Abstract
Research of Manchurian ancient architecture was initiated by the Japanese people during Japan's colonial expansion prior to World War II, particularly architectural historian Murata Jiro. His long-term and systemic organization of the historical origins of Manchurian ancient architecture enabled us to understand the unique appearance of Manchurian buildings. Murata's efforts also contributed to the first edition of "Manchuria Architectural History." In 1924, Murata worked as a teacher in the South Manchuria Industrial Technical School in Dalian, and his ancient architecture surveys would become the most significant achievements of his life. In 1928, Murata first issued the "Summary of Manchuria Architectural History" to outline the appearance of ancient architecture. Manchuria Architecture, published in 1935, was the first ever completed Manchurian architectural history compilation. Moreover, in 1931, based on his Manchurian study, Murata published the "Historical Discourses in the East Asian Architectural Systems," which transcends academic conventions to construct an innovative "cultural geography conception of architectural history." Because of the dearth of research related to Murata Jiro that has been conducted at present, the authors analyzed the data provided in the Journal of Manchuria Architectural Association to investigate how Murata implemented his studies during the Manchurian period and evaluated their results.

Keywords: Manchuria; Murata Jiro; colonial architecture; architectural historian; Chinese architectural history

1. Introduction
Murata Jiro (1895–1985) (Fig. 1.) was one of Japan's leading authorities in the field of Asian architectural history research and a pioneer of Manchurian architectural history prior to World War II. Murata studied architecture and graduated from the Kyoto Imperial University in 1923. In April 1924, he joined the Dalian South Manchuria Railway (SMR) Company and taught architecture in the South Manchuria Industrial Technical School. Meanwhile, Dalian also opened the path for Murata to conduct long-term studies on Manchurian ancient architecture. Murata Jiro was a leader in the Manchuria Architectural Association, and his research results were primarily published in the Journal of Manchuria Architectural Association. He began to publish a series of Manchurian Islamic Monastery Architecture papers in 1927 (see Table 1.) with impressive results. During a speech on architecture at Fushun (撫順) in March 1928, Murata lectured on the "Summary of Manchuria Architectural History" to become the first researcher to attempt to reconstruct the historical changes of Manchurian architecture (Murata, 1928: 2-20). Based
on his extensive fieldwork experience, he believed that although Manchurian buildings have some Chinese architectural cultural characteristics, their origins did not branch off from Chinese architecture and have an independent history. Years later, Murata published three consecutive editions of the "Historical Discourses in the East Asian Architectural Systems" in the Journal of Architecture and Building Science (Murata, 1931a; 1931b; 1931c) to propose the "cultural geography conception of architectural history" for the formation of an East Asian architectural culture system. This style is different from those that use time or space to divide architectural evolution, and the innovative arguments have gained significant attention from Japanese scholars (Kawakami, 1986: 169). In 1937, Murata resigned from his teaching job in Dalian and returned to Japan to accept a teaching position at the Kyoto Imperial University. From this point forward, he gradually faded from Manchurian ancient architectural studies and switched his focus to Japanese ancient architecture, especially research on Hōryū-ji (法隆寺). His Manchurian ancient architectural studies, which lasted more than a decade, gradually ended.

Murata Jiro's life work is quite rich (Kawakami, 1986: 173-184). His writings covered architectural design theory, construction plans, and translations; he specialized in Eastern and Western architectural history. However, most of his studies related to Manchurian ancient architecture were published in the Journal of Manchuria Architectural Association (See Table 1.). Shortly after Murata arrived in Dalian for his job, he began to travel all over Manchuria with funding support by the South Manchuria Railway (SMR) Company to survey various types of ancient buildings such as mosques, Guandi Temples (關帝廟), Buddhist temples, archaeological sites, and Fengtian Palace, and he made unprecedented achievements. Even after returning to Japan, he still visited China to continue his ancient architectural survey work between 1938 and 1940 despite the risks of war. In 1941, Murata won the "Architecture Academic Award" from the Architectural Institute of Japan with his "Research of Chinese Architecture" thesis, which summed up his Chinese ancient architectural studies.

