an entry for the 4th year of King Chadae in the "Annals of Goguryeo" of the *History*.

36) This is the first instance of frost on record in the *History*. Frost is observed from October through early April in normal years (Lee 2010, p. 55).

37) The correspondence between the lunar calendar and the Julian calendar changed because of the new calendar system that Wang Mang (王莽) promulgated after driving the Former Han (前漢) into the ground and founding the state of Xin (新, 9–25). Ahn 2002 takes into consideration Wang Mang's calendar, where the years AD 8–22 begin at a different time of year.

38) This is the first instance of hail on record in the *History*.

39) Some translations read instead, "People were starved almost to the point of preying on other people."

40) The same event is recorded in the article for the day *wuzi* in the 7th month of the 3rd year of Tianfeng (天鳳) in "Biography of Wang Mang," Book 99 of the *Book of Han*.

AD 7

The water in the well of the royal palace suddenly overflowed in the 2nd month (spring) and a horse gave birth to a two-bodied ox in a commoner's house in Hanseong (한성 漢城).³⁴⁾ The *ilja* (일자 日者)³⁵⁾ predicted, "The sudden overflow of the well water is a sign that the King will prosper, and the two-bodied ox is an omen of the King annexing the neighboring state." The King rejoiced at the prophecy, and thought of annexing Jinhan and Mahan.

(25th year of King Onjo; March 8 – April 6; AB 1)

AD 10

Frost³⁶⁾ blighted the barley crops in the 4th month (summer).

(28th year of King Onjo; April 3 – May 2;³⁷⁾ AB 1)

AD 11

There was drought in the spring and the summer.

(8th year of Namhae Chachaung; AS 1)

AD 13

It hailed³⁸⁾ in the 4th month (summer). There was an earthquake in the 5th month, and another in the 6th month.

(31st year of King Onjo; March 31 – June 26; AB 1)

AD 14

The Nangnang thought that the state would be deserted and attacked Geumseong [in Silla] with great haste. The [Nangnang] troops withdrew in fear when a meteor fell on the enemy camp at night.

(11th year of Namhae Chachaung; AS 1)

AD 15

There was a mighty drought in the spring and summer. People were starved and preyed on other people,³⁹⁾ and bandits swarmed.

(33rd year of King Onjo; AB 1)

AD 16

There was a solar eclipse on the last day (*muja*) of the 7th month (autumn).⁴⁰⁾

(13th year of Namhae Chachaung; August 21; AS 1)

AD 18

There was drought in Gyeongseong [Gyeongju]. In the 7th month (autumn), swarms of locusts⁴¹⁾ (황해 蝗害) forced people into starvation, and the storehouses were opened to relieve their suffering.

(15th year of Namhae Chachaung; July 2 – 30; AS 1)

AD 19

There was an earthquake in the capital (Gungnaeseong)⁴²⁾ in the first month (spring).⁴³⁾

(2nd year of King Daemosin; December 27, 18 – January 24, 19; AG 2)

It hailed in the 3rd month (spring). The hailstones were as big as chicken eggs⁴⁴⁾, and small birds such as sparrows died from the impact. There was drought in the 4th month (summer) until it rained in the 6th month. As many as some thousand households fled to Goguryeo because of the famine that struck the villages northeast of the Hansu (한수 漢水 [Han River]).

(37th year of King Onjo; March 25 – July 20; AB 1)

AD 20

Deputies were sent out in the 3rd month to encourage agriculture and sericulture.

(38th year of King Onjo; March 14 – April 11; AB 1)

AD 22

There was a widespread plague that killed many. Water did not freeze⁴⁵⁾ in the 11th month (winter).

(19th year of Namhae Chachaung; November 13 – December 12; AS 1)

The King [Daemosin] feared for his men who had run out of provisions and was at a loss what to do. He turned to the sky and prayed for a miracle. A dense fog suddenly shrouded the area, so that people could not be identified even from a step away, for as many as 7 days.⁴⁶⁾

(5th year of King Daemosin; AG 2)

AD 23

Taebaek [Venus] (태백 太伯)⁴⁷⁾ entered the Supreme Palace Enclosure (태미원 太微垣)⁴⁸⁾ in the autumn.

(20th year of Namhae Chachaung; AS 1)

41) “Locust” is our translation of the word *hwang*, which refers to *hwangchung* (황충 蝗蟲), a species of grasshopper, whose Korean name is “*nuri* 누리.” However, given how sparse the record is, *hwang* may be an umbrella term for insects that feed on the rice plant, and it is difficult to pinpoint the precise species (Paik 1976). Therefore, we have used the word “locust” in the translation.

42) The remains of a citadel from the early to mid-Goguryeo period are found today in Ji’an County, Jilin Province, China. This was the site of Gungnaeseong, the capital of Goguryeo.

43) The same event was recorded in the same year in China. “Because of a strong earthquake in Jingdu [Gungnaesong, then capital of Goguryeo] in the 2nd month of the 6th year of Tianfeng under Emperor Mang of Xin, many criminals were pardoned (Earthquake Damage Prevention Department of the China Earthquake Administration 1995).

44) Record-size hailstones were observed in this part of the Peninsula (Kim and Son 1977).

45) This is the first instance of above-freezing winter temperatures on record in the *History*.

46) This entry describes the ordeals that King Daemosin suffered when he went on a military expedition to southern Buyeo (no specific location is given).

47) Taebaek refers to Venus, which was called “Taebaek” in the evening, and “Gyemyeong” (계명 啓明) at dawn.

48) The Supreme Palace Enclosure is one of the Three Enclosures, which owe their origin to the three sectors—the Purple Palace Enclosure (자미원 紫微垣), the Supreme Palace Enclosure, and the Heaven’s Market Enclosure (천시원 天市垣)—near the celestial north pole that are easily visible from the banks of the Yellow River of China. The Supreme Palace Enclosure is the area north of the 25th to 28th Mansions—Star (성 星), Spread (장 張), Wing (익 翼), and Axletree (진 軫). It is compared to the royal court, and includes parts of the Western constellations Virgo, Great Bear, and Leo (Chung et al. 1996).

AD 24

There was a locust outbreak in the 9th month (autumn).

(21st year of Namhae Chachaung; October 22 – November 19; AS 1)

AD 25

Some 100 wild geese flocked to the royal palace in the 9th month. The *ilja* said, “The wild geese symbolize the people in faraway lands who will come to immigrate.”

(43rd year of King Onjo; October 11 – November 9; AB 1)

AD 27

There was a mighty drought in the spring and summer, so that the grass and trees were parched. There was an earthquake in the 10th month (winter), and people saw their houses tip or crumble to the ground.

(45th year of King Onjo; November 18 – December 17; AB 1)

AD 31

It thundered but it did not snow in the 11th month (winter).⁴⁹⁾

(14th year of King Daemosin; December 4 – January 1; AG 2)

AD 32

The King set the six districts (부 部), and dividing them into two, had each of his two daughters take the women in the districts and form a group. The women started gathering on the 16th day of the 7th month (autumn) in the yard of the larger district early every morning to weave until 10 at night. On the 15th day of the 8th month, the two groups were evaluated for their work, and the losing group treated the winning one to food and wine. There was also all sorts of merriment, singing, and dancing on the occasion, which was called Gabae (가배 嘉俳).⁵⁰⁾

(9th year of Yuri Isageum; September 9 – October 8; AS 1)

AD 33

An order was issued to the southern provinces and counties in the 2nd month to set up rice paddies for the first time.

(6th year of King Daru; March 20 – April 18; AB 1)

49) This is the first such record in the *History*.

50) This article describes the origin of the Moon Festival (Hangawi 한가위). People started to replace their summer wardrobe with their autumn wardrobe around this time, when the temperatures grew cooler in the morning and after sundown; the autumn clothes were called “Chuseokpim (추석빔),” which might have something to do with the weaving competition that was practiced at that time of year.

AD 34

There was red light in the east in the 4th month (summer).⁵¹⁾

(7th year of King Daru; May 7 – June 5; AB 1)

The ground cracked⁵²⁾ in the capital [Gyeongju] and water sprang from the opening. There was a flood⁵³⁾ in the 6th month (summer).

(11th year of Yuri Isageum; July 6 – August 3; AS 1)

AD 37

There was an earthquake in the 11th month. It sounded like the rumble of thunder.

(10th year of King Daru; November 27 – December 25; AB 1)

AD 38

People were forbidden to make wine individually as the crops did not ripen properly in the autumn.⁵⁴⁾

(11th year of King Daru; AB 1)

AD 41

It hailed in the 3rd month (spring) in the capital [Gungnaeseong]. There was frost in the 7th month (autumn) that killed the crops. Plum⁵⁵⁾ trees flowered in the 8th month.

(24th year of King Daemosin; April 20 – May 19 and August 16 – October 13; AG 2)

AD 45

The storehouses were opened to relieve people who were starving after the eastern⁵⁶⁾ part of the state was flooded⁵⁷⁾ in the 5th month (summer).

(2nd year of King Minjung; June 4 – July 3; AG 2)

AD 46

A comet appeared in the south in the 11th month (winter), and only disappeared after 20 days. It did not snow in the capital [Gungnaeseong] in the 12th month.

(3rd year of King Minjung; December 17 – February 13; AG 2)

51) This is the first instance of an aurora on record in the *History*. Yang et al. 1998 identified 12 instances of aurora sightings, starting with the entry for 35 BC, assuming that auroras were variously recorded as “air (기氣),” “halos (침),” “clouds (운雲),” etc, but we have excluded instances classified as “clouds (운雲)” or stars (성星) in this volume, and hence count 7 entries on auroras.

52) Fissures developing in the ground are due to a variety of factors including earthquakes. Earth fissures started appearing in Gunwi County, North Gyeongsang Province on October 15, 1966. The survey team concluded that they were the result of a landslide. That is, they attributed the cracks to a slipping layer that buckled under the weight of the mountain, which had previously been balanced out by the bedrock (*Donga* news report for October 20, 1966).

53) This is the first instance of a flood on record in the *History*. The term used then was flood “큰물 大水,” to refer to a disastrous overflow of water.

54) This is the only instance of a brewing ban on record in the *History*. Individual brewing of alcohol was prohibited since the process entailed the consumption of a large amount of grains.

55) The plum blossom (*Prunus mume*) flowers ahead of the leaves, in early spring (February – April, when the temperatures are above 10°C) in the southern Korean Peninsula. The observing site for this record appears to be near Gungnaeseong (now Ji’an County, Jilin Province, China), the capital of Goguryeo.

56) No specific location is given. It seems to refer to the area east of the capital Gungnaeseong.

57) There was flooding in China in the same year, as confirmed by Book 7 of the *Book of the Later Han*. “There was flooding in the counties and in the state alike, and people were starved.”

58) This is the first instance of a landslide on record in the *History*.

59) This is the first wind record in the *History*. Winds violent enough to uproot trees correspond to storm-force winds with speeds of 89–102 km/h.

60) Also known as the Purple Palace (자궁 紫宮). It is the large central Enclosure encompassing the celestial north pole. It may also refer to the main constellation in that area. The same event is also in evidence in the “Annals of Emperor Guangwu,” Book 1 of the *Book of the Later Han*.

61) No specific location is given, but the south of the state appears to refer to the area south of Gungnaeseong (now Ji’an, China), which was the capital of Goguryeo.

62) This passage is reminiscent of the entry for AD 3 (60th year of Hyeokkeose). Yuri Isageum died in the 10th month of the following year.

63) Located between Bulguk-dong and Yangbuk-myeon in Gyeongju, North Gyeongsang Province. In Silla, it was referred to as “Dongak (동악 東嶽)” and was revered as the state’s guardian mountain. Bulguk-sa Temple and the Seokguram Grotto are located on this 745 m-high mountain.

64) The lingering black clouds appear to be a rhetorical device to bring out the auspiciousness of Talhae. According to the *Memorabilia*, Talhae was revered as the deity of Mt. Toham (article on King Talhae, Book 2 of “Records of Notable Events,” *Memorabilia*).

65) Celestial Boat is part of the 17th Mansion Stomach (위수 胃宿).

AD 48

There was a flood in the 8th month (autumn) and some 20 hills collapsed.⁵⁸⁾
(1st year of King Mobon; August 28 – September 26; AG 2)

AD 49

Violent winds⁵⁹⁾ uprooted trees in the 3rd month. There was frost and hail in the 4th month (summer). Deputies were sent in the 8th month (autumn) to relieve the starving masses around the state.
(2nd year of King Mobon; April 22 – June 19 and September 16 – October 15; AG 2)

AD 54

There appeared a comet inside the Purple Palace Enclosure (자미원 紫微垣) in the 2nd month (spring).⁶⁰⁾
(31st year of Yuri Isageum; February 27 – March 27; AS 1)

AD 55

There was drought in the spring and summer.
(28th year of King Daru; AB 1)

Locusts blighted crops in the southern part⁶¹⁾ of the state in the 8th month (autumn).
(3rd year of King Taejo the Great; September 11 – October 9; AG 3)

AD 56

There appeared a dragon in a well in Geumseong in the 4th month (summer), and soon after, pouring rain came from the northwest.⁶²⁾
Strong winds uprooted trees in the 5th month.
(33rd year of Yuri Isageum; May 4 – July 1; AS 1)

AD 59

The King went up Mt. Toham⁶³⁾ in the 3rd month (spring). Black clouds lingered over his head like a parasol before dispersing after a long while.⁶⁴⁾ There appeared a comet on the Celestial Boat (천선 天船)⁶⁵⁾ constellation in the 6th month.
(3rd year of Talhae Isageum; April 2 – 30 and June 30 – July 28; AS 1)



Seokguram Grotto in Mt. Toham, Gyeongju, Korea.

The capital [Gungnaeseong] was flooded in the 7th month (autumn), and homes were swept away or submerged.

(7th year of King Taejo the Great; July 29 – August 27; AG 3)

AD 62

Locusts⁶⁶⁾ swarmed from the south of the state in the 8th month (autumn), and blighted crops.

(10th year of King Taejo the Great; September 23 – October 21; AG 3)

AD 64

There was an earthquake⁶⁷⁾ in the 12th month. It did not snow.

(8th year of Talhae Isageum; December 28 – January 25; AS 1)

AD 68

It thundered in the 10th month (winter).

(16th year of King Taejo the Great; November 14 – December 13; AG 3)

AD 72

There was drought in the capital [Gungnaeseong] in the 4th month (summer).

(20th year of King Taejo the Great; May 7 – June 4; AG 3)

66) Swarms of grasshoppers such as migratory locusts (*Locusta migratoria*) that originate in continental plains and move in large enough swarms to blanket the sky (Paik 1976).

67) The site where the earthquake was observed appears to be Gyeongju. The *History* talks of “earth fissures (지열 地裂),” “earth tremors (지동 地動),” and “earthquakes (지진 地震).” According to the *Seungwanji* (Records of the Board of Astronomy and Meteorology) from the Joseon Dynasty, “earth tremors” referred to short-interval shaking, while the longer-interval event was called an “earthquake (지진 地震),” and the time and direction of the focus were set down into records (“Duty Guidelines [番規],” vol. 1 of the *Seungwanji*).

68) The same event is recorded in the article for the day *wuwu* in the 5th month of the 16th year of Yongping (永平) in “Treatise on the Five Elements,” Book 18 of the *Book of the Later Han*.

69) The entry specifies neither the month nor the season.

70) The strong wind and the felled gate seem to imply the king’s demise.

71) Drought and flooding were frequent during the Three Kingdoms period. The states came up with lasting solutions such as reservoirs and dikes in addition to temporary measures (e.g., rainmaking rituals, dispensation of cereals to the populace, etc.). In light of the numerous entries discussing dam repairs, we can reasonably conclude that considerable effort was expended to secure usable water even before the Three Kingdoms period (Chang 1989).

72) This is the first instance of a bumper year on record in the *History*.

AD 73

There was a solar eclipse on the last day (*muo*) of the 5th month (summer).⁶⁸⁾
(46th year of King Daru; July 23; AB 1)

AD 75

Storehouse grains were distributed to people who were starving from the mighty drought.⁶⁹⁾
(19th year of Talhae Isageum; AS 1)

AD 77

3 *cheok* (자 尺) of snow fell in the capital [Gungnaeseong] in the 11th month.
(25th year of King Taejo the Great; December 5 – January 2; AG 3)

AD 79

A comet appeared in the east and reappeared in the north in the 2nd month (spring). It disappeared only after 20 days.
(23rd year of Talhae Isageum; March 22 – April 20; AS 1)

AD 80

There was a strong wind in the capital [Gyeongju] in the 4th month (summer), and the East Gate of Geumseong fell off by itself.⁷⁰⁾ The King died in the 8th month (autumn).
(24th year of Talhae Isageum; May 9 – June 6; AS 1)

AD 82

An order was issued in the first month (spring): “The storehouses are now empty, and our weapons are dull. If there should be a flood, drought, or any sudden event at the border, how would we fend them off? Instruct the relevant offices to encourage agriculture and sericulture and to ready their arsenals so as to prepare for any unforeseen event.”⁷¹⁾
(3rd year of Pasa Isageum; February 17 – March 18; AS 1)

AD 84

It was a great bumper year,⁷²⁾ so that people setting out for long journeys did not need to carry along food.
(5th year of Pasa Isageum; AS 1)

AD 85

A guest star (객성 客星)⁷³⁾ entered the Purple Palace Enclosure in the 4th month (summer).⁷⁴⁾

(6th year of Pasa Isageum; May 13 – June 10; AS 1)

A guest star entered the Purple Palace Enclosure on the day *eulsa* in the 4th month (summer).

(9th year of King Giru; June 1;⁷⁵⁾ AB 1)

AD 87

There was a solar eclipse on the last day (*eulmi*) of the 8th month (autumn).⁷⁶⁾

(11th year of King Giru; October 15; AB 1)

AD 89

Many died as their homes sank when the earth cracked from an earthquake in the 6th month (summer).

(13th year of King Giru; June 27 – July 25; AB 1)

AD 90

There was no barley to harvest because of a mighty drought⁷⁷⁾ that occurred in the 3rd month (spring). A strong wind uprooted trees in the 6th month (summer).

(14th year of King Giru; April 18 – May 17 and July 16 – August 13; AB 1)

AD 92

There was a solar eclipse on the first day (*musul*) of the 6th month (summer).⁷⁸⁾

(16th year of King Giru; July 23; AB 1)

AD 93

Five boulders rolled off at the same time from Hoengak (횡악 横岳)⁷⁹⁾ in the 8th month (autumn).

(17th year of King Giru; September 9 – October 8; AB 1)

There was an earthquake in the capital [Gyeongju] in the 10th month (winter).

(14th year of Pasa Isageum; November 7 – December 6; AS 1)

73) A celestial body that suddenly comes into view, like a nova or a supernova. The term is sometimes applied to tail-less comets with an unclear trajectory.

74) The same event is recorded in “Treatise on Astronomy,” Book 101, *Book of the Later Han*: “A guest star appeared in the east at dawn on the day *dingsi* in the 4th month of the 2nd year of Yuanhe (元和). It was at 8 *du* from the Stomach Mansion, and was 3 *chi* long. It passed Flying Corridor and entered the Purple Palace Enclosure.”

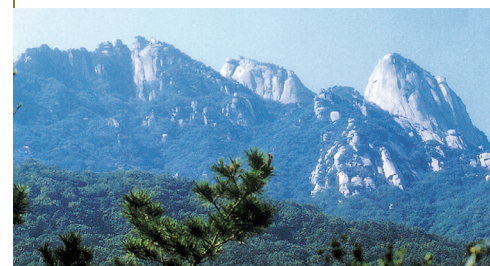
75) According to Ahn 2002, none of the days during that time was *eulsa* (乙巳), although there is a day *gisa* (己巳). The Julian equivalent was computed based on the latter date (20th day of the 4th lunar month).

76) The same event is recorded in the article for the day *yiwei* in the 8th month of the 1st year of Zhanghe (章和) in “Annals of Emperor Suzong Xiaozhang,” Book 3, *Book of the Later Han*.

77) China suffered a drought in the same year, as confirmed by the *Fuhou gujinzhu* (伏侯古今注): “There was drought in 14 locations in the counties and state.”

78) The same event is recorded in the article for the day *wuxu* in the 6th month of the 4th year of Yongyuan (永元) in “Annals of Emperors Xiahe and Xiaoshang,” Book 4, *Book of the Later Han*.

79) Probably an alternate name for the Three Peak Mountain in Seoul.



Three Peak Mountain (Samgaksan), the estimated modern counterpart of Hoengak of Baekje.



Meteor shower

80) The peach and the (Chinese) plum usually flower in April – May before the leaves start to come out, and therefore, this entry suggests an unseasonably warm winter (see Li 1960).

81) The phenomenon appears to be a meteor shower, which consists of innumerable meteors simultaneously entering the terrestrial atmosphere, creating the illusion of streaking rain.

AD 96

Violent winds swept in from the south in the 7th month (autumn), uprooting large trees in southern Geumseong.

(17th year of Pasa Isageum; August 7 – September 5; AS 1)

AD 98

There was drought in the capital [Gyeongju] in the 4th month (summer).

(19th year of Pasa Isageum; May 19 – June 17; AS 1)

AD 99

Frost blighted the bean crops in the 8th month (autumn). It hailed in the 10th month (winter).

(23rd year of King Giru; September 4 – October 2 and November 2 – 30; AB 1)

AD 100

It hailed in the 7th month (autumn), and flying birds died from the impact. There was an earthquake in the capital [Gyeongju] in the 10th month (winter); houses crumbled and people died.

(21st year of Pasa Isageum; August 23 – September 20 and November 20 – December 18; AS 1)

AD 102

Peach and plum trees flowered in the 10th month (winter).⁸⁰⁾

(23rd year of Pasa Isageum; October 29 – November 27; AS 1)

AD 104

Many stars rained down in the first month (spring), but none reached the ground.⁸¹⁾

(25th year of Pasa Isageum; February 14 – March 13; AS 1)

AD 105

As many as three *cheok* of snow fell on the capital [Gyeongju] in the 2nd month.

(26th year of Pasa Isageum; March 4 – April 1; AS 1)

AD 107

Water did not freeze in the winter.

(31st year of King Giru; AB 1)

AD 108

There was flooding in the 5th month (summer), and people starved.

(29th year of Pasa Isageum; May 28 – June 25; AS 1)

There was a mighty drought in the spring, and the land was too barren to produce crops in the summer. The King sent deputies to relieve the starving masses.

(56th year of King Taejo the Great; AG 3)

There was drought⁸²⁾ in the spring and summer that resulted in a poor harvest. People preyed on other people.

(32nd year of King Giru; AB 1)

82) There was a drought in China in the same year, as confirmed by the “Biographies of Loners,” *Book of the Later Han*, “There was drought in the summer. We held a long prayer, but there came no reply.”

AD 109

Locusts blighted crops in the 7th month (autumn). After the King held rites to nature all around, the locust damage vanished and there was a bumper crop.

(30th year of Pasa Isageum; August 14 – September 11; AS 1)

AD 111

There was an earthquake in the 3rd month (spring). There was another earthquake in the 10th month (winter).

(35th year of King Giru; March 28 – April 25 and November 19 – December 17; AB 1)

It did not rain from the 5th month until the 7th month (autumn).

(32nd year of Pasa Isageum; June 24 – September 20; AS 1)

AD 114

There was a solar eclipse in the 3rd month (spring).⁸³⁾

(62nd year of King Taejo the Great; April 23 – May 21; AG 3)

83) According to “Annals of Emperor Xiao’an,” Book 5, *Book of the Later Han*, a solar eclipse was observed on the day *guiyou* in the 3rd month of the first year of Yuanchu (元初).

It hailed in the 3rd month (spring). The hailstones blighted the barley sprouts. There was a flood in the 4th month (summer).

(3rd year of Jima Isageum; April 23 – June 20; AS 1)

AD 116

There was a solar eclipse in the 3rd month (spring).⁸⁴⁾ As many as five *cheok* of snow fell in the 12th month (winter).

(64th year of King Taejo the Great; March 31 – April 29 and January 21 – February 18, 117; AG 3)

84) According to, “Annals of Emperor Xiao’an,” Book 5, *Book of the Later Han*, a solar eclipse was observed on the day *xinhai* in the 3rd month of the 3rd year of Yuanchu,

85) Gaya was an allied kingdom located in western Gyeongsang Province downstream of the Nakdong River around the turn of the epoch. Geumgwan Gaya, based in Gimhae, had the upper hand until around 532, after which Daegaya in Goryeong dominated the other Gayas until 562. Gaya fell to Silla in the 23rd year of King Jinheung.

86) Estimated to refer to the Moon Fortress in Inwang-dong, Gyeongju (Park 1985). The Moon Fortress in Gyeongju is also known as “Half-moon Fortress” (반월성) or “New Moon Fortress” (신월성) because it resembles a half moon. It was reportedly built in 101 (22nd year of King Pasa).



Moon Fortress, Gyeongju, Korea

87) The same event is recorded in the article for the day *gengshen* in the 9th month of the 3rd year of Yanguang (延光) in “Annals of Emperor Xiaohan,” Book 5, *Book of the Later Han*.

It rained heavily for 10 long days in the 6th month. The Han River overflowed, sweeping away and crushing homes.

(40th year of King Giru; June 28 – July 27; AB 1)

Generals were sent to invade Gaya⁸⁵⁾ in the 8th month (autumn). The King followed with 10,000 well-trained army men, but Gaya kept the gates of its fortress shut tight and stood its ground. As it happens, it rained for a long spell, and the troops eventually turned back.

(5th year of Jima Isageum; August 26 – September 24; AS 1)

AD 118

There was an earthquake in the 2nd month (spring). Locusts and hail blighted the crops in the 7th month (autumn).

(66th year of King Taejo the Great; March 10 – April 8 and August 5 – September 2; AG 3)

AD 120

A big star fell west of the Moon Fortress (월성 月城)⁸⁶⁾ in the 2nd month (spring). It made a sound like that of thunder. There was a widespread outbreak of plague in the capital [Gyeongju] in the 3rd month.

(9th year of Jima Isageum; March 17 – May 14; AS 1)

AD 122

A strong wind blew in from the east in the 4th month (summer), breaking trees and sending roof tiles flying. It ceased only in the evening. In the 7th month (autumn), locusts swarmed in and blighted the crops. The harvest was meager, and the state crawled with thieves.

(11th year of Jima Isageum; May 24 – June 21 and August 20 – September 18; AS 1)

AD 123

There was frost in the 4th month (summer). Houses in eastern Geumseong collapsed and turned into a lotus pond in the 5th month.

(12th year of Jima Isageum; May 13 – July 10; AS 1)

AD 124

There was a solar eclipse on the last day (*gyeongsin*) of the 9th month (autumn).⁸⁷⁾

(13th year of Jima Isageum; October 25; AS 1)

There was a solar eclipse on the last day (*gyeongsin*) of the 9th month (autumn). There was an earthquake in the capital [Gungnaeseong] in the 11th month.

(72nd year of King Taejo the Great; October 25 and December 24 – January 21; AG 3)

AD 127

There was a solar eclipse on the first day (*gapsul*) of the 7th month (autumn).⁸⁸⁾

(16th year of Jima Isageum; August 25; AS 1)

AD 128

A star with a long tail (장성 長星⁸⁹⁾ streaked across the sky in the 8th month (autumn). There was an earthquake⁹⁰⁾ in the eastern part of the state in the 10th month (winter). It thundered in the 11th month.

(17th year of Jima Isageum; September 12 – October 11 and November 10 – January 7; AS 1)

AD 131

It rained heavily in the 5th month (summer). The rainwater swept away or submerged homes.

(20th year of Jima Isageum; June 13 – July 12; AS 1)

AD 134

There was drought in the spring and summer.

(23rd year of Jima Isageum; AS 1)

AD 137

Mars overtook the Southern Dipper (남두 南斗) on the day *gyeongja* in the 8th month (autumn).⁹¹⁾

(10th year of King Gaeru; September 27; AB 1)

AD 139

Frost blighted the bean crops in the 7th month (autumn). There was another attack [by the Malgal⁹²⁾] in the 10th month (winter), but the invaders retreated because of heavy snow.

(6th year of Ilseong Isageum; August 13 – September 10 and November 9 – December 8; AS 1)

88) The same event is recorded in the article for the day *jiayu* in the 7th month of the 2nd year of Yongjian (永建) in “Annals of Emperors Xiaoshun, Xiaochong, and Xiaozhi,” Book 6, *Book of the Later Han*.

89) A comet with a particularly long tail, which astrologers regarded as a bad omen.

90) There was an earthquake in the first month of the same year in China, as confirmed by the following entry: “There was an earthquake in Hanyang [Gangu (甘谷) County, Gansu Province] on the 6th day of the first month in the 3rd year of Yongjian (永建) in the Eastern Han. Houses fell, people died, the earth cracked, and water sprang up.” (Earthquake Damage Prevention Department of the China Earthquake Administration 1995).

91) The Southern Dipper is a 6-star constellation in the 8th Mansion Dipper (斗宿 斗宿). The same event is also discussed in “Treatise on Astronomy,” *Book of the Later Han*.

92) The Mohe were a tribe that lived in northeastern China after the 6th century. Therefore, the Malgal mentioned in this earlier article for the 2nd century appear to be people from the state of Dongye (東濊; 3rd century BC – AD 5th century) whose settlements were scattered across different regions (South Hamgyeong, Gyeonggi, and part of Gangwon Province) (Yoo 1979).

93) The same event is recorded in the article for the day *xin hai* in the 9th month of the 6th year of Yonghe (永和) in “Annals of Emperors Xiaoshun, Xiaochong, and Xiaozhi,” Book 6, *Book of the Later Han*.

94) The most convincing view is the one that equates Hwando with the Shanchengzi Mountain Fortress, located in Ji’an County, Jilin Province, China.

95) The same event is recorded in “Treatise on Astronomy,” Book 101, *Book of the Later Han*.

96) A monument known as Yeongcheon Cheongjebi (영천청계비 永川菁堤碑) was discovered in 1968 in Yeongcheon City, North Gyeongsang Province. The inscription on the monument discusses the construction and repairs of reservoirs in the Silla Dynasty. It also mentions the Stems-and-Branched (干支; Chinese sexagenary cycle) date *byeongjin*, which is estimated to correspond to AD 536 (23rd year of Beopheung of Silla) and the 14th year of the era Zhenyuan (정원 貞元), which is equivalent to AD 798 (14th year of Wonseong of Silla).

97) There was a drought in the summer of the same year in China, as confirmed by the “Treatise on the Five Elements” of the *Book of the Later Han*: “There was a drought in the summer.”

98) The same event is recorded in the article for the day *ding mao* in the 4th month of the 3rd year of Jianhe (建和) in “Annals of Emperor Xiaohuan,” Book 7, *Book of the Later Han*.

99) The Five Stars (5성 五星, 오위 五緯) refer to Mercury (진성 辰星, 수성), Venus (태백성 太白星, 금성), Mars (형혹성 熒惑星, 화성), Jupiter (세성 歲星, 목성), and Saturn (진성 鎮星, 토성).

100) The *ilja* not only monitored the state of the sky, but also served as an astrologer who predicted bad and good omens based on the configuration of the stars (Shin 1980).

AD 141

There was a solar eclipse on the last day (*sinhae*) of the 9th month (autumn).⁹³⁾ (8th year of Ilseong Isageum; November 16; AS 1)

AD 142

There was an earthquake in Hwando (환도 丸都)⁹⁴⁾ in the 9th month (autumn). (90th year of King Taejo the Great; October 8 – November 5; AG 3)

AD 143

Mars overtook Saturn on the day *eulchuk* in the 6th month (summer).⁹⁵⁾ It thundered in the 11th month (winter). (10th year of Ilseong Isageum; July 23 and December 25 – January 22; AS 1)

AD 144

An order was issued in the 2nd month (spring): “Farming is the foundation of government, and people think the world of food. The provinces and counties are to repair dikes⁹⁶⁾ and cultivate large expanses of fields and paddies.” (11th year of Ilseong Isageum; March 22 – April 20; AS 1)

AD 145

There was drought in the spring and summer.⁹⁷⁾ The southern region suffered the worst, and the people starved. (12th year of Ilseong Isageum; AS 1)

AD 147

There was an earthquake in the 11th month. (2nd year of King Chadae; December 11 – January 8; AG 3)

AD 149

There was a solar eclipse on the last day (*jeongmyo*) of the 4th month (summer).⁹⁸⁾ The five planets⁹⁹⁾ gathered in the east in the 5th month. The *ilja*¹⁰⁰⁾ feared the King’s wrath and lied, “This is a sign of the King’s virtue and the state’s good fortune.” The King rejoiced. Water did not freeze in the 12th month (winter). (4th year of King Chadae; June 24 – July 22 and January 16 – February 14, 150; AG 3)

There appeared a comet inside the Heaven's Market Enclosure (천시원
天市垣)¹⁰¹⁾ in the 8th month. It thundered in the 11th month (winter), and a
plague¹⁰²⁾ broke out wide in the capital [Gyeongju].

(16th year of Ilseong Isageum; September 20 – October 19 and December 18 – January
15; AS 1)

AD 150

There had not been a drop of rain since the 4th month (summer), until it
rained in the 7th month (autumn).

(17th year of Ilseong Isageum; May 14 – June 12 and August 11 – September 9; AS 1)

AD 151

It hailed in the 3rd month.

(18th year of Ilseong Isageum; April 4 – May 3; AS 1)

AD 153

There was frost in the 6th month (summer). It thundered, and an
earthquake occurred in the 12th month (winter). A guest star overtook the
moon on the last day of the month.

(8th year of King Chadae; July 9 – August 7 and January 2 – 31, 154; AG 3)

A comet appeared in the east and reappeared in the northeast in the 10th
month (winter).

(20th year of Ilseong Isageum; November 4 – December 3; AS 1)

AD 155

There was a solar eclipse on the last day (*byeongsin*) of the first month
(spring).¹⁰³⁾

(28th year of King Gaeru; March 20;¹⁰⁴⁾ AB 1)

AD 156

There was frost in the 4th month (summer).

(3rd year of Adalla Isageum; May 8 – June 5; AS 2)

AD 158

A comet appeared in the Northern Dipper [= Big Dipper] in the 2nd month
(spring). There was a solar eclipse on the last day (*gapsul*) of the 5th month
(summer).¹⁰⁵⁾

(13th year of King Chadae; March 18 – April 15 and July 13; AG 3)

101) The Heaven's Market Enclosure is located north of the Mansions Room, Heart, Tail, Winnower, and Dipper. It encompasses the Western constellations Ophiuchus and Serpens. The same event is discussed in "Treatise on Astronomy," Book 102, *Book of the Later Han*.

102) This term is usually construed as referring to a contagious disease or epidemic, i.e., a disease that occurs more than the predicted frequency within a given demographic, like the bubonic plague in Medieval Europe and AIDS today. Since the term does not apply exclusively to a single disease, the meaning of this term as it was used in old records can only be deduced from the symptoms (Kwon 2000).

103) The last day of the first month of the 28th year of King Gaeru's reign was not *byeongsin*, which corresponds instead to the last day of the first month of the 38th year. Given the *Abridged History of the Three Kingdoms* (삼국사절요), which records 38, it is very likely that the entry was for the latter date. According to research by Park Changbom (1999), there was no solar eclipse whatsoever around March 20, 155, while there did occur one on February 28, 165. An eclipse was recorded in the *Book of the Later Han* (article for the day *bingshen*, 1st month of 165 [8th year of Yanxi (延熹)] in "Treatise on the Five Elements," Book 108), although the years differ.

104) According to Ahn 2002, the last day of the first month in the spring was *gyehae*, and hence is at variance with the text of the *History*.

105) The same event is recorded in the article for the day *jiaxu* in the 5th month of the first year of Yanxi in "Treatise on the Five Elements," Book 108, *Book of the Later Han*.



North Stream in modern Gyeongju of Korea. The stream is believed to be the modern counterpart of the Alcheon mentioned in the *History*.

106) Some scholars believe this corresponds to the North Stream (북천 北川) or the South Stream (남천 南川) in Gyeongju today.

AD 160

Downpours caused the Alcheon (알천 關川)¹⁰⁶⁾ to overflow and to wash away homes in the 4th month (summer).

(7th year of Adalla Isageum; May 23 – June 21; AS 2)

AD 161

Locusts blighted crops, and many fish were stranded on land and died in the 7th month (autumn).

(8th year of Adalla Isageum; August 9 – September 7; AS 2)

AD 165

There was a solar eclipse on the last day of the first month (spring).¹⁰⁷⁾

(20th year of King Chadae; February 28; AG 3)

AD 166

There was a solar eclipse on the first day (*sinhae*) of the first month (spring).¹⁰⁸⁾

(13th year of Adalla Isageum; February 18;¹⁰⁹⁾ AS 2)

AD 170

There was a solar eclipse on the last day (*byeongin*) of the 3rd month (spring).¹¹⁰⁾

(5th year of King Chogo; May 3; AB 1)

107) This entry records an observation made in Goguryeo, and although it fails to specify a concrete, Stems-and-Branches date, Park Changbom believes the observation was made on the same day as that recorded in the *Baekje* record for AD 165 (38th year of Gaeru of Baekje; see note 103). The same event is recorded in the *Book of the Later Han* (Book 108, article for the day *bingshen*, 1st month of 165 [8th year of Yanxi] in “Treatise on the Five Elements”).

