

Research on “Zai Yi” (Disasters and Anomalies) and Countermeasures in the Silla Era

Xiang Li^{1,2}

¹College of Humanities and Social Sciences, Yanbian University, Yanji, Jilin Province, China

²College of Literature and History, Mianyang Teachers' College, Mianyang, Sichuan Province, China

Keywords: Silla, “zai yi”, Countermeasures

Abstract: In the history of Silla, “Zai Yi” (disasters and anomalies) covers various types such as astronomy, geology, meteorology, hydrology, etc. “Zai Yi” shows the characteristics of geographic wideness, type diversity, persistence, and mass occurrence. “Zai Yi” affected the political society of Silla to varying degrees. The rulers of Silla adopted a series of political and economic response measures to “Zai Yi”, and built a disaster response system for pre- “Zai Yi” defense, “Zai Yi” relief, and post- “Zai Yi” recovery. Silla’s “Zai Yi” view was not only deeply influenced by China’s “theory of interaction between heaven and man” and “the theory of Yin and Yang and five elements”, it was also influenced by primitive beliefs from the northern system or the indigenous beliefs inherent in Silla, presenting a complete and systematic view of “Zai Yi” with Silla features.

1. Introduction

The Chinese term “Zai Yi” is a combination of “Zai” and “Yi”. “Zai” generally refers to natural disasters, earthquakes, fires, floods, droughts, plagues, etc., and “Yi” usually refers to supernatural phenomena that violate conventions, or rare natural phenomena, such as solar eclipses, star changes, and abnormal climates. There is a difference between “Zai” and “Yi”, but due to the cognitive limitations of the ancients, “Zai” and “Yi” were usually connected to form a complete set of “Zai Yi” theory [2].

Silla (57-935 BC) is an ancient civilization in the southeastern part of the Korean Peninsula. It stretched for nearly a thousand years and occupied an important position in the history of Northeast Asia. This paper mainly analyzes the types, characteristics, impacts and related countermeasures of “Zai Yi” in the Silla era, and aims to further understand the understanding of “Zai Yi” concepts in the East Asian Chinese character cultural circle.

2. The Types of “Zai Yi” in the Silla Era

Historical Records of the Three Kingdoms was written in 1145 by the Korean literati Kim Bu-shik. The book is the first official history on the Korean peninsula so far. It records the history of the Silla regime more completely and retains a large number of “Zai Yi” records. It is relatively complete and comprehensive data on “Zai Yi” phenomena in the Silla era. According to the book, there are many types of “Zai Yi” in Silla. We can roughly divide them into seven types: astronomical, geological, meteorological, hydrological, animal and plant, social and personnel.

Silla's astronomical “Zai Yi” include three types: daily, moon and star changes. The “daily change” includes solar eclipses and anomalies related to the sun. The *Historical Records of the Three Kingdoms* recorded 30 “solar eclipses” in Silla and 6 visions related to the sun. There are 2 “moon changes” records and 125 “star changes” records, 60 of which are mainly comets and meteors.

Geological “Zai Yi” have manifestations such as earthquakes, ground fissures, and landslides. There are 82 records in the *Historical Records of the Three Kingdoms*. Earthquakes are usually recorded as “shakes” or “earthquakes”. They are the main manifestations, with 67 places in total. There are 8 records of landslides, which are generally secondary disasters caused by “big water”.

Meteorological “Zai Yi” are the most frequent in the Silla era. There are 208 records of meteorological “Zai Yi”. They include both meteorological disasters and climate abnormalities. Meteorological disasters mainly include drought, wind, snow, frost, hail, fire, fog, thunder and lightning. Droughts accounted for the highest proportion of all meteorological disasters, with 66 records in total.

Droughts are often recorded as “dry” or “droughts”, and sometimes recorded as “no rain”. Drought, frost, wind, hail, and lightning are the most common meteorological disasters in the Silla era. Climatic anomalies refer to climatic phenomena that do not conform to the laws of nature, including no snow, no ice, etc. There are 11 places in total.