In addition to architectural history studies, Murata Jiro also played a key role in terms of Japanese cultural property protection. After World War II, he served as the long-term cultural property protection consultant for the central and local governments. In 1966, the Japanese Cabinet issued the Medal of Honor to Murata in recognition of his outstanding contributions in protecting the ancient cultural heritage of Japan. On September 22, 1985, Murata Jiro was 90 years old when he died of an illness in his hometown of Kyoto.
Throughout his life, Murata Jiro not only was an outstanding Japanese architectural scholar but is still unparalleled in terms of Manchurian ancient building studies. However, there is a dearth of discussion on the Manchurian period and Murata Jiro (Kawakami, 1986; Tanaka et al. 1996), which is worth further discussion and motivated this study.

2. Literature Review
At present, there is a dearth of research on Murata Jiro. After Murata passed away, Kawakami Mitsugu (1986) published Murata's biography in the Journal of the Society of Architectural Historians of Japan where he introduced Murata's academic achievements and completed the bibliography editing of his work. During the 1990s, Tanaka Sadahiko (田中禎彦) et al. (1996) presented a study under the topic of Murata Jiro "Manchuria Architectural History" to explore the development of prewar East Asian architectural history. That study suggested that when Murata's doctoral thesis was published in 1931, it was also during the construction subjectivity era of "Japanese Architectural History" when the mainstream academic historical perspectives were very exclusive. In contrast, Murata was able to establish strong and clear research perspectives that were different from the rest primarily thanks to his Manchurian research experiences and results, which laid the foundation of his academic achievements.

In addition, two other papers published in Taiwan were also noteworthy. One was issued by Huang Lanshiang (黃蘭翔) (2000), who analyzed Japanese architectural historians through architectural history studies on Ito Chuta, Tadashi Sekino or Murata Jiro; and the other was issued by Fukuda Miho (福田美穂) (2000) who graduated from the Department of Architecture of Kyoto University. On the one hand, she discussed Murata's Manchurian architectural research findings that were similar to those by Huang Lanshiang; while on the other, she organized and encoded a large quantity of literature references such as manuscripts and photographs by Murata at Kyoto University. These two papers are similar. They both provided a preliminary organization of the Manchurian ancient architectural research results by Murata. However, they did not provide any further discussions on the formation of the historical perspectives or the research methods.

3. Subject and Scope of Manchurian Ancient Architecture Survey Research
Why did Murata become interested in ancient architecture? Firstly, Murata traveled to the Korean Peninsula to collect data during his college years. Then he submitted "Miscellaneous Research on Ancient Bricks and Tiles in Silla" for Korean ancient buildings as his graduation thesis. Sekino Tadashi of the University of Tokyo and Amanuma Shunichi of Kyoto University were both well-known architectural historians and may have inspired Murata to develop an interest in ancient architectural studies (Kawakami, 1986: 169). Finally, the survey department of the South Manchuria Railway (SMR) Company also commissioned Murata to conduct Manchurian architectural studies, which may have served as the direct impetus to his interests.

Despite the fact that he taught modern architectural design in Dalian, he delved into long-term ancient Chinese architectural studies, especially ancient Manchurian buildings. Murata primarily conducted surveys from 1927 to 1935 before he returned to teach as a professor at Kyoto University. Table 1. shows that Murata's Manchurian ancient architectural studies eventually ended in 1940.

Fig. 2. indicates that the surveys mostly ranged around the South Manchuria Railway and concentrated in Fengtian (奉天). Because the railway passed through the South Manchuria Railway Zone under the Japanese Jurisdiction, activities were safer and railway travel was more convenient. In addition, Fengtian not only was the headquarters of the Kwantung Army but was also an important Northeast gathering point for the Japanese. Moreover, Fengtian Palace was also the capital prior to the entry of the Qing (清) dynasty. North Manchuria survey zones were primarily located in Changchun, Jilin, and Harbin because the ancient Liao (遼), Jin (金), and Bohai (渤海) ancient ruins are distributed around these areas.

