KÜTAHYA TILES AND POTTERY FROM THE ARMENIAN CATHEDRAL OF ST. JAMES, JERUSALEM

II

A Historical Survey of the Kütahya Industry

AND

A Catalogue of the Decorative Tiles

BY

JOHN CARSWELL

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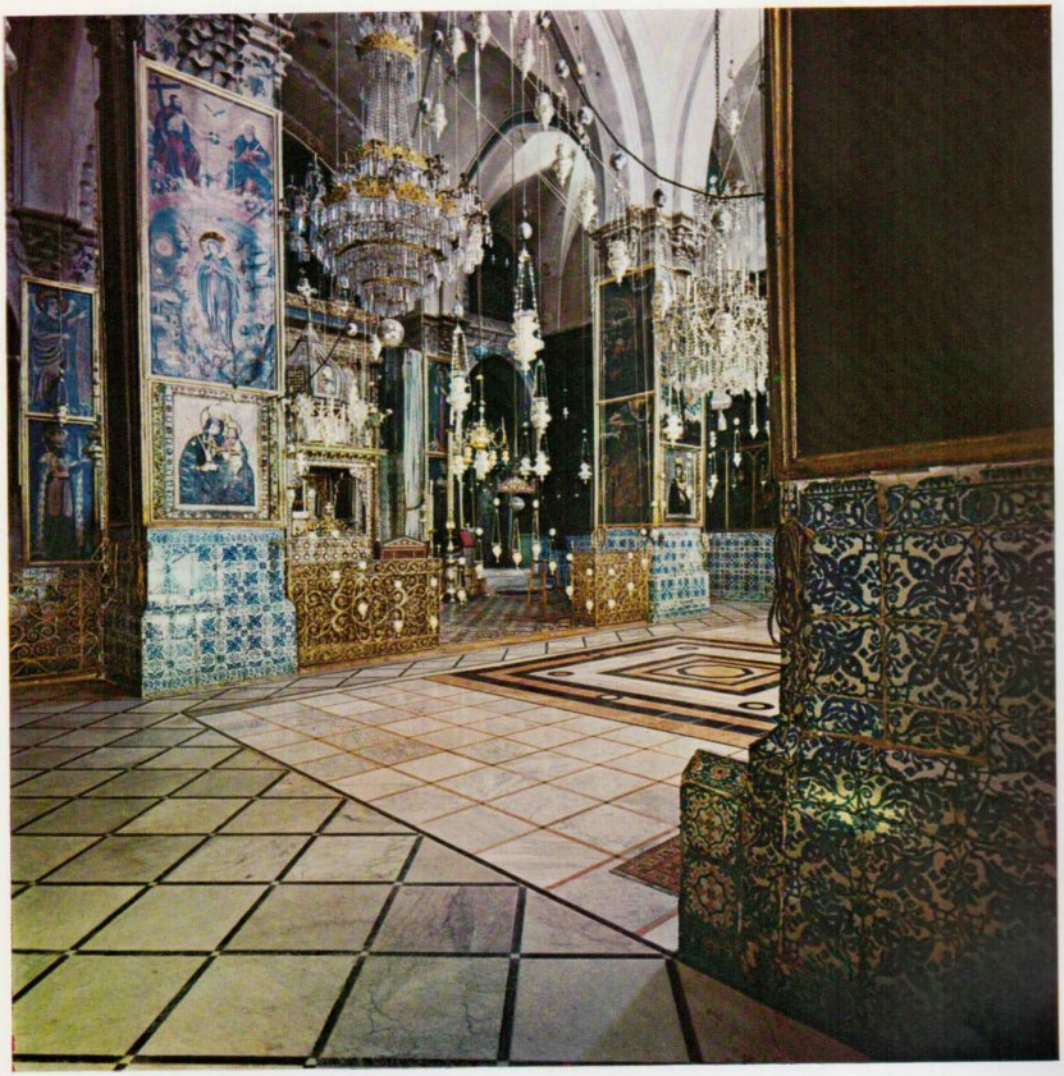
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INTERIOR OF THE CATHEDRAL OF ST. JAMES, JERUSALEM looking SE

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FIG. 1. Map of the Near East, showing the main pottery centres and chief towns.

I. THE KÜTAHYA POTTERY INDUSTRY FROM ITS ORIGINS TILL THE SEVENTEENTH CENTURY

THE modern town of Kütahya is situated on the west side of the Anatolian plateau, some 200 km. south-east of Istanbul, and 100 km. equidistant from Bursa and Isnik (Figure 1). It is 900 m. above sea level, and built at the foot of a range of mountains which forms the southern boundary of the plain opening out from the upper reaches of the Porsuk river. The centre of the town lies between two peaks, the Acem Dağ, and a lower hill to the west on which are remains of the medieval citadel. A stream forms the north–south axis of the town; the older parts are on either side of it, and up the short steeply sided valley to the south, and the modern sections spread out on to the plain. The surrounding countryside is mainly agricultural, but there are valuable mineral deposits in the nearby mountains which have been increasingly exploited during the last few years. The climate is typically Anatolian with hot, dry summers and bitterly cold winters. Ethnically the town is now purely Turkish; the Armenian minority left during the early part of this century, as a result of the persecution suffered by that race throughout the Turkish empire. Kütahya is the chief town of the *vilayet*, or district, of the same name.

The town already existed in classical times, when it was known as COTYAEUM. Several classical writers mention it;[1] Strabo and Pliny list it as one of the important towns of Phrygia Epictetus, and according to Suidas it was the birthplace of Aesop. In A.D. 267 St. Menas is supposed to have testified to the ascension of Christ at Cotuayio in Phrygia. In the Byzantine period it was an important town, and Byzantine remains have been found on the citadel hill.[2] In the eleventh century Kütahya was captured by the Seljuks.

After the collapse of the Seljuk empire in the fourteenth century, among the first independent Turkoman tribes to establish themselves in Anatolia were the Germiyan, and Kütahya was their capital from A.D. 1302 till 1428.[3] According to the Arab traveller Ibn Battuta, who visited Turkey in the first half of the fourteenth century, the Germiyan were brigands, infesting the country as far south as Ladhik [Denizli];[4] and Shihab al-Din, his contemporary, names the lord of Kütahya as Germiyan, the son of 'Alishir.[5]

In the fourteenth century the Ottomans rose to power in Turkey, and they made Bursa their capital in A.D. 1326. Close ties were established between the Germiyan and the neighbouring Ottomans in A.D. 1381, with the marriage of Hatun Sultan,[6] the daughter of Süleyman Germiyanoğlu, to Bayezid, the son of Murad I, and Kütahya was part of the dowry. Süleyman Germiyanoğlu was succeeded by his son Yakub II in A.D. 1388. Yakub II was imprisoned by Bayezid I in A.D. 1391 and his lands appropriated; but later he managed to

[1] Strabo, 12. 8, 12 (Loeb ed. v. 504)—'*Κοτιάειον*'; Pliny, v. 145 (Loeb ed. ii. 329)—'Cotyaion'; see also Stephaninos Byzantinos, Ptolemy, Socrates, and Eustathius. Keppel, George, *Narrative of a Journey across the Balcan, etc.*, London, 1831, ii. 198; *Encyclopaedia of Islam*, 1927, ii. 1163, article on 'Kutāhiya'; Gibbons, H. A., *The Foundation of the Ottoman Empire*, Oxford, 1916, pp. 156, 258.

[2] Texier, C., *Asie Mineure*, Paris, 1882, p. 394.

[3] Mordtmann, J. D., 'Germiānoghlu', *Encyclopaedia of Islam*, ii. 132. He reconstructs the Germiyan dynasty as follows:

'Alishir (about A.D. 1300)
|
Germiān Khān (about A.D. 1307–30) = Ya'ḳūb (?I)
|
Mehemmed
|
Suleimānshāh [Süleyman Germiyanoğlu] (about A.D. 1377)
|
Ya'ḳub II (? A.D. 1388–90/1; 1402/3–1428/9)

See also *Encyc. of Islam* (new edition) 1965, pp. 989–91.

[4] *Voyages d'Ibn Batoutah* (trans. Defrémery and Sanguinetti), Paris, 1854, ii. 270–1.

[5] *Encyc. of Islam*, loc. cit.

[6] Hatun Sultan is also referred to as Devletşah, presumably the Devlet Hatun who was mother of Mehmed I and buried in Hundi Hatun's tomb at Bursa; see Alderson, A. D., *The Structure of the Ottoman Dynasty*, Oxford, 1956, p. 83, 90 n.

escape and joined the conqueror Timur, engaged in his Anatolian campaign against the Turks. After winning the battle of Ankara in A.D. 1402, Timur re-established the Germiyan dynasty under Yakub II, and for a short while Kütahya was governed by Timur's own son, Shah Rukh. When Timur left Anatolia he entrusted Yakub II with the body of Bayezid I, and his captive son Musa. Yakub II handed both over to the Ottomans, and established a friendly relationship with Mehmed I and his successor, Murad II. Thanks to Ottoman protection Yakub II was able to retain his lands until his death in A.D. 1428/9, when by the terms of his will they went to Murad II. An abortive attempt to revive the Germiyan dynasty in A.D. 1453 was quickly suppressed, and the area was divided into two *sandjaks*, or districts, known as Germiyan and Karahisar Sahib. From then onwards Kütahya acquired special importance, as the seat of the *beylerbey*, or governor-general, of Anatolia was transferred from Ankara to the town in A.D. 1453.[1]

Although it is difficult to prove that Armenians were living in Kütahya before the latter part of the fourteenth century, they probably formed a small part of the population in both the Byzantine and the Seljuk periods. From the earliest times there had been numerous contacts between Byzantium and Armenia, and many Armenians came to Constantinople to seek their fortunes.[2] In the eleventh century Armenia was annexed by Byzantium as a precautionary measure against the Seljuks, only to fall to the invaders. Along with other Anatolian towns, Kütahya would have been important enough to attract some of the displaced Armenians, although the majority migrated to the south, where the Armenian kingdom of Cilicia was created in the twelfth century. By the fifteenth century there must have been many Armenians in western Turkey, for the *millet* created by the Turks in A.D. 1461 to look after the Christian minorities was under the titular control of the Armenian patriarch of Constantinople. The kingdom of Cilicia and the eastern Armenian provinces had yet to fall to the Ottomans, and Hovakim, the newly elected patriarch of Constantinople, had previously been Bishop of Bursa.[3] These factors suggest that there was a sizeable Armenian population in Ottoman territory.

The earliest record of Armenians in Kütahya is a reference to an Armenian church in the town at the end of the fourteenth century. The colophon of a manuscript dated A.D. 1391 states that it was given to the church of Kütahya (*Kawt'i*) by Rouzpak, son of Mkrtič, of Ani, who appointed a secular priest (*k'ahanay*) named Abraham as its supervisor.[4] In the fifteenth century there are references to two more Armenian churches in Kütahya, dedicated respectively to the Holy Mother of God, and St. Sargis. According to a record-book of all the gifts made to the church of the Holy Mother of God between the fifteenth and eighteenth centuries, it was built in A.D. 1444/5 by the secular priest (*eretz*) Constantine, and twelve householders; two contemporary secular priests also mentioned were Kirakos, and Grigor.[5] This record-book is of considerable interest, as it also provides the first reference to pottery-making in Kütahya. Amongst the seventeen donors to the church whose names are listed under A.D. 1444/5 is a potter (*brut*), called Murad, who gave a priest's mantle (*philon*). Evidence for the second church is provided by two inventories of its treasury, both made by Astuatsatur of Kafa for the church of St. Sargis in Kütahya (*K'ōt'ay*).[6] The first was compiled by the wish of a priest named Zakaria in A.D. 1485/6. The second was made in A.D. 1489/90 for a deacon named Abraham, who is described as 'the son of a potter (*tchiniji*)', thus providing a further reference to pottery-making in Kütahya in the fifteenth century.

Most authorities have been sceptical about the existence of a pottery industry prior to the seventeenth century, but an examination of the evidence points to an earlier date. The

[1] *Encyc. of Islam*, ii. 132; also Runciman, S., *Byzantine Civilisation*, London, 1933, pp. 287–8.

[2] Gibb and Bowen, *Islamic Society and the West*, Oxford, 1957, vol. I, ii. 220–1.

[3] Runciman, op. cit., p. 220.

[4] The second colophon to *Meknut'iwn Kat'olikeayc'* (a commentary on the epistles general) by Sargis Shnorhali. This manuscript is listed by Bishop Mkrtič Alawnuni, *K'ēōt'ahioy hin jeṙagrerə* ('The Ancient MSS. of Kütahya'), in the Armenian journal *Biwzandion*, 19/31 Dec. 1897, and 20 Dec. 1897/1 Jan. 1898, MS. no. 13. (The journal is available in the Nubarian Armenian Library, Square Alboni, Paris.)

[5] *Kutinahay Žamanakagrut'iwn* ('Chronicle of the Armenians of Kütahya'), ed. P. Zōrt'ean, Vienna, 1960, pp. 14–15.

[6] Alawnuni, loc. cit., 19/31 Dec. 1897, MSS. nos. 8, 9.

industry was probably started by the arrival of a group of displaced artisans.[1] Sultan Mehmed Fatih was responsible for moving groups of emigrants from the east to the centre of the empire, and as the recently established capital of Anatolia, some of them must have come to Kütahya. After taking Tabriz in 1514, Sultan Selim I carried off a great number of artisans to Constantinople and western Anatolia.[2]

The earliest building in Kütahya decorated with tiles is the tomb of Yakub II, who died in A.D. 1428/9.[3] This tomb is on a raised platform behind the *mihrāb* in the mosque bearing his name, now used as a school. The rectangular tomb, with sloping sides, stands on a low base (PLATE 1, *a*, *b*). Both the tomb and the floor are covered with more than five hundred hexagonal turquoise tiles, with smaller dark blue triangular tiles between them. There is a narrow border of two types of *cuerda seca* tiles on the floor, on the *mihrāb* side.

Another fifteenth-century tiled monument in Kütahya is the tomb of Ishak Fakih (d. A.D. 1433), adjacent to the mosque of the same name. When the writer visited it, it was impossible to gain access, but it could be studied through the open window grill. There are three tombs, with sloping sides, built without bases directly on to the floor; there is nothing to distinguish which is that of Ishak Fakih. The tombs are partly covered with tiles, and the floor, skirting, and the jambs and sill of the window are also tiled. The plain turquoise tiles on the tombs and the floor are rectangular, not hexagonal, and those round the window appeared to be typical of those inside; they are of off-white ware covered with a rough turquoise glaze. Round the base of two tombs were patched *cuerda seca* tiles, out of sequence.

As none of the tiles on the tombs of Yakub II, or Ishak Fakih, are inscribed, there is no way of dating them precisely.[4] Both the tombs, and their decoration, are similar to the fifteenth-century tombs in the Muradiye in Bursa. The use of plain hexagonal tiles with a border of patterned *cuerda seca* tiles is common in Bursa, not only in the Muradiye, but also in the Green Mosque (A.D. 1419) and the Green Tomb (A.D. 1421). The rectangular tiles in the tomb of Ishak Fakih differ from the other hexagonal tiles in Kütahya and in Bursa, as they are of off-white ware, instead of red earthenware, and this may distinguish them as a local product.[5] The *cuerda seca* tiles in both of the Kütahya tombs are out of sequence and are probably reused tiles. Thus, whilst the tiles in the tombs are apparently genuine fifteenth-century products, they are insufficient proof for pottery-making in Kütahya at that time.

A third building in Kütahya, however, does contain some tiles which are not so easy to parallel elsewhere. This is the Mosque of Hisar Bey (A.D. 1487/8). The mosque was restored by the governor Yahya Pasha in A.D. 1750/1, and most of the tiles are typical Kütahya products of that period, and are discussed later.[6] But round the *mihrāb* is a border of unique tiles (PLATE 1, *c*, *d*).[7] These exceptionally large tiles, 48 by 18 cm., are painted under the glaze in dark cobalt blue, with darker outlines, and a second colour which varies from orange-yellow to grey-brown. Technically the tiles are of poor quality, and the blue has frequently run in firing. They are painted with patterns of pointed, lobed leaves, often with

[1] Kelekian, Dikran Khan, *The Potteries of Persia*, Paris, 1909, pp. 29–30: 'The parentage [of Kütahya wares] is still obscure, but there are in existence Armenian records which tell of an emigration of Armenian potters from the sacked cities of Sultanabad and Rhages to Kutahia, sometime during the thirteenth century.'

Sultanabad is the name of a village in Persia near which kiln sites were found; there is no evidence for a city of that name. However, as Reitlinger has justly remarked: 'Nationalism is a dangerous thing in art history, but could there be anything in the statement of the late Dikran Kelekian that Armenian chronicles record an emigration of Armenian potters from Persia to Kutahiya in the thirteenth century?' (*Ars Orientalis*, iv (1961), 407).

[2] Alpōyačean, Aršak, *Yušamatean Kutinahayeru* ('Memorial volume of the Armenians of Kütahya'), Beirut, 1961, p. 14.

[3] Aslanapa, Oktay, *Osmanlılar Devrinde Kütahya Çinileri*, Istanbul, 1949, pp. 46–7. I am indebted to Mr. Tuygan Gürler for providing me with an English translation of Dr. Aslanapa's work.

[4] For fuller details of the tiles, see Appendix E.

[5] I examined the edges of the hexagonal tiles on the inner wall of the Green Tomb at Bursa in August 1962, where a section of the tiling had fallen away. The edges of the exposed tiles were unglazed, and the tiles were 1·4 cm. thick; the ware was a rich red earthenware. Lane is mistaken when he says that the hexagonal tiles in the Green Mosque, which are similar to those in the Green Tomb, are 'of a lighter buff clay with no slip' (*Ars Orientalis*, ii (1957), 252).

[6] See p. 34, and Appendix E.

[7] Aslanapa, op. cit., pp. 47–51, 96, figs. 38–40, colour plate I (somewhat misleading). These tiles are Dr. Aslanapa's discovery, for which he must take full credit. As he says, the second colour was probably an early, unsuccessful attempt at red. See Appendix E for fuller details.

curling tips, on thick overlapping stems; the leaves are often filled with patterns of spirals. Stylistically they suggest a more exuberant version of the *rumi* patterns of the first monochrome phase of Isnik pottery, although they also have affinities with the Timurid patterns executed in *cuerda seca*, on the *mihrābs* of the Green Mosque and Green Tomb in Bursa. These patterns, in the spandrels above the *mihrāb* vault, also make use of the pointed, lobed leaf with a curling tip, and proportionately thick stems. In the *mihrāb* in the Murad II mosque at Edirne (after A.D. 1435), the thick-stemmed lobed leaves on the *cuerda seca* tiles are side-by-side with the underglaze painted tiles of the stalactite vault (PLATE 2). There are also underglaze-blue border tiles with a carefully organized pattern of overlapping pointed lobed leaves.[1] But the tiles in the Hisar Bey mosque are unique, and in the absence of anything elsewhere quite like them, they have some claim to represent the earliest phase of Kütahya pottery. The supplementary colour might initially suggest that they must be sixteenth-century products, but it is not to be ruled out that these tiles represent an early experiment to develop another underglaze colour besides blue. Indeed, some hexagonal tiles in the tomb of Çem Sultan, at Bursa, painted in underglaze blue in the geometric style of some Edirne tiles, also have a second, pinkish colour[2] (PLATE 4, *c*). And in the same tomb, there are polychrome border tiles of similar design to the *cuerda seca* tiles in the Yakub II mosque at Kütahya, executed in underglaze colours. The Hisar Bey mosque (A.D. 1487/8) antedates the reference to a Kütahya potter in the St. Sargis inventory (1489/90) by only a year.

A few years later, 'Kütahya' is mentioned directly in Armenian inscriptions on two pieces of pottery, dated 1510 and 1529 respectively. As the two earliest dated vessels in the history of Turkish pottery, they are crucial. Thus it is appropriate at this point to describe them both in detail, and to summarize the previous arguments concerning their provenance.

Both pieces are in the Godman Collection,[3] and the earlier of the two is a spouted ewer. This ewer was intended to be used in the Armenian mass, though such vessels are more usually made of metal, rather than pottery.[4] The bulbous body is surmounted by a narrow neck, flaring out to a heavy moulded rim. The ewer stands on a sturdy carved base, and its robust handle is shaped and painted in the form of a serpent, or dragon.[5] It is decorated in two shades of bright cobalt blue, with a mixture of *rumi* and *hatayi* designs common to the earliest phase of monochrome blue Isnik pottery, but in a bolder manner. The body is painted with patterns of intertwined leaves with lobed tips, reserved on a blue ground, stylized flowers, and various other motifs, arranged in bands. The inscription, painted in blue on a white ground across the base, is in seven lines of Armenian *bolorgir* script and reads:

This vessel is in commemoration of Abraham, servant of God, of K'ot'ay [Kütahya]. In this year 959 [A.D. 1510], March 11th.

This inscription has been a source of argument for half a century. Sakisian and other scholars read the reference to 'Kütahya' as an obvious indication that the object was made there.[6] This view was firmly repudiated by Hobson, reasoning that there was no known tradition of pottery manufacture at Kütahya before the seventeenth century.[7] In rejoinder,

[1] R. M. Riefstahl, 'Early Turkish Tile Revetments in Edirne', *Ars Islamica*, iv (1937), esp. figs. 14 and 16; and J. Carswell, 'Edirne, Damascus and fifteenth-century Turkish pottery', *Proceedings of III International Congress of Turkish Art.*

[2] The tomb of Çem Sultan, at Bursa, contains four graves: *Çem Sultan* (1459–95), son of Mehmed II, brother of Bayezid II; *Mustafa* (? 1430–74), brother of Çem; *Abdullah* (— d. 1483), son of Bayezid II; *Alemshah* (1467–1510), son of Bayezid II. The walls are decorated with dark blue, or turquoise, hexagonal tiles, with unfired gold rosettes and borders. The border tiles are painted under the glaze with patterns of interlacing palmettes in light and dark cobalt blue, purple, with dark green outlines, on a white ground. In the arches above the windows and door are five hexagonal tiles, of varying geometric designs, painted in underglaze blue and light pinkish grey.

[3] For a full description of the vessels, see volume I, pp. 78–80, PLATE 21. See also Lane, 'The Ottoman Pottery of Isnik', *Ars Orientalis* ii (1957), pp. 255, 270–1, figs. 27, 28, 33, 34.

[4] For a discussion of ewers (*šaṙnit*) and bowls (*konk'*) used in Armenian services, see Appendix D.

[5] Lane, loc. cit., p. 260, interprets the handle as a dragon's head derived from stone or metal prototypes. Serpent-headed croziers are a common article of Armenian church regalia; see Plate 21.

[6] Sakisian, A., *Pages d'art arménien*, Paris, 1940, pp. 107–8.

[7] Hobson, R. L., *A guide to the Islamic Pottery of the Near East*, London, 1932, p. 81: 'For the rest it is impossible to agree that this inscription fixes the manufacture of this ware in Kutahiya. All that we may legitimately infer is that the ewer in question was made for a dignatory of that place, and that there is apparently no tradition of pottery at Kutahiya before the seventeenth century, we must find some other centre of manufacture for this ware.'

Reitlinger pointed out that rather than assuming some other centre of manufacture for the ewer, the lack of evidence for such a tradition should have induced Hobson to keep an open mind.[1] Lane sided with Hobson; he classified the ewer as a typical Isnik product, and used the nomenclature '*Abraham of Kütahya*' for his grouping of monochrome Isnik ware of the first phase. To the other extreme, Aslanapa considered the ewer as an unique example of Kütahya ware of the period, which has survived because of its donation to a church.[2] He also linked the ewer with the tiles in the Hisar Bey mosque in Kütahya, seeing a close resemblance between them and the designs on the ewer.[3] He argued that this, in conjunction with the earlier Ottoman tiles at Kütahya, and a stray blue-and-white tile found in a field near Kütahya,[4] is evidence for a continuous tradition of ceramic manufacture in Kütahya from the late fifteenth century.

The second piece of inscribed pottery is a water-bottle (*surahi*).[5] It is pear-shaped, and round the neck (the top of which is broken) is a bulbous moulding; it has a sturdy moulded base, from which the glaze has worn away. The bottle is delicately painted in two shades of cobalt blue with spiral patterns of small leaves and flowers, separated by a twisted rope-like band between double rings; similar flowers and leaves are painted on the remaining portion of the neck. The moulding is inscribed in Armenian *bolorgir* in two lines, reading:

Bishop Tēr Martiros sent word to K'ot'ayēs: 'May the Holy Mother of God intercede for you: send one water-bottle (*surahi*) here.' May Tēr Martiros receive it in peace. In the year 978 [A.D. 1529], on the 18th. of March this water-bottle was inscribed.

A second inscription is painted under the base, coiled in a spiral like the patterns on the body:

Ter Martiros sent word from Ankara: 'May this water-bottle [be] an object [of] K'ot'ays for this monastery of the Holy Mother of God.'

The inscriptions on the water-bottle were first published by Lane in 1957;[6] they had been unnoticed by others who had examined the piece in the Godman collection. The spiral decoration is typical of the style of Turkish pottery known as 'Golden Horn', which Lane dates between 1525 and 1550, with those examples painted in monochrome blue as the earliest. Although the exact provenance of 'Golden Horn' ware has still to be determined, Lane considers it to be technically indistinguishable from contemporary Isnik ware; fragments of it have been found at Isnik, as well as from excavations in the Golden Horn district of Istanbul, which led to its present name.

The shape of the bottle, and the division of the ornament into separate horizontal panels, suggests a Chinese prototype.[7] But the neck moulding is not a Chinese feature, and the floral patterns are more akin to the meticulous spiral patterns in contemporary Turkish and Persian manuscripts, than any Chinese model.

The inscriptions on both the ewer and the water-bottle refer to Kütahya by name, and both were intended for use in church ritual. The ewer was dedicated to an inhabitant of (or from) Kütahya. The water-bottle was ordered from Kütahya by Tēr Martiros, bishop of the monastery of the Holy Mother of God in Ankara, and he refers to it as 'an object of Kütahya'.

Although the references to Kütahya in the inscriptions are hardly ambiguous, Lane was convinced that neither of the vessels was made in Kütahya. Whilst granting that both were the work of Armenian craftsmen, he maintained that they were made in Isnik. He

[1] Reitlinger, G., *Ars Orientalis*, iv (1961), 407.

[2] Aslanapa, op. cit., p. 96.

[3] In this I cannot join him; the only resemblance between the tiles and the ewer is that both are painted with variations of the contemporary *rumi* style.

[4] Aslanapa, op. cit., p. 52, fig. 34. The tile is of the same type as the border tiles in the 'Bayezid II' tomb at Bursa, which actually contains the graves of: *Ahmed* (1465–1513) son of Bayezid II; *Mehmed* (1475–1507) son of Bayezid II; Şahinşah (1460–1511) son of Bayezid II; *Bulbul Hatun* (—) wife of Bayezid II. (Lane wrongly identifies this tomb as the tomb of Mustafa, son of Mehmed II; loc. cit., p. 254; *Later Islamic Pottery*, London, 1957, p. 48; *A Guide to the Collection of Tiles*, London, H.M.S.O., 1960, p. 19). Part of a tile of this type is in the Victoria and Albert Museum (no. 1677–1892).

[5] See Volume I, pp. 79–80, PLATE 21.

[6] Lane, loc. cit., 270–2, Professor Dowsett providing the translations.

[7] Such as early fifteenth-century bottles in the Ardebil collection; Pope, J. A., *Chinese Porcelains from the Ardebil Shrine*, Washington, 1956, plate 53.

argued that although both were destined for a church their form and decoration show no Christian reference, and that the inscriptions on the bottle are disguised, in order that they should escape the notice of the artist's Moslem fellow-workers. He also says that if Armenian factories capable of such work had existed at the beginning of the sixteenth century, many more pieces with Christian subjects and inscriptions would have survived; and that the earliest mention of pottery-making in Kütahya is in a *firman* of 1608 referring to the 'cup-makers' of Kütahya, as opposed to the 'tile-makers' of Isnik.

But the two Kütahya ewers, deep bowl, and pair of flasks in Jerusalem[1] made almost two hundred years later, and intended for church use, are completely secular in their decoration, although by this time Christian motifs were commonly used on other pieces. The shape of the Godman ewer is different from any Isnik ewer known to the writer. Nor can one argue that the inscriptions on the water-bottle are disguised; the first part is prominently painted on the bulbous moulding.[2] As for the lack of more material with Christian inscriptions and subjects, the Kütahya pottery industry in the early sixteenth century would have been largely concerned with producing work for Turkish patrons, conforming to the taste of the period, and even to specially supplied designs, as was the case at Isnik in the second half of the sixteenth century.[3] For economic and political reasons discussed below,[4] it was not until the early eighteenth century that the Kütahya potters developed a style unmistakably their own, and the Armenian community felt secure enough to use specifically Christian symbols in the decoration of its wares.

As for the *firman* of 1608, it has already been shown that this was not the earliest reference to pottery-making in Kütahya. Apart from the potter mentioned in 1444/5, there is the reference to a deacon, Abraham, described as 'the son of a potter', in 1489/90. It is tempting to link this Abraham with the Abraham mentioned on the Godman ewer, and it is feasible that the potter should have made and presented a ewer to the church in memory of his son. A further reference to Kütahya pottery in the sixteenth century is to be found in the *defters*, or account-books, connected with the building of the Suleymaniye mosque in Istanbul (A.D. 1550–7). Here both Kütahya and Isnik tiles are mentioned in the price lists.[5]

It is clear that both the epigraphic and historical evidence points to the probability of the two inscribed vessels having been made in Kütahya; neither Hobson nor Lane manages to make a convincing case to the contrary. Accepting that the two pieces were made in Kütahya, the consequences are twofold. First, if the water-bottle is 'an object of Kütahya', then Kütahya must be seriously considered as a centre for making wares of the 'Golden Horn' type, including tiles.[6] Secondly, if the ewer is a Kütahya product, other pieces must exist to which it can be linked by similarities of decoration and technique.[7] In both cases it will be necessary to re-examine a great quantity of material previously attributed to Isnik, a task which falls outside the scope of the present work. However, an attempt has been made to distinguish between the different centres, by spectrographic analysis of the wares of the two inscribed vessels, and various other samples from Isnik, Kütahya, and elsewhere. The results of this analysis are to be found at the end of the present volume.[8]

[1] See Volume I, PLATES 22*a*, *b*, *c*, 23*b*; and pp. 17–18, PLATE 8*a*.

[2] See Professor Dowsett's notes on the inscriptions, Volume I, p. 80.

[3] For references, see Lane, op. cit., p. 262, n. 78.

[4] p. 13.

[5] Tahsin Öz, *Turkish Ceramics* (Turkish Press and Broadcasting Company), p. 29, referring to the *Süleymanne Inşaat Defteri, D. 44*, in the Topkapu Sarayı archives.

[6] Tiles with 'Golden Horn' motifs decorate the mosque of Mustafa Pasha (d. A.D. 935–1528/9) at Gebze, and would thus be contemporary with the water-bottle; the borders of the tiles are painted with tiny flowers and hooked leaves like those of the bottle. See PLATES 1*e*, 3*a*, and Appendix E, for details.

[7] In the search for parallels, the clue may be the freely painted character of the decoration on the ewer.

[8] See Appendix F.

II. KÜTAHYA, THE DECLINE OF ISNIK POTTERY, AND THE TEKFUR SARAYI REVIVAL

In the seventeenth century, references to a pottery industry at Kütahya are more frequent. A *defter*, dated 1600, lists more that forty trades, including 'tile-makers'; this heading is used for all potters, and seventeen different types of ware are given, with their prices, including Isnik, Kütahya, and *Merteban* products.[1] It is to be noted that Kütahya dishes are amongst the cheapest. A *firman*, dated 1608, refers to Kütahya; Mehmet, architect to Sultan Ahmet I, (1603–17) reported that the Isnik tile-makers had run short of borax in the course of executing an imperial order for tiles to decorate the Sultan's palace, garden, and mausoleum; the latter ordered the *kadi* of Kütahya to remedy the deficiency, by ordering the 'cup makers' of Kütahya to supply the commodity at its current price.[2] Evliya Çelebi, the famous seventeenth-century Turkish traveller and historian, mentions Kütahya several times. He records that the town was destroyed in 1612, during the Djelali uprisings.[3] Amongst the tradesmen in Istanbul he lists tile-traders, and he mentions the products of Isnik and Kütahya in describing a

[1] Tahsin Öz, op. cit., pp. 25–6; he quotes from a *defter* amongst Muallim Cevdet's books at Beyazit.

Merteban, sometimes spelt *martabani*, and even *mir tabân*, was used to designate imported ware of a particular type, usually large wine-jars of glazed stoneware, but also for dishes. The name derives from Martaban, the port in south-east Asia from whence they were shipped. Dr. John Covel uses the term for dishes, in his description of a dinner with the Grand Vizier at Adrianople (Edirne) in the second half of the seventeenth century: '. . . We were all served alike in costly (lordly) dishes, which are used every where at court, and I saw them at the Vizier's and the Mosaïf's houses. They come from India, and are all in use in Persia, for the G. Sr. [Sultan] nor any great Turks can use silver dishes by their law. They call the mettal [*sic*] of them MARTABANI; they are very dear and much heavier (in proportion) than China, which they call PHORPHORÉ (I suppose from πόρφωρα); their platters which they call TABACK of MARTABANI, are worth some of them 200 dollars. China is not half so dear here; your little sherbet cups and coffee dishes are made often times of the same earth; they ring like a bell; the earth is darkish, but the outside glazed colour is greenish.' *The Diaries of Dr. John Covel, 1670–79*, Hakluyt Society, 1893, edited by J. Bent, p. 263.

Another traveller, William Browne, uses a similar term for porcelain at the beginning of the nineteenth century: 'There is a kind of fine porcelain, or China-ware, much esteemed in the East, from the prevalent credulity which is common there respecting its supposed properties. It is distinguished by the name of Mir Tabân, and is said to indicate poison, if any exist in the food. From this prejudice, a plate or other vessel, composed of this material, is sometimes sold for three or four hundred piastres. The absurdity of the idea is evident; but it might be curious to know how it originated.' William Browne, *Journey from Constantinople through Asia Minor*, London, 1820, p. 159.

[2] Tahsin Öz, op. cit., p. 24, quoting from Ahmet Refik's 'Isnik Çinileri', *Darülfünun Edebiyat Fakültesi Mecmuasi*, Istanbul, 1932, pp. 42–3 (documents from archives): 'Be it known to the *Kadi* of Kütahya that the chief of my private architects Mehmet, (pre-eminent in the most laudable and noble . . . may his praises increase) has sent a letter to my felicitous court stating that Karahisar böre (borax) has become necessary for the tiles which are now being made in the town of Isnik for the imperial palace, the imperial garden, and the Mausoleum of the Sultans, and he requests that, in accordance with long-standing custom, my noble order be issued for its purchase for the chief tile-maker from the cup-makers of Kütahya at the current price in *akçe*. Therefore, it is my command that on arrival of NN. you have it purchased according to custom at the current price in *akçe* and allow no-one to make excuses or hold out. However, no one is to suffer extortion under this pretext, so beware of transgression and behaviour contrary to standing custom' (date, Zilhicce 1016/A.D. 1608).

Tahsin Öz comments on the *firman*: 'The word "böre" is seen in this command. I have seen this word in Ahmed Refik's *Istanbul Hayati* and it was written as "yüre", and used in that way. But later some scholars showed some interest in this word, and so I did some research in the archives of the Prime Minister's office and discovered that the original of this word was "böre". According to research done by Dr. O. Aslanapa, borax was used until the first world war and this was brought from Afyon. Sodium has now taken its place. This topic is very authoritatively described and explained by Hakki Izzet.'

An earlier document (A.D. 1590) quoted by Refik (op. cit., p. 40) refers to the purchase of borax from Karahisar, for the use of the Isnik potters.

The proprietors of the Palestine Pottery in Jerusalem, Messrs. Kashan and Balian, in a conversation with the writer in 1962 (see p. 41) confirmed that borax was used in Kütahya at least until the time they emigrated in 1919: 'it came from Afyon Karahisar; it was like pieces of clay, and put in hot water and boiled to extract the borax, which was then mixed with the glaze to make it softer'.

Aslanapa (op. cit., p. 92) gives the text of a lawsuit, dated A.D. 1702, between two Christian cup-makers of Kütahya and two Muslim carriers, responsible for bringing supplies of borax from Afyon Karahisar for the potters.

[3] *Evliya Çelebi Seyahatnamesi*, vol. 9, p. 20: 'matekkaddem dahi şehri müzeyyen imiş lâkin 1021/1612 A.D./de Celâlî Karayazıcı ve Said Arap zulmünden harap olmuşter'.

parade before Murad IV in 1633.[1] Writing in 1669–70 of his visit to Kütahya he says that: 'Kütahya has thirty-four quarters, among them the quarter of the infidel china-makers . . . their bowls and cups, their various drinking-vessels and jugs, their pots and plates are not only for one region; and indeed the bowls of Isnik are also world-famous.'[2] Aslanapa also quotes somewhat mysteriously and at third hand from 'old documents in Istanbul', that the designs of the court designers in the sixteenth century were sent to Isnik and Kütahya for trials to be made; and that in the case of the Suleymaniye Mosque, samples from both centres were prepared, but those of Isnik preferred. He also refers to a surprising document, once in the Kütahya archives but now destroyed, that stated that Rustem Pasha, Grand Vizier to Sultan Suleyman, established a tile factory in Kütahya which supplied the tiles for the Rustem Pasha mosque (1561) in Istanbul.[3]

Çelebi's and the other references quoted above combine to give a picture of a well-established pottery industry in Kütahya by the seventeenth century, producing a variety of different types of pottery and tiles, much of the work being sent for sale to the capital. How to distinguish this pottery from other contemporary products, however, remains a problem. Until fresh archaeological evidence is forthcoming, from such sites as Isnik, Kütahya, and Istanbul itself, the question of provenance will remain unanswered, and the precise role that Kütahya played in the evolution of sixteenth- and seventeenth-century Turkish ceramics will remain uncertain. By the end of the seventeenth century the Kütahya industry had developed considerably and it reached its peak, both of productivity and of quality, in the first quarter of the eighteenth century. It maintained production throughout the eighteenth century, although the quality declined latterly; a revival in the second half of the nineteenth century was the foundation of the modern industry.

Before attempting to analyse the social and economic reasons leading to the expansion of the industry at the end of the seventeenth century, first it would be appropriate to consider the state of the Isnik industry, then in a period of sharp decline. For a century or more,

[1] Aslanapa, op. cit., p. 93: 'There are some mentions of Kütahya ceramics in Evliya Çelebi's travel book. Evliya Çelebi mentions as separate the Pirler quarter and the *çinici kefereler* (quarter of the infidel pottery-makers) quarter, whilst enumerating the quarters of Kütahya in his ninth volume written in 1671–72.' (*Evliya Çelebi Seyahatnamesi*, vol. 9, p. 19; see 'Istanbul Tradesmen' in vol. 1). 'The Fayence merchants are three hundred men with one hundred shops . . . their market is a most showy one outside of the prison gate. They adorn their shops with fayence of Nicæa and Kútáhie.' (Çelebi, *Travels . . .*, trans. J. von Hammer, London, 1856, p. 212.)

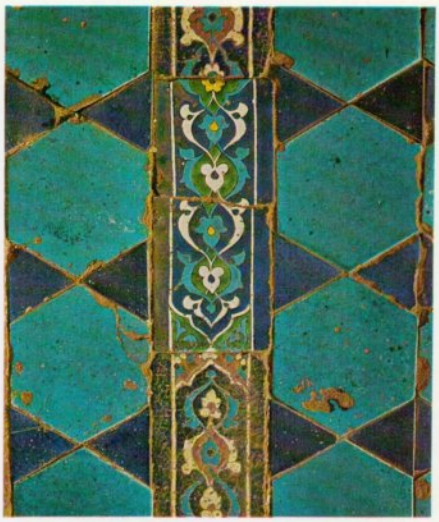
[2] 've kâse ve fincanı ve gûnagûn maşraba ve gûzeleri ve çanak ve tabakları bir diyara mahsus değildir ve illâ kâse-i İsnik dahi meşhuru âfaktir'—Çelebi, op. cit., vol. 9, p. 25. Aslanapa, op. cit., p. 98, gives the true version of the text and corrects Anhegger's misreading (*Quellenkundlicher Anhang*, in K. Otto-Dorn's *Das Islamische Iznik*, Berlin, 1941) a mistake which was perpetuated further by Lane, *Later Islamic Pottery*, p. 63. Redhouse (*A Turkish and English Lexicon*, Constantinople, 1890) defines *çanak* as 'any kind of common earthenware saucer, pan, or bowl'; *kâse* is a more specific term, denoting a bowl, or basin.

[3] Aslanapa, op. cit., p. 45: 'The Kütahya archives, the first place that would appear suitable for research on Kütahya tiles, are now in a very chaotic and incomplete condition. Firstly, all the court and official records up to the beginning of the 18th century have been destroyed as a result of a fire twenty years ago, along with the court building, and only the records after 1700 are left. Many valuable documents and trust deeds were burned in a later fire at the Office of Religious Foundations (Evkaf dairesi), making research all the more difficult'; pp. 79–80: 'According to people who saw the old documents before the fires of the court and the Office of Religious Foundations: "The Grand-Vizir of Kanuni Sultan Süleyman, Rüstem Pasha, has established a tile factory beside the *medreseh* he constructed in Kütahya. The tiles of the Rüstem Pasha Mosque were prepared there and shipped to Istanbul and placed in the Mosque." Today only a ruined dome, the inscription on it and the door are left of the *medreseh*. A *hamam* also dates from the time of Rüstem Pasha, but the location of the tile factory has not been discovered. Some information from old documents in Istanbul, the source of which is kept secret, seems to support this idea. According to them, (this information is in the hands of a retired officer in Istanbul, Muhiddin Hattatoğlu, who works on old documents and history; he in turn had it from a librarian who had seen the documents and who died ten years ago)—"About fifty Turkish designers were drawing various patterns and decorations in the sixteenth century under Mimar Sinan, and after a body of people called the 'Kâşiciler' had determined the technical basis, there were turned over to the Isnik and Kütahya factories under contract. These two cities used to send samples they had prepared to the palace, and the real activity started after the work was approved. This model was sent both from Kütahya and Isnik, and the one sent from Isnik was preferred." Documents about these designers and "Kâşiciler" have been found by Tahsin Öz which confirm this, as a result of his researches in the Topkapu Sarayi archives.

'It has been established whilst studying the tiles that the model sent from Kütahya has been later placed on the upper walls of the Beylerbey Mosque near Istanbul (plate 36). A document establishing that models for tiles have been sent from the palace and that tiles were prepared according to this model has also been found. (Tahsin Öz, "Les Faïences Turques", *Transactions of the Oriental Ceramic Society*, 1933–34; and *Güzel Sanatlar Mecmuasi*, no. 2; this document is a royal decree dated 1569, requesting tiles to be prepared according to the samples sent to Isnik).'



a



b



c



d



e

a. TOMB OF YAKUB II (*d.* A.D. 1428/9), Kütahya

b. *CUERDA SECA* AND HEXAGONAL TILES on the floor of the tomb of Yakub II, in Kütahya

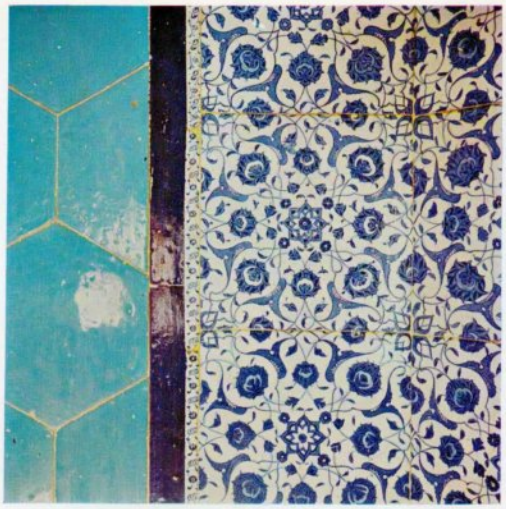
c. THE *MIHRĀB* in the mosque of Hisar Bey (A.D. 1487/8), Kütahya

d. DETAIL OF THE *MIHRĀB* TILES in the mosque of Hisar Bey. 48 by 18 cm.

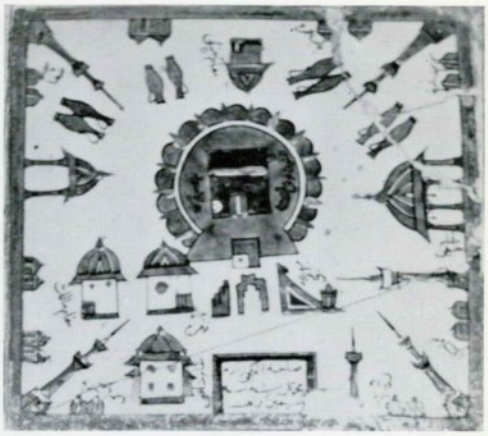
e. DETAIL OF BORDER TILES in the mosque of Mustapha Pasha (*d.* 935 A.H./A.D. 1528/9), in Gebze. 7 by 24 cm.



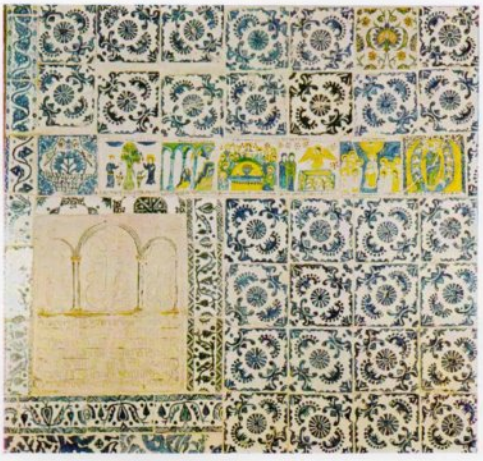
DETAIL OF THE TILED *MIHRĀB* in the mosque of Murad II (*after* A.D. 1435), in Edirne



a



b



c



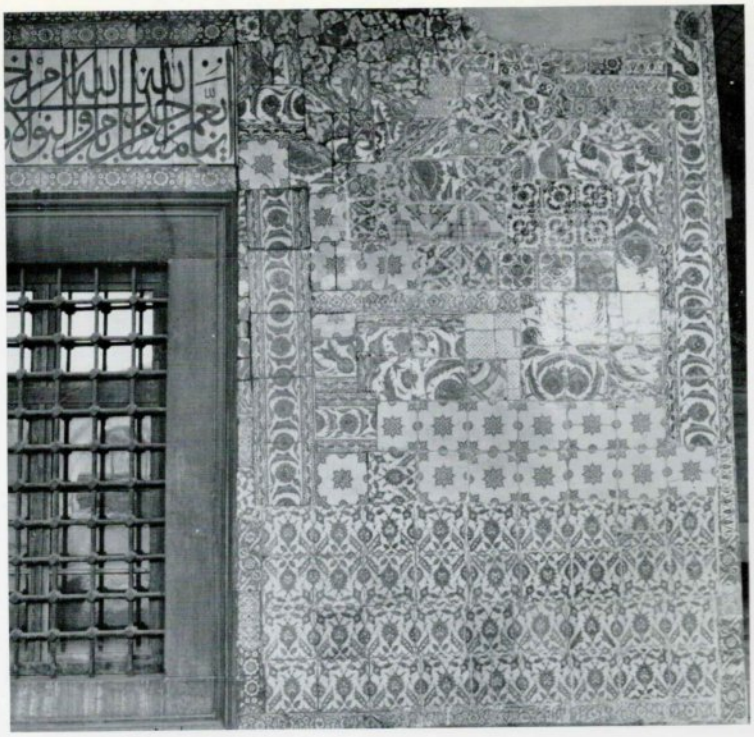
d

a. TILES in the mosque of Mustapha Pasha (*d.* 935 A.H./A.D. 1528/9), in Gebze

b. TILE PANEL depicting the Ka'aba at Mecca, on the outer wall of the mosque of Rustem Pasha, in Istanbul. Isnik, 17th century

c. DETAIL OF TILES on the north wall of the Etchmiadzin Chapel, Cathedral of St. James, Jerusalem.

d. THE TILED ALTAR FRONTAL OF ST. MINAS in the Chapel of St. Minas and St. Sargis, Cathedral of St. James, Jerusalem.



a



b



c

a. KÜTAHYA, ISNIK, ITALIAN *MAJOLICA* AND OTHER TILES used to patch the outer wall of the mosque of Rustem Pasha, in Istanbul

b. TILE FRAGMENT; Isnik, 17th century. 14 by 20 cm. Benachi Museum, Athens

c. THE TOMB OF ÇEM SULTAN, IN BURSA; spandrel above one of the windows. The central hexagonal tile is painted in underglaze blue, and pinkish-grey; the border tiles are also underglaze decorated

Isnik had been the leading ceramic centre in Turkey. Isnik, classical *Nicaea*, is situated at the eastern end of the inland lake of the same name, amidst undulating countryside bordering the Sea of Marmara (Figure 1). It is a matter for speculation why the industry should have developed in this rural setting some distance from the capital; possibly Isnik represents the survival of a local craft dating back to the time when Bursa was the Ottoman capital. Also, there must have been abundant quantities of good quality clay, and timber for firing, which may not have been available closer at hand. The completed pottery was carried by pack-animals 30 km. overland to the small port of Karamorsel, where it was loaded on to sailing vessels and shipped across the sea of Marmara to Istanbul.[1] From the foundation of the potteries, probably at the end of the fifteenth century, they passed through several stages until the peak period of production and technique was reached in the second half of the sixteenth century.[2] By then Isnik was supplying polychrome tiles of a quality which has never been surpassed for the decoration of the numerous new mosques and buildings in Istanbul, and large quantities of dishes, bowls, jugs, and other shapes decorated in the same taste. The ware was fine and covered with an even white ground; colours used in decoration included various shades of cobalt blue, turquoise, bluish-green, black, and the unique, brilliant 'sealing wax' red, standing out in relief under the clear glaze. The swirling, arabesque designs of leaves and flowers evoke the whole spirit of Turkish taste of the period, and close parallels can be found in contemporary textiles, velvets, carpets, inlaid work, and the other decorative arts. It is known that court designers in Istanbul supplied many of the patterns from which the elaborate tiled panels were painted at Isnik, which accounted for the general homogeneity of effect.

Beside Moslem Turks, a number of Greek and other foreign workmen were employed at Isnik. The proportion of Turks to Christian and foreign workmen is not known, but one may suspect that the latter were numerous; like the Arab conquerors of an earlier age, the Turks were largely dependent on vanquished minorities for craftsmen. The minor arts owed their prosperity to the massive patronage of the Turkish court, and the decline of the Isnik factories in the seventeenth century reflects the shaky state of the Turkish empire at that time; the sultans were pre-occupied with the maintenance of power, rather than the embellishment of the capital. The number of orders grew less and less, and the historian Evliya Çelebi records that the number of factories in the Isnik area had dwindled to nine when he visited the town in 1648, compared with more than three hundred in operation at the beginning of the century.[3]

The depressed state of the industry is evident from the poor quality of many of the products. The colours tend to be muted, and are often limited to turquoise and cobalt blue; the fiery red often degenerates into a dirty brown; the glaze is no longer clear and sometimes discoloured, and the painting is less skilful, with broader and more cursory outlines to the patterns. Lacking Turkish patronage, the potters sought other outlets for their wares. From the middle of the seventeenth century inscriptions on Isnik plates and tiles reveal that they were made for Greek and other foreign customers. Obvious examples are the 'Rhodian' plates, brought back to Rhodes by Greek sailors as presents for their womenfolk.[4] A pierced panel, probably for a fountain, inscribed and dated 1667, is a good example of the Isnik style adapted for a Christian client.[5] Isnik tiles ordered by the Patriarch of Constantinople

[1] Refik, op. cit., p. 39, gives references to Karamorsel as a port of loading for Isnik pottery.