108) The same event is recorded in the *Book of the Later Han* (Book 18, article for the day *xinmao*, 1st month of the 9th year of Yanxi in “Treatise on the Five Elements”).

109) According to Ahn 2002, the first day of the first month for that year was *sinmyo*.

110) The same event is recorded in the article for the day *bingyin*, 3rd month of the 3rd year of Jianning (建寧) in “Treatise on the Five Elements,” Book 108, *Book of the Later Han*.

There was an earthquake in the capital [Gyeongju] in the 7th month (autumn).
Frost and hail blighted crops.

(17th year of Adalla Isageum; July 31 – August 29; AS 2)

AD 171

There was a dearth of crops in the spring, and people starved.

(18th year of Adalla Isageum; AS 2)

AD 172

A widespread plague broke out in the capital [Gyeongju] in the 2nd month.

(19th year of Adalla Isageum; March 13 – April 10; AS 2)

AD 174

Sand came down from the sky like misty rain in the first month (spring).¹¹¹⁾

A drought dried up the wells and springs in the 2nd month.

(21st year of Adalla Isageum; February 20 – April 19; AS 2)

AD 178

There was a solar eclipse on the last day (*byeongja*) of the 10th month (winter).¹¹²⁾

(14th year of King Sindae; November 27; AG 4)

AD 182

A touch of redness stretched like a snake across the sky toward the Supreme Palace Enclosure on the night of *gabin* in the 3rd month (spring).

A comet appeared in the Supreme Palace Enclosure in the 7th month (autumn).¹¹³⁾

(4th year of King Gogukcheon; August 17 – September 15;¹¹⁴⁾ AG 4)

AD 184¹¹⁵⁾

The King [Beolhyu] predicted floods, droughts, and the year's crop yield based on the winds and clouds.¹¹⁶⁾

(Abridged biography¹¹⁷⁾ of Beolhyu Isageum; AS 2)

AD 186

Mars kept guard over Heart on the day *eulmyo* in the 4th month (summer).

There was a solar eclipse on the last day (*imjin*) of the 5th month.¹¹⁸⁾

(8th year of King Gogukcheon; May 28 and July 4; AG 4)

111) This is the first instance of Asian Dust (황사 *hwangsa*) on record in the *History*. Asian Dust was recorded steadily from this time on through the Joseon Dynasty (Chun 2000, Chun et al, 2008).

112) The same event is recorded in the article for the day *bingzi* in the 10th month of the first year of Guanghe (光和) in "Treatise on the Five Elements," Book 108, *Book of the Later Han*.

113) The same event is recorded in "Annals of Emperor Xiaoling," Book 8, *Book of the Later Han*.

114) According to Ahn 2002, the first day of the 3rd month was *jeongsa* and corresponds to April 21 in the Julian calendar. Computation of the Stems-and-Branches with *jeongsa* as the starting point yields no day *gabin*, and we have therefore left out the Julian date for *gabin*.

115) This passage, which sets out an overview of the life of King Beolhyu, lacks a specific date, and hence we are listing the entry under the year 184, the year Beolhyu ascended the throne.

116) In the East, the monarchs had to monitor the sky and keep abreast of meteorological events so as to set the dates for the different agricultural activities. This tradition continued and became one of the chief responsibilities of the rulers (Zheng 2000).

117) The abridged biographies lay out the genealogy and coronation process of each monarch before the chronologically ordered articles for that monarch's reign. They also discuss the first year of a monarch's reign on occasion.

118) The same event is recorded in the article for the day *renchen*, 5th month of the 3rd year of Zhongping (中平) in "Treatise on the Five Elements," Book 108, *Book of the Later Han*.

There was a solar eclipse on the last day (*imjin*) of the 5th month (summer).
(3rd year of Beolhyu Isageum; July 4; AS 2)

It thundered in a cloudless sky in the 10th month (winter), and there appeared a comet in the northwest that went away after 20 days.
(21st year of King Chogo; October 31 – November 28; AB 1)

AD 187

The wells in the capital [Seoul] and the Hansu ran dry in the 5th month (summer).
(22nd year of King Chogo; June 24 – July 23; AB 1)

It snowed heavily in the northern region in the 10th month (winter), so that there was as much as a whole *jang* (갈 丈) of snow on the ground.
(4th year of Beolhyu Isageum; November 19 – December 17; AS 2)

AD 189

There was a solar eclipse on the first day (*byeongo*) of the 4th month (summer).¹¹⁹⁾
(24th year of King Chogo; May 3; AB 1)

AD 190

As many as six *cheok* of snow fell in the capital [Gungnaeseong] in the 9th month (autumn).
(12th year of King Gogukcheon; October 17 – November 14; AG 4)

AD 191

A *chiugi* (치우기 蚩尤旗)¹²⁰⁾ appeared on Horn (각 角)¹²¹⁾ and Neck (항 亢)¹²²⁾ in the 9th month (autumn).
(8th year of Beolhyu Isageum; October 6 – November 4; AS 2)

A *chiugi* appeared on Horn and Neck in the 9th month (autumn).
(26th year of King Chogo; October 6 – November 4; AB 1)

AD 192

It snowed 3 *cheok* deep in the capital [Gyeongju] in the 3rd month.¹²³⁾
Flooding in the 5th month (summer) caused landslides in some 10 locations.
(9th year of Beolhyu Isageum; March 31 – April 29 and May 29 – June 27; AS 2)

119) The same event is recorded in the article for the day *bingwu*, 4th month of the 6th year of Zhongping (中平) in "Treatise on the Five Elements," Book 108, *Book of the Later Han*.

120) The *chiugi* is similar to a comet, but the tail end is angled like a flag. The same event is recorded in the "Annals of Baekje" and the *Book of the Later Han* (article for the 9th month of the 2nd year of Chuping [初平]).

121) This may refer to either the first Mansion Horn (각수 角宿) or the Horn (각 角) constellation that is part of the Horn Mansion. The determinative star is α Virginis.

122) This may refer to either the 2nd Mansion Neck (항수 亢宿) or the Neck (항 亢) constellation that is part of the Neck Mansion. The determinative star is κ Virginis. The same event is recorded in "Annals of Emperor Xiaoxian," Book 9, *Book of the Later Han*.

123) While the Jujabon version of the *History* records "4th month", the *Abridged History of the Three Kingdoms* records "3rd month."

AD 193

There was a solar eclipse on the first day (*gabin*) of the first month (spring).¹²⁴⁾

(10th year of Beolhyu Isageum; February 19; AS 2)

AD 194

There was a solar eclipse on the last day (*eulsa*) of the 6th month (summer).¹²⁵⁾

(11th year of Beolhyu Isageum; August 4; AS 2)

Frost blighted the crops and caused starvation in the 7th month (autumn).

(16th year of King Gogukcheon; August 5 – September 2; AG 4)

AD 196

There was drought in the 3rd month. Lightning struck a large tree in the south of the royal palace in the 4th month (summer). Lightning also struck the East Gate of Geumseong. The King died.

(13th year of Beolhyu Isageum; April 16 – June 13; AS 2)

Not a drop of rain fell from the first month of this year until the 4th month. Because it rained heavily on the day the King was crowned, people rejoiced and celebrated.

(Abridged biography of Nahae Isageum; February 17 – June 13; AS 2)

AD 198

The western part of the state was flooded in the 5th month.

(3rd year of Nahae Isageum; June 22 – July 21; AS 2)

AD 199

There was an earthquake in the 7th month (autumn).

(34th year of King Chogo; August 10 – September 7; AB 1)

AD 200

Venus appeared during the day and frost killed the grass in the 7th month (autumn). There was a solar eclipse on the first day (*gyeongo*) of the 9th month.¹²⁶⁾

(5th year of Nahae Isageum; July 29 – August 27 and September 26; AS 2)

124) The same event is recorded in the article for the day *jiayin*, first month of the 4th year of Chuping (初平) in “Treatise on the Five Elements,” Book 108, *Book of the Later Han*.

125) The same event is recorded in the article for the day *yisi*, 6th month of the first year of Xingping (興平) in “Treatise on the Five Elements,” Book 108, *Book of the Later Han*.

126) The same event is recorded in the article for the day *gengwu*, 9th month of the 5th year of Jian’an (建安) in “Treatise on the Five Elements,” Book 108, *Book of the Later Han*.

127) The same event is recorded in the article for the day *dingmao*, 3rd month of the 6th year of Jian'an in "Annals of Emperor Xiaoxian," Book 9, *Book of the Later Han*.

128) According to Ahn 2002, the first day of the 3rd month was not *jeongmyo* but *jeongyu*, which corresponds to April 21 in the Julian calendar, and the day *jeongmyo* with the solar eclipse was the first day of the 2nd month, whose Julian equivalent is March 22.

129) Eastern Well refers to the 22nd Mansion Well (정수 井宿), whose determinative star is μ Geminorum.

130) The same event is recorded in "Treatise on Astronomy," Book 101, *Book of the Later Han*: "There was a comet at Eastern Well and Bier [興鬼; later renamed the Ghost Mansion (鬼宿)] in the 11th month of the 9th year of Jian'an."

131) According to Park 1999, Venus overtook the moon on September 4, 205 (Julian date).

AD 201

There was a solar eclipse on the first day (*jeongmyo*) of the 3rd month.¹²⁷⁾

Less serious offenses were pardoned after surveying inmates in the central and the regional prisons because of the mighty drought.

(6th year of Nahae Isageum; April 21;¹²⁸⁾ AS 2)

AD 203

Peach and plum trees flowered in the 10th month (winter). Many were infected with the plague.

(8th year of Nahae Isageum; November 22 – December 20; AS 2)

AD 204

A comet appeared in the Eastern Well (동정 東井)¹²⁹⁾ constellation in the 10th month (winter).¹³⁰⁾

(39th year of King Chogo; November 10 – December 9; AB 1)

AD 205

Frost and hail blighted crops in the 7th month (autumn). Venus overtook the moon.

(10th year of Nahae Isageum; August 3 – September 1;¹³¹⁾ AS 2)

Venus overtook the moon in the 7th month (autumn).

(40th year of King Chogo; August 3 – September 1; AB 1)

AD 208

The crops did poorly because of locust damage and drought in the autumn.

(43rd year of King Chogo; AB 1)

AD 209

A strong wind uprooted trees in the 10th month (winter).

(44th year of King Chogo; November 15 – December 14; AB 1)

AD 210

There was drought in the spring and summer.

(15th year of Nahae Isageum; AS 2)

AD 211

Locust damage on the crops in the southern part of the state in the 8th month (autumn) caused starvation. Water did not freeze in the 11th month (winter).

(46th year of King Chogo; August 27 – September 24 and December 23 – January 20; AB 1)

AD 212

It rained heavily in the 5th month (summer). The rainwater washed homes away or knocked them down.

(17th year of Nahae Isageum; June 17 – July 16; AS 2)

There was a solar eclipse on the last day (*gyeongin*) of the 6th month (summer).¹³²⁾

(47th year of King Chogo; August 14; AB 1)

AD 214

Strong winds broke trees in the 3rd month (spring). It thundered in the 12th month (winter).

(19th year of Nahae Isageum; March 29 – April 26 and January 18 – February 16, 215; AS 2)

AD 217

There was thunder and earthquake, and a comet appeared in the northeast in the 10th month (winter).¹³³⁾

(21st year of King Sansang; November 17 – December 15; AG 4)

AD 219

There was a solar eclipse on the last day (*imja*) of the 2nd month (spring).¹³⁴⁾

(23rd year of King Sansang; April 2; AG 4)

AD 221

There was a flood in the eastern part of the state¹³⁵⁾ in the 5th month (summer) that caused landslides in some 40 locations. There was a solar eclipse on the last day (*mujin*) of the 6th month.¹³⁶⁾

(8th year of King Gusu; June 8 – July 7 and August 5; AB 2)

132) The same event is recorded in the article for the day *gengyin* in the 6th month of the 17th year of Jian'an in the *Book of the Later Han*.

133) The same event is recorded in "Annals of Emperor Xiaoxian," Book 9, *Book of the Later Han*: "There was a comet in the northeast in the winter of the 22nd year of Jian'an."

134) The same event is recorded in the article for the day *renzi* in the 2nd month of the 24th year of Jian'an in "Annals of Emperor Xiaoxian," Book 9, *Book of the Later Han*.

135) According to the article for 6 BC (13th year of Onjo of Baekje) in the "Annals of Baekje" in the *History*, the eastern border of the state was at Juyang (जू양 走壤; now Chuncheon). It is unlikely that Baekje's territory went past the Taebaek Mountains under King Gusu.

136) The same event is recorded in the article for the day *wuchen* in the 6th month of the 2nd year of Huangchu (黃初) in Book 2, "Book of Wei (魏書 Weishu)," *Records of the Three Kingdoms* (三國志 San'guozhi) of China.

137) The same event is recorded in the article for the day *gengshen* in the 11th month of the 3rd year of Huangchu in Book 2, "Book of Wei," *Records of the Three Kingdoms* (三國志 San'guozhi) of China.

AD 222

An order was issued to the government office in the 2nd month (spring) to repair the dikes. Another order was issued in the 3rd month to encourage farming. In the 6th month (summer), fish mixed in with rain and fell from the sky in the capital [Seoul]. There was a solar eclipse on the last day (*gyeongsin*) in the 11th month.¹³⁷⁾

(9th year of King Gusu; March 1 – April 28, June 27 – July 25, and January 19, 223; AB 2)

It hailed in the 4th month (summer). The hailstones blighted the bean and barley crops.

(27th year of Nahae Isageum; April 29 – May 27; AS 2)

AD 224

Venus appeared during the day in the 10th month (winter).

(11th year of King Gusu; October 30 – November 28; AB 2)

AD 226

There was no rain in the spring, until it finally rained in the 7th month (autumn). Storehouse grains were released to relieve the starving masses.

(31st year of Nahae Isageum; August 11 – September 9; AS 2)

AD 227

It hailed in the 3rd month (spring). The King prayed at the Tomb of King Dongmyeong (동명묘 東明廟)¹³⁸⁾ for relief from the mighty drought that occurred in the 4th month (summer), and it rained soon after.

(14th year of King Gusu; April 4 – June 1; AB 2)

AD 229

There was an earthquake in the 9th month (autumn). Heavy snow in the 10th month (winter) reached 5 *cheok* in depth.

(34th year of Nahae Isageum; October 6 – December 3; AS 2)

There was a widespread outbreak of plague in the 11th month.

(16th year of King Gusu; December 4 – January 1; AB 2)

138) King Onjo built a mausoleum to his father Dongmyeong upon founding Baekje (18 BC).

AD 231

It hailed in the 4th month (summer). The hailstones were as large as chestnuts, so that sparrows and other smaller birds died from the impact.

(18th year of King Gusu; May 19 – June 17; AB 2)

AD 233

A strong wind sent roof tiles flying in the 4th month (summer).

(4th year of Jobun Isageum; April 27 – May 26; AS 2)

AD 237

Locusts blighted the crops in the 8th month (autumn).

(8th year of Jobun Isageum; September 8 – October 6; AS 2)

AD 238

A yellow dragon flew off the gate of the royal palace when lightning¹³⁹⁾ struck the pillar in the 4th month (summer).

(5th year of King Goi; May 2 – 31; AB 2)

AD 239

There was no rain in the first month (spring), until it finally rained in the 5th month (summer).

(6th year of King Goi; February 21 – March 22 and June 19 – July 18; AB 2)

AD 242

There was a large bumper crop in the autumn.

(13th year of Jobun Isageum; AS 2)

AD 246

There was no barley to harvest because of the mighty drought in the summer.

(13th year of King Goi; AB 2)

There was a wisp of white air in the southeast in the 10th month (winter) that looked like a length of silk. There was an earthquake in the capital [Gyeongju] in the 11th month.

(17th year of Jobun Isageum; October 28 – December 25; AS 2)

139) Lightning was observed in China in the same year, as confirmed by “Treatise on the Five Elements,” *Book of Jin*: “Lightning struck three places—the bridge east of Luoyang (洛陽) Fortress, the floating bridge at the Luoshui (洛水浮橋) west of the Fortress, and Huanying (桓楹)—on the same day during the era Jingchu (景初).”

AD 248

There was drought in the spring and summer. The storehouses were opened up to relieve the people who were starving in the winter.

(15th year of King Goi; AB 2)

AD 249

Venus overtook the moon on the day *gabo* in the first month (spring).¹⁴⁰⁾

(16th year of King Goi; February 5; AB 2)

AD 253

Because it did not rain from the 5th month through the 7th month, prayers were held at ancestral tombs and the major mountains.¹⁴¹⁾ It rained soon after. The crops did poorly that year and bandits swarmed.

(7th year of Cheomhae Isageum; June 14 – September 10; AS 2)

AD 254

There was an earthquake in the 7th month (autumn).

(7th year of King Jungcheon; August 2 – 30; AG 5)

AD 256

There was a solar eclipse on the last day of the 10th month (winter).¹⁴²⁾

(10th year of Cheomhae Isageum; December 4; AS 2)

It did not snow in the 12th month, and there was a widespread outbreak of plague.

(9th year of King Jungcheon; January 4 – February 1, 257; AG 5)

AD 257

There was a mighty drought in the first month (spring), and all the trees became desiccated.

(24th year of King Goi; February 2 – March 3; AB 2)

AD 259

There was a drought as well as locust damage in the 7th month (autumn). The crops did poorly that year, and bandits swarmed.

(13th year of Cheomhae Isageum; August 7 – September 4; AS 2)

140) The same event is recorded in Book 2, "Treatise on Astronomy," *Book of Jin*.

141) One variety of the rainmaking ritual consisted in worshipping at ancestral tombs and the major mountains. Other formats included relocating the market or offering a handmade dragon as sacrifice.

142) Corresponding records are not found in Chinese histories such as the *Book of Jin* (晉書) or the *Records of the Three Kingdoms*.

Violet-colored clouds billowed up like castles in the east of the royal palace in the 9th month (autumn).

(26th year of King Goi; October 5 – November 2; AB 2)

AD 260

Heavy rain in the summer caused landslides in some 40 locations. A comet appeared in the east in the 7th month (autumn), and disappeared after 25 days.

(14th year of Cheomhae Isageum; July 26 – August 24; AS 2)

AD 262

There was thunder and an earthquake in the 11th month (winter).

(15th year of King Jungcheon; November 29 – December 28; AG 5)

AD 268

Because it did not rain in the spring and summer, the King summoned his court to the South Hall (남당 南堂) and personally inquired about politics and the administration of punishment.

(7th year of Michu Isageum; AS 2)

AD 269

A comet appeared in the Purple Palace Enclosure in the 9th month (autumn).¹⁴³⁾

(36th year of King Goi; October 13 – November 10; AB 2)

143) The same event is recorded in “Treatise on Astronomy,” Book 13, *Book of Jin*.

AD 271

There was an earthquake in the 12th month (winter).

(2nd year of King Seochon; January 18 – February 15, 272; AG 5)

AD 272

Frost blighted the barley crops in the 4th month (summer). There was a mighty drought in the 6th month.

(3rd year of King Seochon; May 15 – June 12 and July 13 – August 10; AG 5)

Frost and hail blighted the crops in the 7th month (autumn).

(11th year of Michu Isageum; August 11 – September 9; AS 2)

144) The same event is recorded in the article for the day *dingyou* in the 7th month of the 9th year of Taishi (泰始) in “Treatise on Astronomy,” Book 12, *Book of Jin*.

AD 273

There was a solar eclipse on the first day (*jeongyu*) of the 7th month (autumn). The nation starved.¹⁴⁴⁾

(4th year of King Seochon; August 1; AG 5)

AD 278

Violent winds uprooted trees in the 4th month (summer).

(17th year of Michu Isageum; May 9 – June 7; AS 2)

AD 280

There was drought in the 4th month (summer).

(19th year of Michu Isageum; May 16 – June 14; AS 2)

AD 286

There was drought in the 3rd month.

(3rd year of Yurye Isageum; April 11 – May 10; AS 2)

AD 288

There was an earthquake in the 9th month.

(19th year of King Seochon; October 12 – November 10; AG 5)

AD 290

There was a flood in the 5th month (summer) that demolished the Moon Fortress.

(7th year of Yurye Isageum; May 26 – June 24; AS 2)

AD 292

There was drought in the 7th month (autumn), as well as locust damage.

(9th year of Yurye Isageum; July 31 – August 29; AS 2)

There was an earthquake in the 9th month (autumn).

(1st year of King Bongsang; September 28 – October 27; AG 5)

AD 298

There was fog so thick in the capital [Gyeongju] in the 2nd month (spring) that people could not tell one another apart. The fog dispersed after 5 days.

(15th year of Yurye Isageum; February 28 – March 29; AS 2)

Frost and hail blighted the crops and caused starvation in the 9th month (autumn).

(7th year of King Bongsang; October 22 – November 20; AG 5)

AD 299

A guest star overtook the moon in the 9th month (autumn). There was thunder and an earthquake in the 12th month (winter).

(8th year of King Bongsang; October 12 – November 9 and January 8 – February 6, 300; AG 5)

AD 300

There was an earthquake in the first month (spring). Because it did not rain from the 2nd month until the 7th month (autumn), the crops did poorly, and people preyed on other people.

(9th year of King Bongsang; February 7 – March 6 and March 7 – August 30; AG 5)

[AD 300; 1st year of King Micheon] A yellowish fog shrouded the area in the 10th month (winter). Wind blew in from the northwest and sent sand flying and pebbles rolling for 6 days in the 11th month. A comet appeared in the east in the 12th month.¹⁴⁵⁾

(Abridged biography of King Micheon; October 30 – January 25; AG 5)

145) The same event is recorded in “Annals of Emperor Hui,” Book 4, *Book of Jin*.

AD 302

There was drought in the spring and summer.

(5th year of Girim Isageum; AS 2)

A comet appeared during the day in the 4th month (summer).¹⁴⁶⁾

(5th year of King Bunseo; May 14 – June 11; AB 2)

146) The same event is recorded in “Annals of Emperor Hui,” Book 4, *Book of Jin*.

AD 304

The earth sprang springs after the earthquake in the 8th month (autumn). An earthquake in the 9th month crushed homes and killed people in the capital [Gyeongju].

(7th year of Girim Isageum; September 16 – November 13; AS 2)

147) The same event is recorded in the article for the day *bingwu* in the first month of the 2nd year of Yongjia (永嘉) in “Treatise on Astronomy,” Book 12, *Book of Jin*.

AD 308

There was a solar eclipse on the first day (*byeongja*) of the first month (spring).¹⁴⁷⁾

(5th year of King Biryu; February 8;¹⁴⁸⁾ AB 2)

148) According to Ahn 2002, the first day of the first month of that year was not *byeongja*, but *byeongo*. Therefore, this volume bases the conversion into the Julian date on the date confirmed by Ahn 2002.

AD 313

There was drought and locust damage in the 7th month (autumn). People starved.

(4th year of Heulhae Isageum; August 8 – September 6; AS 2)

AD 314

Repair on the royal palace was under way again in the 2nd month, but was put on hold in the absence of rain.

(5th year of Heulhae Isageum; March 3 – 31; AS 2)

AD 315

A comet appeared in the northeast in the 8th month (autumn).

(16th year of King Micheon; September 15 – October 14; AG 5)

AD 316

There was drought in the spring. A big star floated off westward. A well in the capital [Seoul] overflowed in the 4th month (summer), revealing a black dragon inside.

(13th year of King Biryu; May 8 – June 6; AB 2)

AD 317

There was drought in the spring and summer.¹⁴⁹⁾

(8th year of Heulhae Isageum; AS 2)

AD 318

An order was issued in the 2nd month (spring): “Because of the last drought, farming has not been doing well. Now the soil is rich, and life is coming back. As we enter the farming season, cease everything that burdens people.”

(9th year of Heulhae Isageum; March 19 – April 16; AS 2)

AD 321

Venus appeared during the day in the 7th month (autumn). Locusts blighted the crops in the southern part of the state.¹⁵⁰⁾

(18th year of King Biryu; August 10 – September 7; AB 2)

149) There was drought in the 6th lunar month of the same year in China, as confirmed by Book 7 of *In Search of the Supernatural* (搜神記 Soushenji): “There was a mighty drought in Yangzhou (揚州) in the 6th month.”

150) According to an article for 6 BC (13th year of Onjo of Baekje) in the *History*, Baekje’s southern border went as far as Ungcheon (웅천 熊川; estimated to correspond to the area near modern Gongju, South Chungcheong Province).

AD 325

A sound was heard from the sky that sounded like crashing waves in the 10th month (winter).

(22nd year of King Biryu; November 22 – December 21; AB 2)

AD 327

A cloud resembling a red crow hugged the sun in the 7th month (autumn).

(24th year of King Biryu; August 4 – September 2; AB 2)

AD 330

The Byeokkolji (벽골지 碧骨池)¹⁵¹ was created. Its dike spanned 1,800 *bo*.

(21st year of Heulhae Isageum; AS 2)

AD 331

There was a mighty drought¹⁵² in the spring and summer; the grass, trees, and rivers dried up. It finally rained in the 7th month (autumn). People preyed on other people in the famine of that year.

(28th year of King Biryu; August 20 – September 17; AB 2)

AD 333

A star dropped in the 5th month (summer).¹⁵³ The royal palace caught fire, which spread to commoners' homes. It thundered in the 12th month (winter).

(30th year of King Biryu; May 30 – June 28 and January 22 – February 19, 334; AB 2)

AD 334

It did not snow in the 12th month (winter).

(4th year of King Goguwon; January 11 – February 9, 335; AG 6)

AD 335

Frost blighted crops in the 7th month (autumn).

(5th year of King Goguwon; August 6 – September 3; AG 6)

There was a solar eclipse on the first day (*eulmi*) of the 10th month (winter).¹⁵⁴

(32nd year of King Biryu; November 2; AB 2)

151) This refers to Byeokkolje (벽골지 碧骨堤), Korea's oldest reservoir, located in Buryang-myeon, Gimje City, North Jeolla Province. Gimje was very likely Baekje territory at the time. Therefore, it is estimated that Byeokkolji was built in 330 (27th year of Biryu of Baekje) (Yi 1977).



Byeokkolje
(Gimje, North Jeolla Province, Korea)

152) There was drought in the 4th lunar month of the same year in China, as confirmed by the "Annals of Emperor Cheng," *Book of Jin*: "There was drought in the 4th month."

153) The same event is recorded in "Treatise on the Five Elements," Book 18, *Book of Jin*.

154) The same event is recorded in the article for the day *yiwei* in the 10th month of the first year of Xiankang (咸康) in "Treatise on Astronomy," Book 12, *Book of Jin*.

155) The same event is recorded in “Annals of Emperor Cheng,” Book 7, *Book of Jin*. Straddler refers to either the 15th Mansion Straddler (𠄎𠄎 奎宿) or the Straddler (𠄎 奎) constellation in that Mansion. The determinative star is ζ Andromedae.

AD 336

There appeared a comet on Straddler on the day *sinsa* in the first month (spring).¹⁵⁵⁾

(33rd year of King Biryu; February 16; AB 2)

A big star floated off northwestward in the 3rd month (spring).

(6th year of King Goguwon; March 29 – April 26; AG 6)

AD 337

It hailed in the 3rd month. There was frost in the 4th month (summer).

(28th year of Heulhae Isageum; April 17 – June 14; AS 2)

AD 343

As many as 5 *cheok* of snow fell in the 11th month (winter).

(13th year of King Goguwon; December 3 – January 1; AG 6)

AD 344

Violent winds uprooted a large tree in the south of the royal palace in the 4th month (summer).

(35th year of Heulhae Isageum; April 29 – May 28; AS 2)

AD 348

The well in the royal palace suddenly flowed over.

(39th year of Heulhae Isageum; AS 2)

AD 350

It rained heavily for as many as 10 days in the 4th month (summer). The water stood as high as 3 to 4 *cheok* on the plains, government offices and homes were submerged or washed away, and there were landslides in 13 locations.

(41st year of Heulhae Isageum; May 23 – June 20; AS 2)

AD 358

Purple clouds¹⁵⁶⁾ formed a circle above the royal shrine, and mysterious birds flocked to the yard of the shrine in the 2nd month (spring).

(3rd year of Namul Isageum; February 25 – March 25; AS 3)

156) Purple clouds were considered an auspicious omen that supposedly appeared near a virtuous monarch. They probably refer to cloud iridescence.

AD 366

Floods caused landslides in 13 locations in the 4th month (summer).

(11th year of Namul Isageum; April 26 – May 25; AS 3)

AD 368

There was a solar eclipse on the first day (*jeongsa*) of the 3rd month (spring).¹⁵⁷⁾

(23rd year of King Geunchogo; April 4; AB 2)

AD 372

There was a mighty drought in the spring and summer. The crops did poorly and people starved.

(17th year of Namul Isageum; AS 3)

There was an earthquake in the 7th month (autumn).¹⁵⁸⁾

(27th year of King Geunchogo; August 16 – September 13; AB 2)

AD 373

Fish fell with rain from the sky in the capital [Gyeongju] in the 5th month (summer).

(18th year of Namul Isageum; June 7 – July 6; AS 3)

AD 375

The King meant to take revenge [on Goguryeo] with a far-reaching draft of forces, but could not because of the poor harvest.

(30th year of King Geunchogo; AB 2)

AD 376

There was a huge bumper crop.

(21st year of Namul Isageum; AS 3)

AD 377

It did not snow but it thundered in the 10th month (winter). People succumbed to the plague.

(7th year of King Sosurim; November 17 – December 16; AG 6)

157) The same event is recorded in the article for the day *dingsi* in the 3rd month of the 3rd year of Taihe (太和) in “Treatise on Astronomy,” Book 12, *Book of Jin*.

158) There was an earthquake in the same month of the same year in China, as confirmed by the following report: “The ground shook 10 times in 50 days, causing the earth to crack and mud forts to collapse in the 7th month of the 2nd year of Xian’an (咸安) in Xining (西寧; in Qinghai Province) in the Eastern Jin,” (Earthquake Damage Prevention Department of the China Earthquake Administration 1995).

159) The Chinese Jin (晉) Dynasty refers to the Western Jin (西晉: 265–317) and the Eastern Jin (東晉: 317–420). At the time, Baekje presented tributes to the Eastern Jin, whose capital was Jiankang (健康; now Nanjing), via the Yellow Sea.

160) The Julian dates were derived by assuming that the drought started the first lunar month, at the beginning of spring.

AD 378

There was drought. People starved and preyed on other people.

(8th year of King Sosurim; AG 6)

AD 379

Deputies were sent in the 3rd month (spring) to Jin (진) (晉)¹⁵⁹⁾ to present tribute, but harsh winds at sea befell them and they had to turn back without reaching the continent. Sand came down like misty rain all day in the 4th month (summer).

(5th year of King Geungusu; April 3 – May 31; AB 2)

AD 380

There was a widespread outbreak of plague. The ground cracked 5 *jang* deep and 3 *jang* wide in the 5th month (summer), and closed back up after 3 days.

(6th year of King Geungusu; June 19 – July 18; AB 2)

AD 381

There was drought in the spring and summer. The crops did poorly and people starved.

(26th year of Namul Isageum; AS 3)

AD 382

It did not rain in the spring. The dry spell lasted through the 6th month. People starved.

(8th year of King Geungusu; January 31 – July 26;¹⁶⁰⁾ AB 2)

AD 383

A comet appeared in the northwest in the 9th month (autumn).

(13th year of King Sosurim; October 13 – November 10; AG 6)

AD 384

A threefold halo enveloped the sun in the 2nd month (spring).

(10th year of King Geungusu; March 9 – April 6; AB 2)

AD 385

There was an earthquake in the 12th month.

(2nd year of King Gogugyang; January 17 – February 14, 386; AG 6)

AD 386

Frost blighted the crops in the 7th month (autumn).

(2nd year of King Jinsa; August 11 – September 9; AB 3)

Peach and plum trees flowered in the 10th month (winter).

(3rd year of King Gogugyang; November 8 – December 7; AG 6)

AD 388

There was an earthquake in the capital [Gyeongju] in the 4th month (summer). Another earthquake occurred in the 6th month. Water did not freeze in the winter.

(33rd year of Namul Isageum; May 22 – June 20 and July 20 – August 18; AS 3)

There was a mighty drought in the 4th month (summer). There was locust damage in the 8th month (autumn).

(5th year of King Gogugyang; May 22 – June 20 and September 17 – October 16; AG 6)

AD 389

There was a widespread outbreak of plague in the capital [Gyeongju] in the first month (spring). Sand came down like misty rain in the 2nd month. There was locust damage in the 7th month (autumn), and crops did not ripen.

(34th year of Namul Isageum; February 12 – April 11 and August 8 – September 6; AS 3)

The spring famine caused people to prey on other people.

(6th year of King Gogugyang; AG 6)

AD 390

A comet appeared in the North River (북하 北河) constellation in the 7th month (autumn).¹⁶¹⁾

(6th year of King Jinsa; July 28 – August 26; AB 3)

AD 392

There was a solar eclipse on the first day (*jeongmyo*) of the 5th month (summer).¹⁶²⁾

(8th year of King Jinsa; June 7; AB 3)

AD 394

Venus appeared during the day in the 7th month (autumn).

(3rd year of King Asin; AB 3)

161) North River is a 3-star constellation in the 22nd Mansion Well (정수 井宿). It corresponds to the head of the Western constellation Gemini. The same event is recorded in “Annals of Emperor Xiaowu,” Book 9, *Book of Jin*.

162) The same event is recorded in the article for the day *dingmao* in the 5th month of the 17th year of Taiyuan (太元) in the *Book of Jin*.

163) Estimated to correspond to the area near Gaeseong City in North Korea.

164) Now Gangneung, Gangwon Province. Originally Goguryeo territory (named Haseoryang County), it later came under Silla rule.

165) Wooden fence made with stakes that acted as a barrier to fend off enemy attacks.

166) Harvester refers to either the 16th Mansion Harvester (奎 婁) or the Harvester (奎 婁) constellation in that Mansion. The determinative star is β Arietis. The same event is recorded in "Annals of Emperor An," Book 10, *Book of Jin*.

167) The same event is recorded in the article for the day *gengchen* in the 6th month of the 4th year of Long'an (隆安) in "Treatise on Astronomy," Book 12, *Book of Jin*.

168) There was drought in the summer, autumn, and 12th lunar month of that year in China, as confirmed by the "Treatise on the Five Elements," *Book of Jin*: "There were mighty droughts in the summer and autumn, and it did not rain in the 12th month."

AD 395

A comet appeared in the northwest in the 2nd month (spring), and vanished after 20 days. The King, seeking revenge for the defeat [against Goguryeo] at the Paesu, personally led an army of 7,000 men in the 11th month (winter). They crossed the Hansu and stayed the night at the foot of Cheongmongnyeong (청목령 靑木嶺).¹⁶³⁾ But they turned back when many of the men froze to death in the heavy snowfall.

(4th year of King Asin; March 8 – April 5 and November 29 – December 27; AB 3)

AD 397

There was drought in Haseulla (하슬라 何瑟羅)¹⁶⁴⁾ near the northern border in the 7th month (autumn), as well as locust damage. The crops did poorly, and people starved.

(42nd year of Namul Isageum; August 10 – September 7; AS 3)

AD 398

The King drafted men in the 8th month (autumn) to attack Goguryeo. The men reached the fence¹⁶⁵⁾ north of Hansan. That night, a big star fell into the camp, with a thud. The King was extremely wary and stopped [the expedition].

(7th year of King Asin; August 29 – September 26; AB 3)

AD 399

Winged locusts blanketed the fields in the 7th month (autumn).

(44th year of Namul Isageum; August 18 – September 15; AS 3)

AD 400

There appeared a comet on the Straddler (奎 奎) and Harvester (奎 婁) constellations in the 2nd month (spring).¹⁶⁶⁾ There was a solar eclipse on the first day (*gyeongjin*) of the 6th month (summer).¹⁶⁷⁾

(9th year of King Asin; March 12 – April 9 and July 8; AB 3)

There appeared a comet in the east in the 8th month (autumn).

(45th year of Namul Isageum; September 5 – October 3; AS 3)

AD 401

There was drought in the spring and summer.¹⁶⁸⁾

(46th year of Namul Isageum; AS 3)

AD 402

A mighty drought in the summer scorched the rice crops. The King personally performed a ritual at Hoengak, and it rained soon after.

(11th year of King Asin; AB 3)

AD 405

A wisp of white air rose from the west of the royal palace in the 3rd month (spring). It looked like a roll of silk.

(14th year of King Asin;¹⁶⁹) April 15 – May 14; AB 3)

There was locust damage and drought in the 7th month (autumn).

(15th year of King Gwanggaeto; August 11 – September 9; AG 6)

AD 406

Locusts blighted the crops in the western part of the state in the 7th month (autumn). There was an earthquake¹⁷⁰ in the capital [Gyeongju] in the 10th month (winter). Water did not freeze in the 11th month.

