Preliminary Study of Vietnamese Decorated Tiles Found in Java, Indonesia (1)

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Abstract: To date, Vietnamese decorated tiles have been found overseas only on the island of Java, in Indonesia, at sites such as the Trowulan archaeological site and the Great Mosque of Demak. These tiles were made using the blue and white technique of Vietnamese ceramic manufacturing under glazed iron and polychrome, but their forms are quite different from those commonly found in the Vietnamese and Chinese traditions of flooring tiles. The variety of shapes, including stepped crosses, cartouche-efforts, quatrefoils, and hexagonal styles, suggests a relationship with designs commonly used for Islamic decorated tiles.

For a long time, tiles from Trowulan were only known through the antique market trade. However, in 2007 reliable information on recoveries made at the site finally became available, following the publication of a report on ceramic shard artifacts by Marie-France Duppizat and Naniek Harkantiningsih. In 1989 John Guy published an important study of Vietnamese tiles based on antique data, and Mayuyama Yasuhiko 繭山康彦documented his findings from research at the Great Mosque of Demak in 1977; however, I consider that a study of Duppizat / Naniek is a worthwhile project, since real archaeological data is now available on objects found at this site.

As the first step in my exploration of the origins and function of the Vietnamese tiles found at Trowulan I attempt, in this paper, to establish a preliminary classification by combining detailed examination of recent recoveries with existing studies of a broader scope. Following this, I undertake a search for similar forms and motifs in Islamic tiles found in South, Central and West Asian architecture.

Although more extensive field research in Java and other Islamic architectural sites is still required, I believe it can be concluded that the origin of the shapes of these Vietnamese tiles is connected with the tile culture found in the 14th and 15th centuries in the area midstream of the Indus River, at places such as at Multan and Uch. Those tile cultures are, in turn, related to the Timurid architectural culture in Central Asia.

For the next step, I hope to investigate the tangible recoveries of Vietnamese tiles in Java and the relevant architectural sites in the western Islamic world.

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Keywords: Vietnamese tiles, Trowulan, Demak, Islamic tiles

I. Preface

Ia. Purpose of the Study

Vietnamese ceramic manufacturing started during the Li dynasty period, in the 11th-12th centuries, under the influence of Chinese techniques. From the early Le dynasty period, in the 15th century, Vietnamese ceramics developed into the well-known blue and white ware, which were true copies of the Chinese style of the Yuan dynasty. Almost all these Vietnamese blue and white wares, typified by the bottle dated 1450 in the Topkapi Collection of Istanbul,[1] were essentially of the same form and design as Chinese Jiangxi Jingdezhen blue and white. I cannot ignore, however, the very few exceptional pieces whose original form is not derived from Chinese ceramics.

To date, overseas finds of Vietnamese decorated tiles (referred to in what follows simply as Vietnamese tiles) have not been found anywhere except on the island of Java in Indonesia. How, then, did this strange phenomenon come about in the history of the widely distributed Asian ceramics trade? This question is the primary motivation for this study. Starting from this question, I will consider several issues relating to the manufacture and distribution of these tiles:

Firstly, why are the Vietnamese tiles formed quite differently from Chinese ceramics?

Secondly, why has this phenomenon occurred only in Java?

These two questions relate to further questions:

Why and how were these Vietnamese tiles manufactured, and what were the technical conditions? What are the historical facts that form the background for such manufacture?

The answer to the latter two questions is the basic purpose of this paper. Specifically, I wish to research the historical background of the manufacture and

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1. The dating is written under the glaze, indicating by name the era of the Le dynasty.

臺灣大學學術期刊資料庫

distribution of Vietnamese tiles, as I consider that it may be related to certain long-distance connections among several Asian cultural areas.

Ib. Methods

Large pieces of Vietnamese tile shards have been found at the Trowulan archaeological site in East Java. Vietnamese tiles can also be seen in important examples of wall decoration at several old mosques and mausoleums of Islamic saints along the north coast of central and eastern Java, especially in the Great Mosque of Demak in Central Java.

I will use both archaeological and architectural data as the basic criteria for understanding the characteristics of the Vietnamese tile. Because these tiles are still *in situ*, such analysis is essentially the most basic factor in terms of the purpose of this study.

Although there are some private collections of Vietnamese tiles which may have come from the Trowulan site, they lack specific, scientific and locational evidence and complete archaeological data. Due to this uncertainty of historical provenance, I will make only supplemental use of data from these collections in this study.

For the first step, I classify the basic data relating to each form. These are the most important characteristics and are quite different from those of Chinese ceramics. I will also compare them to similar decorations crafted from other materials in Java and neighboring areas.

As a further step, I will try to establish their origin by comparing them with tiles from other regions. It may be considered that this approach should be the primary way for understanding the manufacture and overseas distribution of Vietnamese tiles.

But here I must remark that the data from Trowulan, which is the most important source, is currently not adequate for effective further study of the subject, as the official excavation report, that includes a quantitative analysis of Vietnamese tiles recovered at this site, has not yet been published.

Due to this unsatisfactory situation and my limited field research experience on Islamic tiles, this paper should be viewed purely as preliminary groundwork for this study.

Ic. History of the Studies

Studies relating to Vietnamese tiles have not yet attracted the interest of many

臺灣大學學術期刊資料庫

scholars due to the lack of tangible results.

The pioneer researcher of the Trowulan site was H. Maclaine Pont, a Dutch architect and a member of Royal Batavian Society of Arts and Sciences, who opined that the remains in Trowulan were the capital of Majapahit, the largest and the last of the Hindu Javanese kingdoms. He thoroughly researched this site, including the extensive archaeological excavation during the 1920s and early 1930s. Since he focused on discovering the architectural features of the site such as the royal palace, as well as on reconstructing the layout of the capital city, he did not devote much attention to the numerous artifacts such as ceramic shards which were found scattered all over the site.

After long years of research, most of the ceramic shards were kept in Maclaine Pont's own house, while a small number of them were contributed to the Museum of the Batavian Society in Batavia, now the National Museum of Indonesia, Jakarta. At that time, F.W. van Orsoy de Flines, the knowledgeable ceramics curator of this museum, was certainly interested in these shards, as a range of various Chinese and Southeast Asian ceramics were found to be among the collection. Today these Trowulan recoveries, including the shards of Vietnamese tiles, are still exhibited in this museum. However, De Flines gave only general information regarding these finds[2] rather than a thorough discourse.

After the independence of Indonesia, some 40 years after Maclaine Pont's research, Mayuyama Yasuhiko (繭山康彦), a Japanese ceramics scholar, published a report relating to Vietnamese tiles in the Great Mosque of Demak on the north coast of Central Java.[3] In his paper, he introduces in detail 66 tiles found in this old mosque, which he believed was built at the end of the 15th century, along with 3 shards from the collection of the National Museum, Jakarta. Mayuyama points out that, remarkably, massive Vietnamese tiles were still to be found used as wall decorations in the Great Mosque of Demak, one of the oldest mosques in Java. The important role of Java for a broader understanding of Vietnamese blue and white ware, especially tiles, was thus clarified due to Mayuyama's interest. A few years later, Abu Ridho, a curator of the

2. F.W. van Orsoy De Flines, *Jaarboek 1936, 1938* (Batavia: Koninklijk Bataviaasch Genootshap van Kunsten en Wetenshappen), and Gids voor de Keramische versamling (Batavia, 1949).
3. Mayuyama Yasuhiko(繭山康彦)," On Annamese Blue and White Ornamental Tiles in the Masjid dan Makam Demak (デマク回教寺院の安南青花陶磚について)," *Oriental Ceramic*(東洋陶磁), vol.4 (Tokyo: Japan Society of Oriental Ceramic Studies, 1977), pp.41-57. Unfortunately, this pioneering study has not received the scholarly attention it deserves, due to the barrier of language.

臺灣大學藝術期刊資料庫

ceramics collection in the National Museum, Jakarta, also discussed 9 Vietnamese tile shards in this museum, and published a short piece about them.[4]

Although no Indonesian institution has published any further research undertaken in Trowulan or Demak, John Guy, a specialist in Vietnamese ceramics, published his own views regarding Vietnamese tiles. In his paper Guy not only discusses some examples in private collections, but he also points out several features of the tiles found in Trowulan and Demak as well as other Vietnamese wares. He also discusses some features of the tiles which bear similarity to other styles, for example, the cartouche form or *kara* design which is comparable to decoration from Hindu Javanese architectures.

Among the opinions he expresses is a comment relating to an important similarity between the peony arabesque motif found on the tiles of Demak and the famous bottle, dated 1450, in the Topkapi Collection. He also explained the 'Persian influence' on the hexagonal form. A large part of these tiles were previously thought, however, to be the products manufactured in the Yuan Chinese/Vietnamese ceramic tradition, and influenced by Hindu Javanese culture.

In 1990s, research into Vietnamese blue and white wares at kiln sites located in the delta of the Red River, such as Chu Dau in Hai Duong etc., made rapid progress. Although tile shards have not yet been found in any kiln sites, the researcher Bui Minh Tri, based on findings during a study of kiln sites, indicated the possibility of Vietnamese blue and white wares being produced especially for customers' orders during the 15th century.[5] Certainly, many scholars who researched the tiles found at Trowulan have already opined that they were the products of North Vietnam. It is important, however, that any opinion is based on actual kiln site research in that area.

Several collectors have recently focused their interests on the collections of shards of Vietnamese tiles that have been seen in Vietnamese ceramics exhibitions in several museums. Clear and detailed information about such recoveries, however, has not been provided, although Trowulan is almost always presumed to be the place of origin.

For any such historical study, the long awaited Trowulan research report concerning finds of ceramic artifacts will be essential. To this end, it is most important

4. A color picture no.94 in Abu Ridho, *The National Museum, Jakarta, The Oriental Ceramics*, vol.3 (Tokyo: Kodansha, 1981).
5. Bui Minh Tri, *Vietnamese Blue & White Ceramics* (Hanoi: Social Sciences Publishing House, 2001), p.110.

臺灣大學學術期刊資料庫

that Marie-France Dupizat and Naniek Harkantiningsih published their study of ceramic shards from Trowulan during 2007.[6] This classification study examined a total of 12,684 shards found by the Indonesian National Archaeological Research Center in various excavation research activities in Trowulan. In this book we may see 14 shards of Vietnamese tiles from the Trowulan Museum collection. Unfortunately, it is still not clear how many Vietnamese tile shards are actually included in the total of 2,198 Southeast Asian ceramics, 17% of the total of all ceramic shards, but it is clear that at least 14 shards were without doubt found in Trowulan site.