[2] Ibid. Many documents testify to the great demands made on the Isnik potters in the late sixteenth century.

[3] R. Anhegger, in K. Otto-Dorn, op. cit., p. 192.

[4] Lane, *Later Islamic Pottery*, p. 60. For illustrations of Isnik plates still surviving in peasant houses in Rhodes, see M. Protopsaltis, *The Face of Greece—Rhodes*, Athens.

Most of the plates seen by the writer in Lindos in 1964 are decorated in blue and turquoise green, with a dirty red sometimes fading to pink. The use of unfired gold decoration is common, particularly on those plates with pink and pallid greens and blues. The subjects are typical Isnik floral patterns, with occasional crudely drawn figures or sailing-ships. The presence of Çannakale and later plates in village houses shows that the custom of decorating the walls in this way has still not died out; houses visited in the village of Koskinou (8 km. south-east of Rhodes) have walls entirely covered with plates, none very old.

Isnik tiles found their way to Rhodes as early as the end of the sixteenth century; the panels above the windows in the Regeb Pasha Mosque (1588) are filled with Isnik tiles, which appear to be contemporary to the building.

[5] Lane, *Ars Orientalis*, ii. 277. The tile is in the Topkapu Sarayı Museum (no. 148:41), 23·5 by 25 cm., it is painted in turquoise green, greyish blue, and inscribed in black.

and presented to the Lavra monastery on Mount Athos, are inscribed in Greek and dated 1678.[1] A large number of tiles were used to renovate the Mosque of Ibrahim Aga in Cairo in 1652;[2] similar tiles are to be seen in the Coptic Church of Deir Abu Seifein in Old Cairo.[3] Isnik wares also found a market in Italy and Europe, as various pieces have survived with dated metal mountings.[4]

The tiles in the Yeni Valide Mosque (1663–72) which must represent one of the last orders executed for an Istanbul mosque, show a marked decline in standards from those of the beginning of the century. Indeed, the tiles in the Çinili Mosque at Üsküdar (1640) although some twenty years earlier, are decorated in turquoise green and cobalt blue alone; and some of the designs already tend to be confined to single tiles rather than range over a whole sequence to form a panel.[5] The fantastic complexity of the designs on the tiles of the best period of Isnik was due to the virtuosity of the court designers who supplied the patterns. But in the seventeenth century the potters became their own designers, and side by side with the traditional patterns, it is possible to trace a new kind of graphic approach. In the tiles made for the Eşref Rumi Zade Mosque (1619–29) in Isnik itself, the disparate elements of the design assert themselves in such a way as to produce a strangely primitive effect, with none of the usual suavity of composition. For the first time the white ground begins to dominate the designs, and the sense of all-over rhythm is broken.[6]

An even more primitive approach can be observed in the picture-tiles of Mecca and other Islamic places of pilgrimage, many of which date from the middle of the seventeenth century[7] (Plate 9). Here the subject, usually the Ka'aba, is depicted with its attendant shrines as a kind of primitive plan; some tiles include typical Isnik patterns in the borders, but others have no direct link, apart from technique, with the Isnik style at all. The captions of the individual buildings are pedantically written as if by someone not very familiar with the script. Another tile fragment shows part of an equestrian figure carrying a spear, with a typically Isnik border pattern and the corner filled with *rūmi* ornament (Plate 4*b*).[8] The costume and the absence of a halo preclude this being a Christian saint; it appears to be part of a hunting scene. The painting of the figure shows a definite, if unsuccessful, attempt at naturalism. Both this tile and the Mecca tiles suggest a groping attempt on the part of the artist-craftsman towards a break with the traditional decorative style; in this respect they may be considered as the precursors of the tiles and bowls produced by the Kütahya potters some sixty years later. It is not certain, though, how much of this can be attributed to direct observation and visual creativity on the part of the craftsmen; more likely they were simply becoming aware of the possible application of such subjects to pottery; by this time, they must certainly have been familiar with manuscript illustrations, and imported Chinese, Persian, and European ceramics. However, neither these innovations nor orders from foreign clients were enough to sustain a large industry, and lacking commissions of any size, by the end of the century the Isnik industry had almost completely folded up.

In the early eighteenth century an attempt was made to revive the Isnik industry by transferring some of the remaining workers to Istanbul. Although a large order for tiles for

[1] Carswell, J., 'Pottery and Tiles on Mount Athos', *Ars Orientalis*, vi (1966), pp. 85–7, figs. 3, 4.

[2] The *mihrāb* wall and the walls of the adjacent mausoleum are tiled; the tiles measure 25 cm. square, with border tiles 25 by 11 cm. They are decorated in cobalt blue and turquoise, with darker turquoise outlines, some with green and dark red as well.

[3] The tiles are on the east side of the *haikal*, above and to the north of the Patriarch's throne. They are 1·3 cm. thick; off-white powdery ware, with a white ground; painted in two shades of cobalt blue and turquoise; the glaze has a greenish tinge. A sherd from this church was identical with one found by the writer in a trench on a building site at Isnik in 1962, near the mosque of Esref Rumi Zade.

[4] Lane, *Later Islamic Pottery*, pp. 58–9.

[5] They measure 25 cm. square, with border tiles 25 by 12·5 cm. The ground varies from white to off-white; decorated in two shades of cobalt, and turquoise. See Aslanapa, op. cit., p. 104 and plates 98, 99, 100–3, 106.

[6] The tile panel at the entrance to the mosque is no longer *in situ*; in 1962, the only remaining tiles were round the top of the adjacent minaret. K. Otto-Dorn has published a good picture of the panel in *Türkische Keramik*, Ankara, 1957, plate 72.

[7] Erdmann, K., 'Ka'bah Fliesen', *Ars Orientalis*, iii (1959), p. 192. He lists 34 examples, and illustrates 8 of them. See also K. Otto-Dorn, op. cit., plate 78.

[8] Benachi Museum, Athens, no. 121. fragment, 14 by 20 cm.—originally approx. 25 cm. square. Decorated in turquoise, cobalt blue, dark red touches, with black outlines.

the court had been executed at Kütahya in 1709,[1] in 1718 official inquiries were made into the state of the Isnik factories. The following year, two Isnik tile-makers were summoned to the capital to advise on the setting up of a new tile factory, and by 1724 the new factory was in operation, in the Tekfur Sarayı district at Eyub, near Istanbul.[2] The tiles produced at Tekfur Sarayı are quite distinctive and not likely to be confused either with those of Isnik, or of Kütahya; but as Tekfur Sarayı and Kütahya were both in production during the first half of the eighteenth century, and occasionally tiles from both were used side by side in the same building, it is worth briefly considering the characteristics of the former.

Tekfur Sarayı tiles can be distinguished easily by their badly discoloured glaze, which lends a grey or greenish tinge to the ground and has the effect of muting the coloured patterns. They are also larger than Kütahya tiles, matching the Isnik size of about 25 cm. square. The colours used include dark cobalt blue, turquoise, brownish-red fading to pink, black for outlines, and two new colours—a deep rich green and a pungent yellow. Yellow was unknown at Isnik, and its appearance in the eighteenth century was also one of the novelties of Kütahya ware at that time. The patterns, mostly cruder variants of earlier Isnik designs, tend to be centred on individual tiles, so that the effect is of a simple repeat.

Several buildings in Istanbul are decorated with Tekfur Sarayı tiles. The Hakim Oğlu Ali Pasha Mosque (1734) at Davutpasha is extensively decorated with them. Here they can be compared directly with Kütahya tiles, which were used for patching beneath the latticed gallery to the left of the *mihrāb*, and at the rear of the mosque. The Tekfur Sarayı tiles have a marked blue-grey discolouration, and are painted in dark cobalt blue, turquoise, dark green, a brownish-red often fading to dirty salmon pink, and the new yellow. The black outlines, roughly applied with a dryish brush, often diffuse in the glaze to an olive green or greyish tone.[3] In the Public Library (1739) adjoining Aghia Sophia, Tekfur Sarayı tiles are used alongside Kütahya tiles, and earlier Isnik tiles; the latter were probably reused from another building.[4] The upper part of the Ahmet III Public Fountain (1729) has a frieze of Tekfur Sarayı tiles, and plain green tiles which may also be from the same factory.[5] The *mihrāb* of the Yeni Valide Mosque (1710) at Üsküdar is framed with tiles of exceptionally greenish tinge, painted in dirty cobalt blue, dark green, and salmon pink; the date of the mosque would suggest these tiles were added some years after its construction.[6] The Cezri Kasim Mosque (1725) at Defterdar, outside the walls of Istanbul, has Tekfur Sarayı tiles,[7] and the *harem* at Topkapu Sarayı also contains many examples.

Picture tiles of Mecca were also produced at Tekfur Sarayı in the eighteenth century; they differ from the earlier Isnik examples by attempting a rudimentary perspective in the

[1] Refik, op. cit., pp. 45–7, gives the document in full, describing how Ahmet III ordered from Kütahya a total of 9,435 tiles for the repair of his daughter Fatma's palace.

[2] K. Otto-Dorn, op. cit., pp. 176–7, 194. Refik, op. cit., pp. 48–50.

[3] The general position of the tiles in relation to the architecture, the elaborate inscription either side of the *mihrāb*, and the fact that some square tiles have the border pattern painted on one half of them, suggest that these tiles were specially made for this mosque, and were not simply stock patterns. The tiles measure: 24·5 cm. square; 25 by 19 cm., 25 by 22·5 cm., 25 cm. square, 25·5 cm. square (those tiles with yellow); and border tiles, 25 by 19 cm., 25·5 by 14·5 cm., 25 by 12·5 cm., 25 by 9·5 cm. The inscribed frieze is in white script on a dark cobalt blue ground, decorated with sprays of leaves and flowers in turquoise and yellow, with a border of intertwined *rūmi* patterns in the same colours. Remarkable is the naturalistic treatment of the flower motifs, particularly roses, in quite a different style from the older Isnik patterns. For a description of the Kütahya tiles, see Appendix E.

[4] The Tekfur Sarayı tiles measure 24–6 cm. square, with border tiles 25 by 12 cm. There are four types of design, with four more types of border tile. Glazes vary from greenish-yellow to grey-green, and colours include dark cobalt blue, bright green diffusing to turquoise at the edge, turquoise, brownish-red or brick red, with black outlines. Italian majolica tiles are used in part for patching, similar to those in Jerusalem, *types 105, 106*. For a description of the Kütahya tiles, see Appendix E. For other instances of the re-use of older Isnik tiles in the eighteenth century, see Tahsin Öz, *Les Faïences Turques*, p. 60; and R. Anhegger, op. cit., p. 178.

[5] The square tiles are similar to a type in the Aghia Sophia Library, which measure 24 cm. square; they are divided diagonally with four dark cobalt blue, double 'tiger stripes'; each of the four quarters includes part of a group of three crescents, in dark cobalt blue, red and green, surrounded by red and green cloud-scrolls. The border tiles are painted in dark cobalt and turquoise with red touches, with a frieze of palmettes. Similar plain green tiles are to be found in the Church of the Holy Archangel, and elsewhere in Jerusalem; see PLATE 5*a*. See also Refik, op. cit., p. 52.

[6] Aslanapa, op. cit., plates 104–5, 107.

[7] The *mihrāb* is decorated with polychrome tiles, divided vertically by rows of border tiles; it is dated 1725.

treatment of buildings. A fine example dated A.H. 1139/A.D. 1726, is now in Cairo;[1] another undated tile showing a similar treatment of the buildings is in the Bursa Museum.[2] Both the Cezri Kasim Mosque (1725)[3] and the Hakim Oğlu Ali Pasha Mosque[4] are decorated with paintings of Mecca that extend over a series of tiles.

That the Tekfur Sarayı tiles were acknowledged to be of lesser quality than the earlier Isnik products, or at least in short supply, is suggested by a court order, dated 1738, for the removal of older tiles from a palace at Edirne and their transport to the capital.[5] These may well be the Isnik tiles already mentioned that decorate the library in Aghia Sophia. Later, tiles were even imported from abroad. Twelve crates of tiles from Vienna were ordered in 1756, through the intermediary of an English merchant in Galata.[6] The *harem* section of the palace at Topkapu Sarayı is also extensively decorated with blue-and-white Dutch tiles.

[1] Arab Museum, Cairo, no. 860–81, 37 by 46 cm. Off-white ground, painted in pale turquoise, lemon yellow, speckled cobalt blue, light and dark blue-grey, light pinky-brown diffusing to salmon pink at edges, with black outlines. Signed 'Mohammed es-Shami'.

[2] Bursa Museum, no. 2958–393, 25 cm. square. Painted in turquoise green, dark blue, and red, with black outlines; marked on back with a drawing of a walled court with a gate at one end, seen from above.

[3] K. Otto-Dorn, op. cit., notes that it is inscribed 'Osman, son of Ahmed from Isnik'. See also K. Erdmann, op. cit.

[4] K. Erdmann, op. cit.

[5] Refik, op. cit., pp. 52–3.

[6] Ibid., p. 53.

III. THE ARMENIAN RESURGENCE AND THE EXPANSION OF THE KÜTAHYA INDUSTRY

FROM its capture by the Seljuks in the eleventh century until the reign of Shah Abbas the Great in the seventeenth century, Armenia was ravaged time and again by invaders. As a result, large groups of Armenians fled and settled elsewhere, in Poland, Transylvania, Moldavia, the Crimea, and particularly after the Mongol invasions, in Asia Minor. After the conquest of Armenia by Timur, many Armenians left to settle in Wallachia and the surrounding lands south of the Danube. In the other direction, Armenians emigrated to the east and finally, in 1604, Shah Abbas moved a large section of the Armenian population into Persia, and founded the suburb of New Julfa outside his newly established capital at Isfahan.[1] Other Armenians emigrated to south-east Asia, where they settled in Batavia and elsewhere; and in Madras, Calcutta, and Bombay in India.[2] At the same time, Armenian merchants were established in Europe, in Holland, Italy, France and England, and even in Spain.

The positive result of this dispersion of the Armenian nation was the establishment of an international trading network, linking the Armenian merchants settled in these diverse places. The great opportunity came during the first part of the seventeenth century, when Shah Abbas entrusted the Armenians in Persia with the monopoly of the silk trade, which proved to be the foundation of their fortunes. So successful were they in this enterprise that by the end of the century they were in control of much of the trade between Europe and Persia, and further afield to the east. Many of the ships trading between the Persian Gulf and the Far East were owned and captained by Armenians. The Armenians established for themselves a reputation for honesty and diligence, and in the various countries of their adoption, they managed to remain an inconspicuous minority, devoted to their commercial pursuits.

Within the Turkish empire, the Armenians had the same status as other non-Moslem subjects of the Sultan.[3] They were liable to special taxes and subject to certain restrictive laws; otherwise, they had the right to freedom of worship, and as far as civil rights were concerned, they were under the jurisdiction of the head of their *millet*, or community. The Turks recognized three *millets*, the Orthodox, the Jews, and the Armenians, with the head of each *millet* directly responsible to the Sultan. The Armenian *millet* acquired particular importance, as it incorporated all other unclassified non-Moslem subjects, including the non-orthodox eastern Christians, and the Catholics. The head of the Armenian *millet* was the Patriarch of Constantinople, and he thus had direct command over all Armenians within the Turkish empire. He was also responsible, incidentally, for the election of the patriarch of Jerusalem, an appointment which was subject to confirmation by the Porte.

By the end of the seventeenth century the behaviour and treatment of the Christian minorities within the empire became a matter of concern to the Turks. They recognized that they represented a possible threat to the internal coherence of the empire if discontented, and that it would be more prudent to win their allegiance than continue to repress them.[4] The Christians would prove easily susceptible to subversion by foreign powers, especially those who appealed to them in the name of religion to throw off the Turkish yoke. Whether

[1] Carswell, J., *New Julfa*, Clarendon Press, 1968.

[2] Sarkissian, A., *History of the Armenian Question to 1885*, University of Illinois, 1938, pp. 12–13.

[3] Gibb and Bowen, *Islamic Society and the West*, Oxford, 1957, vol. i, part ii: chapter on 'The Dimmis'. Tritton, A. S., *The Caliphs and their Non-Muslim Subjects*, Oxford, 1930. *Encyclopedia of Islam*, London, 1913: article on 'Dhimmis'.

[4] Creasy, E., *A History of the Ottoman Turks*, London, 1878, pp. 306–27.

genuine or assumed, there was no doubt about the interest of the foreign powers in the Christian minorities; Albanians, Serbs, and Greeks were readily allying themselves with them. In 1699, at the Peace of Carlowitz, the Imperialists petitioned unsuccessfully for the Franciscan custody of the Holy Places. In 1700, article twelve of the treaty signed between Russia and Turkey was specifically concerned with the safe passage of pilgrims to Jerusalem. Significantly, one of the contributory causes of the Turkish–Russian war of 1710 was Turkish suspicion of the Czar's agents intriguing with the Christians, and subsequently the Russians stressed the religious angle by portraying themselves as the liberators of the Christians. After the Russian defeat, the Turks insisted on the removal of the Russian ambassador at Istanbul, presumably apprehensive of further plotting.[1]

At the same time, the Armenians within the Turkish empire were the victims of another sort of subversion. Whilst France was enjoying privileged relations with the Porte towards the end of the seventeenth century, Louis XIV took it into his head to further the efforts of the Catholic missionaries to obtain conversions among the schismatics, including the Armenian orthodox. This attempted erosion of the church by the Catholics aroused the indignation of the Armenian Patriarch, who as head of the *millet*, was able to bring pressure to bear on the missionaries. In 1702, the Patriarch Avedik secured the closing of the Jesuit schools in Istanbul. The French minister retaliated in a surprisingly direct way, by simply arranging for Avedik to be kidnapped, and whisked off to France, where he died in exile some years later.[2] However, with the rise of Abbot Mechitar, and the order bearing his name, the Armenian Catholic movement gained ground. Mechitar was born in Sebastia (Sivas) in 1676, converted to Catholicism, and spent the early part of his life proselytizing amongst his fellow Armenians, first from a base in the Morea, and latterly, after his exile, from Venice. The Mechitarists were established on the island of St. Lazzaro in Venice in 1717, and apart from the training of missionaries, they were very active in the dissemination of western culture; they founded a very important printing-press at San Lazzaro. The result was that the Mechitarists gained considerable ground amongst the Armenians in the eighteenth century, and many Armenian communities included a group of Catholic seccessionists. Here it must be remarked that however much the Armenians disapproved of Mechitar's alliance with Rome, they have always conceded that he played a most important part in the general cultural revival and education of the nation as a whole.[3]

To resume the subject of the Turkish treatment of Christian minorities, at the end of the seventeenth century the Turks made a series of important concessions to the Christians. During the short reign of the grand vizier Köprülü Mustapha, orders were issued to all the *pashas* that Christians should on no account be oppressed, and only the capitation tax levied on them (1689–91). He also reversed the existing laws forbidding the construction of new churches, or even the extension of existing structures, so that it was now possible to build churches wherever they were desired. His successor, the vizier Köprülü Husain, was responsible for further reforms, including the reduction and eventually the abatement of the capitation tax.[4] The consequences of these reforms were immediate. Both inside and outside the Turkish empire successful mercantile enterprise had added greatly to the wealth of the Armenian community as a whole. The church benefited indirectly from this, and in the eighteenth century there was a wave of church-building and redecoration of existing structures, taking advantage of the newly relaxed restrictions and financed by pious Armenians. Donations provided for the embellishment of every aspect of the churches, and the Armenians became patrons of their own arts and craftsmanship. Armenian inscriptions on richly carved and inlaid woodwork, altar screens, patriarchal thrones, embroideries, vestments, gold and

[1] Creasy, op. cit., pp. 320, 324, 329–33.

[2] Gibb and Bowen, op. cit., pp. 245–6.

[3] Nurikhan, M., *Abbot Mechitar*, San Lazzaro, Venice, 1915 (translated by J. McQuillan). The intellectual importance of the Mechitarists at Venice, and later Vienna, to Armenian culture as a whole is gladly acknowledged by the orthodox—see Ormanian, M., *The Church of Armenia*, Oxford, 1955 (2nd ed.), p. 68.

[4] Gibb and Bowen, op. cit., pp. 253–4.

silver croziers, and jewel-encrusted manuscript cases, all testify to the gifts made by wealthy Armenians at that time.[1] These donations also included tiles and pottery.

As a result of this, the tile-making industry at Kütahya flourished. Throughout the near east Armenian monasteries and churches were decorated with Kütahya tiles. Whilst the most elaborate schemes were undoubtedly those executed in the cathedral of St. James in Jerusalem, large quantities of tiles were made for the church of St. Gregory the Illuminator in Istanbul (1733) (PLATE 7),[2] the Armenian monastery at Efkere, near Kayseri (PLATE 32),[3] and churches in Kayseri,[4] Nicosia,[5] Sivas,[6] Jaffa,[7] and Kütahya itself.[8] Since the Armenian persecution at the beginning of this century, the traces of many of the Armenian churches that must once have been similarly tiled have been conscientiously effaced by the Turks; for instance, what was once a church in Kütahya is now a warehouse for the electricity company; the Armenian church in the Karantina district of Izmir is now a mosque; the monastery at Efkere was completely sacked, and all the tiles stripped off; and the church of St. Gregory the Illuminator in Istanbul was pulled down comparatively recently, in the course of municipal improvements. Tiles from the Armenian convent near Ankara are now in the Ethnographic-Archaeological Museum Depot in Ankara;[9] and more than sixty finely painted tiles from a church, now a mosque, near the Dardanelles, are now in a private collection in Alexandria.[10]

Whilst the Kütahya potters catered mainly for the resurgent Armenian community in the eighteenth century, they also worked for Moslem patrons. A large order for tiles for the *harem* at Topkapu Sarayı, executed in 1709, has already been mentioned. Tiles were also made for two mosques in Kütahya itself, the Ali Pasha Mosque (PLATE 31),[11] and the Hisar Bey Mosque (restored 1750/1) (PLATE 6)[12] where they are still *in situ*. Some 800 tiles were made for the Haçi Bayram Mosque in Ankara.[13] More than 100 tiles were made for the Nakiboğlu Mosque (1763)[14] in Konya, and some 300 tiles for the Çelik Mehmet Pasha Mosque

[1] Within the Turkish empire, the Cathedral of St. James in Jerusalem is a classic example. Earlier, in the seventeenth century, the churches in New Julfa in Persia benefited from similar lavish gifts.

[2] Aslanapa, op. cit., p. 64 and plates 55–64. According to Aslanapa, the original church was built in 1436 and the tiles added in 1733 when major repairs were carried out. Unfortunately the church was demolished in recent years, victim of a road-widening project; the tiles were saved, and stored in a boys' school near the Tophane Mosque, with a view to using them in the new church. See Appendix E, for details.

[3] The monastery at Efkere, 25 km. north-east of Kayseri, off the Sivas road, was sacked by the Turks at the beginning of the century. The ruined church has the imprint of the missing tiles on the plastered walls. A large number of tiles in the Kayseri Archaeological Museum came from this monastery. See Appendix E, for details.

[4] According to Mr. Hintlian, Secretary to the Patriarchate in Jerusalem, there were three churches in Talas, a suburb of Kayseri, and two were tiled: the Church of St. Theodore, and the Church of St. Stephen at Küçük Köy. Alpōyačean, A., *The History of the Armenians in Kayseri* (in Armenian), Cairo, 1937, shows a church with tiles (p. 989), and also tiles in the Church of St. Mary in Tomarza, near Kayseri (p. 1010). Aslanapa, op. cit., p. 76, states: 'Kütahya tiles dated 1762 are found in the Surb Aztvazazin Church in Muncusum near Kayseri, and dated 1797 in the small church in the Surb Karabet Monastery.'

[5] A. Lane, *A Guide to the Collection of Tiles*, London, H.M.S.O., 1960, p. 23.

The Revd. Yervant Apelian, Vicar-General of the Armenian Church in Cyprus, has kindly supplied me with photographs of the interior, which show that the front and top of the chancel were once tiled. *Types 2, 6,* and *44* Kütahya tiles can be discerned. Because of the recent political situation the Armenian church in Nicosia (in the Turkish quarter) has been inaccessible to Armenians and the general public alike. However, the writer was able to visit the church for the first time in February 1969, to find that the tiles had apparently been removed and replaced with modern tiles during a general refurbishing of the church carried out by the Armenians just before they were dispossessed of it.

[6] Aslanapa, op. cit., p. 76, quoting from Balyan, D., *Armenian Monasteries in Turkey*, 1914: 'The tiles that cover the walls and piers in the Surb Nishan Church in Sivas are also manufactured in Kütahya. There is an inscription to this effect on one of the columns.'

[7] See Volume I, p. 8.

[8] Alpōyačean, op. cit. (*Souvenirs from Kutahya*) (in Armenian); on p. 106 is a photograph of the Church of the Holy Mother of God in Kütahya, showing tiles behind the altar.

[9] I am indebted to Dr. H. Koşay, Director of the Ankara Ethnographic Museum, for this information, although I have been unable to locate the tiles in the Museum.

[10] The Alexander Benachi collection, Alexandria. The late M. Benachi generously allowed me to examine his large collection of Kütahya ware. The tiles, Jerusalem *type 13*, were painted in polychrome, and 20 cm. square. A similar tile is illustrated by Lane, op. cit., plate 17(b). There are slight variations in the cross-hatching of Benachi's tiles. The church from which they came may have been the church at T'ēk'ir-dagh (Takirdagh), which has indeed been converted into a mosque.

[11] The date of this mosque is not certain, but it is probably an eighteenth-century structure. See Appendix E, and Volume I, PLATE 44*a*, pp. 100–1, for details of the inscribed *mihrab* and the surrounding tiles.

[12] See Appendix E, and Volume I, Plate 22*d*, p. 89.

[13] See Appendix E.

[14] See Appendix E.

(1765),[1] in the same town. The Ulu Mosque in Kayseri was until recent years decorated with Kütahya tiles, but as they were used in conjunction with earlier mid-seventeenth-century Isnik tiles and nineteenth-century English lithograph-transfer patterned plates, they must have been intended originally for another location.[2] The use of tiles in the Hakim Oğlu Ali Pasha Mosque in Istanbul has already been noted, with those in the Aghia Sophia Public Library.[3] Kütahya tiles are also to be found in a niche in the bedroom of Murad III, in the baths off the Hunkar Sofasi, in the 'Golden Way', and in the Oçakli Sofasi, in the *harem* at Topkapu Sarayı.[4] They have also been used to patch the outer wall of the Rustem Pasha Mosque in Istanbul (Plate 4*a*).[5]

As for the finely made and decorated Kütahya pottery, this appears to have been universally popular. One can only guess at the forms made by the 'cup-makers' in 1608, or of the 'bowls and cups, various drinking vessels and jugs, pots and plates' mentioned by Evliya Çelebi in the seventeenth century.[6] Kütahya wares were recorded amongst the list of dutiable articles at Tokat in 1700.[7] Two Christian 'cup-makers' of Kütahya were the plaintiffs in a lawsuit in 1702.[8] A French merchant, Paul Lucas, described the different types of Kütahya ware he sent back to France from Istanbul in 1715 as: 'une douzaine de tasses à café avec leurs soucoupes, une tasse, deux bouteilles pour mettre de l'eau de rose, deux salières et deux escritoires, le tout de porcelaine de Cutajé'.[9] Another Frenchman, Claude Charles de Peyssonnel, French Consul in Smyrna, was sent as Consul to the Khan of the Tartars in the Crimea in 1753, and made a detailed study of trading activities in the Crimea. Under the category of 'Porcelaine, Fayence et Terraille', he noted:

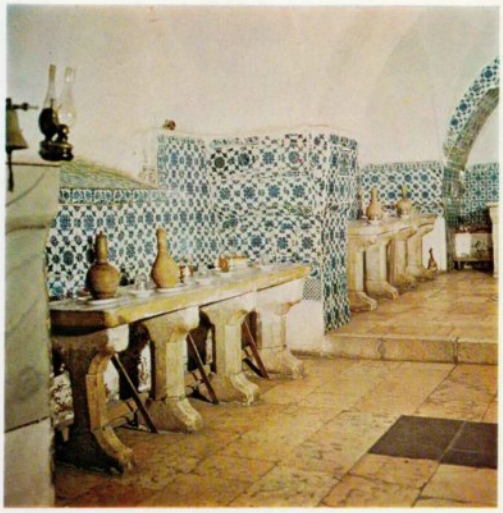
> Le débit de la porcelaine est bien modique en Crimée, et se borne, année commune, à huit ou dix paniers de tasses à café, de vases pour le sorbet, et d'autres plus grands pour divers usages; mais il vient environ deux cents paniers de fayence de Cutahié de toute espece, comme pots, vases de toutes grandeurs, tasses à sorbet et à café, etc. Tout cela se vend bien en détail, on y trouve au moins cent pour cent de profit; mais ce sont des articles auxquels on ne peut employer qu'un très-petit capital, et dont le transport est bien dangereux: on peut comprendre dans cet article environ deux mille cinq cents gouffes de noix de pipe de toute espece et de tout prix.[10]

According to their inscriptions, incense-burners, ewers, dishes, bowls, plates, and flasks were frequently made in the eighteenth century as donations for churches, in Jerusalem and elsewhere. A popular side-line must have been the production of egg-shaped pottery ornaments, intended as votive offerings for pilgrims to Jerusalem, occasionally inscribed with the donor's name and its destination;[11] similar Kütahya pottery ornaments are common in Greek Orthodox churches as well.[12] The presence of large quantities of Kütahya dishes and other shapes surviving in Greece till this day indicates the importance of the Greek world as a market. The wide variety of shapes and the virtuosity of the patterns on Kütahya pottery in any of the larger museum or private collections throughout the world are in themselves evidence enough of the vitality of the industry in the first half of the eighteenth century.

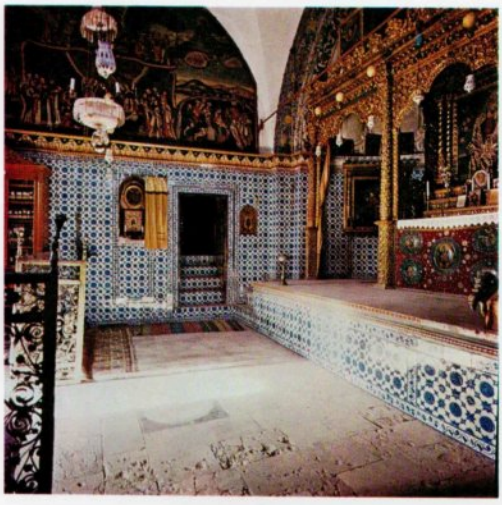
[1] See Appendix E.
[2] See Appendix E.
[3] See pp. 11, 12, Appendix E.
[4] See Appendix E.
[5] In conjunction with Isnik, Italian *majolica*, and Dutch tiles.
[6] *Supra*, pp. 7, 8.
[7] Anhegger, op. cit.
[8] The text of this interesting document is given by Aslanapa, op. cit., p. 92.
[9] Lane, *Later Islamic Pottery*, p. 63.
[10] Peyssonnel, Claude Charles de, *Traité sur le commerce de la Mer Noire*, 2 vols., Paris, 1787, pp. 109–10.
[11] See Appendix B.
[12] The Greek Orthodox part of the Church of the Nativity at Bethlehem; and the Monastery of St. George in the Wadi Kelt, are decorated with such ornaments.



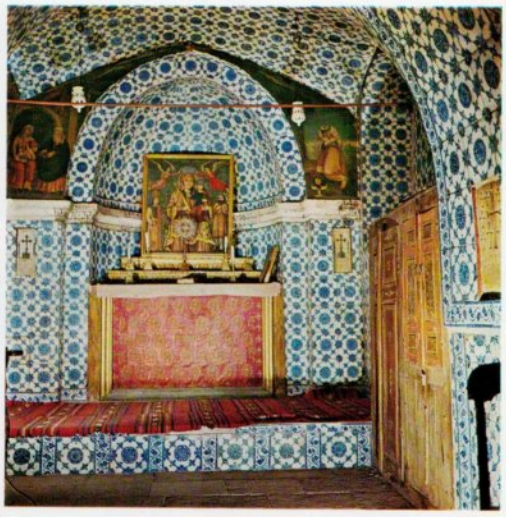
a



b



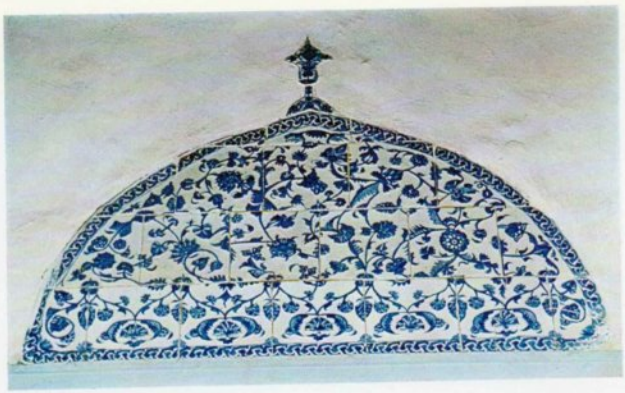
c



d

THE CATHEDRAL OF ST. JAMES, JERUSALEM

a. The Church of the Holy Archangel, the NW pier
b. The Refectory, west wall
c. The Church of St. Theodore, looking NE
d. The Church of St. Theodore; the Sacristy (the Chapel of St. John Baptist)



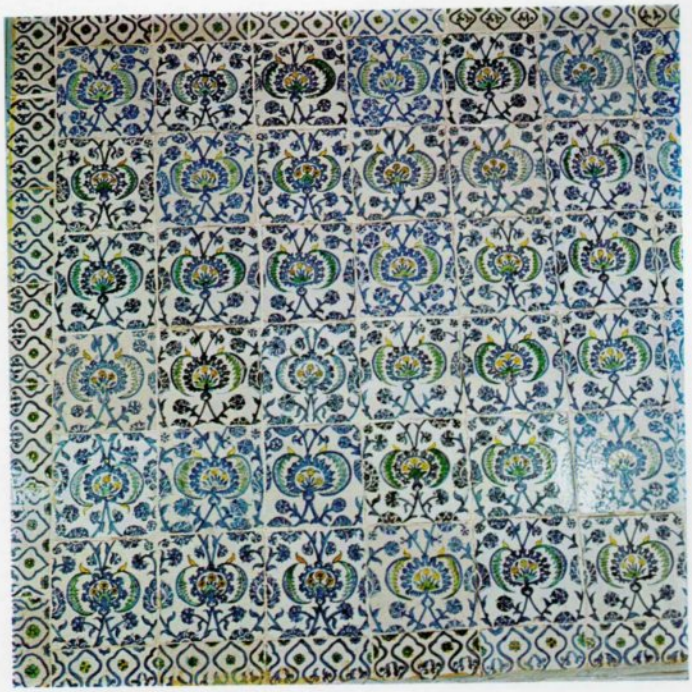
a



b



c



d

THE MOSQUE OF HISAR BEY (A.D. 1487/8), KÜTAHYA. Eighteenth-century tiles

a. Tile panel above a window

b. Tile inscription on the *minbar*

c. Arched tiles in the *mihrāb*. 19 by 24 cm.

d. Wall tiles. 18 cm. square; border tiles, 9 by 18 cm.



a



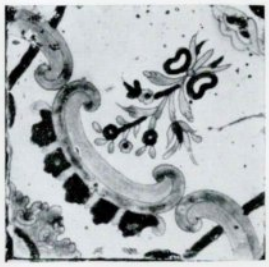
b



c



d



e



f



g



h



i



j

THE CHURCH OF ST. GREGORY THE ILLUMINATOR, ISTANBUL

a, *b*, *c*, *d*, Kütahya tiles. *a*, 18·5 cm. square. *b*, 19·5 cm. square. *c*, 21 cm. square. *d*, 9 by 19 cm.
e, *f*. Italian *majolica* tiles, 22 cm. square
g, *h*. Dutch tiles, 13 cm. square
i, *j*. Chinese porcelain tiles. *i*. 20·5 cm. square. *j*, 19 cm. square



a



b



c

THE CATHEDRAL OF ST. JAMES, JERUSALEM

a. Ewer (in the Patriarchal collection)
b. Hanging ornament (in the Gulbenkian Library collection)
c. Hanging ornament (in the Gulbenkian Library collection)

IV. THE EIGHTEENTH CENTURY AND LATER DEVELOPMENT OF KÜTAHYA POTTERY

By the early eighteenth century Kütahya was well established as a centre for the manufacture of pottery of fine quality, and it is no accident that the French merchant already mentioned should have referred to *porcelaine de Cutajé*. Although it was obviously not true porcelain, it was a very passable imitation of the real thing, consisting of a fine, hard white ware often shaped into forms of great delicacy.

The ewer and bowl in the Patriarchal collection in Jerusalem, of A.D. 1716, are the earliest eighteenth-century pieces which can be precisely dated, and for this reason they are worth studying in some detail. The combination of ewer and bowl is discussed elsewhere;[1] such sets were more usually made of metal than pottery. However, there are several of Chinese porcelain in the Topkapu Sarayı collection, which must have been specially made for the Near East (Plate 34).

Both the Jerusalem ewer and bowl are decorated in cobalt blue and black, under a clear glaze. The blue floral patterns are painted more fluently than the black inscriptions, suggesting a division of labour between the artist-potter and the scribe responsible for the texts. The length of the inscription on the ewer was miscalculated, so that one of the cartouches has a square end, instead of a trefoil like the rest. The descriptions on the bowl are also cramped, and unevenly spaced. There is a similar discrepancy between the inscriptions and the execution of the decoration on the pictorial tiles of A.D. 1718/19,[2] and it also occurs on other pieces of Kütahya pottery.[3] Perhaps the most surprising factor is that the scribes, whose only task was to supply the inscriptions, should have so frequently produced such clumsy and illiterate work.

The painting of the ewer and the bowl shows evidence of the almost universal interest in Chinese porcelain, which was being imported into the Near East, as well as Europe, in large quantities at that time. Armenian merchants played a part in the porcelain trade,[4] so it is no surprise to find that the Armenian potters in Kütahya were susceptible to its influence.

On the underside of the bowl are five floral medallions, which must have been directly inspired by a Chinese prototype. In the Chia Ching period (A.D. 1522–66) porcelain was frequently decorated with designs in roundels, and a dish in the Ardebil collection has five roundels on the underside.[5] A late Ming porcelain dish (Plate 33 *a*), found in Damascus, has five floral medallions painted on the back, in a like manner to those on the Patriarchal bowl. Floral medallions are also frequently painted on the outside of late Ming porcelain bowls; these appear to have been a popular type for export to the Near East, and two examples, again from Damascus, are illustrated (Plate 33 *c*); there are many others in the Topkapu Sarayı collection. That they also found their way to Europe can be seen from the decoration on a bowl made of Frankfort faience, which is a close imitation.[6]

The floral medallions on these bowls are separated from each other by loosely painted sprays of flowers and leaves. The flowers are often formed from a figure-of-eight, on its side, with an additional arc above and below. These sprays were also copied by the Kütahya potters, on jugs, bowls, plates, saucers, and other shapes;[7] and the decoration of two flasks in

[1] Appendix D. See also Volume I, pp. 81–3, Plate 22 *a–c*.
[2] On *B5*, for instance.
[3] Volume I, Plate 23 *b*.
[4] See p. 60, n. 8.
[5] J. A. Pope, *Ardebil* . . ., p. 126, plate 81.
[6] Bayerisches Nationalmuseum, no. 34/825.
[7] Figures 5 *i*, 6 *b*, 8 *b*, 9 *b*, 11 *b*.

the Patriarchal collection provides an excellent example.[1] Floral medallions were often used to decorate hanging ornaments,[2] and in the San Lazzaro collection there is a Kütahya bowl painted at the centre with a blue medallion surrounded by three green and yellow fish.[3]

In shape, the Jerusalem ewer is closer to the early fifteenth-century Chinese type, with a pear-shaped body and short foot, rather than the sixteenth-century form with a high foot (PLATE 35 *b*).[4] The over-all effect of the blue-and-white decoration suggests Chinese influence, although if the flowers and leaves are examined in detail they are not very Chinese in spirit. On the other hand, the seventeen little birds painted on the handle can be traced to a

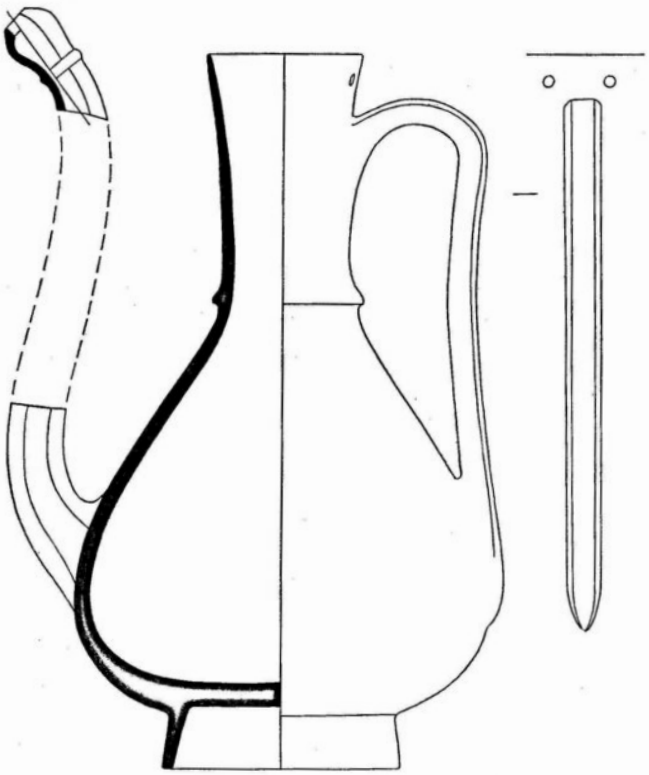


FIG. 2. Kütahya ewer, in the Patriarchal Collection, St. James, Jerusalem. *Scale*: ½.

Chinese source. Similar spritely birds decorate late sixteenth-century porcelain,[5] and the motif persists into the K'ang Hsi period (A.D. 1662–1722), such as on a tea-pot in the Brussels Museum.[6] The birds turn up on other pieces of Kütahya pottery, such as the bowl with a raised centre in the San Lazzaro collection,[7] a pilgrim-flask in the Victoria and Albert Museum,[8] and an incense-burner in the British Museum.[9]

A second ewer in the Patriarchal collection (PLATE 8 *a*, Figure 2), perhaps part of the same donation, is so similar in shape to the A.D. 1716 ewer that it is almost certainly a contemporary product. This ewer was painted in cobalt blue and then glazed with a semi-transparent

[1] Volume I, PLATE 23 *b*.
[2] See Appendix B; and Volume I, PLATES 24 *e*, *f*; 40, 41.
[3] Figure 16 *b*.
[4] Pope, op. cit., plates 54, 55 for early fifteenth-century ewers; plates 98, 99 for other late sixteenth-century examples.
[5] On a bowl in the Ardebil collection; for instance, ibid., plate 105.
[6] Musée d'Art et d'Histoire, Brussels; V. 1317.
[7] Figure 16 *a*.
[8] No. 903–1907.
[9] Figure 15 *a*.

yellow, producing a greenish pattern on a yellow ground. This technique may have been suggested by Chinese porcelain decorated in the same way; a Chinese 'aster' plate in the Corfu Museum is decorated in this manner.[1] Painting in blue under a yellow glaze was also used by the Kütahya potters for the decoration of hanging ornaments,[2] and there is also a fragment of a similarly decorated tile in Jerusalem.[3]

At the time of the manufacture of the pictorial tiles and pottery in A.D. 1718/19, it is clear that the potters had at their disposal a full range of colours, including yellow, cobalt blue, turquoise, red, green, and black. But although they were able to produce wares decorated in polychrome colours, they also continued to make pottery painted in cobalt blue alone. This must be ascribed to a continuing and persistent vogue for Chinese porcelain decorated in blue and white. The inscribed hanging ornaments in Jerusalem may be cited as a pertinent example;[4] the monochrome decoration must have been in deference to the wishes of whoever commissioned them, rather than the limitations of the potters, who could have easily produced a more elaborate colour-scheme if called upon. There are many other examples of Kütahya pieces decorated in blue alone; and two of the 1718/19 bowls are of particular interest, as they are decorated primarily in blue on the outside, but inside in polychrome.[5] One of the most important types of tile sent to Jerusalem (*type 6*) was decorated in no less than four different ways: in monochrome blue, in blue with a black inscription, in polychrome colours, and in blue under a transparent yellow glaze. This is evidence for the use of all of these techniques at the same time, and even in the same workshop.

The shapes listed by Paul Lucas (p. 16) in 1715 indicate some of the types of Kütahya pottery then available, and a survey of the Kütahya pottery in various collections throughout the world permits a tentative identification of some of the shapes to which he refers.[6] At the same time, the dated examples, catalogued in the first part of the present study, provide more specific evidence for the chronological and stylistic evolution of the industry.

Cups without handles vary both in size and in shape (Figures 3, 4). Most of them are large, with a slightly everted rim, decorated inside and out in polychrome and further embellished with carved and incised roundels. The carving would suggest that these cups are later than the first quarter of the eighteenth century, as the first dated piece of Kütahya pottery with carved decoration is the inscribed jug in the Gezirah Museum, of A.D. 1741/2.[7] But it is to be noted that none of the carved cups are decorated in purple, a colour which made its appearance only in the second quarter of the eighteenth century; a tentative date for the cups is A.D. 1725–35. The carved roundels, sometimes simply cross-hatched with incised lines, and sometimes with more elaborate leaf-like patterns, would appear to have been inspired by similar incised decoration on metal objects.

The *coffee-cups with saucers* are probably those tall cups with a slightly everted rim, of which two pairs of cups and shallow saucers decorated in the same style are known (Figure 4 *e*, *f*), as well as a few single examples of cups, and a saucer (Figure 5 *a–f*). The cups are painted in polychrome, with the sides divided into vertical panels filled with sprays of flowers, pointed medallions, and red dots. A common motif is a vertical blade-like motif, usually yellow, from which spring rows of red dots, each on a black diagonal stalk. Smaller, typical Turkish coffee-cups of more conventional shape (Figure 21 *c*, *d*, *e*) must be later, as none are known

[1] The plate, and a flask, are both painted in cobalt blue, partly left plain and partly covered with a transparent yellow glaze to produce a greenish design.

[2] See Appendix B, p. 67.

[3] See PLATE 39, no. 27; and PLATE 9, *type 6 f*.

[4] See Appendix B.

[5] Volume I, pp. 72–5, PLATES 19, 20.

[6] The major collections of Kütahya pottery, apart from Jerusalem, are in the Benachi Museum, Athens; the estate of the late Alexander Benachi, Alexandria; the British Museum, the Victoria and Albert Museum, and the estate of the late R. H. R. Brocklebank, London; the Godman Collection, Horsham, England; the Topkapu Sarayı Museum, Istanbul; the Ethnographic Museum, Ankara; the Arab Museum, and the Gezirah Museum, Cairo; the Armenian Convent of San Lazzaro, Venice; the H. Kurdian collection, Wichita, Kansas; the Musée de Sèvres, and the Musée des Arts Décoratifs, Paris; the Musées Royaux d'Art et d'Histoire, Brussels; there are also pieces of interest in the Cincinnati Art Museum; the Damascus National Museum; the Metropolitan Museum, the Brooklyn Museum, and the H. Hazarian collection, New York; the Royal Scottish Museum, Edinburgh; and the Museo Internazionale delle Ceramiche, Faenza.

[7] Volume I, pp. 87–8, PLATE 37.

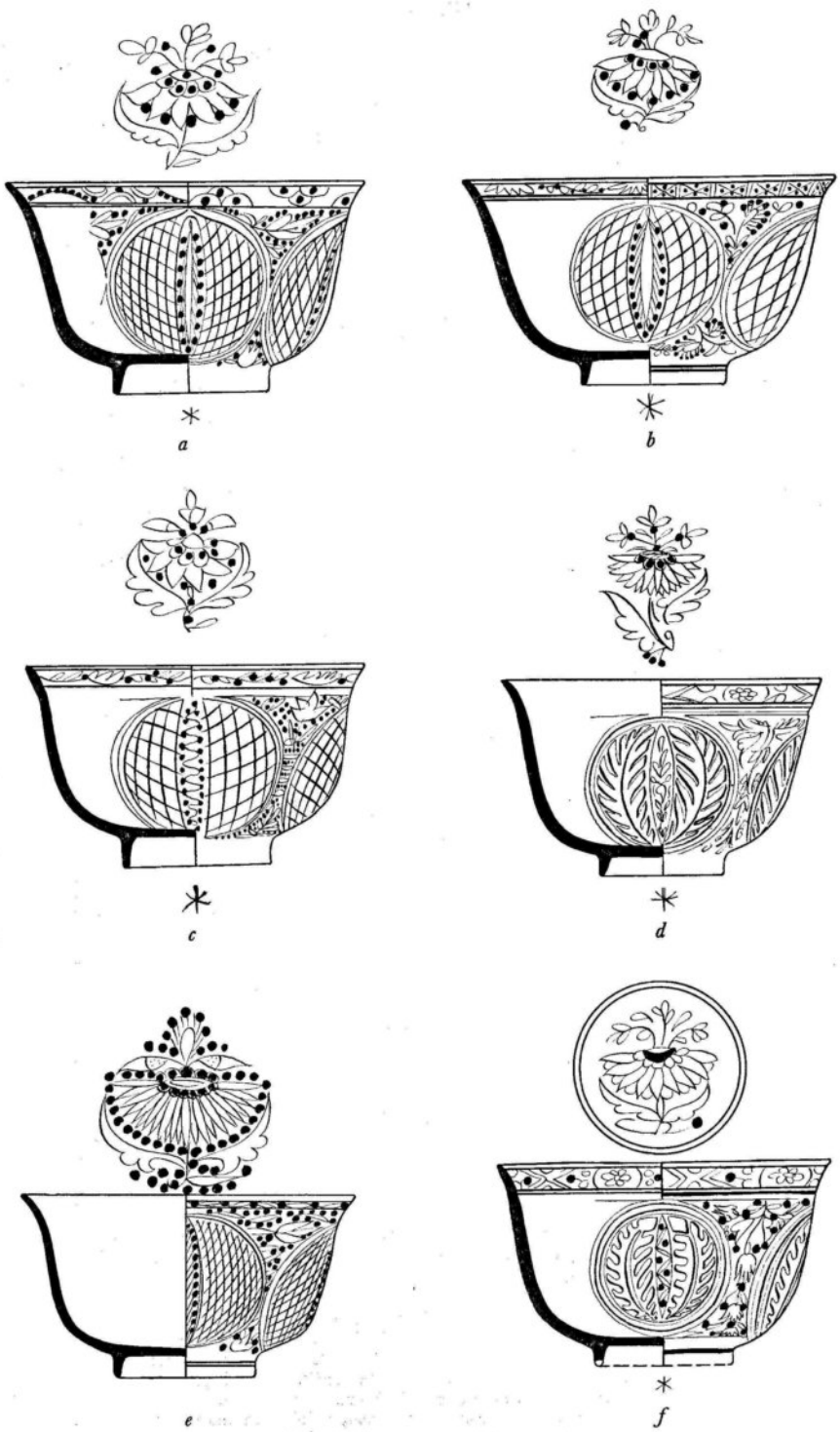


FIG. 3. Kütahya cups without handles. *a*, *b*, *f*, San Lazzaro, Venice; *c*, *d*, British Museum; *e*, Royal Scottish Museum. *Scale*: ½.