(5th year of Silseong Isageum; August 1 – 29 and October 28 – December 25; AS 3)

AD 413

Clouds billowed up from Nangsan (낭산 狼山)¹⁷¹ in the 8th month (autumn). They looked like a castle and their aroma filled the air and lingered for a long while.

(12th year of Silseong Isageum; September 11 – October 10; AS 3)

AD 414

There fell as many as 5 *cheok* of snow in the capital [Gungnaeseong] in the 12th month.

(2nd year of King Jangsu; December 28 – January 25; AG 6)

AD 415

There appeared a comet on the day *gapsin* in the 5th month (summer).¹⁷²

(11th year of King Jeonji; June 24; AB 3)

AD 416

There was a landslide at Mt. Toham in the 5th month (summer). Springwater soared as high as 3 *jang*.

(15th year of Silseong Isageum; June 11 – July 10; AS 3)

169) According to the “Royal Biographies” of the *Memorabilia*, King Asin stayed in power for 13 years.

170) There was an earthquake in the 5th lunar month of the same year in China, as confirmed by the following report: “The earth shook and cracked in Yuanchuan (宛川; near modern Yuzhong [榆中], Gansu Province) in the 5th month of the 2nd year of Yixi (義熙) of the Eastern Jin. All the plants were broken.” (Earthquake Damage Prevention Department of the China Earthquake Administration 1995).

171) This is a hill in Bomun-dong, Gyeongju, North Gyeongsang Province. It is home to the tomb of Queen Seondeok and the ruins of Sacheonwang-sa Temple.



Nangsan, Gyeongju, Korea

172) The same event is recorded in “Treatise on Talismans and Portents (符瑞志 Furuizhi),” Book 17, *Book of Song* (宋書 Songshu): “A comet appeared in the Heaven’s Market Enclosure on the 3rd day of the 5th month of the 11th year of Yixi.”

173) The same event is recorded in the article for the day *jiaxu* in the first month of the 13th year of Yixi (義熙) in “Treatise on Astronomy,” Book 12, *Book of Jin*.

174) The same event is recorded in “Annals of Emperor Gong,” Book 10, *Book of Jin*.

175) The same event is recorded in the article for the day *dinghai* in the 11th month of the first year of Yuanxi (元熙) in “Treatise on Astronomy,” Book 12, *Book of Jin*.

176) Given that no specific place name was given, this appears to be a location in or near Gyeongju.

177) The location of the dike is believed to be near Gyeongju, but is impossible to pinpoint. Since sluices were only manufactured as late as Unified Silla (668–935), the dike mentioned in this passage was probably not equipped with floodgates and was demolished whenever water needed to be supplied (Lee 1992).

AD 417

There was a solar eclipse on the first day (*gapsul*) of the first month (spring).¹⁷³⁾ There was drought in the 4th month (summer), and people starved.

(13th year of King Jeonji; February 3 and May 2–31; AB 3)

AD 419

There appeared a comet inside the Supreme Palace Enclosure on the day *musul* in the first month (spring).¹⁷⁴⁾ There was a solar eclipse on the first day (*jeonghae*) of the 11th month (winter).¹⁷⁵⁾

(15th year of King Jeonji; February 17 and December 3; AB 3)

Water rushed skyward in Ugok (우곡 牛谷)¹⁷⁶⁾ in the 4th month (summer).

(3rd year of Nulji Maripgan; May 10–June 8; AS 3)

There was a flood in the eastern part of the state in the 5th month (summer).

(7th year of King Jangsu; June 9–July 7; AG 6)

AD 420

There was a mighty drought in the spring and summer. Frost blighted the crops in the 7th month (autumn). People starved.

(4th year of Nulji Maripgan; July 26–August 24; AS 3)

AD 424

There was a huge bumper crop in the 9th month (autumn).

(12th year of King Jangsu; October 9–November 6; AG 6)

AD 429

A new dike (시제 矢堤)¹⁷⁷⁾ was built. It was 2,170 *bo* long.

(13th year of Nulji Maripgan; AS 3)

There was an earthquake, and a strong wind sent roof tiles flying in the 11th month. Water did not freeze in the 12th month.

(3rd year of King Biyu; December 12–February 8; AB 3)

AD 431

Frost and hail blighted the crops in the 7th month (autumn).

(15th year of Nulji Maripgan; August 24–September 22; AS 3)

AD 432

Grain was hard to come by in the spring, and people fed on the bark of pine trees.

(16th year of Nulji Maripgan; AS 3)

AD 433

It did not rain in the spring and summer.

(7th year of King Biyu; AB 3)

AD 435

A strong wind uprooted trees in the first month (spring).

(19th year of Nulji Maripgan; February 14 – March 14; AS 3)

AD 436

It hailed in the 4th month (summer).

(20th year of Nulji Maripgan; May 2 – 30; AS 3)

AD 438

Water from the mountains suddenly reached Udu County (우두군 牛頭郡)¹⁷⁸⁾ in the 4th month (summer) and washed away some 50 homes. There was a strong wind and hail in the capital [Gyeongju].

(22nd year of Nulji Maripgan; May 10 – June 8; AS 3)

178) Udu County or Usu Province (우수주 牛首州) was created in 637 (6th year of Queen Seondeok) near modern Chuncheon, Gangwon Province.

AD 440

There was a solar eclipse on the first day (*muo*) of the 4th month (summer).¹⁷⁹⁾

(14th year of King Biyu; May 17; AB 3)

179) The same event is recorded in the article for the day *wuwu* in the 4th month of the 17th year of Yuanjia (元嘉) in “Treatise on the Five Elements,” Book 24, *Book of Song*.

AD 447

A fire arose in the middle of the pond south of the royal palace in the 5th month (summer). The flames were like cart wheels and only died down as day broke. There was drought in the 7th month (autumn) and crops did not ripen. People starved and many fled to Silla.

(21st year of King Biyu; May 31 – June 28 and July 29 – August 26; AB 3)

AD 453

There was drought in the spring and summer.

(37th year of Nulji Maripgan; AS 3)

AD 454

Frost and hail blighted the crops in the 7th month (autumn).

(38th year of Nulji Maripgan; August 10 – September 7; AS 3)

Stars rained down, and a comet appeared in the northwest whose tail stretched about 2 *jang*. Locusts blighted the crops and caused famine in the 8th month (autumn).

(28th year of King Biyu; September 8 – October 7; AB 3)

AD 457

Strong winds uprooted trees in the 2nd month (spring). Frost blighted the barley crops in the 4th month (summer).

(41st year of Nulji Maripgan; March 12 – April 9 and May 10 – June 7; AS 3)

AD 458

There was an earthquake in the 2nd month (spring), and the South Gate of Geumseong fell on its own.

(42nd year of Nulji Maripgan; March 1 – 30; AS 3)

AD 465

There was a flood in the 4th month (summer) that caused landslides in 17 locations. There was locust damage in Sabeol County (사벌군 沙伐郡)¹⁸⁰ in the 5th month.

(8th year of Jabi Maripgan; May 11 – July 8; AS 3)

AD 467

The sky grew red, and a great star streaked from the north toward the southeast in the 9th month (autumn).

(10th year of Jabi Maripgan; October 14 – November 12; AS 3)

AD 468

There was a solar eclipse on the first day (*gyeyu*) of the 10th month (winter).¹⁸¹

(14th year of King Gaero; November 1; AB 3)

AD 469

A flood washed away or crushed homes in the western part of the state in the 4th month (summer).

(12th year of Jabi Maripgan; April 27 – May 26; AS 3)

180) Estimated to be the seat of the ancient nation of Sabeol (沙伐國) near modern Sangju, North Gyeongsang Province.

181) The same event is recorded in the article for the day *gyeyou* in the 10th month of the 4th year of Taishi (秦始皇) in "Treatise on the Five Elements," Book 24, *Book of Song*.

AD 471

The ground cracked in the capital [Gyeongju] in the 3rd month. The crack was 2 *jang* wide and 2 *jang* deep, and muddy water sprang up. There was a widespread outbreak of plague in the 10th month (winter).

(14th year of Jabi Maripgan; April 6 – May 5 and October 30 – November 27; AS 3)

AD 475

[Dorim said to King Gaero] The remains of the late King are buried for the moment in bare ground, and homes are crumbling because of the river.¹⁸²⁾

(21st year of King Gaero; AB 3)

AD 478

Red light stretched from the ground to the night sky like a length of silk in the 2nd month (spring). There was an earthquake in the capital [Gyeongju] in the 10th month (winter).

(21st year of Jabi Maripgan; March 20 – April 18 and November 11 – December 9; AS 3)

There was a solar eclipse on the first day (*giyu*) of the 3rd month.¹⁸³⁾

(2nd year of King Samgeun; April 19; AB 4)

AD 479

There was a mighty drought in the spring and summer.

(3rd year of King Samgeun;¹⁸⁴⁾ AB 4)

AD 480

There was a drought in the capital [Gyeongju] in the 5th month (summer). Storehouse grains were released to relieve the starving masses in the 10th month (winter).¹⁸⁵⁾

(2nd year of Soji Maripgan; May 25 – June 23 and November 18 – December 17; AS 3)

AD 482

Strong winds uprooted trees in the 2nd month (spring). The South Gate of Geumseong caught fire. There was a long rainy spell in the 4th month (summer).

(4th year of Soji Maripgan; March 6 – April 3 and May 4 – June 1; AS 3)

It snowed so heavily in the 10th month (winter) that the piles stood 1 *jang* tall.

(4th year of King Dongseong; October 28 – November 25; AB 4)

182) King Gaero was taken in by Dorim, who was a spy sent by King Jangsu of Goguryeo, and launched an extensive public works project, ultimately driving the state's finances into the ground. That year (475), King Gaero was killed in an invasion by King Jangsu, after which his son and successor Munju moved the capital to Ungjin (now Gongju, South Chungcheong Province).



Gongsan Fortress, Gongju, which shielded Ungjin (now Gongju; became the new capital of Baekje in 475).

183) The observing site appears to be Ungjin, the new capital of Baekje. The Chinese record this event as having occurred on the last day (*yiyou*) of the 2nd month of the 2nd year of Taihe (太和) in the "Treatise on Astronomy," *Book of Wei* (魏書).

184) In the "Royal Biographies," *Memorabilia of the Three Kingdoms*, King Samgeun is described as having ascended the throne in 477 (year *jeongsa*) and reigned for 2 years. There is thus a discrepancy of one year between the *History* and the *Memorabilia* accounts about King Samgeun.

185) A similar event was recorded in China for the same year, as confirmed by "Annals of Emperor Xiaowen," *Book of Wei*: "The storehouses were opened up to relieve the starving masses that year."

186) A similar event was recorded in the same month that same year in China, as confirmed by the "Annals of Emperor Wu of Southern Qi," *History of the Southern Dynasties*: "Thunder rumbled on the day *jimao* in the 11th month."



Ungcheon (Geum River), which winds its way through Gongju, and Gongsan Fortress

187) The term for this practice is *chaekki gamseon* (책기감선 責己減膳). The King disciplined and blamed himself, and set an example for the nation by cutting down on the side dishes that he was customarily served.

AD 483

There was flooding in the 4th month (summer), and again in the 7th month (autumn). It thundered,¹⁸⁶⁾ and there was a widespread outbreak of plague in the capital [Gyeongju] in the 11th month.

(5th year of Soji Maripgan; April 23 – May 22, August 19 – September 17, and December 15 – January 13; AS 3)

AD 484

Saturn overtook the moon in the 3rd month. It hailed.

(6th year of Soji Maripgan; April 11 – May 10; AS 3)

AD 487

It thundered in the 10th month (winter).

(9th year of Soji Maripgan; November 2 – 30; AS 3)

AD 489

There was a huge bumper crop in the autumn.

(11th year of King Dongseong; AB 4)

AD 490

Water did not freeze in the 11th month (winter).

(12th year of King Dongseong; November 28 – December 26; AB 4)

AD 491

The Ungcheon (웅천 熊川) overflowed in the 6th month (summer), and washed away or submerged some 200 homes in the capital [Gongju]. As many as 600-odd starving families fled to Silla in the 7th month (autumn).

(13th year of King Dongseong; June 23 – August 20; AB 4)

AD 492

The King blamed himself for the drought in the spring and summer, and reduced the number of side dishes that usually appeared on his table.¹⁸⁷⁾

(14th year of Soji Maripgan; AS 3)

It snowed in the 3rd month (spring). Strong winds uprooted trees in the 4th month (summer).

(14th year of King Dongseong; April 13 – June 10; AB 4)

AD 493

There was an earthquake in the 10th month (winter).¹⁸⁸⁾

(2nd year of King Munjamyeong; October 26 – November 24; AG 7)

AD 494

There was a flood in the 4th month (summer).

(16th year of Soji Maripgan; April 21 – May 20; AS 3)

Peach and plum trees flowered in the 10th month (winter).

(3rd year of King Munjamyeong; November 14 – December 12; AG 7)

AD 495

There was a mighty drought in the 2nd month (spring).

(4th year of King Munjamyeong; March 12 – April 10; AG 7)

There was a solar eclipse on the first day (*gapsul*) of the 5th month (summer).¹⁸⁹⁾

(17th year of King Dongseong; June 9;¹⁹⁰⁾ AB 4)

AD 496

It rained heavily in the 5th month (summer). The Alcheon overflowed, washing away or submerging some 200 homes.

(18th year of Soji Maripgan; May 28 – June 26; AS 3)

AD 497

It rained heavily in the 6th month (summer). The rain washed away homes and destroyed them.

(19th year of King Dongseong; July 15 – August 13; AB 4)

There was drought and locust damage in the 7th month (autumn).

(19th year of Soji Maripgan; August 14 – September 12; AS 3)

AD 499

There was a mighty drought in the summer and the starving people preyed on other people. There was a widespread outbreak of plague in the 10th month (winter).

(21st year of King Dongseong; November 19 – December 17; AB 4)

188) Given that King Jangsu moved the capital to Pyongyang in 427, observations recorded after that year without any specific mention as to the observing site were probably taken in Pyongyang.

189) The same event is recorded in the article for the day *jiayu* in the 5th month of the 18th year of Taihe (太和) in “Treatise on Astronomy,” *Book of Wei*.

190) According to Ahn 2002, the first day of the 5th lunar month was *gisa*, which corresponds to June 9 in the Julian calendar. The Julian equivalent for the day *gapsul* is June 14.

191) The location is unknown. Although there was an Udu Mountain Fortress, which probably corresponds to Chuncheon, Gangwon Province, in the days of Baekje founder King Onjo, Chuncheon was part of Goguryeo territory under King Dongseong. Dongseong must have been hunting somewhere else.

192) Sabi was Baekje's third capital. It is now Buyeo, South Chungcheong Province.

193) Silla instituted a government office for ice storage, called Ice Storehouse Bureau (빙고전 氷庫典). There is still such a historical site in Inwang-dong, Gyeongju, by the name of Seokbinggo (Treasure No. 66). Although this particular storehouse was built in the Joseon Dynasty, it is possible that it occupies the same site as its predecessor from the Silla Dynasty (Choi 2007).

AD 500

Violent winds uprooted trees in the 4th month (summer). A dragon appeared in a well in Geumseong. Yellowish fog enveloped the capital [Gyeongju].

(22nd year of Soji Maripgan; May 14 – June 12; AS 3)

The King set out for Udu Fortress (우두성 牛頭城)¹⁹¹⁾ to hunt in the 4th month (summer), but turned back because of hail. There was a drought in the 5th month.

(22nd year of King Dongseong; May 14 – July 11; AB 4)

AD 501

Frost blighted the barley crops in the 3rd month. It did not rain in the 5th month (summer), and the dry spell lasted until the autumn. The King went hunting in the plains north of the Ungcheon and the plains west of Sabi in the 11th month. The hunting party spent the night in Mapo Village (마포촌 馬浦村)¹⁹²⁾ because of heavy snow.

(23rd year of King Dongseong; April 4 – May 2, June 2 – 30, and November 26 – December 25; AB 4)

AD 502

People starved in the spring, and there was another outbreak of plague.

(2nd year of King Muryeong; AB 4)

There was locust damage in the 8th month (autumn). An earthquake crushed homes and killed people in the 10th month (winter).

(11th year of King Munjamyeong; September 17 – October 16 and November 15 – December 14; AG 7)

AD 503

Water did not freeze in the winter.

(3rd year of King Muryeong; AB 4)

AD 505

An order for ice storage was issued for the first time in the 11th month (winter) to the government office in charge.¹⁹³⁾

(6th year of Jijeung Maripgan; December 12 – January 9; AS 4)

AD 506

There was a widespread outbreak of plague in the spring. It did not rain from the 3rd month to the 5th, and streams and ponds ran dry. Storehouses were opened up to relieve the starving masses.

(6th year of King Muryeong; April 9 – July 5; AB 4)

Storehouse grains were handed out to relieve the starving masses following the drought in the spring and summer.

(7th year of Jijeung Maripgan; AS 4)

Generals were sent to attack Baekje in the 11th month (winter), but the men returned frostbitten because of the heavy snow.

(15th year of King Munjamyong; December 1 – 30; AG 7)

AD 509

Frost killed bean crops in the 7th month (autumn).

(10th year of Jijeung Maripgan; August 2 – 30; AS 4)

AD 510

An earthquake crushed homes and killed people in the 5th month (summer). It thundered in the 10th month (winter).

(11th year of Jijeung Maripgan; May 24 – June 21 and November 17 – December 16; AS 4)

AD 516

There was a solar eclipse on the first day (*mujin*) of the 3rd month (spring).¹⁹⁴⁾

(16th year of King Muryeong; April 18; AB 4)

AD 518

A violent wind uprooted trees in the 3rd month, and the southern gate of the royal palace collapsed on its own.

(27th year of King Munjamyong; March 27 – April 25; AG 7)

AD 521

There was a flood in the 5th month (summer). Locusts blighted the crops in the 8th month (autumn). People starved.

(21st year of King Muryeong; May 22 – June 20 and September 17 – October 16; AB 4)



Seokbinggo, Moon Fortress, Gyeongju, Korea

194) The same event is recorded in the article for the day *wuchen* in the 3rd month of the 15th year of Tianjian (天監) in “Annals of Emperor Wu,” Book 2, *Book of Liang*.

AD 522

There was an earthquake in the 10th month (winter).

(22nd year of King Muryeong; November 5 – December 3; AB 4)

AD 523

There was drought in the spring. Storehouses were opened up to relieve the famine in the 10th month (winter).

(5th year of King Anjang; October 25 – November 22; AG 7)

AD 531

An order was issued in the 3rd month (spring) to the government office in charge to repair the dikes.

(18th year of King Beopheung; April 3 – May 1; AS 4)

AD 532

Stars rained down on the day *gapjin* in the 7th month (autumn).¹⁹⁵⁾

(10th year of King Seong; August 17;¹⁹⁶⁾ AB 4)

AD 534

Mars overtook the Southern Dipper on the day *jeongmyo* in the 4th month (summer).

(12th year of King Seong; May 13; AB 4)

AD 535

A flood washed away homes and killed some 200 people in the southern part of the state in the 5th month (summer). There was an earthquake in the 10th month (winter). Thunder rumbled and there was a widespread outbreak of plague in the 12th month.

(5th year of King Anwon; June 16 – July 15, November 11 – December 9, and January 9 – February 7, 536; AG 7)

AD 536

An era name (연호 年號)¹⁹⁷⁾ was adopted for the first time, so that the year was named “first year of Geonwon (건원 建元).”

(23rd year of King Beopheung; AS 4)

There was a mighty drought in the spring and summer, so deputies were sent to comfort and relieve the starving masses. There was locust damage in the 8th month (autumn).

(6th year of King Anwon; September 1 – 30; AG 7)

195) The same event is recorded in “Annals of Emperor Wu,” Book 3, *Book of Liang*.

196) According to Ahn 2002, the first day of that month was *gyesa*, which corresponds to August 17 in the Julian calendar, while the day *gapjin* was the 12th day of the 7th lunar month, and is equivalent to August 28 in the Julian calendar.

197) This was the first era name of the Silla Dynasty. Era names were instituted to help identify the years of a given monarch's reign. The practice originated in China.

AD 537

People starved in the 3rd month (spring).

(7th year of King Anwon; March 27 – April 25; AG 7)

AD 540

There was an earthquake, and peach and plum trees flowered in the 10th month (winter).

(1st year of King Jinheung; November 15 – December 13; AS 4)

Peach and plum trees flowered in the 10th month (winter).

(10th year of King Anwon; November 15 – December 13; AG 7)

AD 541

It snowed as much as 1 *cheok* in the 3rd month (spring).

(2nd year of King Jinheung; April 12 – May 10; AS 4)

AD 542

Strong winds uprooted trees and sent roof tiles flying in the 3rd month (spring). It hailed in the 4th month (summer).

(12th year of King Anwon; April 1 – May 29; AG 7)

AD 546

It hailed in the 4th month (summer).

(2nd year of King Yangwon; May 16 – June 13; AG 7)

AD 547

There was a solar eclipse on the first day (*gihae*) of the first month (spring).¹⁹⁸⁾

(25th year of King Seong; February 6; AB 4)

AD 549

A white rainbow¹⁹⁹⁾ pierced the sun on the day *gyeongsin* in the first month (spring).²⁰⁰⁾

(27th year of King Seong; February 16; AB 4)



Na Fortress, Buyeo. King Seong moved the nation's capital to Sabi (Buyeo 扶餘) in 538.

198) The same event is recorded in the article for the day *jihai* in the first month of the 5th year of Wuding (武定) in “Treatise on Astronomy,” *Book of Wei*.

199) This is the first sun halo on record in the *History*. A sun halo was both a positive symbol of the utmost devotion reaching the heavens and a negative symbol of a major national crisis. The expression *baekhong gwanil* is understood as a sun halo rather than a rainbow. Halos arise from the refraction of light by particles within clouds. A halo ring around the sun is called a sun halo, and one encircling the moon is called a moon halo. Usually, white rings of light encircle the sun or the moon, or rays of light radiate upward or downward in the shape of a bow or pillar, as if the sun or the moon were wearing an earring or a hat.

200) Sun halos appeared in China in the same month of the same year, as confirmed by “Annals of Emperor Wu of Liang,” *History of Southern Dynasties*: “A three-ring halo pierced the sun on the day *gengshen* in the first month.”



Sun halo

201) This king of Gaya was in power at the same time as Jinheung of Silla (reigned 540–576).

202) This entry describes the origin of the *Gayageum*.

203) The exact Stems-and-Branches date is left unspecified. No corresponding records are found in Chinese histories such as the *Book of Liang* (梁書).

204) The Chinese chronicle *History of Southern Dynasties* (“Annals of Emperor Wu of Chen [陳武帝]”) records the date as *gengchen* (庚辰), as opposed to *bingchen*.

205) According to Ahn 2002, the first day of the intercalary 5th month was *byeongjin*, which corresponds to June 20 in the Julian calendar.

206) China suffered a drought in the spring and summer of the same year, as confirmed by the “Biography of Li Jingxi (黎景熙),” *Book of Zhou*: (Northern Zhou) “In light of the mighty drought in the spring and summer, officials were ordered to report profits and losses.”

207) This era name was used for 4 years during King Jinheung’s reign. It is mentioned in the inscription of the Maullyeong Silla Jinheungwang sunsubi (마운령신라진흥왕순수비 Monument at Maun Ridge to Commemorate the Tour of Jinheung of Silla): “... year *muja*, first year of Taechang (太昌元年歲次戊子)…”

AD 551

The era name was changed to Gaeguk (개국 開國) in the first month (spring). Earlier, King Gasil (가실왕 嘉悉王)²⁰¹⁾ of the state of Gaya invented a 12-stringed instrument modeled after the melodies of the 12 months.²⁰²⁾

(12th year of King Jinheung; January 23 – February 20; AS 4)

AD 554

There was a solar eclipse on the last day of the 12th month. Water did not freeze.²⁰³⁾

(10th year of King Yangwon; February 6, 555; AG 7)

AD 555

Venus appeared during the day in the 11th month.

(11th year of King Yangwon; October 30 – December 28; AG 7)

AD 559

There was a solar eclipse on the first day (*byeongjin*) of the 5th month (summer).²⁰⁴⁾

(6th year of King Wideok; June 20,²⁰⁵⁾ AB 5)

AD 561

There was a flood in the 6th month.

(3rd year of King Pyeongwon; June 28 – July 27; AG 7)

AD 563

Because of the mighty drought²⁰⁶⁾ in the summer, the King reduced the number of side dishes and prayed to nature.

(5th year of King Pyeongwon; AG 7)

AD 568

The era name was changed to Taechang (태창 太昌).²⁰⁷⁾

(29th year of King Jinheung; AS 4)

AD 571

The royal palace was being repaired again in the 8th month, but the repairs were put on hold because of locust damage and the drought.

(13th year of King Pyeongwon; September 5 – October 4; AG 7)

AD 572

The era name was changed to Hongje (홍제 鴻濟) in the first month (spring).

(33rd year of King Jinheung; January 31 – February 28; AS 4)

There was a solar eclipse on the first day (*gyeongja*) of the 9th month (autumn).²⁰⁸⁾

(19th year of King Wideok; September 23; AB 5)

AD 575

There was drought in the spring and summer.

(36th year of King Jinheung; AS 4)

AD 579

A star with a long tail stretched across the sky in the 10th month (winter) and disappeared 20 days later. There was an earthquake.

(26th year of King Wideok; November 5 – December 3; AB 5)

AD 581

Stars rained down on the last day of the 2nd month (spring). Frost and hail blighted the crops in the 7th month (autumn). The King toured throughout the country to comfort and relieve the starving masses in the 10th month (winter).

(23rd year of King Pyeongwon; February 19 – March 20, August 15 – September 13, and November 12 – December 10; AG 7)

AD 585

There was drought in the 3rd month (spring).

(7th year of King Jinpyeong; April 5 – May 4; AS 4)

AD 586

There was thunder and lightning, and stars rained down in the 5th month (summer).

(8th year of King Jinpyeong; May 24 – June 21; AS 4)

AD 589

A flood washed away or submerged 30,360 homes, and killed some 200 people in the western part of the state in the 7th month (autumn).²⁰⁹⁾

(11th year of King Jinpyeong; August 17 – September 14; AS 4)

²⁰⁸⁾ The same event is recorded in the article for the day *gengzi* (庚子) in the 9th month of the 4th year of Taijian (太建) in “Annals of Emperor Xuan of Chen [陳],” Book 5, *History of Southern Dynasties*.

²⁰⁹⁾ This is the only entry in the *History* that gives concrete statistics on flood losses.

210) The same event is recorded in the article for the day *renshen* in the 7th month of the 12th year of Kaihuang (開皇) in the “Annals of Emperor Wen,” *Book of Sui*.

211) The same event is recorded in “Annals of Emperor Wen,” Book 2, *Book of Sui*.

212) This appears to be an old name for Shanhaiguan (山海關) in Bohai Bay east of Hebei Province, China, or the name of a gateway to the southwest of Shanhaiguan. The name Shanhaiguan dates back to Ming China (1368 – 1644). It refers to the pathway to Manchuria and the end point of the Great Wall.



Shanhaiguan

213) This corresponds to modern Dengzhou (登州), Shandong Province (山東省), China.

214) When Sui (隋) unified China in 588, Goguryeo feared an attack and hurriedly prepared for war. Goguryeo launched a preemptive strike on Liaoxi in the 2nd month of 598 (9th year of King Yeongyang), but retreated without any achievement to speak of. Emperor Wen (文帝) of Sui sent his son Yang Liang and General Zhou Luohou to lead 30,000 men in an attack on Goguryeo, but withdrew because of bad weather.

215) This was likely a Buddhist temple located in the capital Sabi (Buyeo).

216) This probably corresponds to downtown Gyeongju, North Gyeongsang Province, or the area near Galtan, Pohang City, North Gyeongsang Province. Some attribute the phenomenon of the earth catching fire to coal.

AD 592

There was a solar eclipse on the last day (*imsin*) of the 7th month (autumn).²¹⁰⁾

(39th year of King Wideok; September 10; AB 5)

AD 594

There appeared a comet on the constellations Horn and Neck on the day *gyemi* in the 11th month (winter).²¹¹⁾

(41st year of King Wideok; January 9, 595; AB 5)

AD 598

Yang Liang (楊諒) of Sui China led an expedition to Imyugwan (임유관 臨渝關)²¹²⁾ in the 6th month (summer), but ran into heavy rain, which blocked the delivery of military provisions. As a result, the men ran out of food, and a plague broke out. Zhou Luohou (周羅喉) set sail from Donglai (동래 東萊)²¹³⁾ to raid Pyongyang Fortress, but he, too, ran into windy conditions so that many ships were lost or sank.²¹⁴⁾

(9th year of King Yeongyang; July 9 – August 7; AG 8)

AD 600

The King personally visited Chirak-sa Temple (칠악사 漆岳寺)²¹⁵⁾ to pray for rain after the mighty drought in the first month (spring).

(2nd year of King Beop; January 21 – February 19; AB 5)

AD 606

Sand came down like misty rain in the capital [Buyeo] in the 3rd month (spring), so that it was dark even during the day. A mighty drought brought about famine in the 4th month (summer).

(7th year of King Mu; April 13 – June 10; AB 5)

AD 609

The area at the foot of Mojiak (모지악 毛只嶽)²¹⁶⁾ caught fire in the first month (spring). The fire covered an area 4 *bo* wide, 8 *bo* long, and 5 *cheok* deep, and only went out on the 15th day of the 10th month.

(31st year of King Jinpyeong; February 10 – November 17; AS 4)

AD 612

Lightning struck the southern gate of the royal palace in the 4th month

(summer). Homes were washed away or submerged in a flood in the 5th month.

(13th year of King Mu; May 6 – July 3; AB 5)

AD 613

There was a drought in the spring, and frost in the 4th month (summer).

(35th year of King Jinpyeong; April 25 – May 24; AS 4)

AD 615

There was an earthquake in the 10th month (winter).

(37th year of King Jinpyeong; October 28 – November 25; AS 4)

AD 616

There was an earthquake in the capital [Buyeo] in the 11th month.

(17th year of King Mu; December 14 – January 12; AB 5)

AD 624

The King sent deputies to Tang in the 2nd month (spring) to request promulgation of its calendar.

(7th year of King Yeongnyu; February 24 – March 24; AG 8)

AD 627

It was very windy, and sand came down like misty rain for over 5 days in the 3rd month (spring). Frost blighted the crops in the 8th month.

(49th year of King Jinpyeong; March 23 – April 20 and September 15 – October 14; AS 4)

AD 628

Because of the mighty summer drought, the market was relocated and a dragon was painted to pray for rain. People were so starved in the autumn and winter that they sold their children.

(50th year of King Jinpyeong; AS 4)

AD 630

The ground in the yard of the great palace (대궁 大宮)²¹⁷ cracked.

(52nd year of King Jinpyeong; AS 4)

There was drought in the summer.

(31st year of King Mu; AB 5)

²¹⁷) This is the palace where the king of Silla resided.

218) According to the *Book of the Later Han*, rainbows imply danger to the king, or war. King Jinpyeong died in the first month of the following year (632).

219) While the *Memorabilia* refers to Seondeok variably as king or queen, the *History* only uses the term "King."



Remains of Chiljung Fortress, Paju, Korea

220) This was a fortress in the Silla Dynasty, whose location corresponds to modern Jeokseong-myeon, Paju City, Gyeonggi Province, to the south of the Imjin River.

AD 631

A white rainbow²¹⁸⁾ went into the well of the royal palace and Saturn overtook the moon in the 7th month (autumn).

(53rd year of King Jinpyeong; August 3 – September 1; AS 4)

AD 632

There was drought from the 5th month (summer), and it did not rain until the 6th month.

(1st year of [Queen] Seondeok;²¹⁹⁾ May 25 – July 22; AS 5)

AD 633

There was an earthquake in the capital [Gyeongju] in the 2nd month.

(2nd year of [Queen] Seondeok; March 16 – April 13; AS 5)

AD 634

The era name was changed to Inpyeong (인평 仁平) in the first month (spring). It hailed in the 3rd month; the hailstones were the size of chestnuts.

(3rd year of [Queen] Seondeok; February 4 – March 4 and April 4 – May 2; AS 5)

AD 636

There was drought in the 6th month.

(37th year of King Mu; July 8 – August 6; AB 5)

AD 637

There was an earthquake in the capital [Buyeo] in the 2nd month (spring). There was another earthquake in the 3rd month.

(38th year of King Mu; March 2 – April 29; AB 5)

AD 638

A boulder to the south of Chiljung Fortress (칠중성 七重城)²²⁰⁾ moved 35 steps on its own in the 3rd month (spring). Yellow flowers rained down in the 9th month (autumn).

(7th year of [Queen] Seondeok; April 20 – May 18 and October 13 – November 10; AS 5)

AD 639

The water of the East Sea reddened and heated up, killing fish and tortoises in the 7th month (autumn).

(8th year of [Queen] Seondeok; August 5 – September 2; AS 5)

AD 640

There appeared a comet in the northwest in the first month (spring).

(41st year of King Mu; January 29 – February 26; AB 5)

There was no sunlight for 3 days in the 9th month (autumn) until the light came back.

(23rd year of King Yeongnyu; September 21 – October 20; AG 8)

AD 643

It was light at night, but the moon was nowhere to be seen on the 15th day of the 9th month (autumn). Many stars floated off westward.

(2nd year of King Bojang; November 1; AG 9)

AD 644

The snow was red in Pyongyang in the 10th month (winter).²²¹⁾

(3rd year of King Bojang; November 5 – December 4; AG 9)

AD 645

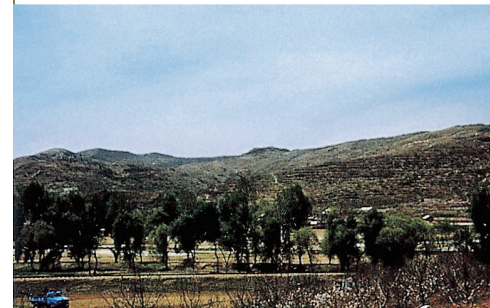
The emperor of Tang reached Ansi Fortress (안시성 安市城)²²²⁾ [in the 6th month].

That night, a meteor fell into the camp of [Goguryeo General] Go Yeonsu.²²³⁾

Just then, there was thunder and lightning, and [Tang General] Xue Rengui (薛仁貴) from Longmen (龍門) donned strange clothing, cried out loudly, and captured the camp. The emperor ordered a retreat, given the early onset of cold weather in Liaodong that dried up the plants and froze water [in the 9th month], making a long stay difficult for the troops and their mounts, and because provisions were running low. In the 10th month (winter), the emperor leashed his mount at Pugou (蒲溝) and urged his men to refill the [flooded] roads [with sand]. The men crossed the Bocuoshui (발착수 渤錯水),²²⁴⁾ and many were soaked and died because of the violent wind and the falling snow.²²⁵⁾

(4th year of King Bojang; October 26 – November 23; AG 9)

221) The red hue is probably attributable to Asian Dust particles mixed into the winter snow.



Yingchengzi Mountain Fortress (Haicheng City, Liaoning Province, China), which is believed to correspond to Ansi Fortress

222) Although there is no consensus on the location of Ansi Fortress, the convincing theory places it at Yingchengzi Mountain Fortress (英城子山城), southeast of Haicheng City (海城市), Liaoning Province, China.

223) The same fact is recorded in “Biographies of the Eastern Barbarians,” Biographies 145, *New Book of Tang* (新唐書 Xin Tangshu) of China: “That night, a meteor fell into the camp of Yeonsu.”

224) Annotations in the *Zizhi tongjian* place Pugou and the Bocuoshui in Liaoze (遼澤), which apparently refers to the pond and marshes west of the Liao River (遼河) rather than any specific location (Chung et al, 1997).

225) This describes the battle between the Tang army that laid siege to Ansi Fortress and the Goguryeo army. The Tang retreated without having seized Ansi Fortress due to the cold and provision shortage.

226) While the *Memorabilia* refers to Jindeok variably as king or queen, the *History* only uses the term “King.”

227) This entry describes the Tang court revisiting the plan to attack Goguryeo,

228) Silla started using its own era names in 536 (23rd year into Beopheung’s reign), and Chinese era names in 650 (4th year of Queen Jindeok). *Zhengshuo* (정삭 正朔) refers to the first day of the first lunar month, and came to denote the calendar as well,

229) Under Queen Jindeok, Silla replaced its own era name Taehwa with Yonghui (650–655), the era name used under Gaozong of Tang,

230) This was probably the royal audience hall of the Silla Dynasty, located inside the Moon Fortress,

231) In this ceremony, courtiers gathered in the royal audience hall on the first day of the first lunar month and greeted the king. The ceremony owes its origin to Gaozu of Han China,

AD 647

The era name was changed to Taehwa (태화 太和). A comet appeared in the southern sky and many stars floated off northward in the 8th month.