Murata Jiro's survey subjects were very extensive and can mostly be divided into four parts: archaeological palace sites, religious buildings, Manchu palace architecture and tombs, and the traditional residential buildings for Manchurian ethnic minorities. Among them, religious building studies of mosques, Guandi temples, Buddhist temples, Lamaism buildings, Shamanism buildings, etc., yielded the largest number of research results. Religions reflect the ethnic and cultural diversity of the Manchurian people. In addition, although Murata's survey zones were mostly concentrated in Manchuria, his survey footprint actually extended into Northern China according to his works. His "Historical Discourses in the East Asian Architectural Systems" Ph.D. thesis confirmed his unique architectural views from the perspective of East Asian architectural changes.

4. Architectural Research Method of Murata Jiro
Ito Chuta was the originator of architectural history studies. However, architectural style comparisons, architectural surveying, archeology of building ruins, and historical literature reviews have become the primary architectural history research methods in Japan since the early twentieth century. The archaeological relic and literature review research method has enhanced the credibility of architecture era
determinations and style changes. Therefore, Murata's Manchurian ancient architectural research basically followed the traditional Japanese methodologies.

Using Western architecture mapping techniques to study ancient architecture was still considered a novel approach in China in the 1920s. Murata not only used this method to complete floor plan recovery for numerous ancient buildings; he also discovered some interesting phenomena by analyzing these plans. For example, he discovered the splayed configuration of today's Ten Kings Pavilion (十王亭) on two sides of the Grand Hall (大政殿) of Shenyang Imperial Palace (See right side of Fig.3.), which cleverly used the "one point perspective" Western drawing technique. This arrangement method improved the sense of broadness and the visual concentration effects to the center also highlighted the authority of the emperor (Fig.4.). Another example is that when the four recovery floor plans of the Fengtian Lama Temple (奉天喇嘛寺) were compared, it was discovered that the lamaistic pagodas of the four famous temples were not positioned on a central axis, and their various positions were arranged deliberately. Lamaism is a Manchu state religion, and the pagodas were arranged at the east, west, south, and north positions for the main objective of worshipping the Fengtian Imperial City (Fig.5.).

In addition to collecting measurement information, Murata would also take photographs to record the actual appearance of the architecture at each site; these vast amounts of Manchurian ancient architecture photographs have become precious historical records.

5. The Value and Importance of Murata Jiro to the Study of Chinese Architectural History Today

5.1 The First Person to Write "Manchurian Architectural History"

Before Murata, the first generation of architectural historians had already begun to pay attention to Manchurian ancient architecture and had achieved some initial results, such as the "Manchuria Residences" (Okuma, 1906: 25-32) or "Manchuria Pagodas" (Ito, 1907: 24-30). In addition, researchers...
from other fields such as Shōzaburō Yagi (八木奘三郎), Torii Ryukura (鳥居龍藏), and Shimada Koji (島田好氏) were also interested in Manchurian architecture; however, Murata Jiro was still the person who invested the most efforts.

Murata invested more than a decade to research Manchurian ancient architecture. He conducted extensive surveys of architecture and ruins from different eras and also provided detailed records as well as textual research and published the first edition of Manchurian Architectural History, Manchuria Architecture, in 1935. Murata initially completed the Manchurian architectural development chronicle work that ranged from the prehistoric age until his own early twentieth century era, which has epochal significance and value. Even today, architectural historians in China still lack research work on the origin of Northeast China architectural history. Therefore, Murata Jiro's Manchurian period architectural history research is even more valuable by contrast.

5.2 Manchurian Architectural Development History

After Murata proposed the concept of "the East Asian Architectural Systems" in 1931, he also used it to explain the system of Manchurian architectural development formation. He organized Manchurian architecture into four major development systems: "Manchurian ethnic (滿洲民族系), "Chinese (支那系), "Tibetan (西藏系)," and "European American (欧美系)." In addition, there were also some specific styles that reflect the Muslim characteristics and traditional architecture of Korean culture.