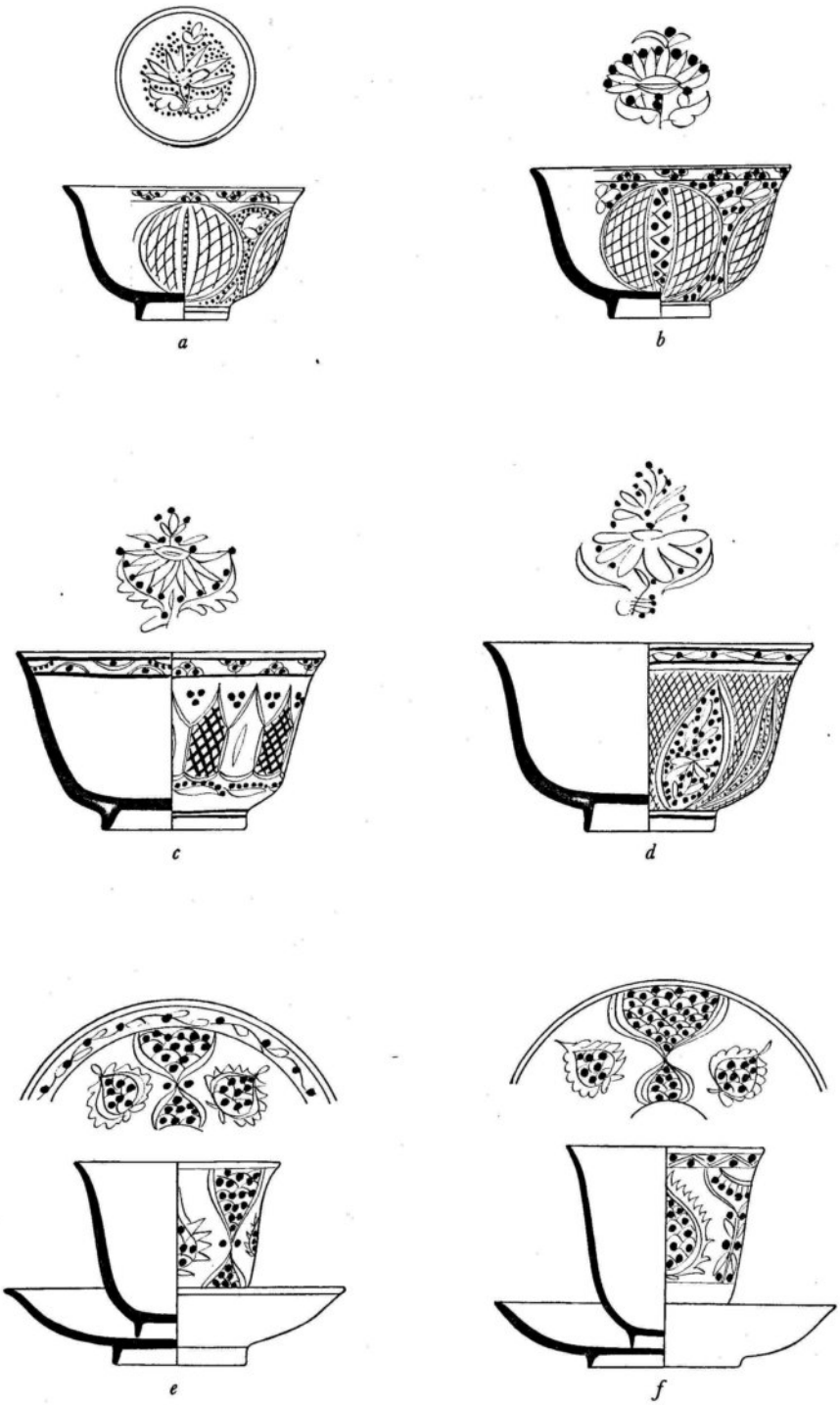


FIG. 4. Kütahya cups without handles: *a*, *b*, San Lazzaro, Venice; *c*, Royal Scottish Museum; *d*, Victoria and Albert Museum. Kütahya coffee-cups with saucers: *e*, British Museum; *f*, Victoria and Albert Museum. *Scale*: ½.

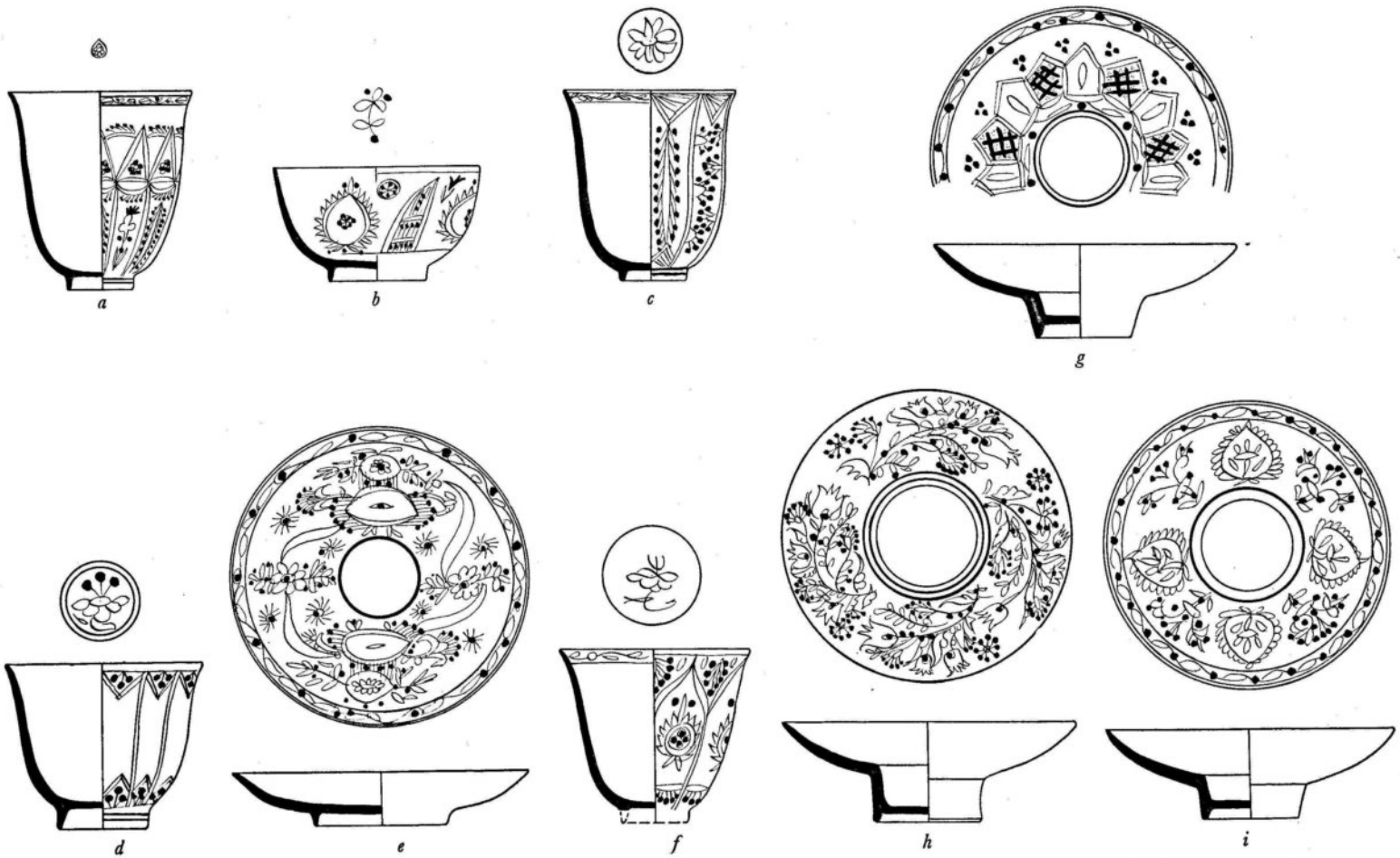


FIG. 5. Kütahya coffee-cups and saucer. *a*, San Lazzaro, Venice; *b*, Victoria and Albert Museum; *c*, *d*, *e*, *f*, British Museum. Kütahya saucers with a recessed centre. *g*, San Lazzaro, Venice; *h*, *i*, British Museum. *Scale*: ½.

decorated in the finely painted early eighteenth-century style. However, there is one cup, both shallower and broader than the tall cups, decorated in the early style (Figure 5 *b*).

Saucers with a recessed centre are also common (Figure 5 *g*, *h*, *i*). They are possibly short, small stem-cups rather than saucers, as none of the cups referred to above would have fitted comfortably into them. Again, the polychrome decoration consists of floral sprays, pointed medallions, or geometric panels. They are decorated with blue rings at the centre, and double blue rings on the outside of the base ring. There is a single *stem-cup* with a much taller foot in the Benachi Museum.[1]

The A.D. 1718/19 *dishes* are of one simple form, although varying in size (Volume I, figs. 10–13). A dish decorated in monochrome blue with patterns similar to those on the backs of these dishes has a more complex profile, with a shallow centre and a wide flat rim (Figure 6 *a*). Another polychrome example is decorated with sprays of flowers and pointed roundels (Figure 6 *b*). A third, larger type of dish has a slightly everted rim (Figure 7) and is painted in polychrome with polygonal panels, filled with round or pointed medallions outlined with red dots; at the centre is a large flower surrounded by five arabesque leaves.

Again, the A.D. 1718/19 *bowls* follow closely in size and shape Chinese prototypes (Volume I, figs. 14, 15). Two more bowls of similar shape are decorated with polychrome pointed medallions and floral sprays, with red dots (Figure 8). *Small bowls* of similar design sometimes have lids to match with knobs on top (Figure 9 *a*, *b*, *c*). A fine polychrome example (Figure 9 *c*) decorated with a loose design of plants and flowers obviously derives its subject from a sixteenth-century Chinese bowl.[2] Other *bowls with lids* are painted with the usual Kütahya patterns (Figure 9 *a*, *b*), and one *small bowl with an inverted rim* (Figure 9 *d*) similarly decorated, probably also had a lid.

The *rose-water flasks* are generally of approximately the same size and shape (Figure 10), with pear-shaped bodies joined to a long, slightly tapering neck which ends abruptly; at the junction of the neck and the body there is often a moulded ring; they have a simple straight foot. One taller example (*e*) lacks the moulding at the base of the neck. The body of the flask is usually divided vertically into panels, often separated by moulded ribs, and sometimes faceted. The panels are painted in polychrome with sprays of flowers and red dots; one flask has panels divided by a serpentine line into two interlocking halves (*d*); another has cobalt blue, plain and polychrome panels alternating round the flask (*c*). One flask is simply decorated with stylized circular floral medallions, of Chinese derivation (*a*). Although the neck moulding is often decorated, the necks themselves almost never are. This was because the flasks were designed to have metal mounts, which would have concealed any painting. Many flasks have survived with their metal fittings intact. The base was often capped as well (*f*), and the stopper attached to the mount by a chain. The metal is usually decorated in repoussé, and engraved.[3]

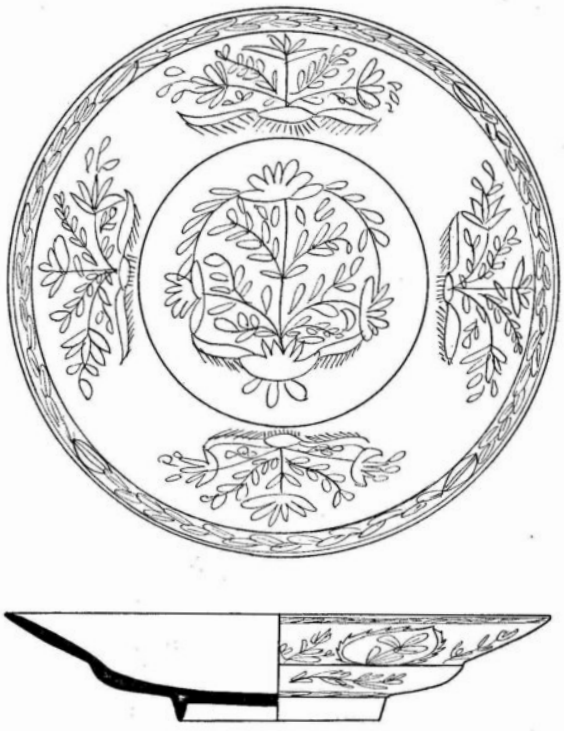
The *jugs* are of several shapes. Among the most common is a type with a pear-shaped body, a pointed spout curving out from the slightly flaring neck, and a simple base ring (Figure 11). The base is sometimes solid. The jugs often have domed lids with a knob, attached by means of metal hinges to the rim of the jug (Figure 11 *b*). The metal fitting was secured by means of pins passing through holes bored just below the rim on either side of the handle. The presence of such holes on any jug shows that there must once have been a lid as well, even if they have since parted company. At the junction of the neck to the body of the jug there is often a simple raised moulding. The decoration of the jugs with motifs of the type already mentioned is in polychrome, or sometimes monochrome cobalt blue. The handle and the spout are often painted as well.

A second variety is the *tall jug with a fluted body* (Figure 12). This also has a domed lid to match, with a knob; but it has no spout. One complete example exists in the Victoria and

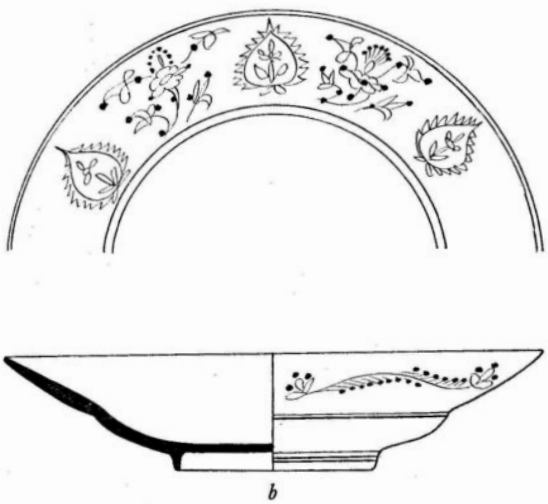
[1] Benachi Museum, Athens, case 66, no. 2–1736.

[2] Pope, op. cit., plate 96; 29. 367.

[3] Brocklebank, R. H. R., 'Anatolian Faience from Kutahiyeh', *Burlington Magazine*, vol. lx, 1932, plate 1.



a



b

FIG. 6. Kütahya dishes. *a*, Victoria and Albert Museum. *b*, San Lazzaro, Venice. *Scale*: $\frac{1}{2}$.

Albert Museum, painted in monochrome blue (Figure 11 *a*); a second example (*b*), slightly smaller, is painted with a polychrome spray of flowers, trailing arbitrarily across the fluted panels; it probably also once had a lid. A third type of *jug without a spout* has a pear-shaped body with a tall, slightly flaring neck (Figure 13 *c*); the body is carved as well as painted and the piece may be later, belonging to the second quarter of the eighteenth century. The same combinations of carving and painting can be observed on a *mug* with a pear-shaped body (Figure 13 *d*). There are also *jars* of similar shape with polychrome decoration.

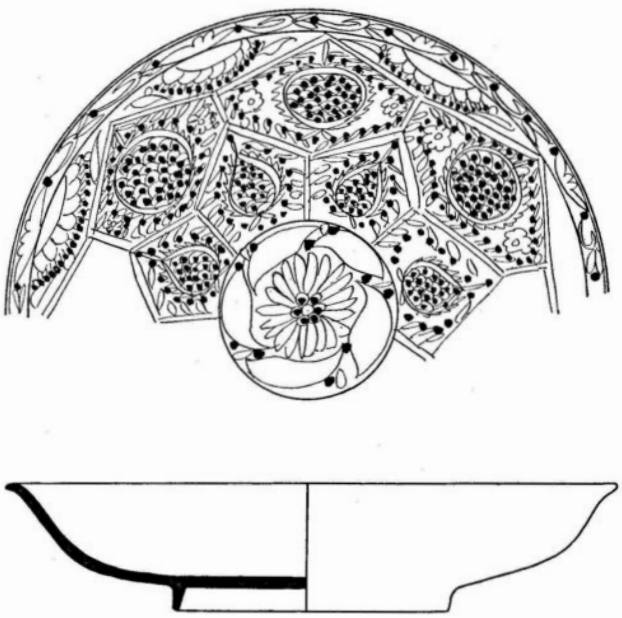


FIG. 7. Kütahya dish. San Lazzaro, Venice. *Scale*: ½.

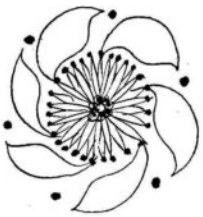
Kütahya *pilgrim flasks* have round, slightly convex bodies, with raised concentric rings (Figure 14); one has a hole right through it, at the centre. The necks are short and concave. A later, dated example, A.D. 1763/4, stands on four feet.[1] The earlier flasks are finely painted in polychrome with a variety of motifs, which often differ on either side of the object.

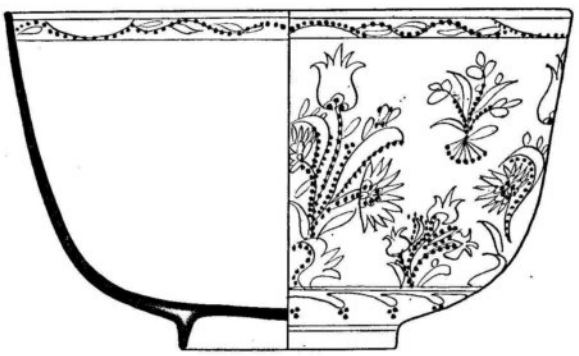
Incense-holders, *lamps*, and *hanging ornaments* are dealt with elsewhere.[2] *Incense-burners* consist of a sphere divided into two halves, supported by a conical base joined to a shallow dish. The two halves have metal-capped rims, hinged together. The upper half is pierced, usually with a pointed medallion framing an incised and painted floral spray. A fine example (Figure 15 *a*) painted in blue with floral patterns similar to those on the back of the A.D. 1718/19 dishes must be of approximately the same date. It has little birds drawn on the inside of the saucer like those on the A.D. 1716 ewer.

Other Kütahya shapes include *square bottles with round necks* (Figure 15 *b*), and an object in the Victoria and Albert Museum (Figure 15 *c*) whose purpose is far from clear. It is conical in shape with a short, splayed foot, pierced vertically by a brass tube. Its external form immediately suggests a salt-cellar, but this is out of the question as there is nowhere inside it to contain a quantity of salt. It could have been used, inverted, as a sort of funnel; or it may have been a mouthpiece for use with a *nargileh*, or water-pipe.

[1] Volume I, p. 91, Fig. 25, PLATE 38 *c*.

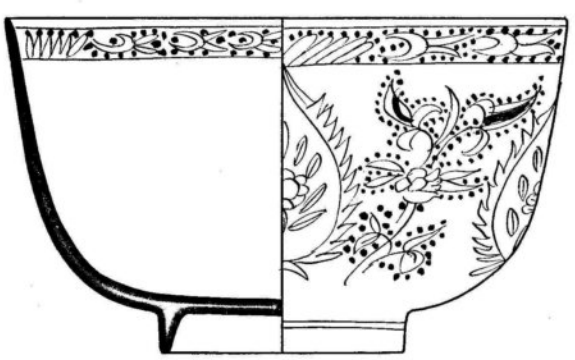
[2] Appendices B, C.





a





b

FIG. 8. Kütahya bowls. *a*, Musée des Arts Décoratifs, Paris; *b*, British Museum. *Scale*: ½.

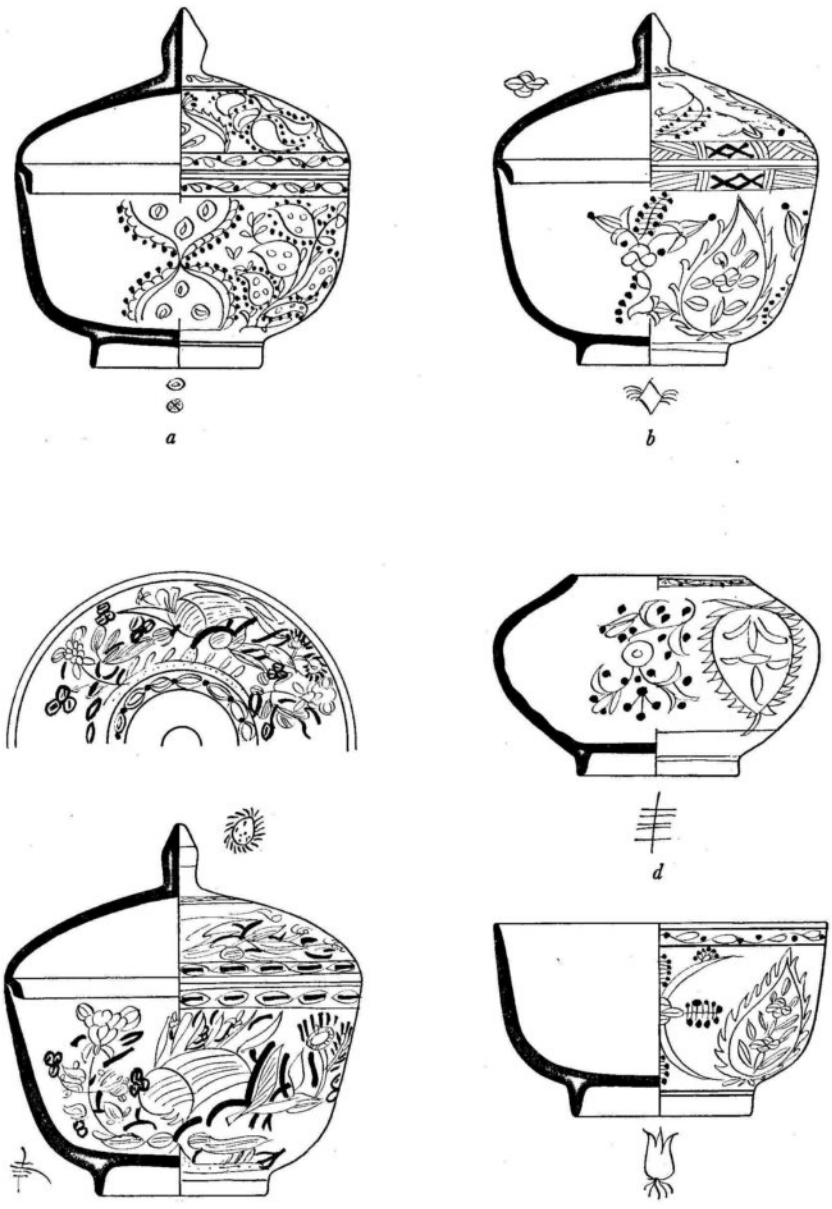


FIG. 9. Kütahya bowls. *a*, *c*, British Museum; *b*, Musée de Sèvres; *d*, *e*, San Lazzaro, Venice. *Scale*: ½.

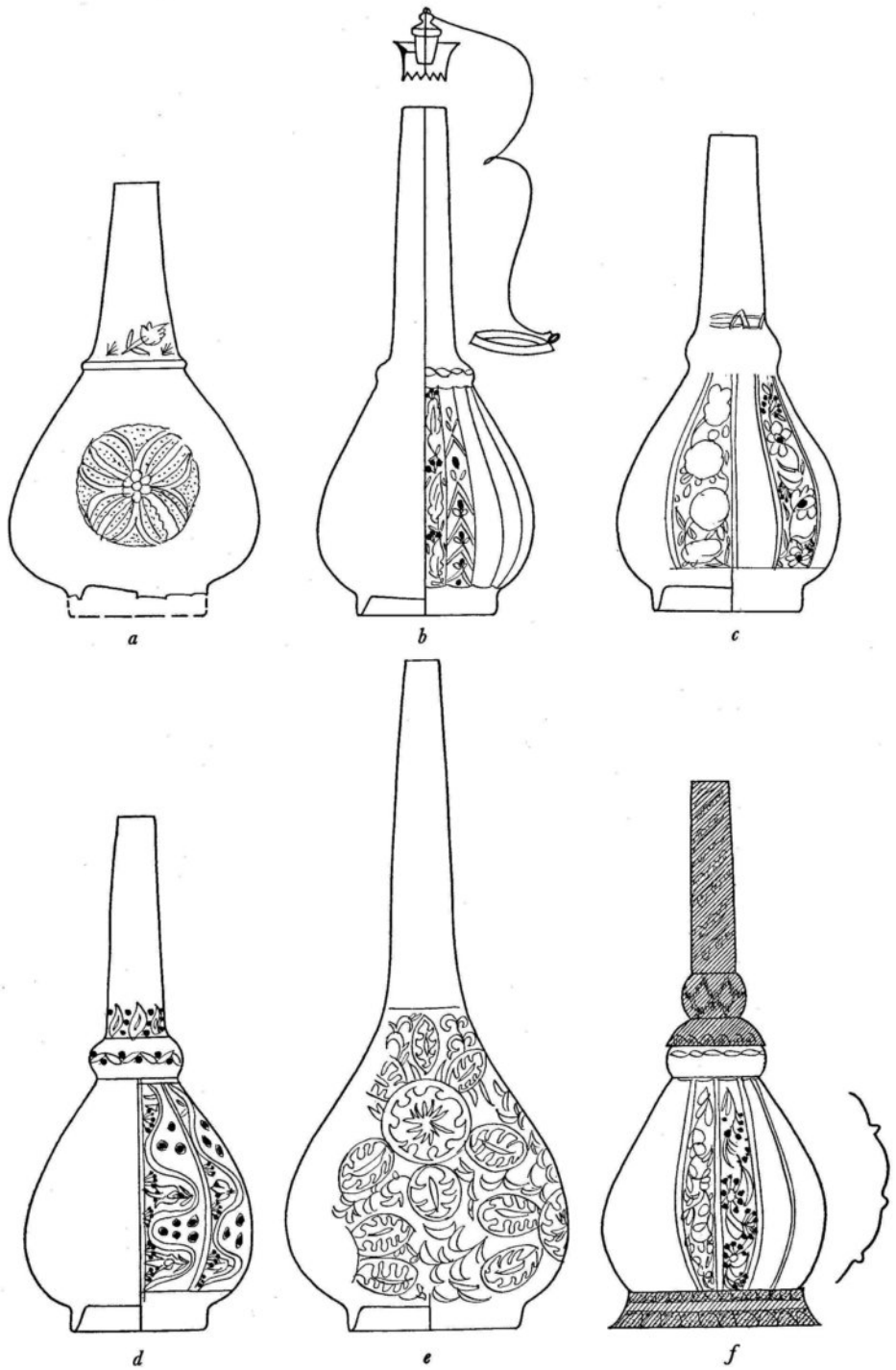


FIG. 10. Kütahya rose-water flasks. *a*, Arab Museum, Cairo; *b*, Royal Scottish Museum; *c*, *e*, *f*, San Lazzaro, Venice; *d*, British Museum. *Scale*: ½.

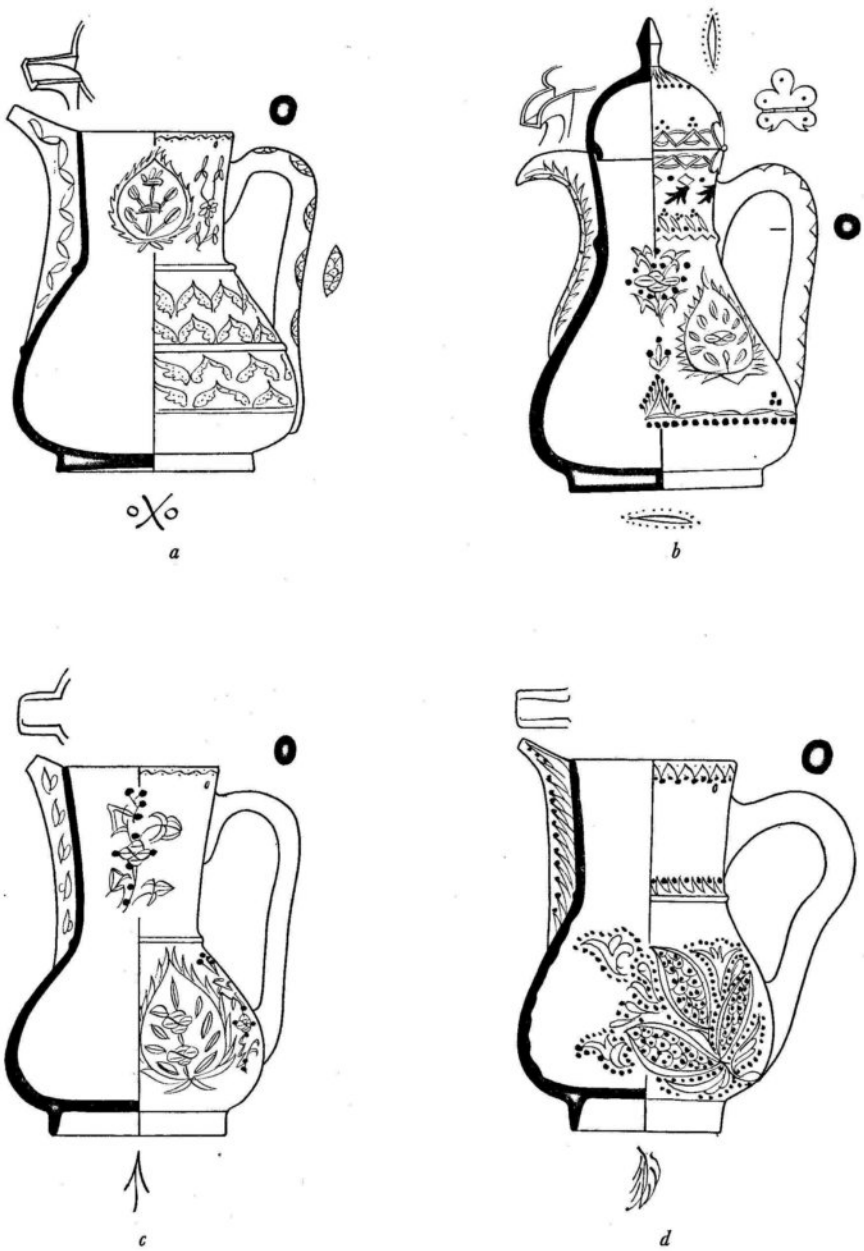


FIG. 11. Kütahya jugs. *a*, Victoria and Albert Museum; *b*, British Museum; *c*, *d*, San Lazzaro, Venice. *Scale*: $\frac{1}{2}$.

Another unusual object is a *lemon-squeezer*, of which several examples exist.[1] It consists of a shallow bowl with a faceted projection at the centre on which the fruit was squeezed. At the base of the hollow projection are two small holes, leading inside; under the bowl is a hole at the centre, through which the juice finally emerged. The unique feature of the squeezer is that the holes are not directly connected, but separated from each other by a

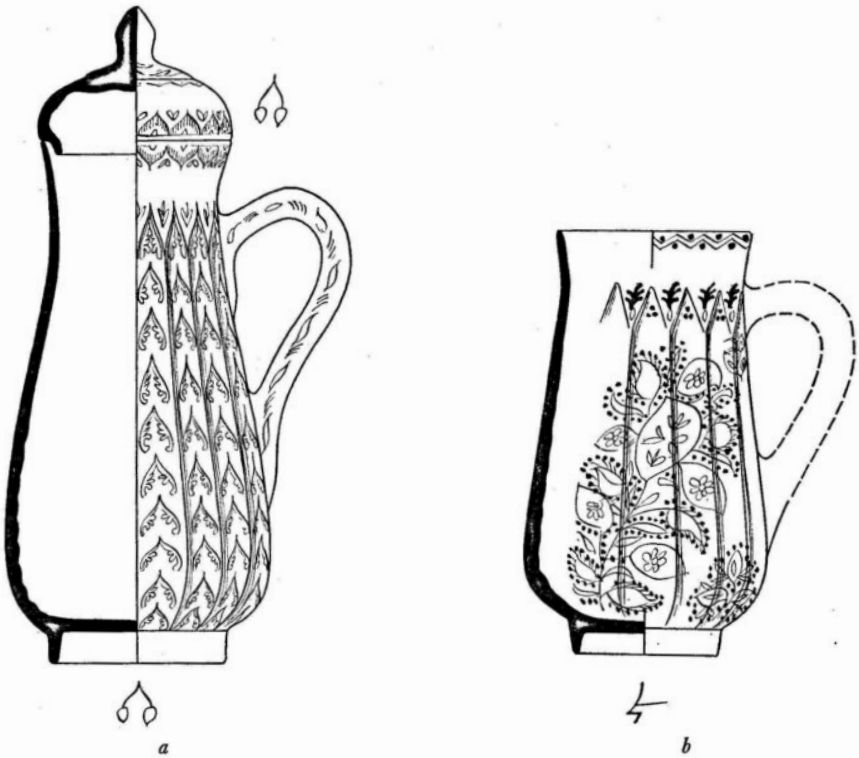


FIG. 12. Kütahya tall jugs with fluted bodies. *a*, Victoria and Albert Museum; *b*, Musée de Sèvres. *Scale*: ½.

trap inside the hollow projection. Until the juice reaches almost the level of the rim of the bowl, the trap prevents it from escaping; but then the whole quantity is released. Apart from being the earliest form of lemon-squeezer known to the writer, it is also the most ingenious. Both monochrome blue and polychrome decorated examples exist, with the usual Kütahya patterns.

Another type of *bowl with a raised projection* at the centre has the projection filled with a loose object, which rattles when it is shaken (Figure 16 *a*). The shape itself is a common metal form in the Near East; brass bowls of this sort often have loose metal attachments, and Koranic inscriptions engraved on them.

All the forms so far described can be assigned to the first quarter of the eighteenth century, with the exception of the carved pieces, which may be a little later. As well as the carved cups, jugs and a mug with carving have also been noted; and there is a cut-down jug in the British Museum, dated A.D. 1760/1; but the painting is much cruder.[2]

[1] Brocklebank, op. cit., plate II, B, shows two examples; a third monochrome blue example is in the writer's possession (see PLATE 40, no. 52); a fourth was sold at Sotheby's in 1967; and a fifth belongs to Mr. E. De Unger, Wimbledon.

[2] Volume I, p. 90, PLATE 36 *e*, *f*.

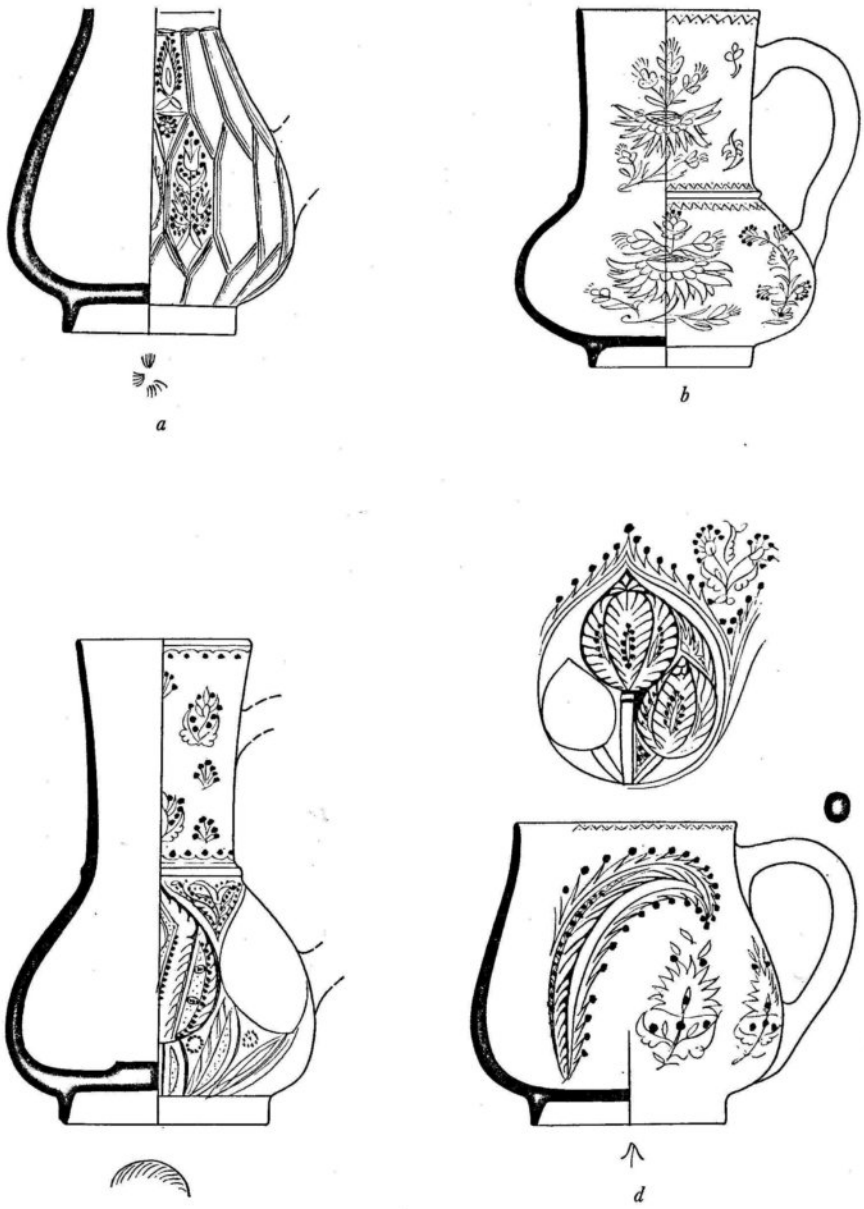
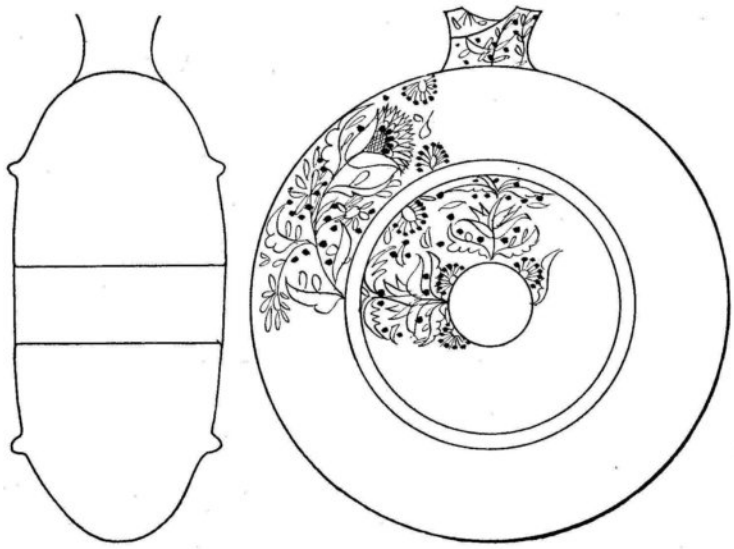
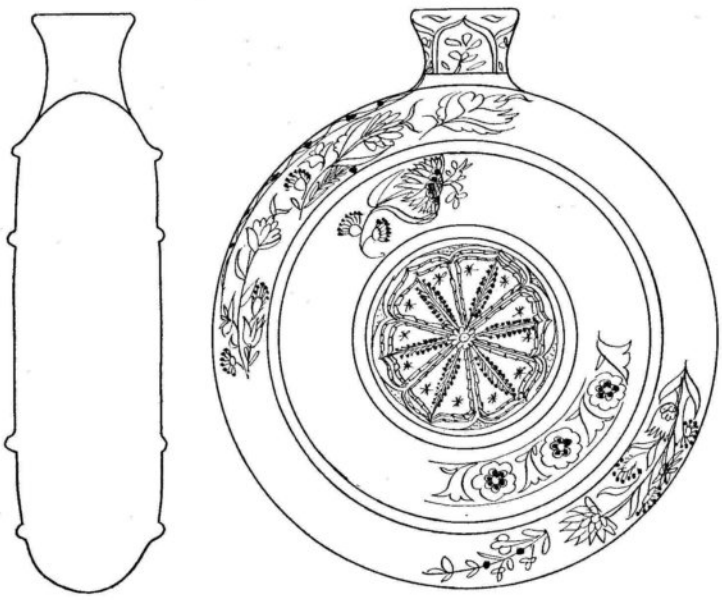


FIG. 13. Kütahya jugs. *a*, *b*, *d*, San Lazzaro, Venice; *c*, Musée de Sèvres. *Scale*: ½.

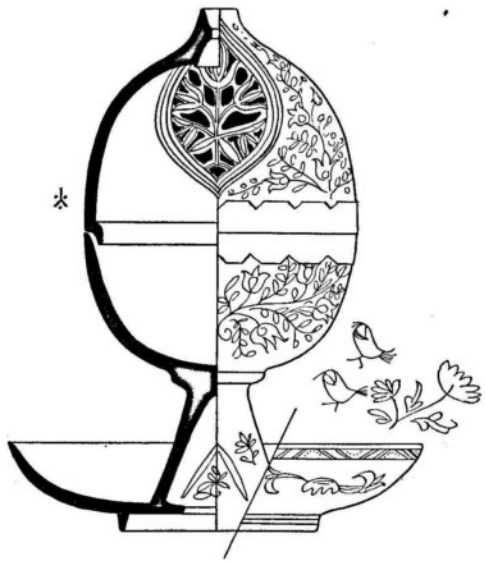


a



b

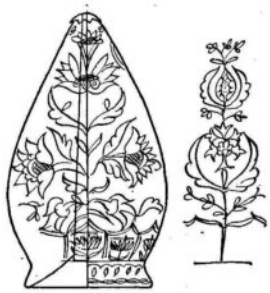
FIG. 14. Kütahya pilgrim flasks. *a*, *b*, Victoria and Albert Museum. *Scale*: ½.



a



b



c

FIG. 15. Kütahya pottery. *a*, incense-burner. British Museum. *b*, square bottle with round neck, British Museum. *c*, pierced conical object, Victoria and Albert Musum. *Scale*: ½.

All the examples have one common feature—the absence of purple, from their colour-schemes. This colour first appears on dated pieces of Kütahya ware in the 1740s, used alongside yellow, red, cobalt blue, green, turquoise, and black, and in conjunction with a style of decoration quite different from anything previously encountered. A distinguishing feature of pieces decorated in this style is a mark beneath them, in Turkish, painted in black and sometimes in conjunction with a red smudge, reading: سيواز *Sivaz*.[1] Whether this refers to the town of Sivas [Sebastia], or to an inhabitant from Sivas, perhaps the potter, or is simply a potter's name, *Sivaz*, is not clear. The fantastic decoration is so characteristic of all the examples that one wonders if they may not have been the work of a single individual. Perhaps the finest example is the deep bowl at San Lazzaro of A.D. 1744 (Volume I, pp. 88–9; PLATE



a *b*

FIG. 16. Kütahya dish, and bowl; San Lazzaro, Venice. *Scale*: ½.

23 *a*). Another example is the Gezirah jug, A.D. 1741/2, which is also painted in this style, and carved as well. There are also incense-burners, tall jars with wide necks and lids, bowls with lids, rose-water flasks, and bowls with convex or straight sides decorated in what may be christened the *Sivaz* style.[2] Essentially, the patterns are an imaginative interpretation of Chinese *famille rose* designs. Some of the bowls have the rim coloured a lustrous brown as well, suggesting that Japanese porcelain in imitation of the *famille rose* style (PLATE 33 *b*), was also an influence. Incidentally, the decoration of Kütahya pottery with panels painted with blue and yellow spots outlined in black on a white ground (such as on the bottle in the British Museum (Figure 15 *b*), and a rose-water flask in the writer's possession (PLATE 40, no. 50)) also indicates the influence of Japanese models.

The tiles used for the restoration of the Hisar Bey mosque in Kütahya in A.D. 1750/1 (Volume I, p. 89, PLATE 22 *d*; II, pp. 75–6) show that Kütahya pottery maintained its quality till the middle of the eighteenth century. But during the second half of the eighteenth century the general standard began to decline. The pottery was decorated in increasingly dingy colours, tending to run in the kiln; and aubergine purple, thickly applied, is a conspicuous new addition to the palette. The drawing is much cruder; typical are saucers decorated with standing figures, usually courtesans wearing long flowing robes, or pantaloons, holding a flower in one hand—in one instance, holding a *chabouk*, or long

[1] See Appendix G.

[2] Brocklebank, op. cit., plate II, B, illustrates a bowl; there are also in the same collection three other bowls, a plate, a rose-water flask, two bowls with covers, a jug, and a jar with a lid, all decorated in the *Sivaz* style.

Turkish pipe. Birds and flowers are also common motifs, and sometimes there are pairs of figures. This type of decoration was not confined to saucers, but is also found on flasks of square, or round section; ewers, hanging ornaments, and tiles. The large quantities of saucers of this type still to be seen in Greece, particularly in Athenian antique shops, suggests that they were primarily made for export. As well as the saucers, there are dishes of similar profile to an earlier Kütahya type (PLATE 41, no. 61) decorated with broadly painted floral sprays, in a pastiche of the *Sivaz* style.

Ewers and jugs assume an increasing complexity of shape. The long necks, often terminating in a bulbous rim, flare out and continue into the form of the body, producing vessels

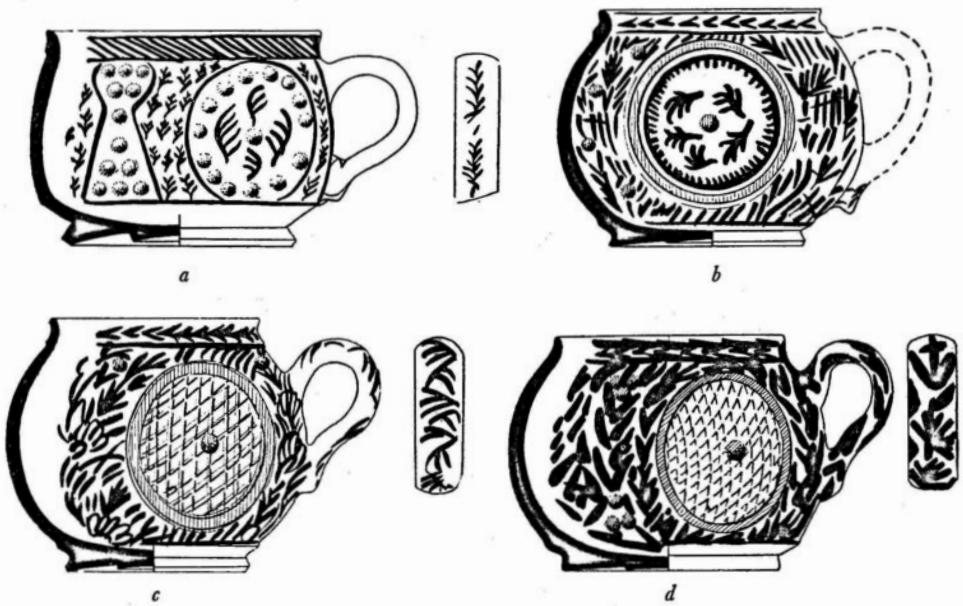


FIG. 17. Kütahya mugs. *a*, *c* (in writer's possession). *b*, Ankara Ethnographic Museum; *d*, British Museum. *Scale*: ½.

with contours not unlike the flaring skirts of the courtesans painted on the saucers. Below, the body angles sharply inwards to the base ring, which is often carved and moulded. There is an increasing use of carved base rings, and the simple, earlier base almost entirely disappears. The handles of ewers and jugs tend to become much more complicated, composed of a series of interlocking scrolls. The spouts of the ewers are joined to the bodies with elaborate pierced brackets. The surface of the pottery is carved and moulded in panels, painted with simplified floral motifs. The total effect is increasingly agitated and incoherent.[1]

This type of moulded and painted pottery was in turn replaced by an even cruder ware, also of distinctive shape and decoration.[2] The most common forms are barrel-shaped mugs with a single handle, bowls and dishes with covers, jugs, coffee-cups, round and rectangular-shaped pilgrim flasks, and incense-burners (Figures 17–21; PLATE 41, nos. 57–60). The pottery is roughly made, often showing traces of the potter's fingers. The ware, off-white in colour, shows a definite deterioration in quality from the earlier material.

The mugs and bowls with covers (Figures 17,18) illustrate one typical feature; the base is carved underneath with a double step, producing a raised concave disc. This also shows in modified form on a small jug (Figure 20 *a*). Other parts also appear to have been refined by

[1] Brocklebank, op. cit., plate II, c.

[2] This group was first discussed in detail by the writer in 'A Minor Group of Late Turkish Pottery', *Sanat Tarihi Yilligi* (Istanbul University, Faculty of Arts), i, 1964–66.

carving. Some dishes have a wavy or foliate rim (Figures 19, 21 *a*). One bowl has a hole drilled vertically through the knob of its cover (Figure 18 *a*).

The pottery was decorated by incising lines in the soft clay, carving, stamping with a mould, or the application of small raised dots. The underglaze colours applied are uneven mustard yellow, cobalt blue, blue black, and in one instance brownish-red (Figure 20 *b*). The glaze is either clear with a greenish tinge, or a transparent turquoise, or green, of varying intensity. In both cases it has a bright, metallic sheen. Traces of kiln spurs adhere to some pieces; the spurs are terracotta coloured and usually have three arms arranged as a Y.

A type of decoration common to both mugs and bowls is a circular panel with incised rings, or a ring of raised dots (Figures 17, 18). At the centre there is almost invariably a raised dot surrounded by incised cross-hatching, or painted decoration. The areas between the circular panels are usually decorated with a combination of raised dots and roughly painted sprays of flowers and leaves. The painted patterns consist either of loosely painted sprays, or of tiny, asymmetrical sprigs. There are also bands of hatching, chevrons, zig-zags, and meander curves with hatching. Many pieces combine several of the different types of incised and painted patterns. The dish with cover (Figure 19) and the small jug (Figure 20 *a*) were originally moulded, or carved with vertical panels which were then painted. A rectangular pilgrim flask was first stamped on both sides with an equestrian figure spearing a dragon (Figure 20 *b*). It must be admitted that compared with the early eighteenth-century forms, this later group of Kütahya pottery is almost barbaric. The shapes were crudely conceived and any refinement of profile only introduced afterwards by carving down the bulk of the pot.