(1st year of [Queen] Jindeok;²²⁶) September 5 – October 3; AS 5)

When the emperor [Taizong of Tang] personally came to conquer the state, people of the state [Goguryeo] could not work their fields, sow seeds or grow crops, and even though crops were harvested after conquering the fortress, most people did not have enough food because of the ongoing drought.²²⁷

(6th year of King Bojang; AG 10)

AD 648

Han Jilheo (한질허 邯陟許) was sent to Tang in the winter to present tribute. Taizong [of Tang] asked through the Imperial Censor (御史), “Why does Silla look to us [Tang] as the greater state but use its own era names?” Jilheo replied, “It is because the court of the Emperor did not promulgate the new calendar (正朔) that we have been naming years differently since the late King Beopheung. Had there been a decree from the court of the greater state, how would the small state dare behave in such a manner?” Taizong acquiesced.²²⁸

(2nd year of [Queen] Jindeok; AS 5)

AD 649

It thundered in the 11th month (winter). Water did not freeze.

(9th year of King Uija; December 10 – January 7; AB 6)

AD 650

The Chinese era name Yonghui (영휘 永徽) was finally used in this year.²²⁹

(4th year of [Queen] Jindeok; AS 5)

Frost and hail blighted the crops in the 7th month (autumn), and people starved.

(9th year of King Bojang; August 3 – 31; AG 10)

AD 651

The King went to the Jowonjeon (조원전 朝元殿)²³⁰ and was greeted by all the court on the first day of the first month (spring). Such was the origin of the ceremony celebrating the New Year.²³¹

(5th year of [Queen] Jindeok; January 27; AS 5)

AD 652

It snowed heavily in the capital [Gyeongju] in the 3rd month, and the southern gate of the royal palace collapsed on its own for no reason.

(6th year of [Queen] Jindeok; April 14 – May 13; AS 5)

AD 653

People starved because of a mighty drought in the spring.

(13th year of King Uija; AB 6)

AD 656

Iron came down like misty rain on the capital [Pyongyang] in the 5th month (summer).²³²⁾

(15th year of King Bojang; May 29 – June 27; AG 10)

AD 657

There was a mighty drought in the 4th month (summer), and the land would not yield any harvest.

(17th year of King Uija; May 18 – June 16; AB 6)

Ilseon County (일선군 一善郡)²³³⁾ was flooded in the 7th month (autumn), and some 300 people drowned. The ground near Mt. Toham in the east caught on fire, which died down after 3 years.

(4th year of King Taejong Muyeol; August 15 – September 13; AS 5)

AD 660

The water of a well in the capital [Buyeo] turned blood-red²³⁴⁾ in the 2nd month (spring). Tiny fish washed up on the shore of the West Sea and died; there were so many that people could not eat them all. The Sabi River (사비하 泗比河)²³⁵⁾ was the color of blood. Tens of thousands of toads and frogs gathered on tree tops in the 4th month (summer). Wind and rain suddenly swept in in the 5th month, lightning struck the pagodas of Cheonwang-sa Temple (천왕사 天王寺) and Doyang-sa Temple (도양사 道讓寺), as well as the lecture hall of Baekseok-sa Temple (백석사 白石寺). Masses of black clouds in the east and the west were squaring off in the air like dragons. In the 6th month, many priests at Wangheung-sa Temple (왕흥사 王興寺)²³⁶⁾ saw something resembling a sail carried by the flood into the temple.

(20th year of King Uija; March 17 – April 15 and May 15 – August 11; AB 6)



Site of Heungwang-sa Temple, Buyeo, Korea



Sarira [Buddhist relics] boxes found (2007) at the site of Heungwang-sa Temple in Buyeo

232) This is the only instance of “iron rain” on record. It is often construed as an iron-hued rain or as rain consisting of iron-hued particles.

233) This refers to the area near modern Seonsan, Gumi City, North Gyeongsang Province. It was renamed Sungseon County (승선군 嵩善郡) under King Gyeongdeok.

234) Tamura points out that this description of a physical phenomenon, albeit speculative and embellished, is notable evidence for the thoroughness of the observations (Li 1960, p. 167). As for the blood-red hue of flowing water, the likely cause is the inflow of soil or other substances (op. cit., p. 250).

235) This is a river in Sabi (Buyeo), the capital of Baekje, and corresponds to the modern Geum River.

236) Temple in Gyuam-myeon, Buyeo County, South Chungcheong Province. Although the *History* describes it as having been built in 600 (under King Beop of Baekje), the inscription on the sarira box found at the site in October 2007 states that Wideok of Baekje founded the temple in 577 in the memory of his late son.

237) The same event is recorded in “Annals of Goguryeo,” *History of the Three Kingdoms*, in an article for 661 (20th year of Bojang), which recounts how the Silla army overcame a siege at Bukhan Mountain Fortress (now in Jongno-gu, Seoul) by Goguryeo soldiers with divine intervention.

238) Temple in Wanggung-ri, Wanggung-myeon, Iksan City, North Jeolla Province. Excavations of the ruins produced roof tiles inscribed with alternate names such as Daegwan-sa Great Temple (대관대사 大官大寺), Daegwan-sa Royal Temple (대관궁사 大官宮寺), and Daegwan-sa Temple (대관사 大官寺).

239) Now Geumma-myeon, Iksan City, North Jeolla Province.

240) This probably corresponds to Bukhan Mountain Fortress in modern Jongno-gu, Seoul.

241) The same event is recorded in “Annals of Silla,” *History of the Three Kingdoms*, in an article for 661 (8th year of Taejong Muyeol).

242) This Goguryeo general seized power in a coup in 642, killing King Yeongnyu and installing King Bojang on the throne. He died in 665, while Goguryeo was at war with Tang China.

243) Also called “Apnokkang (압록강)” or “Apnoksu.” It starts near Cheonji at Mt. Baekdu and flows into the West Sea (Yellow Sea), tracing the border between Korea and northeastern China.

244) This passage is from a reply King Munmu sent to campaign leader Xue Rengui of Tang in 671 (11th year of Munmu).

245) This entry does not appear until 671 (11th year of Munmu) in “Annals of Silla,” *History of the Three Kingdoms*, but it was inserted here to fit the time of the event.

246) This refers to Liu Demin (劉德敏), general of Hanzidao (含資道), Tang China.

247) This passage is from a reply King Munmu sent to campaign leader Xue Rengui of Tang in 671 (11th year of Munmu).

248) This entry does not appear until 671 (11th year of Munmu) in “Annals of Silla” of the *History* but it was inserted here to fit the time of the event.

The rivers in Pyongyang were the color of blood for as long as 3 days in the 7th month (autumn).

(19th year of King Bojang; August 12 – September 9; AG 10)

AD 661

[On the 9th day of the 5th month] A great star suddenly fell into the camp of the enemy [Goguryeo]; the enemy gave up the siege and retreated in fear of the thunder, rain, and lightning.²³⁷⁾ The water in the well at Daegwan-sa Temple (대관사 大官寺)²³⁸⁾ turned into blood in the 6th month, and blood spread on the ground 5 *bo* wide in Geumma County (금마군 金馬郡).²³⁹⁾ The King died.

(8th year of King Taejong Muyeol; June 11 and July 3 – 31; AS 5)

The King [Bojang of Goguryeo] sent General Noe Eumsin (뇌음신 惱音信) to lead Malgal men and lay siege to Bukhan Mountain Fortress²⁴⁰⁾ of Silla in the 5th month (summer). The siege did not let up for 10 days,²⁴¹⁾ cutting off the provision supply route for Silla, and frightening people inside the fortress. Suddenly, a great star fell into our [Goguryeo] camp, and it rained and thundered; Noe and his men retreated in doubt and in fear. In the 9th month, Yeongaesomun (연개소문)²⁴²⁾ sent his son Namsaeng with tens of thousands of trained military men to guard the Abnok (압록 鴨綠)²⁴³⁾ and keep the armies from crossing the river. When [Tang General] Qibi Heli (契苾何力) reached the river, [the Abnok River] was frozen so thick that Qibi was able to lead his men over the ice to the other side of the river.

(20th year of King Bojang; June 3 – July 2 and September 29 – October 28; AG 9)

In Silla, there was a widespread outbreak of plague [in 661] so that soldiers and horses could not be conscripted.²⁴⁴⁾

(11th year of King Munmu; AS 7)²⁴⁵⁾

AD 662

General Liu²⁴⁶⁾ worked together with Kim Yusin, general of Silla from Yangha Province, to transport military provisions to Pyongyang in the first month of the 2nd year of Longshuo [龍朔; 662]. Harsh rain lasted for over a month, there was a snowstorm, and it was bitterly cold, so that men and their mounts froze to death, and we were unable to convey all the provisions we had taken along with us.²⁴⁷⁾

(11th year of King Munmu; January 25 – February 23; AS 7)²⁴⁸⁾

[The Silla army] stayed at Pungsu Village (풍수촌 風樹村)²⁴⁹⁾ on the 18th day of the first month (spring). The ground was too icy and slippery, and the roads too rugged for carts to travel, so that [the provisions] were loaded up on oxen and horses. The men crossed the Chiljung River on the 23rd day. On the first day of the 2nd month, Yusin and his men reached Jangsae (장새 獐塞),²⁵⁰⁾ 36,000 *bo* away from Pyongyang. 15 men, including Supervisor (보기감 步騎監) Yeolgi (열기 裂起),²⁵¹⁾ were sent ahead to the camps of the Tang. There was a snowstorm and it was bitterly cold that day, and many men and horses froze to death. When Sachan (사찬 沙飡)²⁵²⁾ Yeodong beat his mother in the 8th month, it thundered and rained; Yeodong was struck by lightning and died.

(2nd year of King Munmu; February 11 – 24, February 24, and September 18 – October 17; AS 6)

Su Dingfang (蘇定方) [of Tang] lay siege to Pyongyang in the first month (spring), but it snowed heavily just then so that Su's men were forced to give up the siege and retreat.

(21st year of King Bojang; January 25 – February 23; AG 10)

AD 663

Lightning struck the gate of Yeongmyo-sa Temple (영묘사 靈廟寺)²⁵³⁾ in the 5th month.

(3rd year of King Munmu; June 11 – July 10; AS 6)

AD 664

There was an earthquake in the 3rd month. An earthquake on the 14th day of the 8th month crushed homes, wreaking even more havoc in the southern region.

(4th year of King Munmu; April 2 – 30 and September 9; AS 6)

AD 666

There was an earthquake in the capital [Gyeongju] in the 2nd month (spring).

(6th year of King Munmu; March 12 – April 9; AS 6)

AD 668

A comet kept guard over Celestial Boat in the 4th month (summer).²⁵⁴⁾

(8th year of King Munmu; May 17 – June 14; AS 6)

249) This passage describes the ordeals of Silla general Kim Yusin as he headed toward Pyongyang of Goguryeo. Pungsu Village probably refers to a hamlet south of the Chiljung River (Imjin River, Gyeonggi Province), given that Kim's army crossed the river after spending the night in the village.

250) Now Suan County, Hwanghae Province, and the surrounding area.

251) See "Biography of Yeolgi," *History of the Three Kingdoms*.

252) Sachan was the 8th rank out of the 17 ranks of Silla.



Sumaksae (roof tile) with face design found at the site of Yeongmyo-sa Temple

253) Temple in modern Seonggeon-dong, Gyeongju, where a roof tile inscribed with the name of the temple was found.

254) The same event is recorded in "Annals of Gaozong II," Book 5, (*Old Book of Tang*): "There was a comet between Net (필 畢) and Mane (묘 昴) on the day *bingchen* in the 4th month (summer) of the first year of Zongzhang (總章)."

255) This may refer to the 19th Mansion Net (필수 畢宿) or the Net (필 畢) constellation in that Mansion. Its determinative star is ε Tauri.

256) This may refer to the 18th Mansion Mane (묘수 昴宿) or the Mane (묘 昴) constellation in that Mansion. It consists of 7 faint stars that make up the Pleiades on Taurus. Its determinative star is the 17th star on Taurus. The same event is mentioned in "Annals of Gaozong II," Book 5, (*Old Book of Tang*).

257) This passage is from a reply King Munmu sent to campaign leader Xue Rengui in 671 (11th year of Munmu).

258) This entry does not appear until 671 (11th year of Munmu) in "Annals of Silla," *History of the Three Kingdoms*, but it was inserted here to fit the time of the event.



Site of Heungnyun-sa Temple (Sajeong-dong, Gyeongju, Korea)

259) This temple was located in modern Sajeong-dong, Gyeongju City, North Gyeongsang Province. The ruins have been designated Historical Site No. 15.

260) Hwangnyong-sa Temple was located in modern Guhwang-dong, Gyeongju City. King Jinheung (reigned 540–576) had been planning a new royal palace at the site, but changed his mind after a yellow dragon appeared, and built the temple instead. Jae Fortress surrounded the royal palace; it refers to the Moon Fortress in Gyeongju.

261) This was the 10th out of the 17 ranks of the Silla Dynasty. Daenama was further subcategorized into 9 grades, from Jung daenama to Gujung daenama.

262) The new calendar that was imported under King Munmu was probably the Linde (麟德) system (Nha 2000). Tang promulgated the Linde calendar in 666 (3rd year of Linde), which remained in

A comet appeared between the constellations Net (필 畢)²⁵⁵⁾ and Mane (묘 昴) in the 4th month (summer).²⁵⁶⁾ Xu Jingzong (許敬宗) of Tang said, "The appearance of a comet in the northeast portends Goguryeo's fall."

(27th year of King Bojang; May 17 – June 14; AG 10)

AD 670

We recorded all these facts and sent a deputy in the 9th month of last year [670] to report them, but he came back after drifting at sea. The deputy was sent again, but he could not reach his destination. Later, the wind was so cold and the waves so rough that we were unable to send a report.²⁵⁷⁾

(11th year of King Munmu; September 20 – October 19; AS 7)²⁵⁸⁾

Saturn entered the moon and there was an earthquake in the capital [Gyeongju] in the 12th month.

(10th year of King Munmu; January 17 – February 14, 671; AS 6)

AD 671

Lightning struck the southern gate of Heungnyun-sa Temple (흥륜사 興輪寺)²⁵⁹⁾ in the 4th month (summer).

(11th year of King Munmu; May 14 – June 11; AS 7)

AD 672

A comet appeared in the north as many as 7 times in the 9th month. This year, crops were expensive, and people starved.

(12th year of King Munmu; September 27 – October 25; AS 7)

AD 673

A big star fell between Hwangnyong-sa Temple and Jae Fortress in the first month (spring).²⁶⁰⁾

(13th year of King Munmu; January 24 – February 21; AS 7)

AD 674

Daenama²⁶¹⁾ Deokbok, who had been sent away to Tang China, returned after learning the calendar arts in the first month (spring), and the new calendar system was adopted.²⁶²⁾ Strong winds damaged the prayer hall at Hwangnyong-sa Temple in the 7th month (autumn).

(14th year of King Munmu; February 12 – March 12 and August 7 – September 5; AS 7)

AD 676

There appeared a comet [with a tail] about 6–7 *bo* long between North River and Stored Water (적수 積水)²⁶³ in the 7th month (autumn).²⁶⁴

(16th year of King Munmu; August 15 – September 12; AS 6)

AD 679

Mars kept guard over the constellation Palace Guard (羽林)²⁶⁵ in the 4th month (summer). Venus slipped into the moon's position, and a meteor overtook the great stars²⁶⁶ in the Triaster Mansion in the 6th month. Venus entered the moon in the 8th month (autumn).

(19th year of King Munmu; May 15 – June 13, July 13 – August 11, and September 11 – October 9; AS 7)

AD 681

It was dark as night the whole day on the first day of the first month (spring). There was an earthquake in the 5th month (summer). A meteor overtook the big stars on the Triaster Mansion. Sky Dog (천구 天狗)²⁶⁷ fell southwestward²⁶⁸ in the 6th month.

(21st year of King Munmu; January 25 and May 23 – July 20; AS 7)

AD 682

Venus overtook the moon in the 5th month.

(2nd year of King Sinmun; June 11 – July 9; AS 8)

AD 683

There fell as much as 1 *cheok* of snow in the plains in the 4th month (summer). There appeared a comet in the Five Chariots (오거 五車)²⁶⁹ constellation in the 10th month (winter).

(3rd year of King Sinmun; May 2 – 31 and October 25 – November 23; AS 8)

AD 684

A dizzying array of meteors appeared from evening till dawn in the 10th month (winter).

(4th year of King Sinmun; November 13 – December 11; AS 8)

use until 728. In light of Goguryeo's request for the Chinese calendar in 624 (7th year of Yeongnyu) from Tang, or the tomb stone (523) at the mausoleum of Muryeong of Baekje that makes reference to the Yuanjia (元嘉) calendar, it was probably before 674 that the Chinese calendar made its way to Silla.



Former site of Hwangnyong-sa Temple, largest temple of the Silla Dynasty

263) Stored Water is a constellation that is either in the western Mansion Stomach or the southern Mansion Well. When paired with North River, which is in the southern Mansion Well (corresponding to the head of the Western constellation Gemini), it is understood as a constellation in Well.

264) The same event is recorded in "Annals of Gaozong II," Book 5, (*Old Book of Tang*): "A comet appeared in Eastern Well in the 7th month (autumn) [in the 3rd year of Shangyuan (上元)] and headed to the northeast of North River. It was 3 *zhang* (丈) long and it passed Middle Step (中台) in the direction of Literary Illumination (文昌). It vanished 58 days later."

265) Palace Guard is in the 13th Mansion House. This constellation supposedly ruled over the heavenly army, and is part of Aquarius. The same event is mentioned in "Annals of Gaozong II," Book 5, (*Old Book of Tang*).

266) Sandaxing (삼대성 參大星) refers to the three bright stars arranged east to west inside the Triaster Mansion. Its Western counterpart is Orion's Belt.

267) Sky Dog stands for a fallen meteorite.

268) Kun (坤方) is one of the 8 Chinese cardinal points, situated between true south and true west, and hence is equivalent to the southwestern point.

269) Five Chariots is a constellation in the 19th Mansion Net. Part of the Western constellation Auriga makes up this constellation.

270) This passage appears in an address that King Sinmun presented at the ancestral shrine, and hints at the ancient philosophy that posited a mutual connection between nature and man.

271) Dojeung was a Buddhist priest and Weishi (Consciousness Only) scholar of the Silla Dynasty. He studied under Silla priest Woncheuk (원측 圓測) in Tang China and returned to Silla in the first year of Hyoso, but his subsequent whereabouts are unknown.

272) Some believe the star chart that Dojeung brought back with him was the star chart by Chen Zhuo (陳卓), which was also imported in Goguryeo, while others think it was *Pacing the Heavens* (步天歌 Butiange) or the Dunhuang star chart (Nha 2000).

273) The month of the Rat is the 11th lunar month, when the handle of the Big Dipper points north, i.e., the Rat, in the early evening. In Tang, this month was adopted as the start of the year in the 11th month of 689. The adoption of this practice in Silla in the 4th year of Hyoso might have to do with the change of the calendar in Tang China (Chung et al, 1997). Park Seong-Rae (1998) relates it to the change of era names under Wu Zetian (武則天 625–705) of Tang. While the start of the year was replaced in the 11th month of 689 in China, Ahn (2002) changed the start of the year for the years 695–700 according to the records in the *History*.

AD 687

The King welcomed his first son in the 2nd month (spring). The day was dark and dreary, and there was violent thunder and lightning. [The King reported at the shrine:] These days protocol is no longer under royal rule and loyalty seems to be at odds with heaven's will, so that strange things happen to the sidereal patterns and the sun has hidden its light.²⁷⁰⁾

(7th year of King Sinmun; March 19 – April 17; AS 8)

AD 692

Bamboos dried out in the spring.

(12th year of King Sinmun; AS 8)

Senior priest Dojeung (도증 道證)²⁷¹⁾ returned from Tang China and presented a star chart in the 8th month.²⁷²⁾

(1st year of King Hyoso; September 16 – October 14; AS 8)

AD 695

The month of the Rat (자월 子月)²⁷³⁾ was adopted as the beginning of the year. There was an earthquake in the capital [Gyeongju] in the 10th month (winter).

(4th year of King Hyoso; November 12 – December 11; AS 8)

AD 696

There was drought in the western part of the state in the 4th month (summer).

(5th year of King Hyoso; March 9 – April 6; AS 8)

AD 698

The earth shook in the capital [Gyeongju] in the 2nd month, and strong winds snapped trees. There was a flood in the capital in the 7th month (autumn).

(7th year of King Hyoso; January 18 – February 15 and June 14 – July 12; AS 8)

AD 699

A wisp of white air stretched across the sky and a comet appeared in the east in the 2nd month (spring). The water of the East Sea turned blood-red in the 7th month (autumn) and recovered its normal hue 5 days later. The crashing sound of waves in the East Sea could be heard as far as the

capital [Gyeongju] in the 9th month. Drums and horns in the arsenal made sounds on their own.

(8th year of King Hyoso; January 7 – February 5, June 3 – July 2, and August 1 – 29; AS 8)

AD 700

The month of the Tiger (인월 寅月)²⁷⁴ was restored as the beginning of the new year. Jupiter overtook the moon in the 6th month.

(9th year of King Hyoso; April 24 – May 22; AS 8)

AD 701

A comet entered the moon in the 2nd month (spring).

(10th year of King Hyoso; March 14 – April 12; AS 8)

AD 703

There was a flood in the capital [Gyeongju] in the 7th month (autumn). Many drowned.

(2nd year of King Seongdeok; August 17 – September 15; AS 8)

AD 705

There was a drought in the 5th month (summer). Deputies were sent to relieve the masses that had become wanderers as a result of the poor harvest in the eastern provinces and counties in the 10th month (winter).

(4th year of King Seongdeok; May 27 – June 25 and October 22 – November 20; AS 8)

AD 706

Storehouses were opened up to quench the famine that broke out in the first month (spring). Stars fell westward in the 3rd month. The crops did not ripen well that year.²⁷⁵

(5th year of King Seongdeok; January 19 – February 17 and April 17 – May 16; AS 8)

AD 707

Because many starved to death in the first month (spring), 3 *seung* of rice a day were given out to each person through the 7th month.

(6th year of King Seongdeok; February 7 – August 31; AS 8)

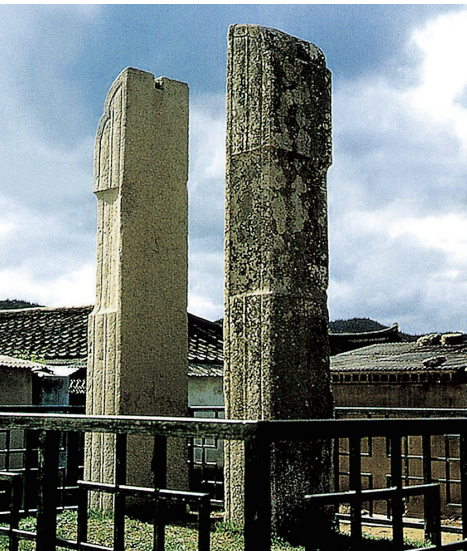
AD 708

There was an earthquake in the 2nd month. Saturn overtook the moon in the 4th month (summer).

(7th year of King Seongdeok; February 26 – March 26 and April 25 – May 23; AS 8)

274) This month marked the start of the year in Xia (夏) China. According to an article for 700 (3rd year of Shengli [聖曆] under Wu Zetian) in the *(Old) Book of Tang*, the calendar system was restored in the 10th month of that year and the first lunar month once again became the start of the year in Tang China (Chung et al, 1997).

275) This article is found between the 8th month (autumn) and the 10th month (winter).



Banner posts at the site of Samnang-sa Temple, Gyeongju. The left pillar is a replica.

276) This temple was located on the banks of the Seocheon in Seonggeon-dong, Gyeongju, but only one of the original banner posts still stands.

277) Yihyo appears to have been a geomancer in the days of Seongdeok of Silla, but no additional information is available.

278) Now Gangneung City, Gangwon Province, Haseo Province was instituted in 658 (5th year of Taejong Muyeol of Silla), and renamed Myeong Province (명주 溟州) in 757 (16th year of King Gyeongdeok).

279) This is believed to be a temple that was located in modern Dongcheon-dong, Gyeongju.

280) Son of Concubine is the 3rd star on the Arctic Pentad (北極五星) in the Purple Palace Enclosure, 4 of the 5 stars making up the Arctic Pentad are on the Western constellation Little Bear.

281) This constellation in the Purple Palace Enclosure is located near the tip of the handle of the Big Dipper. It corresponds to the Western constellation Boötes.

282) This building on the royal palace grounds in the capital [Gyeongju] was a venue for welcoming or entertaining envoys.

AD 709

There was drought in the 5th month (summer).

(8th year of King Seongdeok; June 12 – July 11; AS 8)

AD 710

Sky Dog fell north of Samnang-sa Temple (삼랑사 三郎寺)²⁷⁶ in the first month (spring). There was an earthquake.

(9th year of King Seongdeok; February 4 – March 4; AS 8)

AD 711

It snowed heavily in the 3rd month (spring).

(10th year of King Seongdeok; March 24 – April 22; AS 8)

AD 714

There was drought in the summer, and many came down with the plague.

(13th year of King Seongdeok; AS 8)

AD 715

There was a mighty drought in the 6th month. The King summoned the secular Buddhist Yihyo (이효 理曉)²⁷⁷ of Yongmyeongak, Haseo Province (하서주 河西州),²⁷⁸ and had him pray for rain by the pond of Imcheon-sa Temple (임천사 林泉寺).²⁷⁹ It soon started raining, and the rain lasted for 10 days. Venus covered the star Son of Concubine (서자성 庶子星)²⁸⁰ in the 9th month (autumn). A meteor overtook the Purple Palace Enclosure in the 10th month (winter). A meteor went from Square Celestial Granary (천창 天倉)²⁸¹ into the Supreme Palace Enclosure in the 12th month.

(14th year of King Seongdeok; July 6 – August 3, October 2 – November 30, and December 31 – January 28; AS 8)

AD 716

Moonlight went out when a meteor overtook the moon in the first month (spring). Strong winds uprooted trees, sent roof tiles flying, and damaged Sungnyejeon (승례전 崇禮殿)²⁸² in the 3rd month. The secular Buddhist Yihyo was summoned again to pray for rain because of the drought in the 6th month (summer), and it rained.

(15th year of King Seongdeok; January 29 – February 27, March 28 – April 26, and June 24 – July 23; AS 8)

AD 717

A Medicine Master and a Math Master (算博士)²⁸³ were appointed in the 2nd month (spring). There was an earthquake in the 4th month (summer).

(16th year of King Seongdeok; March 18 – April 15 and May 15 – June 13; AS 8)

AD 718

There was an earthquake in the 3rd month. Lightning struck the pagoda at Hwangnyong-sa Temple in the 6th month (summer). The first clepsydra (누각 漏刻)²⁸⁴ was created. A meteor traveled from Mane into Straddler, and small stars followed in its wake in the 10th month (winter). Sky Dog fell in the northeast.

(17th year of King Seongdeok; April 6 – May 4, July 3 – 31, and October 28 – November 26; AS 8)

AD 719

Lightning struck Mireuk-sa Temple in Geumma County (금마군 金馬郡)²⁸⁵ in the 9th month (autumn).

(18th year of King Seongdeok; October 18 – November 15; AS 8)

AD 720

There was an earthquake in the first month (spring). Heavy rain in the 4th month (summer) caused landslides at 13 locations, and hailstones blighted the rice plants. Locusts blighted the crops in the 7th month (autumn).

(19th year of King Seongdeok; February 13 – March 13, May 12 – June 10, and August 9 – September 6; AS 8)

AD 721

It did not snow in the winter.²⁸⁶

(20th year of King Seongdeok; AS 8)

AD 722

There was an earthquake in the capital [Gyeongju] in the 2nd month.

(21st year of King Seongdeok; February 20 – March 21; AS 8)

AD 723

There was an earthquake in the 4th month (summer).

(22nd year of King Seongdeok; May 9 – June 7; AS 8)

283) The Math Master was a scholar charged with the instruction of arithmetic under King Seongdeok and after. According to “Government Structure,” *History of the Three Kingdoms*, the Math Master was on the faculty of the National Academy (국학 國學) and taught students. It is believed that one of the Math Master’s responsibilities was to teach the mathematics needed for astronomical and meteorological observation.

284) This refers to a water clock. The new Clepsydra Bureau (누각전 漏刻典; 17th year of Seongdeok) was staffed with 6 experts.

285) Now Iksan City, North Jeolla Province, and the surrounding area. The ruins of Mireuk-sa Temple of Baekje are in Giyang-ri, Geumma-myeon.



Site of Mireuk-sa Temple and banner posts

286) The absence of snow was also recorded in China in the same year, as confirmed by “Annals of Emperor Xuanzong,” (*Old Book of Tang*: “It did not snow in the winter of the 9th year of Kaiyuan (開元).”

287) This refers to the state of Balhae that Daejoyeong, a refugee from Goguryeo, founded at Mt. Dongmo (near modern Mt. Liuding [六鼎山], Dunhua [敦化] City, Jilin Province, China) after Goguryeo fell at the hands of Tang in 668. The state of Balhae consisted of Goguryeo refugees, Mohe people that Goguryeo had conquered, and Songmal Malgal people (속말 말갈인 粟末靺鞨人).

288) Now Dengzhou, Shandong Province. It was in 732 that Balhae attacked Dengzhou, and in 733 (32nd year of Seongdeok) that Silla attempted to attack the southern border region of Balhae.

289) Balhae's southern border extended to the north of Wonsan Bay, which was the northern frontier of Silla.

290) Now Buyeo-eup, Buyeo County, South Chungcheong Province, Silla installed Soburi Province in Baekje's former capital Sabi in 671. With the institution of Ungcheon Province in 686, Soburi Province became Soburi County, and was renamed Buyeo County under King Gyeongdeok (742–765).

291) Part of the 25th Mansion Star (성수 星宿), Xuanyuan consists of 17 stars. The brightest one in Xuanyuan is called the Great Xuanyuan Star, and corresponds to Regulus in the Western constellation Leo.

AD 725

There appeared a white rainbow in the first month (spring). It snowed in the 3rd month. It hailed in the 4th month (summer). The earth shook in the 10th month (winter).

(24th year of King Seongdeok; February 18 – March 18, April 18 – June 14, and November 10 – December 9; AS 8)

AD 733

The Balhae Malgal (발해말갈 渤海靺鞨)²⁸⁷⁾ crossed the sea and attacked Dengzhou (등주 登州)²⁸⁸⁾ in the 7th month (autumn). Emperor Xuanzong of Tang [had Silla] draft men and attack the southern border²⁸⁹⁾ of the Malgal. Just then, there fell about 1 *jang* of heavy snow, blocking the mountain passes, and the troops returned without any success after more than half of them had died.

(32nd year of King Seongdeok; August 14 – September 12; AS 8)

AD 735

Mars overtook the moon in the first month (spring).

(34th year of King Seongdeok; January 29 – February 26; AS 8)

AD 737

There was an earthquake in the 5th month (summer). A meteor entered the Supreme Palace Enclosure in the 9th month (autumn).

(Abridged biography of King Hyoseong; June 3 – July 2 and September 29 – October 27; AS 9)

AD 738

A white rainbow pierced the sun, and the rivers in Soburi County (소부리군 所夫里郡)²⁹⁰⁾ turned blood-red in the 4th month (summer).

(2nd year of King Hyoseong; April 24 – May 22; AS 9)

AD 740

Saturn overtook the Great Xuanyuan Star (현원대성 軒轅大星)²⁹¹⁾ in the 5th month (summer).

(4th year of King Hyoseong; May 30 – June 28; AS 9)

AD 742

There was an earthquake in the northeast in the 2nd month (spring); the sound was thunderous. A meteor overtook the big stars on Triaster in the 5th month (summer).

(6th year of King Hyoseong; March 12 – April 9 and June 8 – July 6; AS 9)

AD 743

There was an earthquake in the 8th month (autumn).

(2nd year of King Gyeongdeok; August 24 – September 22; AS 9)

AD 744

A wicked star (妖星)²⁹² appeared in the middle of the sky in the winter. It was as large as a 5-*du* vessel. It went away after 10 days.

(3rd year of King Gyeongdeok; AS 9)

AD 745

It hailed in the capital [Gyeongju] in the 4th month (summer). The hailstones were as large as chicken eggs. There was drought in the 5th month.

(4th year of King Gyeongdeok; May 6 – July 3; AS 9)

AD 747

Lightning struck the tomb of King Jinpyeong²⁹³ in the 3rd month. There was drought in the autumn. It did not snow in the winter. People starved, and there was an outbreak of plague.

(6th year of King Gyeongdeok; April 15 – May 13; AS 9)

AD 748

Sky Dog fell to the ground in the first month (spring).

(7th year of King Gyeongdeok; February 4 – March 3; AS 9)

AD 749

Violent winds uprooted trees in the 2nd month (spring).²⁹⁴ One Astronomy Master²⁹⁵ and 6 Clepsydra Masters²⁹⁶ were appointed in the 3rd month.

(8th year of King Gyeongdeok; February 22 – April 21; AS 9)

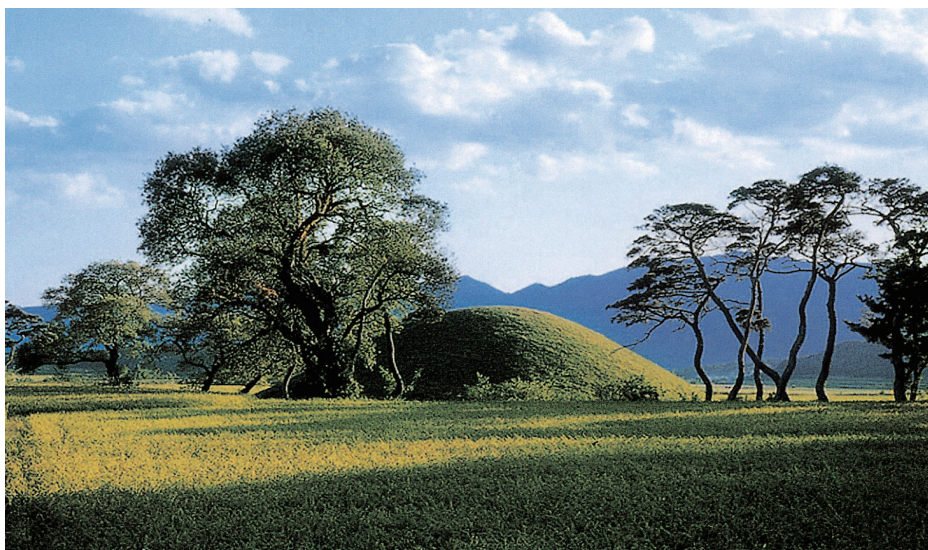
292) This probably refers to a comet or a *paeseong*, which were considered omens of disasters.

293) The presumed tomb of King Jinpyeong in modern Bomun-dong, Gyeongju City, has been designated Historical Site No. 180.

294) The Imsin version of the *History* specifies 3 (3rd month) while the *Abridged History of the Three Kingdoms* specifies 2 (2nd month). Since the 3rd month is discussed in the next passage, we have followed the *Abridged History*.

295) The highest working-level official that was charged with astronomy and meteorology. The original name (천문박사 天文博士) was later changed to Celestial Office Master (사천박사 司天博士).

296) Expert technicians in charge of the clepsydra. The bureau was staffed with 6 such experts. Silla set up the Clepsydra Bureau in 718 (17th year of King Seongdeok), and staffed it with Clepsydra Masters in 749 (8th year of Gyeongdeok).



Tomb of King Jinpyeong (Bomun-dong, Gyeongju, Korea)

297) According to the “Biography of Hyangdeok,” *History of the Three Kingdoms*, the crops did poorly and an epidemic broke out that year.

298) Located in Baeban-dong, Gyeongju City. There only remain the plot of the temple and the banner posts,



Site of Mangdeok-sa Temple (Baeban-dong, Gyeongju, Korea)

299) The original text reads *jaei* (재이 災異), which refers to bizarre, disastrous events. It is a general term for disasters from the sky and bizarre events on the ground.

300) Kim was a minister in the Silla Dynasty, but the years of his birth and death are unknown. He became a general in 732 (31st year of Seongdeok) and attained the highest rank—head of the Council of Nobles—in 745 (4th year of Gyeongdeok).

301) This prince was Geonun (건운 乾運), who would later become King Hyeogong. Hyeogong was slain in Kim Jijeong’s rebellion in 780.

AD 754

It hailed in the capital [Gyeongju] in the 4th month (summer); the hailstones were as large as chicken eggs. There was drought and locust damage in the 8th month.

(13th year of King Gyeongdeok; April 27 – May 26 and August 23 – September 20; AS 9)

AD 755

Crops were scarce in the spring and people starved.²⁹⁷⁾ One of the pagodas at Mangdeok-sa Temple²⁹⁸⁾ shook.

(14th year of King Gyeongdeok; AS 9)

AD 756

In light of the frequent natural disasters²⁹⁹⁾ in recent years, Kim Sain (김사인 金思仁),³⁰⁰⁾ head of the Council of Nobles, presented a memorial to the King to advise him on the rights and wrongs of the governance in the 2nd month (spring). The King gladly took the advice. Large hailstones rained down in the 4th month (summer).

(15th year of King Gyeongdeok; March 6 – April 3 and May 4 – June 2; AS 9)

AD 758

The King’s son was born on the 23rd day of the 7th month (autumn).³⁰¹⁾ There was loud thunder and lightning, and lightning struck 16 locations at Buddhist temples.