Due to this historical study, we may understand that there is now a new start for the study of Vietnamese tiles.

Id. Study Schedule

My main interest is not the history of Vietnamese ceramics *per se*, but in developing an understanding of the historical background of Trowulan, a key site for Southeast Asian archeology of the 14th-15th centuries, using the recoveries of Vietnamese tiles as characteristic material evidence.

Mayuyama's study has also shown several examples of Vietnamese tiles, but it is not possible to accurately assess the actual condition or total number of ceramic shards found at Trowulan. Due to this highly unsatisfactory situation, I feel that it is time to publish an initial analytical study of the Trowulan recoveries even though the actual quantity of the objects is limited.

As the first step of the study, I therefore wish in this paper to try to arrange a classification of the form of Vietnamese tiles found in both Demak and Trowulan based on the available data, and to consider the possibility of the influence from other Islamic cultures using tiles.

Due to the limited data from Trowulan, however, either from new publications or from the limited results of my own research relating to recoveries in Trowulan or on Islamic tiles, there is most certainly a need for further development of this study to analyze recoveries in Trowulan and other sites with large and varied quantities of relevant material. On completion of research into contemporary Islamic tiles on the India sub-continent, in Central Asia and in Western Asia, it will be possible for me to

6. Marie-France Duppizat and Naniek Harkantiningsih, *Catalogue of the Chinese Style Ceramics of Majapahit, Tentative Inventory*, Cahier d'Archiple 36 (Paris: Association Archipel, 2007).

臺灣大學學術期刊資料庫

write a conclusion summarizing the findings of my study.

In the evolution of this study, this paper thus forms a beginning stage, even though it may perhaps seem too early to present this data.

II. Characteristics of Vietnamese Tiles Found in Java

In this section, I will document the relevant decorative elements of all Vietnamese tile shards recovered in Java and in the surrounding area in Indonesia **(Map 1)**. I then want to identify their original place of manufacture and finally to try to create a new classification of style.

IIa. Distribution

My data suggests that there are several locations in Java and elsewhere where Vietnamese tile shards and wall decorations of similar form can be found, as follows:

Tiles: Trowulan; the Great Mosque of Demak; the Minaret Mosque of Kudus; the Mausoleum of Sunan Bonang (Tuban)

Brick decorations: Bangkal Temple; Empu II Temple; the Minaret and the Mausoleum of Sunan Kudus; Mosque and Palaces in Cirebon; the Mausoleum of Gde ing Suro (Palembang, southern Sumatra)

Stone decorations: the Mosque of Mantingan; Panataran Temple

Wood decorations: the Mausoleum of Sunan Kudus; the Mausoleum of Sunan Giri (Gresik)

I will now introduce the different characteristics of each site.

Trowulan (Mojokert):[7] The ruins of the capital of Majapahit, Java's largest and last

7. For archaeological recoveries from Trowulan apart from ceramics, details may be found in John N.Miksic and Endang Sri Hardiati Soekatno, *The Legacy of Trowulan* (Singapore: Natioanl Heritage Bound, 1995) and Direktorat Peninggalan Purbakala, *Majapahit Trowulan* (Jakarta: Indonesian Heritage Society, 2006). For findings of Yuan blue and white in this site, also see Mayuyama Yasuhiko, "Blue and White Shards of Yuan Found in the Capital Site of Majapahit(マジャパヒト王都址出土の元代青花磁片)," *Exhibition of Blue and White of Yuan, Jingdezhen Kiln at the 14th Century*(元の染付展—14世紀の景德鎮窯)(Osaka: Osaka Municipal Oriental Ceramic Museum, 1985). In this short essay, Mayuyama points out several instances of similarity with findings from the Toghluq Dynasty Palace, Delhi and the Topkapi Collection, Istanbul.

臺灣大學學術期刊資料庫

Hindu kingdom, located on the bank of Brantas River some 40km southwest from Surabaya, East Java. There are several brick-built monuments, comprising ruins of temples, large gateways or bathing places, over a very wide area. But no *in situ* recoveries of tiles have ever been reported from such monuments. It should be noted, however, that there are several early Islamic tombs possibly dating to the 14th century in the Troloyo graveyard. It is believed that this capital was established in the last quarter of the 13th century and had collapsed by the beginning of the 16th century.

Bangkal Temple (Mojokerto): This temple was built of bricks around the 14th century. It is located on the northwest foot of Mt. Penanggungan, relatively close to Trowulan. Although no inscriptions have been found, it is estimated from the proportions of the building that it is of a similar date to the brick-made minaret in the Minaret Mosque of Kudus, and to the stone-built temples of Jawi or Panataran in East Java.

Empu II Temple (Mojokerto): These temple ruins are located on the slopes of Mt. Penanggungan at around 1,050m above sea level. The estimated date of this temple places it among temples built on this mountain in the 15th century.[9]

Panataran Temple (Blitar): This is one of the largest Hindu temples in East Java, located in the upper stream area of the Brantas River, and was constructed from the 12th to 15th centuries. A major part of the construction was finished around the 14th century, during the golden age of Majapahit.

Mausoleum of Sunan Bonang (Tuban): Sunan Bonang is one of the nine legendary Islamic saints, the *wali sanga*, who are believed to have be Islamic missionaries to Java around the 15th century. Tuban, located on the north coast of East Java, is thought to have been an important port during the Majapahit era. In the 1980s, this port became famous due to the discovery of numerous Chinese ceramics off the coast, although a large number of salvage activities were illegal.[10]

Mausoleum of Sunan Giri (Gresik): Sunan Giri is also one of the *wali sanga*, and

8. Although for a long time it was believed, based on later Javanese chronicles such as Babad Tanah Jawi etc., that the fall of Majapahit was in the year 1478, a large number of historians now put it at around 1527. c.f. Bambang Sumadio ed., *Sejarah Nasional Indonesia vol.2 Jaman Kuna* (Jakarta: Balai Pustaka, 1984), pp.448-451.
9. Unfortunately the dating of a relief of Javanese character on a stone double-stepped cross motif decoration, found in the ruins of this temple, is not explained. See Soeroso, "Laporan Hasil Survai Kepurbakalaan di Gunung Penanggungan (Jawa Timur)," *Berita Penelitian Arkeologi*, No.1 (Jakarta: Pusat Penelitian Purbakala dan Peninggalan Nasional, 1976), p.16. No.16.
10. A small selection of the findings, now exhibited at the Jakarta City Ceramic Museum, does not include any Vietnamese ceramics or tiles.

臺灣大學學術期刊資料庫

was one of the leaders of Gresik, another important north coast port near Surabaya since before the Majapahit era. Gresik was a powerful political and economical center until the first half of the 17th century. Two famous Islamic tombs, one of which is said to be the oldest in Indonesia, are to be found near this port. These are Fatimah binti Maimun, dated to 1082, and the typical Gujarati style burial of Maulana Malik Ibrahim, dated to 1419.

The Great Mosque of Demak: The city of Demak, located near the north coast of Central Java, is thought to have been the capital of the first Islamic kingdom in Java, which replaced Majapahit during the first half of the 16th century. Although Demak did not achieve political hegemony in Java until around 1520, it is possible that the Great Mosque was already established in earlier times, possibly by the second half of the 15th century.[11]

The Minaret Mosque of Kudus and Mausoleum of Sunan Kudus: Kudus, located to the east of Demak, is famous for the Minaret Mosque, the earliest known type of minaret. It is made of brick in the Hindu-Javanese Majapahit style temple architecture and dates from around the 14th/15th centuries. Close to this minaret is located the Mausoleum of Sunan Kudus, another of the *wali sanga*. Even though the historical facts concerning Sunan Kudus are not clear, the minaret here is considered as the most important material evidence for the introduction of Islam to Java. In this city are located the ruins of another old mosque, the Langgar Bubrah.[12]

The Mosque of Mantingan (Jepara): Jepara, located to the north of Demak, is another important port on the north coast of Central Java. It is possible to think that the development of this port coincided with the growth of Demak in the second half of the 15th century, and even after the fall of Demak in the middle of the 16th century Jepara continued to function until the end of the 17th century.

Mosque and palaces in Cirebon :[13] This city, located at the eastern end of the north

11. Mayuyama thought the construction date of the Great Mosque of Demak coincided with the year of the legendary fall of Majpahit, 1478 (Mayuyama Yasuhiko, "On Annamese Blue and White Ornamental Tiles in the Masjid dan Makam Demak," pp.49-50). In the current historical studies, however, there is no evidence to connect this year with such an important event (see footnote no.8).
12. In the ruins of Langgar Bubrah Mosque can be found the same brick wall motif decorations as are found at the Mausoleum of Sunan Kudus, c.f. Hasan M.Ambary, "Laporan Survai Kudus," *Berita Penelitian Arkeologi,* No.14 (Jakarta: Pusat Penelitian Purbakala dan Peninggalan Nasional, 1977), p.16.
13. For more details, see Naniek Harkantiningsi Wibisono, *Seni Hias Temple Keramik di Cirebon* (Jakarta: Kementerian Kebudayaan dan Pariwisata Proyek Penelitian dan Pengembangan Arkeologi, 2004).

臺灣大學藝術期刊資料庫

coast of West Java province, is related to another of the *wali sanga*, Sunan Gunung Jati. Known as 'Fathahillah' in Portuguese sources, he won an important victory against the Portuguese at Sunda Kelapa (now Jakarta) in 1527, and his descendants created an Islamic kingdom here around the end of the 16th century.[14] In local tradition, certain mosques, such as Panjunan or Pakungwati, are believed to have been founded by the second half of the 15th century. During the 17th century several palaces were built in the inner city, and mausoleum of Sunang Gunung Jati was renovated in first half of the 18th century.

Mausoleum of Gde ing Suro (Palembang) :[15] Palembang, located midstream of the Musi River in south Sumatra, has been active as an important port city near the Malacca Straight in several periods since the 7th century. Gde ing Suro is the legendary ancestor of the Palembang Sultanate who came from Java. By the second half of the 16th century this Sultanate had already developed into a center of long distance trade.