Hydrological “Zai Yi” mainly include floods and hydrological anomalies. Floods in the *Historical Records of the Three Kingdoms* are generally called “big waters” [1], and there are 10 records of “big waters” in Silla. “Floods” occurred in Jingdu, Guodong, Guoxi, and Yishan County. In addition, “heavy rain” and “thunderstorm” also belong to the category of hydrological “Zai Yi”. Sometimes, there were natural disasters such as “water gushing, spring gushing, and well overflowing”.

For animal and plant “Zai Yi”, they are divided into animal and plant disasters and animal and plant anomalies. The most important animal disaster in the Silla era was the locust plague, with 24 recorded. The locust plague is “one of the three most serious natural disasters that threaten agricultural production and affect people’s lives.” Plant disasters are the death of vegetation and trees caused by the “great drought”. There are 54 records of animal and plant anomalies, including 41 animal anomalies and 13 plant anomalies.

Social and personnel “Zai Yi” refer to social and personnel disasters and anomalies in addition to natural disasters and anomalies. For example, there are 16 records of human plagues. Plagues generally occurred in winter and spring, and were often accompanied by other disasters such as “drought” and “famine”. Another example is famine. There are as many as 40 records of famine in Silla in the *Historical Records of the Three Kingdoms*. It can be seen that the phenomenon of famines caused by disasters in the Silla era was still very serious, and sometimes even reached the point of “selling children”.

Special category. The aforementioned various “anomalies” are “bad” “anomalies” that generally lead to disasters, but there is also a special “good” “anomaly” that symbolizes the monarch's virtue and governance, and the world is peaceful. This is “auspiciousness”. Auspiciousness is a “commendation” from God for his benevolent governance to the monarch. Auspiciousness and “Zai Yi” are closely related, and you can't ignore auspiciousness to study “Zai Yi”. *Historical Records of the Three Kingdoms* contains a total of 63 auspiciousness in Silla, divided by kings. Most of them are concentrated in the unified Silla period such as King Seongdeok, King Jingdeok, King Yuansheng, King Aizhuang, King Xiandeok. Among the 56 kings, there are 32 kings with auspicious records and 24 kings without auspicious records. For example, the 42nd generation of Xingdeok has no auspicious records, but there are as many as 15 “Zai Yi” records.

3. The Characteristics of “Zai Yi” during the Silla Era

According to the literature, the “Zai Yi” of the Silla era have the following characteristics:

First, in terms of regions, the *Historical Records of the Three Kingdoms* records that the area where the Silla “Zai Yi” occurred has a wide range of space, and the focus of the record is on the capital area. There are obviously more “Zai Yi” records in the capital area than in other areas. The important position of this area in the Silla regime is obvious. Silla pays more attention to the stability and development of this area. Therefore, the record of this area is the most detailed. The capital city of Silla was Gyeongju. The “Zai Yi” records of royal capital, and Gyeongju in historical records about “Zai Yi” all occurred in the Silla capital area. Most of the records of Silla in the *Historical Records of the Three Kingdoms* only record their nature, time and location. Using the location to refer to the place of occurrence, which is called the eastern country, the southern country, the western country, etc. The record location of the Silla “Zai Yi” is not clear, and the capital area with clear records accounted for the vast majority. This has a lot to do with the important role

played by the capital city in Silla's political life, and those unspecified “Zai Yi” in the area prove that it has a broad geographical scope.

Second, the “Zai Yi” of the Silla era is characterized by diversity. There are seven different kinds. Astronomical ones are divided into daily changes, moon changes and star changes. Geological ones have manifestations such as earthquakes, ground fissures, and landslides. Meteorological ones include natural disasters such as drought, wind, snow, frost, hail, fire, and thunder, as well as climate anomalies such as no snow or ice. Hydrological ones include floods, hydrological phenomena and so on. Animal and plant ones are divided into animal and plant disasters such as locust plagues, grass and trees withered, and animal and plant anomalies. Social and personnel ones include plague, famine, etc. The special ones contain 26 kinds of anomaly changes. It can be seen that the Silla “Zai Yi” has the characteristics of diversity.