(17th year of King Gyeongdeok; August 31; AS 9)

AD 759

A comet appeared in the 3rd month and only vanished in the autumn.

(18th year of King Gyeongdeok; April 2 – May 1; AS 9)

AD 760

A drumbeat-like sound was heard in the east of the fortress in the first month (spring). People said it was the drumbeat of ghosts.

(19th year of King Gyeongdeok; January 23 – February 21; AS 9)

AD 761

A rainbow pierced the sun on the first day of the first month (spring). The sun looked like it was wearing an earring.³⁰²⁾ There appeared a comet in the 4th month (summer).

(20th year of King Gyeongdeok; February 10 and May 9 – June 7; AS 9)

AD 763

Strong winds sent roof tiles flying and uprooted trees in the capital [Gyeongju] in the 7th month (autumn). Peach and plum trees flowered again in the 8th month.

(22nd year of King Gyeongdeok; August 14 – October 11; AS 9)

AD 764

There appeared a comet in the southeast in the 3rd month, as well as a dragon at the foot of Mt. Yang (양산 楊山)³⁰³⁾ that flew away soon after. Meteors of all sizes appeared on the 11th day of the 12th month (winter); there were too many to count them all.

(23rd year of King Gyeongdeok; April 6 – May 5 and January 7, 765; AS 9)

AD 765

There was an earthquake in the 4th month (summer). A meteor overtook Heart in the 6th month.

(24th year of King Gyeongdeok; April 25 – May 24 and June 23 – July 22; AS 9)

³⁰²⁾ The phenomenon described here is a sun halo or sun dog in modern parlance.



Parhelion

³⁰³⁾ Estimated to correspond to modern Mt. Nam in Gyeongju.

304) The passage seems to be describing a parhelion. For those who believe in a mutual correspondence between nature and man, the parhelion seems to foreshadow the political turmoil under King Hyegong. The curtain fell on the royal family that had dominated the middle period of Silla, when Hyegong was killed in Kim Jijeong's rebellion (780). A parhelion was recorded in the 6th month of the same year in China, as confirmed by the "Treatise on Astronomy," (*Old Book of Tang*): "There were double sun halos on the day *dingwei* in the 6th month, and there were double moon halos that night. There was a flood that year."

305) One of the 9 provinces of the Silla Dynasty, known as Cheong Province under King Sinmun, and renamed Gang Province under King Gyeongdeok. Now Jinju City, South Gyeongsang Province.

306) According to the *Memorabilia*, "The ground east of the main hall of the government office of Gang Province collapsed and turned into a pond in the first year of Dali [대력 大曆: 766–779]. The pond was 13 *cheok* long and 7 *cheok* wide." (Section on King Hyegong, Book 2 of "Records of Notable Events," Vol. 2 of the *Memorabilia*).

307) According to the *Memorabilia*, "Two stars dropped into the yard of the northern palace, followed by a third in the 7th month. The three stars sank into the ground" (Section on King Hyegong, Book 2 of "Records of Notable Events," Vol. 2 of the *Memorabilia*).

308) According to the *Memorabilia*, "Sky Dog fell south of the Dongnu (동루 東樓) on the day *jeongmi* in the 2nd year [of Hyegong]. It had a head as big as an urn and a tail about 3 *cheok* long. It burned as bright as fire. The sky and the earth shook." (Section on King Hyegong, Book 2 of "Records of Notable Events," Vol. 2 of the *Memorabilia*).

309) Estimated to correspond to the area of modern Euncheon-myeon, Yeonbaek County, Hwanghae Province.

310) The same event is recorded in "Annals of Emperor Daizong," Book 6, *New Book of Tang*.

AD 766

Two suns appeared in the first month (spring).³⁰⁴⁾ A major pardon was issued [for prisoners]. The ground collapsed and became a pond in Gangju (강주 康州)³⁰⁵⁾ in the 2nd month; the pond was about 50 *cheok* long and 50 *cheok* wide, and the water was dark blue. Drumbeat-like sounds were heard from the sky in the 10th month (winter).³⁰⁶⁾

(2nd year of King Hyegong; February 14–April 13 and November 7–December 6; AS 9)

AD 767

There was an earthquake in the 6th month (summer). Three stars fell into the yard of the royal palace in the 7th month (autumn); they crashed into one another, and light flared up and scattered.³⁰⁷⁾

(3rd year of King Hyegong; July 1–August 28; AS 9)

AD 768

There appeared a comet in the northeast in the spring. It thundered and hailed in the capital [Gyeongju] in the 6th month, and grass and trees were broken as a result. A great star fell in the south of Hwangnyong-sa Temple, raising a thunderous sound as it shook the ground.³⁰⁸⁾ All the wells and springs ran dry, and tigers wandered into the royal palace.

(4th year of King Hyegong; June 19–July 18; AS 9)

AD 769

There was locust damage and drought in the 5th month (summer). Some 80 rats headed to Pyongyang from Chiak Prefecture³⁰⁹⁾ in the 11th month (winter). It did not snow.

(5th year of King Hyegong; June 9–July 7 and December 3–January 1; AS 9)

AD 770

Sand came down like misty rain in the 3rd month. A comet appeared north of the Five Chariots constellation on the 11th day of the 5th month and disappeared only on the 12th day of the 6th month.³¹⁰⁾ There was an earthquake in the capital [Gyeongju] in the 11th month (winter).

(6th year of King Hyegong; April 1–29, June 9–July 9, and November 22–December 21; AS 9)

AD 777

There was an earthquake in the capital [Gyeongju] in the 3rd month (spring). Another earthquake occurred in the 4th month (summer).³¹¹⁾

(13th year of King Hyegong; April 13–June 9; AS 9)

AD 779

There was an earthquake in the capital [Gyeongju] in the 3rd month (spring) that crushed homes and killed over 100. Venus entered the moon. A *baekjwa beophoe* (100-seat Buddhist ceremony)³¹²⁾ was held.

(15th year of King Hyegong; March 23 – April 20; AS 9)

AD 780

There was yellowish fog in the first month (spring). Sand came down like misty rain in the 2nd month. The King took the throne at a young age, and once he was grown, he was ever busy entertaining himself, indulging in music, women, and outings. Discipline grew lax [in the state], and disasters grew more frequent.

(16th year of King Hyegong; March 11 – April 9; AS 9)

AD 783

There fell as much as 3 *cheok* of snow in the capital [Gyeongju] in the 2nd month.

(4th year of King Seondeok,³¹³⁾ March 8 – April 6; AS 9)

AD 785

King Seondeok (선덕왕 宣德王) died [in the 1st month of that year] without an heir. After the court discussed the matter, they sought to install the King's nephew Juwon (주원 周元) on the throne. Juwon lived 20 *li* north of the capital [Gyeongju]. Just then it rained heavily and the Alcheon rose. Someone said when Juwon could no longer cross over [the Alcheon]: “A position as great as the royal throne is not up to man. Might the heavy rain today not be a sign that heaven does not want Juwon [as king]? The current head of the Council of Nobles Gyeongsin is the younger brother of the late King, is virtuous, and has the bearing of a king.” A consensus was reached immediately to have Gyeongsin succeed to the throne. It stopped raining some time later, and the entire nation shouted, “Long live the King!”³¹⁴⁾

(Abridged biography of King Wonseong; February 14 – March 14; AS 10)

311) There was an earthquake in China in the same year, as confirmed by the following passage: “Homes crumbled in Shulu (束鹿) and Ningjin (寧晉; northeastern area of modern Ningjin, Hebei Province), the crack in the ground reached as long as several *zhang* (丈), sand and pebbles washed down onto the plains, and hundreds were crushed to death in the 12th year of Dali (大曆) of Tang. There were severe earthquakes in the two prefectures (州) of Heng [now Zhengding 正定] and Ding [now Ding County 定縣]. There was an earthquake in Zhao Prefecture (趙州) [now Zhao County], which ended 3 days later.” (Earthquake Damage Prevention Department of the China Earthquake Administration 1995).

312) A 100-seat Buddhist ceremony with high priests to preach the teachings of the Buddha. In antiquity, it was customary to hold national religious services when the state faced natural disasters, war, or unrest.

313) 37th monarch of Silla, King Seondeok (宣德王; reigned 780 – 785) is often confused with Queen Seondeok (善德王; reigned 632 – 647) because their names are read the same way in Korean.

314) The *Memorabilia* likewise recounts Gyeongsin's providential ascent to the throne (Vol. 2, “Wonseong the Great”). Kim Juwon retired to Myeong Province (now Gangneung) after losing out to Gyeongsin in his fight for the throne.

AD 786

It hailed in the eastern part of the state in the 4th month (summer). The hailstones blighted all the mulberry trees and the barley crops. There was a drought in the 7th month (autumn). 33,240 *seom* of millet were handed out to relieve the starving masses in the capital [Gyeongju] in the 9th month. (2nd year of King Wonseong; May 3–31, July 30–August 27, and September 27–October 26; AS 10)

AD 787

There was an earthquake in the capital [Gyeongju] in the 2nd month (spring). Venus appeared during the day in the 5th month (summer). Locusts blighted crops in the 7th month (autumn). There was a solar eclipse on the first day (*sinsa*) of the 8th month.³¹⁵⁾

(3rd year of King Wonseong; February 23–March 23, May 22–June 19, August 18–September 15, and September 16; AS 10)

AD 788

There was drought and locust damage in the western part of the state in the autumn.

(4th year of King Wonseong; AS 10)

AD 789

There was a solar eclipse on the first day (*gapjin*) of the first month (spring).³¹⁶⁾ Millet was handed out to relieve the starving masses in Hansan Province (한산주 漢山州).³¹⁷⁾ Frost blighted the crops in the 7th month (autumn).

(5th year of King Wonseong; January 31 and July 27–August 24; AS 10)

AD 790

Byeokkolje was expanded in the first month (spring). There was a mighty drought in the 3rd month.³¹⁸⁾ Venus and Mercury gathered inside East Well in the 4th month (summer). Grain was released in the 5th month to relieve the starving people of the two provinces of Hansan and Ungcheon.³¹⁹⁾

(6th year of King Wonseong; January 20–February 18 and March 21–July 16; AS 10)

AD 791

3 *cheok* of snow fell in the capital [Gyeongju] in the 10th month (winter), and some froze to death. There was an earthquake in the capital in the 11th month.

(7th year of King Wonseong; November 1–December 29; AS 10)

315) The same event is recorded in the article for the day *xinsi* in the 8th month of the 3rd year of Zhenyuan (貞元) in “Annals of Emperor Dezong,” Book 7, *New Book of Tang*.

316) The same event is recorded in the article for the day *jiachen* in the first month of the 5th year of Zhenyuan in the *New Book of Tang*.

317) One of the 9 provinces of Unified Silla. The principal city was modern Gwangju, Gyeonggi Province.

318) There was a drought in China in the 3rd month of the same year, as confirmed by “Annals of Emperor Dezong,” (*Old Book of Tang*): “The sun was blood-red on the day *jiazi* in the 3rd month. There was no light.”

319) One of the 9 provinces, which were instituted immediately after Silla unified the Three Kingdoms. Now Gongju, South Chungcheong Province.

AD 792

There was a solar eclipse on the first day (*imja*) of the 11th month (winter).³²⁰⁾

(8th year of King Wonseong; November 19; AS 10)

AD 793

Strong winds snapped trees and blew down rice crops in the 8th month (autumn).

(9th year of King Wonseong; September 10 – October 9; AS 10)

AD 794

There was an earthquake in the 2nd month (spring).

(10th year of King Wonseong; March 6 – April 4; AS 10)

AD 795

The King personally looked in on the prisoners in light of the drought³²¹⁾ in the 4th month (summer). It finally rained in the 6th month. Frost blighted the crops in the 8th month (autumn).

(11th year of King Wonseong; April 24 – May 22, June 22 – July 20, and September 18 – October 17; AS 10)

AD 796

Because the capital [Gyeongju] suffered famine and an outbreak of plague in the spring, the King opened up the storehouses for relief.

(12th year of King Wonseong; AS 10)

AD 797

Locusts blighted the crops in the eastern part of the state, and flooding caused landslides in the 9th month (autumn).

(13th year of King Wonseong; September 25 – October 24; AS 10)

AD 798

A fire broke out at the Tower Bridge (누교 樓橋)³²²⁾ in the south of the royal palace, and two of the pagodas at Mangdeok-sa Temple clashed against each other in the 3rd month (spring). There was a drought³²³⁾ in the 6th month (summer).

(14th year of King Wonseong; March 22 – April 20 and July 18 – August 15; AS 10)

320) The same event is recorded in the article for the day *renzi* in the 11th month of the 8th year of Zhenyuan (貞元) in “Annals of Emperor Dezong,” Book 7, *New Book of Tang*.

321) There were droughts in the 4th and 5th months of that year in China, as confirmed by “Annals of Emperor Dezong,” (*Old Book of Tang*): “There was a drought in the 4th month. On the day *gengwu* in the 5th month, an official was instructed to look in on the prisoners and find the cause of the drought.”



Banner posts on the grounds of Mangdeok-sa Temple

322) This was a bridge with a tower.

323) There were droughts in the spring and summer of that year in China, as confirmed by “Biography of Han Gao (韓皐),” (*Old Book of Tang*): “There was a mighty drought in the spring and summer. The sorghum and barley crops dried up.”

324) One of the buildings inside the royal palace of Silla.

325) A solar eclipse was recorded on the day *renxu* in the 5th month in 801 (17th year of Zhenyuan) in "Annals of Emperor Dezong," Book 7, *New Book of Tang*.

326) Now Chuncheon, Gangwon Province.

AD 800

A violent wind snapped trees and sent roof tiles flying in the 4th month (summer). The blinds at Seorancheon (서란전 瑞蘭殿)³²⁴⁾ flew off and were nowhere to be found.

(2nd year of King Soseong; April 28 – May 26; AS 10)

AD 801

The solar eclipse that should have taken place on the first day (*imsul*) of the 5th month (summer) did not occur.³²⁵⁾ Mars entered the moon and stars rained down in the 9th month (autumn). All the pine and bamboo trees died of extreme cold in the 10th month (winter).

(2nd year of King Aejang; June 15 and October 11 – December 8; AS 10)

AD 802

There was an earthquake in the 7th month (autumn).

(3rd year of King Aejang; August 2 – 31; AS 10)

AD 803

The King went to the southern outskirts to survey the barley crops in the 4th month (summer). There was an earthquake in the 10th month (winter).

(4th year of King Aejang; April 25 – May 23 and October 19 – November 17; AS 10)

AD 804

A rock that had fallen flat stood up in Nansan Prefecture, Udu Province,³²⁶⁾ in the 7th month (autumn). The water of Bupo in Sodae Prefecture, Ungcheon Province, turned blood-red. In the 9th month, two of the pagodas at Mangdeok-sa Temple [shook so much that they] looked like they were fighting.

(5th year of King Aejang; August 9 – September 7 and October 7 – November 5; AS 10)

AD 805

There was an earthquake in the 11th month (winter).

(6th year of King Aejang; November 25 – December 24; AS 10)

AD 807

It snowed heavily in the 8th month (autumn).

(8th year of King Aejang; September 6 – October 4; AS 10)

AD 808

There was a solar eclipse on the first day (*sinsa*) of the 7th month (autumn).³²⁷⁾

(9th year of King Aejang; July 27; AS 10)

AD 809

The moon overtook Net in the first month (spring). There was a mighty drought in the 7th month (autumn).³²⁸⁾

(10th year of King Aejang; January 20 – February 17 and August 15 – September 12; AS 10)

AD 810

The King personally officiated rituals at Singung (신궁 神宮)³²⁹⁾ in the 2nd month, and sent deputies to have the dikes throughout the state repaired. A meteor entered the Purple Palace Enclosure in the 7th month (autumn). A meteor entered the Wang Liang [王良星] constellation in the 10th month (winter).

(2nd year of King Heondeok; March 9 – April 7, August 4 – September 2, and November 1 – 30; AS 10)

AD 814

There was a flood in the western part of the state in the 5th month (summer). It was so windy and foggy in the capital [Gyeongju] in the 8th month (autumn) that it was like night.

(6th year of King Heondeok; May 23 – June 20 and August 19 – September 17; AS 10)

AD 815

It snowed in the 5th month (summer).³³⁰⁾ There was a solar eclipse on the first day (*gihae*) of the 8th month (autumn).³³¹⁾ As the provinces and counties near the western border suffered severe famine and swarms of bandits, armies were sent to restore order. A big star appeared between Wing (익 翼)³³²⁾ and Axletree (진 軫)³³³⁾ and streaked westward; the trail of its light was about 6 *cheok* long and about 2 *chon* wide.

(7th year of King Heondeok; June 11 – July 10 and September 7; AS 10)

327) The same event is recorded in the article for the day *xinsi* in the 7th month of the 3rd year of Yuanhe (元和) in “Annals of Emperor Xianzong,” Book 7, *New Book of Tang*.

328) There were droughts in the spring and summer of that year in China, as confirmed by Book 2, “Treatise on the Five Elements,” *New Book of Tang*: “There was a mighty drought in the spring and summer. There were droughts in Huainan (淮南), Zhesi (浙西), Jiangxi (江西) and Jiangdong (江東).”

329) Shrine built at the birth site of Silla founder Bak Hyeokkeose.

330) This record is extremely dubious, given the location of the likely observation point (35°51'22"N 129°13'30"E), the topography, and other factors that normally contribute to snowfall.

331) The same event is recorded in the article for the day *jihai* in the 8th month of the 10th year of Yuanhe (元和) in the *New Book of Tang*.

332) Refers to either the 27th Mansion Wing (익수 翼宿) or the Wing (익 翼) constellation in that Mansion. The determinative star is α Crateris.

333) Refers to either the 28th Mansion Axletree (진수 軫宿) or the Axletree (진 軫) constellation in that Mansion. The determinative star is γ Corvi.

334) Eastern part of modern Zhejiang Province (浙江省), China.

335) Now Namyang-myeon, Hwaseong City, Gyeonggi Province, and the surrounding area. Originally named Dangseong County in Goguryeo, it was renamed Dangeun County under Gyeongdeok of Silla. It is unclear when it became a prefecture.

336) The same event is recorded in the article for the day *guichou* in the 6th month of the 13th year of Yuanhe (元和) in "Annals of Emperor Xianzong," Book 7, *New Book of Tang*.

337) There were droughts in the summer of that year in China, as confirmed by Book 2, "Treatise on the Five Elements," *New Book of Tang*: "There was drought in the summer."

338) The precise locations of the Pae River and the Namcheon are unknown. The Pae River served as an alternative name for the Apnok River, the Daedong River, and the Imjin River. Upon unifying the Three Kingdoms, Silla seized the Goguryeo territory south of the Pae River (Daedong) and installed Paegangjin (패강진 溟江鎭) in 782.

AD 816

The crops did poorly in the first month (spring), causing starvation. As many as 170 people went as far as Zhedong (철동 浙東)³³⁴ [in China] to find food. A boulder 10 *cheok* deep, 8 *cheok* wide, and 3 *cheok* and 5 *chon* tall moved on its own some 100 paces in Dangeun Prefecture (당은현 唐恩縣),³³⁵ Hansan Province. In the 6th month (summer), two of the pagodas at Mangdeok-sa Temple shook as if they were fighting.

(8th year of King Heondeok; February 2 – March 2 and June 29 – July 28; AS 10)

AD 817

It did not rain in the 5th month (summer). After prayers were addressed to nature all around, it rained in the 7th month (autumn). Many starved to death in the 10th month (winter).

(9th year of King Heondeok; May 20 – September 14 and November 13 – December 11; AS 10)

AD 818

There was a solar eclipse on the first day (*gyechuk*) of the 6th month (summer).³³⁶

(10th year of King Heondeok; July 7; AS 10)

AD 820

There was drought in the spring and summer.³³⁷ There was famine in the winter.

(12th year of King Heondeok; AS 10)

AD 821

People were so starved in the spring that they sold their offspring to get by. Two boulders at the Pae River (패강 溟江) and the Namcheon (남천 南川)³³⁸ got into a fight in the 7th month (autumn). It thundered loudly on the 29th day of the 12th month (winter).

(13th year of King Heondeok; August 2 – 30 and January 25, 822; AS 10)

AD 822

5 *cheok* of snow fell and weakened the trees in the 2nd month. The moonlight looked the color of blood on the 13th day of the 4th month (summer). A black sun halo ringed the sun and stretched north to south on the 12th day of the 7th month (autumn).

(14th year of King Heondeok; February 26 – March 26, May 7, and August 2; AS 10)

AD 823

Insects fell from the sky in Seowongyeong (서원경)³³⁹ on the 5th day of the first month (spring). Three types of insects—white, black, and red—were crawling around despite the snow on the 9th day, and stopped when they ran into sunlight. A meteor appeared in the Heaven’s Market Enclosure and overtook Emperor’s Seat (제좌 帝座)³⁴⁰ on the 12th day of the 4th month (summer), went past the northeast of the Heaven’s Market Enclosure, Zhinü (직녀 織女),³⁴¹ and Wang Liang, split into three upon reaching Flying Corridor (각도 閣道),³⁴² and vanished with a drumbeat-like sound. It snowed in the 7th month (autumn).

(15th year of King Heondeok; February 19, February 23, May 25, and August 10 – September 8; AS 10)

AD 825

A woman in Mamiji Prefecture (마미지현 馬彌知縣),³⁴³ Mujin Province, gave birth in the 3rd month to a child with two heads, two bodies, and four arms. While she was in labor, thunder rumbled loudly in the sky.

(17th year of King Heondeok; March 24 – April 21; AS 10)

AD 827

There was frost in the 5th month (summer). Venus appeared during the day in the 8th month (autumn). There was a mighty drought³⁴⁴ in the capital [Gyeongju].

(2nd year of King Heungdeok; May 30 – June 27 and August 26 – September 24; AS 10)

AD 828

As much as 3 *cheok* of snow fell in the 3rd month. Daeryeom (대렴 大廉), who had been sent to China as a deputy, brought back seeds of the tea tree³⁴⁵ in the 12th month (winter). The King had them sown at Mt. Jiri. Tea had been around since the time of [Queen] Seondeok, but became very popular on this occasion.

(3rd year of King Heungdeok; March 20 – April 17, and January 9 – February 7, 829; AS 10)

AD 831

There was an earthquake in the first month (spring).

(6th year of King Heungdeok; February 16 – March 17; AS 10)

339) Now Cheongju, North Chungcheong Province, and one of the Five Secondary Capitals of Silla. Documents on 4 villages in the area were found at the Shoso-in of Todai-ji (東大寺 正倉院), Japan, in 1933.

340) Emperor’s Seat is a single-star constellation located in the center of the Heaven’s Market Enclosure. Its counterpart in Western astronomy is α Herculis.

341) Zhinü is in the 9th Mansion Ox (우수 牛宿). Its counterpart in Western astronomy is α Lyrae.

342) This is a 6-star constellation in the Straddler Mansion located next to Wang Liang.

343) This is believed to have been near modern Gwangju Metropolitan City, South Jeolla Province, although its exact location is unknown.

344) There was a drought in the summer of that year in China, as confirmed by Book 2, “Treatise on the Five Elements,” *New Book of Tang*: “Jingji (京畿), Hezhong (河中), and Tongzhou (同州) suffered droughts in the summer.”

345) The tea tree grows in warm regions like the southern part of the Korean Peninsula, and flowers in October – November. The fruit ripens in November and develops a dark brown hue.

346) There was a drought that year in China, as confirmed by Book 2, "Treatise on the Five Elements," *New Book of Tang*: "Hedong (河東), Henan (河南), and Guanfu (關輔) [state capital] suffered droughts."

347) The same event is recorded in the article for the day *xinchou* in the first month of the first year of Kaicheng (開成) in "Annals of Emperor Wenzong," Book 8, *New Book of Tang*.

348) The same event is recorded in the article for the day *jiayin* in the 2nd month of the 4th year of Huichang (會昌) in "Annals of Emperor Wuzong," Book 8, *New Book of Tang*.

AD 832

The land yielded no harvest because of the drought³⁴⁶⁾ in the spring and summer. The King did not go to the royal audience hall, cut down on his usual diet, and pardoned inmates in the central and provincial prisons. It finally rained in the 7th month (autumn). People starved because of the poor harvest, and bandits arose in all corners of the state in the 8th month. (7th year of King Heungdeok; July 31 – September 27; AS 10)

AD 833

The state suffered a severe famine in the spring. Peach and plum trees flowered again in the 10th month (winter). Many died of the plague. (8th year of King Heungdeok; November 15 – December 14; AS 10)

AD 836

There was a solar eclipse³⁴⁷⁾ on the first day (*sinchuk*) of the first month (spring). There appeared a comet in the east in the 6th month (summer). Venus overtook the moon in the 7th month (autumn). (11th year of King Heungdeok; January 22 and July 17 – September 14; AS 10)

AD 840

It did not rain from the 4th month through the 6th month in the summer. There was famine in the winter. (2nd year of King Munseong; May 6 – August 1; AS 11)

AD 841

There was an outbreak of plague in the capital [Gyeongju] in the spring. (3rd year of King Munseong; AS 11)

AD 844

There was a solar eclipse³⁴⁸⁾ on the first day (*gabin*) of the 2nd month (spring). Venus overtook Saturn. It hailed in the capital [Gyeongju] in the 3rd month. (6th year of King Munseong; February 22 and March 23 – April 21; AS 11)

AD 845

It thundered and did not snow in the 11th month (winter). Three suns appeared next to one another on the first day of the 12th month. (7th year of King Munseong; December 3 – January 1 and January 2, 846; AS 11)

AD 848

There was drought in the spring and summer. A thunder-like sound was heard from the sky in the 10th month (winter).

(10th year of King Munseong; October 31 – November 29; AS 11)

AD 850

Saturn entered the moon in the first month (spring). Sand came down like misty rain in the capital [Gyeongju]. Strong winds uprooted trees.

(12th year of King Munseong; February 16 – March 17; AS 11)

AD 851

There was frost in the 4th month (summer).

(13th year of King Munseong; May 5 – June 3; AS 11)

AD 853

There was a flood in the 6th month (summer). There was locust damage in the southwestern provinces and counties in the 8th month (autumn).

(15th year of King Munseong; July 10 – August 8 and September 7 – October 6; AS 11)

AD 855

Saturn entered the moon in the 12th month (winter).

(17th year of King Munseong; January 12 – February 9, 856; AS 11)

AD 858

There was frost in the 4th month (summer). It did not rain from the 5th month [in the summer] to the 7th month (autumn).

(2nd year of King Heonan; May 17 – June 14 and June 15 – September 10; AS 11)

AD 859

As crops were scarce and people starved in the spring, the King sent deputies and had them provide relief. An order was issued in the 4th month (summer) to completely repair the dikes and encourage farming.

(3rd year of King Heonan; May 7 – June 4; AS 11)

AD 863

Peach and plum trees flowered in the 10th month (winter). It did not snow in the 11th month.

(3rd year of King Gyeongmun; November 15 – January 12; AS 11)

349) This was a 9-story pagoda on the grounds of Hwangnyong-sa Temple in Guhwang-dong, Gyeongju. It was built under Queen Seondeok of Silla, but was lost to fire in the Mongol attacks in 1238 (25th year of Gojong of Goryeo).



Engraving of wooden pagodas on the Buchoe Bawi (Buddha Boulder) at Mt. Nam, Gyeongju, Korea

AD 867

There was an outbreak of plague in the capital [Gyeongju] in the 5th month (summer). There was a flood in the 8th month (autumn), and the crops did not ripen. A guest star overtook Venus in the 12th month.

(7th year of King Gyeongmun; June 6 – July 4, September 2 – October 1, and December 30 – January 28; AS 11)

AD 868

Lightning struck the pagoda at Hwangnyong-sa Temple³⁴⁹⁾ in the 6th month (summer).

(8th year of King Gyeongmun; June 24 – July 22; AS 11)

AD 870

There was an earthquake in the capital [Gyeongju] in the 4th month (summer). There was a flood in the 7th month (autumn). It did not snow in the winter, and many came down with the plague.

(10th year of King Gyeongmun; May 5 – June 2 and August 1 – 30; AS 11)

AD 872

There was an earthquake in the capital [Gyeongju] in the 4th month (summer). Locusts blighted the crops in provinces and counties around the state in the 8th month (autumn).

(12th year of King Gyeongmun; May 11 – June 9 and September 7 – October 5; AS 11)

AD 873

The King sent deputies to relieve the populace that was suffering from famine and plague in the spring.

(13th year of King Gyeongmun; AS 11)

AD 875

There was an earthquake in the capital [Gyeongju] and the eastern part of the state in the 2nd month (spring). A comet appeared in the east and disappeared after 20 days.

(15th year of King Gyeongmun; March 12 – April 9; AS 11)

AD 880

Venus overtook the moon in the 2nd month (spring).

(6th year of King Heongang; March 15 – April 12; AS 11)

AD 885

Venus appeared during the day on the day *imja* in the 10th month (winter).

(11th year of King Heongang; November 11; AS 11)

AD 886

There was drought³⁵⁰ and another poor harvest in the western part of the state.

(Abridged biography of King Jeonggang; AS 11)

AD 887

[Queen] Jinseong (진성왕 眞聖王)³⁵¹ ascended the throne. It did not snow in the winter.

(Abridged biography of [Queen] Jinseong; AS 11)

AD 888

A boulder in Soryang-ni moved on its own in the 2nd month (spring).

There was a solar eclipse on the first day (*musul*) of the 3rd month.³⁵²

There was drought in the 5th month (summer).

(2nd year of [Queen] Jinseong; March 17 – April 14, April 15, June 13 – July 12; AS 11)

AD 890

A fivefold sun halo appeared in the first month (spring).

(4th year of [Queen] Jinseong; January 25 – February 22; AS 11)

AD 902

There was frost in the 3rd month (spring).

(6th year of King Hyogong; April 11 – May 10; AS 12)

AD 904

[Gungye³⁵³] named his state Majin (마진 摩震) and named the year the first year³⁵⁴ of Mutae (무태 武泰).

(8th year of King Hyogong; AS 12)

AD 905

Stars rained down in the 2nd month (spring). There was frost in the 4th month (summer).

(9th year of King Hyogong; March 9 – April 7 and May 7 – June 5; AS 12)

350) There was a drought that year in China, as confirmed by “Annals of Emperor Xizong,” (*Old Book of Tang*): “There was locust damage and drought in Jingnan (荆南) and Xiangyang (襄陽) in the 5th month several years in a row, so that many resorted to preying on other people.”

351) While the *Memorabilia* refers to Jinseong variably as king or queen, the *History* only uses the term “King.”

352) The same event is recorded in the article for the day *wuxu* in the 3rd month of the first year of Wende (文德) in “Annals of Emperor Xizong,” Book 9, *New Book of Tang*.

353) Gungye billed himself as the heir to Goguryeo, and founded a state in 901 that he named Goryeo (고려 高麗). He is believed to be the son of King Heonan, 47th monarch of the Silla Dynasty.

354) The word “year,” missing from the original text, has been inserted for contextual reasons.

AD 906

It did not rain from the 4th month through the 5th month (summer).

(10th year of King Hyogong; April 26 – June 24; AS 12)

AD 907

It did not rain in the spring or summer.

(11th year of King Hyogong; AS 12)

AD 908

There appeared a comet in the east in the 2nd month (spring). There was frost in the 3rd month. It hailed in the 4th month (summer).

(12th year of King Hyogong; March 5 – June 1; AS 12)

AD 911

There was a solar eclipse³⁵⁵ on the first day (*byeongsul*) of the first month (spring). Gungye changed the name of his state to Taebong (태봉 泰封) and the era name to Sudeokmanse (수덕만세 水德萬歲).

(15th year of King Hyogong; February 2; AS 12)

AD 913

There was frost and an earthquake in the 4th month (summer).

(2nd year of King Sindeok; May 9 – June 6; AS 12)

AD 914

There was frost in the 3rd month (spring). Gungye replaced the era name Sudeokmanse with Jeonggae (정개 政開) and renamed the year first year of Jeonggae.

(3rd year of King Sindeok; March 30 – April 27; AS 12)

AD 915

The waters of Champo (참포 槩浦)³⁵⁶ and the water of the East Sea began to crash against each other in the 6th month (summer), sending the waves about 20 *jang* high, and stopping after 3 days.

(4th year of King Sindeok; July 15 – August 13; AS 12)

355) The same event is recorded in the article for the day *bingxu* in the first month of the first year of Qianhua (乾化) in "Book of the Later Liang," *Five Dynasties History* ([舊]五代史 [Jiu] Wudaishi).

356) Estimated to correspond to the port in Heunghae-eup, Pohang City, North Gyeongsang Province.

AD 916

There was an earthquake in the 10th month (winter); the sound was thunderous.

(5th year of King Sindeok; October 30 – November 27; AS 12)

AD 917

Venus overtook the moon in the first month (spring).

(6th year of King Sindeok; January 26 – February 23; AS 12)

AD 921

Strong winds uprooted trees in the capital [Gyeongju] in the 4th month (summer). There was locust damage and drought in the 8th month (autumn).

(5th year of King Gyeongmyeong; May 11 – June 8 and September 5 – October 3; AS 12)

AD 927

The pagoda at Hwangnyong-sa Temple shook and tilted northward in the 3rd month.

(4th year of King Gyeongae; April 5 – May 3; AS 12)

AD 928

There was an earthquake in the 6th month.³⁵⁷⁾

(2nd year of King Gyeongsun; June 20 – July 19; AS 12)

AD 932

There was an earthquake in the first month (spring).

(6th year of King Gyeongsun; February 9 – March 9; AS 12)

AD 934

The Old Man Star (노인성 老人星)³⁵⁸⁾ appeared in the 9th month (autumn).

(8th year of King Gyeongsun; October 11 – November 9; AS 12)

³⁵⁷⁾ According to the *History of Goryeo* (고려사 高麗史 *Goryeosa*), an earthquake occurred in Byeokjin County on the day *gapsul* in the 6th month of 928 (11th year of Taejo, Book 1 of “History of Noble Families,” Vol. 1 of the *History of Goryeo*). Byeokjin County corresponds to modern Seongju County, North Gyeongsang Province.

³⁵⁸⁾ This star is in the 22nd Mansion Well (정수 井宿). It can only be observed in the southern parts of the Korean Peninsula, including Jeju Island. People believed that those who saw this star would live a long life, and hence the star was considered auspicious. Its Western name is Canopus.

359) The content of the Palja as practiced in Silla is unknown. According to the Chinese protocol, however, Palja was the ceremony addressed by the emperor to 8 deities in the 12th lunar month, including Divine Farmer (神農) and Lord of Millet (后稷). As for the deities Fang (坊) and Shuiyong (水庸), the emperor presented a memorial praying that there would not be any vermin nor weeds that may harm the crops and that there would be a suitable amount of water.

360) Mt. Nam Fortress, Gyeongju. It is a stone fortress built around the top of Mt. Nam.

361) This refers to the Stems-and-Branches date whose Earthly Branch is Tiger (寅).

362) This refers to an item prepared for ritual offering on such occasions in the Silla Dynasty, but the exact details are unknown. According to the Chinese classic *Book of Rites* (禮記), the Emperor used it during ancestral rites, and also made offerings of oxen, sheep, or pigs. It was also referred to as *taeroe* (태뢰 太牢).

363) This refers to an item prepared for ritual offering on such occasions in the Silla Dynasty, but the exact details are unknown. According to the Chinese classic *Book of Rites*, feudal lords used it during ancestral rites, and also made offerings of sheep or pigs.

364) Seonnong (선농 先農) refers to rites addressed to Divine Farmer Yandi (炎帝), who taught farming. There are no Chinese counterparts for the rituals of Jungnong and Hunong, whose details are unknown. The specific location of Sanwon (산원 蒜園), the venue for Hunong, is also unclear.

365) Fortress located at Mt. Myeonghwal, Cheonmun-dong, Gyeongju.

366) Uncle Wind is the god of wind, Master Rain, of rain, Yeongseong (영성 靈星 or 靈星), the star that governs sowing and harvest. The locations mentioned in the text, including Gyeonsugongmun, Takjeo, and Bonpiyuchon were probably located in or near Gyeongju, although their exact location is unknown. Park Seong-Rae suggested that Bonpiyuchon might have been where Cheomseongdae stands today (Inwang-dong, Gyeongju), based on the fact that Cheomseongdae was built at the site of the altar to Yeongseong (Park 1998).