In short, the places constituting the distribution of finds of Vietnamese tiles all share characteristics which connect them to Islamic activities in Java around the 15th and 16th centuries.

IIb. Identification

Of the tiles found in Java mentioned above, in this paper I will discuss the following several examples, selected for their features as ceramics, through the use of photographs.[16]

Trowulan: 31 (in the National Museum with cord TN and in the Trowulan Museum with cord TT)
The Great Mosque of Demak: 29 (cord D)

14. This remarkable opinion was first expressed by Hoesein Djajadiningrat at beginning of the 20th century; however, an alternative theory has been published which holds that the two are in fact different persons.
15. Based on F.M.Schnitger, *The Archaeology of Hindoo Sumatra*, Internationales Archiv fur Ethnographie 35 Supplement (Leiden: E.J.Brill, 1938) and my observations of ceramic shard findings in Jambi Cultural Heritage Preservation Office.
16. Used on Mayuyama Yasuhiko, "On Annamese Blue and White Ornamental Tiles in the Masjid dan Makam Demak," Abu Ridho, *The National Museum Jakarta*, Duppizat, Marie-France Duppizat and Naniek Harkantiningsih, *Catalogue of the Chinese Style Ceramics of Majapahit*, pp.98-104, Direktorat Peninggalan Purbakala, *Majapait Trowulan*, pp.122-123.

臺灣大學藝術 期刊資料庫

The Minaret Mosque of Kudus: 1 (cord K)
Mausoleum of Sunan Bonang: 1 (cord B)

Photographs of the reverse condition are available only for 18 examples from Trowulan and Kudus.

Based on my investigations, the description of the characteristics of these selected examples is given below:

Glaze color: Blue and white wares (59) are classified into 4 different blue colors, those being clean blue, deep blue, dark blue and grayish blue. A large portion of them belong to the categories of dark and grayish blue. While polychrome ware (2) is used over glaze green and red under glaze blue, white ware (1) is colored with yellowish white.
Motif: Three kinds of motif should be distinguished: Vietnamese motifs (49 examples), other motifs (5), and combinations of Vietnamese and other motifs (8). Vietnamese motifs are composed of arabesques (peony, lotus and chrysanthemum), animals (birds and *qilin*/lion), and clouds, while motifs in the 'other' group comprise some geometric designs and white leaf/arabesque ones, and combination motifs are based on several geometric designs ('quartered circle' and 'honeysuckle and circle') with combined with arabesques.
Slip and body color: From the photographs it seems that slips are divided into several color groups, such as grayish white (8), yellowish white (21), white (14), and transparent (1). Body colors break down into yellowish brown (4), reddish brown (10), gray (5) and grayish white (1). The last piece has a transparent slip on a grayish white body, and is totally different from the others.
Reverse condition: Only 19 examples could be classified, one as 'slab' (TN14) and 18 as 'footed'. The footed group included one 'wide foot' (TN13), two 'cross bars' (TT01, 02) and one 'high foot' (TN10).

Analysis by means of investigating only secondary material such as these photographs is certainly of limited use. The characteristics, however, are clearly sufficient to classify 3 basic kinds of motifs. Furthermore, it is worthy of consideration that a very rare kind of transparent slip with grayish white body is to be found among the 'other motif' group, as is the remarkable fact that shards with similar motifs from the 'combination motif' group can be found in different sites; the 'quartered circle' motif in Demak and Trowulan, and the 'honeysuckle and circle' motif in Sunan Bonang and Demak. Equally, similar motifs from the Vietnamese group are found at

臺灣大學學術期刊資料庫

different sites, such as peony arabesque motifs, found in Demak and Trowulan, or lotus arabesque motifs, found in Demak, Kudus and Trowulan.

Based on such similarity of motif, one can conclude that the styles of the 'combination' group and those of the 'Vietnamese' were carried to sites across Java, but the styles of the 'other' group were only used in Trowulan, although all three motif groups share common foot characteristics.

Recently a new Vietnamese style has come to light with a new finding at Van Don, the old port site of North Vietnam, following surface research at Kikuchi Seiichi(菊池誠一).[17] This shard **(Fig.1-01)** is a quatrefoil form blue and white tile with a cloud motif that is depicted in dark blue on a white slip and gray body with foot. The basic form and motif of this Van Don shard, a Vietnamese motif, is very similar to the Trowulan recoveries in the National Museum **(TN01 Fig.1-33)**. Even though this shard is found in a port site, it is likely that it is a product of the near vicinity of Van Don port, i.e. the Red River delta area.

Based on this evidence, it is clearly possible to conclude that all findings in Java originate in the Red River area, with different motifs.

IIc. Classification of Form

For the understanding of Vietnamese tiles, it seems the most important element is their characteristic form that is almost never seen in other early ceramic traditions of Vietnam itself or of China. With this in mind, Mayuyama Yusuhiko began a classification study of the form of the tiles in the Great Mosque of Demak, in traditional Japanese terms. Here, I will firstly introduce the basic ideas of Mayuyama's work, and thereafter give my own opinions on their origin.

IIc-1 Classification by Mayuyama Yasuhiko

Mayuyama classified the forms of the tiles in Great Mosque of Demak, arranged 60 on the outer wall of the prayer hall and 5 on the inner west wall, the *mihrab* side, as follows:

17. I am very grateful to Prof. Kikuchi Seiichi and his colleague Abe Yuriko for offering their pictorial data.

臺灣大學學術期刊資料庫

Outer wall of the prayer hall:

Circle with 4 foliated edges: 6 (**Fig.1-26, 27**: size 24 x 24cm)
Circle with 6 foliated edges: 6 (**Fig.1-13/15**: size 25.5 x 18.9cm)
Quatrefoil style A: 1 (**Fig.1-09**: size 23.5 x 23.5cm)
Quatrefoil style B: 4 (**Fig.1-11, 12**: size 23.5 x 21.0cm)
Stepped cross style A: 5 (**Fig.1-17**: size 23.5 x 23.5cm)
Stepped cross style B: 14 (**Fig.1-18/23**: size 28.0 x 25.5/26.0cm)
Stepped cross style C: 4 (**Fig.1-24**: size 28.2 x 25.3cm)
Cartouche-effort[18] : 10 (**Fig.1-02/08**) included large (37.5 x 19.2cm) and small (25.5 x 12.5cm)
Transformed cross: 10 (**Fig.1-28/30**) included large (33.5 x 25.5cm) and small (22.8 x 16.2cm)

Inner west wall of the prayer hall:

Circle: 1 (**Fig.1-16** diameter 24.5cm)
Transformed cross style B: 1 (**Fig.1-25**: size 33.0 x 17.0cm)
Quatrefoil style A: 2 (**Fig.1-10**: size 23.5 x 23.5cm)

Mayuyama categorizes each style as belonging either to the 'geometric' group (stepped cross styles A-C and circle) or the non-geometric group (circle with foliated edge, cartouche-effort, transformed cross etc.). He also pointed out that the styles of each group are used separately as independent wall decorations. This is indeed an important point, though Mayuyama does not give a reason for this practice, which is completely at odds with the way Islamic tiles are used for mosque decoration in Western Asia.

In addition to this classification, he also examines the reverse condition of several examples from Trowulan, such as those in **Figs.1-33**, **35**, **41** and **Figs.1-47**, **48**, **52**. An important element to note here is that all tiles from Trowulan have feet which are 3.5 or 4 times greater in proportion to the thickness of the body, for allow easy setting in the walls, and the tiles from Demak Mosque are estimated to be in the same proportion.

Although he used traditional Japanese terms for the classification, Mayuyama's basic examination was indeed effective and pioneering.

18. Mayuyama uses a term from Japanese art, *unpan*, that refers to a kind of bronze percussion plate used as a clock in Japanese Zen Buddhist temples.

臺灣大學學術期刊資料庫

IIc-2 A New Classification

Mayuyama, however, only examined examples from Trowulan that are of almost the same kinds of form as those from Demak Mosque. According to the later studies, especially the work of Dupizat/Naniek, we now know of more diverse kinds of form in tails from Trowulan. Therefore, we must now re-think the classification system for all Vietnamese tiles *in situ*.

With additional data from Trowulan etc., here I will show a new approach to the classification of the form of Vietnamese tile, as follows:

Cartouche-effort style: Although based on the overall form, this can be further divided into two sub-styles. In either case, single or double lines are drawn along rim of the form.

Oblong sub-style: This sub-style is Mayuyama's cartouche-effort style, and shows two different edge styles, straight edge **(Fig.1-02)** and curved edge **(Fig.1-06)**.

Quatrefoil sub-style: Overall form is diamond-like, and the edge style is divided into straight **(Fig.1-10)** and curved **(Fig.1-13)**.

Circle style: Includes simple circles **(Fig.1-16)** and multi-petal circles **(Fig.1-35)**.

Cross style: This style has a lot of variations that can be categorized into two sub-styles as follows:

Standard sub-style: Included are the single cross **(Fig.1-53)**, the stepped cross **(Fig.1-17)**, the double stepped cross **(Fig.1-18)**, and the triple stepped cross **(Fig.1-24)**. Only the edges of the simple cross form sharp triangles. Of these variations, the double stepped cross appears most commonly, while the triple stepped cross is seldom found. It is also possible to consider that D24 **(Fig.1-25)**, without upper and lower parts, was also made based on the triple stepped cross.[19]

Transformation sub-style: Included are the 'circle with foliated edge' type **(Fig.1-26)** and the combination type **(Fig.1-30)**. It is very

19. In a private collection it is referred to as a triple stepped cross of polychrome ware, cf. Machida Municipal Museum, *The Vietnamese Ceramics*, p.92, no.255.

臺灣大學學術期刊資料庫

interesting that on the 'circle with foliated edge' type, the edges are curved, and the motif of the triple cross is drawn in the center. The combination type is formed with a curved top and bottom edges, and straight side edges.

Flower style: The flower style is comprised of 4 large petals and the whole is in the form of a square or a diamond. This style has yet to be found among Vietnamese tiles, but it seems to have some relationship to the cross style transformation-combination type and spiral style.

Hexagonal style: There is only one example **(Fig.1-41)** and it has exact geometric edges.[20]

Spiral style: This style includes 2 forms, type A **(Fig.1-42)** and type B **(Fig.1-44)**. Although the overall form is not clear, the upper part of type A is formed as a kind of wide leaf, while the overall form of type B is made up of a combination of 3 parts. We should take note of a similarity between the spiral leaf motif depicted on type A and the overall form of type B.