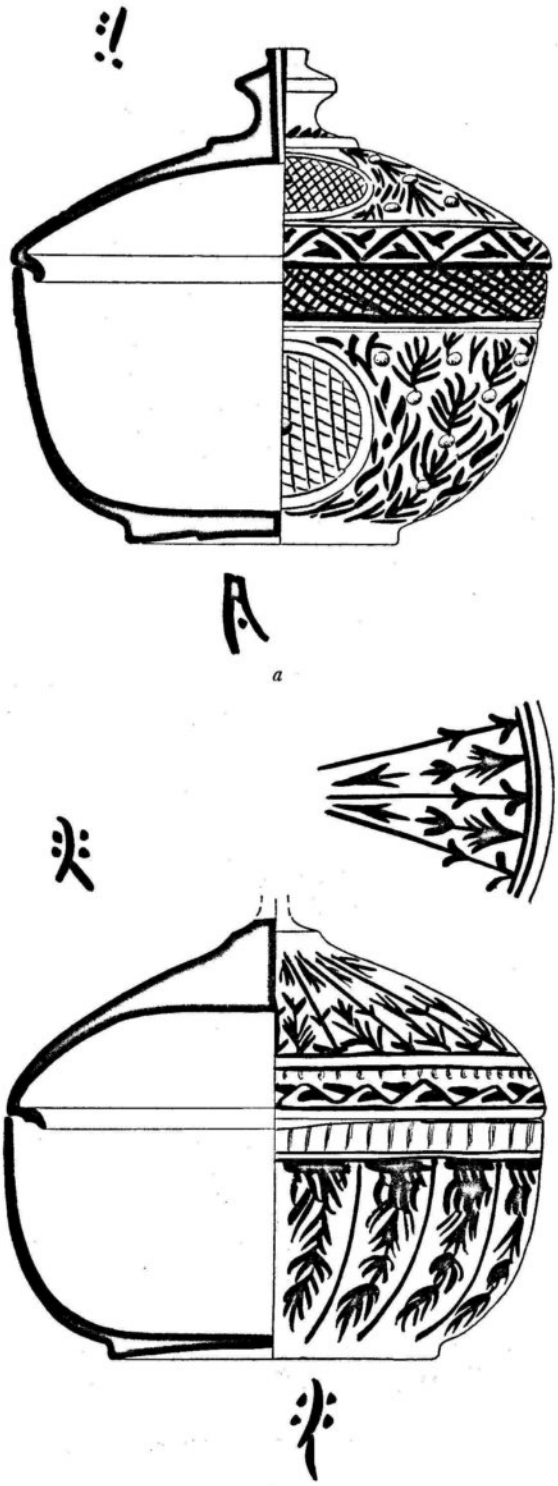
Amongst the different forms, the barrel-shaped mugs are unusual and have no easily recognizable prototype. The two bowls with covers (Figure 18) are distantly related to the earlier, finely made Kütahya examples (Figure 9). The incense-burner with its open stem joined to the dish(Figure 21*b*) is a descendant of an earlier type of Kütahya incense-burner (Figure 15*a*). Two of the coffee-cups illustrated are too conventional to remark upon, but the third (Figure 21 *e*) is an unusual shape. Round pilgrim flasks (Figure 20 *c*) have earlier prototypes, but the rectangular flask is again a new form. The small jug is also of a hitherto unknown shape.

However, on closer inspection the incised and painted decoration shows a definite connection with earlier Kütahya pottery. The cross-hatched, incised roundels on the barrel-shaped mugs owe their inspiration to the similar panels on the earlier, finer cups (Figures 3, 4). The raised dots must also be an attempt to find a substitute for the conspicuous red dots, so characteristic of the earlier pottery. Red seems now to have disappeared from the palette, and these raised dots must have been used instead, to perform a similar function in animating the design. The zigzag patterns on the covers of the two bowls (Figure 18) are cruder versions of border patterns on earlier Kütahya pottery and tiles. The spray on the pilgrim flask (Figure 20 *c*) appears to be a loose version of the flower flanked with arabesque leaves, so frequently found at the centre of the earlier, incised cups, and other pieces; ultimately, it can be traced back to a similar design on transitional Chinese porcelain, of the mid seventeenth century.

Lane's suggestion that the mugs were also of the mid seventeenth century can be dismissed as improbable;[1] it is hardly likely that the designs on the mugs should have been gradually tidied up, until the refined decoration of the cups was attained. The reverse process, of deterioration from an established type, is the more natural one. Again, it should be noted that yellow did not, as far as is known, make its appearance in underglaze Turkish pottery until the eighteenth century, in the products of the revived Isnik factory at Tekfur Sarayı, and in Kütahya.

That this group does belong to the second half of the eighteenth century is confirmed by two facts. First, one coffee-cup (Figure 21 *c*) is painted with an imitation of the Meissen crossed-swords mark, and therefore cannot have been made earlier than the second quarter

[1] Lane, *Later Islamic Pottery*, p. 63.



a

b

FIG. 18. Kütahya bowls with covers. *a*, *b*, Ankara Ethnographic Museum. *Scale*: ½.

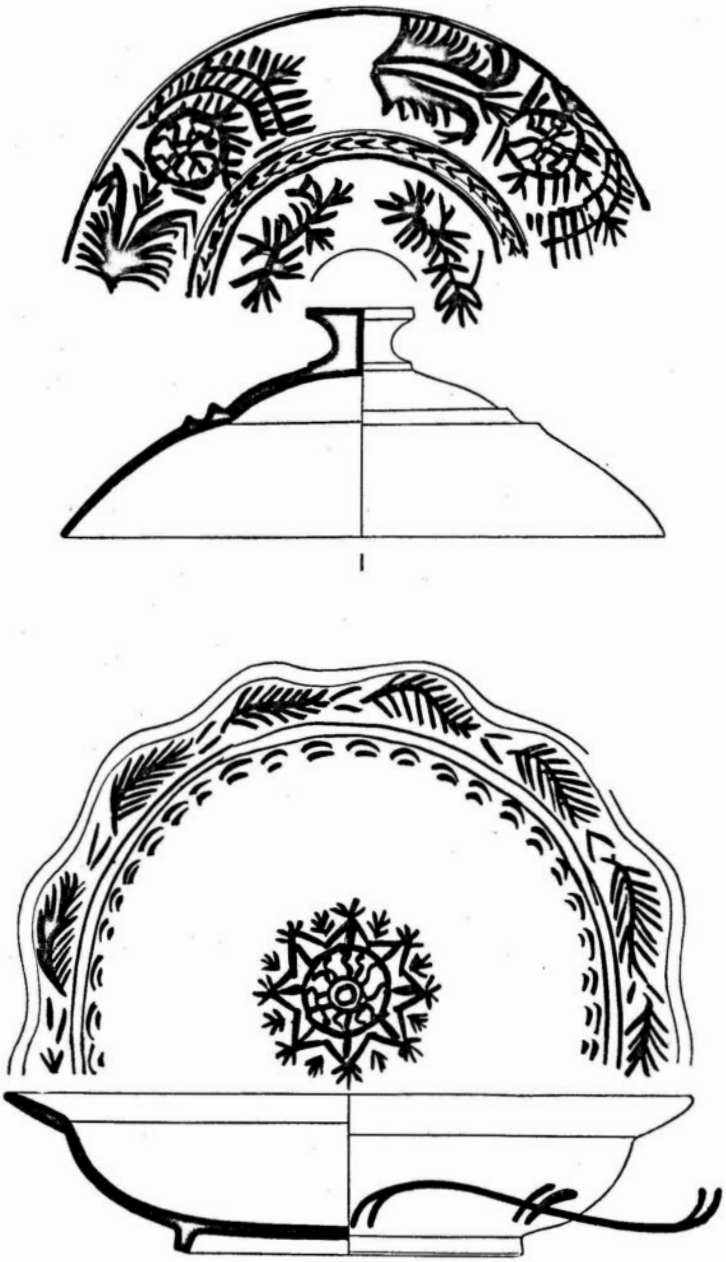


FIG. 19. Kütahya dish with cover. Ankara Ethnographic Museum. *Scale*: ½.

of the eighteenth century. Second, the flowers flanked by serrated leaves on the cover of one dish (Figure 19) are cruder versions of flowers on pottery of the *Sivaz* type, which has already been shown to date from the 1740s. The marks on the bowls could conceivably be illiterate attempts at duplicating the *Sivaz* mark. The derivative patterns, the imitative marks, and the crude technique, all point to a date of manufacture in the second half of the eighteenth century, or even later.

The history of the Kütahya industry in the early nineteenth century is obscure. William Browne, who travelled through Asia Minor in 1802, remarked:

> In Afium-Kara-hissar, the ancient Apamea, we lodged in a decent khan; part of the building is of stone, part of unburned brick; great quantities of which were prepared in the neighbourhood, the clay being tenacious and well-adapted to that purpose. A whiter and finer argil is found near Kutaieh [Kütahya], of which a coarse porcelain is made. There is also a manufactory of painted tiles, used in Turkey for adorning the interior of baths and other purposes.[1]

George Keppel visited Kütahya in 1829/30 and recorded that the town had 8,000 houses, with a mixed population of Armenians, Greeks and Turks.[2] The Armenian Catholics slightly outnumbered the Armenian Orthodox.[3] He noted that the levying of troops by the Turks had left its mark, particularly on the crafts; 400 men had left the town the previous year alone:

> None but the old men remain to cultivate the land: and all the trades and handicrafts in which the Turks usually employ themselves are at a stand. As an example of this last circumstance, I sent today for some wooden pipe-bowls, inlaid with brass, for which Kütahya is remarkable. My servant returned without them, telling me that the bowl-makers were all soldiers, that but one man remained, and he had only two bowls at his disposal.

Whether the potteries were in an equally depressed condition is not stated, but this might account for the fact that there is no glazed pottery from Kütahya which can with certainty be attributed to this period. Charles Texier visited the town in 1852; he recorded that the population then numbered more than 15,000, being composed of Moslems, Armenians, and Greeks.[4]

The potteries were revived in the last quarter of the nineteenth century, and this was the foundation of the modern industry. The designs were inspired by Isnik and Islamic patterns, rather than eighteenth-century Kütahya pottery; some plates decorated in this new style can still be seen in the older workshops in the town. The Armenians continued to direct the pottery industry until the present century, when the persecution of the Armenians by the Turks, particularly in the eastern regions, induced them to leave. Although it is acknowledged that the liberal attitude of the Turkish governor of the town, Ali Faik Bey, saved the Armenians in Kütahya from ill-treatment, they still deemed it more prudent to depart.

A visit by Sir Mark Sykes to the town just before the First World War influenced the fortunes of some of the potters. He ordered an elaborate tiled fireplace to be made by the Armenian potters; it was completed, but as the war intervened, it was never delivered and stored away instead. When Sykes learned after the war that it had been kept safely for him, he was very impressed; and he was largely responsible for Armenian potters being brought from Kütahya to Jerusalem in 1919, during the British Mandate, to carry out repairs to the tilework of the Dome of the Rock.[5] These potters included David Ohanessian, who was originally from Eskişehir, and was secretary in the largest pottery in Kütahya, belonging to Haji Minassian. Two other workmen, named Balian and Kashan, were also brought from Kütahya.

[1] Browne, William, *A Journey from Constantinople through Asia Minor in the Year 1802*, edited by R. Walpole, London, Longmans, 1820, p. 116.

[2] Keppel, George, *Narrative of a Journey across the Balcan ... 1829–30*, London, 1831, p. 198.

[3] The activity of the Jesuit missionaries in Turkey amongst the Armenians has been mentioned elsewhere (p. 14) and it is interesting to note that the Kütahya community, which included Armenian Catholics, in the early eighteenth century apparently numbered at least one Mechitarist. A tile (Volume I, p. 98; a well-known type also represented in Jerusalem, *type 13*) contains four Armenian letters between the arms of a cross at the centre of the design, the monogram of the order.

[4] Texier, Charles, *Asie Mineure*, Paris, 1882, pp. 394–6, plate 36.

[5] I am indebted to Sir Alec Kirkbride for this anecdote.



FIG. 20. Kütahya jug and pilgrim flasks. *a*, (in writer's possession). *b*, Arab Museum, Cairo. *c*, (in writer's possession). *Scale*: ½.

According to Balian and Kashan, up until the time they left the clay for the pottery was brought from Sultan Bagh, about 2 km. from Kütahya, although in later years a specially fine white clay came from the Bursa area. The colours were locally made, red and yellow from clays, and iron oxide, copper oxide, and manganese were mined in the region. The

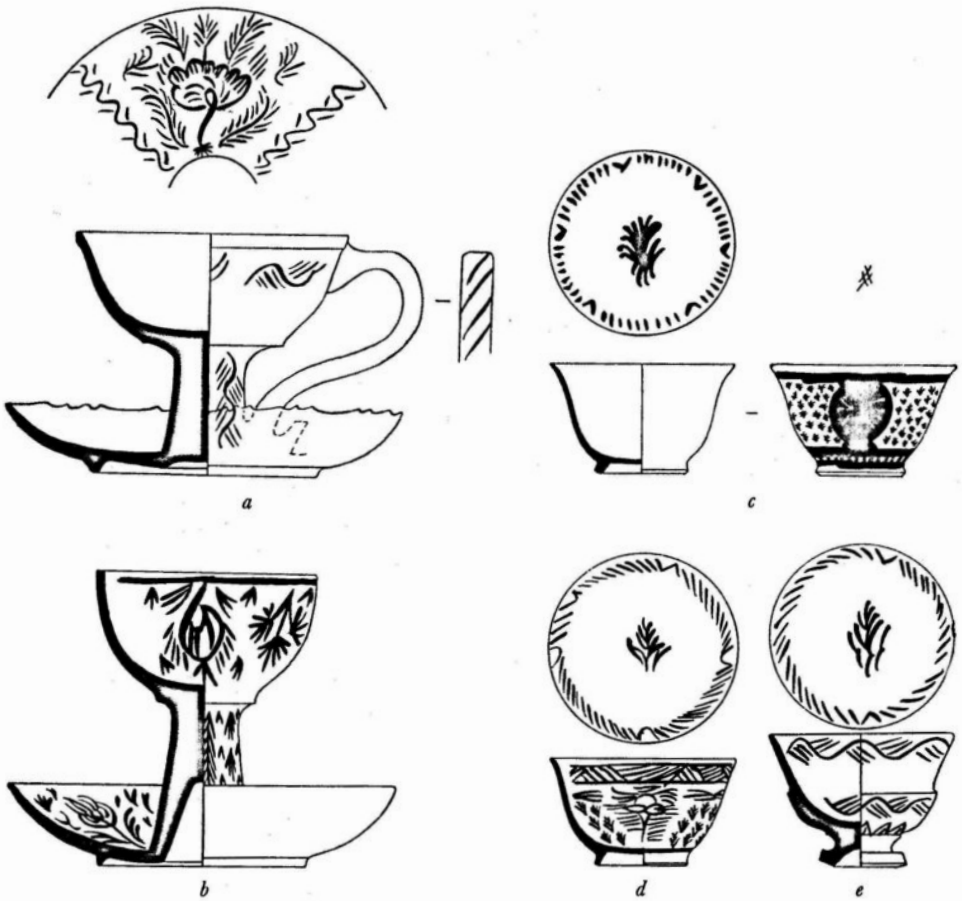


FIG. 21. Kütahya incense-burners, and coffee-cups. *a*, Kütahya Museum depot; *b*, San Lazzaro, Venice; *c*, *d*, *e*, Royal Scottish Museum. *Scale*: ½.

glaze was made from a white quartz sand from Kederlik Dagh, with the addition of borax brought from Afyon Karahisar.[1]

In Jerusalem, the tiles produced by Ohanessian for the repairs to the Dome of the Rock were not entirely successful. An initial attempt to revive the old furnaces, discovered in the area of the Haram es-Sharif, was a dismal failure. Ohanessian was sent back to Kütahya to get materials and more workmen, and a second attempt was more successful. The financing of the operation was guaranteed by the Waqf, and the Pro-Jerusalem Society under the presidency of the Governor of Jerusalem, Sir Ronald Storrs. Besides the tiles for the Dome of the Rock, this pottery also made tiles for the walls of Government House in Jerusalem in 1921, and for a curious inlaid side-board of 'peachblossom marble, carved and gilded inlaid

[1] These details are from a conversation between the writer and Messrs. Balian and Kashan, in Jerusalem, in 1962.

Indian woods', designed by C. R. Ashbee.[1] Further tile panels were made for the American Colony; these still exist, although they suffered considerably from the Israeli attack on Jerusalem in 1967. The glazes are good and the general effect cheerful enough; the designs of flowering trees derive from older patterns. Ohanessian's pottery was situated off the Via Dolorosa, in the Old City of Jerusalem, and continued to work until the Second World War.

Balian and Kashan founded an independent workshop called the Jerusalem Pottery, outside the Old City on the Ramallah road. This survived the recent Arab–Israeli conflict, and still operates, in occupied Jerusalem. The Jerusalem Pottery produces crude earthenware with poor glazes, mainly for the tourist trade. Some better-executed panels were made for the decoration of the altars on either side of the entrance to the Cathedral of St. James.

In Kütahya itself, after the Armenians left, Haji Minassian was replaced by Mehmed Bey, a rich man's son who had been interested to learn the trade. The workshops in the town continue to flourish, with a wide market throughout Turkey. The designs tend to be formal and rather dull, with an emphasis on laboriously painted detail; they are often intricate Islamic patterns unsuitable for the decoration of pottery. Recently, the Kütahya potters were commissioned to make new tiles, following the old designs, for the restoration of the Dome of the Rock in Jerusalem, completed in 1966. The garish new tiles, in conjunction with a new anodised aluminium dome, are aesthetically no improvement on the older tile panels which they replaced, however patched and decrepit they may have been.

[1] *Jerusalem, 1918–1920*, edited by C. R. Ashbee, published by John Murray, London, 1921, for the Council of the Pro-Jerusalem Society, pp. 31–2 and *Jerusalem, 1920–1922*, London, 1924, pp. 29, 60–3, plates 56, 57. In the latter volume is the first reference to the picture tiles in English, by George Antonius, 'The Tiles of the Church of St. James of Jerusalem' (pp. 57–9). He draws on the researches of Nomikos, X. A., '*Τὰ χριστιανικὰ κεραμουργήματα τοῦ Ἀρμενικοῦ πατριαρχείου τῶν 'Ιεροσολύμων*' [*The Christian Ceramics in the Armenian Patriarchate in Jerusalem*], Alexandria, 1922, which although very incomplete and inaccurate, is the first publication of the tile series. I am most indebted to Judge Brinton, who managed to secure a copy of this rare work for me; and to my student, Harilaos Dendrinos, for translating the text.

V. CATALOGUE OF DECORATIVE TILES IN THE ARMENIAN PATRIARCHATE OF ST. JAMES, JERUSALEM.

Type 1

18·5 cm. square, 0·9 cm. thick. *Plans 4, 6, 7, 9, 12, 16–23, 28–33, 35, 36, 38, 46–62, 64, 68.*

Powdery, rather coarse, pinkish/white ware. Greenish/pinkish-white ground. Painted in cobalt/blue-black. Sides bevelled, glazed over; back unglazed.

A central marguerite is surrounded by pairs of stylized wings, and two semicircular, dotted motifs. Opposite corners are filled either with trefoils, or quarters of a round flower. The sides are painted with three contiguous semicircles.

Type 1 a

21·5 cm. square, 0·9 cm. thick. *Plans 16–19, 29–31, 33–35.*

Fine, off-white ware. Greenish- or pinkish-white ground. Painted in cobalt/blue-black. Sides bevelled.

Basically same design as *type 1*, but larger; an additional semicircle on each side.

Type 2

21 cm. square. *Plans 16–19, 21–3, 33, 45, 46, 48, 50, 54.*

Pinkish-white ware. Greenish/yellowish white ground. Painted in dark cobalt/blue-black, with lighter outlines.

A central flower, with eight petals, each decorated with a design reserved on a blue ground. At the middle of each side is a motif composed of round and pointed leaves; these are linked diagonally by other, smaller motifs. Each corner is filled with a quarter flower, with five pointed petals.

Type 2 a

21 cm. square. *Plans 1, 3, 4, 6, 7, 10, 15, 18, 20–2, 28–35, 37–9, 46–7, 50–71.*

Pinkish-white ground; painted in bright/dark cobalt, with lighter outlines.

Similar in design to *type 2*, the central flower having a scalloped edge.

Type 2 b

21·5 cm. square, 1·2 cm. thick. *Plans 2, 13, 16–20, 28–36, 39, 40, 48–54, 56–64, 66, 68–70.*

Pinkish-white ground; painted in dark cobalt blue with lighter outlines. Bevelled edge.

Similar in design to *type 2*; the central flower is more simply painted and the petals more rounded.

Type 2 c

19·5 cm. square. *Plans 1, 6, 7, 13, 15–23, 28–35, 48–50, 54, 56–7, 59, 61, 63–4, 68–9, 71.*

Pink ware. White/pinkish ground. Painted in dark cobalt/pale blue-black, with lighter outlines. Bevelled edge, with glaze over bevel.

Similar in design to *type 2*; the central flower and the diagonal linking motifs are more rounded, and the motifs at the centre of each side more formalized.

Type 2 d

21·5 cm. square. *Plan 63.*

Greenish ground. Painted in cobalt blue with darker outlines.

A more linear version of *type 2*.

Type 2 e

Fragment, 11 by 22 cm. (If central motif is correctly placed, the whole tile would measure 19 by 22 cm.) *Plan 62.*

Pinkish-white ground. Painted in blue-black with lighter outlines.

The central flower has only six petals, with circles between. There are no diagonal linking motifs. At the middle of each side are four curving, pointed leaves. In each corner is quarter of a flower, with five pointed petals.

Type 3

21 cm. square, with a few tiles 20·5 by 21 cm. *Plans 59–62.*

Off-white ware. Marked blue-green tinge to glaze. Bevelled edges. Painted in splotchily applied blue-black, with lighter outlines.

From an elaborate central flower radiate four similar flowers on curving stalks, and four curved serrated leaves. At the centre of each side and the corners are groups of petals, with pointed leaves between them.

Type 4

24 cm. square, 1·2 cm. thick. *Plans 1–7, 9–16, 18–22, 29–31, 33, 35–40, 45–52, 54, 59–62, 64.*

Pinkish/greenish-white ground. Painted in light/dark cobalt, with darker outlines. Bevelled sharply, but the bevelled edge is unglazed.

The tile is painted with a blue lotus flower in profile, on a diagonal axis. On either side of the flower is a quatrefoil. At the middle of each side is a half flower, with arabesque petals. Two corners are filled with quarter flowers.

Type 4 a

19 cm. square. *Plans 2, 40, 50.*

Warm white ground. Painted in rich dark cobalt blue.

Similar in design to *type 4*. The tile is smaller, and the decoration more attenuated. The quatrefoil crosses are missing.

Type 5

24 cm. square, 1·2 cm. thick. *Plans 13, 21, 30.*

Greenish-white ground. Painted in cobalt blue, with darker outlines.

The design of the tile is based on four circles, each occupying a quarter of the tile. Where they touch is a flower, either a carnation in profile, or a smaller flower with pointed leaves. Arabesque leaves, forming figure-of-eight patterns, interweave the basic design.

Type 6

19 cm. square, 0·9 cm. thick. *Plans 2, 6, 7, 15, 19, 20, 22, 28, 31–3, 37, 39–40, 46, 48, 51, 54–5, 58–61, 71.*

Off-white ware. Greenish-white ground. Painted in light cobalt blue, with darker outlines. Sides bevelled.

A large pointed medallion encloses a spray of five flowers and leaves; the points of the medallion are decorated with fleur-de-lis, and the border is often scalloped. Each corner is filled with a quarter medallion, containing a spray of three flowers and leaves. The tile has a blue border.

Examples of this type of tile which bear Armenian inscriptions are included in Volume I, pp. 59, 65–6, Plates 13, 15.

Type 6 a

19 cm. square. *Plan 46.*

Painted in cobalt blue, with darker outlines, and red.

Similar to *type 6*, with ten blue crosses surrounding the medallion. The crosses have barred arms, with a star at the centre. The tips of the arms and the stars are decorated with red dots.

Type 6 b

19 cm. square. *Plans 40, 46.*

Similar to *type 6*, with six blue crosses surrounding the medallion. From two side borders spring pairs of leaves.

Type 6 c

19 cm. square. *Plan 46.*

White ground. Painted in cobalt blue with darker outlines, and reddish brown.

Similar to *type 6*. The central medallion has additional blue serrated leaves springing from the points, and the centre. Around the medallion are painted, in dull reddish-brown, pairs of crosses and sketchy birds. The centre medallion and the quarter medallions are also embellished with touches of this additional colour.

Type 6 d

19 cm. square. *Plan 46.*

Similar to *type 6*, but poorly drawn. At the base of the medallion is an extra pair of leaves, and the top is decorated with a ring instead of a fleur-de-lis. From the side borders spring pairs of leaves.

Type 6 e

18·5 cm. square. *Plan 46.*

Greenish-white ground. Painted in pale yellow, pale green, with dark red dots, and grey-black outlines.

Similar to *type 6*, with the design in polychrome.

Type 6 f

Fragment, 13 by 19 cm., 1·1 cm. thick. *In storeroom adjacent to St. James.*

Painted in cobalt blue and glazed over with yellow.

Similar to *type 6*. The same technique was used for the ewer in the Patriarchal collection (p. 18), and hanging ornaments (p. 67).

Type 7

19 cm. square. *Plans 46, 64.*

The glaze has a marked greenish tinge.

Painted in cobalt blue with darker outlines.

The quarter medallions at the corners are like those of *type 6*. At the centre is an eight-sided medallion with four barred crosses on white mitre-shaped panels reserved on the blue ground. Between the panels and the centre are rosettes. Around the medallion are four more blue crosses, on the white ground.

Type 7 a

Fragment 18·5 by 11 cm. *Plan 59*.

The glaze has a marked greenish tinge. Painted in light cobalt blue with darker outlines.

Similar to *type 7*. Instead of rosettes, the central medallion is decorated with barred crosses reserved on the blue ground. Round the medallion are eight blue barred crosses.

Type 8

18 cm. square. *Plans 31, 39*.

Painted in light cobalt blue with darker outlines.

The quarter medallions at the corners of the tile are similar to those of *type 6*. At the centre of the tile is a large medallion, consisting of an eight-petalled blue flower, surrounded by a garland of eight smaller flowers and trefoil leaves. From the two side borders of the tile project two hooked leaves.

Type 9

14 by 19 cm. *Plan 46*.

White ground. Painted in light cobalt blue with darker outlines.

The quarter medallions of this rectangular tile are similar to those of *type 6*. At the centre of the tile is a rosette with a spiralling spray of five small flowers.

Type 10

9 by 18 cm. *Plan 54*.

The glaze is discoloured and yellowish. Painted in light cobalt blue with darker outlines.

Two of the corners are painted with quarter medallions, like those of *type 6* tiles, for which this must have been a border tile. Between the medallions on one side are a pair of hooked leaves.

Type 11

9·5 by 18·5 cm. *Plan 46*.

White ground. Painted in pale cobalt blue with darker outlines.

At the corners are quarter medallions, like those on *type 6* tiles; at the middle of each long side is a similar half medallion. In the middle of the tile are two flowers, each with eight pointed petals.

Type 12

9 by 18·5 cm. (approx.) *Plan 46*.

White ground. Painted in light cobalt blue with darker outlines.

The corners are painted with quarter medallions similar to those on *type 6* tiles, which overlap half medallions of similar type, pointing to the centre of the tile. Two of the medallions are decorated with sprig-like motifs, and two more sprigs are painted on the white ground between the medallions.

Type 13

20 cm. high, 19 cm. wide. *Plans 19, 22, 59*.

Light pinkish ware, white ground. Painted in yellow, and blue-black, with greenish-black outlines.

A baroque frame encloses a panel cross-hatched with blue stripes. The top and bottom of the frame are crowned by scalloped motifs, flanked by crosses composed of four small trefoils. The sides of the frame are composed of a scroll-like motif with a scalloped border, an outer row of dots, and a pair of arabesque leaves. In each corner of the tile is a winged angel's head. Only the eyes and nose are delineated; the head is ringed with dots.

Type 14

18 cm. square. *Plans 17, 19–21, 26, 30, 41–58, 60*.

Off-white/pinkish-white ground. Painted in light and dark tones of blue-black. The tile is bevelled, with glaze over the bevel.

The tile is cross-hatched with pale blue lines; at the intersections are dark blue crosses. There is a double border of pale lines.

Type 14 a

18·5 cm. square. *Plans 17, 20–1, 24, 26, 50–7, 60*.

Pinkish-white ware, with a similar ground. Painted in light and dark blue-black. The tile is bevelled, with glaze over the bevel.

The tile is similar to *type 14*, except it has a border of dark leaves linked by a pale running line, between parallel lines.

Type 14 b

Fragment 9 by 18·5 cm., of a tile 18·5 cm. square. *Plan 56*.

Greyish-white ground. Painted in blue-black with lighter outlines.

The tile is cross-hatched with double blue lines; at the intersections are dark blue crosses. There is a border of double blue lines.

Type 15

19·5 cm. square, 1 cm. thick. *Plans 50–1, 55, 57.*

White ground. Painted in pale yellow, cobalt blue, pale turquoise green, with pure cobalt blue outlines. The tile is bevelled, with glaze over the bevel. The back of the tile is unglazed, with a pitted surface.

The tile is divided into 25 squares by blue lines; at the corners of the squares are small yellow flowers with four petals, with a dot at the centre. The border of the tile is a band of interlocking shapes, with a dot in each one, between blue lines.

Type 15 a

Approx. 19 cm. square. *Plan 23.*

White ground. Painted in mustard yellow, pale turquoise/blue-green, with pale cobalt outlines.

Similar to *type 15*, with the addition of a green spot at the centre of each square, diffusing in the glaze to a vivid turquoise.

Type 16

Fragment of a tile, 23·5 cm. square. *Plan 17.*

Off-white ware, pinkish-white ground. Painted in light cobalt blue with darker outlines.

The tile is divided into 64 squares with blue lines. At the corners of the squares are diagonal blue crosses. In the middle of each square is a blue dot. A blue line forms the border.

Type 16 a

Fragments of tiles; the whole tiles are either 21 cm., or 23·5 cm. square. *Plan 17.*

Off-white ware, pinkish-white ground. Painted in light cobalt blue with darker outlines.

The smaller tiles, similar to *type 16*, are divided into 49 squares. The border consists of a zigzag, with dots in the resulting triangles, between blue lines.

The larger tiles are divided into 64 squares.

Type 16 b

Fragment of tile 23·5 cm. square. *Plan 17* (*wrongly numbered 16d on plan*).

Off-white ware, slightly pink ground. Painted in light cobalt blue with darker outlines.

Similar to *type 16*, the tile is divided into 64 squares. The border consists of a pattern of chevrons between blue lines.

Type 16 c

Fragments of tiles; the whole tiles are either 21 cm. or 23·5 cm. square. *Plan 17.*

Off-white ware; slightly pink ground. Painted in light cobalt blue with darker outlines.

Similar to *type 16*, with a border of interlocking shapes and dots between blue lines. The smaller tiles are divided into 36 squares; the larger, into 49 squares.

Type 17

18 cm. square. *Plans 17, 40, 46, 50.*

Cream coloured ware; off-white ground. Painted in pale cobalt blue with darker outlines.

From a flower at the centre of the tile spring two five-pointed tulips, and two curving sprays of flowers and leaves. From the corners of the tile spring single flowers on curving stems. The border of the tile is painted light blue, with darker bands of alternating diagonal hatching.

Type 17 a

19·5 cm. square. *Plan 40.*

Greenish-white ground. Painted in light cobalt blue with darker outlines.

Similar to *type 17*, but larger. The border is plain, and not hatched.

Type 17 b

Fragment of tile, approx. 17·5 cm. square. *Plan 49.*

Off-white ware; the glaze has a marked greenish tinge. Painted in light blue-black with darker outlines.

Similar to *type 17*. The smaller flowers resemble the flower at the centre of the tile, and those in the corners spring out straight, and do not curve to left or right. The tulip is less attenuated, and its leaves echo its shape.

Type 17 c

Fragment of tile, 18·5 cm. square. *Plan 58.*

Discoloured greenish-white ground with dull glaze. Painted in grey-blue with darker outlines.

Similar to *type 17*. The painting is rather sketchy, with all the flowers, including the tulips, more or less equal in size. The border of the tile is decorated with a row of blue triangles.

Type 18

17·5 by 17·5 cm., fragment (probably of rectangular tile 17·5 by 27 cm.). *Plan 40.*

Painted in light cobalt with darker outlines, turquoise green, and red dots.

At the centre is a large round flower, from which spring stems bearing tulips and other types of flower, and leaves. At the corners are large quarter

flowers, with an inner ring of scalloped leaves and an outer ring of pointed leaves. The tile is embellished with red dots and touches of turquoise green.

Type 19

13·5 by 25 cm. *Plan 39.*

The glaze has a marked bluish tinge, and is darker in the upper centre of the tile. Painted in cobalt blue with darker outlines.

The design consists of an elaborate round flower, with alternate trefoil and pointed blue petals and a ring of white petals at the centre, on a vertical stem. Below the flower, from the same stem spring a pair of arabesque serrated leaves, and two pairs of flowers painted in profile, with a pair of leaves crossed over the stem at the base. The top of the tile is painted with two spandrels, to form a pointed arch, each filled with a pair of smaller flowers and leaves.

Type 19 a

Fragment, 18·5 cm. wide and 13 cm. high. *Plans 40, 58.*

Fine white ware. The bluish-white ground is discoloured at the centre, where the glaze is slightly pitted. Painted in cobalt blue with darker outlines, fired to a greyish colour at the centre.

Similar to *type 19*, but the central flower, of lotus type, is seen in profile. The leaves beneath turn outwards, instead of inwards. The flowers below are of a similar type, with a dotted pattern at the base of the petals. The arch is cut away at the top; the spandrels are again filled with floral sprays.

Type 20

Fragment of a shaped tile, 20 cm. high and 19 cm. wide; 1 cm. thick. *Plan 57.*

White limestone-like ware; very thin glaze with practically no ground. The ground is yellowish-white in colour. Painted in dull grey-blue with darker outlines. The tile is bevelled back at a slight angle, but the bevel is unglazed.

The upper half of the fragment is shaped as a flattened ogee arch. The tile is painted with a hanging lamp and cover on chains, flanked by two cypress trees. The cypresses have a blue serrated border and are patterned with a field of overlapping scales and dots. The border of the tile is painted with a band of double blue zigzag stripes, with three circles in each resulting triangle. On the inner side of the band are little pointed arch motifs, hatched vertically.

Type 21

20 cm. square. *Plans 46, 50, 55.*

Greenish-white ground. Painted in light cobalt blue with darker outlines.

In the middle of the tile is an open medallion of intertwined leaves, with a cross composed of four trefoils at the centre. In each corner is a motif shaped like a pair of wings, decorated with a pattern of scales and dots.

Type 22

22 cm. square. *Plans 28, 46.*

Off-white ground, with greenish tinge to glaze. Painted in cobalt blue with darker outlines.

The tile is decorated with a pattern of scrolls and leaves; the centre is plain.

Type 23

17 by 12·5 cm. *Plans 23, 55.*

On the unpainted area of the tile, the ground is cream-coloured; under the patterned area the ground is greyish. Painted in blue-grey with lighter outlines.

Two-thirds of the tile is painted with a field of overlapping scales, each filled with a circle of dots. On three sides there is a border of a running line and leaves. Two corners are cut off with a scalloped border of dots; they are filled with a spray of dotted leaves and white flowers reserved on a blue ground.

Type 23 a

Fragment, 22·5 by 23 cm. (tile originally approx. 25·5 cm. wide). *Plan 59.*

The glaze has a greenish tinge. Painted in pale greyish-blue with darker outlines.

Similar to *type 23*, the tile is larger in size.

Type 23 b

21 by 12·5 cm., 0·7 cm. thick. *Plan 64.*

The sides of the tile are sharply bevelled back, and unglazed. The tile is painted in black, under a transparent pale green glaze.

Painted with an over-all pattern of scales, each with a circle of dots at the centre. The tile has a black outline.

Type 24

18 cm. square. *Plan 41.*

Painted in light cobalt blue with darker outlines. Bevelled edge.

The tile is loosely painted with a vertical spray of seven different types of flowers and leaves. The larger flowers are encircled by a pair of curving serrated leaves. The ground is filled with sprays of small leaves. Each corner is filled with a single blue tulip, inside a scalloped border. The borders of the tile are decorated with chevrons reserved on a blue ground, with a white semicircle in each resulting triangle.

Type 25

18·2 cm. square, 0·9 cm. thick. *Plans 23, 39, 47, 57.*

Yellowish limestone-like ware. Pinkish/bluish-white ground. Painted in dark cobalt blue with lighter outlines. Bevelled edge, with glaze over the bevel.

Painted with a broad border of crudely drawn flowers and leaves, between double blue lines. In the middle of each side is a bowl of flowers. The centre of the tile is painted with a star, with four more stars round it; the corners are painted with a spray of flowers and leaves.

Type 26

18 cm. square. *Plan 51 (wrongly numbered 43 on plan).*

White ground. Painted in splotchily applied cobalt blue, with lighter outlines.

The tile is decorated with a similar border to *type 25*, of crudely drawn flowers and leaves, with a bowl of flowers in the middle of each side. The centre of the tile is painted with a grotesque angel's head, surrounded by six wings. In each of the four corners is a barred cross, set diagonally.

Type 27

18·5 cm. square. *Plans 20, 39, 50, 58.*

Greenish-white ground. Painted in dark cobalt blue with lighter outlines.

The tile is filled with a large double pointed medallion, with an almond-shaped motif at the centre. The medallion has scalloped sides, decorated with sprays of dots on radial stems, curved leaves and star motifs. The corners are filled with blue and white quarter-circles, with a hatched border (on some examples, with a spray of dots). A double blue line forms the border of the tile.

Type 27 a

18·5 cm. square. *Plans 28, 50.*

Off-white ground. Painted in dark cobalt blue, with lighter outlines. Bevelled edge, with glaze over bevel.

The tile is painted with a double medallion, with borders of four points and four scallops. At the centre is a rectangular hatched motif with a scalloped border, reserved on the blue ground. The points of the medallion terminate in trefoils, and it is surrounded by eight arabesque leaves, half-hatched. In the corners are blue and white quarter circles, with a spray of three dots on stems.

Type 27 b

18·5 cm. square. *Plans 31, 51, 54, 55, 58, 61.*

Painted in black, smudged in the firing, under a rich dark green transparent glaze.

Painted with a similar pattern to *type 27*. The border consists of a single line.

Type 28

18 cm. square. *Plans 19–21, 23–7, 31, 36, 46, 49–51, 53–5, 58–9.*

Limestone-like ware; pinkish/greenish-white ground. Painted in cobalt blue with darker outlines. Bevelled edge, with glaze over bevel.

Loosely painted with a stem of three round flowers, with an outer ring of blue petals. Each flower is surmounted by a trefoil with a hatched border. The stems are flanked by curved, serrated leaves, and smaller leaves. In the corner are blue and white quarter circles, with a spray of three dots on stems (on some examples, a curved trefoil and hatching replace the dots). The border of the tile consists of a double blue line. The lower border is diagonally hatched on the inner side.

Type 28 a

18·5 cm. square. *Plans 23, 46, 51, 54–5, 58.*

Yellowish ware. Painted in smudgy black under a rich dark transparent green. Bevelled edge, with glaze over bevel.

Similar to *type 28*, with additional green glaze.

Type 29

18·5 cm. square. *Plan 40.*

White ground, with slight pitting. Painted in dark cobalt blue with lighter outlines.

In the centre of the tile is a single flower on a vertical stem, flanked by pairs of leaves, and surmounted by an almond-shaped medallion with a long point. The flower and the leaves are partly hatched, and the medallion has a border of short spikes. On either side are pairs of pointed medallions, also with long points and borders of spikes; from the base of each splay out three short stems with dots on the ends. At the sides, there is a



1



1*a*



2



2*a*



2*b*



2*c*



2*d*



2*e*



3



4



4*a*



5



6



6*a*



6*b*



6*c*



6*d*



6*e*



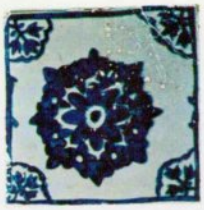
6*f*



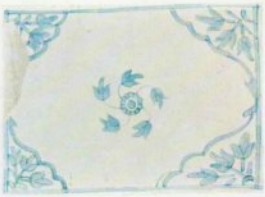
7



7*a*



8



9



10



11



12



13



14



14*a*



14*b*



15



15*a*



16



16*a*



16*b*



16*c*



17



17*a*



17*b*



17*c*



18



19



19*a*



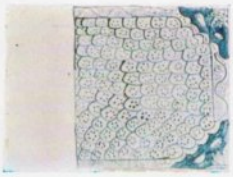
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21



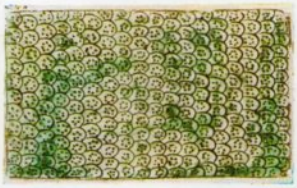
22



23



23*a*



23*b*



24



25



26



27



27*a*



27*b*



28



28*a*



29



29*a*



30



31



32



33



34



35



35*a*



36



36*a*



36*c*



36*d*



36*e*



37



38



39



39*a*



40



40*a*



41



42



42*a*

loosely applied splash of blue. On the upper and lower borders there are two splashes. The tile is edged with a blue line.

Type 29 a

18·5 cm. square. *Plan 57.*

White ground, with slightly pitted glaze. Painted in dark cobalt blue with lighter outlines. Bevelled edge.

Similar to *type 29*. The medallion surmounting the flower has a double point, and the four smaller flanking medallions are crowned with trefoils. There are quarter-circles at the corners.

Type 30

18·5 cm. square. *Plan 57.*

White ground, glaze slightly pitted. Painted in dark cobalt with lighter outlines.

The tile is painted with four single flowers on vertical stems. The flowers have cross-hatched centres and a ring of round petals, and the stems are decorated with two pairs of curving trefoil leaves. The upper of the two flowers in the centre of the tile has two forked leaves springing from the top, and the border above is hatched vertically. The lower flower has an extra pair of trefoil leaves at the base of the stem. The flowers on either side of the central pair are surmounted by a slightly curving sprig of leaves; one is hatched at the base of the stem. The corners of the tile are filled with quarter-flowers, with a scalloped border. The tile is edged with a blue line.

Type 31

18·5 cm. square. *Plan 51* (*wrongly numbered 51 on plan*).

White ground, slightly pitted. Painted in dark cobalt with lighter outlines.

The tile is painted with two vertical motifs; each is in the shape of an elongated medallion, with an almond-shaped centre, with a border of short spikes; below is a trefoil base, from which splay out dots on three short stems; from the upper point of the medallion spring two semicircles, hatched across; above is a blue ring with a scalloped border, with three more dots splaying out on short stems. On the two sides are long splashes of blue, with a serrated border. The upper and lower borders are decorated with three triangles, pointing inwards; each triangle is further divided into three, with three dots in the spaces. The tile is edged with a double blue line.

Type 32

18·5 cm. square. *Plan 57.*

White ground. Glaze slightly pitted. Painted in dark cobalt blue with lighter outlines.

In the centre is a double pointed medallion, with rounded sides decorated with a semicircle of six round petals. The centre of the medallion is cross-hatched, and at the points are trefoils, with a pair of curved leaves at the base. Flanking the medallion are four smaller motifs, roughly triangular, surmounted by trefoils, with a border of short spikes, and with three dots splaying out from the base on short stems. In the middle of the left and right sides are splashes of blue, with spiked borders. In the middle of the upper and lower sides is a row of five dots inside a scalloped border, with a pair of curving leaves on the inner side and a small star between them. The corners of the tile are filled with quarter-circles.

Type 33

Fragment 9 cm. wide by 11 cm. long. *Plan 59.*

White ground. Painted in cobalt blue with darker outlines.

Painted with part of a pointed medallion, with a scalloped border, the inside of which is divided into squares. On either side of the medallion are groups of three dots.

Type 34

Three fragments of a hexagonal tile. The tile measures 23·3 cm. between each pair of parallel sides. *Plan 59.*

Slightly pink ground. Painted in greyish-blue with darker outlines.

In the centre of the tile is a fleur-de-lis on a long stem, with a hatched semicircle below, flanked by long curved leaves. The border of the tile is hatched to form a chain of diamonds, each divided in four. The inner angles are decorated with a fleur-de-lis on a semicircular base, flanked by a pair of leaves.

Type 35

17·5 cm. square. *Plans 18, 21, 31, 49, 54, 58.*

Pink ware. Creamy-white ground. Painted in mustard yellow, sap green, cobalt blue, light and dark purple, dark red (in slight relief), with fine brownish-black outlines.

An elaborate flower in profile fills the centre of the tile; the heart of the flower is painted with

three smaller flowers, on a yellow ground, and surrounded by thirteen serrated leaves linked by a green band passing behind them. From the upper part, two serrated leaves curve downwards, enclosing the flower; in turn, they bear tiny flowers near their tips. In the middle of the two sides of the tile are half-flowers and the upper and lower borders of the tile are painted with half-flowers of different design. The central and side flowers are linked by slender curving stems, bearing three more distinct varieties of flowers, and arabesque pointed leaves.

Type 35 a

17·5 cm. square, 1 cm. thick. *Plan 50.*

Greenish ground. Painted in pale yellow, turquoise, and light and dark cobalt blue. Bevelled edges.

Basically similar to *type 35*, this is a much simplified and less finely drawn design.

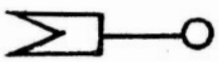
Type 36

22 cm. square. *Plans 6, 8–10, 14, 17–19, 21, 28–30, 32–7, 39–40, 45, 49–55, 59–64.*

Creamy/greenish-white ground. Painted in warm yellow, cobalt blue, sap green, with brown outlines.

At the centre of the tile is a yellow cross, with equilateral arms terminating in trefoils; at the crossing are four blue leaves and a ring of eight blue dots in white circles. The cross is set in a medallion, with four pointed and four rounded sides. The points of the medallion are capped by a trefoil-like motif. Each side is painted with two half-flowers, with green centres and curving blue leaves; they are linked to each other by green stems. The central medallion is surrounded by four sprays of yellow leaves.

One example of this type of tile is marked on the edge in black, with a motif resembling a short forked trowel.



Type 36 a

22 cm. square. *Plans 6, 7, 9, 10, 18, 29, 32, 49.*

Creamy/greenish-white ground. Painted in warm yellow, cobalt blue, sap green, with brown outlines.

Similar to *type 36*. The blue and yellow of the central cross are reversed, and the eight circles at the centre plain.

Type 36 b

24 cm. square. *Plans 8, 49.*

Creamy/greenish-white ground. Painted in warm yellow, cobalt blue, light green, brown outlines.

Similar to *type 36*. The green is lighter. The circles at the centre of the cross are painted green. The tile is 2 cm. larger, and has a border of alternating green and yellow chevrons between two lines (*photograph not possible*).

Types 36 c, d, e

21·5 cm. square. *Plans 8, 10, 46, 51, 63–4, 71.*

Off-white ground. Greenish tinge to glaze. Slightly pitted surface. Painted in blue-grey with darker outlines; or speckled blue with dark grey outlines.

Similar to *type 36*, painted in monochrome. The trefoils at the points of the medallions are transformed into seven-leaved motifs.

Type 37

12·5 by 19·5 cm., 0·9 cm. thick. *Plans 50, 60.*

Fine white ware. Greenish-white ground. Painted in turquoise, light cobalt blue, with dark red spots and black outlines. Sharply bevelled edge, not glazed.

Four pairs of arabesque serrated leaves are joined by serrated half-circles, enclosing a cross-hatched area. Between the leaves are pairs of circular motifs, each consisting of two trefoils turned inwards, with two dots between the almost touching points. Between the tips of the leaves are smaller pairs of arabesque leaves.

Type 38

Approx. 19·5 cm. square. *Plan 23.*

White ground. Painted in lemon yellow, pale turquoise green, dark cobalt blue, purple, with light cobalt blue outlines.

In the centre is a pointed medallion of mandala shape, with double borders of alternate yellow bands and blue lines, and an inner border of linked blue and purple dots. Inside the medallion, at the top are two blue flowers with two sprays of leaves attached to them; at the bottom is a composite design of horizontal bands, cross-hatching, small leaves, three yellow spots, and two blue flowers. At the corners of the tile are double sprays of green leaves and four blue flowers.

Type 39

Fragment, 16 cm. wide, 19·5 cm. high. *Plan 52.*

Fine white ware. White ground, slightly discoloured and pitted. Painted in pale green with darker green touches, brownish-red in slight relief, grey-brown outlines.

Painted with a naturalistic spray of flowers, asymmetrically arranged, probably roses. The leaves are small and pointed, with hooked edges, and the veins indicated. The border of the tile consists of V-shaped motifs linked by little scalloped semicircles.

Type 39 a

Fragment, 16·5 cm. wide by 19·5 cm. high. *Plan 52.*

Fine white ware. White ground discoloured at the top, and slightly pitted. Painted in leaf green, patchy brownish-red in relief (partly overfired to a greyish colour), with grey-brown outlines.

Similar to *type 39*, the borders consist of V-shaped motifs linked by simple bands.

Type 40

17·5 cm. square. *Plan 46.*

White ground. Painted in pale orange with slightly darker outlines, dull cobalt blue with darker outlines, green, with grey-black outlines.

The tile has a wide floral border; from a bowl of flowers in the centre of each side spring curved sprays of leaves. The inner part of the tile is painted with a medallion at the centre, consisting of a flower surrounded by smaller hatched flowers and leaves. In each of the four corners is a spray of flowers and leaves, set diagonally.

Type 40 a

17·5 cm. square. *Plan 46.*

The tile is painted in orange, and glazed with transparent yellow.

Similar to *type 40*. The wide floral border is painted with an asymmetrical arrangement of flowers and leaves; on each side there is a long leaf bearing sprigs of dots, linked to three round flowers and smaller flowers and leaves. The inner part of the tile is painted with a floral medallion at the centre, and sprays of flowers and leaves in each of the four corners.

Type 41

17·5 cm. square. *Plans 37, 46.*

Greenish-white ground. Painted *either* in lemon yellow, pale green, light and dark cobalt blue, *or* yellow-green, turquoise, light and dark cobalt blue.

The tile is painted with a loose, asymmetrical design of flowers and leaves, on thick stems. The flowers include carnations, tulips, and three other varieties.

Type 42

18·5 cm. square. *Plan 46.*

White ground. Painted in yellow, green diffusing at the edge to turquoise, cobalt blue, dark red in relief, with grey-black outlines.

The tile is painted with two grotesque figures(?), each enclosed in an arched frame of serrated leaves and dots. The 'figures' have round heads, with a leaf-like projection on the right side, and badly drawn features. The bodies are bulbous, narrowing to a base shaped like a fishtail. They are divided by one vertical and two horizontal bands, with a V-shaped panel of dots at the neck. The 'arms' are depicted as curving sprays of leaves, ending in spiked dots. Between the figures, above and below, there are fan-shaped motifs, with serrated sides and a scalloped top, subdivided with semicircular bands of dots. The four corners of the tile are painted with sprays of flowers and dotted leaves, with a scalloped border. The border of the tile is painted with a band of polychrome zigzag pattern and triangles.

Type 42 a

18·5 cm. square. *Plan 46.*

White ground. Painted in yellow, green diffusing at the edge to turquoise, dark red overfired to brownish-black, with grey-black outlines.

Similar to *type 42*. The figures are more exaggerated; the fan-like motifs between them are scalloped; the floral elements in the corners have become more diffuse. The border consists of opposed semicircles, with dots between.

Type 43

Varying sizes: 18 by 18·5; 15 by 19; 14 by 17·5; 14·5 by 18·5 cm. *Plans 3, 18, 19, 31, 33, 37, 39, 46, 50–1, 55, 58–9, 63–4.*

White, greenish-, or greyish-white ground. Painted in varying colour schemes: yellow, green/turquoise, dark red, grey-black outlines; pale greenish yellow, dirty cobalt blue, dark green outlines; cobalt blue, dark red, black outlines; dark red, blue-black with darker outlines; turquoise, cobalt blue, red, grey-brown outlines.