Third, from the perspective of the degree of damage, the “Zai Yi” in the Silla era can be divided into general “Zai Yi”, severe “Zai Yi” and severe “Zai Yi”. Distinguishing the degree of damage of “Zai Yi” is mainly based on the record of the degree of disaster relief. For example, only the basic information such as the type, time, and location of the “Zai Yi” is recorded, and there is no aftermath measure, it can be regarded as a general “Zai Yi”. If there are disaster relief behaviors such as “donation from the warehouse”, they can be classified as more severe “Zai Yi”. Because the people's power alone cannot recover the losses caused by the disaster, government relief is needed to help them tide over the difficulties. If there is a monarch participating in praying, or the phenomenon of “popular hunger, selling children”, etc., it can be regarded as a serious “Zai Yi”. Such disasters are usually locust plagues, famines, and plagues caused by prolonged drought.

Fourth, the “Zai Yi” of the Silla era have obvious persistence and mass occurrence. The so-called continuity means that certain disasters and anomalies continue to occur in the same area for several years; the so-called mass-occurrence means that many natural disasters, especially high-level and strong natural disasters, often induce successive occurrences of secondary disasters [4]. For example, droughts are often accompanied by locust plagues, droughts often occur after floods, and “no snow” in winter often causes plagues.

4. The Impacts of “Zai Yi” on the Society of Silla

The occurrence of “Zai Yi” has brought varying degrees of impact to Silla's society. The scholar Deng Yunte believes: “The main result of the severe development of the famine is social unrest, and the main form of the so-called social unrest is nothing more than population migration and death, peasant riots and alien invasion.[5]” Silla is ancient. One of the Northeast Asian countries, the impacts can be roughly manifested in the following aspects:

4.1 The Throne Changes

The occurrence of “Zai Yi” directly led to the change of Silla's throne. According to historical records, among Silla's total 56 kings, as many as 40 kings changed their thrones due to “Zai Yi” (usually the death of kings), accounting for more than half. This shows that “Zai Yi” has had a great impact on Silla's political life. Among the 40 records, there are cases in which the king was assassinated, and cases in which the king committed suicide. In addition, there are records of the death of important people in Silla caused by “Zai Yi”.

4.2 Mass Death and Migration of the Population

The population death or migration caused by “Zai Yi” in Silla is extremely serious. As there are only phrases in the history books such as “there are dead” and “there are many dead”, there is no actual statistics. However, according to some historical records, the number of people who died due to the “Zai Yi” in Silla should be countless. In addition, the population migration caused by the famine is also serious. Based on this, it can be seen that the phenomenon of population migration caused by “Zai Yi”, a large number of people were displaced in floods and earthquakes, not only that, but also the incidents of “eating bark” due to famine, and even the occurrence of “selling children”. “Zai Yi” caused a huge impact on Silla people's concept of human relations.

4.3 The Decline of Agricultural Production.

The scholar Zheng Gongcheng put forward: “The essence of disasters is economic problems.” Ancient Silla was a small peasant economy and society dominated by agriculture. In ancient societies where productivity was not yet developed, agricultural production was greatly affected by natural conditions. “Zai Yi” had a huge impact on production. It caused damage to agricultural production in the Silla era. The reduction in crop production and the failure of grain harvests were the direct results of “Zai Yi”. According to historical records, there were 29 major agricultural disasters in Silla. Frost, locusts, and hail are predominant, and the disaster was the most serious in autumn and July. It is not difficult to see that the damage of “Zai Yi” to Silla's agricultural production is incalculable.

4.4 Seriously Affect the Stability of Social Order

The social order problems caused by “Zai Yi” are mostly reflected in the “proliferation of thieves” and the decline of agricultural production. Deng Yunte once described: “Peasants' lack and hunger have reached the extreme, and the phenomenon of migration and death continues to expand. Under such circumstances, peasant uprisings are inevitable... peasant uprisings are often gradually brewing and getting worse. A drama of recovery.[5]” The famine caused a “massive thieves” and even peasant uprisings in Silla's history, which seriously threatened the stability of the Silla regime.