Square style: The square style has a very simple form, but based on the form of the reverse it can be divided into the edged type **(Fig.1-45)** and the flat type **(Fig.1-46)** that has relief on the surface.

Triangle style: Currently, only one example **(Fig.1-63)** has been found, and that is decorated with a very rare style of arabesque motif.

The variety of forms differs slightly in each site. Usually, recoveries from Trowulan are of a broader variety of forms than those from Demak. For example, the multi-petal type circle style, the standard single type cross style, the hexagonal style, the spiral style, the square style and the triangle style are solely found in Trowulan, while to date the standard stepped type cross style, standard double stepped type cross style, and the circle with foliated edge type of the transformation cross style are known at Demak only. However, the standard triple stepped type cross style is also found at the Mausoleum of Sunan Bonang.

Having the distribution in Indonesia of motifs of other materials in mind, we can identify several interest aspects, as follows:

20. Also from a private collection, we can see two joined blue and white ware hexagonal tiles in the Machida Municipal Museum, *The Vietnamese Blue and White Ware, the Sovereign Flower of Dai Viet*, p.49, no.78.

臺灣大學藝術期刊資料庫

1. The standard type cross style is easily found in many sites, especially single, double stepped and triple stepped crosses in Kudus, Bangkal, Empu II, Sunan Giri, various buildings in Cirebon, and Gde ing Suro. The examples from Cirebon, however, do not show a regular form but grow larger towards each side.
2. The oblong straight-edged type cartouche-effort style is also used at several sites, such as Kudus, Mantigan, Sunan Giri and buildings in Cirebon.
3. The quatrefoil type cartouche-effort style is found in Mantigan and Sunan Giri.

We can identify some similarities between the flower style found in Sunan Kudus, Empu II and Gde ing Suro and the wood decorations of the transformation-combination type cross style from Sunan Kudus. But it seems there is also a close relationship between the flower style and the type A spiral style. As a hypothesis, it might be suggested that the chronological progression develops from the type A spiral to the flower, and then finally to the transformation-combination type cross.

As additional data, we must take account of a few blue and white tile shards found in Jingdezhen, China. These shards **(Fig.1-64 except below right)** were found at the Early Ming layer of the Royal Kiln Ruin site, during the research of Liu Xin-yuan (劉新園).[21] On these blue and white tiles, of slender form, we can see similar motifs similar to those found on Vietnamese tiles, such as the type A spiral motif and the hexagonal motif. In addition to the type A spiral motif, which, as has been pointed out by Yuba Tadanori (弓場紀知), is similar to part of large dish motif of Yuan blue and white, a close relationship between other Vietnamese tiles and Yuan blue and white is shown. This aspect, however, cannot be found in early Chinese ceramics before the Song dynasty.[22]

With regard to the relationship between the Chinese ceramic tradition and the

21. Yuba Tadanori(弓場紀知), "A Dream Made by Blue and White Tile – Regard with Chinese *zhuan* (青花タイルが紡ぐ夢—中国の磚をめぐって)," *Tile of China – A History of Everlasting Ceramic and Zhuan* –(中国のタイル—悠久の陶・磚史)(Tokyo: Inax, 1994), pp.42-49. See also Chang Foundation ed., *Xuande Imperial Porcelain Excavated at Jingdezhen* (Taipei: Chang Foundation, 1998), p.122.
22. Jessica Rawson pointed out the existence of this motif as lobed panel/openings from the Tang period onwards, but for decoration of ceramics very few examples are found until Song period. Jessica Rawson, *Chinese Ornament: The Lotus and the Dragon* (London: British Museum Publications, 1984), pp.125-132.
23. See Jessica Harrison-Hall, "Architectural Ceramics 1368-1644," *Catalogue of Late Yuan and Ming Ceramics in the British Museum* (London: The British Museum Press, 2001), pp.516-536.

臺灣大學學術期刊資料庫

Vietnamese tiles, I consider that there are quite substantial differences between them. In the Chinese tradition, decorated ceramics are mostly used for roofs and floors, as architectural elements.[23] Although among the architectural elements there are a few examples of wall tiles (18:15 & 18:16 in Harrison-Hall), they are rectangular, in sharp contrast with the majority of Vietnamese tiles. Only the 5cm depth of the Chinese wall tiles may be related to the feet of the Vietnamese tiles, and perhaps some rare tradition of Chinese floor tiles[24] may have been brought to Vietnam and have influenced the development of the square style.

We must also note the white porcelain tile found along with the blue and white tiles in kiln site of Jingdezhen. Specifically, on one side of this tile it has a high foot part that seems to bear some relation to the feet of Vietnamese tiles.

From the facts mentioned above, I will here summarize the variety of forms seen in Vietnamese tiles, as follows:

1. They may be classified as the geometric group (circle, hexagonal and square styles) and the non-geometric group (cartouche-effort, cross, flower and spiral styles).
2. The geometric group was almost always used for Vietnamese tiles and is only found in Trowulan, with the exception of the stone and brick decoration of Kudus, Panataran and Mantingan. The non-geometric group was used for decorative forms of other materials in Indonesia.
3. Most use of the non-geometric group can be dated to roughly the same period or later than the site at Trowulan and the Great Mosque of Demak.
4. Based on the distribution of the geometric group and the spiral style, it is possible to consider that this group was carried to Java earlier than the non-geometric group. Similar motifs are also found on the Chinese blue and white tiles of the early Ming.
5. Chinese blue and white tiles are very rare products that are only related by motif to the large dish of Yuan blue and white.

John Guy concluded that 'Vietnamese tiles do not function in the Islamic manner; they do not interlock to form a continuous repeat design. Instead they serve as single

24. Such as lower right in Fig.1-64 or F19 Chang 1998 and 4:39, 40 in Harrion-Hall 2001 or Fig.34 in 廣州市文物考古研究所編,《羊城考古發現與研究一》(北京:文物出版社,2005)。

25. J. Guy, "The Vietnamese Tiles of Majapahit," p.38.

期刊資料庫

decorative entities, closer in function to Javanese architectural relief panels.'[25] Indeed, exactly as Guy says, Vietnamese tiles are used in a totally different way from Islamic tiles. However, if we see tiles from the geometric group and the original form of the non-geometric group used in this way, we must search for a broader explanation. Examples of the decorative form of the non-geometric group found in Hindu Javanese architectures, except Candi Bangkal and Panataran or the Minaret of Kudus, seem to be very rare. Such evidence suggests that decorations of the geometric group become popular in Java for use in decoration of Hindu temples. In the period of the Great Mosque of Demak, however, instead of the geometric group, we see the new wave, the non-geometric group, becoming popular. Perhaps the change from the spiral style to the combination type cross was happening during the same period.

In any event, I consider it important that no evidence was found for the existence of the forms of the majority of Vietnamese tiles, except for the square style, in Javanese architectural decoration or Chinese ceramic tradition before the 13th century.

III. Similar Examples among Islamic Tiles

In this section, I will try to find examples of decorative forms which resemble those of the Vietnamese tiles among Islamic tiles from South, Central and Western Asia **(Map 2)**, because in any case the decorative tile culture developed in Islamic architecture and Vietnamese tiles are also clearly related to Islamic phenomena such as Mosques and Islamic Mausoleums in Java. Although a few examples of Vietnamese tiles are found in Javanese Hindu architecture, it is clear that the dating of them is not older than the 13th century.

According to the material evidence such as the tomb of Malik Ibrahim in Gresik, dated 1419, Islamic culture was already present on the north coast of East Java at beginning of the 15th century, and it is also certain that Islamic culture was known here in earlier times.[26] In Javanese tradition, it is believed that the Islamic religion was brought by legendary nine saints, the *Wali Sanga*, and the first generation of them originated in Gujarat, northwest India. Indeed, there is the Gujarati style stone coffin of Malik Ibrahim, and the very similar one of Nahrishah, the Queen of Samudera-Pasai, dated 1428 and found in Aceh at the north end of Sumatra, is also believed to have been imported from Gujarat.

With consideration to such evidence, here I wish to trace the hypothesis that

26. At Gresik is also found the earliest Islamic tomb in Indonesia, Fatimah binti Maimun dated 1082.

臺灣大學學術期刊資料庫

Islamic tiles from India and neighboring areas influenced the form of Vietnamese tiles.

To substantiate this hypothesis, in this section I will introduce Islamic tiles related closely in form to Vietnamese tiles, using pictures from previous studies of Islamic tiles.[27] Due to the limited research scope of this paper, however, I have not examined all kinds of tiles and architectures from India and neighboring areas.

The area to be covered for this purpose is divided into two parts:[28] South Asia (India and Pakistan), and Central and Western Asia (from Xinjiang, China to Turkey).

IIIa. South Asia

As is well known, the influence of Islamic culture began in the Umayyad period, especially in Sindh, downstream of the Indus River where early mosque ruins are found in Bambhore, dating to the 8th – 10th centuries. During the 10th – 11th centuries the Ghaznavid ruled from Afghanistan to the Punjab, midstream of the Indus River, until, following several attacks, the Ghurid general Aibek established hegemony and Islamic rule in the Hindustan Plains from 1191. From this period until the 16th century, Turkish or Afghan Islamic dynasties, known as the Delhi Sultanates, repeated the rise and fall until finally Babur, a prince of Timurid, established the powerful Islamic empire of the Moghuls in the sub-continent of India in 1526.

During the 13th – 18th centuries, Islamic rulers in the area were active in building a great number of Islamic buildings, such as mosques, mausoleums and palaces etc.. The basic elements of most of them, however, were quite different from those in Central and Western Asia. As raw materials, bricks were used instead of stones, with only a few exceptions. Due to this fact, in contrast to similar buildings in Central and Western Asia, it is not common to find decorative tiles used in South Asian Islamic architectures. As an example, the Taj Mahal, a very famous royal mausoleum of Moghul empire, was built of marble with stone marquetry decoration techniques.