How did Murata understand the formation process of Manchurian architectural history? For example, Murata specifically used the cultural transmission perspective to explain how Chinese architecture was introduced into Manchuria. He found that more than 2000 years ago, as the militaries expanded into Manchuria during the Qin and Han Dynasties, Chinese-style architecture also began to spread into Manchuria (Murata, 1928: 3-4). Because part of the Manchurian ethnicity had gradually converted to Han, local architecture in Manchuria also incorporated Han cultural characteristics. After Manchukuo was founded, it was unable to find the right architectural style from its own culture to represent the strength of the nation like the Hans did because Manchu buildings lacked historical heritage. Therefore, it adopted the Han palace and imperial city styles directly for building appearances but retained the Manchu interior living habit styles. As a result, the Chinese architectural culture has further penetrated deeply into Manchuria (Murata, 1935: 3).
the Manchurian Architectural History written by Murata Jiro was to prove that although the history of Manchurian architecture was impacted by the Chinese culture, it did not originate from Chinese constructions and features an independent development system. Murata used two key historical facts to prove his ideas. Firstly, Manchuria lacked a long-term, unified, and stable regime to deepen its own cultural development. Manchuria had always been a multi-ethnic nation, and no one ever unified the Manchurian nation except during the Liao, Jin, Yuan (元), and Qing dynasties. Therefore, the end of a dynasty also marked the end of an architectural culture. In principle, except for religious buildings, a new dynasty would not use the old dynasty's architectural style (Murata, 1935: 3). In contrast to the Empire of China under the Han (漢) culture, Manchurian architectural culture lacked historical continuity. This prevented Chinese architecture from taking root.

Secondly, the nomadic culture of Manchuria was pragmatic and local materials were often used for buildings. Their buildings were less durable, mostly comprising simple structures, were difficult to maintain, and mostly became historical sites. Manchuria lacked long-term architectural construction systems and technological traditions like those in China, so it was difficult for the Han culture to be passed on through architecture. Based on the two factors above, Murata believed that Manchuria has its own architectural evolution characteristics. Through cross-research of architectural ruins, cultural relics, and historical data, Murata was able to restore the original Manchurian architectural appearance throughout historical changes and prove that their styles were independent from the architectural system of Chinese culture.

5.3 Formation of the "Historical Conception of East Asian Architectural Culture"

The scope of East Asia mentioned by Murata was not the "Orient" under the Western concept. It comprised the surrounding regions of China such as Japan, South Korea, Mongolia, India, Siberia, and other areas. These nations have had close contact with each other since ancient times because they are adjacent to each other. Murata believed that the cultures of these nations were bound to spread as their peoples mingled. Therefore, architectural history studies should not be distinguished based on dynasties, ethnicity, or national boundaries; but should rather be categorized as "Integrity/systematicness" in order to explore the cultural commonalities exhibited by the architectural features. Murata referred to this architectural history perspective as "The Systematicness Theory of East Asian Architectural History."

In 1931, Murata Jiro published the "Historical Discourses in the East Asian Architecture Systems" in the Journal of Architecture and Building Science and mastered the formation and evolution of ancient architecture using "human geography," "historical geography," or "cultural anthropology" research theories of the Western societies that had emerged at the time. Prior to that, Murata had gained numerous achievements in Manchurian ancient building research. Murata also had a year of new culture experiences when he was appointed to survey architecture in Europe and America. These experiences allowed him to obtain distinctive understandings of architectural construction format changes in various regions. He also found that different ethnicities worldwide have similar historical trajectories and cultural formats in terms of architectural structure developments. As such, there must be some connection or commonality between the ethnicities. Throughout his investigations, Murata also observed that geographical environment and cultural dissemination have long-term impacts on architectural system creations.

Murata established his own unique architectural history theory from the cultural dissemination perspective (Murata, 1931a: 5). He primarily adopted the historical geography/human geography research methods from the West that observed the urban development or architectural evolution process from the historical context. Since ancient times, architectural forms differed based on the geographical environments as well as the cultural exchanges caused by religions, commerce, or wars in various cities and towns. From this perspective, architecture would no longer be restricted to exhibit the fixed design models of certain ethnicities or cultures, and would reflect the ethnic cultural features throughout the paths of cultural dissemination.