4.5 Silla Buddhism Was Hit Hard

Buddhist temples are important places for Buddhist religious activities and residence. The stupa is one of the symbols of Buddhist temples. Both are important carriers for recording and inheriting Buddhist history and culture. However, a large number of Buddhist temples and pagodas were severely damaged in the disasters and anomalies, causing heavy losses to Silla Buddhism. Buddhist temples and pagodas were destroyed, and Buddhist activities could not be carried out normally, which was not conducive to the stability of the entire Silla society, and its impact on Silla's Buddhist cause cannot be ignored.

4.6 Invasion of External Forces

The scholar Deng Yunte believes: “The prolonged famine will consume the internal strength of the nation, and the internal strength will be insufficient, and the external force will invade. This is also an ordinary reason.[5]” The disasters and anomalies caused the rapid intensification of social and economic contradictions in Silla, and the internal resistance of the nation was completely lost, external forces took the opportunity to invade.

5. The Countermeasures on “Zai Yi” of the Silla Era

“Zai Yi” seriously threatened the stability of the government and social order of Silla. The monarch and ruling class of Silla often took corresponding measures.

First, the monarch always adopts the method of offering sacrifices to pray for the end of the “Zai Yi”. This is because the ancients were unable to withstand some natural disasters and their knowledge of disasters was limited. He regards nature as the mystery ruler, and uses blessing for disasters as a means of disaster prevention and relief. The King of Silla prayed for rain by praying to the ancestor temple, shrines, mountains and rivers, and drawing dragons to pray for rain. Praying is often valued by the rulers. Praying has become a way for the rulers of Silla to deal with disasters [6].

Second, implement ethical governance. The monarch should adjust the ruling policy in time and implement ethical governance to conform to the will of God. Sometimes when “Zai Yi” occurred, ministers asked the monarch about the pros and cons of politics by means of surpassing, and persuaded the monarch to exercise moral governance.

Third, go on an inspection tour. After the “Zai Yi” occurred, the monarch patrolled various places to deal with it. According to the literature, there are as many as 39 records of patrols of monarchs related to “Zai Yi” during the Silla era. Some patrolled territories, confirmed and consolidated

territories, and maintained stability in border areas. Some responded to “Zai Yi” by hunting “auspiciousness”. Through hunting for “auspiciousness”, “Zai Yi” and other bad things could be “washed away”, so that the country could be peaceful and the people could be safe. In addition, the king personally patrolled and sympathized the victims in order to stabilize the people's hearts.

Fourth, recommend. After the “Zai Yi”, the king won the hearts and minds of the people through “herders' recommendation”. The king believed that the “Zai Yi” happened because the country did not have outstanding talents. It was a way to deal with “Zai Yi” through the implementation of “herders' recommendation”. For local officials who had outstanding performance in “filial piety”, rewards would be given.

Fifth, appoint, promote, and dismiss officials, and punish insurgents. After the “Zai Yi” occurred, the king also responded to it by appointing, promoting, and dismissing officials, and killing the insurgents. In addition, the king also used more radical political means to kill the insurgents to deal with “Zai Yi” and maintain his own rule.

In addition to the above-mentioned political countermeasures, there are also various government-led economic measures to alleviate disasters [7]. The policies and practices of the relief in ancient China can be broadly summarized as pensions, rent reduction and exemption adjustment, aid, loan relief, work relief, and settlement, etc [3]. The situation in Silla is also roughly the same.

First, relief. Relief refers to the provision of food, clothing and other materials. The government directly distributes grain, millet, and rice in the national granary to help the people affected by disasters. It has always been the most direct, common and important form of disaster relief by the government. From the perspective of Silla's entire history, the relief mainly consisted of the royal family's granting of grains, gifts, and envoys opening positions. The royal family patrolled the valley and gifts. It can be said that the Silla monarch attached great importance to disaster relief work and continuously improved the response methods. “Relief from the warehouse” is the most direct and common way of relief. It is generally implemented after the famine.