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27. Gerard Degeorge and Yves Porter, *The Art of the Islamic Tile* (Boulogne: Frammarion, 2002); Venetia Porter, *Islamic Tiles* (Northampton: Interlink Books, 1995); Ahmad Nabi Khan, *Islamic Architecture in South Asia, Pakistan-India-Bangladesh* (Karachi: Oxford University Press, 2003), Iijima Akihito (飯島章仁) ed., *Burning Colors on Desert—5000 Years of Tile Design in Middle East—* (砂漠にもえたつ色彩―中近東5000年のタイル・デザイン) (Okayama: Okayama Orient Museum, 2001), Kamiya Takeo(神谷武夫), *Architecture in India*(インドの建築)(Osaka: Toho Publishing, 1996), John D.Hoag, *Islamic Archetecture*(イスラム建築)(Tokyo: Honnotomo Publishing, 2001) and website of ArchNet (http://archnet.org/).
28. In the history of Islamic tiles, North Africa and Iberia are also important areas. However, in this paper these two areas are not included since they have no direct relationship to Southeast Asia.

臺灣大學學術期刊資料庫

Despite these prevailing conditions, I can point to some tiles used in the Islamic architecture of this region which are similar to Vietnamese tiles. They are discussed below, according to their style:

Cartouche-effort style: Very few examples of tile work of this style can be found in this area. The oldest one is found in the Shah Yusuf Gardizi Mausoleum **(Fig.2-01)**, in Multan, Punjab, which is a very famous city with much tile-decorated Islamic architecture. Shah Yusuf Gardizi died in 1152 and the structural characteristics of this mausoleum are totally different from later mausoleums found here. I estimate, however, the tile decoration of this mausoleum was added later, perhaps after the 14th century, because very few examples of similar tile work are found in Central and Western Asia before the 13th century.

For such examples I know only two cases, both on the Deccan plateau: the Rangin Mahal Palace **(Fig.2-02)** from the middle of the 15th century, at Bidar, Karnataka; and the Ibrahim Qutub Shah Mausoleum **(Fig.2-03)** from the second half of the 16th century, at Golconda, Andhra Pradesh.

A simple cartouche-effort in Rangin Mahal was made using a mosaic technique and inside holy phrases from the Qur'an were written in Arabian script. The cartouche-effort of the Ibrahim Qutub Shah Mausoleum has two forms that were both made as mosaics and inside were decorated with flower and arabesque motifs. On the other hand, cartouche-effort motifs from the mausoleum of Shah Yusuf Gardizi are written under blue glaze and are of two different quatrefoil sub-styles.

Spiral style: This style does not have many examples either. I know only of those in the Rukuni Alam Mausoleum **(Fig.2-04)**, after 1324, at Multan, and the Jalal al-Din Bukhari Mausoleum **(Fig.2-05**), after 1383, at Uch, near Multan.

Both examples are of almost the same form - a spiral curve forms the upper part of a flower motif in a single unit, although the latter is formed in relief technique.

Cross style: The cross style is a very simple decorative form found in many places, but in Islamic tile decorations this style has been used for a long time. We found the cross device employed in early periods in brick-laying techniques in some mausoleum ruins of the 13th century around the Indus River, such as Shakarganj at Sakkhar or Sadan Shahid at Muzaffargarh. On mausoleums in the same area during the 14th century it was changed to glazed tile work, for example at Rukuni Alam **(Fig.2-06)** and Jalal al-Din Bukhari **(Fig.2-07)**. During the 15th –16th centuries, the use of this technique gained popularly in several areas in India, as evidenced by the Haushang Friday Mosque of Mandu (1454, **Fig.2-08)** in Madhya Pradesh, the Man Mandir Palace

臺灣大學學術期刊資料庫

of Gwalior (second half of the 15th century, **Fig.2-09**), and other mausoleums in Punjab such as Bibi Jawindi (1495, **Fig.2-10**) of Uch or Sultan Ali Akbar (1585, **Fig.2-11**) at Multan.

After the 15th century it seems that this style was still in use as a common decoration in Islamic architecture, although it had already changed to the sub-position of decoration. On the other hand, very few examples of the transformation sub-style are found in this area. Two cases are found at Multan; at Shah Yusuf Gardizi **(Fig.2-1)** and Sawi Mosque (after the 16th century, **Fig.2-12**). The earlier one has a close relationship with the foliated edge type circle style and the later one is similar to the combination type.

Flower style: This style in only known in motifs in Sawi Mosqu **(Fig.2-12)** at Multan. An internal motif of cartouche-effort stlye at the Ibrahim Qutub Shah Mausoleum **(Fig.2-3)** at Golconda is also a four petal flower, although it is a different pattern from the style found in Vietnamese tiles.

Circle style: This basic geometric style is also not found in many examples in this area. The simple type can be seen in a large decoration at the Rukuni Alam Mausoleum **(Fig.2-13)** of Multan, and the outline of the multi-petal type is similar to a motif at the Ibrahim Qutub Shah Mausoleum **(Fig.2-14)**.

Hexagonal and triangle style: Venetia Porter introduces two typical examples **(Fig.2-15)** of these geometric forms, found at Bijapur, Karnataka.[29] In these tiles each different flower motif is written under glaze and they are estimated to date from the 16th century, although no information concerning the recovery site is available.

We can, however, find hexagonal form tiles and hexagonal motif tiles at several sites around the Indus River. The former are found in Rukuni Alam **(Fig.2-16)** and Mirza Janibeyg Mausoluem (1606, **Fig.2-19**) at Makli Hill, Sindh, in combination with triangle tiles. On the inside of each are depicted a hexagonal geometric motif at Rukuni Alam, and flower motif at Mirza Janibeyg. As for the latter, there are clear examples at two sites in Uch, those being Jalal al-Din Bukhari **(Fig.2-17)** and Bibi Jawindi **(Fig.2-18)**. The motif at Jalal al-Din Bukhari, square in form, is almost the same as the tile at Rukuni Alam. The motif of the Bibi Jawind tile, triangle shaped, is a more mixed geometric hexagonal design. At least it is possible to infer that in this area hexagonal and triangle styles were very popular motifs for the decoration of Islamic architecture during the 14th – 17th centuries.

Diamond line in the square style: This motif is also one of the basic border

29. Venetia Porter, *Islamic Tiles*, p.90.

臺灣大學學術期刊資料庫

decorations for Islamic architecture. We can see very similar examples of white tiles in the Punjab, including at Rukuni Alam **(Fig.2-20)**, Jalal al-Din Bukhari **(Fig.2-21)** and Bibi Jawindi **(Fig.2-22)**. And in Madhya Pradesh, a line of blue tiles can be found at the Man Madir Palace of Guwalior **(Fig.2-23)**.

From such examples, we can conclude that a large number of the styles found in Vietnamese tiles are also found in the Islamic architecture of South Asia during the 14th –16th centuries. Several very important sites for the recovery of such tiles are at mausoleums of Islamic saints in Multan and Uch, Punjab. In contrast, in the Gujarat area we must note the cross style relief **(Fig.2-24)** that is carved on the Bibi Ki Mosque, Ahmedabad, dated 1454. From this example it can be supposed that some Islamic decorative forms were introduced from the Punjab to Gujarat.

IIIb. Central and Western Asia

Islamic tile culture began with monochrome and luster glaze techniques such as is found at Samarra, Iraq in the 9th century. In the first instance only the basic square and star style forms are known. After the establishment of the Seljuk Empire over large part of this area in the 11th century, the use of these kinds of tile decorations on various kinds of brick-made architecture was spread, although tiles were used for limited parts of walls or floors. At least by the time of the early Hulagu Ulus (Ilkhanate) in the second half of the 13th century, the combination technique of star and cross form had been developed, such as can be seen at the Takht-e Soleiman Palace site, northwest Iran, dated 1275.[30] According to the study of Fukami Naoko(深見奈緒子), mosaic tile techniques for the decoration of architecture such as those found at Malik Zuzan Madrasa, dated 1219, in Khorasan, northeast Iran, were born at around the same time.[31]

After the first half of the 14th century, Islamic tile culture quickly developed to a new stage that included the practice of polychrome coloring using the cuerda seca technique, the creation of various kinds of forms and the concept of total decoration for architecture using tiles. This new tile culture was spread across a wide area from East

30. For details of the tiles and ruins of the Takht-e Soleiman site, see Tomoko Masuya, "The Ilkhanid Phase of Takht-i Sulaiman" (Ph.D diss., New York University, 1997) and Masuya Tomoko (桝屋友子), "Luster-painted Eight-pointed Star Tiles Excavated at Takht-i Sulaiman（タフテソレイマーン出土のラスター彩星形タイル)," *Oriental Ceramic*（東洋陶磁）, vol.34 (Tokyo: Japan Society of *Oriental Ceramic* Studies, 2005), pp.45-58.
31. Fukami Naoko(深見奈緒子), "Islamic architecture and tile (イスラーム建築とタイル)," in Iijima Akihito ed., *Burning Colors on Desert*, pp.25-28.

臺灣大學學術期刊資料庫

Turkistan to Anatolia following the expansion of the Timurid Dynasty in this area.

In the first half of the 16th century, the Ottoman Empire and the Safavid dynasty had political hegemony in central and western part of this region. However, it is possible to consider that the tile culture of the region was based on the foundations of the Timurid development, although it was influenced by some other ceramic traditions such as the Chinese blue and white.

From this area, the central region of Islamic tile culture, I will introduce several examples from the 14th – 16th centuries which are similar in form and/or motif to Vietnamese tiles, as follows:

Cartouche-effort style: At Malik Zuzan Madrasa (1219, **Fig.3-01**), we can see an early type of cartouche-effort made in mosaic tiles, although the inner motif is simple geometric pattern. By the first half of the 14th century, the quatrefoil type of this style had already been developed using the cuerda seca technique, such as is found at the Najm al-Din Kubra Mausoleum (1336, **Fig.3-02**) in Kunya Urgench, Turkmenistan. Half a century later, it had developed into a more mixed condition with an Arabian character, as found at Aq Sarai Palace (1396, **Figs. 3-03, 04**) in Shahr-i Sabz, Uzbekistan.

After this time, the cartouche-effort style was used as a common decoration in Islamic architecture in this area, as can be seen from the Friday Mosque of Herat (1418, **Fig.3-05**) in Afghanistan, and the Gawhar Shad Mosque of Mashad (1418, **Fig.3-06**), the Kabud Mosque of Tabriz (1465, **Fig.3-07**) and the Friday Mosque of Kerman (1559, **Fig.3-08**) in Iran.