History of the Three Kingdoms (Goguryeo, Baekje and Silla) “Treatises” and “Biographies”

Rituals: Rituals of Silla

Rituals called Palja (팔자 八措)³⁵⁹ are held at the northern gate of Sin Fortress (신성 新城)³⁶⁰ on the day of the Tiger (인일 寅日)³⁶¹ in the 12th month. *Daeroe* (대뢰 大牢)³⁶² are used in a bumper year, and *soroe* (소뢰 小牢)³⁶³ are used in a lean year. On the day of the Boar (해일 亥日) following the start of spring, Seonnong (선농 先農)³⁶⁴ rites are held in Ungsal Valley south of Myeonghwal Fortress;³⁶⁵ on the day of the Boar following the start of summer, Jungnong (중농 中農) rites are held at the northern gate of Sin Fortress; and on the day of the Boar following the start of autumn, Hunong (후농 後農) rites are held at Sanwon. On the day of the Ox (축일 丑日) following the start of spring, rites are addressed to Uncle Wind (풍백 風伯) at Gyeonsugongmun; on the day of the Monkey following the start of summer, rites are addressed to Master Rain (우사 雨師) at Takjeo, and on the day of the Dragon following the start of autumn, rites are addressed to Yeongseong (영성 靈星) at Bonpiyuchon.³⁶⁶

(“Treatises” Book 1, *History of the Three Kingdoms* Vol. 32)

Among the state rites held at the four gates of the capital,³⁶⁷ the first³⁶⁸ was at Daejeong Gate, the second at Tosallyang Gate, the third at Seuppi Gate, and the fourth at Wanghuje Gate. The Bujeongje (부정제 部庭祭)³⁶⁹ was held at Yangbu. Among the state rites held at the four main rivers,³⁷⁰ the first was at Gyeonsu, the second at Munyeollim, the third at Cheongyeon, and the fourth at Baksu. The ritual at Munyeollim was addressed to the sun and the moon, and the rites held in the south of Yeongmyo-sa Temple were addressed to the Five Stars. The ritual at Hyesu was for rainmaking. As for the state rites held at the four main roads,³⁷¹ the eastern site was in Gori, the southern one at Cheombyeongsu, the western one at Jeosu, and the northern one at Hwalbyeonggi. There were [also] the Abguje and the Byeokkije. All the rituals listed above were held individually, or whenever there were water disasters or drought.³⁷²

(“Treatises” Book 1, *History of the Three Kingdoms* Vol. 32)

Rituals: Rituals of Goguryeo and Baekje

It is unclear what kinds of rituals were practiced in Goguryeo and Baekje. This record simply repeats what is found in old chronicles and Chinese histories. According to the *Book of the Later Han*, “In Goguryeo, people hold rituals for ghosts, Sajik, and Yeongseong.³⁷³⁾ There is a large gathering to worship the sky in the 10th month, called Dongmaeng. There is a large cave in the eastern part of that state by the name of Susin, and rites were addressed to this deity in the 10th month as well.” According to the *Book of Liang* (梁書), “In Goguryeo, people built a large hall to the left of their residence and worshipped ghosts in that hall. They also held rites to Yeongseong and Sajik.” According to the (*Old*) *Book of Tang*, “There are many sectarian shrines in Goguryeo, where people worshipped deities such as Yeongsong, the sun, Gija (기자箕子) and Gahan (가한可汗).³⁷⁴⁾ They had a large cave they called Sinsu in the left of the state, and the king personally officiated ceremonies to all deities in the 10th month every year.

(“Treatises” Book 1, *History of the Three Kingdoms* Vol. 32)

Government Structure I: The National Academy

The National Academy (국학 國學)³⁷⁵⁾ was created in the 2nd year of King Sinmun [682] under the Board of Rites (예부 禮部). A Mathematics Master (산학박사 算學博士)³⁷⁶⁾ or an assistant instructor was recruited to teach the *Zhujing* (철경 綴經)³⁷⁷⁾ *Sankai* (삼개 三開)³⁷⁸⁾ *Jiuzhang* (구장 九章)³⁷⁹⁾ and *Liuzhang* (육장 六章).³⁸⁰⁾

(“Treatises” Book 7, *History of the Three Kingdoms* Vol. 38)

Government Structure I: The Clepsydra Bureau

The Clepsydra Bureau (누각전 漏刻典)³⁸¹⁾ was first created in the 17th year of King Seongdeok [718]. It consists of 6 Masters, and 1 Sa (사 史).³⁸²⁾

(“Treatises” Book 7, *History of the Three Kingdoms* Vol. 38)

Government Structure II: The Pyeongjineumjeon

The Pyeongjineumjeon (평진음전 平珍音典)³⁸³⁾ was renamed Sogung (소궁 掃宮) under King Gyeongdeok, but recovered its old name afterwards. It consists of 1 Ganong (간옹 看翁), 1 Yeonong (연옹 筵翁), and 2 Jeonong (전옹 典翁).

(“Treatises” Book 8, *History of the Three Kingdoms* Vol. 39)

367) Although the location of Daejeong Gate and others is unclear, all four gates were probably in the general area of the capital Gyeongju.

368) We have followed the translation of Chung et al. 1997. It is unclear whether the ordinals in the original text merely refer to the sequence, or whether they represent the priority of the individual rites.

369) This probably referred to the rites held in the individual villages, and Yangbu appears to refer to the general area of modern Hwangnam-dong, Gyeongju.

370) Although the location of Gyeonsu is unclear, it was probably in the general area of the capital Gyeongju.

371) Although the locations of Gori and others is unclear, the four sites were probably in the general area of the capital Gyeongju.

372) Each of the rituals mentioned thus far were probably distinct rituals. However, in the event of water-related disasters or drought, there appears to have been a joint ritual held to fit the occasion regardless of the original designation.

373) The ghosts probably denote ancestral spirits, Sajik is the deity of land and grains, and Yeongseong is a star that governs the sowing and harvest of grains.

374) Some believe Gahan to be a variant of khan (Ka-khan), tribal leader, or the founder deity of Goguryeo (Ro 1981).

375) An educational institution of Silla. However, given that its administrator position Daesa (대사 大舍) was already in place in 651, scholars believe that it was created before Sinmun's reign. The staff of the National Academy held titles such as Gyeong (경 卿), Master, Assistant Instructor (조교 助教), Daesa, and Sa (사 史).

376) Scholar charged with teaching mathematics. According to the “Annals of Silla,” *History of the Three Kingdoms*, the position was first created in 717.

377) Also called the *Zhuishu* (철술 綴術), this is a book about astronomical calculations by Zu Chongzhi (祖冲之) of the Liu Song (劉宋) Dynasty from the Northern and Southern Dynasties period. It discusses π , and the positions of the moon and the Five Stars, among other subjects.

378) Chinese mathematical text whose content is unknown. Kai (開) refers to the method for deriving the n^{th} root of a number.

379) Chinese mathematical text whose author is unknown, Liu Hui (劉徽), a scholar of the state of Cao Wei (曹魏), annotated it in 263. It consists of 9 chapters (hence the title, which literally translates to 'nine chapters') including "Fangtian (方田)," which discusses how to compute the square area of a field (Kim and Yun 1998).

380) Although little is known about its content, this appears to be a Chinese mathematical text based on the *Jiuzhang* (Kim and Kim 2001).

381) Government office that managed the clepsydra. Created in 718, it had 1 Astronomy Master and 6 Clepsydra Masters on its staff in 749.

382) A low-ranking government post that was available at every government office. It was temporarily renamed "nang" under King Gyeongdeok.

383) Some scholars have deduced from this temporary new name for the Pyeongjineumjeon that the Pyeongjineumjeon was equivalent to the Chinese Saotai (埽臺), which was an agency charged with the management of embankments, and that the Pyeongjineumjeon monitored water levels (Miike 1972).

384) The top working-level official in charge of astronomy and meteorology. The post was instituted in 749. The *Da Tang liudian* (大唐六典: Six Codes of the Great Tang) of China gives the following job description for the Astronomy Master: "Charged with teaching astronomy and meteorology." Likewise, the Astronomy Master of Silla would have served as an instructor in addition to overseeing matters of astronomy and meteorology (Chung et al, 1997).

385) This is the new title for the Astronomy Master, but it is unclear when it was implemented. In the case of Tang China, the Bureau of Astronomy (司天臺) was in charge of astronomy, calendars, and meteorological phenomena (Chung et al, 1997).

386) This was under the jurisdiction of the Department of the Interior (내성 內省) and managed the Binggo, the ice storehouse. Although its creation date is unclear, there is an article in the "Annals of Silla," *History of the Three*

Government Structure II: Astronomy Master

The Astronomy Master (천문박사 天文博士)³⁸⁴ was later renamed Celestial Office Master (사천박사 司天博士).³⁸⁵

("Treatises" Book 8, *History of the Three Kingdoms* Vol. 39)

Government Structure II: The Ice Storehouse Bureau

The staff of the Ice Storehouse Bureau (빙고전 氷庫典)³⁸⁶ consists of 1 Daesa (대사 大舍)³⁸⁷ and 1 Sa.

("Treatises" Book 8, *History of the Three Kingdoms* Vol. 39)

Government Structure II: The Shaman

The Shaman (공봉복사 供奉卜師)³⁸⁸ does not have a set number [of staff].

("Treatises" Book 8, *History of the Three Kingdoms* Vol. 39)

Government Structure III: Official Ranks of Goguryeo and Baekje

According to the *History of Northern Dynasties* (北史 Beishi),³⁸⁹ "there were Jubu (주부 綱部),³⁹⁰ Ilgwanbu (일관부 日官部),³⁹¹ and Sibubu (시부 市部)³⁹² [in Baekje]."

("Treatises" Book 9, *History of the Three Kingdoms* Vol. 40)



Tomb of Kim Yusin; in Chunghyo-dong, Gyeongju, Korea



Bukhan Mountain Fortress (Eunpyeong District, Seoul, and Goyang, Gyeonggi Province, Korea). Goguryeo attacked this fortress (then under Silla rule) in 661. Most of what remains today is the result of restorations during the Joseon Dynasty.

Kim Yusin³⁹³⁾ |³⁹⁴⁾

Seohyeon [Kim Yusin's father] saw in his dream the two stars Mars and Saturn come down from the sky towards him on the night of *gyeongjin*. Likewise, Manmyeong [Kim's mother] saw in her dream on the night of *sinchuk* a young child dressed in golden armor being borne by clouds into her house. She conceived immediately and gave birth to Yusin 20 months later.

When more and more bandits from the neighboring state came attacking in the 29th year of Geonbok³⁹⁵⁾ [34th year of Jinpyeong; AD 612], Lord [Kim Yusin] spurred his admirable self further, and went into a valley deep in Mt. Yeolbak³⁹⁶⁾ with his cherished sword. He burned incense and prayed to the sky, as if swearing a solemn pledge at the central mountain. Then he prayed, “May the Celestial Offices (천관 天官)³⁹⁷⁾ bestow their light and endow this sword with divine power!” The third night, light from the two stars Barrens (허성 虛星)³⁹⁸⁾ and Horn (각성 角星)³⁹⁹⁾ flooded down, and the sword looked like it was shaking.

A big star fell on the Moon Fortress during the night hour *byeong* (병야 丙夜)⁴⁰⁰⁾ [in 647]. Seeing this, Bidam said to his men, “From what I hear, ‘there is bound to be bloodshed where a star falls,’ so this is a surefire sign that the Queen will lose.”⁴⁰¹⁾

(“Biographies” Book 1, *History of the Three Kingdoms* Vol. 41)

Kingdoms, to the effect that “An order was issued for the first time in the 6th year of Jijeung Maripgan [505] to the relevant government office to store ice.”

387) This is the 12th out of the 17 ranks of Silla, Daesa was used to refer to both a government office and a rank in the hierarchy of nobles, suggesting that the two hierarchies were not strictly differentiated.

388) This office seems to have been charged with fortune-telling.

389) Chinese history by Li Yanshou (李延壽) of Tang. It chronicles 242 years from the Northern Wei to Sui.

390) Government office charged with the manufacture of textile.

391) One of the 10 external offices (외관 外官) of Baekje in charge of administrative matters at large. It specialized in astronomy, meteorology and geomancy.

392) This appears to have been a government office charged with commerce and distribution.

393) Kim Yusin (595 – 673) was a great commander that played a significant role in Silla's unification of the Three Kingdoms. His great-grandfather was King Guhae of Geumgwan Gaya, who surrendered to Silla in 532 (19th year of Beopheung). His father was Kim Seohyeon and his mother was Manmyeong.

394) The “Biography of Kim Yusin” in the *History* consists of 3 parts (volumes 41 – 43).

395) Era name used from 584 (6th year of Jinpyeong) through 633 (2nd year of Queen Seondeok).

396) Now Yeolbakjae, currently in Duseo-myeon and Dudong-myeon, Ulju County, Ulsan Metropolitan City.

397) The Celestial Offices (천관 天官) are the hierarchy of stars, much like the ranks of officials in the human realm. In this context, the term refers to the largest star or Tianguan (천관 天官), one of the Taoist deities Sanguanshen (삼관신 三官神).

398) This refers to the 11th Mansion Barrens (허수 虛宿) or the Barrens (허 虛) constellation in that Mansion. The determinative star is β Aquarii.

399) This refers to the first Mansion Horn (각수 角宿) or the Horn (각 角) constellation in that Mansion.

400) 11 p.m. to 1 a.m.

401) This tale recounts the rebellion staged by Silla nobleman Bidam. Bidam mounted a revolt in 647 (16th year of Queen Seondeok), during which Kim Yusin set a straw man on fire, attached it to a kite, and had the genius to circulate a rumor that a fallen star had gone back up into heaven. The queen and Kim Yusin emerged as the victors of the conflict.

402) This passage describes how Silla fought off Goguryeo, which had seen an opportunity when Silla went to conquer the remaining forces of Baekje in 661 after Baekje's fall and attacked the Bukhan Mountain Fortress of Silla, with the help of divine spirits.

403) The same event is mentioned in "Annals of Silla," *History of the Three Kingdoms*. The modern counterpart of Jangsae is the general area of Suan County, Hwanghae Province.

404) *Gapja* and "third" were left out from this section, but we have filled them in based on the article for the 4th year of King Munmu in the "Annals of Silla," *History of the Three Kingdoms*.

405) This was the top administrator for the district that Tang had set up in Ungju (Gongju, South Chungcheong Province) after defeating Baekje.

406) Kim Am is a descendant of Kim Yusin. He studied the arts of yin-yang as they relate to astronomy, geography, and calendar systems in Tang China, and became Celestial Office Great Master after returning to Silla during the era Dali (766-779).

407) This was probably a senior position to the Astronomy Master.

Kim Yusin II

A great star suddenly fell into the camp of the enemy [Goguryeo and the Malgal] in the spring of the first year of Longshuo [first year of King Munmu; AD 661], and there was thunder, lightning, and rain. The raiders, wary and frightened, abandoned their siege and ran off. Earlier, Yusin had said upon hearing that the enemy had surrounded the fortress [Bukhan Mountain], "Man has done what he can, and now he must rely on the divine spirit for help." He [Yusin] went to a temple, set up an altar and prayed, and just then there came a miracle from the sky. Everyone said that his extreme devotion had moved the sky.⁴⁰²⁾

When the men reached a rugged spot on Jangsae [in the 2nd month of 662], it was so bitterly cold that the men and their mounts alike were tired and weary, and even fell to the ground.⁴⁰³⁾

("Biographies" Book 2, *History of the Three Kingdoms* Vol. 42)

Kim Yusin III

Refugees from Baekje gathered at Sabi Fortress (사비성 泗沘城) and staged a rebellion in the 3rd month of the year *gapja*,⁴⁰⁴⁾ first year of Linde (인덕 麟德) [AD 664]. The Governor of Ungju (웅주도독 熊州都督)⁴⁰⁵⁾ sent his men to attack them, but the fog lingered for several days, making it impossible for people to see anything and thus to fight.

The year *gyeyu*, 4th year of Xianning [sic; should be Xianheng 咸亨] was the 13th year of King Munmu's reign [673]. The King was worried because a wicked star appeared and there was an earthquake in the spring. Yusin went to him and said, "These events mean disaster for me, not for the state. His Majesty should not worry himself!" The King said, "If that is indeed the case, that is even more cause for concern," and ordered the relevant office to pray them away.

[Kim Am⁴⁰⁶⁾] returned during the era Dali (대력 大曆) and became Celestial Office Great Master (사천대박사 司天大博士).⁴⁰⁷⁾ There was a locust outbreak, and the insects came from the west across the Pae River [패강 溟江; now Daedong River], swarmed in and blanketed the fields, striking fear and trouble in the minds of the people. Kim Am climbed upon a ridge, burned incense and prayed to the sky. Just then, there rose up heavy wind and rain that killed off all the locusts. In the 4th month (summer) of that year [15th year of Hyegong; AD 779], a strong whirlwind rose from Yusin's tomb and reached the tomb of His Majesty the founder; the dense smoke and fog made it so dark that people could not tell one another apart.

("Biographies" Book 3, *History of the Three Kingdoms* Vol. 43)



Sangseojang (Inwang-dong, Gyeongju), known as the site where Choe Chiwon presented a memorial to the king.

Euljimundeok (을지문덕 乙支文德)⁴⁰⁸⁾

Euljimundeok composed a poem and sent it to Yu Zhongwen⁴⁰⁹⁾ (于仲文): “Uncanny stratagems have run through the patterns of the sky (천문 天文),⁴¹⁰⁾ and mysterious calculations have settled the situation on the ground (지리 地理).⁴¹¹⁾ Since your achievements are already great from your win, should you not realize enough is enough, and quit now?”

(“Biographies” Book 4, *History of the Three Kingdoms* Vol. 44)

Kim Inmun (김인문 金仁問)⁴¹²⁾

The Tang now had provisions, but abandoned the siege (of Pyongyang) and returned because of the heavy snow.⁴¹³⁾

(“Biographies” Book 4, *History of the Three Kingdoms* Vol. 44)

Kim Yang (김양 金陽)⁴¹⁴⁾

There appeared a comet in the west in the winter [of 838]. Its tail pointed eastward, and people rejoiced, saying, “This is an auspicious sign of ‘out with the old and in with the new,’ satisfaction taken, and redress of shameful wrongs.”

(“Biographies” Book 4, *History of the Three Kingdoms* Vol. 44)

Choe Chiwon (최치원 崔致遠)⁴¹⁵⁾

The King ordered a withdrawal as there was much snow on the ground in

408) Euljimundeok was a general of Goguryeo. The dates of his birth and death are unknown. He also went by the name Wijimundeok (尉支文德), according to the *Zizhitongjian* of China. He defeated the army of Sui (隋) China at the Salsu (薩水; now Cheongcheon River) in 612 (23rd year of King Yeongyang).

409) Yu Zhongwen was a politician and general of Sui China from Luoyang, Henan. He was imprisoned after suffering a defeat to Euljimundeok.

410) Before the Modern Era, astronomy did not exist as an independent discipline in neither the West nor the East. Here, the word (천문 天文) should probably be construed as patterns of the sky [as opposed to astronomy]. Taken literally, this word means ‘the grammar of the sky’ as opposed to ‘the grammar of man (인문 人文 humanities),’ and like geography, is a subdiscipline of Yi (역 易), which orchestrates the way (도 道 Dao) of heaven and earth (Kim 2007).

411) The context suggests the meaning ‘the shape or layout of the earth.’ This may be construed as the yin (陰) to the yang (陽) of the patterns or grammar of the sky. According to the “Conspectus (系辭傳),” *Book of Changes*, “We tilt our head up to survey the patterns of the sky, and bow down to survey the lay of the land.”

412) Kim Inmun (629 – 694) was the second son of King Taejong Muyeol, and the younger brother of King Munmu. He served as a general and diplomat as the unification of the Three Kingdoms neared completion.

413) The article describes how the Tang army that had Pyongyang surrounded turned back without fighting even though Kim Inmun delivered provisions to them. The date is not mentioned in the “Biographies” but is specified as the 2nd month of the 2nd year of Munmu (662) in the “Annals of Silla,” *History of the Three Kingdoms*.

414) Kim Yang (808 – 857) was a nobleman in later Silla. He staged a coup in 838 and endorsed Kim Ujing (later King Sinmu) for king. He served as Chief Minister.

415) Choe Chiwon (857 – ?) was a scholar in later Silla from Saryangbu, Gyeongju. Extant works of his include *Gyewon pilgyeong* [collection of essays], *Biography of the Monk Beopjang*, and *Epitaph for Four Mountains* (사산비명).

416) Silla attacked southern Balhae in 733 at the request of the emperor of Tang, as detailed in an article for that year in “Annals of Silla,” *History of the Three Kingdoms*.

417) Yeolgi was a general under King Munmu of Silla. The dates of his birth and death are unknown. He successfully delivered the news that reinforcements were bringing provisions to the Tang army that was attacking Goguryeo at Jangsae in 662, as detailed in an article for that year in “Annals of Silla,” *History of the Three Kingdoms*.

418) Hyangdeok was a pious son in the days of Gyeongdeok of Silla. It is said he cut out the flesh of his own thigh in a lean year to support his parents.

419) Government official under King Jinpyeong of Silla. His colleagues embezzled grains during the famine, but Geomgun did not follow suit. He later died after drinking poisoned wine, after joining his colleagues with his head held high at a drinking party.

420) Changjori was a minister of Goguryeo, who dethroned King Bongsang (292–300) in 300 and installed King Micheon in his place.

421) Wang was a merchant from Tang China, who reportedly received a mirror predicting that Wang Geon would found Goryeo from a recluse at a market in Cheorwon.

422) This clay figure was housed at Balsap-sa Temple. It depicted Saturn as a deity. According to the *History of Goryeo*, the old clay figure of Saturn was standing with a cutting board and a mirror in its hands in front of the icon of Tejaprabha Buddha (치성광여래 熾盛光如來) at Balsap-sa Temple in Dongju (동주 東州; Cheorwon, Gangwon Province) (Taejo, “History of Noble Families” 1, *History of Goryeo* Vol. 1)

423) This was probably a temple in Cheorwon, Gangwon Province, but its precise location is unknown.

424) The “Biography of Gungye” mentions the changes in the era names, but we have left out those passages in this section.

the dead of winter and both armies were suffering from the cold.⁴¹⁶⁾

(“Biographies” Book 6, *History of the Three Kingdoms* Vol. 46)

Yeolgi (열기 裂起)⁴¹⁷⁾

The wind and snow were so bitterly cold at Jangsae that many men and their mounts froze to death.

(“Biographies” Book 7, *History of the Three Kingdoms* Vol. 47)

Hyangdeok (향덕 向德)⁴¹⁸⁾

The crops did poorly in the year *eulmi*, 14th year of Tianbao (천보 天寶) [14th year of Gyeongdeok; AD 755]. There was famine, and even an outbreak of plague.

(“Biographies” Book 8, *History of the Three Kingdoms* Vol. 48)

Geomgun (검군 劍君)⁴¹⁹⁾

Frost blighted various crops in the 8th month (autumn) in the year *jeonghae*, 44th year of Geonbok (건복 建福) [49th year of Jinpyeong; AD 627]. There was a severe famine that lasted until the spring and summer of the following year, so that people sold their children to get by.

(“Biographies” Book 8, *History of the Three Kingdoms* Vol. 48)

Changjori (창조리 倉助利)⁴²⁰⁾

Changjori reported to the King, “Repeated disasters from heaven and the poor harvest have robbed people of all means of livelihood.”

(“Biographies” Book 9, *History of the Three Kingdoms* Vol. 49)

Gungye (궁예 弓裔)

He [Gungye] was born at his maternal grandparents’ house on the 5th day of the 5th month. Just then there was a white light over the roof that stretched all the way up to the sky like a rainbow. The *ilgwan* said, “This child was born on a day with 2 fives, with all his teeth, and since the sunlight is behaving strangely, he might mean no good for the state, so you ought not to bring up this child!”

Wang Changjin (왕창진)⁴²¹⁾ initially did not see the letters [on the mirror], but upon spotting them, he thought them uncommon and told the King [Gungye]. The King instructed the government office to find the owner of that mirror with Changjin’s help, but the owner could not be found. The clay figure⁴²²⁾ of Saturn in the prayer hall of Balsap-sa Temple⁴²³⁾ was the only one that matched the description.⁴²⁴⁾

(“Biographies” Book 10, *History of the Three Kingdoms* Vol. 50)

Memorabilia of the Three Kingdoms (Goguryeo, Baekje and Silla)

Namul Maripgan (나물마립간 奈勿麻立干)

Namul Maripgan, 17th monarch.⁴²⁵⁾ His tomb is located southwest of Jeomseongdae (점성대 占星臺).⁴²⁶⁾

(“Royal Biographies” Book 1, *Memorabilia of the Three Kingdoms* Vol. 1)

Gojoseon (고조선 古朝鮮)

This was Emperor Hwanung,⁴²⁷⁾ who governed the crops, life, diseases, punishments, and the good and the bad with the aid of Uncle Wind, Master Rain, and Master Cloud (운사 雲師).⁴²⁸⁾

(“Records of Notable Events” Book 2, *Memorabilia of the Three Kingdoms* Vol. 1)

King Norye, 3rd Monarch (제3 노례왕 第三 弩禮王)

The plowshare,⁴²⁹⁾ ice storehouse,⁴³⁰⁾ and cart were finally invented [under King Norye⁴³⁰⁾].

(“Records of Notable Events” Book 2, *Memorabilia of the Three Kingdoms* Vol. 1)

Yeonorang and Se’onyeo (연오랑 세오녀 延烏郎 細烏女)

The light of the sun and the moon vanished in Silla at that time.⁴³¹⁾

The *ilja* told the King, “The force of the sun and the moon that used to shine down on the state has now gone to Japan; that is the cause of this strangeness.”

(“Records of Notable Events” Book 2, *Memorabilia of the Three Kingdoms* Vol. 1)

King Jicheollo (지철로왕 智哲老王)

Ulleung Island⁴³²⁾ (it is now called Ureung) is located 2 days of smooth sailing away in the middle of the sea east of Aseulla⁴³³⁾ Province (now called Myeong Province).⁴³⁴⁾

(“Records of Notable Events” Book 2, *Memorabilia of the Three Kingdoms* Vol. 1)

425) The 17th monarch (356–402) of the Silla Dynasty is identified as “Namul Isageum (나물이사금 奈勿尼師今)” in the *History*. His tomb is believed to be located west of Gyerim in Gyo-dong, Gyeongju City.

426) Cheomseongdae, in modern Inwang-dong, Gyeongju City.



Chamseongdan, Ganghwa Island, Korea. This altar was reportedly built by Dangun for celestial rituals.

427) Hwanung was the father of Dangun, who founded Gojoseon.

428) Uncle Wind, Master Rain, and Master Cloud are Taoist names for the deities or shamans that control the wind, rain, and clouds respectively (Choi 1994).

429) A related entry is found in the article for the 6th year of Jijeung Maripgan (505), “Annals of Silla,” *History of the Three Kingdoms*: “An order was issued to the relevant government office to store ice.”

430) Norye (노례왕 弩禮王; 24–57), 3rd monarch of the Silla Dynasty, is identified as “Yuri Isageum (유리이사금 儒理尼師今)” in the *History*.

431) This article describes how the light went out of the sun and the moon when Yeonorang and his wife Se’onyeo were borne by a rock to Japan in 157 (4th year of King Adalla of Silla). The story is reminiscent of the tale in the *Chronicles of Japan* that recounts the immigration of Silla prince Cheonilchang (천일창 天日槍) and his wife to Japan. The tale of Yeonorang and Se’onyeo is a story about the movement of the sun, and is probably based on the natural phenomenon of the solar eclipse (Kang 1986).

432) In 512 (13th year of King Jijeung), the king of Silla sent Isabu (이사부 異斯夫), military commander of Haseulla Province, to the island to conquer it. King Jicheollo refers to King Jijeung.

433) Also named Haseulla, this province corresponds to modern Gangneung, Gangwon Province. It was renamed Myeong Province in 757.

434) The passages in parentheses are annotations by the author Iryeon, and “now” refers to the 13th century, when Iryeon compiled the *Memorabilia*.

435) Also called Jeomseongdae, this tower is in Inwang-dong, Gyeongju City, North Gyeongsang Province. Scholars’ view of its function falls into three camps. Of those that believe the tower was an astronomical observatory, some claim that smaller equipment was used inside the tower to observe the positions of celestial bodies or the times of astronomical phenomena, others that naked-eye astronomical observations were conducted from inside the tower, and still others argue that the tower itself served as a gnomon. Other scholars believe that the tower was an altar for celestial rituals, and still others are of the opinion that the tower was a symbol of Mt. Meru, the sacred Buddhist mountain, or of the principles underlying the Chinese mathematical text *Zhoubi suanjing* (周髀算經: The Arithmetical Classic of the Gnomon and the Circular Paths of Heaven). Park Changbom, one of the proponents of the first view above, notes that even though the Cheomseongdae was an astronomical observatory, its functional or physical features naturally relate to the second and third views (Park 2009).

436) The sun, moon, Venus, Jupiter, Mercury, Mars, and Saturn. Also called the Seven Stars (칠성 七星), these were paramount in the astrology of Eastern antiquity. The Seven Luminaries may sometimes refer to the Big Dipper, or the Cosmic Trinity (三才 삼재: heaven, earth, and man) and the four seasons.

437) This temple in Yongdang-ri, Yangbuk-myeon, Gyeongju City, North Gyeongsang Province, was built by King Sinmun, 31st monarch of Silla, in the memory of his late father King Munmu. Two 3-story stone pagodas, designated National Treasure No. 112, remain on the building plot of the temple.



Ruins of Gameun-sa Temple (Yangbuk-myeon, Gyeongju, Korea). This served as the backdrop of the tale of Manpasikjeok. There remain two 3-story stone pagodas and the building plot.

Three Anecdotes about Seondeok’s wisdom

(선덕왕 지기삼사 善德王 知幾三事)

A separate record states that Cheomseongdae (첨성대 瞻星臺)⁴³⁵ was built out of polished stone bricks under that king [Queen Seondeok].

(“Records of Notable Events” Book 2, *Memorabilia of the Three Kingdoms* Vol. 1)

Kim Yusin (김유신 金庾信)

Lord Yusin was born in the year *eulmyo*, 17 years into King Jingpyeong’s reign [595]. Because he was born bathed in the spirit of the 7 Luminaries (칠요 七曜),⁴³⁶ he had the 7 Stars on his back, and many mysterious things happened to him.

(“Records of Notable Events” Book 2, *Memorabilia of the Three Kingdoms* Vol. 1)

Manpasikjeok (만파식적 萬波息笛)

A small mountain traveled on the East Sea toward Gameun-sa Temple (감은사 感恩寺),⁴³⁷ and reportedly swayed on the waves. The King thought it strange and had *Ilgwan* Kim Chunjil (also called Chunil) divine the meaning of this. The King [Sinmun] visited Gameun-sa Temple and spent the night there. The next day at noon, bamboo trees merged into one, heaven and earth shook, it became rainy and windy, and darkness reigned for 7 long days. The wind subsided and the waves calmed down only on the 16th day of that month.⁴³⁸

(“Records of Notable Events” Book 2, *Memorabilia of the Three Kingdoms* Vol. 2)

King Seongdeok (성덕왕 聖德王)

People suffered a severe famine because of a poor harvest in the year *byeongo* [706], 2nd year of Shenlong (신룡 神龍) under the 33rd monarch Seongdeok. 3 *seung* (승 升) of grains were handed out each day to each person for relief from the first day of the first month to the 30th of the 7th month in the year *jeongmi* [707].⁴³⁹⁾

(“Records of Notable Events” Book 2, *Memorabilia of the Three Kingdoms* Vol. 2)

King Hyeogong (혜공왕 惠恭王)

In the first year of Dali (대력 大曆) [766; 2nd year of Hyeogong], the ground east of the main hall of the government office in Gang Province collapsed gradually and turned into a pond [other texts say that it was a small pond east of a large temple], which was 13 *cheok* long and 7 *cheok* wide. 5 carp suddenly grew in size one after another, and the pond expanded [accordingly].⁴⁴⁰⁾ Sky Dog fell again in the year *jeongmi*, 2nd year of Dali [767; 3rd year of Hyeogong], south of the Dongnu; its head was as large as an urn and its tail was about 3 *cheok* long, while it shone as bright as a burning fire. Heaven and earth both shook.⁴⁴¹⁾ That same year [767], the rice grains in a 5-*irang* paddy in Geumpo Prefecture all turned into ears. In the 7th month of that year, 2 stars fell first, and then another one dropped in the yard of the North Palace. All three stars sank into the ground.⁴⁴²⁾ The second volume of the *Anguk byeongbeop* (안국병법 安國兵法)⁴⁴³⁾ states that there would be great turmoil in the world [if such things were to happen]. Thus [the King] issued a pardon, cleansed himself, and repented.

(“Records of Notable Events” Book 2, *Memorabilia of the Three Kingdoms* Vol. 2)

Premature snowfall⁴⁴⁴⁾

Premature snowfall. It snowed on the 15th day of the 8th month of the year *muja* [808], the last year in the reign of the 40th monarch Aejang.⁴⁴⁵⁾ It snowed heavily on the 14th day of the 3rd month of the year *musul* [818], 13th year of Yuanhe (원화 元和) under the 41st monarch Heondeok.⁴⁴⁶⁾ (Some texts say the year was *byeongin*, but that is incorrect. The era Yuanhe ended in its 15th year, so there is no year *byeongin* in that period.)⁴⁴⁷⁾ It snowed heavily on the 19th day of the 5th month of the year *gimi* [839], under the 46th monarch Munseong.⁴⁴⁸⁾ Darkness fell everywhere on the 1st day of the 8th month.⁴⁴⁹⁾

(“Records of Notable Events” Book 2, *Memorabilia of the Three Kingdoms* Vol. 2)



Cheomseongdae, Gyeongju, Korea

438) According to Manpasikjeok of the *Memorabilia*, there stood a bamboo tree on a small mountain. This tree split into two during the day and became one at night. King Simmun fashioned that tree into a reed (Manpasikjeok), and it is said that the sound from that reed chased away hostile armies and cured diseases. The tale of Manpasikjeok is understood in the historical context of King Simmun's agenda for strengthening the power of his office (Kim 1981).

439) The same record appears in an article on King Seongdeok, “Annals of Silla,” *History of the Three Kingdoms*.

440) The article for 766 the “Annals of Silla,” *History of the Three Kingdoms*, records: “The ground collapsed and became a pond in Gangju. The pond was about 50 *cheok* long and 50 *cheok* wide, and had dark blue water.” Gangju corresponds to modern Jinju, South Gyeongsang Province.

441) The article for 768 in the “Annals of Silla,” *History of the Three Kingdoms*, records: “It thundered and hailed in the capital in the 6th month, and grass and trees were broken as a result. A big star fell in the southern part of Hwangnyong-sa Temple, raising a thunderous sound as it shook the ground.” The years of the two entries, however, do not match.

442) An article for 767 in the “Annals of Silla,” *History of the Three Kingdoms*, records: “Three stars fell into the yard of the royal palace and crashed into one another in the 7th month; the light flamed up and dispersed.”

443) Other than its subject matter (military affairs), no information is available about this text. The passage links natural phenomena and politics.

444) This article stands out in the *Memorabilia*, whose articles focus on historical figures or Buddhist themes. Instead, the article deals exclusively with meteorological observations of snowfall. It is also worth noting that comparable records are missing from the *History*.

445) There is a difference of one year between this article and the one in the *History* for 807 (8th year of King Aejang, year *jeonghae*). "It snowed heavily in the 8th month (autumn)." Given that Iryeon referenced the *History* in writing the *Memorabilia*, he appears to have meant to highlight the fact that it snowed in the 8th lunar month two years in a row, in 807 and 808. According to Ahn 2002, the 15th day of the 8th lunar month of 808 corresponds to September 9, 808, in the Julian calendar.

446) The 13th year of Yuanhe (818) was the 10th year of King Heondeok. Yet there is no record of snowfall in the article for the 10th year of Heondeok in the *History* ("Annals of Silla"). According to Ahn 2002, the 14th day of the 3rd month of 818 corresponds to April 22, 818, in the Julian calendar.

447) Yuanhe was the era name used for 15 years (806–820) under Emperor Xianzong of Tang China. The unspecified text that Iryeon mentions appears to have recorded that the same event took place in the year *byeongin*/*bingyin*, some years into the Yuanhe era. As Iryeon points out, there is no year *bingyin* in the Yuanhe era. The closest matches are 786 (2nd year of Wonseong of Silla) and 846 (8th year of Munseong of Silla).

448) The *History* has no record of snow for 839 (year *gimi*, under King Munseong). The 19th day of the 5th month of 839 corresponds to July 3, 839, in the Julian calendar. Snowfall at that time of year is meteorologically unlikely.

449) This event is not mentioned in "Annals of Silla," *History of the Three Kingdoms*.