Painted with a lotus-like flower on a vertical stem flanked by serrated leaves and pairs of tulip-like flowers. Framed above with a scalloped arch and subsidiary leaves.

Type 44

10 by 19 cm. *Plans 7, 10, 16, 18–19, 22, 30, 32, 33, 37–9, 46, 48, 51, 58–9, 61–71.*

Painted in cobalt blue with lighter outlines.

Border tile. Running vine pattern, with three vine leaves and subsidiary serrated leaves, on a thick stem; at the ends of the tile are half-palmettes. Ground decorated with eight dotted crosses in rings of dots. Borders of double zigzags reserved on a blue ground, with groups of three dotted semicircles in the resulting triangles.

Type 45

10 by 21 cm. *Plans 18, 54, 61.*

Painted in cobalt blue with darker outlines.

Similar to *type 44*, with darker outlines; more simply painted.

Type 46

Varying sizes: 9 by 18·5 cm.; 9 by 21 cm.; 14 by 22 cm.; 1 cm. thick. *Plans 4, 6, 9, 10, 15–23, 29–33, 35, 38–40, 47–60, 61–2.*

White or pinkish-white ground. Painted in dark cobalt blue/pale blue-black with light and dark outlines. Bevelled edges, with glaze over bevel.

Border tile. Crudely painted running vine pattern. Irregular large blue leaves with white spots on a thick stem. Between them are five dotted stars. The borders are painted with a running pattern of stems and leaves, with small blue flowers.

Type 47

9·5 by 19·5 cm. *Plans 10, 15–17, 19, 21, 23, 30–5, 71.*

Warm white ground. Painted in greyish cobalt blue with darker outlines.

Border tile. Painted with a running vine, with three leaves; the leaves have six round petals and pointed tips, with an almond-shaped white centre. At the end of the tile are half-palmettes, with serrated borders. There are also four star motifs, each in a circle of dots. The borders consist of double zigzags, with three white circles reserved in the resulting triangles.

Type 48

9 by 19 cm. *Plan 46.*

Greenish-white ground. Painted in dirty cobalt blue with darker outlines.

Border tile. Painted with a running vine, from which spring three leaves; the leaves have serrated edges and an almond-shaped white centre, and a serrated leaf motif on one side of the stem. There are eight blue spots on the white ground. The borders consist of a blue zigzag, with blue spots in the resulting triangles. *The example illustrated lacks a border on one side.*

Type 49

10 by 21 cm. *Plans 32, 39, 58–61.*

Off-white ground. The glaze has a marked bluish-green tinge. Painted in blue-black with lighter outlines. Bevelled edges.

Border tile. Painted with a running vine, with three pointed leaves, and two half-leaves at the ends. The leaves have serrated edges, and a blue and white almond-shaped centre. The stems are painted with two pairs of fine pointed leaves, and have a triangular base. There are also eight star motifs, of six dots on radiating stems. The borders are painted with a double zigzag, with three white circles reserved on the blue ground of each resulting triangle.

Type 50

Fragment 15 by 10 cm. *Plans 30, 60.*

Greenish ground. Painted in dark cobalt blue with lighter outlines. Bevelled edges.

Border tile. Painted with a running vine, and two flowers and a half-flower. The flowers consist of circles filled with dots, with a serrated crescent as a crest. The stem of the flower has a triangular base, and is flanked with two curving pointed leaves. There are six stars, with six to nine dots on radial stems.

Type 51

21 by 10·5 cm. *Plans 16–23, 30–3, 35, 46, 50, 54–5, 58, 60.*

Greenish-white/white ground. Painted in bright/greyish cobalt blue with darker outlines. Bevelled edge, with glaze over bevel.

Border tile. In the centre is a palmette with serrated edge supported by a triangular base; from its tip stem two arabesques, bearing pointed leaves, each terminating in a smaller, solid blue palmette. At the ends of the tile are half-palmettes of different design, with serrated leaves patterned with dots. On the white ground are eight spots with a star painted on each of them in darker blue. The borders are painted with a white zigzag on a blue ground, with groups of three white dots in each resulting triangle.

Type 51 a

21 by 10·5 cm. *Plans 4, 7, 10; and wrongly numbered 5a on plans 16, 18–21, 33, 55, 57, 63, 67–9.*

Greenish-white ground. Painted in blue-black with darker outlines.

Border tile, similar to *type 51*. The painting is more simplified, and the colours are duller. The central palmette is painted in solid blue, like the two flanking palmettes. There are six spots decorated with a star pattern. The white zigzag of the border is divided with a blue line.

Type 52

Approx. 25 by 12 cm. *Plan 31.*

White ground. Painted in cobalt blue with darker outlines. The edge of the tile is square in section.

Border tile. A tree-like central palmette is flanked with tulips, each stemming from an arabesque scroll of leaves. There are half-palmettes of similar type at each end of the tile. The upper border is painted with a blue zigzag pattern, with a blue dot in each resulting triangle. The lower border is patterned with blue chevrons.

Type 53

27 by 14 cm. *Plans 39, 46.*

Painted in cobalt blue with darker outlines. The square edge of the tile is painted on one side also.

The tile is painted with a tulip on a vertical stem at the centre. From the base of the stem spring two sprays of curving leaves and three varieties of flowers. At each end of the tile is a half-medallion with a double scalloped border, and in the four corners are similar quarter-medallions. One tile is painted with a zigzag line and blue dots along its edge; another has a pattern of diagonal stripes.

Type 54

Fragment of tile, 15·5 by 7 cm. *Plan 46.*

Off-white ground, fired dark at the centre. Painted in light cobalt blue with darker outlines.

Painted with part of a symmetrical spray of five flowers and leaves; it resembles *type 19*, of which it may be a variant example, although it lacks the crossed leaves at the base of the stem.

Type 55

25·5 by 11·5 cm. *Plan 51.*

White ground. Painted in cobalt blue with darker outlines.

Border tile. Painted with three pointed palmettes on short vertical stems. They have serrated edges, and are patterned with overlapping scales, each filled with blue dots. Between them are two tulips, set diagonally, and pointed arabesque leaves. The lower border is a blue stripe, with darker outlines. The upper border is a band of blue zigzags, with blue triangles between.

Type 56

18 by 9 cm., 0·8 cm. thick. *Plan 46.*

Greenish-white ground. Painted in light cobalt blue with darker outlines. The edge of the tile is square in section.

Border tile. The tile is painted with a row of large palmettes of fleur-de-lis type, springing from scalloped bases. The inner edge and centre of each palmette is decorated with diagonal hatching. The upper border of the tile is painted with a band of hatched chevrons between a blue line. The lower border is a band of zigzags, with blue triangles.

Type 57

26·3 by 13 cm. *Plans 30–1, 46.*

White/off-white ground. The lower 2 cm. of the tile unglazed. Painted in cobalt blue with darker outlines. The tile is square in section, and decorated on the edge opposite the unglazed side.

Border tile. Painted with a central blue palmette of fleur-de-lis type, supported by a base of scrolling leaves. From the palmette spring two sprays of arabesque leaves, beneath which are other flowers and curving leaves. At each end are half flowers, with pointed blue and white petals. The design rests on a band of blue chevrons, above a blue line at the edge of the unglazed area. The top border is painted with a blue zigzag, with blue semicircles in the resulting triangles. The top edge of one example is decorated with a pattern of blue chevrons.

Type 58

Fragment, 13 by 15 cm. *Plan 40.*

Painted in cobalt blue, light turquoise green, red, with dark grey outlines.

The tile is painted with a row of palmettes, of two different types. One is of the fleur-de-lis type, the other with the outer petals scrolling upwards. Both spring from a scalloped base line decorated with circles.

Type 59

Fragment, 12·5 by 15 cm. *Plan 40.*

Painted in cobalt blue, turquoise green, red, with dark grey outlines.

Similar to *type 58*, the tile is decorated with two sorts of palmettes springing from a scalloped base line.

Type 60

Fragment, 17 by 7 cm. *Plan 46.*

Painted in turquoise green, light cobalt blue with darker outlines.

Painted with part of a design of curving stems and flowers reserved on a turquoise ground, decorated with cobalt blue, with a blue band at the bottom of the tile.

Type 61

8·5 by 18 cm. *Plan 19.*

White ground. Painted in dark cobalt blue with lighter outlines.

Border tile. Painted with a central flower with eight scalloped petals, each decorated with white spots and separated by white radiating bands. The flower is flanked by ogival motifs, with inner scalloped borders. At the four corners are quarter-flowers with pointed petals. The long sides of the tile are decorated with rows of contiguous dots.

Type 62

11·5 by 22·5 cm. *Plan 33.*

White ground. Painted in dark cobalt blue with lighter outlines.

Border tile, for *type 2 a*. Painted with a large central flower with ten scalloped petals, each decorated with a white motif on a blue ground. The four corners are painted with quarter-flowers, each with five pointed petals.

Type 63

11·5 by 24 cm. *Plans 1–7, 9–13, 17–19, 21–2, 30–2, 35–9, 45, 55, 61.*

White/greenish-white ground. Painted in light or medium shades of cobalt blue, with darker outlines.

Border tile, for *type 4*. At the centre is a lotus-like flower in profile, on a curved stem, flanked by blue arabesque leaves with white panels. Other stems bear tiny hooked leaves, or leaves with curling tips. At the ends of the tile are round half-flowers, with alternating blue and white pointed petals and trefoils.

Type 64

15·5 by 24 cm., 1·2 cm. thick. *Plans 1–3, 5, 6, 11–15, 20, 33, 37–9, 59.*

Painted in light cobalt blue with darker outlines. The edges of the tile are bevelled, with rounded corners, and glazed over the bevel.

Border tile, for *type 4*. The pattern is similar to *type 63*, with an additional base line and decorative band of alternating trefoils and palmettes.

Type 65

12·5 by 22 cm., 1·2 cm. thick. *Plans 6–10, 14, 17–19, 22, 35, 39, 40, 45, 50, 52, 55, 57–62.*

Fine cream-coloured ware. Cream/greenish-white ground. Painted in warm yellow, cobalt blue, sap green, with brownish outlines. Sides bevelled slightly back, unglazed.

Border tile, for *type 36*. Painted with a central flower, with a blue ring at the middle and eight trefoil yellow leaves, linked by a pair of symmetrical arabesque green leaves to similar half-flowers at the ends of the tile. The design is completed by four smaller blue leaves. The borders consist of two types of small yellow flowers, on a green running stem with blue leaves, between green stripes.

Type 65 a

13 by 22 cm., 1·2 cm. thick. *Plans 7–9, 51–2.*

Fine cream-coloured ware. Creamy-white ground. Painted in warm yellow, cobalt blue, sap green, with brownish outlines. Sides bevelled slightly back, unglazed.

Similar to *type 65* border tile (also used with *type 36* tiles). The large symmetrical leaves and smaller leaves between the main flowers have their colours reversed; they are blue and green, respectively.

Type 66

9 by 18·5 cm. *Plans 20–1, 26, 30, 32–3, 51, 53, 54 (wrongly numbered 21 b), 55–8.*

Pinkish/bluish-white ground. Painted in light and dark cobalt blue.

Border tile, for *type 14* tiles. Painted with diagonal blue lines, with dark blue crosses at their intersection. Double border of blue lines.

Type 66 a

Fragment, 9 by 12 cm. *Plan 55.*

Cream-coloured ground. Painted in cobalt blue with greenish-black outlines. Bevelled edge.

Border tile similar to *type 66*, with black outlines.

Type 67

9 by 18·5 cm. *Plans 51, 53, 56.*

Pinkish-white ground. Painted in cobalt blue with lighter outlines. Bevelled edge, with glaze over bevel.

Border tile. Painted with intersecting diagonal pale blue lines, with a blue ring at the centre of each resulting square. Border of single blue line.

Type 68

8·2 by 19 cm. *Plan 46.*

White ground. Painted in light cobalt blue with darker outlines.

The tile is divided by a running blue leafy stem, from which spring flowers with round petals, and curling pointed leaves. In two corners are quarter-flowers, with trefoil petals.

Type 69

Fragment, 9 by 19·5 cm. (tile approx. 10 by 20·5 cm.). *Plan 67.*

White ground. Painted in cobalt blue with dark grey outlines.

The tile is painted with a single palmette, with a serrated edge; the centre is painted with white motifs on a blue ground; at the base is a stem in the form of an inverted V. The borders of the tile are decorated with a pattern of interlocking chain motifs.

Type 70

9 by 18·5 cm. *Plans 18, 21–3, 31, 33, 35, 39, 51, 53, 55–9, 62.*

White/greenish-white ground. Painted in light/dark cobalt blue, with lighter outlines. Bevelled edge, glazed over bevel.

Border tile, for *type 28* tiles. Splotchily painted with a single flower on a vertical stem. The flower has an outer ring of scalloped petals, and is surmounted by a hatched trefoil. The stem is flanked by arabesque serrated leaves, with smaller leaves below and above, and is hatched at the base. The sides of the tile are hatched downwards diagonally, and the corners are occupied by quarter-flowers with scalloped borders. A blue line forms the border of the tile.

Type 71

22·5 by 17 cm. *Plan 46.*

Off-white ground. Painted in cobalt blue with dark grey outlines.

The tile has as a border a single horizontal blue line. Above the line is a decorative border consisting of intersecting scroll motifs separated by an almond-shaped motif surmounted by a fleur-de-lis.

Type 72

Fragment, 7·1 cm. by 9·2 cm. *In storeroom adjacent to St. James*

Off-white ground. Painted in greyish cobalt blue, with dark grey outlines.

Part of a motif consisting of a diamond intersected by a figure-of-eight; at the end of the tile is a half medallion with scalloped sides. A blue stripe forms the upper and lower border of the tile.

Type 73

Fragment, 8 by 14·5 cm. *Plan 47.*

Creamy-white ware. Greenish-white ground. Painted in dark turquoise green, light cobalt blue, with dark cobalt blue outlines.

The fragment is painted with a pointed medallion with scalloped sides, with a flower at the centre on a white ground, separated from a flower with round, hatched petals and pointed leaves by a twisted rope pattern reserved on a blue ground with green borders. *Isnik tile.*

Type 74

Fragment, 6·5 by 12 cm. *Plans 47, 55.*

Greenish-white ground. Painted in light cobalt blue, light turquoise, orange-red, with greenish-black outlines.

This fragment of a border tile is painted with two elaborate round flowers, combining both pointed and scalloped leaves, linked by a curving stem bearing a serrated leaf and smaller flowers, all on a blue ground. There are longitudinal bands of turquoise and white outlined with black, above and below. *Isnik tile.*

Type 75

Fragment, 14 by 13 cm. *Plan 55.*

Ivory-coloured ground. Painted in two shades of greyish cobalt blue, muted blue-green, dirty salmon pink (in slight relief), with black outlines.

Apparently part of a square tile, painted with three varieties of elaborately designed flowers in the Isnik style, on intersecting stems of pointed, curving and scalloped leaves. *Isnik tile.*

Type 76

25 cm. square, 1·4 cm. thick. *Plans 39, 60.*

Glaze has a greenish tinge. Painted in turquoise green, greyish/cobalt blue, pink/orange-red, grey-black outlines. Bevelled sharply back.

Painted with an elaborate pointed medallion with scalloped sides, with a border of pointed leaves and small flowers. In the centre is a spray of five tulips reserved on the turquoise ground. From the medallion spring eight stems, arranged in contiguous circles filling the four quarters of the tile. The stems bear hooked spurs and eight half-flowers with alternate round and pointed petals. *Isnik tile.*

Type 77

25 cm. square. *Plan 60.*

Pinky, powdery ware. Off-white ground. Painted in pale cobalt blue, turquoise, soft green, orange-red, with greenish-black outlines. Edges are slightly bevelled back.

The tile is painted with a spray of flowers in an hourglass-shaped vase. There are five flowers of the carnation type, the stems of which are joined by a scrolled clasp; below are two pointed tulips, and curving leaves. On either side of the vase are smaller sprays of flowers. The sides of the tile are each painted with half of a cypress tree, from which spring two stems of small round flowers, forming an arch above the central spray. *Isnik tile.*

Type 78

Fragments, of which the largest is 10 by 16 cm. *Plan 60.*

The glaze has a greenish tinge. Painted in pale turquoise, pale purple, greyish-green, red dots, with black outlines.

The fragments are painted with parts of an elaborate large flower, and various smaller flowers and leaves on curving stems. *Isnik tile.*

Type 79

Fragment, 12·5 by 18·5 cm. *Plan 60.*

Thick, vitreous glaze, slightly crackled. Greyish-white ground. Painted in diffused light turquoise, patchy cobalt blue, with grey-black outlines.

Fragment of a border tile. Painted with two varieties of flower, linked by a thick curving stem bearing smaller flowers and leaves, in a cartouche with scalloped ends.

Type 80

Fragment, 8 by 11·5 cm. *Plan 60.*

Off-white ground. Painted in turquoise green, pale speckled purple, orange-red with greenish-black outlines.

Part of a border tile, painted with part of a large flower, and an arabesque leaf overlapping a curved stem and smaller flower. *Isnik tile.*

Type 81

Two fragments, each 4 by 7 cm. *Plan 60.*

Thick vitreous glaze, slightly crackled. Off-white ground. Painted in cobalt blue with grey-black outlines.

The fragments are painted with cobalt blue stripes, 1·4 cm. wide, outlined in black, on a white ground.

Type 82

Fragment 22·5 by 20·5 cm., from a tile approx. 22·5 cm. square. *Plan 60.*

Ivory-coloured ground. Painted in turquoise, cobalt blue, dark purple, with black outlines.

Painted with part of a large flower with scalloped petals, and a large pointed trefoil leaf, on a blue ground.

Type 83

19 cm. square. *Plans 59, 60.*

White ground with slightly crackled vitreous glaze. Painted in cobalt blue with greenish-black outlines.

Painted with a lotus-like flower in profile, on a diagonal axis, with a clasp-like motif at its base. From the tips of the flower spring intersecting stems, linking it with other half-flowers of different type in the middle of each side. In two opposite corners are quarter-flowers (similar to *type 4 a*).

Type 84

Fragment 19 by 20·5 cm., from a tile approx. 20·5 cm. square. *Plan 60.*

Off-white ground. Very thick vitreous glaze, in slight relief between outlines, in *cuerda seca* technique. Painted in a dirty transparent yellow, opaque turquoise, cobalt blue, transparent green, dark grey-green, with grey-black outlines.

The design is similar to *type 83*, executed in polychrome, on a blue ground. *? From the Dome of the Rock, Jerusalem.*

Type 85

Fragment 17 by 18 cm. from a tile approx. 18 cm. square. *Plans 31, 60.*

White ground. Very thick vitreous glaze, in slight relief between outlines in *cuerda seca* technique. Painted in dirty transparent yellow, opaque turquoise, cobalt blue, black, with black outlines.

The tile is painted with four-pointed medallions set diagonally in each of its four quarters. They are linked by scalloped bands, and between them are fleur-de-lis pointing inwards. In the centre is a round flower set in an eight-pointed panel with a scalloped border. *? From the Dome of the Rock, Jerusalem.*

Type 86

19·5 by 19·7 cm. *Plan 59.*

Thick vitreous glaze. Painted in cobalt and turquoise green, with grey-black outlines; all the colours have diffused in the glaze.



43



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45



46



47



48



49



50



51



51*a*



52



53



54



55



56



57



58



59



60



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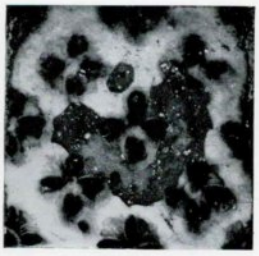
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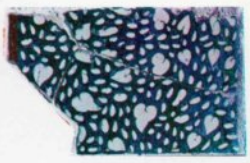
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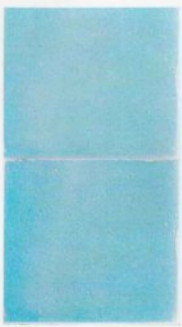
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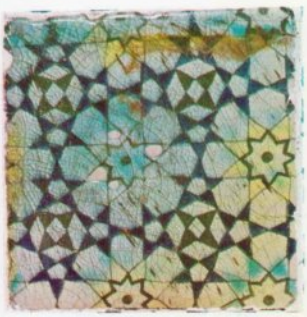
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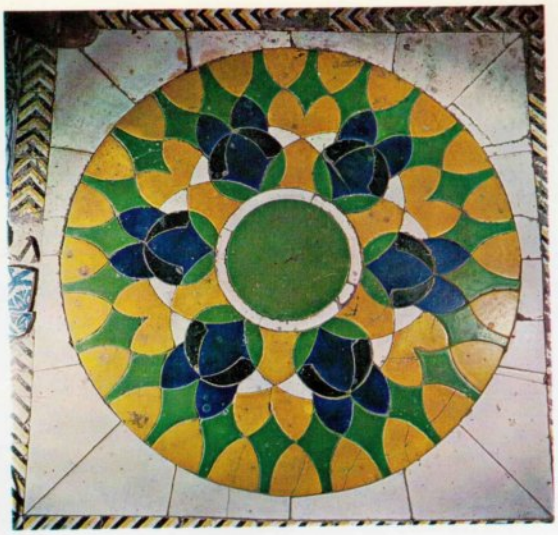
99



100



a. 101



b. 102 (border tile, 107)



c. 106



d. 105



e. 103



f. 104

a. Type 101. POLYCHROME HEXAGONAL TILES in the sacristy, in the church of St. Theodore
b. Type 102. FLOOR TILES in the chapel of St. Nishan, in the Cathedral of St. James
c, d. Types 105, 106. ITALIAN *MAJOLICA* TILES in the Etchmiadzin chapel, surrounded by Kütahya tiles
e, f. Types 103, 104. CHINESE PORCELAIN TILES in the chapels of St. James and St. Makar, in the Cathedral

The tile is painted with five flowers set equidistantly from each other. Each flower has four trefoil and four pointed petals, with a ring at the centre. In the middle of each side is a similar half-flower, and in the corners quarter-flowers.

Type 87

Fragments of a border tile; 10 by 9, 11 by 8, and 7 by 8 cm. *Plan 59.*

Greenish glaze. Painted in green/turquoise, red in relief, dark cobalt blue, with greenish-black outlines.

The tile fragments are painted with parts of a large flower, linked by curved stems to smaller flowers and overlapping arabesque leaves, on a cobalt blue ground. *Isnik tile.*

Type 88

Oval fragment, 6 by 5 cm., rising 1 cm. at the centre. *Plan 62.*

White ground with fine hard glaze. Painted in bright cobalt blue with blue-black outlines, and touches of bright yellow.

This fragment is probably from a hanging ornament, here reused as a tile. The yellow is unusually pure and vivid. Painted with a spray of curved leaves, the stems of which are partly hatched.

Type 89

Part of a tile 25 cm. square. The upper left corner has been cut out and replaced with a fragment of different design. *Plan 39.*

Greenish-white ground. Painted in pale turquoise, grey-green, grey-blue, with red dots in relief and broken black outlines.

Painted with an elaborate central flower, from which spring slender stems bearing smaller flowers of different varieties and curving leaves.

Type 90

12·5 by 24·5 cm. *Plan 39.*

Off-white ground. Cloudy glaze. Painted in dirty cobalt blue, dark turquoise, bright red, with greenish-black outlines.

Border tile. Painted with a feathery palmette, linked to half-palmettes of similar design on either side. At the bottom of the tile is a turquoise band.

Type 91

Fragment 20 by 13 cm. *Plan 40.*

Painted in light purple with grey-black outlines.

The tile is covered with a scatter of heart-shaped leaves and smaller spots, reserved on a purple ground to give a marbled effect.

Type 92

Fragment 14·2 by 17·5 cm. *Plan 40.*

Painted in cobalt blue, turquoise blue, turquoise green, red, with black outlines.

The tile is covered with an elaborate all-over pattern of red, white, and turquoise green leaves on thick stems, on a cobalt blue ground. The pointed leaves are lobed at the base on one side, and the stems are decorated with a series of overlapping volutes.

Type 93

24·5 cm. square. *Plan 63.*

Thick crackled glaze. Dirty grey ground. Painted in emerald green, smudgy cobalt blue, with faint greenish outlines. The monogram at the centre is painted in grey.

The tile is painted with an elaborate central motif, of intersecting scrolls, heart-shaped, and shell-like panels, decorated with sprays of flowers. In the middle is an oval cartouche, containing an Armenian monogram.

Type 94

22 by 21·5 cm. (cut at top). *Plan 64.*

Greenish ground. Painted in pale emerald green, pale yellow, cobalt blue, pale purple, with diffused grey-black outlines. Bevelled sharply back at edges.

In the centre is a flower, with seven pointed petals interspersed with scalloped petals. The four corners are painted with intersecting bands and scrolls on a diagonal axis, linked by ribbon-like bands to two floral sprays supported by scrolls in the middle of each side.

Type 95

22 cm. square; or 18 cm. square, 1·2 cm. thick. *Plans 30, 35, 46, 48, 50–1, 55–7, 64.*

Pinkish-white limestone-like ware. Glazed with a rich dark green, tending to lighten at the edges of the tile. Bevelled edge, with green glaze over bevel.

These plain green tiles are usually used square. *See* PLATE 5 *a.*

Type 95a

18 by 9 cm., 0·9 cm. thick. *Plans 24–7, 29, 48–54, 57.*

Dark green border tiles; similar ware to *type 95.*

Type 96

24·5 by 26·5 cm. *Plans 29, 46, 54–5, 63.*

Glazed with a brilliant turquoise blue.

Type 97

22 cm. square. *Plan 71.*

White ground. Painted in pale yellow, blue and grey, with darker grey outlines.

The tile is painted with a seraphim.

Type 98

Fragments, 26·5 by 9 cm., 25·5 by 9·5 cm. *Plan 15.*

White ground. Painted in cobalt blue with darker outlines.

Similar to *type 53*; a tulip on a vertical stem is flanked with floral scrolls (impossible to photograph).

Type 99

24·5 cm. square. *Plan 3.*

Discoloured greenish crackled glaze. Painted in pale turquoise, cobalt blue, with dark grey outlines.

A small central flower surrounded by four lotus-like flowers, with other flowers in profile between, all on intersecting stems. *Damascus tile.*

Type 100

24·5 cm. square. *Plan 3.*

Discoloured greenish crackled glaze. Painted in pale yellow-green, dark cobalt blue, turquoise, with dark grey outlines.

A geometric design of elaborate eight-sided stars with lozenges between. *Damascus tile.*

Type 101

Hexagonal tiles, 9·5 cm. between parallel sides. *Plan 67.*

Plain glazed hexagonal tiles, yellow, white, purple, green, or cobalt blue, with some blue half-tiles of similar dimension.

See PLATE 16 *a.*

Type 102

Shaped tiles set in a circular pattern in the floor of the chapel of St. Nishan, in St. James; the design is 85 cm. in diameter. The tiles are glazed with plain colours, white, yellow, purple, green, blue.

See PLATE 16 *b*, *Plan 38.*

Type 103

20·5 cm. square. *Plans 36, 37.*

Chinese porcelain tile. Painted in shades of underglaze blue, on a white ground, with additional gold decoration.

The centre of the tile is painted with a house and a tree on a small island, with another tree and clumps of water-plants in the foreground. The scene is framed with hexagonal lines, with four floral medallions at the four corners. There is a wide border of floral patterns.

Type 104

19 cm. square. *Plans 36, 37.*

Chinese porcelain tile. Painted in shades of underglaze blue, on a white ground, with additional gold decoration.

The tile has a wide border of floral decoration, like *type 103*, with an additional basket of flowers at the centre of each side. In the centre is a flower surrounded by four smaller flowers, with four sprays of flowers and leaves at the corners.

Type 105

21·5 cm. square. *Plans 16, 19, 34, 35, 47–8; and 28, 64 wrongly numbered 103.*

Italian *majolica* tile. Painted in blue-grey, yellow, ochre, and green, with dark brown outlines.

Panels of four tiles, painted with an elaborate floral design contained in a quatrefoil frame, with quarter-stars in the four corners.

Type 106

21·5 cm. square. *Plans 16, 19, 20, 34, 35, 47–8; and 17, 28, 33 wrongly labelled 104.*

Italian *majolica* tile. Painted in light and dark blue-grey, yellow, ochre, and green, with dark brown outlines.

Panels of four tiles are painted with an eight-pointed star at the centre, in a scrolling frame with leaves at the corners.

Type 107

13·5 by 6·5 cm. or 6 cm. square. *Plan 38.*

Rough pinkish ware, painted in black and yellow on a white ground, with a pattern of chevrons (see border tiles in PLATE 16 *b*).

APPENDIX A

CHINESE TILES AND KÜTAHYA COPIES

ALTHOUGH the Cathedral of St. James is decorated throughout with Kütahya tiles, the Chapel of the Head of St. James, and the adjacent Chapel of St. Makar are lined with a rare collection of Chinese porcelain tiles. Chinese tiles either of the Ming or Ching Dynasties are little known in the West,[1] and it is some measure of the value that the Armenians in Jerusalem placed on them that they should have been reserved for the decoration of the most sacred shrine in the Convent.

Altogether there are 122 tiles, of two types; they are used to decorate the upper parts of the Chapel of St. James, and round the altar in the Chapel of St. Makar (*Plans 36, 37*). The tiles are of fine white porcelain painted in shades of underglaze cobalt blue, with additional gold decoration on the surface. The two types of tile vary slightly in size. The first, *type 104*, with floral decoration, is 19 cm. square; on the single example where it was possible to take a measurement, this type was found to be 1·2 cm. thick, unbevelled at the sides, and the edge of the tile unglazed and fired a slightly reddish colour (PLATE 16 *f*). The second, *type 103*, with a landscape at the centre, is larger, 20·5 cm. square (PLATE 16 *e*).

The *type 104* tiles, of which there are 71 examples, are painted with a wide border of flowers and leaves between parallel lines; the flowers stem from a basket at the centre of each side. Inside the central square, a daisy-like flower at each corner surrounded by leaves and buds points to the centre of the tile, where a single flower is encircled by four smaller flowers, one on each side. The flowers have been painted swiftly with a large brush, the outlines added in a darker blue; after firing more details have been added in gold.

The *type 103* tiles, of which there are 51 examples, have a similar but narrower border of flowers and leaves, with a flower replacing the basket on each side. The corners of the central square have been cut off by diagonal lines and the resulting triangles each filled with a single flower. The central, hexagonal panel is painted with a landscape. On an irregularly shaped island is a small house with a pitched roof and a single tree. The house has a door, and a window with the shutter propped open; the eaves of the roof project from the walls and at either end of the ridge, above the gables, is a stump-like projection. From the right a second tree intrudes into the scene, and in the foreground are two clumps of water-plants and an indication of water. Like the *type 104* tiles, gold has been used to enrich the design.

Although these Chinese tiles are unfamiliar in the West, they are not unique in the Near East. In the collection of Chinese porcelain in the Topkapu Sarayı Museum at Istanbul, there are 16 examples of *type 103* tiles. Further up the Bosphorus on the opposite bank, 6 km. north of Üsküdar, there are no less than 200 *type 104* tiles in the Beylerbey Mosque, where they form a frieze at the East end of the building. This mosque was built by Abdulhamid I in A.D. 1778.[2] In Istanbul, in the now destroyed Armenian church of St. Gregory the Illuminator (A.D. 1733), an old photograph[3] shows at least one *type 103* tile *in situ*; examples of both *types 103 and 104* are preserved in the collection of tiles from the destroyed building, soon to be housed in the new Armenian church nearby (see Appendix E; PLATE 7 *i, j*). Further afield, in the Coptic church of Deir Abu Seifein in old Cairo there are 33 examples of

[1] The only example known to the writer is a single tile in the Victoria and Albert Museum, Plate 37 *b* (C. 767–1922; 19·5 cm. square: *type 104*). The only conceivable reference to tiles amongst the many varieties of porcelain imported into Europe in the seventeenth century, is a bill of lading for the ship 'Joncker', dated 10 November 1646, which mentions '5840 small porcelain paving-stones' (Volker, *Porcelain and the Dutch East India Company*, Leiden, 1964, p. 55).

Volker interprets these as: 'probably a small slab of porcelain or tile used for skirting in rooms and as a covering for windowsills and seats and to be inserted into partition walls'; he illustrates two tiles, 10 cm. square, of 'Sino-Japanese transition type' (from F. de Hann's *Oud Batavia*) as possible examples of this type. One is painted with flowers and a heron, the other with a mountain landscape; neither bear any resemblance to the Chinese tiles in Jerusalem.

[2] Aslanapa, *Osmanlılar devrinde Kütahya çinileri*, pp. 41–3; Plate 36 shows the tiles, which Aslanapa wrongly identifies as French or Venetian. Other Isnik tiles of different periods in the mosque indicate that the tiles are probably all reused from elsewhere.

[3] Aslanapa, op. cit., plate 57. The single tile is set amongst two common types of Kütahya tile.

type 104 tiles.[1] Finally, in the 'Azm Palace in Damascus the rear wall of a fountain is decorated with two *type 104* and eleven *type 103* tiles (PLATE 36);[2] this fountain is the focal point of the interior of one of the buildings round the courtyard which comprise the Palace; and according to an inscription above the door, the building was constructed in the year A.D. 1749.

Elia Vardapet, in his account of the renovation of the Cathedral in Jerusalem (Volume I, Appendix D), supplies the evidence that these tiles were made before A.D. 1727: 'and when in the year 1176 [A.D. 1726/7] the order came to decorate the heavenly chapel of St. James, I myself . . . worked from the very first day . . . on the redecoration of St. James . . . I worked on the chapel of the head of St. James, the chapel of Makar, and the Church of St. Sargis [the annexe to the Treasury] . . . plastering and tiling their walls.' From this it is clear that the tiles were amongst the first to be installed; the Chinese tiles are the only tiles in the shrine of St. James, so it must be these that Elia set up. If, as seems likely from their context, the tiles in the 'Azm Palace are contemporary with the building housing them, then they are certainly earlier than A.D. 1749. They are probably products of the reign of K'ang Hsi (A.D. 1662–1722).[3]

Although the tiles are undoubtedly of porcelain, they could hardly be less Chinese in concept. The landscape was apparently inspired by a Western model, most probably by a Dutch tile with a similar scene.[4] In the seventeenth century Dutch tiles were often painted with landscape vignettes (PLATE 37 *a*); later in the century the scenes were framed in a circle, or hexagon. The Chinese artist's grasp of this unfamiliar subject was so shaky that where the eaves of the house extend well to the left of the tree-trunk, he has left out the left wall of the house altogether, which should logically appear. In rendering the trees, he has reduced the stylized drawing of the Dutch model to an irregular blotch; even the gold details fail to animate the tortured silhouette.

How did the Dutch tiles reach the Far East, and why were they copied? That they were exported to be copied by the Dutch East India Company is improbable, as the Chinese copies are virtually unknown in European collections, although they were circulating in the Near East. There is a possible clue from further West, in Spain. Dutch tiles were exported in large quantities to Spain and Portugal in the seventeenth and eighteenth centuries for the decoration of churches and secular buildings.[5] Amongst such tiles was a series commissioned by the Zucar (Chakar) family of Armenian merchants for the Church of Santa Maria in Cadiz; Armenian and Spanish inscriptions on the tiles give the dates, between A.D. 1671 and 1679, and state that the donors were originally from Julfa, a suburb of Isfahan in Persia.[6]

Julfa, founded by Shah Abbas I in the early seventeenth century by the forced migration of the Armenians into Persia, quickly established itself as a central link in the international trade network organized by Armenian merchants between Europe and the Far East.[7] Indeed, the carved tombstones in the cemetery in Julfa record that many of the sailors came from there, and Armenian vessels and captains are specifically mentioned in the seventeenth-century records of the Dutch East India Company as having engaged in the porcelain trade.[8] At the European end,

[1] The tiles are 18·5 square; the centre flower varies slightly in size; with gold decoration. The tiles are in the *haikal* section of the church behind the altar, set above the Patriarchal throne. There are also blue and turquoise Isnik tiles of a type used to restore the mosque of Ibrahim Aga in A.D. 1652, and two tiles of the kind found in the Chorbagi Mosque (A.D. 1757) in Alexandria, local products, probably North African.

[2] *Type 104*, 18·4 cm. square; *type 105*, 20 cm. square. The surface of the tiles has been worn away by the action of the water running over them, and there is no trace of gold decoration. I am indebted to Mr. W. Lancaster for drawing my attention to these tiles.

[3] Gold decoration is common on early eighteenth-century Chinese porcelain.

[4] Victoria and Albert Museum, panel no. C. 583–1923, is a collection of several examples; one is reproduced in A. Lane, *Guide to Tiles*, H.M.S.O., 1960, plate 36 (*c*). Dutch tiles are usually a standard 13 cm. square in size, much smaller than the Chinese copies. The Jerusalem tiles were at least once before mistaken for Dutch tiles; a description of the cathedral in 1835 states: 'the sanctuary of St. James, a recess eight feet square, is ornamented with sculpture, gilding painting, and Dutch [*sic*] tiles'; see *Description of a view of the City of Jerusalem . . . now exhibiting at the Panorama, Leicester Square*, London, 1835, pp. 9–10; I must thank Mr. John Brinton for drawing my attention to this pamphlet in his possession.

[5] J. M. Dos Santos Simoes, *Carreaux Céramiques Hollandais au Portugal et en Espagne*, The Hague, 1959.

[6] Ibid., pp. 104–8; plates xxvii–xxix. In this church there are about 1,100 Dutch tiles; they are 13 cm. square and painted in purple monochrome. The subjects can be grouped as biblical, landscapes, and portraits. The biblical subjects derive from seventeenth-century Flemish engravings; the portraits are of various saints, kings, and popes. The landscapes are of different sorts, with combinations of figures and animals, etc., and enclosed in a circular frame. One design of particular interest is of a house on an island, with a tree very similar to that copied by the Chinese artist.

[7] *Supra*, p. 13.

[8] Volker, op. cit., pp. 97, 183, 191; (1645) 'In April it is reported from the coast of Coromandel that in January several vessels, one Armenian and some Portuguese, had brought porcelain from Malacca.' (1672) 'On February 9th there arrive at Surat by the "St. Joris" of the English Company from Kedah 100 cases of porcelain, on February 18th

the Armenian population in Amsterdam was well established in the seventeenth century, with a church, school, and printing-press; the first Armenian printed bible was produced there in A.D. 1666. Just as the Armenians in Spain had commissioned Dutch tiles, so the Armenian population in Julfa also acquired a taste for Flemish things, which was perhaps given further impetus by the presence of Dutch agents living amongst them. Thus the Julfaites, like the Armenians in Spain, may have been familiar with Dutch tiles, and perhaps an enterprising merchant sent a specimen to be copied by the Chinese potters in porcelain, superior to the Dutch faience.

Further circumstantial evidence attests to the Armenians being the intermediaries. The Chinese copies, exported to the Near East, were quickly copied by the potters in Kütahya. Amongst the tiles in Jerusalem are copies, with some variations, of *type 104* tiles. Their position in Elia Vardapet's planning of the Etchmiadzin Chapel, the Chapel of the Apostles, and the Church of the Holy Archangel (Plans 23, 39, 46, 48, 57) suggest that they arrived in Jerusalem at the same time as the Chinese prototypes. Finally, mention must be made of other copies[1] of this type of tile in conjunction with Kütahya tiles, in the Ali Pasha Mosque in Kütahya (PLATE 31 *a*, *b*); here they represent an order executed by the Armenian potters for a Moslem patron, like the tiles in the Haçi Bayram Mosque in Ankara.

In Jerusalem there are four types of Kütahya tiles, variants of *type 104* Chinese tiles. Two of these are painted freely in cobalt blue; the other two types are of unusual combinations of colour. All the tiles are of usual Kütahya size, varying between 17·5 and 18·2 cm. square. On one example examined, the tile was 0·9 cm. thick, with a rounded bevel, glazed over; and the wear was yellowish and limestone-like in texture. The white ground of *type 25* tiles often has a pinkish tinge. As stated above, the positions of the tiles in the various schemes suggest that they were installed by Elia Vardapet, and therefore to be dated at least before A.D. 1737.

A comparison between the Kütahya copies and the Chinese model show that the potters freely adapted the design, rather than slavishly copying it. In the simplest copy *type 25*, the solid borders have been reduced to two parallel lines; whilst the basic idea of flowers and leaves growing out of a central bowl has been retained, the corners of the tile are now filled with an elongated tulip-like flower, instead of the modest little diagonal leaf in the Chinese tiles. In the central panel, the corner flowers are no longer solid blue, and are drawn only in outline, and the centre motif has become an eight-pointed star; the four smaller flowers, or stars, have moved out from the middle and now fall half-way between each pair of corner sprays (PLATE 11).

Tile *type 26*, also painted in blue, has the same border as *type 25* but the centre is quite different; the flowers have been completely removed and replaced by a crudely drawn angel's head with six wings, with double-barred Jerusalem crosses at the four corners (PLATE 11).

The two polychrome tiles *types 40*, *40 a*, are much more delicately painted. The first *type 40*, is 17·5 cm. square, painted in pale orange with darker outlines, dull cobalt blue, green, and black outlines. The borders follow more closely the Chinese *type 104*, and at the corners the small leaf has been retained and not metamorphosed as in *type 25* and *type 26*. In the centre the corner sprays follow approximately the Chinese type, but the central flower has expanded and become much more complicated, with subsidiary leaves and petals; the four smaller flowers have disappeared (PLATE 12).

The other polychrome tile *type 40 a* (17·5 cm. square) is unique in two respects; painted in two shades of orange, and glazed with transparent yellow, the borders are quite different, although the centre is similar to *type 40*. The yellow ground recalls *type 6 f* Kütahya tile similarly glazed (p. 19), hanging ornaments (p. 69 *d*, *l*), and the ewer in the Patriarchal collection (PLATE 8 *a*). All these, though, were underpainted in cobalt blue, thus producing a green design when glazed with the yellow. On tile *type 40 a* the borders are narrower than the other copies, and the bowl has changed its shape and moved from the centre to the left of each side; to its right are three round flowers, linked by smaller flowers and leaves. The total effect of this tile is unusual, with its delicate drawing, soft colours and yellow ground; it is not closely related to any other type of Kütahya tile or pottery either by technique or patterns, and must therefore be regarded as an individual experiment which was not pursued further (PLATE 12).

Two tiles in the Arab Museum, Cairo (14992,

from Acheen, by the private vessel "Haren Secunde", one lot of coarse porcelain, and from Siam, by the "Surat Marchiand", belonging to the Armenian merchant Gosia Khodja Minos, 100 cases of porcelain.' (1681) 'On February 16th Tonking reports that the English master of the "Advice" has brought there an Armenian sloop, loaded her with porcelain cups only and has sailed for Bantam on July 25, 1680.'

[1] The tiles are 18·5 cm. square; the flowers are turquoise-green and cobalt; the central spot, with a scale-and-dot pattern, turquoise; with black outlines.

14993; of unknown provenance) (PLATE 37 *c*, *d*) are similar to *type 40* from Jerusalem. They are 19 cm. square, larger than the Jerusalem tiles, and the same size as the Chinese prototypes. They are painted in cobalt blue and follow even more closely the *type 104* tiles, one even retaining the three dots associated with the diagonal leaf at the corners of the border on the Chinese tiles. In the centre the corner flowers again follow the Chinese concept, with a blue silhouette against the white ground; in the middle, one tile has a blue blotch, and the other a turquoise spot decorated with scale-and-dot pattern; neither has the four smaller flowers. The Kütahya tiles in the Ali Pasha Mosque in Kütahya are also of this type (PLATE 31 *a*, *b*).

APPENDIX B

HANGING LAMPS AND ORNAMENTS

ONE of the most striking features of St. James's Cathedral is the network of hanging lamps and ornaments, suspended on chains between the four central piers and the walls (FRONTISPIECE; Volume I, PLATES 25, 26). This type of decoration is not unique to St. James—other Armenian and Greek Orthodox churches in the Near East are treated in the same way—but nowhere is it more elaborate.

The verger and his assistant lower the chains, which are controlled by a system of ropes and pulleys, in order to clean the lamps and fill them with fresh supplies of oil. Using the same method, the writer examined the lamps and hanging ornaments at close quarters, and a record was made of some of the different types, noting in particular those which were inscribed or dated.

LAMPS

Whilst most of the lamps are of metal, there are also a few made of pottery. They follow the general shape of the metal prototypes, with a bulbous body surmounted by a flaring neck, on which sits the glass dish containing the oil and the wick; the wick is supported by a float made of wire and cork. The lamps are suspended by chains attached to three pierced lug handles. The pottery lamps are embellished with decorative designs cut through the sides, and glazed plain white or yellow; none of the Jerusalem examples are painted (Figure 22 *a*, *b*, *c*. PLATES 5, 17, 22, 35 *c*, *d*).

They are almost certainly from Kütahya, as a lamp of similar form, painted with typical Kütahya patterns, exists in a private collection in England; this lamp was originally purchased in Jerusalem (Figure 22 *d*).[1] There is a single example of a similar unpainted lamp in the Benachi Museum in Athens. An Armenian painted cotton in the Victoria and Albert Museum in London (Volume I, PLATE 33 *b*), depicts several types of what are apparently pierced pottery lamps.

HANGING ORNAMENTS

The hanging ornaments, made of pottery, are of different sizes and serve no functional purpose. They hang either on the same chains as the lamps, or by themselves from the main chains. Inscriptions on several ornaments tell that they were brought to Jerusalem from Turkey by Armenian pilgrims, as votive offerings for the church.

The symbolic meaning of their oval shape is not certain, but the egg is a universal symbol of fertility, and egg-shaped ornaments may have their origins in some sort of fertility cult. Decorated eggs, especially those of the ostrich, have a long history in the Near East. There are examples as early as the Middle Bronze Age, and a modern example is a carved ostrich egg in the Patriarchal collection in Jerusalem. In the Church of the Nativity at Bethlehem ostrich eggs hang in the Greek Orthodox section side by side with egg-shaped pottery ornaments and coloured glass witch balls. And amongst the commoner souvenirs sold to pilgrims at Easter are wax eggs decorated with beads and coloured transfers of the Resurrection.

As well as in Armenian and Greek Orthodox churches, hanging ornaments are also found in mosques. For instance, in the Hakim Oğlu Ali Pasha Mosque in Istanbul they are suspended with a variety of other objects from a wooden rail. The pottery eggs are undecorated and glazed in either white, yellow, cobalt blue, or turquoise. Hanging beside them are similarly shaped wooden ornaments painted with flowers; glass lamps, a corn dolly, and two miniature wooden ploughs, each about 60 cm. long. The juxtaposition of egg-shaped ornaments, a corn dolly, and models of farm implements suggests that here the hanging ornaments are unequivocally part of a collection of fertility objects.

In antiquity, an ostrich egg with incised decoration of the Predynastic period was found in Egypt,[1] and Petrie found six whitened clay models of ostrich eggs in a Predynastic grave.[2] In Sumer, fragments of decorated ostrich eggs of the early Dynastic period have been excavated,[3] and in

[1] I am indebted to the owner, Mr. Terry Ball, for sending me details of this lamp. It has pierced ornament and is decorated in polychrome with angels' heads and other motifs.

[1] Kantor, *JNES*, vii (1948), 33. I must thank Miss Olga Tufnell for compiling for me a valuable list of references to ostrich eggs in antiquity.

[2] Petrie, *Diospolis Parva*, p. 33.

[3] Wooley, *Royal Cemeteries II*, 'The Great Death Pit', p. 120, PG/1237, no. 62; Shub-ad's grave, p. 90 (4), (31), (47), (45).

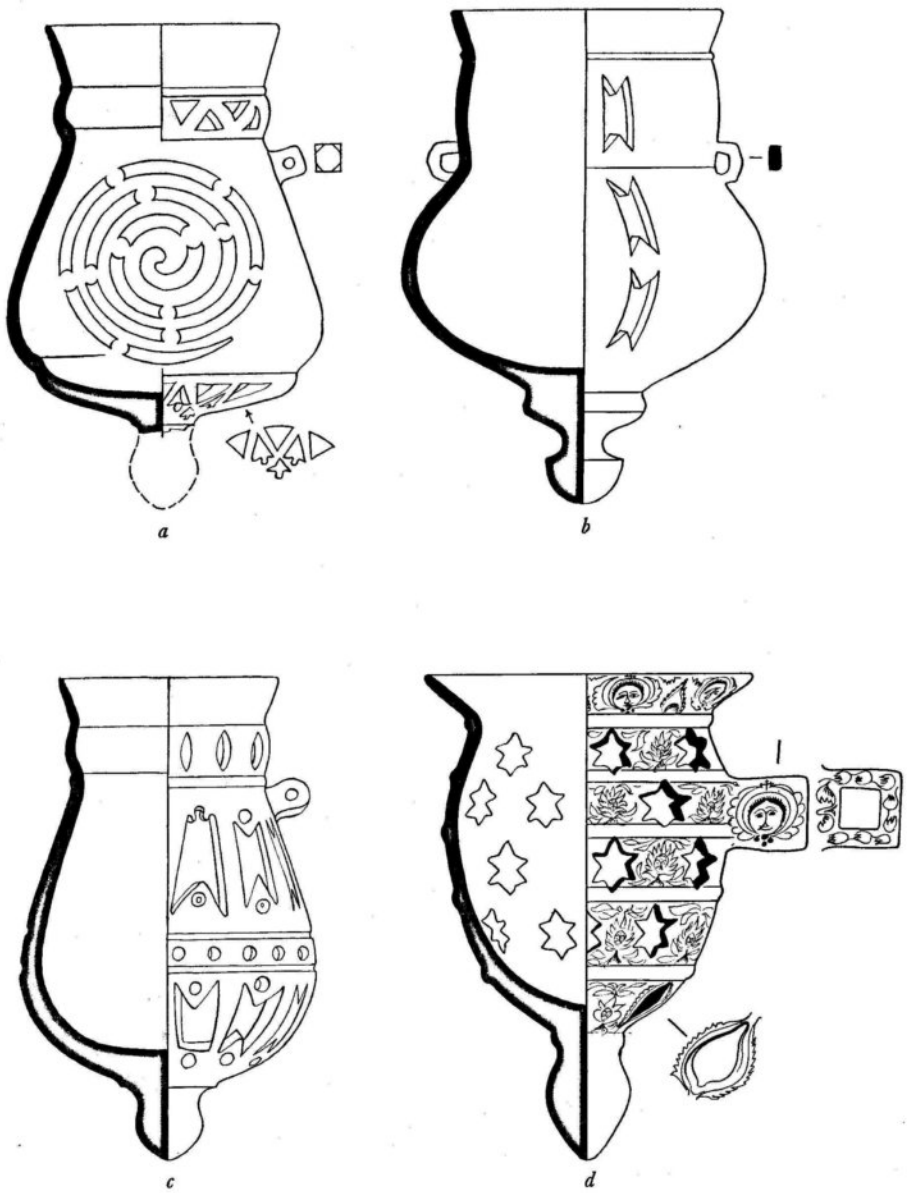


FIG. 22. Kütahya hanging lamps. *a*, *c*, Gulbenkian Library, Jerusalem; *b*, Church of St. Theodore, Jerusalem; *d*, collection of T. Ball. *Scale*: ½.