Second, pension, which means support and relief, is a temporary pension policy. The situation of sending envoys to provide compensation can be seen everywhere in the literature. According to historical records, it is most common to send pensions due to floods and droughts. This is because floods and droughts are closely related to crop harvests. Once floods and droughts caused crops to be damaged, the people might be hungry or even die. The government paid the most attention to the relief work for floods and droughts.

Third, rent reduction and exemption adjustment (slow down). That is, the form of exemption or suspension of taxation or corvee. This is more common in the history of disaster relief in Silla, which is enough to show that the Silla government attached great importance to “Zai Yi” and constituted a way for the rulers to deal with disasters. The Silla government used the form of mitigation to alleviate the disaster, but this method mostly occurred in remote areas and the scope of application was relatively limited, and it did not fundamentally solve the problem.

Fourth, Settlement. Settling down victims is a measure of resettlement for victims who had nowhere to survive due to the “Zai Yi”. It includes different methods such as the prince's comfort and the dispatch of the envoys to soothe the inquiries, which also occupies an important position in the history of disaster relief in Silla. The phenomenon of the ruler personally comforting the victims was very common in Silla. The behavior of the king's personal governor shows that the government attached great importance to “Zai Yi” relief, which not only comforted the victims, but also won the hearts of the people. Sending envoys to calm down questions is one of the most common and direct ways to settle disaster victims.

Fifth, pardon. It is a way of reducing or exempting criminals from the state's order, and pardons include amnesty and special pardon. An amnesty was a system of pardoning part or all of the punishments of offenders nationwide, pardoning both their sins and their sentences. special pardon was also one of the important ways to respond to disasters in the Silla era. Through pardons, the king could establish authority, reduce financial expenditures, and increase labor, which was conducive to the restoration of post- “Zai Yi” production and the easing of social conflicts. Especially during the “Zai Yi”, the occurrence of refugees could be suppressed and the degree of

harm could be reduced.

Sixth, loan relief. That is, the government loaned cattle, seeds, etc. to disaster victims to help them resume production. Different from the previous temporary disaster relief measures, loan relief is a “constant” protection measure. Under normal circumstances, the monarch of Silla would use a variety of policies to alleviate the disaster and stabilize the social order.

The book *History of Chinese Famine Relief* summarizes Chinese famine relief thoughts of past dynasties with destinyism, the theory of passive relief, and the theory of positive prevention. Compared with the post-“Zai Yi” praying for the gods and disasters, the various countermeasures before the “Zai Yi” are also an important part of disaster response, which is the most significant damage to agricultural production in ancient times. The active defense against catastrophes during the Silla era was also mainly reflected in the heavy agriculture. In response to food failures caused by natural disasters, the *Historical Records of the Three Kingdoms* records disaster prevention thoughts that reflect the consciousness of heavy agriculture.

First, the government took corresponding measures to supervise and encouraged the development of the natural economy, which was dominated by agriculture. There are various records of persuading farmers returning to farming in historical records. The rulers used various methods to call on the people to return to farming, which shows how much Silla attached to the above disaster prevention measures. The ruler also attached great importance to the work of warehouse shortages.

Second, building water conservancy projects. Hydrological “Zai Yi” endangered agricultural production in Silla at that time, and the construction of water conservancy was also an important means of preventing disasters. Through the construction of water conservancy, flood and drought disasters were effectively prevented, and the economic and social damage caused by disasters was reduced.

Third, saving costs and reducing food. “In ancient times, monarchs often gave orders to reduce food whenever there was a famine, as a sign of saving and overcoming suffering, and often set an example to advocate for the world.” When a “Zai Yi” occurred, the monarch expressed his acceptance of god’s warning and prayed through “reduction of regular food.” Calm down, it is obvious that the measures taken by the Silla monarch embodies Dong Zhongshu's thought of “sensing between heaven and man”. Shutting down projects. This reflects that if the monarch did not economize and insisted in a great bustle of masons and carpenters, he would cause “Zai Yi”. It reflects a kind of economical thought.