450) Although Iryeon represents Heongang's reign (875–886) as an age of stability and prosperity, it was actually an



Site of Manghae-sa Temple (Yul-li, Cheongnyang-myeon, Ulju County, Ulsan, Korea)

Cheoyongnang and Manghae-sa Temple

(처용랑 망해사 處容郎 望海寺)

During the reign of the 49th monarch the Great Heongang, there was an unending string of houses and walls from the capital [Gyeongju] to Haenae (해내 海內), and there was not a single thatched-roof house. Music and singing were heard throughout on the streets, and the wind and rain were seasonable.⁴⁵⁰⁾

("Records of Notable Events" Book 2, *Memorabilia of the Three Kingdoms* Vol. 2)

King Hyogong (효공왕 孝恭王)

There was frost twice in the 3rd month of the year *eulhae* [915], 4 years into King Sindeok's reign, and the waters of Champo and seawater fought for as many as 3 days in the 6th month.⁴⁵¹⁾

("Records of Notable Events" Book 2, *Memorabilia of the Three Kingdoms* Vol. 2)

Gyeonhwon of the Later Baekje (후백제 건원 後百濟 甄萱)

The first year of Jingfu (경복 景福) under Zhaozong of Tang China was 6 years into the reign of Jinseong of Silla [AD 892]. That year, a member of

the court who had the royal [Queen's] favor abused state power, loosening discipline and stirring up turmoil. Further, there was a famine that set the people adrift, and gave rise to swarms of bandits.⁴⁵²⁾

(“Records of Notable Events” Book 2, *Memorabilia of the Three Kingdoms* Vol. 2)

Baengnyul-sa Temple (백률사 栢栗寺)

3rd month of the year *gyesa* [693], 4th year of Tianshou (天授; 2nd year of Jangsu). Auspicious clouds covered the Cheonjonggo (천존고 天尊庫). A comet appeared on the 12th day of the 6th month in the east, and another appeared in the west on the 17th. The *ilgwan* reported, “This is because no government title was bestowed even after witnessing the auspiciousness of the zither and the flute.” Therefore, the heavenly flute was endowed with the title “Manmanpapasik,” and the comets disappeared soon after.⁴⁵³⁾

(“Pagodas and Statues” Book 4, *Memorabilia of the Three Kingdoms* Vol. 3)

Jajangjeongnyul (자장정률 慈藏定律)

The [Chinese] calendar was received in the year *gyeongsul* [650], and the court started using the era name Yonghui (영휘 永徽).⁴⁵⁴⁾

(“Exegetes” Book 5, *Memorabilia of the Three Kingdoms* Vol. 4)

unstable period both domestically and internationally. There was Sinheung's rebellion in 879, and the Huang Chao (黃巢) rebellion tore through continental China in the Tang Dynasty. Further, some scholars claim that the Heuksu Malgal invaded Silla near the end of his reign (Lee 1980).

451) The *History* (“Annals of Silla,”) has no record of frost for the 3rd month of 915.

452) The reign of Jinseong (Queen Jinseong; 887–897) was plagued with the abuse of power by Head of the Council of Nobles Wihong, and the rebellions of Wonjong and Aeno. Gyeonhwon founded the Later Baekje in Mujin Province (now Gwangju, South Jeolla Province) in 892.

453) Record of this event is missing from the article on King Hyoso in the “Annals of Silla,” *History of the Three Kingdoms*. The Cheonjonggo was probably a depository for royal treasures.

454) Although Silla had been using its own era names, the “Annals of Silla” of the *History* notes that it adopted Chinese era names in 650.



Baengnyul-sa Temple (Dongcheon-dong, Gyeongju, Korea). The temple prospered during the Silla Dynasty, but was lost to fire in the Japanese Invasion of the Year *Imjin* (임진왜란 壬辰倭亂; 1592–1598) and has been rebuilt since.

455) The *History* (“Annals of Silla,”) has no record of drought for 753.

456) This is a Mahayana Buddhist scripture extolling the Buddha that Dharmakṣema translated in Northern Liang (北凉) China. Also called the *Jinguang mingjing* (금광명경 金光明經), it was one of the three scriptures that focused on the well-being of the state, along with the *Humane King Sutra* (仁王經) and the *Lotus Sutra* (法華經).

457) The *History* (“Annals of Silla,”) has no such record for 760, although it does report that a rainbow pierced the sun on the first day of the first month in the spring of the following year (761).

458) This is a traditional Buddhist ceremony whereby the trail of the Buddha is adorned and honored by scattering flowers in his wake. Generally, lotus blossoms made of paper are used in this ritual.

459) The *History* (“Annals of Silla,”) has no record of a comet sighting during King Jinpyeong’s reign.

460) The Western counterpart of this big star on the Heart Mansion is Antares, a 1st-magnitude star on Scorpio.

Hyeonyuga and Haehwaem (현유가 해화엄 賢瑜珈 海華嚴)

As there was a mighty drought in the summer of the year *gyesa* [753], 12th year of Tianbao under King Gyeongdeok,⁴⁵⁵⁾ the King issued a summons to bring [Priest Daehyeon] to the royal palace, and had him lecture on the *Golden Light Sutra* (금광경 金光明經)⁴⁵⁶⁾ and pray for some soothing rain.

(“Exegetes” Book 5, *Memorabilia of the Three Kingdoms* Vol. 4)

Master Wolmyeong’s “Song of Tusita Heaven”

(월명사 도솔가 月明師 兜率歌)

There appeared two suns on the first day of the 4th month of the year *gyeongja* [760], 19th year of Gyeongdeok’s reign. The suns lingered for 10 days.⁴⁵⁷⁾ The *ilgwan* said to the King, “If Your Majesty should call on a monk and have him officiate Sanhwagongdeok (산화공덕 散花功德),⁴⁵⁸⁾ [disasters] can be prevented. [After Wolmyeong composed the “Song of Tusita Heaven” and recited it] the strange sun went away.

(“Thaumaturge” Book 7, *Memorabilia of the Three Kingdoms* Vol. 5)

Master Yungcheon’s “Song of the Comet” under King Jinpyeong (웅천사 혜성가 진평왕대 融天師 彗星歌 眞平王代)

Three warrior youths (화랑) were about to set out for Pungak, when a comet⁴⁵⁹⁾ overtook the greatest star in the Heart constellation.⁴⁶⁰⁾ The youths thought it strange, and intended to give up their plans. Just then Master Yungcheon composed a song and sang it, and there was cause for celebration, as the strange star disappeared, and the Japanese army [that had been on the verge of attacking Silla] returned to their state.

(“Thaumaturge” Book 7, *Memorabilia of the Three Kingdoms* Vol. 5)

☯ Tally of Major Observations by Phenomenon ☯

Weather events	<i>History of the Three Kingdoms</i>	<i>Memorabilia of the Three Kingdoms</i>
Drought	112 (26.4%)	1
Rain and flood	68 (16%)	1
Thunder	51 (12%)	0
Snow	39 (9.2%)	3
Frost	39 (9.2%)	1
Wind (strong wind, violent wind)	38 (9%)	1
Hail	37(8.7%)	0
Rainbow	9	1
Fog	9	0
Asian Dust (<i>Hwangsa</i> ; sandstorm)	8	0
Clouds	7	0
Aurora	7	0
Subtotal	424	8
Astronomical events		
Solar eclipse	66 (30.3%)	0
Comet (incl. <i>pae</i> star, "long star" and "wicked star")	55 (25.2%)	3
Meteor	45 (20.6%)	2
Venus (Taibaixing)	23 (10.6%)	0
Saturn	10 (4.6%)	0
Mars	7	0
Guest star (nova, supernova)	5	0
Immobile star (incl. Old Man Star)	3	0
Others (Net, Five Stars)	2	0
Jupiter	1	0
Mercury	1	0
Subtotal	218	5
Seismic events		
Earthquakes	88 (90.7%)	0
Ground	Cracked	5
	Trembled	3
	Collapsed	1
Total	97	2

☞ Tally of Major Observations by Era ☞

Records	Era Event	54 BC — AD 1	1 st c.	2 nd c.	3 rd c.	4 th c.	5 th c.	6 th c.	7 th c.	8 th c.	9 th c.	901– 934	Total
		Met.	Drought	1	10	10	17	12	15	10	10	14	10
Frost	0		4	7	4	3	4	3	3	2	3	5	38
Hail	0		6	4	6	1	6	3	2	7	1	1	37
Rain	0		3	6	6	3	4	1	6	5	2	0	36
Snow	2		1	6	1	2	3	3	7	5	6	0	36
Flood	0		4	4	2	1	6	4	3	2	4	0	30
Thunder	1		3	5	4	2	2	3	5	2	3	0	30
Wind	0		3	1	3	2	6	2	5	3	2	1	28
Thunderbolt & lightning	0		1	1	1	0	0	1	9	5	1	0	19
Astro.	Solar eclipse	7	6	19	7	5	6	6	0	3	6	1	66
	Comet	3	5	9	5	8	3	2	8	8	3	1	55
	Meteor	0	1	2	0	4	2	3	10	15	4	1	42
	Venus	0	1	0	5	2	0	1	3	4	6	1	23
Seismo.	Earthquake	0	10	10	10	5	5	6	12	19	7	4	88

* This table does not take into consideration the records in the “Treatises” and “Biographies” of the *History* and in the *Memorabilia*, as they do not reference specific dates.
 * Observations that appear more than 10 times are indicated in boldface.

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Appendices



a. *The History of the Three Kingdoms* and the *Memorabilia of the Three Kingdoms*

b. Territorial Shifts through Time

c. Era Names

d. Reigns of the Monarchs

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f. Stems and Branches: The Chinese Sexagenary Cycle

The History of the Three Kingdoms and the Memorabilia of the Three Kingdoms

The History of the Three Kingdoms (삼국사기 三國史記)

The *History of the Three Kingdoms* is a chronicle of the three kingdoms of Goguryeo, Baekje and Silla that Kim Busik (金富軾)¹⁾ compiled in 1145 (23rd year of King Injong of Goryeo) upon royal decree. In *Jin Samguk sagi pyo* (進三國史記表), which he presented to the king, Kim Busik writes, “The learned know the Confucian classics and Chinese history intimately, but nothing of our own history. I am compiling the *History of the Three Kingdoms*, for there are few records remaining from those times to serve as historical lessons.” The publication of the *History* may be attributed in great part to the significant cultural, societal and philosophical progress from the early days of the dynasty to the time where it approached its prime, and changes in the political leadership that helmed the efforts to quell Yi Jagyeom’s²⁾ and Myocheong’s³⁾ rebellions.

The references that Kim consulted for his *History* fall into two broad categories: the domestic and the foreign. The domestic source documents include the *Old History of the Three Kingdoms* (구삼국사 舊三國史: presumably published at the beginning of the Goryeo Dynasty, but no longer in existence), ancient chronicles such as the *Samhan gogi* (삼한고기 三韓古記 Old Records of the Three Han) and the *Haedong gogi* (해동고기 海東古記 Old Records of Korea), texts from metal or stone steles such as the monuments to Kim Yusin and Adohwasang, and older documents including Kim

1) Kim Busik (김부식 金富軾, 1075 – 1151) was descended from the Silla royal family and thus was one of the principals of the Gyeongju [capital of the Silla dynasty] faction. He passed the state examination (*gwageo*) in 1096, and served two decades in the Royal Academy of Letters (한림원). A critic of Yi Jagyeom, who seized the reins of power after Injong’s (reigned 1122 – 1146) coronation, Kim became an influential political figure after the frustration of Yi Jagyeom’s rebellion. When the newcomer Myocheong fought to relocate the capital to Seogyong (Pyongyang) and incited a revolt in 1135, Kim was appointed commander general of Pyeongseo and personally crushed the uprising. Kim retired from the government in 1142 (20th year of Injong), but published the *History of the Three Kingdoms* in 1145 at the king’s behest.

2) Yi Jagyeom (이자겸 李資謙, ? – 1126) was an influential politician of the Goryeo Dynasty. His ancestral seat was in Gyeongwon (Inju). Thanks to his familial ties to the king, he entered government service by protected appointment (음서) rather than the state examination, and gained unparalleled access to the king’s ear under Yejong (1079 – 1122). He installed Injong, his daughter’s young son, on the throne in 1122, but abused power and even attempted to poison Injong in 1126. Feeling pressure from the Pyongyang faction, he incited a failed coup, and died in exile.

3) Myocheong (묘청 妙淸, ? – 1135) was a Buddhist priest who served as an advisor to the throne in the mid-Goryeo period. As the tension rose between the Pyongyang faction that had helped suppress Yi Jagyeom’s rebellion and the noblemen bureaucrats, Myocheong advocated the relocation of the state’s capital to Pyongyang (his birthplace) on the pretext of fengshui (Chinese geomancy) and started a rebellion in 1135. The rebellion was crushed by those who supported the existing regime in Gaegyeong (Gaeseong) including Kim Busik, and Myocheong was slain by one of his own men.

Daemun's *Tales of Silla* (계림잡전 鷄林雜傳). Kim Busik also relied on some 40 Chinese texts including the *Book of Han* (漢書 Hanshu), the *Book of the Later Han* (後漢書 Houhanshu), the *Book of Tang* (唐書 Tangshu), and the *Zizhitongjian* (資治通鑑 *lit.* Comprehensive Mirror to Aid in Government) (Tanaka 1982).⁴⁾

The *History* comprises a total of 50 volumes, including the “Annals” (28 volumes), “Chronologies” (3 volumes), “Treatises” (9 volumes), and 10 “Biographies” (10 volumes). The “Annals” describe the developments of the various dynasties in chronological order, focusing on the achievements of the monarchs, and consists of the “Annals of Goguryeo” (10 volumes), “Annals of Baekje” (6 volumes), and “Annals of Silla” (12 volumes in all, 7 of which concern Unified Silla). In terms of subject matter, the entries in the “Annals” cover politics and related issues (approximately 38% of the total content), natural disasters (appr. 28%), wars (16%) and international relations (18%). The “Chronologies” provide a succinct overview of the reigns and era names of the Three Kingdoms. The “Treatises” record the history and evolution of the civilization and its institutions; this part is entitled “Assorted Treatises (잡지 雜誌)” in the *History*. The “Treatises” discuss ancestral rites, music, colored vestments, government structure, and geography, among other subjects, with geography receiving the most coverage. The “Biographies” record the lives of individuals other than the monarchs. Kim Yusin’s biography takes up 3 volumes, and the remaining 7 “Biographies” volumes⁵⁾ feature 68 other individuals.

The *History* survives in two main editions—the Goryeo edition and the Joseon edition. The original edition from the Goryeo Dynasty was published in mid-12th century, but is no longer extant. The second edition from woodblocks is estimated to have been published in the middle to late 13th century, and parts of the Seongam version remains. A third edition was produced in 1394 (3rd year of Taejo of Joseon), but has been lost since. The fourth edition dates back to 1512 (7th year of Jungjong of Joseon), and is commonly known as the Jungjong Imsinbon (edition

4) The *History* cites the following Chinese texts: *Records of the Grand Historian* (史記 Shiji), *Book of Han*, *Book of the Later Han*, *Book of Jin* (晉書 Jinshu), *Jinshu zaji* (晉書載記), *Book of the Southern Qi* (南齊書 Nan Qi shu), *Book of Qi* (齊書 Qishu), *Prime Tortoise of the Record Bureau* (冊府元龜 Cefu yuangui), *Book of Liang* (梁書 Liangshu), *Book of Wei* (魏書 Weishu), *Book of Sui* (隋書 Suishu), *History of Southern Dynasties* (南史 Nanshi), *History of Northern and Southern Dynasties* (南北史 Nan Bei shi), *History of Northern Dynasties* (北史 Beishi), *(Old) Book of Tang* (舊唐書 [Jiu] Tangshu), *New Book of Tang* (新唐書 Xin Tangshu), *Tongdian* (通典 *lit.* Comprehensive Institutions), *Zizhitongjian*, “Commentary of Zuo” in the *Spring and Autumn Annals* (春秋左氏傳 Chunqiu Zuoshi zhuan), *Gujin jinguo zhi* (古今郡國志 Administrative Geography, Past and Present), *Kuodizhi* (括地志 Journal of Geography), *Jincao* (今操), *Fengsutong* (風俗通 A Penetrating Account of Manners and Customs), *Shiming* (釋名 Explanation of Names), *Song Yu youdifu* (宋玉有笛賦), *Liu Gongquan xiaoshuo* (柳公權小說), *Classic of History* (書經 Shujing), *Classic of Poetry* (詩經 Shijing), *Book of Rites* (禮記 Liji), *Rites of Zhou* (周禮 Zhouli), *Mencius* (孟子 Mengzi), *Book of Changes* (易經 Yijing), and *Records of Silla* (新羅國記 Xinluo guoji). There are also quotes from Jia Yanzhong (賈言忠) and Song Qi (宋祁).

5) Scholars disagree on the number of individuals featured in the “Biographies.” For instance, the tally may differ depending on whether Kim Am, discussed in the “Biography of Kim Yusin,” counts as a separate entry or not. Shin 1981 argues that a total of 69 individuals including Kim Yusin have their own biographies. The 51 individuals with their own standalone chapters in the “Biographies” of the *History* are the following: Kim Yusin (vols. 41–43); Euljimundeok, Geochilbu, Geodo, Isabu, Kim Inmun, Kim Yang, Heukchisangji, Jang Bogo, and Sadaham (vol. 44); Eulpaso, Kim Hujik, Nok Jin, Miru, Yuyu, Myeongnimdappu, Seok Uro, Bak Jesang, Gwisan, and Ondal (vol. 45); Gangsu, Choe Chiwon, and Seolchong (vol. 46); Haeron, Sona, Chwido, Nulchoe, Seolgyedu, Kim Yeongyun, Gwanchang, Kim Heumun, Yeolgi, Biryongja, Jukjuk, Pilbu, and Gyebaek (vol. 47); Hyangdeok, Seonggak, Silhye, Mulgyeja, Master Baekkyeol, Geomgun, Kim Saeng, Solgeo, the pious daughter Jieun, Mrs. Seol, and Domi (vol. 48); Changjori and Gaesmun (vol. 49); and Gungye and Gyeonhwon (vol. 50).

published in the year *imsin* under Jungjong), Jeongdeok Imsinbon, or simply, as Jeongdeokbon—this woodblock print survives in a number of versions, with two complete versions (one copy at the Oksan Private Academy and the other in the personal collection of Jo Byeongsun).

The *History* is Korea's oldest official government chronicle. It discusses the founding and territorial expansions of the Three Kingdoms, the evolution of their political and legislative systems, the unification by Silla, and subsequent developments. Despite critiques of its Silla-centered narrative, Kim Busik's Confucian historical perspective, and its cavalier approach to the research process, the *History* remains the most valuable historical work on the period in the absence of any direct records from the Three Kingdoms.

⊗ **Credibility of *History* entries on the earlier years of the Three Kingdoms**

Scholars fall into three camps regarding the credibility of the earlier parts of the *History*: some have a favorable view, others deny their credibility, and still others advocate revisions.

Those in the first camp argue that the historical value of earlier articles in the *History* is undeniable given that they were presumably based on historical records from the Three Kingdoms era, and concentrate on archeological findings.

In July 1971, the Tomb of King Muryeong was discovered in Songsan, Geumseong-dong, Gongju City, South Chungcheong Province, while drains were being installed to prevent water damage in the stone-chamber tomb (No. 5) and the brickwork tomb (No. 6) of Baekje. The dig produced 2,906 artifacts, including 2 purchase notices engraved on stone steles that specified the “sale” of the gravesite by the earth deity. The stele stone for the king is inscribed with the words, “Yeongdong daejanggung Samawang [King Muryeong] of Baekje forsook this world on the 7th day of the 5th month in the year *gyemyo* [AD 523] at the age of 62, and was laid to rest in this great tomb on the 12th day of the 8th month of the year *eulsa* [525].” This record is a perfect match with the passage, “[King Muryeong] passed away in the 5th month, in the summer [of the year 523]”, in the “Annals of Baekje” in the *History*.

Further, excavations began in 1997 on the Pungnap Mud Fort, believed to be a royal castle from the Baekje Dynasty, in Songpa-gu, Seoul. Scholars estimate this fort was built between the turn of the epoch and the 3rd century (AD), and thus consider it as supporting evidence corroborating the entry in the “Annals of Baekje” of the *History* that states that Baekje ruled the midsection of the Korean Peninsula early on in the dynasty.

By contrast, Japanese researchers such as Tsuda Sōkichi (津田 左右吉) called into question the credibility of the earlier articles during the Japanese occupation. These scholars dispute the

veracity of the articles based on the “Hanzhuan” (韓傳 Account of Han) in the *Records of the Three Kingdoms* (三國志 Sanguozhi) of China, which casts Baekje as a small country under the rule of Mahan (마한 馬韓) and Silla as another small country under the rule of Jinhan (진한 三韓) in discussing the customs and history of the Three Han (삼한 三韓). This version of events contradicts the earlier articles in the *History* that represent Baekje and Silla as having already established themselves as powerful presences on the Korean Peninsula at the turn of the epoch.

The revisionists only trust parts of the earlier sections. While they do not repudiate these entries, which were based on textual evidence, they refuse to accept that all of them should be taken as factually grounded. Their position has given rise to a revisionist attitude that advocates chronological adjustments by individual researchers, the selective acknowledgement or rejection of articles from the same king’s reign, or the reclassification of some entries into different periods. This revisionist idea is the majority view in the research community. However, the debate is still ongoing as to which year sets apart the reliable records from the unreliable accounts, or how credible any given record may be.

⊗ Credibility of *History* entries on solar eclipses

The *History* contains a total of 66 entries on solar eclipses. Some argue that astronomical observations from the Three Kingdoms, including those concerning solar eclipses, were lifted from Chinese records, given that many of the records match those made by the Chinese. Iijima Tadao (飯島忠夫, 1925) was one of the earliest researchers to champion this view, claiming, “The articles on solar eclipses [in the *History*] did not realize that the ruse will come to light later, and added onto the Chinese records from the *Records of the Grand Historian*.”

Others believe that the observations of heavenly bodies were conducted in the Three Kingdoms of Korea. Earlier research in support of this view includes work by Kim Yongun (Kim and Kim 1977) and Park Seong-Rae (1977). Kim’s argument goes as follows: if the entries on solar eclipses in the *History* were all taken from the Chinese histories, then there should be mention of the same events in all the chronicles of the Three Kingdoms. Yet there are only two cases where all Three Kingdoms recorded the same solar eclipses. In other words, according to Kim, independent records from each of the Three Kingdoms made their way into the *History* and the entries were not fabricated by a historian of a later era (Goryeo). Kim further argued that the solar eclipse records in the *History* are not only independent, but also evidence that Unified Silla conducted its own observations of solar eclipses, in light of records that are missing from the Chinese texts, such as the entry on a solar eclipse dated December 256 (10th year of King Cheomhae;

p. 40). Park Seong-Rae adds that Kim Busik merely used the Chinese solar eclipse records to correct inaccurate records from the Three Kingdoms as he compiled the *History*.

Additionally, astronomical researcher Park Changbom sought to identify optimal observation sites in the Three Kingdoms, with a view to proving the authenticity of the entries in the *History*. Park found that the optimal observation sites as deduced from the solar eclipse records of the Kingdoms were near Bohai Bay (발해만 渤海灣) for Baekje, and Manchuria and Mongolia for Goguryeo. As for Silla, the optimal sites were by the Yangzi River in 201, and the southern part of the Korean Peninsula after 787. Park concludes that the solar eclipse records of the Three Kingdoms are the fruit of independent observations that each kingdom conducted from a different site, since random “borrowings” from Chinese texts cannot have led to geographically distinct optimal observation sites for the Three Kingdoms.

The Memorabilia of the Three Kingdoms (삼국유사 三國遺事)

The *Memorabilia of the Three Kingdoms* was compiled by Priest Iryeon (일연 一然)¹⁾ and his disciples at the end of the 13th century under King Chungnyeol (1274–1308) of Goryeo. The reliability of the *Memorabilia* has been repudiated by those that criticized its Buddhist historical perspective and irrationalism, but it is a historical text that offers an overview of the history of Ancient Korea as well as of its Buddhism that also betrays elements of Confucian rationalism.

One of the chief motives for compiling the *Memorabilia* may have been to bring to light details that were left out of or hidden in other histories such as the *History* or the *Lives of Eminent Korean Monks* (해동고승전). The *Memorabilia* also reflects the mood of the society at large, which was looking to move past the turmoil following the 1170 Military Coup (무신정변: 1170–1270) and find a spiritual compass.

The structure of the *Memorabilia* may vary depending on the edition or researcher, but it is generally divided into 5 volumes, and 9 sections, which consist of the “Royal Biographies” (왕력 王歷: chronologies), “Records of Notable Events” (기이 紀異: overview of history from Gojoseon to the Later Three Kingdoms), “Flourishing of the Dharma” (흥법 興法: transmission of Buddhism to the Three Kingdoms), “Pagodas and Buddhist Statues” (탑상 塔像), “Exegetes” (의해 義解: biographies of Buddhist priests of Silla), “Spells” (신주 神呪; esoteric Buddhism of Silla), “Thaumaturge” (감통 感通; the holiness

1) Iryeon (一然, 1206–1289) was a Buddhist priest of the Goryeo period. He was born in Jangsan County (now Gyeongsan City), Gyeongju, Gyeongsang Province. He became a monk at 14, and passed the monk examination [as opposed to the civil examination for government officials] with the highest honors in 1227 to become Great Zen Master (대선사 大禪師) in 1259. He led the Zen revolution in Goryeo Buddhism while staying at Unmun-sa Temple in Cheongdo, Gyeongsang Province, from 1277 to 1281—it was probably then that he started work on the *Memorabilia*. Iryeon passed away in the 7th lunar month of 1289, leaving behind a letter to the king.



Ingak-sa Temple, where Iryeon wrote the *Memorabilia*. It is located in Hwabuk-ri, Goro-myeon, Gunwi County, North Gyeongsang Province, Korea.

of faith), “Recluses” (피은 避隱), and “Filial Piety and Good Buddhist Deeds” (효선 孝善). Broadly speaking, “Royal Biographies” and “Records of Notable Events” are strongly reminiscent of histories that focus on state affairs and the monarchs, while the 7 other sections mostly cover Buddhism and related content.

The *Memorabilia* survives in two editions—the Imsinbon and the Gopanbon. The Imsinbon, also known as the Jeongdeokbon, was a woodblock edition engraved by Yi Gyebok and others in Gyeongju City in 1512 (year *imsin*, 7th year of Jungjong of Joseon). The Gopanbon predates the Imsinbon, and survives in two versions—the Seongnam version (석남본) and the version in the collection of Beomeo-sa Temple. The complete surviving editions are the Imsinbon at the Gyujanggak of Seoul National University and the Imsinbon at Tenri University in Japan.

The *Memorabilia* is a good complement to the *History* in that it includes records on Buddhism and the histories of Gojoseon and Gaya. It also preserves valuable records that are of interest to the history of Korean meteorology, including allusions to Uncle Wind (풍백 風伯; a weather god), comet sightings, and premature snowfalls.

☸ Territorial Shifts through Time ☸

Many of the meteorological observations in the *History* (e.g., “It snowed heavily in the 3rd month (spring),” etc.) do not specify the site of the observation. In cases where no location is mentioned, it is probably reasonable to assume that the observations were taken at the state capital of the time.¹⁾ There are also passages such as “There was a drought in the western part of the state in the 4th month,” which remain vague as to the observation point. The cardinal directions should likewise be understood with respect to the entire territorial layout and the capital of the state in question.

1) The article for 928 (2nd year of Gyeongsun) in the “Annals of Silla” of the *History* reads, “There was an earthquake in the 6th month.” Because no location is mentioned, we are led to believe that the observation was made in reference to the capital Gyeongju. By contrast, the article for 928 (11th year of Taejo) in the *History of Goryeo* records, “There was an earthquake in Byeokjin County [Seongju, North Gyeongsang Province] in the 6th month.” This pair of records suggests that it might be hasty to assume the entries without any place names were made in regard to the capital.



4th century



5th century

Goguryeo

Goguryeo was founded by Jumong (King Dongmyeongseong), who had come south from Buyeo (부여 夫餘) in 37 BC. Jumong designated Jolbon as the capital, which is believed to correspond to the Wunü Mountain Fortress (오녀산성 五女山城), Huanren County (환인현 桓仁縣), Liaoning Province, China. King Yuri (myeong) moved the capital to Gungnaeseong in AD 3 (the 22nd year of his reign). Although the precise location of Gungnaeseong is unknown, it is believed to be somewhere in Ji'an County, Jilin Province, China. Scholars disagree as to the location of subsequent capitals, but the majority view is that the Gungnaeseong area served as the capital of Goguryeo until the relocation in 427 (15th year of King Jangsu) to Pyongyang, which remained the capital until the fall of Goguryeo in 668.



6th century



North-South States Period

Goguryeo started expanding all its borders beyond the midstream region of the Apnok River in the 1st century. King Taejo conquered Okjeo [now Hamheung Province] in the 1st century, and even made a move for the Liaodong region by attacking the commanderies of Liaodong (요동군 遼東郡) and Xuantu (현도군 玄菟郡). King Micheon conquered the Lelang Commandery (낙랑군 樂浪郡) in 313 and the Daifang Commandery (대방군 帶方郡) in 314, and merged them into Goguryeo territory. King Gwanggaeto the Conqueror (reigned 391–413) took possession of the entire Liaodong region and became the master of Manchuria. His son King Jangsu (reigned 413–491) ousted Baekje King Gaero in 475 and seized the basin of the Han River. But after losing the area to Baekje and Silla's attack in 551, Goguryeo never recovered the Han River region, and fell in 668 at the hands of the allied forces of Tang China and Silla.

Baekje

Baekje founder King Onjo designated Wiryeseong as the capital. Some place Wiryeseong in modern Jiksan, Cheonan City, South Chungcheong Province, but the general consensus is that it was located near modern Seoul and Gwangju in Gyeonggi Province in the downstream region of the Han River. In particular, the mud forts of Pungnap and Mongchon in Songpa District, Seoul, are viewed as royal residences of the Baekje Dynasty. Baekje moved its capital under pressure of an assault from King Jangsu of Goguryeo in 475 (21st year of Gaero) to Ungjin (now Gongju, South Chungcheong Province), and again in 538 (16th year of Seong), to Sabi (now Buyeo, South Chungcheong Province), which remained the capital until the fall of Baekje.

Experts disagree on the territory of Baekje. If we were to follow the account of the *History* at face value, Baekje's territory extended from the Han River to the Yeseong River to the north, Chuncheon to the east, and Jiksan and Onyang to the south from the very beginning. Yet skeptics dispute that theory based on Baekje's relationship with Mahan or the Han Chinese Commanderies. Baekje seems to have expanded its reach to the Jeolla Province and the Gaya land west of the Nakdong River under King Geunchogo in the 4th century, and to have occupied the area corresponding to the modern provinces of Gyeonggi, Chungcheong, and Jeolla, the midstream region of the Nakdong River, and parts of the two provinces of Gangwon and Hwanghae prior to the relocation of its capital to Ungjin in 475. During the Ungjin era (475–538) and the last, Sabi era (538–660), however, Baekje failed to maintain a long-term hold on the Han River. King Seong managed to seize the downstream region of the Han River in 551 after moving the capital from Ungjin to Sabi, seeing an opportunity in the internal strife within Goguryeo, but lost the area again to Jinheung of Silla in 553.

Silla

Silla's capital was in modern Gyeongju, North Gyeongsang Province, from the time of its founding to its fall in 935. Its reach was limited to the plains around Gyeongju in the beginning (57 BC), but gradually spread out as Silla merged with other small states in the area and various Gaya states. After occupying only the area east of the modern Nakdong River, Silla saw a great territorial expansion under King Jinheung (540–576). Jinheung struck a deal with Baekje and accordingly occupied the upstream area of the Han River in 551. In 553, Silla also seized the downstream region of the Han River, which Baekje had recovered from Goguryeo. Furthermore, it pushed its northeastern border into the Hamheung Plains, and conquered Daegaya (Goryeong, South Gyeongsang Province) in the south.

Silla unified the Three Kingdoms in the 7th century. King Taejong Muyeol forged an alliance with Tang China in 660 and defeated Baekje, while King Munmu defeated Goguryeo in 668 by joining forces with Tang. After the fall of Goguryeo, Silla resisted Tang's plan to colonize the entire Korean Peninsula, and in 676, drove out the Protectorate General to Pacify the East (안동도호부 安東都護府) from its base in Pyongyang to Yodongseong. Thus ended the Silla-Tang Wars: Silla achieved the unification, albeit incomplete, of the Three Kingdoms, and ruled the territory whose northern border extended from the Daedong River to the Gulf of Wonsan. Silla organized its provincial territory into 9 provinces and 5 secondary capitals under King Sinmun (reigned 681–692), and occupied the southern half of the peninsula during the North-South States Period (남북국 시대; the other half was Balhae, founded by Goguryeo refugees).

☯ Era Names¹⁾ ☯

Goguryeo		Silla		Later Goguryeo		Balhae	
Era name	Years	Era name	Years	Era name	Years	Era name	Years
Yeongnak (永樂) ²⁾	391–413						
		Geonwon (建元)³⁾	536–550				
		Gaeguk (開國)	551–567				
		Taechang (太昌)	568–571				
		Hongje (鴻濟)	572–583				
		Geonbok (建福)	584–633				
		Inpyeong (仁平)	634–646				
		Taehwa (太和)⁴⁾	647–650				
		Yonghui (永徽) ⁵⁾	650–655				
		Xianqing (顯慶)	656–660				
		Longshuo (龍朔)	661–663				
		Linde (麟德)	664–665				
		Qianfeng (乾封)	666–668				
		Zongzhang (總章)	668–669				
		Xianheng (咸亨)	670–673				
		Shangyuan (上元)	674–676				
		Yifeng (儀鳳)	676–679				
		Tiaolu (調露)	679–680				
		Yonglong (永隆)	680–681				
		Kaiyao (開耀)	681–682				
		Yongchun (永淳)	682–683				
		Hongdao (弘道)	683				
		Sisheng (嗣聖)	684–704				
		Wenming (文明)	684				
		Chugong (垂拱)	685–688				
		Yongchang (永昌)	689				
		Zaichu (載初)	690				
		Tianshou (天授)	690–692				
		Ruyi (如意)	692				
		Changshou (長壽)	692–693				
		Yanzai (延載)	694				
		Zhengsheng (證聖)	695				
		Wansuitongtian (萬歲通天)	696–697				
		Shengong (神功)	697				
		Shengli (聖曆)	698–700				
		Jiushi (久視)	700				
		Dazu (大足)	701				
		Chang'an (長安)	701–705				
		Shenlong (神龍)	705–707				
		Jinglong (景龍)	707–710				
		Tanglong (唐隆)	710				
		Jingyun (景雲)	710–711				
		Taiji (太極)	712				
		Yanhe (延和)	712				
		Xiantian (先天)	712–713				
		Kaiyuan (開元)	713–741			Inan (仁安)	719–737
		Tianbao (天寶) ⁶⁾	742–756				
		Qianyuan (乾元)	758–760			Daeheung (大興)	737–793
		Shangyuan (上元)	760–762				
		Baoying (寶應) ⁷⁾	762–763				

* The Korean era names are indicated in boldface.

Goguryeo		Silla		Later Goguryeo		Balhae	
Era name	Years	Era name	Years	Era name	Years	Era name	Years
		Yongtai (永泰)	765				
		Dali (大曆)	766–779				
		Jianzhong (建中)	780–783				
		Xingyuan (興元)	784				
		Zhenyuan (貞元)	785–805			Jungheung (中興)	793–794
		Yongzhen (永貞)	805			Jeongnyeok (正曆)	794–809
						Yeongdeok (永德)	809–812
		Yuanhe (元和)	806–820			Jujak (朱雀)	812–817
						Taesi (太始)	817–818
		Changqing (長慶)	821–824			Geonheung (建興)	818–830
		Baoli (寶曆)	825–827				
		Taihe (太和)	827–835				
		Kaicheng (開成)	836–840			Hamhwa (咸和)	830–857
		Huichang (會昌)	841–846				
		Dazhong (大中)	847–860				
		Xiantong (咸通)	860–873				
		Qianfu (乾符) ⁸⁾	874–879				
		Guangming (廣明)	880–881				
		Zhonghe (中和) ⁹⁾	881–884				
		Guangqi (光啓) ¹⁰⁾	885–888				
		Wende (文德)	888				
		Longji (龍紀)	889				
		Dashun (大順)	890–891				
		Jingfu (景福) ¹¹⁾	892–893				
		Qianning (乾寧)	894–898				
		Guanghua (光化)	898–901				
		Tianfu (天復)	901–903				
		Tianyou (天祐)	904–907	Mutae (武泰)	904		
		Kaiping (開平)	907–911	Seongchaek (聖冊)	905–910		
		Qianhua (乾化)	911–915	Sudeokmanse (肅德真歲)	911–914		
		Zhenming (貞明)	915–921	Jeonggae (政開)	914–918		
		Longde (龍德)	921–923				
		Tongguang (同光)	923–926				
		Tiancheng (天成)	926–929				
		Changxing (長興)	930–933				
		Yingshun (應順)	934				
		Qingtai (清泰)	934–935				

1) This table lists the era names, mostly of Silla. It is unclear whether Baekje used era names, while a single era name unique to Goguryeo (Yeongnak) has been confirmed to date. The Later Goguryeo and Balhae seem to have used their own era names throughout their lifetimes.

2) Goguryeo may have used such era names as Yeonsu (연수 延壽) and Yeonga (연가 延嘉) aside from the name Yeongnak, which remains on the Gwanggaeto Stele, but it is unclear when those names were used (Jung 1998).

3) Silla started using era names in 536 (23rd year of Beopheung).

4) The era names Geonwon through Taewha were unique to Silla.

5) Yonghui was the first Chinese era name used in Silla.

6) Although China was using Zhide (지덕 至德) between 756 and 757, Silla was unaware of the change and kept using Tianbao.

7) Although China was using Guangde (광덕 廣德) between 763 and 764, Silla was unaware of the change and kept using Baoying.