Spiral style: The motif from Najm al-Din Kubra **(Fig.3-02)** may be seen not only as the quatrefoil type of the cartouche-effort style, but also as an early type of the spiral style. In later periods, however, more developed examples of the spiral style can be found, such as the motifs from the Shad-i Mulk Aqa Mausoleum (1383, **Fig.3-09**) of Samarkand, Uzbekistan or the Kabud Mosque of Tabriz **(Fig.3-10)**. It seems that the spiral style found at Najm al-Din Kubra has more in common with motifs used in Yuan blue and white ware, and perhaps the original form of this style was related to the forms of the arches from *mihrab*/wall decorations which adorn the direction of worship in mosques.[32]

32. According to Fukami Naoko, the oldest mihrab, a collection of the Baghdad Museum in the 8th century, was formed in a multi-petal arch (see Fukami Naoko(深見奈緒子), *A Point View for the Islamic Architectures, History of the Holy Designs*(イスラーム建築の見かた—聖なる意匠の歴史) (Tokyo: Tokyodo Publishing, 2003), pp.104-108. After that time, this form was used as the typical

臺灣大學藝術期刊資料庫

Cross style: The single type is of two kinds: those that have a triangular top in combination with a star form, such as at Takht-e Soleiman; and those with a flat top, which developed from brick decorations. The first kind is found at many sites with almost the same form, but the second kind can be seen in various forms from single to triple stepped crosses, and is sometimes formed by glazed bricks.

At the Il Arslan Mausoleum of Kunya Urgench (1172, **Fig.3-11**) in Turkmenistan, we can see a triple stepped type cross formed of glazed bricks, but this is thought to be a result of later restoration. I consider, therefore, that one of the oldest is the combination with square tiles in the Uljeitu Mausoleum of Soltanye (1313, **Fig.3-12**) in Iran. A little later than this, the Friday Mosque of Yazd (1324, **Fig.3-13**) in Iran was decorated with a double stepped type cross of rectangular bricks. Following the example of Shad-i Mulk Aqa (1183, **Fig.3-14**), the cross style constructed from rectangular tiles became a common decoration in many architectural works, such as the Ahmad Yasavi Mausoleum of Turkestan (1405, **Fig.3-15**) in Kazakhstan, the Hazrat Ali Mausoleum of Mazar-e Sharif (1481, **Fig.3-16**) and the Khwaja Abu Nasr Parsa Complex of Balkh (1460/1598, **Fig.3-17**) in Afghanistan. At this last site, the motif is a triple stepped cross. In addition, a complicated cross formed of square tiles can still be seen at the Kashan Bazaar (1600, **Fig.3-18**) in Iran.

Examples of the transformation type are very scarce. However, it is possible to consider that the decoration of the Friday Mosque of Herat (1418, **Fig.3-19**) or the Sheikh Safi Mausoleum of Ardabil (14th/17th c., **Fig.3-22**) are of this style.

Flower style: Only three examples of this style are found, all in Iran, those being the Friday Mosque of Yazd (1324/1460, **Fig.3-20**), the Kabud Mosque of Tabriz (1465, **Fig.3-21**) and Sheikh Safi (14th/17th c., **Fig.3-22**). Since these three examples are not too far removed from the triangular top type of the single cross style, it is possible that the flower style developed from this cross style in Iran around the 15th century.

Circle style: I have found three examples in the Friday Mosque of Yazd **(Fig.3-23)**, Shad-i Mulk Aqa **(Fig.3-24)** and the Friday Mosque of Herat **(Fig.3-25)**. It is interesting that this quite simple geometric form was used in only a few sites. The

symbol for a *mihrab*. Because a *mihrab* functions as symbol of the direction of worship for devotees in a mosque, however, in later periods the holy arch was constructed by a combination of lots of tiles. It seems in the blue and white ware of Yuan China this form was used as a kind of holy motif of Islam, but we can not find tiles of this type in the *mihrab* of the Great Mosque of Demak, perhaps because the early mosques of Java were built without the influence of such symbolic ways of thinking.

臺灣人藝學術期刊資料庫

inside of each design is different, and small circle units can be seen in Shad-i Mulk Aqa.

Hexagonal and triangle style: The hexagonal style can be divided into two kinds, monochrome glaze and polychrome glaze. While the former uses only hexagonal tiles, the latter is combined with triangle tiles, which sometimes are also decorated in polychrome. Examples of the former kind can be seen in the Friday Mosque of Yazd (1324/1460, **Fig.3-26**), the Kabud Mosque (1465, **Fig.3-31**), Abu Nasr Parsa (1460/1598, **Fig.3-32**), and the Friday Mosque of Kerman (1349/1559, **Fig.3-33**). The latter kind is found in Shad-I Mulk Aqa (1383, **Fig.3-27**), Aq Sarai (1396, **Fig.3-28**), Muradiye Mosque of Edirne (1436, **Fig.3-29**) in Turkey and the Gawhal Shad Complex of Herat (1438, **Fig.3-30**). Examples of this group are concentrated mainly during the early Timurid period, and all motifs are of a geometric design.

Diamonds line: In my data, this motif is found only in several examples from the 14th century such as the Friday Mosque of Yazd (1324/1460, **Fig.3-34**), the Friday Mosque of Shiraz (1351, **Fig.3-35**) in Iran, the Bayan Quli Khan Mausoleum of Bukhara (1358, **Fig.3-36**) in Uzbekistan, the Tughluq Temur Mausoleum of Huocheng (1363, **Fig.3-37**) in Xinjiang and the Ustad Ali Nasafi Mausoleum of Samarkand (1385, **Fig.3-38**). These examples can be categorized as 'single line' (Yazd and Shiraz), 'surrounded cartouche-effort' (Bukhara and Huocheng), or 'double lines' (Samarkand).

Overall, it can be concluded that in this area the appearance of motifs similar in form to those of Vietnamese tiles began in the first half of the 14th century in Iran, with examples such as at the Friday Mosque of Yazd. During the second half of the 14th century and the first half of the 15th century, many examples are found in Central Asia, such as the Tughluq Temur Mausoleum (Huacheng), mausoleums at Shah-i Zinde (Samarkand) and buildings in Herat. Finally, from second half of the 15th century until the first half of the 16th century, similar sites are again found in Iran, such as the Kabud Mosque (Tabriz), the Friday Mosque of Esfahan and Kerman.

Certainly such a distribution is closely related to the prevailing conditions of heritage preservation and the control of political power. Generally, however, it is interesting to note that tiles with similar forms to those of Vietnamese tiles can be found across such a wide area.

However, several kinds of style are found only in very limited examples: the spiral style and the circle style are only seen in sites from the early period of the Timurid dynasty, and only one example of the transformation cross style is found, also from around the same time.

臺灣大學學術期刊資料庫

IV. Conclusion

As discussed in the preface, in this paper I can only consider some facts and possibilities concerning the form of Vietnamese tiles, because my field research, as the first step, is still not sufficient to base firm opinions on. In this section, then, I will confine myself to pointing out some particularly remarkable aspects relating to this topic.

IVa. Comparison with Islamic Tiles

As is well known, Vietnamese ceramics developed largely under the influence of Chinese ceramics, and especially the production of blue and white ware exhibited such a tendency, in terms of motif, color and form. It is very easy to find elements of similarity with Chinese wares in most Vietnamese blue and white.

Despite this general condition, in the case of decorative tiles some aspects are totally different. Firstly, in the Chinese ceramic tradition we can find very few examples of decorative tiles for use on walls, with the exception of *zhuan*. Certainly there are some decorative tiles to be found among *zhuan*, but only monochrome glaze or relief techniques are known. And I know a few examples of Chinese blue and white slender tile shards have been recovered at Jingdezhen **(Fig.1-64)**, but there are no examples of any architectural use of such tiles.[33]

In their basic manufacturing technique, Vietnamese tiles were influenced by Jingdezhen blue and white wall tiles, as can be seen especially from the reverse condition, and by floor tiles. As with the Jingdezhen tiles, Vietnamese tiles also have a projecting part at the foot of the reverse, usually about 4 - 5cm high and 1cm thick. On the basis of this point, it may be thought that this aspect of Vietnamese tiles shows them to be absolutely different from Islamic tiles. And indeed, several kinds of motif found on Vietnamese tiles, such as animals or flowers, are never seen on Islamic tiles.

As a contrary indication, however, it is in fact very difficult to find geometric motifs and many of the forms of Vietnamese tiles in the Chinese ceramic tradition. Therefore, we must consider other possibilities for the origin of Vietnamese tiles, with

33. Liu Xin-yuan, “the Detector and Rich Study in Jingdezhen Kiln Sites, Also Thought These Shards as Special Ordered from Some Islamic Area,” see in Yuba tadanori, *A Dream Made by Blue and White Tile.*

臺灣大學藝術期刊資料庫

the exception of some forms and motifs present in Jingdezhen tiles or floor tiles.

As has already been pointed out by John Guy,[34] the similarity between Vietnamese tiles and Islamic tiles, such as the hexagonal style **(Fig.1-41)**, is very clear. But this resemblance is not limited only to the style. As is shown in the examples mentioned above, we can find precursor forms for many Vietnamese tiles in South, Central and Western Asian Islamic tiles, with the exception of the spiral style and the transformation type of the cross style.

It is easy to find lots of examples of the standard type of the cross style and of the hexagonal style in the Islamic mausoleums of the Punjab area. Moreover, the cartouche-effort style, the flower style and the circle style are found in Central Asia, particularly among Islamic architectural structures in the areas influenced by the Timurid dynasty.

The spiral style is also found in the Jingdezhen tiles, but is never seen in Chinese ceramics earlier than the 13th century. Although the basic form of this motif was already developed by the Tang period in China,[35] the design is found on ceramics only with the development of the blue and white ware of Yuan. Based on such facts, we can hypothesize that this motif originated in China, but only became popular in the wider Asian region with the spread of Yuan blue and white, and that this motif was then copied in Vietnam in a later period. In addition to the Yuan blue and white ware large dish example, however, certainly tiles with this motif were also made for consumers in Islamic areas. It is thought that this motif is similar to the *mihrab* arch designs found in mosques prior to the 13th century, and perhaps this resonance with Islamic iconography[36] was a significant element influencing the importing of Vietnamese tiles to Java.