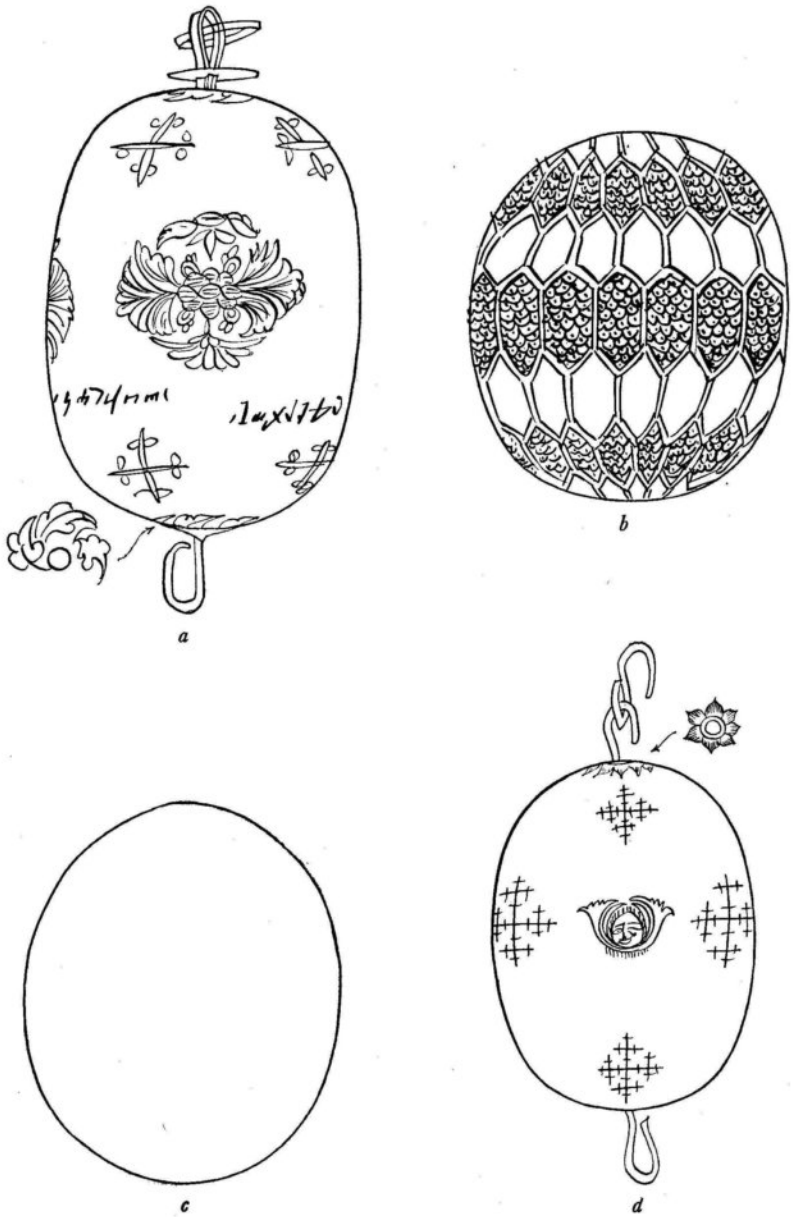


FIG. 23. Kütahya hanging ornaments. *a*, above main altar, St. James; *b*, *c*, in the Sacristy, St. James; *d*, Etchmiadzin Chapel. *Scale*: ½.



FIG. 24. Hanging ornaments. (*for e, f, see Volume I, Fig. 20*) *g, h, i, j,* Gulbenkian Library, Jerusalem *Scale*: ½.

Palestine painted ostrich eggs were found in Middle Bronze Age tombs at Jericho;[1] undecorated fragments were dug up at Bethpelet[2] and Lachish.[3] Ostrich eggs have been found in Middle Minoan tombs in Crete,[4] and an ostrich egg with an additional faience neck was excavated from one of the shaft graves at Mycenae (*c.* 1580–1550 B.C.).[5] From the royal tholos tomb of Midea, in Greece (*c.* 1425–1400 B.C.), came an ostrich egg (now in the National Museum) with a metal top attached by four vertical bronze bands, edged with gold. From further afield, ostrich eggs have been found in Sicily, at Carthage, and in Spain, and in Italy considerable quantities of ornamented ostrich eggs have been dug up from Etruscan tombs.[6]

As for the ostrich itself, it was once native to the Near East and apparently flourished in antiquity. The Assyrian stela of Assur-nasir-pal II (879 B.C.) depicts 140 live ostriches.[7] The ostrich survived in the deserts of Transjordan until the mid 1930s, and a live ostrich was kept in captivity at the Allenby Bridge across the River Jordan until 1935. As recently as 1964, bedouin found a dead ostrich which had been washed down a *wadi* near Kerak, on the east side of the Dead Sea.[8]

Whether or not there is any link between the decorated ostrich eggs of antiquity and the eighteenth century egg-shaped pottery ornaments, the latter were produced in large quantities in Kütahya, and probably elsewhere as well. The earliest known Kütahya examples are those decorated in cobalt blue on a white ground, such as the ornament suspended above the main altar in St. James (Volume I, pp. 94–5, PLATE 40; *a*, below). The inscription, which mentions a person also named on one of the pictorial tiles of A.D. 1718/19 (*C 24*), suggests that it is of similar date. The similarly decorated, inscribed but undated ornament above the altar at Bethlehem (*k*) is probably contemporary, like the numerous smaller eggs painted in monochrome blue in St. James. All are decorated with floral medallions, with radiating sprays of fan-shaped leaves. This motif is taken from a similar medallion, on Chinese bowls of the late Ming period; this transposition is discussed elsewhere.[9]

The hanging ornaments (*d*, *i*, *l*) painted in cobalt blue under a transparent yellow or dark green glaze were also probably made in the first quarter of the eighteenth century. A fragment of a tile exists in Jerusalem, decorated in blue under yellow, of the *type* 6*f* pattern, which was among those used before A.D. 1737; and a ewer painted in blue under a yellow glaze in the Patriarchal collection (PLATE 8 *a*), although not inscribed, is of the same shape and size as the A.D. 1717 ewer (Volume I, p. 81). Smaller polychrome eggs with finely drawn seraphims, angels' heads, Jerusalem crosses, and on one example (*g*) with the Virgin and Child, are a little later; two examples of this type (*e*, *f*) are dated A.D. 1739/40. In the second half of the eighteenth century the ornaments are much more crudely decorated, and reflect the general decline of Kütahya pottery during that period. They are usually decorated with grotesque angels' heads and crude Jerusalem crosses, in dark, splotchy purple, and insipid blues, yellows, and greens.

The eggs were manufactured by the potters in either one of two ways. One broken egg (*k*) which was repaired by the writer, showed how it had been made from identical halves, joined with slip at the middle (Volume I, PLATE 24*f*). But to judge from the sections of other eggs, they were usually made in one piece as pots with a thick base, the thin rim being gradually turned inwards on the wheel, and a hole afterwards pierced through the base (Figure 25). The hanging ornaments had a metal hook and ring added to them for suspension, often with metal caps at the ends, and occasionally with metal bands on the outside. Sometimes tassels were attached to them; these can be seen hanging below the ornaments depicted on one of the pictorial tiles, *B 24*.

Hanging ornaments were apparently also made at Isnik during the preceding centuries. The egg painted with a duck and a tulip (*h*) (PLATE 8 *c*) is probably an Isnik piece. A very large late sixteenth-century Isnik ornament is in the Ostereichisches Museum für Kunst und Industrie in Vienna; and there is a second in the Brooklyn Museum, New York, with a metal bracket.

[1] Kenyon, *Jericho I*, pp. 330, 393, 469.
[2] Petrie, *Bethpelet II*, pl. XC T. 1002, XLII 22 T. 1021.
[3] Tufnell, *Lachish IV*, pp. 228, 254.
[4] Hood, 'Mavro-spelis Cemetery', in *ABSAA* (1953–4), 220 and n. 9; 260, pl. XVIII: 35.
[5] National Museum, Athens, no. 552.
[6] Whittaker, *Motya, A Phoenician Colony in Sicily* (1921), p. 347; *Traditions funeraires de Carthage*, Cahiers de Byrsa, vi, Paris, 1956. Astruc, *La Necropolis de Villaricos*, Madrid, 1951, p. 123, planches liv–xc.
[7] Wiseman, in *Iraq* xiv. 31.
[8] I am indebted to Mr. Theo Larsson for this information.
[9] See pp. 17–18.

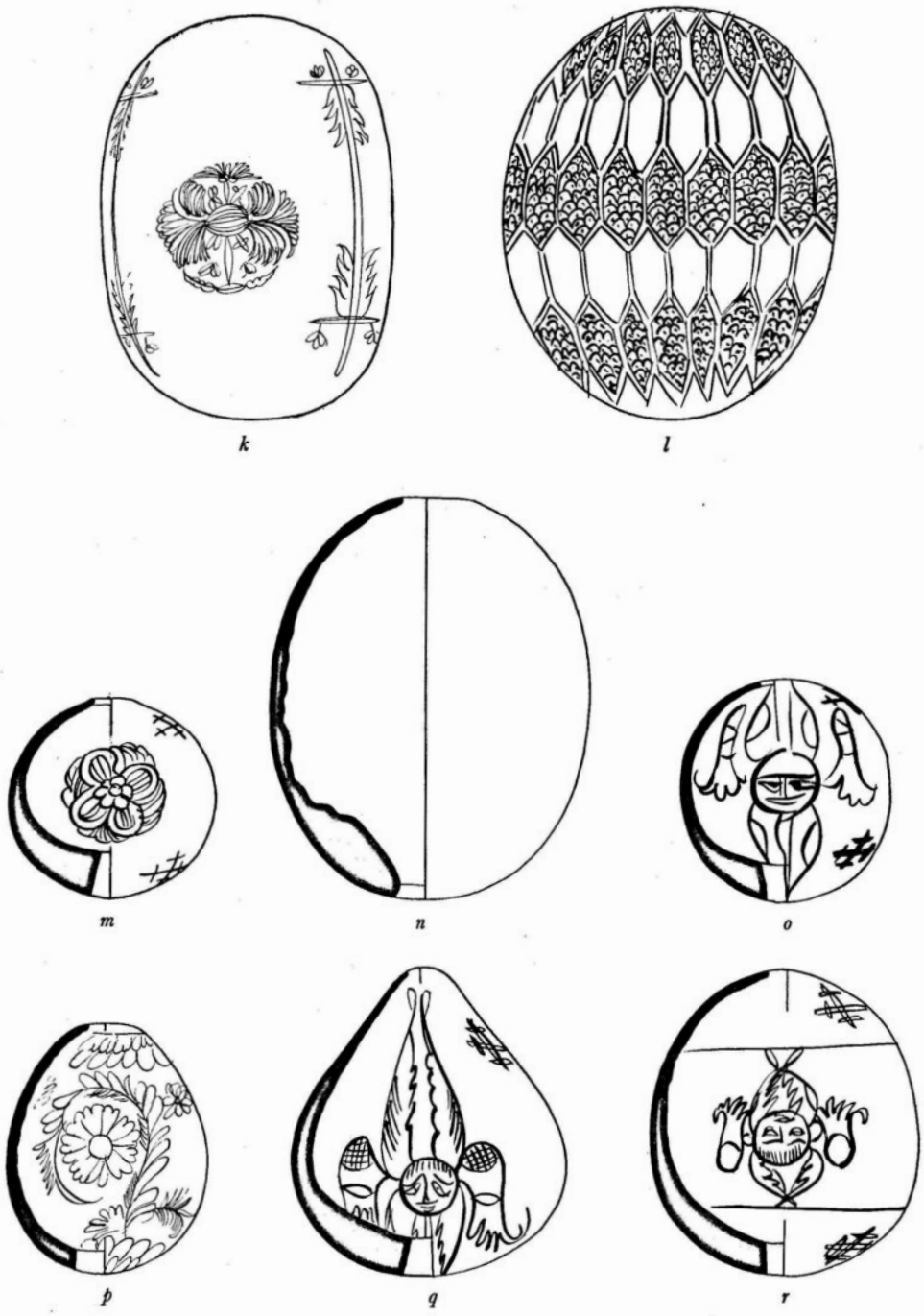


FIG. 25. Kütahya hanging ornaments. *k*, *l*, Armenian section of the Church of Nativity, Bethlehem. *m*, *n*, *o*, *q*, San Lazzaro, Venice; *p*, Musée des Arts Décoratifs, Paris; *r*, British Museum. *Scale*: ½.

CATALOGUE

IN JERUSALEM

St. James

a. Hanging ornament, suspended above the main altar. Figure 23 *a*, and Volume I, pp. 94–5, PLATE 40, for description. Inscribed.

b. Hanging ornament, suspended above the altar of St. Gregory the Illuminator, in the Sacristy. Figure 23 *b*, PLATE 38 *c*.

11 cm. diameter, 12·5 cm. high. Painted in blue on a white ground. Metal mounts. Honeycomb pattern of interlocking hexagons.

c. Hanging ornament, in Sacristy storeroom.

8·3 cm. diameter, 10 cm. high. Reddish ware; painted in dirty yellow, diffused turquoise, light purple, with red dots and black outlines. Pear-shaped, it has been broken, and mended. Painted with three seraphims, and Jerusalem crosses. Figure 23 *c*, PLATE 38 *d*.

d. Hanging ornament, suspended above the Sinai altar in the Etchmiadzin chapel.

9·2 cm. diameter, 12 cm. high. Painted in cobalt blue under a semi-transparent mustard yellow glaze. Three small winged angels' heads alternate round the middle with three Jerusalem crosses; at the ends are smaller crosses of the same type. The openings are decorated with a ring of hatched pointed petals. Figure 23 *d*, PLATE 38 *e*.

Volume I, FRONTISPIECE, PLATES 25, 26; II, FRONTISPIECE, PLATES 5, 17, 18, 20–2, 24–6, *show numerous hanging ornaments in the cathedral and the churches in Jerusalem.*

Patriarchal Collection

e, f. Two hanging ornaments. See Volume I, p. 85, PLATE 24 *a*, *b*, Figure 20 for descriptions. Inscribed and dated A.D. 1739/40.

Gulbenkian Library

g. Hanging ornament. See Volume I, p. 99, PLATE 24 *c*, Figure 31, and II, PLATE 8 *b*, for description. Inscribed, but undated.

h. Hanging ornament. PLATE 8 *c*, Figure 24 *h*.

10·8 cm. diameter, 13 cm. high. Painted in dark cobalt blue, turquoise green, orange, with greenish-black outlines. Painted with large birds, and orange tulips, with bands of blue and white ornament at either end. Probably an Isnik product.

i. Hanging ornament. Figure 24 *i*, PLATE 38 *a*.

11·1 cm. diameter, 14 cm. high. Painted in cobalt blue under a transparent dark green glaze. Honeycomb pattern of interlocking hexagons, alternate rows being decorated with a pattern of scales and dots. A ring of semicircles at the end, with a scalloped border. Metal mount, hook and ring for suspension.

j. Hanging ornament. Figure 24 *j*, PLATE 38 *b*.

11·1 cm. diameter, 13·2 cm. high. Painted in dirty green with a waxy black decoration apparently applied on top of the green. Decorated with an oval medallion with scalloped borders and feathery motifs, with a tulip-like motif at the centre in a rectangular frame. The ends painted with rings of scalloped and feathery motifs.

IN BETHLEHEM

The Church of the Nativity (Armenian section)

k. Hanging ornament, suspended above the Altar of the Circumcision. See Volume I, pp. 95–6, PLATES 24 *e*, *f*, 41, Figure 29; and II, Figure 25 *k*. Inscribed, but not dated.

l. Hanging ornament, suspended above the altar of the Virgin Mary. Figure 25 *l*.

12 cm. diameter, 15 cm. high. Painted in cobalt blue under a semi-transparent yellow glaze. Decorated with honeycomb pattern of interlocking hexagons (like *b*, *i*, above), with alternate rows of hexagons painted with a pattern of scales and dots. The ends obscured by a metal mount.

Besides St. James, there are hanging ornaments in the churches of St. Theodore, and the Holy Archangel, and in the Armenian section of the Holy Sepulchre, as well as in the Church of the Nativity at Bethlehem. There are some in the Greek Orthodox monastery in the Wadi Kelt, and in several of the monasteries on Mount Athos.

In museum collections, there are examples in San Lazzaro, Venice (Figure 25 *m*, *n*, *o*, *q*); in the Musée des Arts Decoratifs, Paris (*p*); in the British Museum (*r*); in the Benachi Museum, Athens; in the Arab Museum, and the Gezirah Museum, in Cairo; and the collections of R. H. R. Brocklebank, London; Alexander Benachi, Alexandria; and H. Kurdian, Wichita, U.S.A.

APPENDIX C

INCENSE-HOLDERS

THE Kütahya pottery incense-holders with their lobed divisions (Volume I, PLATES 24 *d*, 35, 36 *a–d*, 42, Figures 19, 21; II, Figure 27) superficially resemble much earlier stone incense-holders. An incense-holder excavated from the Abbasid palace at Samarra, now in the Islamic Museum in Baghdad, has four lobed and four pointed compartments. Another stone incense-holder of early date, purchased in Baghdad, is illustrated in Figure 26. It is not clear why incense holders were divided up in such a way, nor if the holders were intended simply to contain incense or were actually used to burn it. Against the latter proposition is the fact that the majority of Kütahya pieces are painted on the inside.

The decoration varies considerably on the different examples; the two dated incense-holders, (*d*) A.D. 1726/7, and (*c*) A.D. 1740, are discussed elsewhere (Volume I, pp. 83–4, 86–7). Of the four others listed below, the most elaborate is the polychrome incense-holder (*f*) in the Victoria and Albert Museum, with finely drawn decoration of the *Sivaz* type. It belongs to the same family as the deep bowl in the San Lazzaro collection (A.D. 1744) and the jug with a Turkish inscription in the Gezirah Museum (A.D. 1741/2). The incense-holder (*c*) in the San Lazzaro collection is decorated on the inside with cobalt blue and yellow designs similar to those on the cut-down jug in the British Museum of later date (A.D. 1760/1).

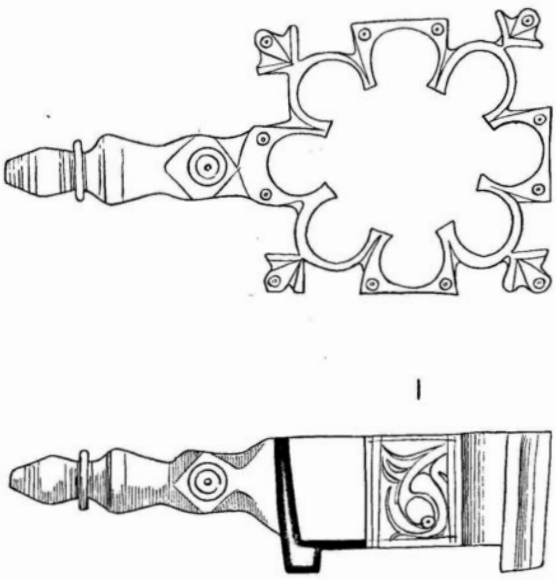


FIG. 26. Stone incense-holder, early Islamic period. Collection of J. M. Rogers. *Scale*: ½.

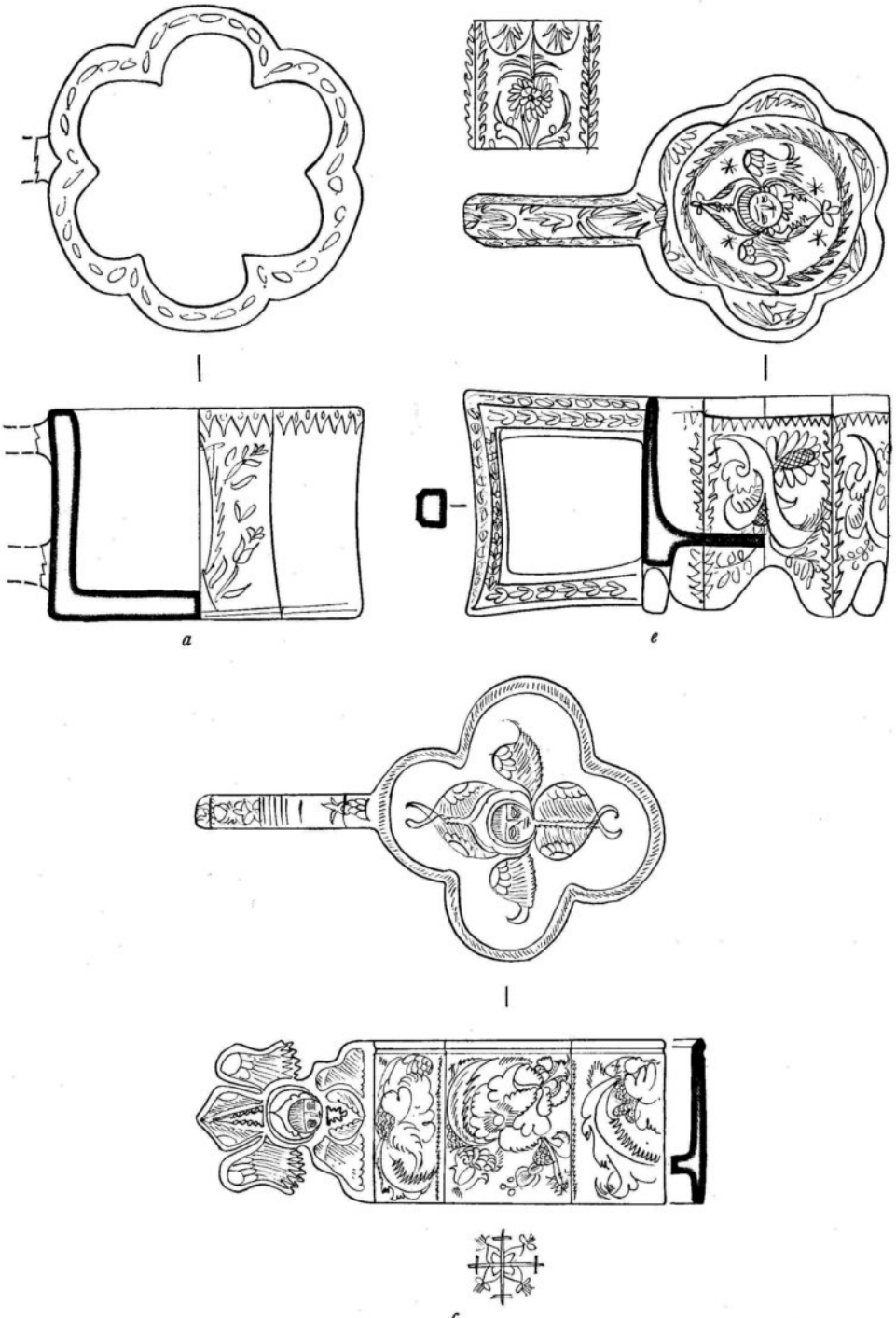


FIG. 27. Kütahya incense-holders. *a*, The Treasury, St. James, Jerusalem. *e*, *f*, Victoria and Albert Museum. *Scale*: ½.

CATALOGUE

IN JERUSALEM

a. Incense-holder. In the Treasury, St. James, Jerusalem. Off-white ware; greenish glaze, with base unglazed. Painted in light cobalt blue with darker outlines, with floral patterns on each of the six lobes, and triangles at the rim; upper surface of the thick rim is painted with petals. Handle broken off. Volume I, PLATE 24 *d* (*right*); II, Figure 27 *a*.

b. Incense-holder. In the Treasury, St. James, Jerusalem. Inscribed but not dated. See Volume I, p. 96, PLATES 24 *d* (*left*), 42, for details.

SAN LAZZARO, VENICE

c. Incense-holder.

Inscribed and dated A.D. 1740. See Volume I, pp. 86–7, Figure 21, PLATES 36 *a–d*, for details.

CINCINNATI ART MUSEUM

d. Incense-holder.

Inscribed and dated A.D. 1726/7. See Volume I, pp. 83–4, Figure 19, PLATE 35, for details.

VICTORIA AND ALBERT MUSEUM

e. Incense-holder. No. 595–1895. Figure 27 *e*.

Painted in black and cobalt blue on a white ground. Six lobes, with a raised base, and the bottom of each lobe cut with an arch. Square handle, with faceted sides.

Inside, painted with a seraphim at the bottom, and four stars, in a circle of hatched serrated leaves. The inside of the lobes painted with a single flower, between curving pointed leaves, with two five-pointed leaves in semicircles inverted at the top; between the lobes, a vertical band of curving leaves.

Outside, each lobe is painted with a leafy spray, curving down from the top left, with cross-hatched flowers. Serrated band of leaves at the top, and between the lobes. Handle decorated with similar patterns.

f. Incense-holder. No. 35–1892. Figure 27 *f*.

Four lobes, with carved handle. Painted in yellow, green, pale blue, dirty red, purple, with fine black outlines, in the *Sivaz* style.

Inside, a seraphim painted at the bottom. The four lobed panels are divided at the top and bottom with a zigzag pattern, and decorated with large flowers and serrated leaves. The top of the rim is hatched. The outside lobed panels are decorated with large flowers and serrated leaves. The handle is painted with an angel's head on either side, with a blue halo, surrounded by eight wings. On the base is an elaborate cross.

APPENDIX D

SPOUTED EWERS AND BOWLS

AT the beginning, during, and after the Armenian mass a spouted ewer (*šarnit*) and deep bowl (*konk'*) are used for washing the hands of the celebrant. They are usually made of metal, such as the pair now in use in the cathedral of St. James in Jerusalem (Figure 28, PLATE 35 *a*), which, according to an inscription on them, were made in Aleppo in 1947. Such ewers and deep bowls are an everyday feature of domestic life in the Near East, and are used to wash the hands before and after a meal. In his account of domestic life in Egypt in the early nineteenth century, Lane describes the ritual in detail and also supplies a drawing of the type of utensils then in use. He calls the ewer an *ibreek*, and the deep bowl a *ṭisht*.[1] Like the church utensils, the domestic ones are also almost invariably made of metal. A further vessel used in the mass is the little cruet, to hold the wine; this is called a *bažakaman*.

In the history of Near Eastern metalwork, ewers are a recurrent form. The early medieval Islamic examples are generally somewhat angular, with straight spouts; the typical 'oriental' ewer with a high foot, and curved spout and handle is a later development.[2] Such ewers are depicted on some of the tiles in the tomb of al-Tawrīzī in Damascus, which were made *c.* A.D. 1425, and it has been suggested that the shape may have been of Chinese inspiration.[3] Early fifteenth-century Chinese porcelain ewers have pear-shaped bodies and a short foot (PLATE 34 *a*), but by the end of the sixteenth century they become much more elongated in form, with a high foot.[4] (PLATE 35 *b*). Chinese ewers also usually have a bridge, joining the neck to the top of the spout. Pottery ewers of Near Eastern manufacture lack this bridge; the wisdom of such a reinforcement is clear when one notes that the Godman ewer, and the two ewers in the Patriarchal collection in Jerusalem, all have broken spouts.

As for the deep bowl with a wide, flaring rim, this is a common shape in Near Eastern metalwork, and also in glass, from the fourteenth century onwards.[5] This form was undoubtedly copied by the Chinese potters, for fourteenth-century porcelain examples exist, and there is a fine example in the Topkapu Sarayı collection. Also in the same collection are later sixteenth-century porcelain bowls, with ewers, and an additional feature—a pierced cover which fits inside the bowl, and serves as a support for the ewer (PLATE 34 *b*). Lane pointed out that in the metal sets this pierced cover served to conceal the dirty water; there was also a raised receptacle at the centre, used to hold a bar of soap. An unglazed ring on the inside of the Jerusalem bowl of A.D. 1716 (Volume I, PLATE 22 *b*), at the junction of the side of the bowl and the flaring rim, suggests that there was a third such element to the set as well as the bowl and the ewer. The deep bowl in the San Lazzaro collection (Volume I, PLATE 23 *a*) inscribed and dated A.D. 1744, also has an unglazed ring; both the pierced cover, and the ewer which undoubtedly completed the set are missing.

The ewers in the al-Tawrīzī tiles appear to have lids, and probably the Jerusalem ewers did too; they have holes pierced at the rim, presumably for the attachment of a metal ring and hinge. A jug in the British Museum has its lid attached in just such a way (Figure 11 *b*), and a similar method was used to join the two halves of a spherical incense-burner, which is also hinged (Figure 15 *a*).[6]

[1] E. W. Lane, *An Account of the Manners and Customs of the Modern Egyptians*, London, 1871, pp. 179–81.

[2] For late fifteenth-century ewers, see D. S. Rice, 'Studies in Islamic Metalwork—IV', *B.S.O.A.S.*, 1953, xv/3, p. 496, plate vi; and A. S. M. Chirvani, 'Cuivres inédits de l'époque de Qā'itbāy', *Kunst des Orients*, 1969, vi, pp. 119–24, figs. 19–25.

[3] J. A. Pope, *Chinese Porcelains from the Ardebil Shrine*, 1956, p. 85.

[4] Ibid., plates 54, 55 (early fifteenth-century ewers), plates 98, 99 (late sixteenth-century ewers).

[5] G. Wiet, *Catalogue du Musée Arabe du Caire: Objets en Cuivre*, 1932, plates xxxviii, xl, for two angular mid-fourteenth-century examples. Pope, op. cit., plate 135*b*, illustrates a fourteenth-century glass bowl, from Syria, now in the Metropolitan Museum, New York.

[6] B.M. 78, 12–30, 554 and 553.

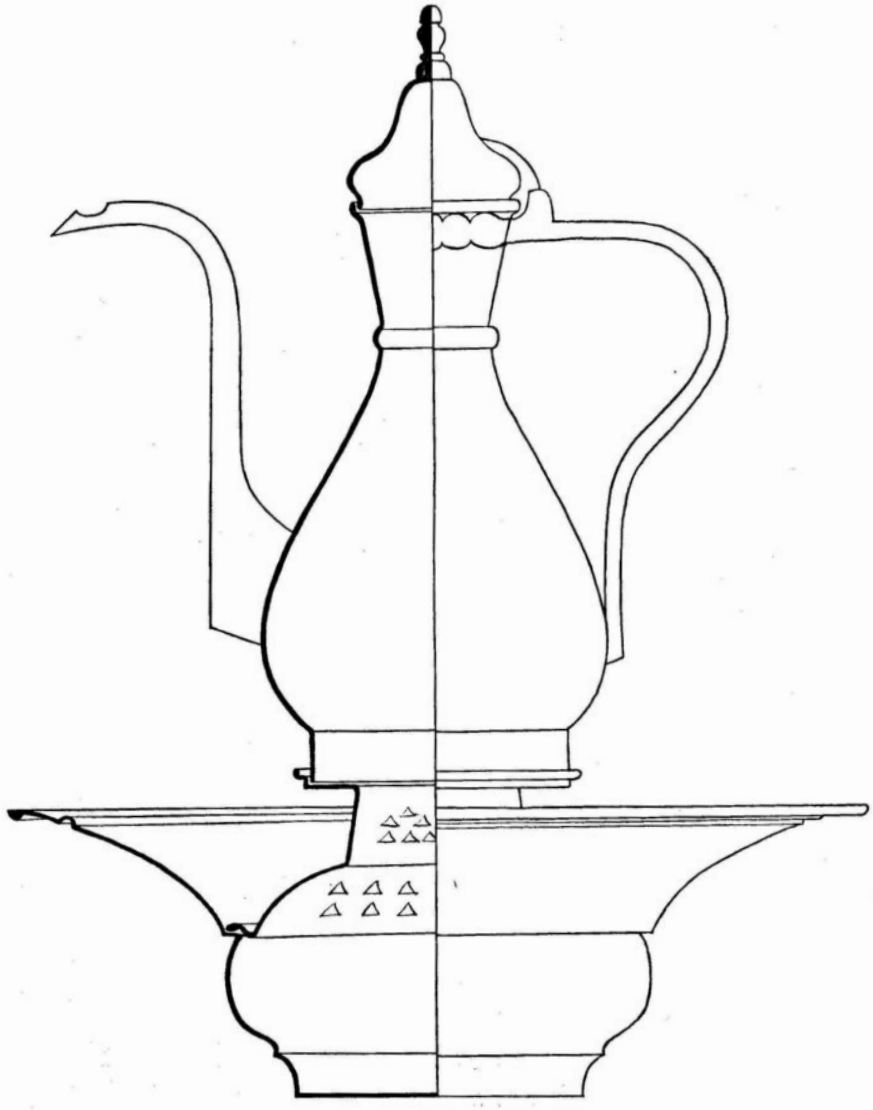


FIG. 28. Metal ewer, bowl and pierced cover, made in Aleppo in A.D. 1947. Cathedral of St. James, Jerusalem. *Scale*: ½.

APPENDIX E

TILES IN NEAR EASTERN BUILDINGS

KÜTAHYA

Tomb of Yakub II (d. A.D. 1428/9)

In the mosque of Yakub II, now converted into a library for the adjacent school. The rectangular tomb, with sloping sides, stands on a raised platform behind the *mihrab*. Both the tomb and the platform are covered with rows of hexagonal tiles, with triangular tiles between. PLATE 1 *a*, *b*.

—*Hexagonal tiles*

19 cm. between parallel sides. Bevelled sharply back, partly glazed over bevel. Red earthenware, covered with turquoise glaze. About 500 examples.

—*Triangular tiles*

9·5 cm. from base to apex. Red earthenware, covered with dark blue glaze. About 1,000 examples.

There is a narrow border of *cuerda seca* tiles on the side of the platform nearest the *mihrab*. They are decorated with a pattern of interlacing split palmettes, in two different colour schemes. As corner tiles are included in the border, it is suggested that they are all reused tiles.

—*Cuerda seca tiles*

15·5 by 36 cm.; corner tiles 15·5 by 13 cm. Made of red earthenware, decorated with opaque colours. PLATE 1 *b*.

First type: (including corner tiles) pale purple, turquoise, white, dark cobalt blue ground; brownish outlines.

Second type: green, turquoise, yellow, white, dark cobalt blue ground; brownish outlines.

Tomb of Ishak Fakih (d. A.D. 1433)

Adjacent to the mosque of Ishak Fakih. In a small room there are three tombs, with sloping sides, resting on the floor without bases. The tombs, floor and skirting are tiled with rectangular turquoise tiles.

—*Rectangular tiles*

20 by 23·5 cm., 1·5 cm. thick, *or* 10 by 20 cm. Square in section at sides, slightly convex surface. Off-white ware, covered with an uneven, blotchy turquoise glaze.

At the bottom of the two larger of the three tombs are *cuerda seca* tiles, patched and out of sequence; probably later additions.

—*Cuerda seca tiles*

(Measurements unobtainable.) Glazed in dark cobalt blue, turquoise, pale pink, green, white ground.

Mosque of Hisar Bey (A.D. 1487/8)

The plan of the mosque is an inverted T, as the Green Mosque at Bursa. The mosque is commonly known in Kütahya as *Saray Çamii*. A carved inscription above the door gives the date of its foundation, A.H. 893/A.D. 1487–8. Most of the tiles are typical eighteenth-century Kütahya products, dating from the restoration of the mosque in A.H. 1164/A.D. 1750–1 by the governor Yahya Pasha. The *mihrab* is framed with large, earlier border tiles. Volume I, PLATE 22 *d*; II, PLATES 1 *c*, *d*, 6.

a. Border tiles, framing *mihrab*.

18 by 48 cm. Greenish-white ground, painted under the uneven, bubbly glaze in dark cobalt blue with a lighter wash of the same colour, and a second colour ranging from orange-yellow to grey-brown. In several instances the blue has run in firing. Decorated with pattern of interlacing thick stems with fleshy pointed leaves. PLATE 1 *d*.

b. Tile inscription, above *mihrab*.

Three rectangular tiles, approx. 18 by 48 cm., painted with a white inscription on a cobalt blue ground. PLATE 1 *c*.

c. Arch-shaped tiles, in *mihrab* recess.

Three tiles, and two half-tiles. 19 by 24 cm. Greenish-white ground, painted in light and dark blue-black. Decorated with a hanging lamp between two cypress trees, with a border of hatched arch-motifs and chevrons. *See Jerusalem type 20*. PLATES 1 *c*, 6 *c*.

d. Square tiles, on walls flanking *mihrab*; and above doorway, outside.

18 cm. square. Greenish or pinkish-white ground, painted in yellow, two shades of cobalt blue/blue-black, turquoise blue/green. Decorated with a central flower and two curved, serrated leaves at the intersection of two stems, and subsidiary flowers. *See Jerusalem type 35 a.* PLATE 6 *d.*

e. Border tiles, used with type *d.*

9 by 18 cm. Same ground and colours as *d.* Decorated with a pattern of interlinking palmettes, and small flowers and leaves. PLATE 6 *d.*

f. Square tiles, in gallery.

17·5 cm. square. Off-white ground, painted in two shades of cobalt blue. Design of pointed medallions, with quarter-medallions at the corners, with a spray of flowers and leaves reserved in white on the blue ground. Related to Jerusalem *type 6.*

g. Border tiles, used with *type f.*

8.5 by 17 cm. Off-white ground, painted in two shades of cobalt blue, yellow, and green. Vine pattern with pointed leaves, and star motifs, with borders of white chevrons reserved on blue ground. *See Jerusalem type 44.* Volume I, PLATE 22 *d.*

h. Tile inscription, in gallery.

Six tiles, recording the repairs to the mosque in A.D. 1750/1 by Yahya Pasha. 23 by 25·5 cm. Greenish-white ground, painted in blue-black with darker outlines. The inscription is painted in blue-black, and the border of the tile panel decorated with white chevrons reserved on a blue-black ground; the corners are scalloped, with small flower motifs. Volume I, p. 89, PLATE 22 *d.*

i. Tile inscription, bottom of *minbar.*

Two rectangular tiles, painted with white inscription reserved on cobalt blue ground. Similar to *type b.* PLATE 6 *b.*

j. Spandrels, bottom of *minbar.*

Two shaped tiles, to fit spandrels, 27·5 by 26 cm. on straight sides. Each painted with a spray of flowers and leaves, with borders of chevrons and circles reserved on a blue ground. Painted in blue-black with darker outlines.

k. Spandrels, top of *minbar.*

Two shaped tiles, with two smaller tiles, to fit spandrels. Larger tiles 21 by 23 cm. Painted in cobalt blue with blue-grey outlines. Decorated with finely drawn flowers and serrated leaves, and border of hatched arch-motifs and diaper pattern. *Similar to pilgrim-flask dated A.D. 1763/4 in San Lazzaro collection; see Volume I, p. 91, PLATE 38 c, Figure 25.*

l. Tiles above window, west side of mosque.

Arched panel of 21 square and shaped tiles. Painted in two shades of cobalt blue with floral patterns similar to *type d,* and a border of interlocking motifs. Surmounted by a shaped palmette, also painted with a spray of flowers and leaves.

Mosque of Ali Pasha (?eighteenth century)

Kütahya tiles cover the east wall, and the *mihrāb.* The *mihrāb* is decorated with specially cut tiles, surmounted by a decorative pediment of shaped tiles. See PLATE 31; and Volume I, PLATE 44 *a,* pp. 100–1. The following types of tile were noted by the writer during a brief visit in 1962:

a. Square tiles.

18·5 cm. square; fine off-white ware; tile rough at back as if it had dried on some sort of fibrous mat; bevelled, glazed irregularly over bevel. Painted in uneven cobalt blue, with lighter grey-blue outlines. Similar tiles in the Hisar Bey Mosque in Kütahya, *type f,* and the collection of Col. R. H. R. Brocklebank, London. Design closely related to Jerusalem *type 6*; see PLATE 31 *a, b.*

b. Border tiles.

19 by 11 cm.; same ware and characteristics as *a.*

c. Square tiles.

18·5 cm. square; painted in light cobalt blue with darker outlines with three symmetrical sprays of flowers, buds and leaves.

d. Square tiles.

18·5 cm. square, a Kütahya imitation of a Chinese tile. Painted in two shades of cobalt blue, with a turquoise spot at centre, and turquoise-green leaves in borders; black outlines; scale-and-dot pattern covering the centre spot. Similar tile in the Arab Museum, Cairo, no. 14992, PLATE 37 *d.* See PLATE 31 *a, b.*

e. Square tiles.

18·5 cm. square; painted in light cobalt blue with darker outlines, with symmetrical spray of a tulip and leaves, flanked by pairs of smaller flowers; middle of each side and corners have a ribbon and dot motif. PLATE 31 *a.*

f. Square tiles.

18·5 cm. square; same as Jerusalem *type 2.*

g. Rectangular tiles.

18·5 by 15 cm.; pinky-green glaze, painted in blue-grey with darker outlines. Tiles arranged vertically in two groups of five, and one of four, in *mihrāb* recess; painted with a hanging lamp, tassel below, suspended by a chain from an arch on the top tile. PLATE 31 *c*.

h. Rectangular tiles.

18·5 by 15 cm.; greenish glaze; painted in blue-black with darker outlines; a feathery leaf diagonally across tile, flanked by flowers and arabesque leaves; in *mihrāb* vault, the upper tiles specially tapered to fit. PLATE 31 *b*, *c*.

i. Border tile.

Used with *h*; 15 by 9 cm.; greenish glaze; painted in blue-black with darker outlines; pattern of linked tulip and lozenge motifs with cross-hatched borders. *Not illustrated.*

j. Square tiles.

18·5 cm. square; painted in light cobalt blue with darker outlines; a spray of flowers surrounded by frame of interlocking scrolls. *Not illustrated.*

GEBZE

Tomb of Mustafa Pasha (d. A.D. 935–1528/9)

The tomb of Mustafa Pasha, in Gebze, a small town 50 km. east of Istanbul, stands beside the mosque of the same name. The walls between the windows on the inside are covered with panels of hexagonal turquoise tiles, with a border of dark blue rectangular tiles. At the angles of the hexagonal tomb chamber are vertical panels of blue-and-white underglaze painted tiles, with a frieze of similar tiles running round the top of the walls.

a. Hexagonal plain turquoise tiles.

21·5 cm. between parallel sides. PLATE 3 *a*.

b. Rectangular plain dark blue border tiles.

5 cm. wide, varying in length from approx. 22 to 35 cm. PLATE 3 *a*.

c. Square tiles.

24 cm. square. Underglaze painted in two shades of cobalt blue, on a white ground. Decorated with a central medallion of two interlacing four-pointed stars, surrounded by small flowers and hooked leaves, and eight larger flowers separated by split, pointed lobed leaves, on fine interlacing stems (PLATE 3 *a*).

d. Rectangular tiles.

33 by 17 cm. Underglaze painted in two shades of cobalt blue, on a white ground. Decorated with a symmetrical design of flowers and pointed, lobed leaves on interlacing fine stems.

e. Border tiles.

Approx. 7 by 24 cm., 1·5 cm. thick. Rounded edge, glazed over the side. Underglaze painted on the face and one side in two shades of cobalt blue, on a white ground. The face is decorated with a pattern of two sorts of flowers and hooked leaves on fine curving stems (PLATE 1 *e*); the side of the tile, with tiny rosettes, hooked leaves and an S-shaped motif (PLATE 3 *a*).

ISTANBUL

Hakim Oğlu Ali Pasha Mosque, Davutpasha (A.D. 1734)

For Tekfur Sarayı tiles, see p. 11, *n*. 3. The Kütahya tiles are of five types:

a. Square tiles.

18·5 cm. square; Jerusalem *type 1*.

b. Fragments of Jerusalem *type 2a*.

c. Border tiles.

18·5 by 9 cm.; Jerusalem *type 46*.

d. Border tiles.

21 by 10·5 cm.; similar to Jerusalem *type 47*, and Aghia Sophia Public Library *type a*.

e. Border tiles.

18 by 9·5 cm.; splotchily painted in dark cobalt with lighter outlines, with a crude pattern of palmettes and leaves.

Aghia Sophia Public Library (A.D. 1739)

For Tekfur Sarayı tiles, see p. 11, *n*. 4. The Kütahya tiles frame the inscription in the reading room (to left of entrance).

a. Border tiles.

21·5 by 10·5 cm.; pinkish-white ground; painted in light or dark cobalt, with darker outlines; similar design to Jerusalem *type 47*.

The Palace at Topkapu Sarayı

Murad III bedroom

Twelve tiles, Jerusalem *type 1*, with simplified and slightly attenuated details; used to repair a niche to the left of the Sultan's bed.

Baths off Hunkar Sofasi

A marble niche lined with Kütahya (?) tiles:

18·5 cm. square; painted in cobalt blue and green with a symmetrical spray of five flowers, flanked by curving leaves.

'Golden Way'

Kütahya tiles are used for patching the earlier Isnik tiles:

Four examples, Jerusalem *type 2*.
Two examples, Jerusalem *type 3*.

Ocakli Sofasi

Thirty examples, Jerusalem *type 1*.
Forty examples, Jerusalem *type 2a*.

Rustem Pasha Mosque

With other eighteenth-century tiles and Italian majolica tiles, three types of Kütahya tile are used to patch the outside wall. See PLATE 4 *a*.

a. Square tiles.

18·5 cm. square; pinky-grey ground; painted in dark cobalt blue with lighter outlines, Jerusalem *type 1*.

b. Tiles.

20 by 22 cm.; blue-grey ground; painted in cobalt or blue-black with lighter outlines, colour stands up visibly in relief, Jerusalem *type 3*.

c. Border tiles.

22 by 10 cm.; bevelled; pinkish white ground; painted in blue-black with lighter outlines, Jerusalem *type 49*.

Church of St. Gregory the Illuminator

The church was recently demolished, but most of the tiles saved, with the intention of eventually placing them in the new Armenian church being built at Tophane. The tiles include examples of Kütahya, Dutch, Chinese porcelain and Italian *majolica* wares. See PLATE 7.

Kütahya tiles

a. 18·5 cm. square. Jerusalem *type 1*. PLATE 7 *a*.

b. 19·5 cm. square. Jerusalem *type 2*. PLATE 7 *b*.

c. 21 cm. square. Jerusalem *type 2b*. PLATE 7 *c*.

d. Border tiles, 19 by 9 cm., 1 cm. thick. Bevelled edges. Painted in dirty cobalt blue with lighter grey outlines. PLATE 7 *d*.

—Italian majolica tiles

e. 22 cm. square, 2·5 cm. thick. Yellow-ochre coloured ware, square section, greenish-white pitted ground. Painted in custard yellow, speckled cobalt blue, diffused green, maroon, with purple outlines. PLATE 7 *e*.

f. 22 cm. square, 2 cm. thick. Red earthenware, off-white ground; square in section. Painted in yellow, yellow ochre, green, purplish-brown, blue-grey, with dark purple outlines. PLATE 7 *f*.

—Dutch tiles

g. 13 cm. square, 0·8 cm. thick. Yellow-ochre coloured ware, slight bevelled section. Bluish-white ground painted in grey-blue. PLATE 7 *g*.

h. 13 cm. square, 0·8 cm. thick. Yellow-ochre coloured ware, slight bevelled section. Bluish-white ground painted in grey-blue. PLATE 7 *h*.

—Chinese porcelain tiles

i. 20·5 cm. square, 1 cm. thick. Jerusalem *type 103*. PLATE 7 *i*.

j. 19 cm. square, 1 cm. thick. Jerusalem *type 104*. PLATE 7 *j*.

ANKARA

Haçi Bayram Mosque

There are two types of tile, at the back and along part of the side walls of the mosque; the front, and the rest of side walls, are covered with modern imitations of old tiles. There is a frieze of inscribed tiles approx. 22 cm. square, with a white script on a dark cobalt blue ground. Approximately 650 examples of *type a* and 150 of *b*. *Type b* tiles, cut down to fill space at back of mosque to right of window originally meant for *type a*, suggests they may be later.

Outside, two walls of mosque beside the tomb of Haçi Bayram are decorated with patterns and an inscription cut from green glazed bricks like the green tiles round the Ahmet III fountain in Istanbul.

a. Square tiles.

18·5 cm. square; creamy white ground; painted in light cobalt blue with darker outlines, Jerusalem *type 6*. Some examples vary in treatment of central medallion. Aslanapa, op. cit., plate 70.

b. Square tiles.

20 cm. square; white ground, greenish tinge to glaze; painted in dark cobalt with darker outlines. Whilst the basic design is similar to *type a* tiles, the flowers in the centre are like those on Jerusalem *type 17* tiles. One tile has much smaller central medallion; another has flowers arranged in spiral design.

KONYA

Nakiboğlu Mosque (A.D. 1763)

The *mihrāb* is decorated with three types of Kütahya tiles (see Aslanapa, op. cit., plate 50).

a. Rectangular tiles.

18·5 by 11 cm.; markedly greenish glaze; painted in blue-black with lighter outlines; similar to *type b* in the Ali Pasha Mosque, Kütahya. 74 examples, 5 fragments.

b. Rectangular tiles.

18·5 by 11 cm.; creamy-pink ground; borders of two purple and a yellow stripe with black outlines. 40 examples, some fragments.

c. Square tiles.

17 cm. square; plain glazed turquoise tiles, except eight tiles set vertically at back of *mihrāb* painted with hanging lamp and tassel, in black and grey-blue, on a turquoise ground.

Çelik Mehmet Pasha Mosque (A.D. 1765)

The Çelik Mehmet Pasha Mosque is known locally as the Oval Oğlu Camii, and is close to the Köprü Başi Karacol (Police Station).

The *mihrāb* is decorated with three types of Kütahya tiles (Aslanapa, op. cit., plate 51).

a. Square tiles.

18 cm. square; off-white ground; painted in cobalt blue. Jerusalem *type 1*; 120 examples.

b. Border tiles.

18·5 by 9 cm.; painted in cobalt blue with lighter outlines; Jerusalem *type 46*; approx. 140 examples.

c. Rectangular tiles.

29 by 19 cm.; plain glazed tiles, varying from light to dark turquoise; 25 examples.

EFKERE

Armenian monastery

The church was sacked at the beginning of this century (PLATE 32 *a*, *b*); tiles removed from the building are now stored in the Kayseri Archaeological Museum.

a. Square tiles.

20 by 21·5 cm., 1·1 cm. thick; bevelled, with glaze over bevel; splotchily painted in cobalt blue; Jerusalem *type 3*. PLATE 32 *c*.

b. Fragments of Jerusalem *type 2a*.

c. Border tiles.

21·5 by 9·7 cm., 1 cm. thick; bevelled; painted with half of Jerusalem *type 3* design.

d. Border tiles.

21·5 by 10 cm., 1·1 cm. thick; bevelled, glazed irregularly over bevel; fine white ground, fine biscuit-coloured ware. Two holes drilled through one side of tile. Splotchily painted in cobalt blue with lighter outlines. Jerusalem *type 50*. PLATE 32 *d*.

e. Border tiles.

In Museum showcase, numbered on back 1406; approx. 22 by 10·5 cm., 1·1 cm. thick; bevelled, with glaze over bevel. Rough limestone-coloured ware, slightly greyish glaze. Painted in blue-black with grey-black outlines, with an unusual asymmetrical design of leaves and flowers. PLATE 32 *e*.

KAYSERI

Ulu Mosque

The Kütahya tiles were probably looted from an Armenian church in the area. For a general view of the tiles, see Aslanapa, op. cit., plate 65. The *mihrāb* has been remodelled in recent years and the tiles stripped; they were located by the writer in a packing-case under the stairs leading into the mosque. Those sorted included seven types of seventeenth-century Isnik tiles (Aslanapa illustrates four of these—plates 66–9); a Dutch tile, probably eighteenth century, and six types of Kütahya tiles.