8) Silla found out about the Chinese era name change on the 22nd of the 2nd month, 875, and renamed that year 2nd year of Qianfu.

9) Silla found out about the Chinese era name change on the 25th of the 5th month, 882, and renamed that year 2nd year of Zhonghe.

10) Silla found out about the Chinese era name change in the 6th month of 886, and renamed that year 2nd year of Guangqi.

11) Silla found out about the Chinese era name change in 893, and renamed that year 2nd year of Jingfu.

☯ Reigns of the Monarchs ☯

No.	Goguryeo	Baekje	Silla	No.	Unified Silla
1	Dongmyeong (37BC–19BC)	Onjo (18BC–AD28)	Hyeokkeose (57BC–AD4)	29	Muyeol (654–661)
2	Yuri (琉璃) (19BC–AD18)	Daru (28–77)	Namhae (4–24)	30	Munmu (661–681)
3	Daemosin (18–44)	Giru (77–128)	Yuri (儒理) (24–57)	31	Sinmun (681–692)
4	Minjung (44–48)	Gaeru (128–166)	Talhae (57–80)	32	Hyoso (692–702)
5	Mobon (48–53)	Chogo (166–214)	Pasa (80–112)	33	Seongdeok (702–737)
6	Taejo (53–146)	Gusu (214–234)	Jima (112–134)	34	Hyoseong (737–742)
7	Chadae (146–165)	Saban (234)	Ilseong (134–154)	35	Gyeongdeok (742–765)
8	Sindae (165–179)	Goi (234–286)	Adalla (154–184)	36	Hyegong (765–780)
9	Gogukcheon (179–197)	Chaekkye (286–298)	Beolhyu (184–196)	37	Seondeok (宣德) (780–785)
10	Sansang (197–227)	Bunseo (298–304)	Nahae (196–230)	38	Wonseong (785–798)
11	Dongcheon (227–248)	Biryu (304–344)	Jobun (230–247)	39	Soseong (799–800)
12	Jungcheon (248–270)	Gye (344–346)	Cheomhae (247–261)	40	Aejang (800–809)
13	Seocheon (270–292)	Geunchogo (346–375)	Michu (262–284)	41	Heondeok (809–826)
14	Bongsang (292–300)	Geungusu (375–384)	Yurye (284–298)	42	Heungdeok (826–836)
15	Micheon (300–331)	Chimnyu (384–385)	Girim (298–310)	43	Huigang (836–838)
16	Gogugwon (331–371)	Jinsa (385–392)	Heulhae (310–356)	44	Minae (838–839)
17	Sosurim (371–384)	Asin (392–405)	Namul (356–402)	45	Sinmu (839)
18	Gogugyang (384–391)	Jeonji (405–420)	Silseong (402–417)	46	Munseong (839–857)
19	Gwanggaeto (391–413)	Guisin (420–427)	Nulji (417–458)	47	Heonan (857–861)
20	Jangsu (413–491)	Biyu (427–455)	Jabi (458–479)	48	Gyeongmun (861–875)
21	Munjameong (491–519)	Gaero (455–475)	Soji (479–500)	49	Heongang (875–886)
22	Anjang (519–531)	Munju (475–477)	Jijeung (500–514)	50	Jeonggang (886–887)
23	Anwon (531–545)	Samgeun (477–479)	Beopheung (514–540)	51	Jinseong (887–897)
24	Yangwon (545–559)	Dongseong (479–501)	Jinheung (540–576)	52	Hyogong (897–912)
25	Pyeongwon (559–590)	Muryeong (501–523)	Jinji (576–579)	53	Sindeok (912–917)
26	Yeongyang (590–618)	Seong (523–554)	Jinpyeong (579–632)	54	Gyeongmyeong (917–924)
27	Yeongnyu (618–642)	Wideok (554–598)	Seondeok (善德) (632–647)	55	Gyeongae (924–927)
28	Bojang (642–668)	Hye (598–599)	Jindeok (647–654)	56	Gyeongsun (927–935)
29	※ Fall of Goguryeo (668)	Beop (599–600)	※ Fall of Silla (935)		
30		Mu (600–641)			
31		Uija (641–660)			
		※ Fall of Baekje (660)			

* This table is based on the *History of the Three Kingdoms*, and the names that sound the same in Korean are indicated with the Chinese characters in boldface.

☯ Measurement Units ☯

Various units of measurement, including *chon* (촌 寸; also *chi* 尺), *cheok* (척 尺; also *ja* 자), *jang* (장 丈; also *gil* 길), *bo* (보 步), *pil* (필 匹), *seung* (승 升; also *doe* 되), appear in the *History* and the *Memorabilia*. Even though the values of these ancient units have not been established definitively, we provide an overview below so that the reader may have a better grasp of the meteorological observations cited in this volume.¹⁾

1. *Chon*, *cheok*, and *jang*

The ancient Korean *ja* reportedly referred to three different units—the Han *chi* (한척 漢尺) and the Tang *chi* (당대 척 唐大尺) that originated in China, and the Goguryeo *cheok*. The denominations *chon*, *cheok*, and *jang* are in a decimal relation; that is, 100 *chon* = 10 *cheok* = 1 *jang*.

a. The Han *chi*

The Han *chi* was used in China before the Sui and Tang dynasties. 1 Han *chi* is equivalent to 23.09–24.5 cm. Scholars believe that this was the unit of measurement used in the Three Kingdoms and Unified Silla.

b. The Tang *chi*

The Tang *chi* was developed in the state of Wei (魏; 386–534) during the Northern and Southern Dynasties of China. It was widely used in Tang China, and was roughly equivalent to 29.3–29.7 cm. The Tang *chi* was used in Silla and Baekje, and became more widespread in Unified Silla.²⁾

c. The Goguryeo *cheok*

The Goguryeo *cheok* only appears in documents. No actual sample remains. It is estimated to have measured 35.6–36 cm.

2. *Bo* and *pil*

Silla defined 1 *bo* as 6 *cheok*.³⁾ Assuming the Tang *chi*, which was used in Silla, 1 *bo* would be about 178.8 cm. *Pil* was a unit of length for fabrics. Prior to 661–681 (reign of Munmu of Silla), 1 *pil* equaled 80 *cheok*, and later, 42 *cheok*.

3. *Seung*

Seung is a unit of volume. Based on the findings from excavations of the Anapji in Gyeongju in the 1970s–1980s, 1 *seung*, as used in the last years of Unified Silla, seems to have been roughly equivalent to 340 ml. No concrete evidence is available on the value of this unit in earlier times.

1) This overview of the units of measurement used in the Three Kingdoms is based on Lee 2002. We also refer the interested reader to Park (H,S) 1999 and Lee 2001, both of which discuss the history of measurement units, and to the National Folk Museum of Korea 1997, an album from a special exhibit on the subject.

2) Jeon 2000 pointed out that the *ja* measuring 29.7 cm may have been the Silla *cheok*, as opposed to the Tang *chi*.

3) Park 1995.

☯ Stems and Branches: The Chinese Sexagenary Cycle ☯

The Chinese sexagenary cycle is a system for keeping track of days and years. It brings together two other cycles—a 10-term cycle called the Heavenly Stems (天干 *tiangan* 천간) and a 12-term cycle called the Earthly Branches (地支 *dizhi* 지지; also popularly known as the “Chinese zodiac”). Each of the 60 terms thus consists of two characters, the first of which is drawn from the Heavenly Stems (甲乙丙丁戊己庚辛壬癸) and the second, from the Earthly Branches (子丑寅卯辰巳午未申酉戌亥).

No.	Chinese	Korean	No.	Chinese	Korean
1	甲子 <i>jiazi</i>	갑자 <i>gapja</i>	31	甲午 <i>jiawu</i>	갑오 <i>gabo</i>
2	乙丑 <i>yichou</i>	을축 <i>eulchuk</i>	32	乙未 <i>yiwei</i>	을미 <i>eulmi</i>
3	丙寅 <i>bingyin</i>	병인 <i>byeongin</i>	33	丙申 <i>bingshen</i>	병신 <i>byeongsin</i>
4	丁卯 <i>dingmao</i>	정묘 <i>jeongmyo</i>	34	丁酉 <i>dingyou</i>	정유 <i>jeongyu</i>
5	戊辰 <i>wuchen</i>	무진 <i>mujin</i>	35	戊戌 <i>wuxu</i>	무술 <i>musul</i>
6	己巳 <i>jisi</i>	기사 <i>gisa</i>	36	己亥 <i>jihai</i>	기해 <i>gihae</i>
7	庚午 <i>gengwu</i>	경오 <i>gyeongo</i>	37	庚子 <i>gengzi</i>	경자 <i>gyeongja</i>
8	辛未 <i>xinwei</i>	신미 <i>sinmi</i>	38	辛丑 <i>xinchou</i>	신축 <i>sinchuk</i>
9	壬申 <i>renshen</i>	임신 <i>imsin</i>	39	壬寅 <i>renyin</i>	임인 <i>imin</i>
10	癸酉 <i>guiyou</i>	계유 <i>gyeyu</i>	40	癸卯 <i>guimao</i>	계묘 <i>gyemyo</i>
11	甲戌 <i>jiaxu</i>	갑술 <i>gapsul</i>	41	甲辰 <i>jiachen</i>	갑진 <i>gapjin</i>
12	乙亥 <i>yihai</i>	을해 <i>eulhae</i>	42	乙巳 <i>yisi</i>	을사 <i>eulsa</i>
13	丙子 <i>bingzi</i>	병자 <i>byeongja</i>	43	丙午 <i>bingwu</i>	병오 <i>byeongo</i>
14	丁丑 <i>dingchou</i>	정축 <i>jeongchuk</i>	44	丁未 <i>dingwei</i>	정미 <i>jeongmi</i>
15	戊寅 <i>wuyin</i>	무인 <i>muin</i>	45	戊申 <i>wushen</i>	무신 <i>musin</i>
16	己卯 <i>jimao</i>	기묘 <i>gimyo</i>	46	己酉 <i>jiyou</i>	기유 <i>giyu</i>
17	庚辰 <i>gengchen</i>	경진 <i>gyeongjin</i>	47	庚戌 <i>gengxu</i>	경술 <i>gyeongsul</i>
18	辛巳 <i>xinsi</i>	신사 <i>sinsa</i>	48	辛亥 <i>xinhai</i>	신해 <i>sinhae</i>
19	壬午 <i>renwu</i>	임오 <i>imo</i>	49	壬子 <i>renzi</i>	임자 <i>imja</i>
20	癸未 <i>guiwei</i>	계미 <i>gyemi</i>	50	癸丑 <i>guichou</i>	계축 <i>gyechuk</i>
21	甲申 <i>jiashen</i>	갑신 <i>gapsin</i>	51	甲寅 <i>jiayin</i>	갑인 <i>gabin</i>
22	乙酉 <i>yiyou</i>	을유 <i>euryu</i>	52	乙卯 <i>yimao</i>	을묘 <i>eulmyo</i>
23	丙戌 <i>bingxu</i>	병술 <i>byeongsul</i>	53	丙辰 <i>bingchen</i>	병진 <i>byeongjin</i>
24	丁亥 <i>dinghai</i>	정해 <i>jeonghae</i>	54	丁巳 <i>dingsi</i>	정사 <i>jeongsa</i>
25	戊子 <i>wuzi</i>	무자 <i>muja</i>	55	戊午 <i>wuwu</i>	무오 <i>muo</i>
26	己丑 <i>jichou</i>	기축 <i>gichuk</i>	56	己未 <i>jiwei</i>	기미 <i>gimi</i>
27	庚寅 <i>gengyin</i>	경인 <i>gyeongin</i>	57	庚申 <i>gengshen</i>	경신 <i>gyeongsin</i>
28	辛卯 <i>xinmao</i>	신묘 <i>sinmyo</i>	58	辛酉 <i>xinyou</i>	신유 <i>sinyu</i>
29	壬辰 <i>renchen</i>	임진 <i>imjin</i>	59	壬戌 <i>renxu</i>	임술 <i>imsul</i>
30	癸巳 <i>guisi</i>	계사 <i>gyesa</i>	60	癸亥 <i>guihai</i>	계해 <i>gyehae</i>

Glossary



☯ Glossary ☯

7 Luminaries [칠요 七曜]

The 7 Luminaries refer to the sun, moon, Venus, Jupiter, Mercury, Mars, and Saturn. Also called the Seven Stars (칠성 七星), they may sometimes refer to the Big Dipper, or the Cosmic Trinity (heaven, earth, and man) and the four seasons.

28 Mansions [28수 28宿]

In antiquity, Easterners classified constellations into 28 groups based on their position relative to the moon, and named these groups the 28 Mansions (28수 宿). The system exploits the fact that the moon reverts to the same position in approximately 28 days. The 28 Mansions are further divided into 4 groups of 7 Mansions depending on the 4 cardinal points (and 4 seasons). The 7 Mansions for the eastern cardinal point are Horn (각 角), Neck (항 亢), Base (저 氐), Room (방 房), Heart (심 心), Tail (미 尾), and Winnower (기 箕); the 7 Mansions for the northern cardinal point are Dipper (두 斗), Ox (우 牛), Girl (여 女), Barrens (허 虛), Roof (위 危), House (실 室), and Wall (벽 壁); the 7 Mansions for the western cardinal point are Straddler (구 奎), Harvester (누 婁), Stomach (위 胃), Mane (묘 昴), Net (필 畢), Beak (자 觜), and Triaster (삼 參); and the 7 Mansions for the southern cardinal point are Well (정 井), Ghost (귀 鬼), Willow (류 柳), Star (성 星), Spread (장 張), Wing (익 翼), and Axletree (진 軫). The stars inside the 28 Mansions are further organized into smaller constellations. For instance, the first Mansion Horn comprises 45 stars, and the constellation Horn, which consists of the two brightest stars in that Mansion, represents that Mansion. Thus the 28 Mansions double as the names of individual constellations and the names of the Mansions that those individual constellations represent.

Alcheon [알천 關川]

Some believe this corresponds to the North Stream (북천 北川) or the South Stream (남천 南川) in Gyeongju today.

Ansi Fortress [안시성 安市城]

The most convincing theory equates it with Yingchengzi Mountain Fortress (英城子山城) southeast of Haicheng City (海城市), Liaoning Province, China.

Apnok [압록 鴨綠]

Interchangeably called “Apnokkang 압록강” or “Apnosu 압록수.”

Astronomy Master [천문박사 天文博士]

Top working-level official charged with astronomy and meteorology. The post was created in 749 (8th year of Gyeongdeok's reign), and later renamed “Celestial Office Master.”

Axletree [진 軫]

This refers to either the 28th Mansion Axletree (진수 軫宿) or the Axletree (진 軫) constellation in that Mansion. The determinative star is γ (Gamma) Corvi.

baekhong [백홍 白虹]

Rather than a rainbow, this is construed as a white arch that appears around the sun, and hence a sun halo of a sort.

Balsap-sa Temple [발삼사 輿寺]

Estimated to be a temple in Cheorwon, Gangwon Province, but its precise location is unknown.

Barrens [허 虛]

This refers to the 11th Mansion Barrens (허수 虛宿) or the Barrens (허 虛) constellation in that Mansion. The determinative star is β (Beta) Aquarii.

big star on Heart [심대성 心大星]

The Western counterpart of this big star on the Heart Mansion is Antares, a 1st-magnitude star on Scorpio.

big stars on Triaster [삼대성 參大星]

The three bright stars arranged east to west inside the Triaster Mansion. Their Western counterpart is Orion's Belt.

Bocuoshui [발착수 渤澇水]

Its estimated location is to the west of the Liao River (遼河), but details are unknown.

Byeokkolji [벽골지 碧骨池]

This refers to Byeokkolje (벽골계 碧骨堤), Korea's oldest reservoir, located in Buryang-myeon, Gimje City, North Jeolla Province.

Celestial Boat [천선 天船]

Celestial Boat is part of the 17th Mansion Stomach (위수 胃宿). It is the boat-shaped constellation on the Western constellation Perseus.

Celestial Office Master

[사천박사 司天博士]

New title for the Astronomy Master of Silla. It is unclear when this new title was created. In China, the Bureau of Astronomy (司天臺) was in charge of astronomy, calendars, and meteorological phenomena.

Celestial Offices [천관 天官]

Refers to the hierarchy of stars, much like the ranks of officials in the human realm.

Champo [참포 槩浦]

Its estimated present-day counterpart is the port area in Heunghae-eup, Pohang City, North Gyeongsang Province.

Chenxing [진성 辰星]

Mercury. According to the *Records of the Grand Historian*, it stands for the northern cardinal point, water, the winter season, and the Celestial Stems (천간 天干) *ren* (임 壬) and *gui* (계 癸).

Cheomseongdae [침성대 瞻星臺]

Also known as Jeomseongdae (점성대 占星臺). This astronomical observatory in Inwang-dong, Gyeongju City, dates back to the reign of Queen Seondeok of Silla.

Cheongmongnyeong [청몽령 靑木嶺]

The estimated location is the vicinity of modern Gaeseong City, North Hwanghae Province, North Korea.

Chiak Prefecture [치악현 雉岳縣]

Estimated to correspond to the vicinity of modern Euncheon-myoen, Yeonbaek County, Hwanghae Province.

Chiljung Fortress [칠중성 七重城]

A fortress that was located in modern Jeokseong-myeon, Paju City, Gyeonggi Province, to the south of the Imjin River.

Chirak-sa Temple [칠악사 漆岳寺]

This was likely a Buddhist temple located in the capital Sabi (Buyeo, South Chungcheong Province), but its exact location is unknown.

chiugi [치우기 蚩尤旗]

A comet-like object whose tail is angled like a flag.

Clepsydra Bureau [누각전 漏刻典]

Office in charge of the clepsydra in the Silla Dynasty.

Clepsydra Master [누각박사 漏刻博士]

Expert technician in charge of the clepsydra. A total of 6 Clepsydra Masters were employed at a time. Silla founded the Clepsydra Bureau in 718 (17th year of the 33rd monarch Seongdeok), and began staffing it with masters in 749 (8th year of the 35th monarch Gyeongdeok).

Daegwan-sa Temple [대관사 大官寺]

Buddhist temple located in Wanggung-ri, Wanggung-myeon, Iksan City, North Jeolla Province.

Dangeun Prefecture [당은현 唐恩縣]

Now Namyang-myeon, Hwaseong City, Gyeonggi Province, and the surrounding area.

Dengzhou [등주 登州]

Now Dengzhou (登州), Shandong Province (山東省), China.

East Well [동정 東井]

East Well refers to the 22nd Mansion Well (정수 井宿). The determinative star is μ (Mu) Geminorum.

Emperor's Seat [제좌 帝座]

Emperor's Seat is a single-star constellation located in the center of the Heaven's Market Enclosure. Its counterpart in Western astronomy is α (Alpha) Herculis.

era name [연호 年號]

Era names were instituted to refer to the years of a given monarch's reign, and originated in China. Geonwon was the first era name of the Silla Dynasty.

Five Chariots [오거 五車]

Constellation in the 19th Mansion Net. Part of the Western constellation Auriga is in this Mansion.

Five Stars [오행성 五行星]

The Five Stars refer to the 5 planets Jupiter, Mars, Venus, Mercury, and Saturn.

Flying Corridor [각도 閣道]

Flying Corridor is a 6-star constellation in the Straddler Mansion (규수 奎宿), located next to Wang Liang.

Gameun-sa Temple [감은사 感恩寺]

A temple in Yongdang-ni, Yangbuk-myeon, Gyeongju, North Gyeongsang Province.

Gangju [강주 康州]

Now Jinju, South Gyeongsang Province.

Geumma County [금마군 金馬郡]

Corresponds to the general area of modern Iksan City, North Jeolla Province, not far from the site of Mireuk-sa Temple of Baekje.

Geumseong [금성 金城]

Geumseong was the royal castle and residence built in the capital of Silla (now Gyeongju).

Gollyeong [골령 鶻嶺]

Estimated to refer to the vicinity of Jolbon, which King Dongmyeongseong (Jumong) chose as the capital after he founded Goguryeo.

Great Master of Celestial Office

[사천대박사 司天大博士]

A senior position to the Celestial Office Master.

Great Xuanyuan Star

[현원대성 軒轅大星]

Located in the 25th Mansion Star (성수 星宿). Xuanyuan consists of 17 stars, the brightest of which is called the Great Xuanyuan Star. It corresponds to Regulus on the Western constellation Leo.

guest star [객성 客星]

A guest star is a celestial body that suddenly comes into view, like a nova or a supernova. The term is sometimes applied to tail-less comets whose trajectory is unclear.

Gugok [구곡 臼谷]

Estimated to refer to either Chuncheon, Gangwon Province, or Yangju, Gyeonggi Province.

Hansan Province [한산주 漢山州]

One of the 9 provinces of Unified Silla. The principal city was modern Gwangju in Gyeonggi Province.

Hanseong [한성 漢城]

Hanseong is taken to refer either to the area of the Baekje capital Wiryeseong or to Wiryeseong itself.

Hansu [한수 漢水]

This refers to the Han River, which courses through modern Seoul.

Harvester [누 婁]

Harvester refers to either the 16th Mansion Harvester (누수 婁宿) or the Harvester (누 婁) constellation in that Mansion. The determinative star is β (Beta) Arietis.

Haseo Province [하서주 河西州]

Now Gangneung, Gangwon Province. Haseo Province was instituted in 658 (5th year of Taejong Muyeol of Silla), and renamed Myeong Province (명주 溟州) in 757 (16th year of King Gyeongdeok).

Haseulla [하슬라 何瑟羅]

Now Gangneung, Gangwon Province, and the surrounding area.

Heart [심 心]

Heart (心星) may refer to the 5th Mansion (心宿) or the Heart (심 心) constellation in that Mansion. The determinative star is σ (Sigma) Scorpis.

Heaven's Market Enclosure

[천시원 天市垣]

The Heaven's Market Enclosure is located north of the Mansions Room, Heart, Tail, Winnower, and Dipper. It forms the Three Enclosures along with the Purple Palace Enclosure and the Supreme Palace Enclosure. It encompasses the Western constellations Ophiuchus and Serpens.

Heungnyun-sa Temple [흥륜사 興輪寺]

This temple was located in modern Sajeong-dong, Gyeongju City, North Gyeongsang Province.

Hoengak [횡악 橫岳]

An alternate name for the Three Peak Mountain in Seoul.

Horn [각 角]

Horn may refer to either the first Mansion Horn (각수 角宿) or the Horn constellation (각성 角星) in the Horn Mansion. The determinative star of the Horn Mansion is α (Alpha) Virginis.

Hwando [환도 丸都]

Now Ji'an County, Jilin Province, China.

Hwangnyong-sa Temple [황룡사 皇龍寺]

The largest Buddhist temple of Silla, located in Guhwang-dong, Gyeongju.

Ice Storehouse Bureau [빙고전 氷庫典]

This bureau was under the jurisdiction of the Department of the Interior (내성 內省) and managed the Binggo, the ice storehouse.

ilgwan [일관 日官]

Also called *ilja* (일자 日者). This was the government official responsible for monitoring changes in the patterns of the sky and natural disasters, and divining their significance.

ilgwanbu [일관부 日官部]

This was one of the 10 external offices (외관 外官) of Baekje specializing in astronomy, meteorology, and geomancy.

Ilseon County [일선군 一善郡]

This refers to the area near modern Seonsan, Gumi City, North Gyeongsang Province.

Imcheon-sa Temple [임천사 林泉寺]

This is believed to be a temple that was located in Dongcheon-dong, Gyeongju.

Imyugwan [임유관 臨渝關]

This is either the old name for Shanhaiguan (山海關) in Bohai Bay east of Hebei Province, China, or the name of a gateway in the southwest of Shanhaiguan.

Jae Fortress [재성 在城]

A fortress that surrounded the royal palace. Refers to the Moon Fortress in Gyeongju.

jaei [재이 災異]

Bizarre, disastrous events. It is a general term for disasters from the sky and bizarre events on the ground.

Jangsae [장새 獐塞]

Now Suan County, Hwanghae Province, and the surrounding area.

Jeomseongdae [점성대 占星臺]

Cheomseongdae (점성대 瞻星臺), located in Inwang-dong, Gyeongju City, North Gyeongsang Province.

Jiuzhang [구장 九章]

Chinese mathematical text, whose author is unknown. Liu Hui (劉徽), a scholar of the state of Cao Wei (曹魏), annotated it in 263.

Jolbon [졸본 卒本]

King Domyeongseong (Jumong) chose Jolbon as the capital upon founding Goguryeo. Its estimated location is the Wunü Mountain Fortress (오녀산성 五女山城) in northern Huanren County (환인현 桓仁縣), Liaoning Province, China.

Liuzhang [육장 六章]

Although the specific content is unknown, this appears to have been a Chinese mathematical text compiled based on the *Jiuzhang*.

locusts [황 蝗]

Hwang refers to a species of grasshoppers, whose Korean name is "*nuri* 누리," but it is difficult to pinpoint the precise species.

Mamiji Prefecture [마미지현 馬彌知縣]

Its estimated location was somewhere in the vicinity of Mujin Province (now Gwangju Metropolitan City, South Jeolla Province), but the details are unknown.

Mane [묘 昴]

Mane may refer to the 18th Mansion Mane (묘수 昴宿) or the Mane (묘 昴) constellation in that Mansion. It consists of 7 faint stars that make up the Pleiades on Taurus. Its determinative star is the 17th star in Taurus.

Mangdeok-sa Temple [망덕사 望德寺]

Located in Baeban-dong, Gyeongju. The building plot and the banner posts are the only things still standing.

Master Cloud [운사 雲師]

Presumably, a deity or shaman with power over clouds.

Master Rain [우사 雨師]

Presumably, a deity or shaman with power over rainfall.

Mathematics Master

[산(학)박사 算(學)博士]

This position refers to the scholar charged with teaching mathematics. According to the “Annals of Silla,” *History of the Three Kingdoms*, the position was first created in 717 (16th year of King Seongdeok).

Mojiak [모자악 毛只嶽]

Its estimated location is the downtown area of modern Gyeongju, North Gyeongsang Province, or the area near Galtan, Pohang City, North Gyeongsang Province.

month of the Rat [자월 子月]

The month of the Rat is the 11th lunar month, when the handle of the Big Dipper points northward (also known as the direction of the Rat [자방 子方] in the early evening).

month of the Tiger [인월 寅月]

The first lunar month as defined in Xia (夏) China.

Moon Fortress [월성 月城]

This appears to refer to the Moon Fortress in Inwang-dong, Gyeongju, North Gyeongsang Province. It was reportedly built in 101 (22nd year of King Pasa).

Mt. Toham [토함산 吐含山]

This mountain is located between Bulguk-dong and Yangbuk-myeon in Gyeongju, North Gyeongsang Province. Bulguk-sa Temple and the Seokguram Grotto are on this mountain.

Mt. Yang [양산 楊山]

Probably corresponds to modern Mt. Nam in Gyeongju.

Mt. Yeolbak [열박산 啞薄山]

This refers to Yeolbakjae, currently in Duseo-myeon and Dudong-myeon, Ulju County, Ulsan Metropolitan City.

Myeonghwal Fortress [명활성 明活城]

A fortress located at Mt. Myeonghwal, Cheonmun-dong, Gyeongju.

Nangsan [낭산 狼山]

Nangsan is a hill in Bomun-dong, Gyeongju, North Gyeongsang Province, home to the tomb of Queen Seondeok and the ruins of Sacheonwang-sa Temple.

Neck [항 亢]

This may refer to either the 2nd Mansion Neck (항수 亢宿) or the Neck constellation (항성 亢星) that is part of the Neck Mansion. The determinative star of the Neck Mansion is κ (Kappa) Virginis.

Net [필 畢]

This may refer to the 19th Mansion Net (필수 畢宿) or the Net (필 畢) constellation in that Mansion. Its determinative star is ϵ (Epsilon) Tauri.

North River [북하 北河]

A group of three stars located in the 22nd Mansion Well (정수 井宿). It corresponds to the head of the Western constellation Gemini.

Old Man Star [노인성 老人星]

A star in the 22nd Mansion Well (정수 井宿). It can only be observed in the southern end of the Korean Peninsula and Jeju Island. There was a belief that seeing this star earned longevity for the observer, and hence the star was considered auspicious. Its Western name is Canopus.

Pae River [패강 溟江]

The Pae River served as an alternate name for the Apnok River, the Daedong River, and the Imjin River.

pagoda of Hwangnyong-sa Temple [황룡사탑 皇龍寺塔]

This was a 9-story pagoda on the grounds of Hwangnyong-sa Temple in Guhwang-dong, Gyeongju. It was built under Queen Seondeok of Silla, but was lost to fire in the Mongol attacks of 1238 (25th year of Gojong of Goryeo).

Palace Guard [우림 羽林]

Constellation in the 13th Mansion House (실수 室宿). This constellation supposedly ruled over the celestial army, and is part of Aquarius.

plague [역병 疫病]

This term is usually construed as referring to a contagious disease or epidemic, i.e., a disease that occurs more than the predicted frequency within a given demographic.

Pugou [포구 蒲溝]

Presumably located west of the Liao River (遼河) in China, but its specific location is unknown.

purple clouds [자운 紫雲]

Purple clouds were considered an auspicious omen that supposedly appeared over a very virtuous monarch.

Purple Palace [자궁 紫宮]

Purple Palace Enclosure (자미원 紫微垣). It refers to the large central Enclosure encompassing the celestial north pole. It may also refer to the main constellation in that area. It comprises part of Great Bear, as well as Little Bear and Draco.

Pyeongjineumjeon [평진음전 平珍音典]

A government office of Silla, reportedly renamed Sogung (소궁 埽宮) under Gyeongdeok. Given that the Saotai (埽臺) of China was an agency charged with the management of embankments, some have surmised that the Pyeongjineumjeon monitored water levels.

River Drum [하고 河鼓]

River Drum makes up part of the 9th Mansion Ox (우수 牛宿), and consists of 3 stars. The largest star of the three is Altair on the Western constellation Aquila.

Sabeol County [사벌군 沙伐郡]

Its estimated location is near modern Sangju, North Gyeongsang Province, the seat of the ancient nation of Sabeol (沙伐國).

Sabi [사비 泗水]

Third capital of Baekje, located in modern Buyeo, South Chungcheong Province.

Sabi River [사비하 泗水河]

A river in Sabi (Buyeo), the capital of Baekje. Its modern counterpart is the Geum River.

Samnang-sa Temple [삼량사 三郎寺]

This temple was located on the banks of the Seocheon, Seonggeon-dong, Gyeongju. Only one of the original banner posts remains on the grounds.

sand rain [우토 雨土]

Asian Dust (*hwangsa*) originating in the dry areas of Mongolia and China. *Heukbi* (흙비 sand rain) was the old Korean term for Asian Dust.

Sankai [삼개 三開]

This is a Chinese mathematical text whose content is unknown. Kai (開) refers to the method for deriving the n^{th} root of a number.

Seonnonng [선농 先農]

Rites addressed to Divine Farmer Yandi (炎帝), who taught farming.

Seowongyeong [서원경 西原京]

This corresponds to modern Cheongju, North Chungcheong Province, and was one of the Five Secondary Capitals of Silla.

Sin Fortress [신성 新城]

Mt. Nam Fortress in Gyeongju.

Singung [신궁 神宮]

Shrine built at the birth site of Silla founder Bak Hyeokkeose.

Sky Dog [천구(성) 天狗(星)]

Stands for a fallen meteorite.

Soburi County [소부리군 所夫里郡]

Now Buyeo-eup, Buyeo County, South Chungcheong Province.

solar eclipse [일식 日食]

This phenomenon refers to the moon blocking the sun. In traditional society, including the Three Kingdoms, it symbolized admonishment from heaven, and was inextricably linked to the authority of the political ruler.

Son of Concubine [서자성 庶子星]

3rd star in the Arctic Pentad (北極五星) in the Purple Palace Enclosure. 4 of the 5 stars making up the Arctic Pentad are on the Western constellation Little Bear.

Southern Dipper [남두(육성) 南斗(六星)]

The Southern Dipper is a 6-star constellation in the 8th Mansion Dipper (두수 斗宿). Its Western counterpart is Sagittarius.

Square Celestial Granary [천창 天倉, 天槍]

[천창 天倉, 天槍]

This constellation in the Purple Palace Enclosure is located near the tip of the handle of the Big Dipper. It corresponds to the Western constellation Boötes.

Stored Water [적수 積水]

Stored Water is a constellation that is either in the western Mansion Stomach or the southern Mansion Well. When paired with North River (head of Gemini), which is in the southern Mansion Well, it is understood as being part of Well.

Straddler [규奎]

Straddler refers to either the 15th Mansion Straddler (규수 奎宿) or the Straddler (규奎) constellation in that Mansion. The determinative star is ζ (Zeta) Andromedae.

Suixing [세성 歲星]

Jupiter. According to the *Records of the Grand Historian*, it stands for the eastern cardinal point, wood, the spring season, and the Celestial Stems (천간 天干) *jia* (갑 甲) and *yi* (을 乙).

Sungnyejeon [송례전 崇禮殿]

This building on the royal palace grounds in the capital [Gyeongju] was used to receive or entertain envoys.

Sun-Moon Rites [일월제 日月祭]

National rites held to the sun and the moon in the Silla Dynasty.

Supreme Palace (Enclosure) [태미(원) 太微(垣)]

[태미(원) 太微(垣)]

The Supreme Palace Enclosure is the upper Enclosure, south of the Big Dipper, and north of the Mansions Star (성 星), Spread (장 張), Wing (익 翼), and Axletree (진 軫). It encompasses parts of the Western constellations Virgo, Great Bear, and Leo.

Taibai/Taebaek [태백 太白]

Venus. According to the *Records of the Grand Historian*, it stands for the western cardinal point, metal, the autumn season, and the Celestial Stems (천간 天干) *geng* (경 庚) and *xin* (신 辛). Venus was called “Taebaek” in the evening, and “Gyemyeong (계명 啓明)” at dawn.

Tomb of King Jinpyeong

[진평왕릉 眞平王陵]

Located in modern Bomun-dong, Gyeongju, the tomb has been designated Historical Site No. 180.

Triaster [삼參]

Refers to either the 21st Mansion Triaster (삼수 參宿) or the Triaster (삼參) constellation in that Mansion. The determinative star is ζ (Zeta) Orionis.

Udu County [우두군 牛頭郡]

Renamed Usu Province (우수주 牛首州) in 637 (6th year of Queen Seondeok), it was near modern Chuncheon, Gangwon Province.

Uncle Wind [풍백 風伯]

Uncle Wind was presumably the deity or shaman governing the wind. In Silla, rituals were held on a national scale to Master Rain, Master Cloud, and Uncle Wind.

Ungcheon Province [웅천주 熊川州]

Now Gongju, South Chungcheong Province.

Ungjin [웅진 熊津]

Baekje's second capital. Now Gongju, South Chungcheong Province.

Wangheung-sa Temple [왕흥사 王興寺]

This temple was located in Gyuam-myeon, Buyeo County, South Chungcheong Province. King Wideok of Baekje founded the temple in 577 in the memory of his late son.

Wang Liang [왕량 王良]

Wang Liang is part of the 15th Mansion Straddler, and makes up part of the w-shaped Western constellation Cassiopeia.

wicked star [요성 妖星]

A comet or *pae* star, reportedly bad omens. Refers to a particularly large meteor.

Wing [익 翼]

This refers to either the 27th Mansion Wing (익수 翼宿) or the Wing (익 翼) constellation in that Mansion. The determinative star is α Crateris.

winged locusts [비황 飛蝗]

Flock of grasshoppers that originate in the continental plains and move in large enough swarms to cover the sky.

Yeongmyo-sa Temple [영묘사 靈廟寺]

This temple was located in modern Seongjeon-dong, Gyeongju.

Yinghuo [형혹 熒惑]

Mars. According to the *Records of the Grand Historian*, it stands for the southern cardinal point, fire, the summer season, and the Celestial Stems (천간 天干) *bing* (병 丙) and *ding* (정 丁).

Zhengshuo [정삭 正朔]

Zhengshuo (정삭 正朔) refers to the first day of the first lunar month, also came to denote the calendar.

Zhenxing [진성 鎮星]

Saturn. According to the *Records of the Grand Historian*, it stands for the central cardinal point, earth, late summer, and the Celestial Stems (천간 天干) *wu* (무 戊) and *ji* (기 己).

Zhinü [직녀성 織女星]

Zhinü is in the 9th Mansion Ox (우 宿). Its counterpart in Western astronomy is α Lyrae.

Zhujing [절경 綴經]

Also called *Zhuishu* (철술 綴術), this is a book about astronomical calculations by Zu Chongzhi (祖沖之) of the Liu Song (劉宋) Dynasty from the Northern and Southern Dynasties period.





Waterspout (Jeodong-ri, Ulleung-eup, Ulleung County, North Gyeongsang Province. Selected for exhibit in the 2009 KMA Photography Contest) A whirlwind formed by a powerful updraft may look like a dragon rising to the sky. Multiple waterspouts may occasionally appear together.

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Address: 61 Yeouidaebang-ro 16-gil, Dongjak-gu, Seoul 156-720, Republic of Korea | Phone: +82-70-7850-6752 | Fax: +82-2-831-4930

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