For example, Murata believed that the Han cultural Guandi Temples in Manchuria provided proof that the Chinese architectural culture has expanded externally through religion (Murata, 1928: 14). In addition to the Guandi Temple case, another case example that practiced the historical geography research method and included numerous case examples was Murata's own doctoral thesis (Murata, 1931a; 1931b; 1931c), which was also the culmination of his research on Manchurian architecture. Murata distinguished the Eastern Asia architectural zones based on their architectural construction evolution history into seven major systems that included the high-bed systems (高床系) and the vertical-cavity systems (豎穴系) (Murata, 1931c: 186). These building structural systems have crossed national borders and gradually formed under the power of cultural dissemination. For example, the geographical distribution of the "Square Log Architectural System" (校倉造系統) includes Japan, North Manchuria (Fig.6.), Russia (Fig.7.), Korea, Tibet, Yunnan, Taiwan, and the South Pacific islands. The system initially spread to Central Asia from Europe through Black Sea neighboring regions. Under the influence of nomads, they entered Central Asia and divided into two branches: the northern
branch and the southern branch. The northern branch includes the region from Southern Siberia to Japan, and the southern branch has spread throughout India, Tibet, etc. (1931b: 110-128).

Therefore, he attempted to go beyond Japan and Manchuria to project his vision to the more distant Siberia, Tibet, Central Asia, Egypt, and India; overcome the national and ethnic restrictions; and create a new architectural history from the East Asian perspective. Murata systematized the origins of architecture in East Asia, divided it into 12 major development systems (Murata, 1931c: 186), and organized the evolution of East Asian architecture through the cultural factors of architectural structures. By transcending the existing cognitive framework, there were innovations and limitations of ideas. In short, architectural history is a comprehensive discipline that requires diverse scientific knowledge and perspectives in terms of cognition to continue moving closer to the objective historical facts. Murata was able to propose a well-thought-out architectural history for East Asia from the cultural geographical perspective as early as the 1930s, which demonstrates the foresight in his studies.

6. Conclusion

Murata Jiro was not the first to conduct Manchurian ancient architecture studies, but he is no doubt the one who produced the most research results. In terms of research methods, Murata could accurately understand the ancient texts or Chinese classics written on ancient buildings because he was fluent in Chinese. Therefore, he used a combined literature review and physical artifact research method, which was considered a breakthrough in architectural history research methods in the 1920s that expanded the degree and scope of understanding ancient architecture. Chinese architectural historians Liang Sicheng (梁思成), Lin Huiyin (林徽音), et al. started to practice this method only after the 1930s. In terms of research, Murata completed the first Manchurian architectural history compilation in China, which provided valuable research data, historical photographs, and architectural plan restorations for ancient buildings in Manchuria. Today, many of these ancient buildings have been destroyed. Murata also proposed the "historical conception of East Asian Architectural Culture," which created new perspectives for architectural history at the time. In short, all studies are conducted based on the foundation laid by their predecessors. Today, there are no any Northeast China architectural history studies can ignore the results of the studies conducted by Murata Jiro. Some researchers may criticize that because of the Japanese imperialist aggression against China, Murata Jiro's studies may inevitably contain colonist views. Stressing that Manchurian architecture did not branch off from Chinese architecture in the 1930s can also easily awaken the memory of the political independence of Manchukuo. However, a person's thoughts cannot escape the influences of their own era. Murata Jiro's achievements in his efforts to construct a Manchurian architectural history are indisputable.

Notes
1 In April 1931, Murata published three consecutive papers on the "Historical Discourses in the East Asian Architectural Systems" in the Journal of Architecture and Building Science, and began to emerge as an architectural historian in Japan. He obtained a doctorate degree from Kyoto Imperial University the following year.
2 In 1940, Tatsuro Ishii and other members of the Architectural Institute of Japan, Hsinking Branch, jointly compiled the Manchurian Architecture Summary, which referenced Murata's research for the architectural history portion.

References