Fragments of plates also used with the tiles to decorate the wall included a large Chinese blue-and-white plate, and English nineteenth-century blue-and-white plates decorated with transfer designs of country houses and grottoes; two of the latter had been made specifically for the Armenian market, with a crown and anchor mark on the base encircled by LONDON above, and an Armenian inscription below.

a. Square tiles.

18 cm. square, 1 cm. thick; bevelled, with glaze partly over bevel; painted in dark cobalt blue. Jerusalem *type 1*.

b. Square tiles.

21·5–22 cm. square, 1 cm. thick; bevelled, glaze partly over bevel; painted in dark cobalt with design similar to Jerusalem *type 2a*.

c. Tiles.

22 by 20 cm.; 1 cm. thick; bevelled; painted in dark cobalt with same design as Jerusalem *type 3*.

d. Fragment; bevelled; painted in light cobalt blue with darker outlines, same design as Jerusalem *type 6*.

e. Square tiles.

18 cm. square, 1 cm. thick; bevelled; painted in cobalt blue with dark grey outlines, with a floral medallion in a quatrefoil frame.

f. Fragment; tile approx. 22 cm. square, 1 cm. thick; not bevelled; painted in cobalt blue, with a floral medallion in a scrolling frame.

APPENDIX F

SPECTROGRAPHIC ANALYSIS OF KÜTAHYA ISNIK, AND OTHER NEAR EASTERN POTTERY

THE spectrographic analysis of samples of Kütahya and other Near Eastern pottery was made primarily to determine if wares of certain well-known groups could be distinguished from each other by their chemical composition, and to test a number of stylistically enigmatic pieces against these group patterns. The number of specimens tested for most of the groups was relatively small, which weakens any conclusions which can be definitely drawn from the results. However, all the test pieces are described and illustrated; it is hoped that it may be possible to add to the series in the future by testing more examples. For a start, it is at least useful to have a record of the exact composition of such famous pieces as the Godman ewer and water-bottle.

The specimens were drilled for analysis either by the writer, or by Mrs. Anne Millett, who was also responsible for the laborious task of carrying out the spectrographic analysis. This was undertaken by kind permission of the Director of the Research Laboratory for Archaeology and History of Art at Oxford. The pottery was drilled by hand, and care was taken to extract samples from an unglazed area of the pottery. Spectrographic analysis was made to determine the amounts present of the oxides of the following elements: aluminium (Al_2O_3), magnesium (MgO), iron (FeO), titanium (TiO_2), manganese (MnO), chromium (Cr_2O_3), calcium (CaO), sodium (Na_2O_3), and nickel (NiO). The results are shown in the accompanying table.

These results were drawn initially as separate graphs, one for each sample. To facilitate this the figures for titanium and nickel were multiplied by ten, and manganese and chromium by a hundred; the calcium figures were divided by ten. Each graph was then copied on to card and a template cut of its outline. These cardboard templates were grouped together and inserted at regular intervals in a fixed plastic frame (Figure 29). By this method the characteristic 'landscape' of each group is perceived at a glance, and 'rogue' samples become immediately apparent. Although cutting the templates is somewhat tedious, the method can be recommended as a quick means of making visual comparisons of the results of spectrographic analysis. For publication, separate graphs have been drawn (Figures 30–2) showing the average composition of different groups of pottery.

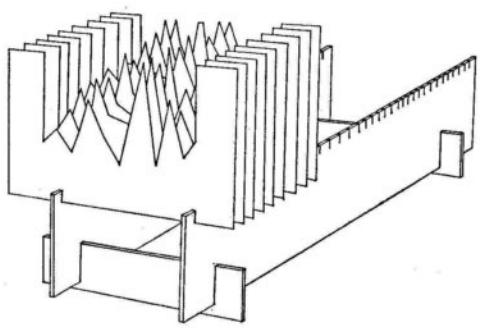


FIG. 29. Stand for arranging cards to show the spectrographic analysis of selected pottery samples.

RESULTS

Analysis of the ware of the Godman ewer (Figure 30, *a*), and water-bottle (*b*), shows that the two vessels are of similar composition, except that the ewer has a higher nickel content. The Kütahya (*c*) and Isnik (*d*) pottery groups differ in composition, Isnik pottery containing higher amounts of manganese and chromium. Compared with the Kütahya and Isnik samples, the Godman ewer and water-bottle both have a greater affinity with the Kütahya series. The 'Golden Horn' (*e*) pottery samples also resemble the Godman water-bottle (*b*) and the Kütahya pottery series (*c*) in composition.

Isnik pottery of the 'Damascus' type (*f*) does not contain the same relatively high quantities of manganese and chromium as the other Isnik pottery tested (*d*). Fifteenth-century pottery actually made in Damascus (Figure 31, *j*) has a different pattern, particularly in the amounts of manganese and calcium, to that from either Kütahya (*c*) or Isnik (*d*).

Kütahya pottery of the second half of the eighteenth century (*g*) has a similar composition to the earlier Kütahya pottery (*c*), with an increased amount of sodium. Kütahya pottery of the *Sivaz* type (*h*) has a very high chromium content, with almost negligible amounts of titanium and manganese. This high chromium content is maintained in late eighteenth-century Kütahya pottery (*i*) where it is also accompanied by greater amounts of nickel than any observed in other Kütahya samples (*c*, *g*, *h*).

Kütahya tiles of the early eighteenth century (Fig. 32, *k*) are similar in composition to Kütahya pottery (*c*) Isnik tiles (*l*) differ in composition from Isnik pottery (*d*), the former containing a lesser amount of chromium, and a greater quantity of nickel. Like the pottery, however, Isnik tiles (*l*) contain a greater quantity of manganese than Kütahya tiles (*k*); they also contain much more sodium and nickel.

Tile samples from St. James of questionable provenance (*m*) fit well into the general group pattern of Kütahya eighteenth-century tiles (*k*). The single Tekfur Sarayı tile sample (*o*) differs both from the Isnik (*l*) and Kütahya (*k*) tile series, although it has again the high manganese content noted in Isnik tiles (*l*) and pottery (*d*). Dome of the Rock tiles from Jerusalem (*n*) resemble seventeenth-century Damascus tiles in composition (*p*), except that the Jerusalem tiles have an exceptionally high manganese content.

CONCLUSIONS

The Godman ewer and water-bottle are of similar composition, which bears out the epigraphic evidence (pp. 4–6) for them having been made in the same place, i.e. Kütahya. Although the Godman vessels were made some two hundred years earlier than the eighteenth-century Kütahya pottery samples, they are of similar composition; in all likelihood the same source of clay was used for the Kütahya industry for this period of its history.

On the evidence of the samples tested, a basic difference between Kütahya and Isnik wares appears to be the relatively lower manganese content of the former.

The Godman water-bottle, decorated in 'Golden Horn' style, is of similar composition to a group of pottery samples decorated in the same style, and all resemble the Kütahya, rather than the Isnik, series in composition.

A group of unusually designed tiles from St. James which it was not possible to assign to Kütahya on stylistic grounds alone, are clearly from Kütahya (PLATE 44, nos. 85–95, with three not illustrated).

Not unexpectedly, Dome of the Rock tiles from Jerusalem, Turkish tiles, and Syrian tiles have quite different composition patterns. On the other hand, fifteenth-century Damascus pottery and seventeenth-century Damascus tiles are of similar composition, apart from the higher chromium content of the pottery.

Kütahya pottery shows some change in chemical composition during its decline in the second half of the eighteenth century.

ANALYSIS

	Al	Mg	Fe	Ti	Mn	Cr	Ca	Na	Ni
1. Godman ewer. A.D. 1510	0·94	1·1	0·77	0·12	0·0086	0·015	3·7	2·4	0·27
2. Godman water-bottle. A.D. 1529	1·0	1·4	0·65	0·13	0·0087	0·028	4·8	2·2	0·022
3. Isnik sherd. A.D. 1600	0·40	0·48	0·52	0·1	0·0080	0·021	2·8	1·2	0·76
4. Isnik sherd. A.D. 1650	0·56	0·72	0·80	0·1	0·088	0·016	4·1	1·3	0·95
5. Tile fragment	0·88	1·7	0·93	<0·1	0·042	0·017	7·4	2·5	0·0024
6. Isnik tile fragment	0·12	0·44	0·46	n.d.	0·0072	n.d.	2·8	2·6	0·0018

	Al	Mg	Fe	Ti	Mn	Cr	Ca	Na	Ni
7. Isnik tile fragment	0·68	1·01	1·07	<0·1	0·016	n.d.	4·2	3·7	0·0017
8. Isnik tile fragment	0·20	0·55	0·69	n.d.	0·023	n.d.	4·2	2·5	n.d.
9. Isnik tile fragment	0·14	0·33	0·83	<0·1	0·015	n.d.	2·7	2·1	0·0015
10. Isnik tile fragment	2·1	2·9	1·49	<0·1	0·018	n.d.	19·7	2·6	n.d.
11. Isnik sherd	0·68	1·1	0·68	0·13	0·0063	0·010	3·0	1·6	0·032
12. Isnik sherd	0·68	1·1	0·68	0·12	<0·001	0·0070	3·1	1·5	0·071
13. Isnik sherd	0·66	0·81	0·59	0·11	0·018	0·014	4·4	1·3	0·036
14. Isnik sherd	0·90	1·3	0·25	0·10	0·0061	0·026	3·5	1·9	0·13
15. Isnik sherd	0·46	1·3	1·4	0·15	0·072	0·065	3·2	1·3	0·060
16. Isnik sherd from Fostat. B.M. 91, 7–1, 380	0·81	0·82	1·21	<0·1	0·0098	0·065	21·8	2·6	0·035
17. Isnik sherd	0·18	0·43	0·67	n.d.	0·058	n.d.	2·6	2·6	n.d.
18. Isnik dish	0·12	0·27	0·47	n.d.	0·11	n.d.	2·9	1·9	0·0025
19. Isnik jug	1·1	1·2	0·90	0·12	0·017	0·011	7·6	1·6	0·0025
20. Isnik sherd. B.M. 91, 7–1, 362	0·43	0·74	1·09	n.d.	0·013	n.d.	3·4	2·4	0·044
21. Isnik sherd. B.M. 91, 7–1, 374	0·94	0·97	0·55	n.d.	0·0055	n.d.	4·5	2·0	0·0056
22. 'Golden Horn' dish	0·68	1·5	0·77	0·13	0·0071	0·011	2·7	1·7	0·67
23. 'Golden Horn' bowl	0·93	1·5	0·83	0·13	0·0091	0·057	5·1	2·3	0·044
24. 'Golden Horn' bowl	1·2	1·7	0·94	0·14	0·011	0·023	12·8	2·4	0·051
25. 'Golden Horn' sherd of platter	0·61	1·4	0·66	<0·1	0·0068	0·0056	6·6	1·5	0·0016
26. Sherd from Fostat. B.M. 91, 7–1, 353	1·1	1·24	0·67	<0·1	0·024	n.d.	5·4	2·0	0·0013
27. Kütahya tile	0·50	2·7	0·43	0·14	0·023	0·0067	18·5	1·6	0·0030
28. Kütahya tile	0·29	0·58	0·40	<0·1	0·026	0·0096	4·1	0·65	0·0018
29. Kütahya tile	0·35	0·52	0·39	<0·1	0·0090	0·0056	7·4	1·1	0·0047
30. Kütahya tile	0·53	0·62	0·55	<0·1	0·0077	0·0066	4·0	1·5	0·0043
31. Kütahya tile	0·59	0·56	0·52	<0·1	0·012	0·019	3·6	0·67	0·0025
32. Kütahya tile	0·48	0·52	0·46	<0·1	0·012	0·0098	6·5	0·71	0·0040
33. Kütahya tile	0·44	0·82	0·47	<0·1	0·026	0·0096	5·2	0·96	0·0024
34. Kütahya tile	0·35	0·59	0·43	n.d.	0·024	0·0079	5·3	0·77	n.d.
35. Kütahya tile fragment	0·47	0·95	0·43	n.d.	0·010	0·011	6·6	1·5	0·0031
36. Kütahya tile	0·27	0·76	0·47	<0·1	0·017	0·011	4·1	1·1	0·0042
37. Kütahya tile	0·34	1·1	0·29	<0·1	0·0089	0·0083	4·0	1·1	0·0027
38. Kütahya tile	0·79	0·74	0·47	<0·1	0·025	0·011	5·3	0·96	0·0030
39. Kütahya tile	0·26	1·2	0·43	<0·1	0·038	0·020	7·6	1·8	0·0033
40. Kütahya tile	0·44	0·47	0·44	<0·1	0·011	0·011	9·6	1·2	0·0036
41. Kütahya tile	0·36	0·74	0·36	<0·1	0·015	0·013	7·5	0·57	0·0027
42. Kütahya tile	0·42	0·55	0·40	<0·1	0·0098	0·0054	6·5	1·2	0·0023
43. Kütahya tile	0·28	1·2	0·30	<0·1	0·012	0·0075	4·9	1·2	0·0026
44. Kütahya tile	0·37	0·87	0·47	<0·1	0·017	0·0081	3·1	0·51	0·0015
45. Kütahya tile	0·58	2·1	0·63	0·104	0·015	0·018	10·0	0·78	0·0012
46. Kütahya tile	0·46	0·92	0·57	<0·1	0·015	0·066	5·3	1·7	0·0035
47. Kütahya cup	1·0	<0·1	0·77	0·16	n.d.	0·033	12·4	1·7	0·023
48. Kütahya cup	0·81	0·60	0·67	0·11	0·0095	0·026	5·8	2·1	0·027
49. Kütahya cup	0·71	0·38	0·44	0·10	0·026	0·025	4·9	1·4	0·055
50. Kütahya sprinkler	0·69	0·60	0·38	0·12	0·0083	0·016	4·6	2·2	0·090
51. Kütahya hanging ornament	0·59	0·56	0·63	0·10	0·017	0·028	5·7	1·6	0·015
52. Kütahya lemon squeezer	0·46	1·0	0·32	<0·1	0·018	0·061	4·9	2·1	0·052
53. Kütahya plate	0·41	0·62	0·26	n.d.	0·0086	0·013	5·1	1·2	0·039
54. Kütahya plate	0·53	0·13	0·33	<0·1	<0·005	0·0066	4·4	2·2	0·12
55. Kütahya bowl	0·52	0·48	0·32	<0·1	n.d.	0·012	4·3	1·6	0·080
56. Kütahya sherd	0·36	0·62	0·82	<0·1	n.d.	0·34	1·5	5·3	0·055
57. Kütahya mug	1·2	0·71	0·95	0·14	0·015	0·059	8·8	0·44	0·072
58. Kütahya mug	1·5	0·68	1·1	0·17	0·020	0·025	29·0	0·33	0·72
59. Kütahya flask	0·53	0·35	0·58	<0·1	0·011	0·030	8·5	0·55	0·0028
60. Kütahya jug	1·0	0·41	1·2	0·11	0·0084	0·60	6·6	2·1	0·059
61. Kütahya dish	0·14	0·54	0·30	n.d.	n.d.	0·021	1·0	3·1	0·054
62. Dome of Rock	0·49	1·8	0·56	0·13	0·12	0·015	18·8	2·6	0·0025
63. Dome of Rock	0·73	2·3	0·71	0·13	0·070	0·019	23·9	1·8	0·0042
64. Dome of Rock	0·57	2·7	0·62	0·18	0·104	0·035	19·6	1·9	0·0073
65. Jerusalem tile fragment	0·46	1·6	0·51	0·12	0·011	0·015	18·8	1·4	0·0040
66. Damascus tile fragment	1·01	2·4	0·89	0·23	0·014	0·018	25·7	2·4	0·021
67. Damascus tile fragment	0·40	1·4	0·61	0·13	0·029	0·020	25·9	1·6	0·022
68. Damascus tile fragment	1·6	1·8	1·2	0·26	0·029	0·039	27·4	1·8	0·0026
69. Damascus tile fragment	0·56	1·3	0·63	0·11	0·014	0·013	19·9	2·0	0·052
70. Damascus tile fragment	0·46	2·5	0·43	0·13	0·0070	0·011	16·2	1·8	0·035
71. Damascus tile fragment	0·55	1·9	0·67	0·12	0·071	0·025	22·4	1·9	0·0044
72. Damascus tile fragment	1·3	1·8	1·3	0·19	0·014	0·016	20·1	2·1	0·0037

	Al	Mg	Fe	Ti	Mn	Cr	Ca	Na	Ni
73. Damascus tile fragment	1·0	1·5	1·3	0·17	0·013	0·015	12·9	2·5	0·0046
74. Damascus tile fragment	1·1	1·9	0·66	0·14	0·010	0·011	18·2	2·4	0·0028
75. Damascus tile fragment	0·55	1·7	0·71	0·13	0·020	0·027	22·8	1·4	0·0027
76. Damascus tile fragment	0·84	1·4	1·0	0·14	0·012	0·016	15·4	3·1	0·0055
77. Damascus tile fragment	1·3	2·2	0·82	0·16	0·015	0·013	33·5	3·5	0·0035
78. Damascus tile fragment	2·1	1·7	1·3	0·28	0·035	0·035	28·3	1·6	0·0032
79. Kiln waster	0·52	1·2	0·49	0·11	0·0058	0·013	15·5	1·3	0·0045
80. Sherd base	0·42	1·2	0·37	0·10	0·039	0·065	8·9	1·4	0·0020
81. ? tile	0·31	0·40	0·21	<0·1	n.d.	0·014	6·3	1·1	0·0020
82. ? tile	0·59	0·66	0·54	<0·1	0·019	0·013	4·5	0·95	0·0024
83. ? tile	0·49	0·78	0·43	<0·1	0·0088	0·0065	3·5	1·4	0·0022
84. ? tile	0·27	1·2	0·35	<0·1	0·012	0·0052	2·9	0·84	0·0016
85. ? tile	0·47	0·81	0·54	<0·1	0·0082	0·0089	6·4	1·3	0·0033
86. ? tile	0·35	0·66	0·41	<0·1	0·0072	0·014	4·2	1·5	0·0047
87. ? tile	0·61	0·96	0·40	n.d.	0·011	0·012	7·6	1·7	0·0022
88. ? tile	0·29	0·79	0·29	n.d.	0·0072	0·016	8·3	1·2	0·0019
89. ? tile	0·19	0·79	0·35	n.d.	0·013	0·014	3·9	1·8	0·0030
90. ? tile	0·45	0·25	0·48	0·14	0·015	0·016	10·6	1·5	0·0044
91. ? tile	0·98	1·7	0·83	0·15	0·011	0·029	9·7	1·7	0·0055
92. ? tile	0·49	1·6	0·44	<0·1	0·014	0·018	13·7	1·4	0·0042
93. ? tile	0·54	1·3	0·30	<0·1	0·016	0·016	19·8	1·4	0·0032
94. ? tile	0·47	0·66	0·42	<0·1	0·0082	0·010	7·0	2·8	0·0038
95. ? tile	0·46	1·1	0·33	<0·1	0·0067	0·021	4·7	1·8	0·0018

Average figures for various groups tested

(*a*), (*b*) Godman ewer and water-bottle. *1, 2*	0·97	1·25	0·71	0·12	0·0086	0·0215	4·2	2·3	0·146
(*c*) Kütahya pottery, early eighteenth century. *47–54*	0·65	0·49	0·47	0·09	0·0115	0·0260	5·9	1·81	0·0526
(*d*) Isnik pottery, *c.* 1550–1625. *11–18*	0·56	0·89	0·74	0·08	0·0351	0·0396	3·4	1·83	0·0458
(*e*) 'Golden Horn' type Turkish pottery. *23–6*	0·90	1·46	0·77	0·12	0·0116	0·0204	6·8	1·98	0·1535
(*f*) Isnik pottery, 'Damascus' type, *c.* 1550. *19–21*	0·82	0·97	0·84	0·04	0·0118	0·0036	7·6	2·0	0·0173
(*g*) Kütahya pottery, second half of eighteenth century. *61*	0·14	0·54	0·30	n.d.	0·0084	0·021	1·0	3·1	0·054
(*h*) Kütahya pottery, *Sivaz* type, mid-eighteenth century. *55, 56*	0·44	0·55	0·57	0·01	n.d.	0·176	2·9	3·45	0·675
(*i*) Kütahya pottery, late eighteenth century. *57–60*	1·05	0·53	0·95	0·14	0·0136	0·1785	13·2	0·85	0·2134
(*j*) Damascus pottery, fifteenth century. *79, 80*	0·47	1·2	0·43	0·10	0·0224	0·0331	12·2	1·35	0·0032
(*k*) Kütahya tiles, early eighteenth century. *27–46*	0·42	0·92	0·44	0·05	0·0166	0·0132	6·45	1·07	0·0028
(*l*) Isnik tiles. *3, 4, 6–10*	0·6	0·91	0·83	0·08	0·0250	0·0174	3·45	2·28	0·245
(*m*) ? questionable tile samples, from St. James. *81–95*	0·46	0·91	0·42	0·10	0·0104	0·0142	7·54	1·49	0·0030
(*n*) Dome of the Rock tiles, Jerusalem. *62–5*	0·56	2·1	0·6	0·14	0·2337	0·021	20·27	1·92	0·0045
(*o*) Tekfur Sarayı tile. *5*	0·88	1·7	0·93	<0·1	0·042	0·017	7·4	2·5	0·0024
(*p*) Damascus tiles, sixteenth–seventeenth century. *66–78*	0·98	1·80	0·88	0·16	0·0217	0·0199	22·20	2·16	0·0125

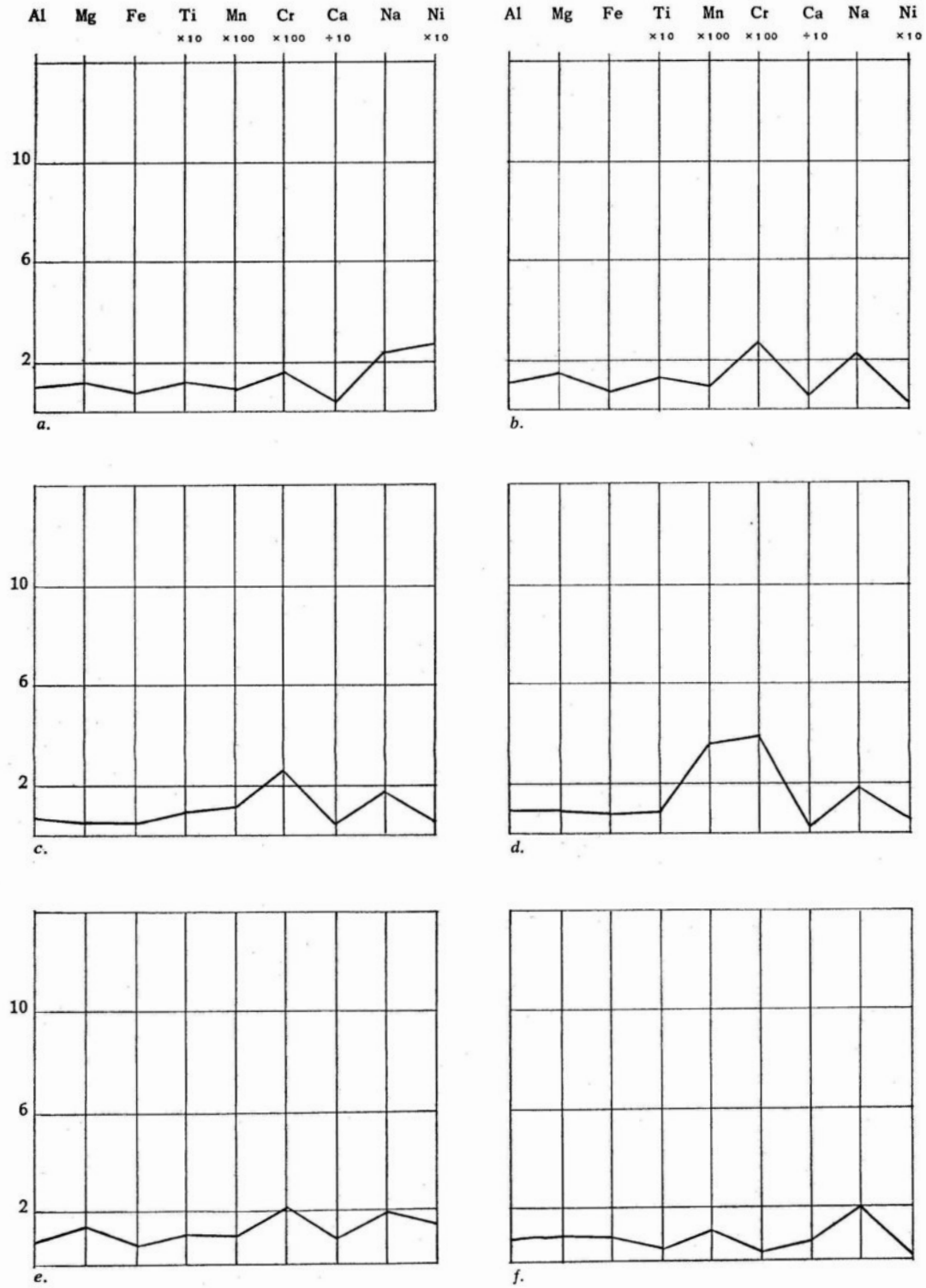


FIG. 30. Spectrographic analysis of pottery samples.

a. Godman ewer, A.D. 1510. *1.*
b. Godman water-bottle, A.D. 1529. *2.*
c. Kütahya pottery, early eighteenth century. *47–54.*
d. Isnik pottery, *c.* 1550–1625. *11–18.*
e. 'Golden Horn' type Turkish pottery. *23–6.*
f. Isnik pottery, 'Damascus' type, *c.* 1550. *19–21.*

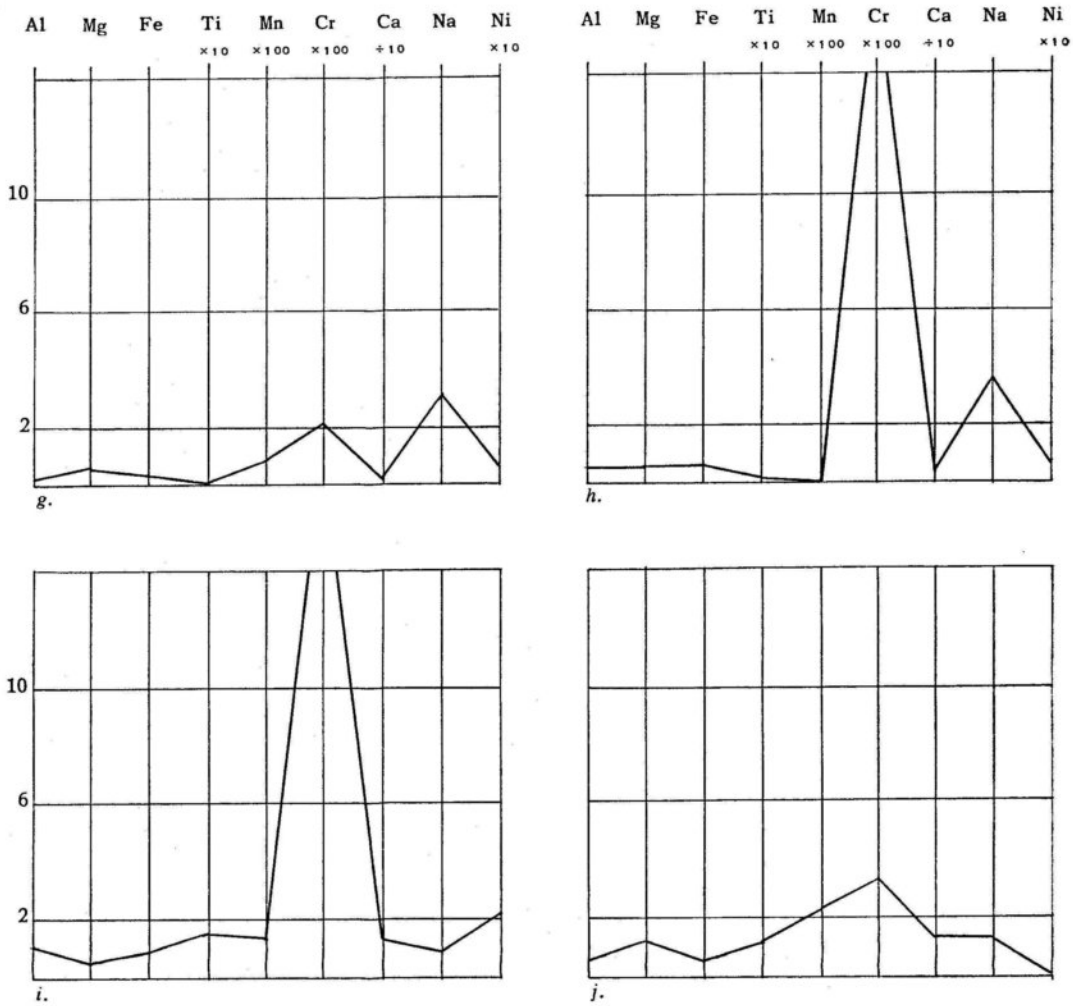


FIG. 31. Spectrographic analysis of pottery samples.

g. Kütahya pottery, second half of eighteenth century. *61*.
h. Kütahya pottery, *Sivaz* type, mid-eighteenth century. *55*, *56*.
i. Kütahya pottery, late eighteenth century. *57–60*.
j. Damascus pottery, fifteenth century. *79*, *80*.

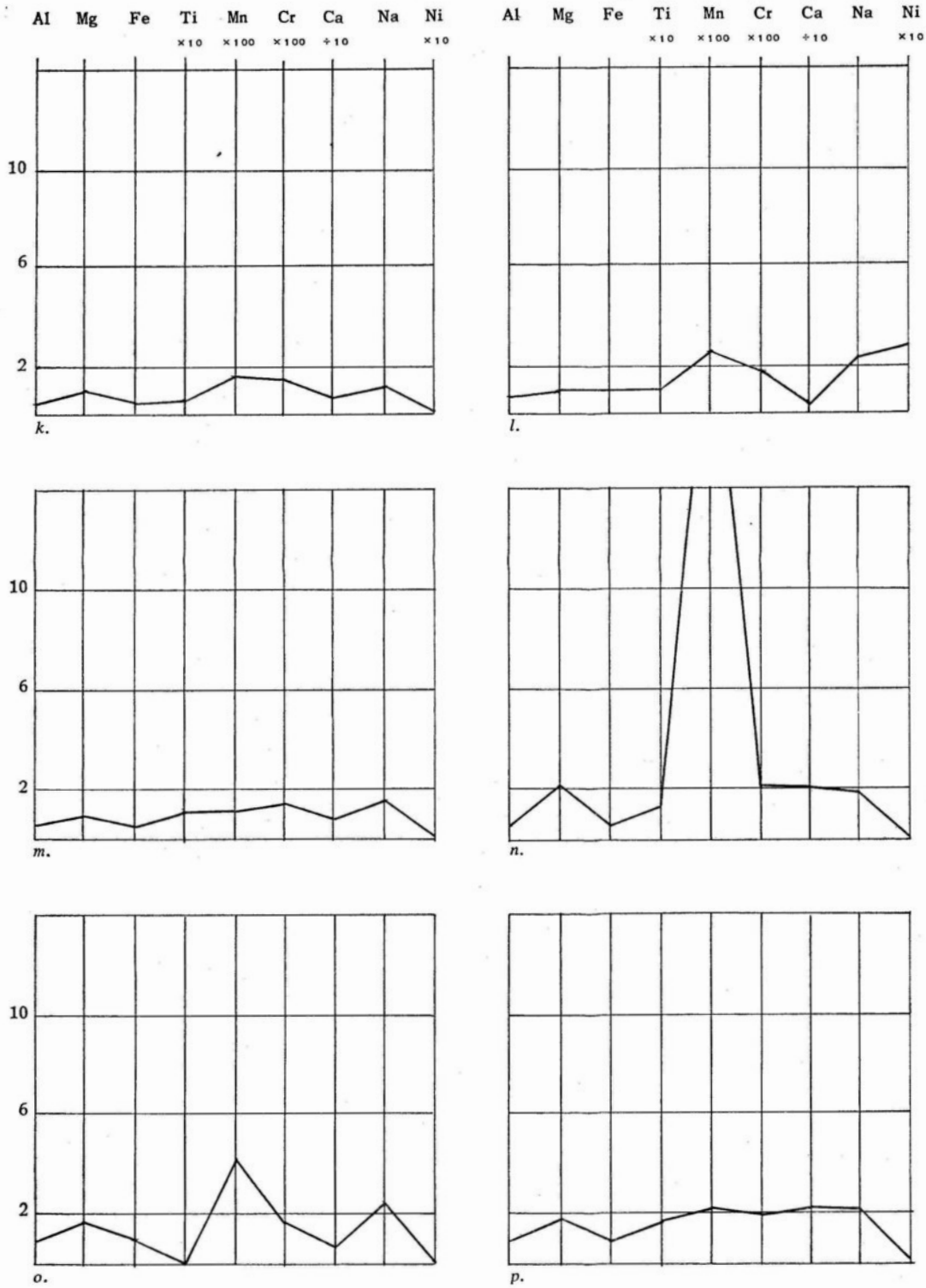


FIG. 32. Spectrographic analysis of tile samples.

k. Kütahya tiles, early eighteenth century. *27–46.*
l. Isnik tiles. *3, 4, 6–10.*
m. ? questionable tile samples, from St. James. *81–95.*
n. Dome of the Rock tiles, Jerusalem. *62–5.*
o. Tekfur Sarayı tile. *5.*
p. Damascus tiles, sixteenth–seventeenth century. *66–78.*

CATALOGUE OF POTTERY SAMPLED

(*See* PLATES *40–4*)

Godman ewer, A.D. 1510

1. The Godman Collection, Horsham, England.
   Cobalt blue with darker outlines. *Volume I, Plate 21a.*

Godman water-bottle, A.D. 1529

2. The Godman Collection, Horsham, England.
   Ochre-coloured ware; discoloured white ground with yellowed crackled cobalt blue with darker outlines. *Volume I, Plate 21b.*

Isnik tiles, c. 1550–1625

3. Tile fragment, Department of Eastern Art, Ashmolean Museum, Oxford. *Not illustrated.*
   Floral design, *c.* A.D. 1600.
   Two shades of cobalt blue, red, turquoise green, grey-black outlines.

4. Tile fragment, Department of Eastern Art, Ashmolean Museum, Oxford. *Not illustrated.*
   Design of tulips and carnations, *c.* A.D. 1650.
   Two shades of cobalt blue, turquoise blue.

Tekfur Sarayı tile

5. Tile fragment, St. James, Jerusalem.
   Dark pink ware, white slip.
   Yellow, red, cobalt, green, light purple, black outlines, white ground.

Isnik tiles, c. 1550–1625

6. Moulded tile, fragment 23 by 18 cm. Victoria and Albert Museum, London, 783–1900.
   Cream-coloured ware, greenish-white ground.
   Turquoise, orange red, cobalt blue, green, grey-black outlines.

7. Moulded tile, fragment 25 by 16 cm. V. & A. 783–1900.
   Cream-coloured ware, off-white ground.
   Bright turquoise green, dark cobalt, orange-red, greenish-black outlines.

8. Tile fragment, 24 by 7 cm. V. & A. 189–4, 1881.
   Cream-coloured ware, greenish-white ground.
   Orange-red, dark cobalt blue, bright turquoise, dark grey outlines.

9. Tile fragment, 21·5 by 9·7 cm. V. & A. 780–1900.
   Cream-coloured ware, white ground.
   Turquoise blue, tomato red, cobalt blue, greenish-grey outlines.

10. Tile fragment, 12 by 25 cm. V. & A. 781–1900.
    Cream-coloured ware, off-white ground.
    Cobalt blue, turquoise green, turquoise blue, bright red, dark grey outlines.

Isnik pottery, c. 1550–1625

11. Sherd, B.M. (unregistered).
    Cream-coloured fine hard ware; with pink ground.
    Blue and white pigment, in relief, with black outlines.

12. Sherd, B.M. (marked 'Fostat').
    Cream-coloured fine hard ware; discoloured white ground.
    Cobalt blue; light turquoise green, blue-grey outlines.

13. Sherd, V. & A. C. 178–1949.
    Yellowish ware; hard white ground.
    Orange-red, cobalt blue, grey, greenish-black outlines.

14. Base sherd, V. & A. C. 836–1919.
    Yellowish ware, fine white ground.
    Pale cobalt blue, orange-red, pale turquoise green, dark grey outlines.

15. Base sherd, V. & A. C. 955–1921.
    Part of a drawing of a hare; marked under, with three characters, in dark grey.
    Yellowish ware.
    Dull turquoise-green ground, dark grey-green outlines.

16. Sherd, from Fostat, B.M. 91, 7–1, 380.
    Neck of jug.
    Cobalt blue, turquoise green, sealing-wax red, grey-black outlines.

17. Dish, 26 cm. diameter, V. & A. 124–70.
    Cream-coloured ware, greenish-white ground.
    Pale cobalt, dirty orange-red, pale green, greenish-black outlines.

18. Jug, 23·5 cm. high, 14 cm. diam. V. & A. 647–1883.
    Off-white ware and ground.
    Cobalt, diffused yellowish-green, dark red, dark green outlines.

Isnik pottery 'Damascus' type, c. 1550

19. Sherd, American University of Beirut, 36. x. 139.
    9 by 13 cm.
    Light and dark cobalt blue, grey, dull green, purple, greenish-black outlines.

20. Sherd, from Fostat, B.M. 91, 7–1, 362. *Not illustrated.*
    Neck of jug?
    Cobalt blue, purple, turquoise, olive green, grey-black outlines.

21. Base sherd, from Fostat, B.M. 91, 7–1, 374. *Not illustrated.*
    Cobalt blue, purple, turquoise, olive green, greenish-black outlines.

'Golden Horn' type Turkish pottery

22. Dish, Department of Western Art, Ashmolean Museum, Oxford; no. EF. 319; C. 310. *Not illustrated.*
    Cobalt blue.

23. Bowl on tall foot, V. & A. C. 1980. *Not illustrated.*
    Yellowish ware.
    Cobalt blue, pale turquoise, dark green outlines.

24. Bowl (almost identical to 23), V. & A. 243–76. *Not illustrated.*
    Yellowish ware.
    Cobalt blue, pale turquoise, dark green outlines.

25. Sherd of platter, A.U.B., 1694.
    9 by 4 cm.
    Light and dark cobalt blue.

26. Sherd, from Fostat, B.M. 91, 7–1, 353. *Not illustrated.*
    Discoloured white ground.
    Cobalt blue decoration.

Kütahya tiles, early eighteenth century

27. Tile fragment, St. James, Jerusalem.
    Off-white ware.
    Light and dark cobalt blue under a yellow glaze.

28. Tile fragment, St. James, Jerusalem.
    Fine pinky-white ware.
    Light and dark cobalt blue on pinky-white ground.

29. Tile fragment, St. James, Jerusalem.
    Fine white ware.
    Grey-cobalt blue with dark grey outlines on off-white ground.

30. Tile fragment, St. James, Jerusalem.
    Fine white ware.
    Light and dark cobalt blue on greenish ground.

31. Tile fragment, St. James, Jerusalem.
    Pink ware, white slip.
    Light and dark grey-blue on pinkish-white ground.

32. Tile fragment, St. James, Jerusalem.
    Pinky-white ware, white slip.
    Yellow, turquoise green, grey-blue outlines, on off-white ground.

33. Tile fragment, St. James, Jerusalem.
    Pinky-white ware, white slip.
    Light and dark greyish cobalt blue on off-white ground.

34. Tile fragment, St. James, Jerusalem.
    Fine hard white ware.
    Cobalt blue with darker outlines on greenish-white ground.

35. Tile fragment, St. James, Jerusalem.
    Fine hard white ware.
    Yellow, green, dark cobalt blue, brown-grey outlines on greenish ground.

36. Tile fragment, St. James, Jerusalem.
    Off-white ware.
    Splotchy cobalt blue within lighter outlines, off-white ground.

37. Tile fragment, St. James, Jerusalem.
    Pinky-white ground, white slip.
    Grey-blue with black outlines, off-white ground.

38. Tile fragment, St. James, Jerusalem.
    Pink ware, white slip.
    Light cobalt blue with darker outlines, greenish-white ground.

39. Tile fragment, St. James, Jerusalem.
    White ware.
    Blue-black with black outlines, misfired red, off-white ground.

40. Tile fragment, St. James, Jerusalem.
    Pinky-white ware, white slip.
    Cobalt blue with lighter outlines, white ground.

41. Tile fragment, St. James, Jerusalem.
Pinky-white ware, white slip.
Cobalt blue with lighter outlines, white ground.

42. Tile fragment, St. James, Jerusalem.
Pink ware, white slip.
Splotchy cobalt blue, pinky-white ground.

43. Tile fragment, St. James, Jerusalem.
Pinky-white ware, white slip.
Grey-blue with grey outlines, pinky-white ground.

44. Tile fragment, St. James, Jerusalem.
Pinky-white ground, white slip.
Cobalt blue with lighter outlines, off-white ground.

45. Tile fragment, St. James, Jerusalem.
Yellowish-pink ware, white slip.
Blue-black with lighter outlines, greenish ground.

46. Tile fragment (in writer's possession).
Off-white ware
Light and dark cobalt blue, greenish ground.

Kütahya pottery, early eighteenth century

47. Sherd, coffee-cup, V. & A. (unregistered). *Not illustrated.*
Hard off-white ware; pattern of serrated leaves between running borders.
Yellow, blue, red, turquoise, black outlines.

48. Sherd, coffee-cup, V. & A. (unregistered). *Not illustrated.*
Vertical patterns of leaves and tiny flowers hard off-white ware.
Yellow, turquoise, red, cobalt blue, black outlines.

49. Sherd, cup, V. & A. (unregistered). *Not illustrated.*
Moulded surface on outside; hard off-white ware.
Yellow, green, red, pale cobalt blue, black outlines.

50. Sprinkler (in writer's possession).
Hard white ware, fine white ground.
Yellow, red, turquoise, blue, black outlines.

51. Hanging ornament, from Armenian chapel, Church of Nativity, Bethlehem.
Greyish ware, white slip.
Light and dark cobalt blue, with black lettering.

52. Lemon-squeezer (in writer's possession).
Fine hard off-white ware.
Light and dark cobalt blue.

53. Plate (in writer's possession).
Fine off-white ware.
Light and dark cobalt blue.

54. Plate (in writer's possession).
Fine off-white ware.
Light and dark cobalt blue.

Kütahya pottery, mid-eighteenth-century 'Sivaz' type

55. Bowl (in writer's possession).
Fine white ware.
Yellow, pale green, pale purple, red, cobalt blue, purple outlines.

56. Sherd (in writer's possession).
Fine off-white ware.
Yellow, green, purple, red, cobalt blue, black outlines, off-white ground.

Kütahya pottery, late eighteenth century

57. Barrel-shaped mug (in writer's possession).
With cross-hatched, incised circular panels; and raised dots.
Opaque yellow and dark cobalt blue.

58. Barrel-shaped mug (in writer's possession).
With raised dots; black decoration under turquoise glaze.

59. Pilgrim-flask (in writer's possession).
Pinky-yellow ware.
Dirty mustard yellow, blue-black, greenish-black outlines, greenish ground.

60. Jug (in writer's possession).
Off-white ware.
Greenish-black design on yellowish-green ground.

Kütahya pottery, second half of eighteenth century

61. Dish (in writer's possession).
Fine off-white ware.
Dirty yellow, turquoise, grey, purple, red, black outlines, greenish-white ground.

Jerusalem, Dome of the Rock tiles, late sixteenth century

62. *cuerda seca* tile; 18·5 cm. sq. (2·2 cm. thick) (in writer's possession).
Off-white ware.
Mustard yellow, deep cobalt blue, turquoise blue, black outlines.

63. Fragment, 18 by 9·5 cm.; 3·5 cm. thick (in writer's possession).
Off-white ware.
Black under mustard glaze.

64. Fragment, 5 by 7·3 cm., 2·8 cm. thick (in writer's possession).
Off-white ware, white slip.
Cobalt blue, black.

65. Fragment, A.U.B. 1196.
(Part of inscribed frieze; two lateral holes for copper pins), 19 by 14·5 by 2·8 cm.
Cobalt blue, turquoise, dark grey outlines, crackled glaze.

Damascus tiles, sixteenth/seventeenth century

66. Fragment, A.U.B. 1634.
23 by 15·5 by 1·8 cm.
Cobalt blue, turquoise, dark purple, dark grey outlines.
Thick crackled glaze.

67. Fragment, A.U.B. 398.
13·5 by 21·5 by 2 cm.
Blue-black, dark grey-green, black outlines.
Thick crackled glaze.

68. Fragment, A.U.B. 384.
20 by 10 by 2·5 cm.
Cobalt blue, pale green, turquoise blue, dark grey outlines.
Thick crackled glaze.

69. Fragment, A.U.B. 411.
18·5 by 23 by 1·5 cm.
Cobalt blue, pale green, dark grey outlines.
Thick crackled glaze.

70. Fragment, A.U.B. 1626.
23·5 by 17 by 2·4 cm.
Dark cobalt blue, pale green, turquoise, greenish-black outlines.
Thick crackled glaze.

71. Fragment, A.U.B. 387.
14·5 by 21 by 2·7 cm.
Cobalt blue, pale green, turquoise, grey, dark grey outlines.
Thick crackled glaze.

72. Fragment, A.U.B. 1645.
22·5 by 18 by 2 cm.
Cobalt blue, grey, pale turquoise, pale brownish-purple, dark grey-green outlines.
Thick crackled glaze.

73. Tile, A.U.B. 1607.
22·5 cm. square, 1·8 cm. thick.
Cobalt blue, pale turquoise, pale purple, dark grey outlines.
Thick crackled glaze.

74. Fragment, A.U.B. 1636.
23 by 17·5 by 1·9 cm.
Cobalt blue, pale green, turquoise, purple-black, dark grey outlines.
Thick crackled glaze.

75. Tile, A.U.B. 1603.
29 cm. square, 2 cm. thick.
Cobalt blue, light green, turquoise, purple, dark grey outlines.
Thick crackled glaze.

76. Tile, A.U.B. 410.
22 cm. by 1·8 cm.
Cobalt blue, grey, purple, dark grey outlines.
Thick crackled glaze.

77. Tile, A.U.B. 1647.
22·5 cm. by 2 cm.
Cobalt blue, turquoise, purple, grey outlines.
Thick crackled glaze.

78. Tile, A.U.B. 1616.
24·5 by 24 by 2·4 cm.
Grey, cobalt blue, leaf green, black outlines.
Thick crackled glaze.

Damascus pottery, fifteenth century

79. Kiln waster, A.U.B. 32.40 (dug near *bab-es-sharqi*?).
First cup, 16 cm. diam. by 6·5 cm. high, containing a second cup, 13 cm. diam. by 6·5 cm. high. Both cups, and fragments of two more, have cobalt blue decoration.
Crackled glaze.

80. Base sherd, A.U.B. 36. x. 128.
Cobalt blue.
Heavy crackled glaze (foot unglazed).

Questionable samples

81. Tile fragment, St. James, Jerusalem.
Fine hard white ware.
Grey-blue on greenish ground.

82. Tile fragment, St. James, Jerusalem. *Not illustrated.*
Fine pink ware, white slip.
Diffused black under dark green glaze.

83. Tile fragment, St. James, Jerusalem. *Not illustrated.*
Fine hard white ware.
Turquoise glaze.

84. Tile fragment, St. James, Jerusalem. *Not illustrated.*
Off-white ware.
Dark green glaze.

85. Tile fragment, St. James, Jerusalem.
Off-white ground.
Light and dark grey-blue on greenish ground.

86. Tile fragment, St. James, Jerusalem.
Fine hard off-white ware.
Black under splotchy grey-green.

87. Tile fragment, St. James, Jerusalem.
Off-white ware.
Light and dark cobalt blue on pinky-white ground.

88. Tile fragment, St. James, Jerusalem.
Fine hard white ware.
Cobalt blue with darker outlines on greenish-white ground.

89. Tile fragment, St. James, Jerusalem.
Fine hard white ware.
Cobalt blue with greenish outlines on greenish-white ground.

90. Tile fragment, St. James, Jerusalem.
Hard white ware.
Grey-cobalt blue with darker outlines on greenish-white ground.

91. Tile fragment, St. James, Jerusalem.
Coarse greyish ware.
Grey-cobalt blue, with darker outlines; greenish-white ground.

92. Tile fragment, St. James, Jerusalem.
Fine off-white ware.
Light and dark grey-blue, pinkish-white ground.

93. Tile fragment, St. James, Jerusalem.
Greyish ware.
Light and dark grey-blue, greenish ground.

94. Tile fragment, St. James, Jerusalem.
Pink ware.
Cobalt blue with black outlines, off-white ground.

95. Tile fragment, St. James, Jerusalem.
Fine hard white ware.
Yellow, blue, pale green, grey-blue outlines, greenish-white ground.

APPENDIX G

POTTERS' MARKS

THIS selection of potters' marks, by no means exhaustive, is typical of those found on eighteenth-century Kütahya pottery. Amongst the most distinctive are those with the word *Sivaz* written in Turkish, often accompanied by a red smudge. Some marks derive from the Meissen crossed-swords mark. Others are painted inside double blue concentric rings, like Chinese marks on Ming porcelain. Two pieces are simply marked with Armenian characters, ս (*s*) and է (*ē*).



bowl and cover; painted in yellow, blue, green, red, purple, black; black mark, under cover. Brocklebank collection.



bowl and cover; painted in yellow, blue, green, red, purple, black; black mark, under cover. Brocklebank collection.



bowl; painted in yellow, green, red, blue, black; dark brown mark inside double concentric blue rings, on base. Brocklebank collection.



coffee-pot; painted in yellow, blue, dark red, green, black; black mark, on base. Brocklebank collection.



coffee-pot; painted in yellow, green, blue, red, black; brownish mark, on base. Brocklebank collection.



coffee-pot; painted in yellow, red, blue, green, black; fine brown mark, on base. Brocklebank collection.



coffee-pot; painted in yellow, blue, red, green, black; black mark, on base. Brocklebank collection.



vase; painted in yellow, blue, green, red, black; brown mark, on base. Brocklebank collection.



vase; painted in yellow, green, blue, red, black; brown mark, on base. Brocklebank collection.



vase; painted in yellow, blue, green, red, black; brown mark, on base. Brocklebank collection.



bowl; painted in yellow, green, purple, red, blue-grey, blue-black; marked on base; dated A.D. 1764/5 by inscription on rim—see vol. i, 92; Brocklebank collection.



mug; painted in blue; blue mark, on base. Brocklebank collection.



mug; painted in yellow, green, red, purple, black; black mark, on base. Brocklebank collection.



bowl; painted in blue and yellow; marked under base. Brocklebank collection.



bowl; painted in green, yellow, red, blue, black; blue mark, on base, inside double concentric blue rings. Brocklebank collection.



bowl; painted in red, blue, yellow, green, black; black mark, on base. Brocklebank collection.



coffee-cup; painted in yellow, blue, red, black; black mark, on base. Brocklebank collection.



bowl; painted in yellow, blue, red, green, purple, black; black mark, *Sivaz*, on base. Brocklebank collection.



small jar with lid; painted in yellow, turquoise, blue, purple, red, greenish-black; black mark, *Sivaz*, with red smudge, on base. Brocklebank collection.



small jar with lid; painted in yellow, turquoise green, red, purple, blue, dark green; dark green mark, *Sivaz*, on base. Brocklebank collection.



small jar with lid; painted in yellow, dark green, blue, red, purple; dark green mark, *Sivaz*, on base. Brocklebank collection.



ewer; painted in yellow, red, blue, green, black; black mark, on base. Brocklebank collection.



small jug; painted in yellow, blue, green, red, black; black mark, on base. Brocklebank collection.



small jug; painted in yellow, blue, black; black mark, on base. Brocklebank collection.



small jug; painted in yellow, blue, purple, green, red, black; grey-black mark, on base. Brocklebank collection.



small jug; painted in yellow, blue, green, purple, red; brownish mark, on base. Brocklebank collection.



coffee-cup; painted in blue-black and greenish-black; greenish-black mark, on base. Royal Scottish Museum, 1959–542.



coffee-cup; painted in greenish-black under turquoise glaze; marked on base. Royal Scottish Museum, 06–623.



coffee-cup; painted in cobalt blue and greyish-black; marked on base. British Museum, 1949, 11–15, 25.

dish; painted in black under dark green glaze; marked on base. British Museum, 1949, 11–15, 21.



bowl and cover; painted in green, cobalt blue, yellow, dark red, black; bowl marked inside, and under cover. British Museum, 78, 12–20, 557.


coffee-pot; painted in yellow, red, green, cobalt blue, black; black mark, under lid and on base. British Museum, 78, 12–30, 554.


incense-burner; painted in shades of cobalt blue; marked in blue inside cover, between pierced panels. British Museum, 78, 12–30, 553.


coffee-cup; painted in dark blue, turquoise green, red, black; black mark, on base. British Museum, 'F.B.'.


bowl; painted in pale cobalt blue, yellow, turquoise, red, black; black mark, on base. British Museum, 1949, 11–15, 14.


bowl; painted in cobalt blue, lime yellow, turquoise green, red, black; black mark, inside double concentric blue rings. British Museum, 1942, 4–14, 5.


bowl and cover; painted in yellow, blue, green, red, black; pair of black marks, under cover and on base. British Museum, 78, 2–30, 556.