In the case of the combination type of the cross style, I have found no precedent in Chinese ceramics, but have found an example of similarity in Herat **(Fig.3-19)**. This suggests the possibility that more good examples will perhaps be discovered in Central and South Asia in the future.

IVb. Possibility of Technical Influence

On the basis of the similarity between Vietnamese tiles and Islamic tiles, as

34. J. Guy, "The Vietnamese Wall Tiles of Majapahit," p.37.
35. Jessica Rawson, *Chinese Ornament: The Lotus and the Dragon*, pp. 125-132.
36. See footnote No.32.

臺灣大學學術期刊資料庫

a provisional conclusion I will suggest a possible outline of the development of Vietnamese tiles:

1. The Islamic tile tradition had spread from Central and Western Asia to South Asia by the second half of the 14th century at the latest. In South Asia this tradition was subsequently developed in the Punjab, and in the 15th century from here it was introduced to other Islamic areas including Gujarat and the Deccan plateau.[37]
2. By the beginning of the 15th century, the Islamic tile tradition had been brought to Java by several Islamic missionaries, who had links with Gujarat. In contrast with South Asia, however, the actual quantities of Islamic tiles brought to Java were very small. In such missionary activity, Islamic architects had not played an important role. For this reason, and due to differences in the natural geographic conditions,[38] in Java the mode of deployment of these tiles did not follow the traditional Islamic way of tessellating continuous designs, but instead employed the tiles as single isolated decorations for the holy wall.
3. Prior to this time, the ceramics trade between Java and Dai Viet/North Vietnam had already been established, and from the beginning of the 15th century, this trade increased significantly due to the Chinese policy of trade restriction. Owing to this new situation, the Muslims of Java ordered Islamic tiles from North Vietnam in larger quantities.

Following more practical field research in the near future, I hope to clarify such possibilities in detail with more concrete evidence.

37. Multan and Uch in the Punjab are well known as the important centers of the Suhrawardiyya Sufi order, that is now established in Iraq, and had deep relation with Bukhara. On the other hand, a large number of the Islamic sultanates on the Deccan plateau were established by immigrants from Iran.
38. Although there are many ancient stone-built temples in Southeast Asia, over the long swathe of history the basic architectural material has generally been wood.

臺灣大學學術期刊資料庫

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臺灣大學學術期刊資料庫

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臺灣大學學術期刊資料庫

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臺灣大學學術期刊資料庫

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臺灣大學學術期刊資料庫

List of Illustrations

Fig.1-01 finding in Van Don, North Vietnam
Fig.1-02 D01, the Great Mosque of Demak, Indonesia
Fig.1-03 D02, the Great Mosque of Demak, Indonesia
Fig.1-04 D03, the Great Mosque of Demak, Indonesia
Fig.1-05 D04, the Great Mosque of Demak, Indonesia
Fig.1-06 D05, the Great Mosque of Demak, Indonesia
Fig.1-07 D06, the Great Mosque of Demak, Indonesia
Fig.1-08 D07, the Great Mosque of Demak, Indonesia
Fig.1-09 D08, the Great Mosque of Demak, Indonesia
Fig.1-10 D09, the Great Mosque of Demak, Indonesia
Fig.1-11 D10, the Great Mosque of Demak, Indonesia
Fig.1-12 D11, the Great Mosque of Demak, Indonesia
Fig.1-13 D12, the Great Mosque of Demak, Indonesia
Fig.1-14 D13, the Great Mosque of Demak, Indonesia
Fig.1-15 D14, the Great Mosque of Demak, Indonesia
Fig.1-16 D15, the Great Mosque of Demak, Indonesia
Fig.1-17 D16, the Great Mosque of Demak, Indonesia
Fig.1-18 D17, the Great Mosque of Demak, Indonesia
Fig.1-19 D18, the Great Mosque of Demak, Indonesia
Fig.1-20 D19, the Great Mosque of Demak, Indonesia
Fig.1-21 D20, the Great Mosque of Demak, Indonesia
Fig.1-22 D21, the Great Mosque of Demak, Indonesia
Fig.1-23 D22, the Great Mosque of Demak, Indonesia
Fig.1-24 D23, the Great Mosque of Demak, Indonesia
Fig.1-25 D24, the Great Mosque of Demak, Indonesia
Fig.1-26 D25, the Great Mosque of Demak, Indonesia
Fig.1-27 D26, the Great Mosque of Demak, Indonesia
Fig.1-28 D27, the Great Mosque of Demak, Indonesia
Fig.1-29 D28, the Great Mosque of Demak, Indonesia
Fig.1-30 D29, the Great Mosque of Demak, Indonesia
Fig.1-31 K01, the Minaret Mosque of Kudus, Indonesia
Fig.1-32 B01, Sunan Bonang Mausoleum, Tuban, Indonesia
Fig.1-33 TN01, Trowulan (National Museum, Jakarta), Indonesia
Fig.1-34 TN02, Trowulan (National Museum, Jakarta), Indonesia

臺灣大學學術期刊資料庫

Fig.1-35 TN03, Trowulan (National Museum, Jakarta), Indonesia
Fig.1-36 TN04, Trowulan (National Museum, Jakarta), Indonesia
Fig.1-37 TN05, Trowulan (National Museum, Jakarta), Indonesia
Fig.1-38 TN06, Trowulan (National Museum, Jakarta), Indonesia
Fig.1-39 TN07, Trowulan (National Museum, Jakarta), Indonesia
Fig.1-40 TN08, Trowulan (National Museum, Jakarta), Indonesia
Fig.1-41 TN09, Trowulan (National Museum, Jakarta), Indonesia
Fig.1-42 TN10, Trowulan (National Museum, Jakarta), Indonesia
Fig.1-43 TN11, Trowulan (National Museum, Jakarta), Indonesia
Fig.1-44 TN12, Trowulan (National Museum, Jakarta), Indonesia
Fig.1-45 TN13, Trowulan (National Museum, Jakarta), Indonesia
Fig.1-46 TN14, Trowulan (National Museum, Jakarta), Indonesia
Fig.1-47 TT01, Trowulan (Trowulan Museum), Indonesia
Fig.1-48 TT02, Trowulan (Trowulan Museum), Indonesia
Fig.1-49 TT03, Trowulan (Trowulan Museum), Indonesia
Fig.1-50 TT04, Trowulan (Trowulan Museum), Indonesia
Fig.1-51 TT05, Trowulan (Trowulan Museum), Indonesia
Fig.1-52 TT06, Trowulan (Trowulan Museum), Indonesia
Fig.1-53 TT07, Trowulan (Trowulan Museum), Indonesia
Fig.1-54 TT08, Trowulan (Trowulan Museum), Indonesia
Fig.1-55 TT09, Trowulan (Trowulan Museum), Indonesia
Fig.1-56 TT10, Trowulan (Trowulan Museum), Indonesia
Fig.1-57 TT11, Trowulan (Trowulan Museum), Indonesia
Fig.1-58 TT12, Trowulan (Trowulan Museum), Indonesia
Fig.1-59 TT13, Trowulan (Trowulan Museum), Indonesia
Fig.1-60 TT14, Trowulan (Trowulan Museum), Indonesia
Fig.1-61 TT15, Trowulan (Trowulan Museum), Indonesia
Fig.1-62 TT16, Trowulan (Trowulan Museum), Indonesia
Fig.1-63 TT17, Trowulan (Trowulan Museum), Indonesia
Fig.1-64 Jingdezhen tiles, Jingdezhen kiln site, China
Fig.2-01 Shah Yusuf Gardizi Mausoleum, Multan, Pakistan
Fig.2-02 Rangin Mahal Palace, Bidar, India
Fig.2-03 Ibrahim Qutub Shah Mausoleum, Golconda, India
Fig.2-04 Rukuni Alam Mausoleum, Multan, Pakistan
Fig.2-05 Jalal al-Din Bukhari Mausoleum, Uch, Pakistan
Fig.2-06 Rukuni Alam Mausoleum, Multan, Pakistan

臺灣大學學術期刊資料庫

Fig.2-07 Jalal al-Din Bukhari Mausoleum, Uch, Pakistan
Fig.2-08 Haushang Friday Mosque, Mandu, India
Fig.2-09 Man Mandir Palace, Gwalior, India
Fig.2-10 Bibi Jawindi Mausoleum, Uch, Pakistan
Fig.2-11 Sultan Ali Akbar Multan, Pakistan
Fig.2-12 Sawi Mosque, Multan, Pakistan
Fig.2-13 Rukuni Alam Mausoleum, Multan, Pakistan
Fig.2-14 Ibrahim Qutub Shah Mausoleum, Golconda, India
Fig.2-15 Bijapur, India
Fig.2-16 Rukuni Alam Mausoleum, Multan, Pakistan
Fig.2-17 Jalal al-Din Bukhari, Uch, Pakistan
Fig.2-18 Bibi Jawindi Mausoleum, Uch, Pakistan
Fig.2-19 Mirza Janibeyg Mausoluem, Makli Hill, Pakistan
Fig.2-20 Rukuni Alam Mausoleum, Multan, Pakistan
Fig.2-21 Jalal al-Din Bukhari, Uch, Pakistan
Fig.2.22 Bibi Jawindi Mausoleum, Uch, Pakistan
Fig.2-23 Man Madir Palace, Gwalior, India
Fig.2-24 Bibi Ki Mosque, Ahmedabad, India
Fig.3-01 Malik Zuzan Madrasa, Zuzan, Iran
Fig.3-02 Najm al-Din Kubra Mausoleum, Kunya Urgench, Turkmenistan
Fig.3-03 Aq Sarai Palace, Shahr-i Sabz, Uzbekistan
Fig.3-04 Aq Sarai Palace, Shahr-i Sabz, Uzbekistan
Fig.3-05 the Friday Mosque of Herat, Afghanistan
Fig.3-06 Gawhar Shad Mosque, Mashad, Iran
Fig.3-07 Kabud Mosque, Tabriz, Iran
Fig.3-08 the Friday Mosque of Kerman, Iran
Fig.3-09 Shad-i Mulk Aqa Mausoleum, Samarkand, Uzbekistan
Fig.3-10 Kabud Mosque, Tabriz, Iran
Fig.3-11 Il Arslan Mausoleum, Kunya Urgench, Turkmenistan
Fig.3-12 Uljeitu Mausoleum, Soltanye, Iran
Fig.3-13 the Friday Mosque of Yazd, Iran
Fig.3-14 Shad-i Mulk Aqa Mausoleum, Samarkand, Uzbekistan
Fig.3-15 Ahmad Yasavi Mausoleum, Turkestan, Kazakhstan
Fig.3-16 Hazrat Ali Mausoleum, Mazar-e Sharif, Afghanistan
Fig.3-17 Khwaja Abu Nasr Parsa Complex, Balkh, Afghanistan
Fig.3-18 Kashan Bazaar, Iran
Fig.3-19 the Friday Mosque of Herat, Afghanistan