Fourth, the power of Buddhism. While the government was responding positively to disasters, Buddhism had also actively participated in the relief operations, effectively cooperated with and supporting the government's relief operations, and had become an important force. Meanwhile Buddhist temples also became an important place for the “Zai Yi” relief. First, Lecture. sutra lecture was the main form of Buddhism's response to “Zai Yi”. Lectures were originally a normal relief activity, but in the face of “Zai Yi”, it became an important force for Buddhism to participate in the government's relief. Second, praying for rain. When a major “Zai Yi” occurs, relying on the power of Buddhism to pray for rain became one of the most important forms of relief activities. In short, Silla Buddhism participated in “Zai Yi” relief in the form of lecturing and praying for rain, and actively supported the relief operations of the Silla government, which effectively enriched and perfected the relief and prevention system of the Silla era.

6. The “Zai Yi” View of the Silla Era

In the Silla era, there were various types of “Zai Yi”. In the process of dealing with them, the concept of “Zai Yi” with its own national culture was formed. As a country in the East Asian Chinese character cultural circle, Silla was influenced by Chinese culture for a long time [8]. Therefore, the interpretation of the “Zai Yi” view of the Silla era is obviously inseparable from the analysis of Chinese “Zai Yi” thought. China’s view of “Zai Yi” has a long history, and there are records in *Zuo Zhuan*, *Chun Qiu*, and *Gong Yang Biography*. After Dong Zhongshu in the Han Dynasty put forward the theory of *Heaven and Human Reception*, Xia Hou Shichang wrote *Hong*

Fan's Five Elements Biography, Liu Xiang wrote *Hong Fan's Five Elements Biography*, and Liu Xin conducted a review of Liu Xiang's *Hong Fan Five Elements Biography* as supplements and revisions. The most important thing is that “Hanshu·Five Elements” links “Zai Yi” with the five elements. For the first time in official official history, the theory of Yin-Yang and Five Elements was used to explain “Zai Yi”. As a country in the East Asian Chinese character cultural circle, Silla is deeply influenced by Chinese culture. As a Confucian political concept, “Zai Yi” view was introduced into Silla along with Confucianism. The people of Silla have combined “Zai Yi” and politics for interpretation, reflecting the influence of Chinese culture on “Zai Yi” thought in the Silla era. However, the Silla “Zai Yi” view has some differences from China's. The primitive beliefs of the northern system or the indigenous beliefs inherent in Silla have a great influence on Silla. Silla’s “Zai Yi” view is not only deeply influenced by China’s “Heaven-Human Induction Theory” and “Yin-Yang Five Elements Theory”, it is also influenced by primitive beliefs from the northern system or indigenous beliefs inherent in Silla, presenting a complete and systematic view of “Zai Yi” with unique Silla characteristics.

7. Acknowledgments

Foundation project: This paper is the research result of the Sichuan provincial social science research planning project “A Comparative Study of Ancient Disasters and Anomalies in China and South Korea”(Project number: SC20B031); Research results of the philosophy and social science research project of the Federation of Social Sciences of Mianyang “Research on Ancient Korean Disasters and Anomalies and Social Order” (Project number: MY2020ZC022).

References

- [1] Bu-Shik Kim. Historical records of the Three Kingdoms [M]. Changchun: Jilin Literature and History Publishing House, 2003, pp.45.
- [2] Guihuan Luo. Chinese history of biology (modern times volume) [M]. Nanning: Guangxi Education Publishing House, 2018, pp.204.
- [3] Shaopin Sun. Research on China's disaster relief system [M]. Beijing: The Commercial Press, 2004, pp.39.
- [4] Bingwei Huang. Modern physical geography [M]. Beijing: Science Press, 1999, pp.67.
- [5] Yunte Deng. China’s history of famine relief [M]. Kaifeng: Henan University Press, 2010, pp.80, 122 &151.
- [6] In-Sook Lee. Koguryo's natural disasters and countermeasures [D]. Korea National University of Education, 2006.
- [7] Ke Yan. Study on natural disasters and disaster relief measures in Silla [J]. Agricultural Archaeology, 01, pp.195-204, 2020.
- [8] Hongbo Wang, Liqun Wang. Analysis on the features and causes of climate disasters in Koguryo period [J]. Journal of Tonghua Normal University, 34 (08), pp.137-139, 2013.