臺灣大學學術期刊資料庫

Fig.3-20 the Friday Mosque of Yazd, Iran
Fig.3-21 Kabud Mosque, Tabriz, Iran
Fig.3-22 Shikh Safi Mausoleum, Ardabil, Iran
Fig.3-23 the Friday Mosque of Yazd, Iran
Fig.3-24 Shad-i Mulk Aqa Mausoleum, Samarkand, Uzbekistan
Fig.3-25 the Friday Mosque of Herat, Afghanistan
Fig.3-26 the Friday Mosque of Yazd, Iran
Fig.3-27 Shad-i Mulk Aqa Mausoleum, Samarkand, Uzbekistan
Fig.3-28 Aq Sarai Palace, Shahr-i Sabz, Uzbekistan
Fig.3-29 Muradiye Mosque, Edirne, Turkey
Fig.3-30 Gawhal Shad Complex, Herat, Afghanistan
Fig.3-31 Kabud Mosque, Tabriz, Iran
Fig.3-32 Khwaja Abu Nasr Parsa Complex, Balkh, Afghanistan
Fig.3-33 the Friday Mosque of Kerman, Iran
Fig.3-34 the Friday Mosque of Yazd, Iran
Fig.3-35 the Friday Mosque of Shiraz, Iran
Fig.3-36 Bayan Quli Khan Mausoleum, Bukhara, Uzbekistan
Fig.3-37 Tughluq Temur Mausoleum, Huocheng, China
Fig.3-38 Ustad Ali Nasafi Mausoleum, Samarkand, Uzbekistan

List of Maps

Map 1 Central and East Java
Map 2 South, Central and West Asia

臺灣大學學術期刊資料庫


Fig.1-01 finding in Van Don

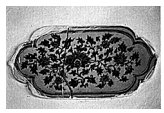

Fig.1-02 D01


Fig.1-03 D02


Fig.1-04 D03


Fig.1-05 D04


Fig.1-06 D05


Fig.1-07 D06


Fig.1-08 D07

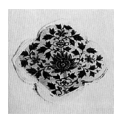

Fig.1-09 D08


Fig.1-10 D09


Fig.1-11 D10


Fig.1-12 D11


Fig.1-13 D12

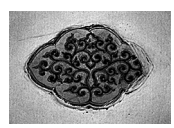

Fig.1-14 D13


Fig.1-15 D14

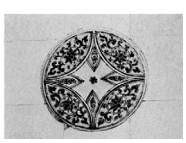
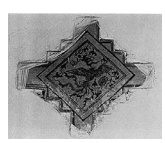

Fig.1-16 D15


Fig.1-17 D16


Fig.1-18 D17


Fig.1-19 D18


Fig.1-20 D19

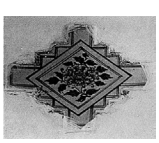

Fig.1-21 D20


Fig.1-22 D21


Fig.1-23 D22


Fig.1-24 D23

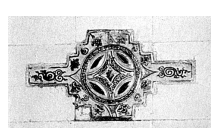
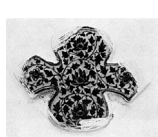

Fig.1-25 D24


Fig.1-26 D25


Fig.1-27 D26


Fig.1-28 D27


Fig.1-29 D28

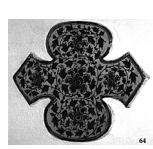

Fig.1-30 D29


Fig.1-31 K01


Fig.1-32 B01


Fig.1-33 TN01


Fig.1-34 TN02


Fig.1-35 TN03

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Fig.1-36 TN04


Fig.1-37 TN05


Fig.1-38 TN06

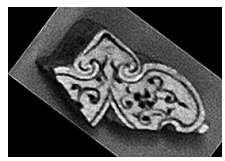

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Fig.1-40 TN08


Fig.1-41 TN09


Fig.1-42 TN10


Fig.1-43 TN11


Fig.1-44 TN12

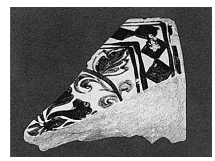

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Fig.1-46 TN14


Fig.1-47 TT01

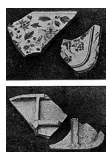
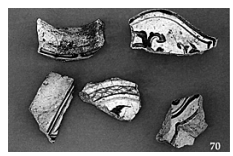
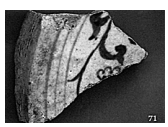
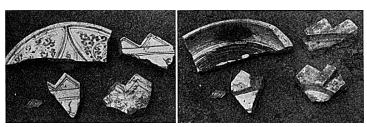
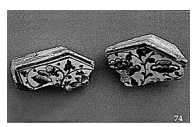

Fig.1-48 TT02


Fig.1-49 TT03


Fig.1-50 TT04


Fig.1-51 TT05


Fig.1-52 TT06


Fig.1-53 TT07

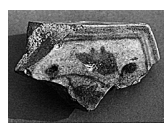

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Fig.1-55 TT09

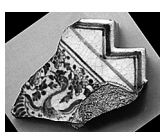

Fig.1-56 TT10


Fig.1-57 TT11

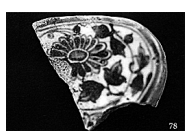

Fig.1-58 TT12


Fig.1-59 TT13


Fig.1-60 TT14


Fig.1-61 TT15


Fig.1-62 TT16


Fig.1-63 TT17


Fig.1-64 Jingdezhen tiles


Fig.2-1 Multan

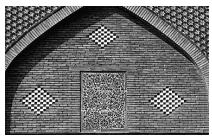

Fig.2-2 Bidar


Fig.2-3 Golconda


Fig.2-4 Multan


Fig.2-5 Uch

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Fig.2-6 Multan

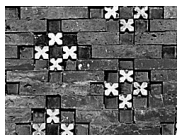

Fig.2-7 Uch


Fig.2-8 Mandu

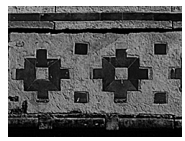

Fig.2-9 Gwalior


Fig.2-10 Uch


Fig.2-11 Multan


Fig.2-12 Multan


Fig.2-13 Multan


Fig.2-14 Golconda

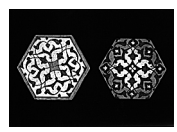
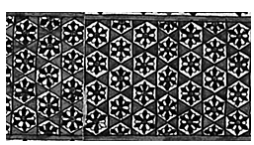
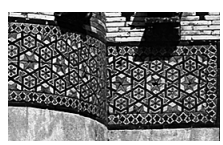

Fig.2-15 Bijapur


Fig.2-16 Multan


Fig.2-17 Uch


Fig.2-18 Uch

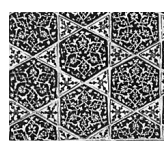
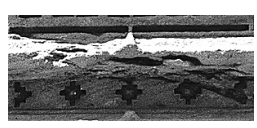

Fig.2-19 Makli Hill

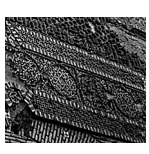

Fig.2-20 Multan


Fig.2-21 Uch


Fig.2.22 Uch


Fig.2-23 Gwalior


Fig.2-24 Ahmedabad


Fig.3-01 Zuzan

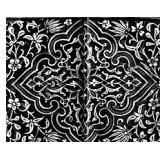

Fig.3-02 Kunya Urgench


Fig.3-03 Shahr-i Sabz


Fig.3-04 Shahr-i Sabz


Fig.3-05 Herat


Fig.3-06 Mashad


Fig.3-07 Tabriz


Fig.3-08 Kerman


Fig.3-09 Samarkand


Fig.3-10 Tabriz


Fig.3-11 Kunya Urgench


Fig.3-12 Soltanye


Fig.3-13 Yazd


Fig.3-14 Samarkand


Fig.3-15 Turkestan

臺灣大學學術期刊資料庫



Fig.3-16 Mazar-e Sharif



Fig.3-17 Balkh



Fig.3-18 Kashan



Fig.3-19 Herat



Fig.3-20 Yazd



Fig.3-21 Tabriz



Fig.3-22 Ardabil

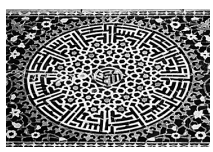


Fig.3-23 Yazd



Fig.3-24 Samarkand



Fig.3-25 Herat

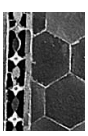


Fig.3-26 Yazd



Fig.3-27 Samarkand



Fig.3-28 Shahr-i Sabz

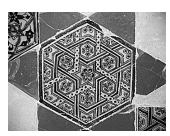


Fig.3-29 Edirne



Fig.3-30 Herat



Fig.3-31 Tabriz

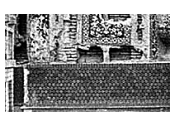


Fig.3-32 Balkh

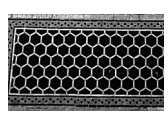


Fig.3-33 Kerman



Fig.3-34 Yazd



Fig.3-35 Shiraz

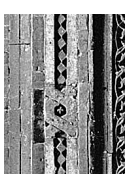


Fig.3-36 Bukhara

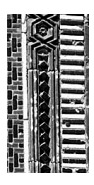
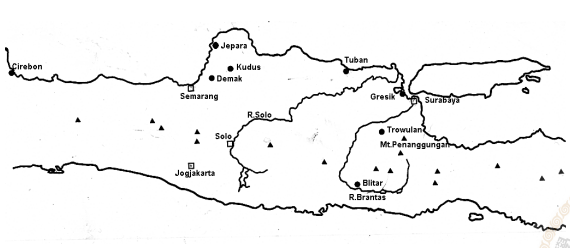


Fig.3-37 Huocheng



Fig.3-38 Samarkand



Map 1 Central and East Java



Map 2 South, Central and West Asia

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