(mark, *Sivaz*, illustrated by Lane, *Later Islamic Pottery*, p. 114, fig. 15).


(mark, *Sivaz*, illustrated by Lane, p. 114, fig. 16).


(mark, *Sivaz* (?), illustrated by Lane, p. 114, fig. 17).


coffee-pot; painted in shades of cobalt blue; blue mark, on base. Victoria and Albert Museum, 335–1892 (mark also illustrated by Lane, p. 114, fig. 18).


(mark illustrated by Lane, p. 114, fig. 19). The Armenian letter, ս (*s*).


(mark illustrated by Lane, p. 114, fig. 20).


(mark illustrated by Lane, p. 114, fig. 21).


(mark illustrated by Lane, p. 114, fig. 22); mark used by Samson of Paris on imitations of Kütahya pottery, at the turn of the century; the mark ('S' in Arabic) is usually omitted. A typical Samson copy of a Kütahya coffee-pot is mistakenly illustrated by Lane, *Later Islamic Pottery*, Plate 51e, as the real thing.


incense-holder; painted in yellow, blue, green, red, purple, black; elaborate mark on base, in yellow, blue, green, with black outlines. Victoria and Albert Museum, 35–1892.


coffee-pot; painted in blue-grey with darker outlines; blue-grey mark inside lid, and on base. Victoria and Albert Museum, *c.* 73–1944.


plate; painted in shades of cobalt blue; blue mark on base inside double concentric blue rings. Victoria and Albert Museum, 597–74.

cup; painted in polychrome; marked on base in grey. Musée Céramique de Sèvres, 3911.


bowl with cover; painted in yellow, blue, green, red, black; black marks under cover, and on base. Musée Céramique de Sèvres, 7086.



jug; painted in yellow, red, blue, green, black; black mark (the Armenian letter է, ē), on base. Musée Céramique de Sèvres, 5045.



jug; painted in yellow, pale green, red, black; black mark, on base. Musée Céramique de Sèvres, 5045[1].



vase; painted in yellow, blue, green, red, purple, black; marked in black, *Sivaz*, with red smudge, on base. Musée Céramique de Sèvres, 5317.

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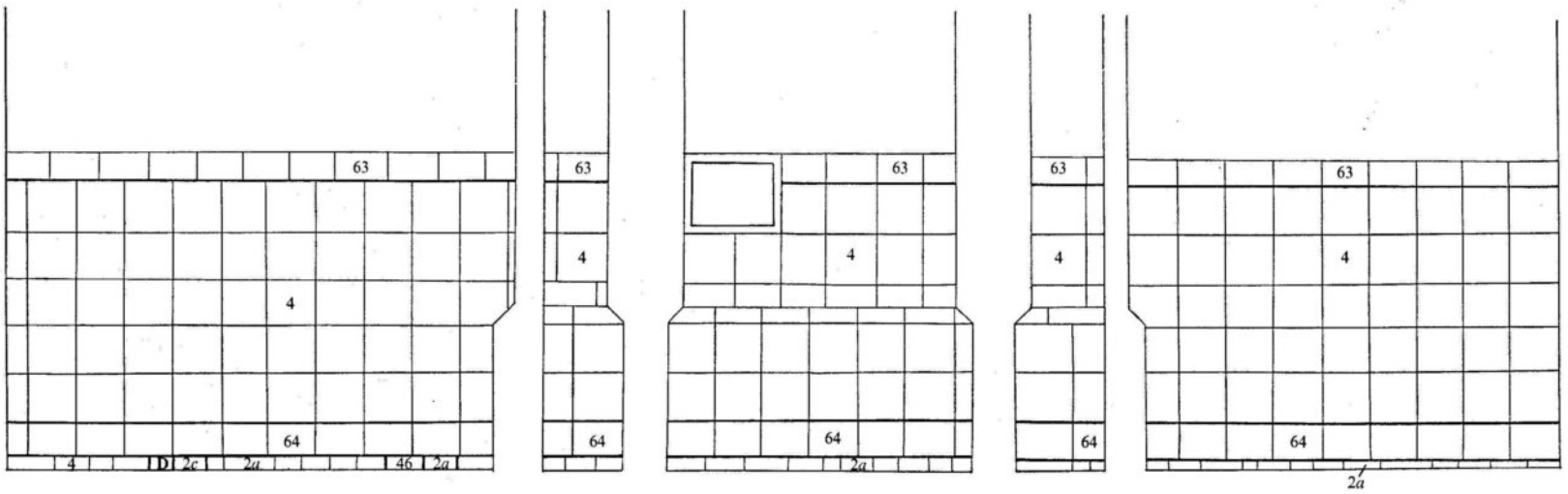
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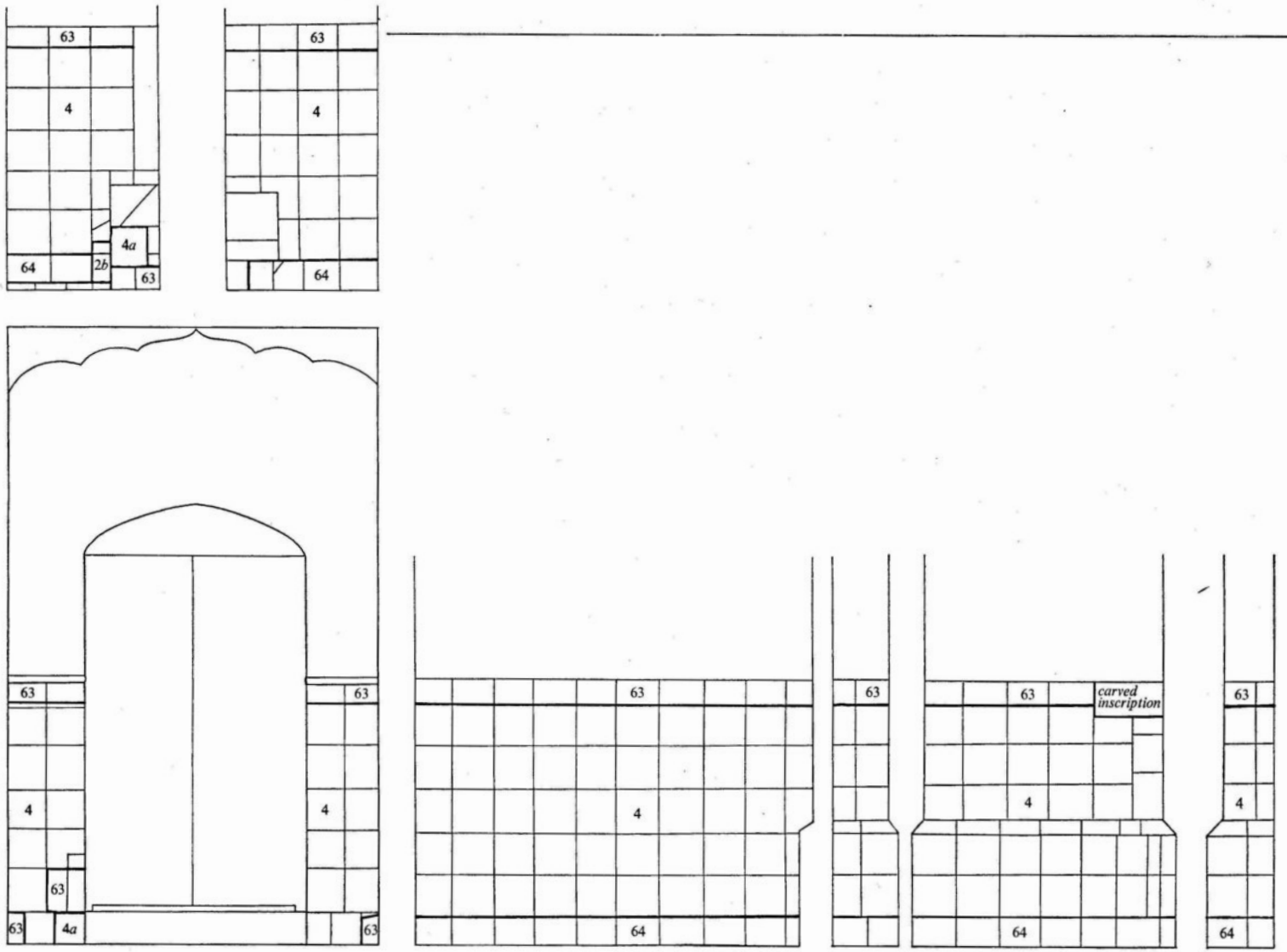
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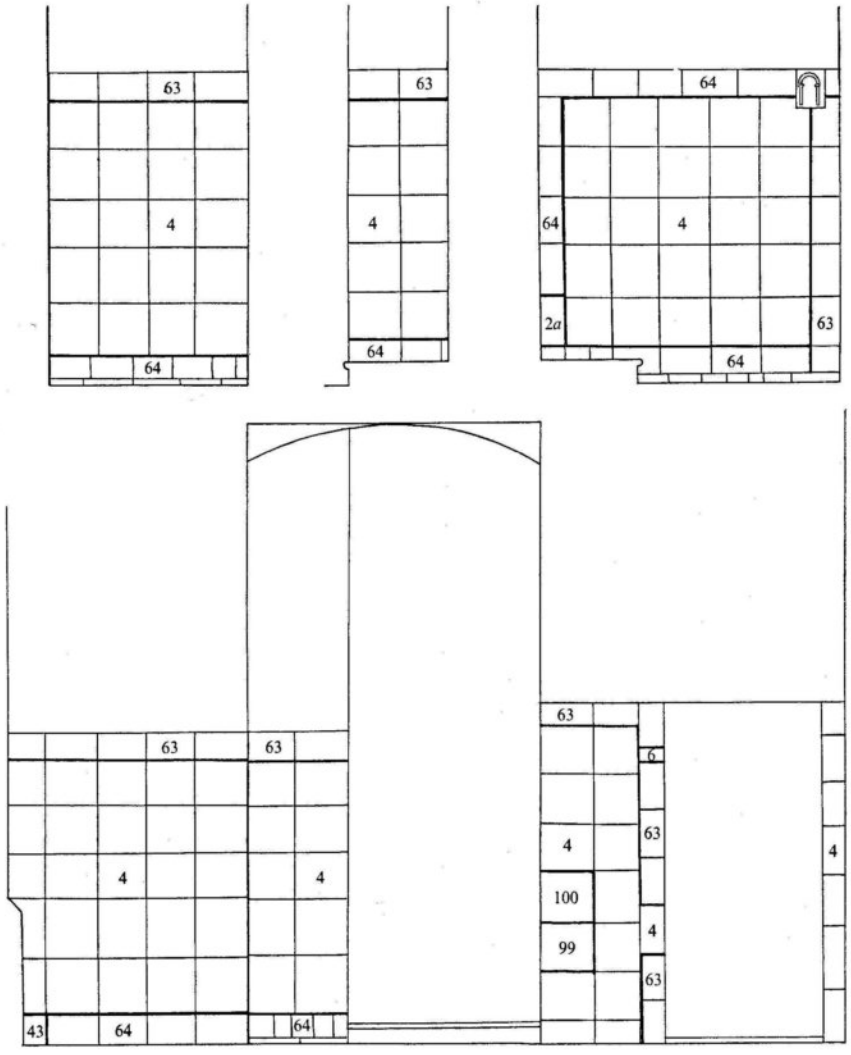
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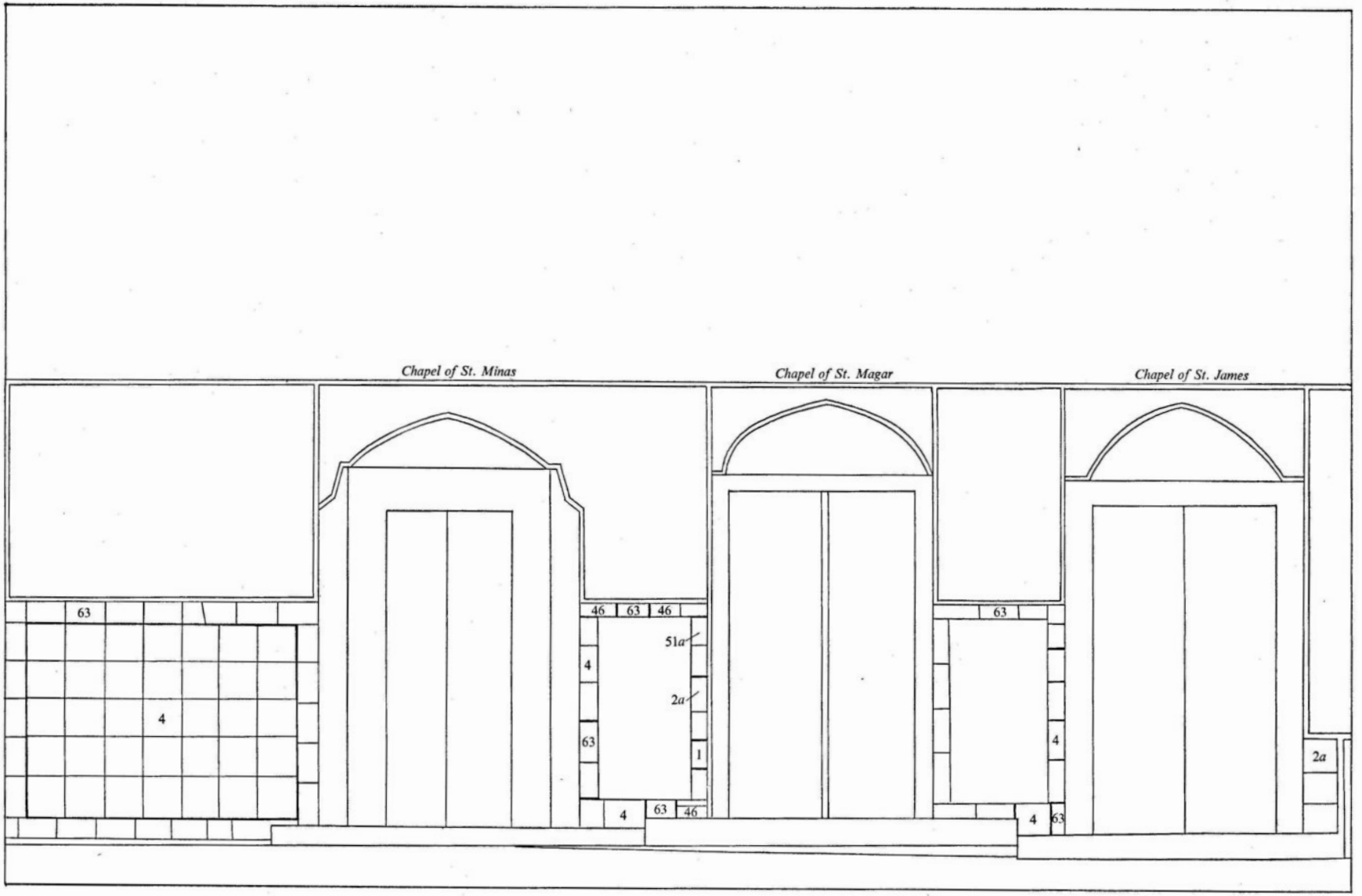
I. ST. JAMES CATHEDRAL West wall, I



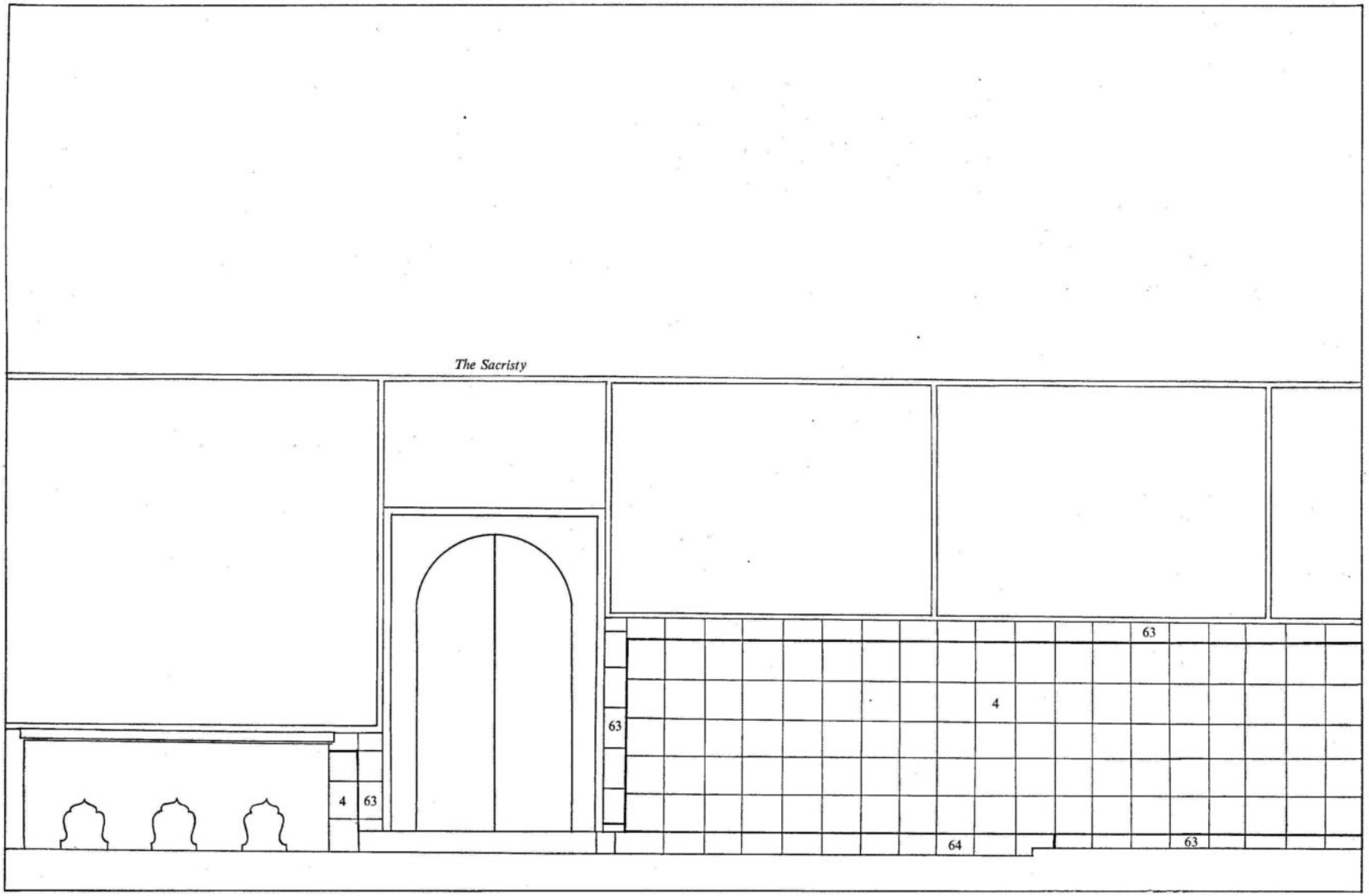
2. ST. JAMES CATHEDRAL West wall, II



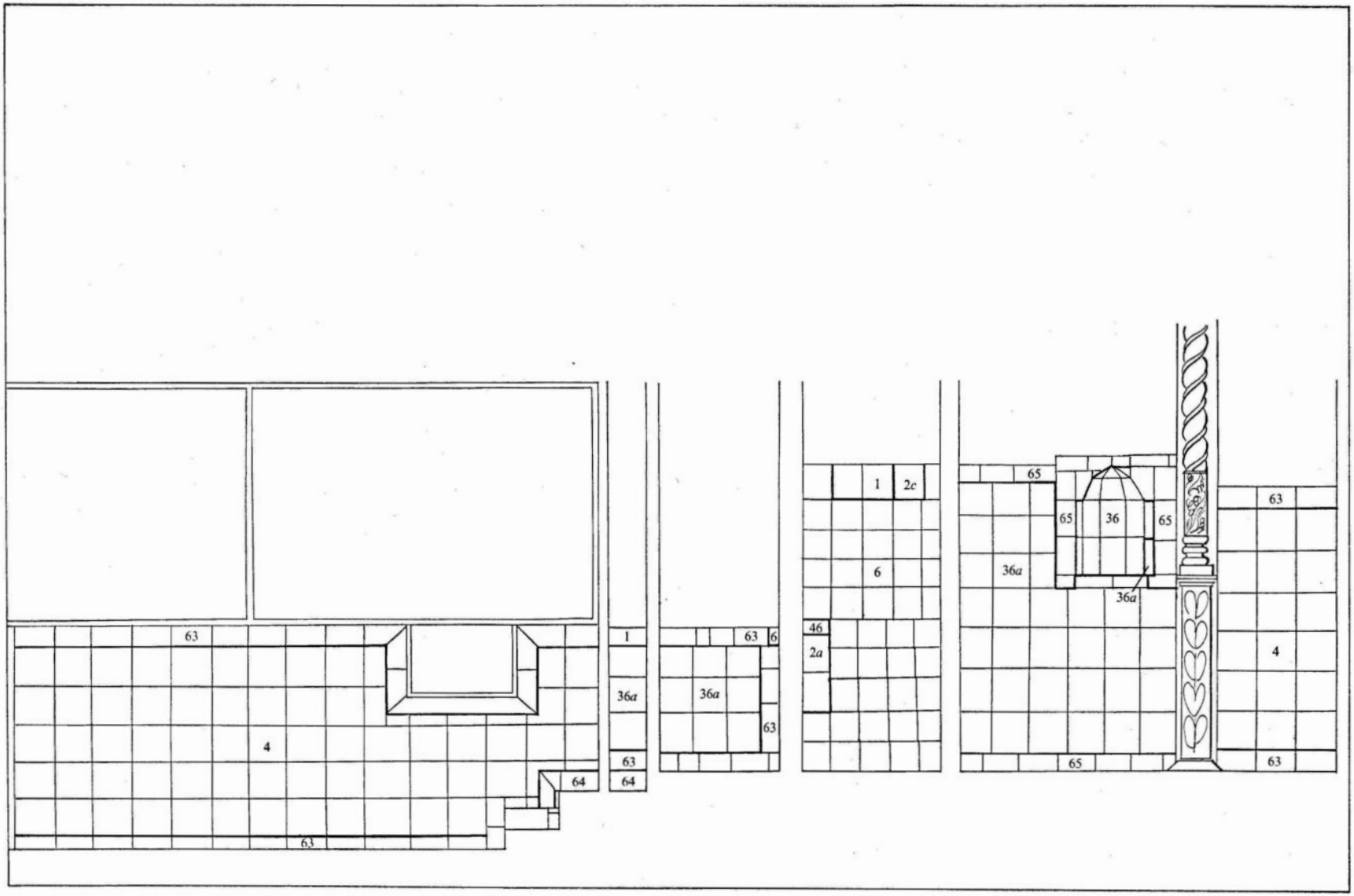
3. ST. JAMES CATHEDRAL West wall, III



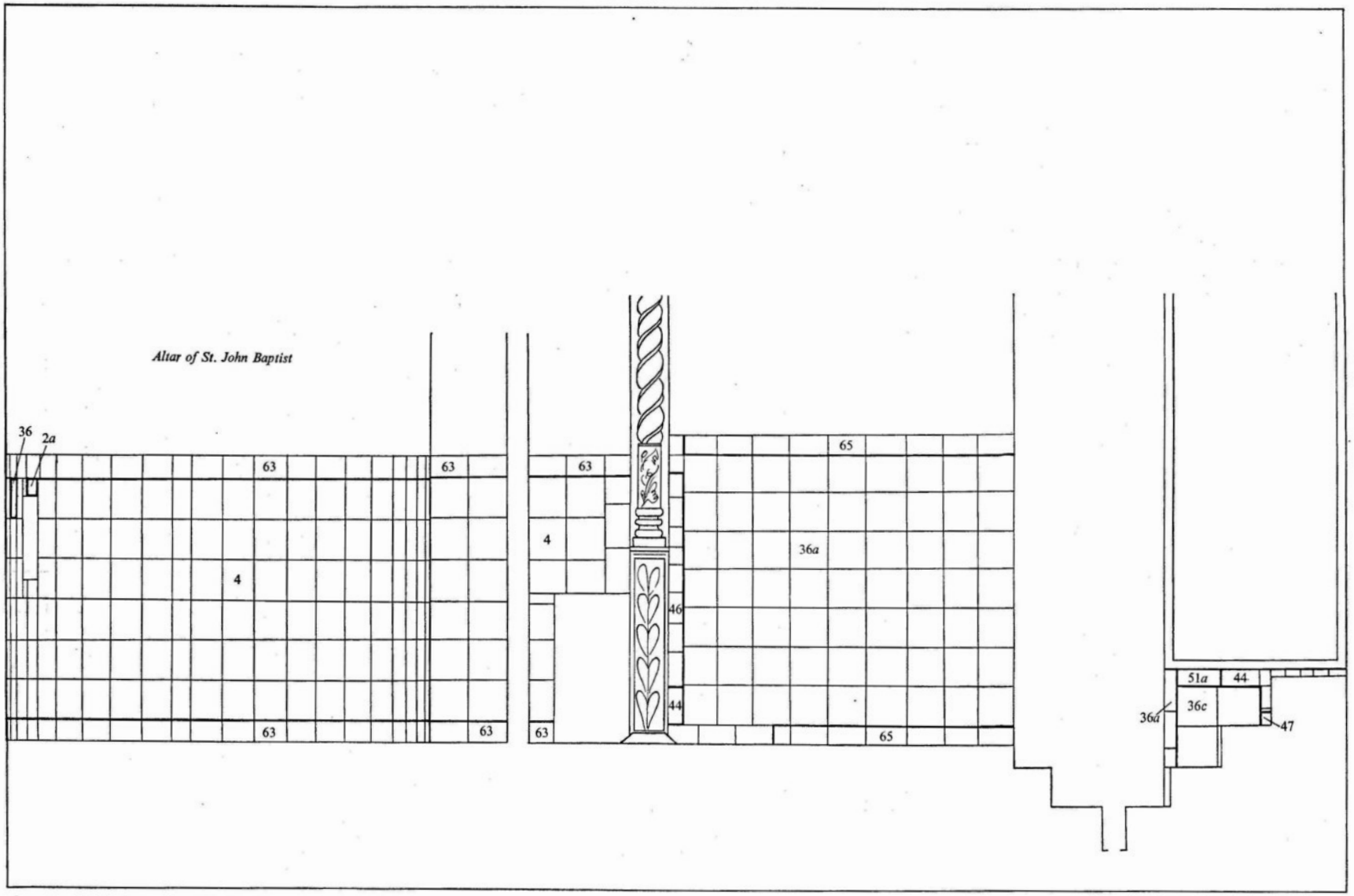
4. ST. JAMES CATHEDRAL North wall, I



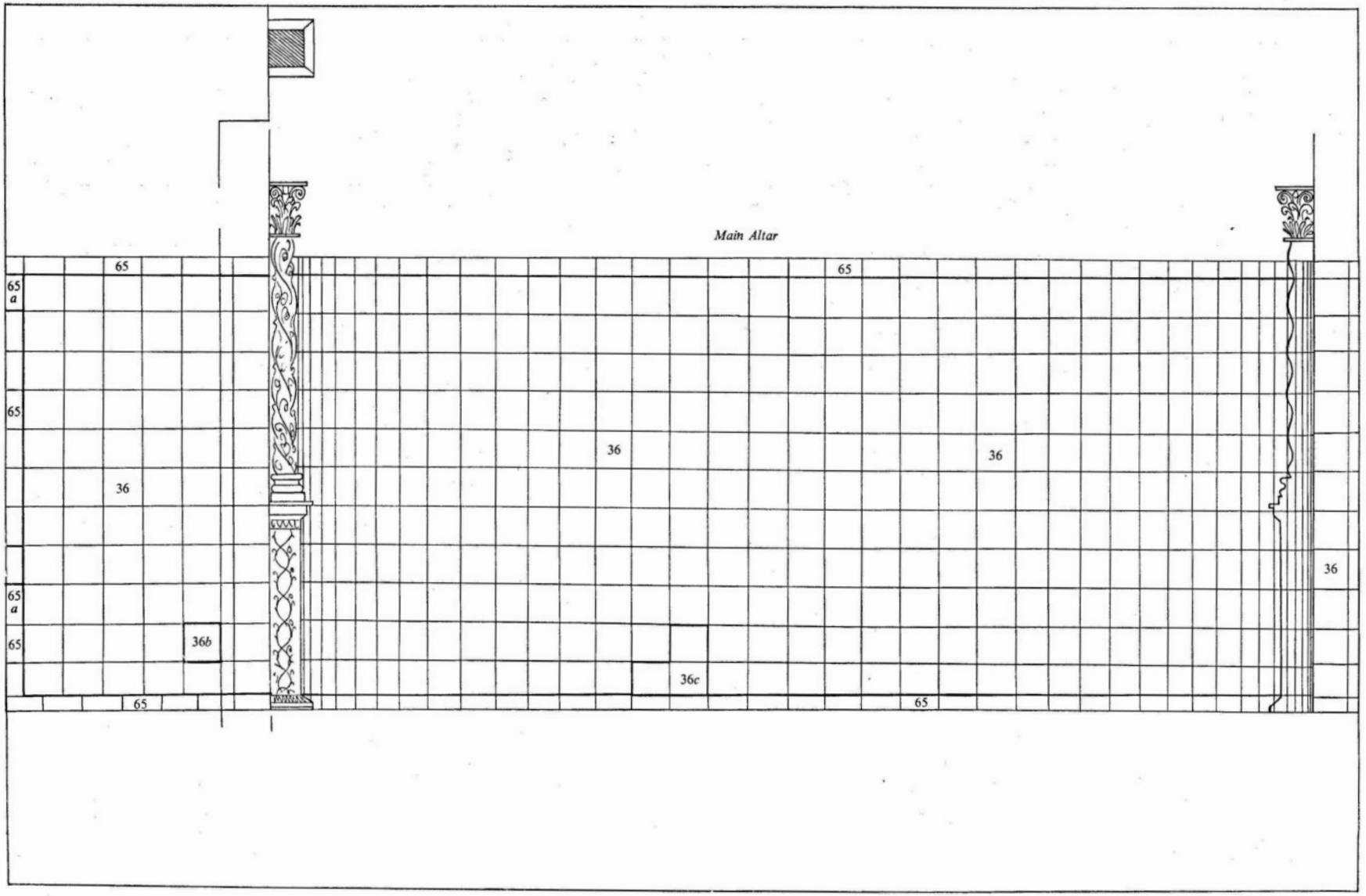
5. ST. JAMES CATHEDRAL North wall, II



6. ST. JAMES CATHEDRAL North wall, III

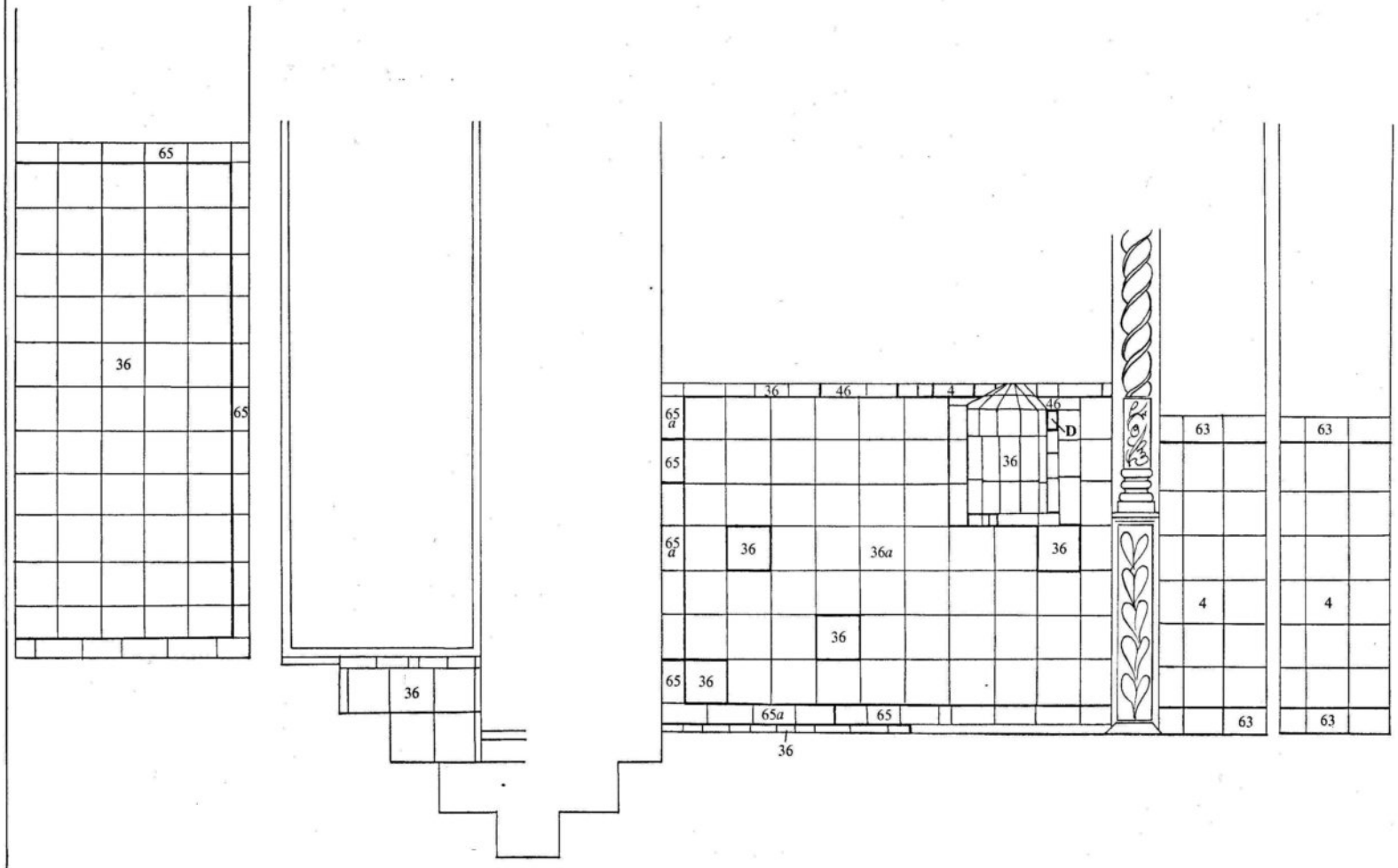


7. ST. JAMES CATHEDRAL Altar of St. John the Baptist

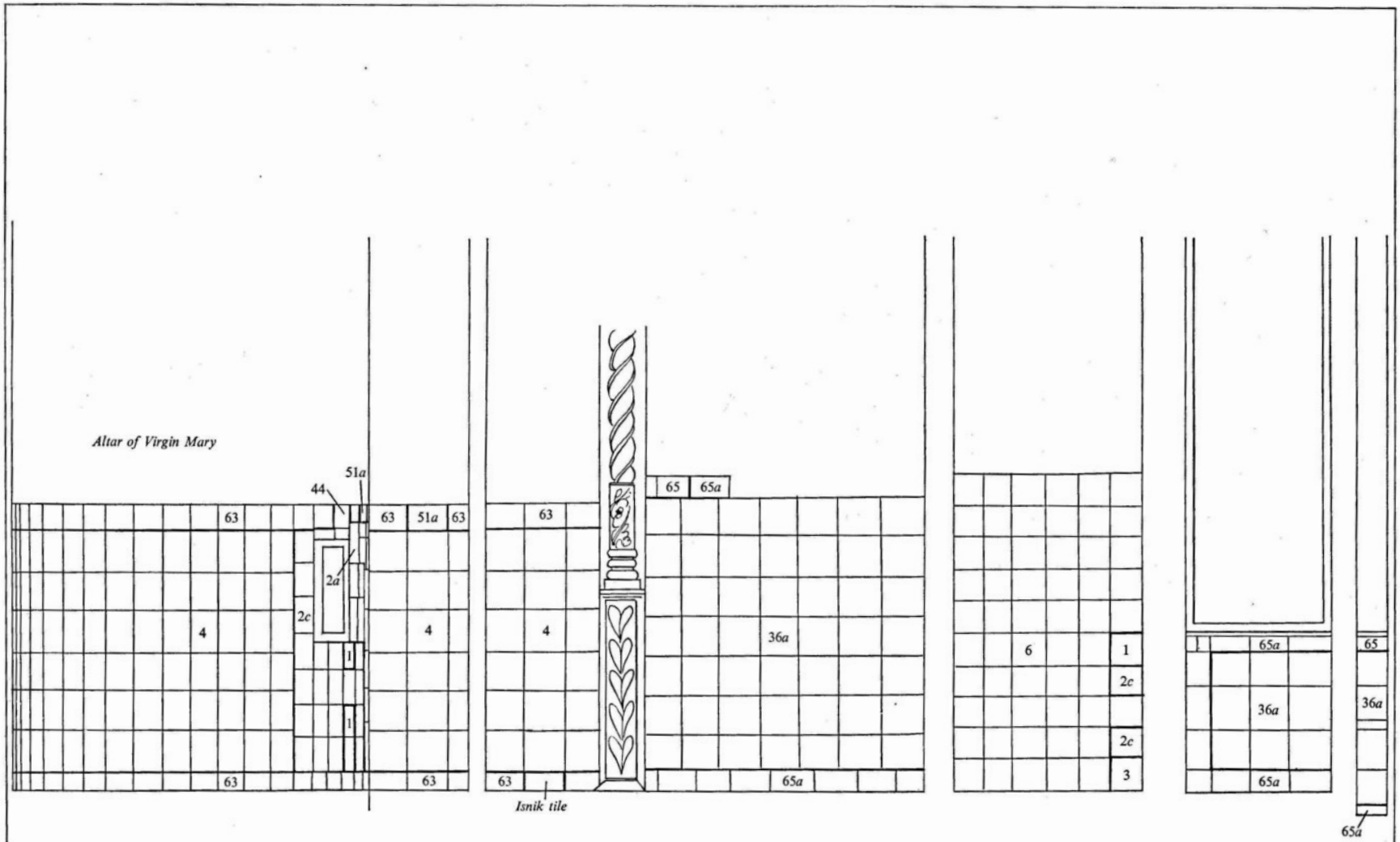


8. ST. JAMES CATHEDRAL Main altar, I

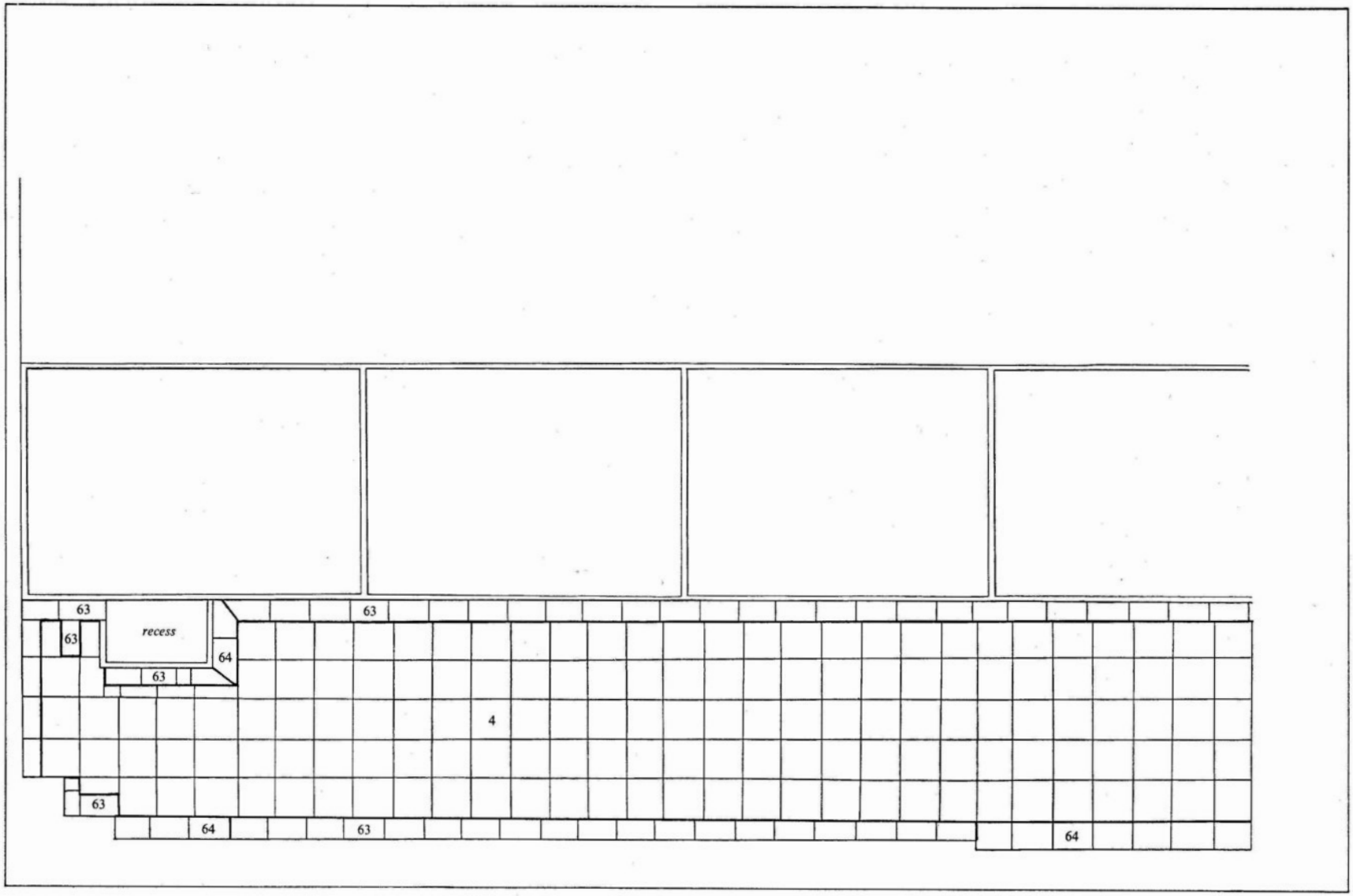
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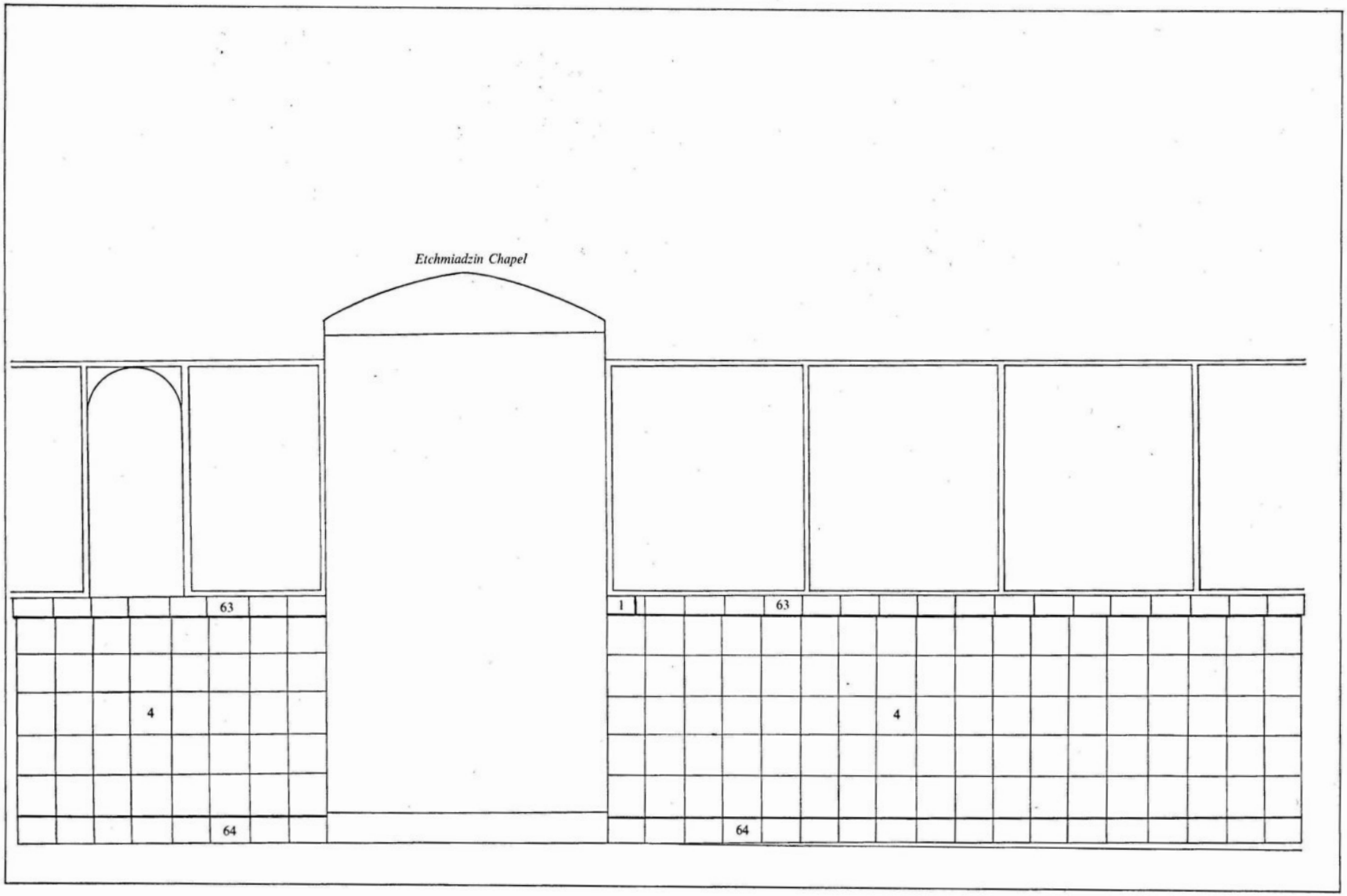
9. ST. JAMES CATHEDRAL Main altar, II



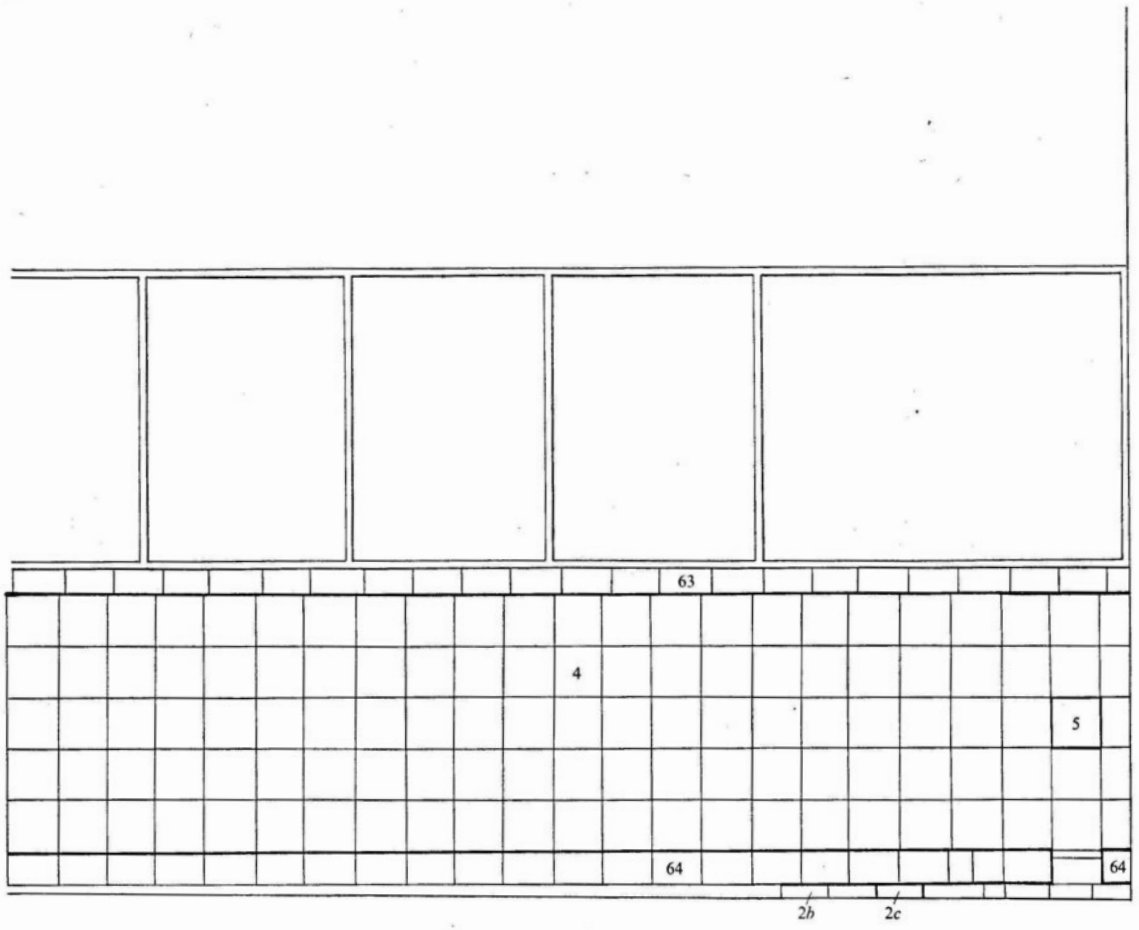
IO. ST. JAMES CATHEDRAL Altar of the Virgin Mary



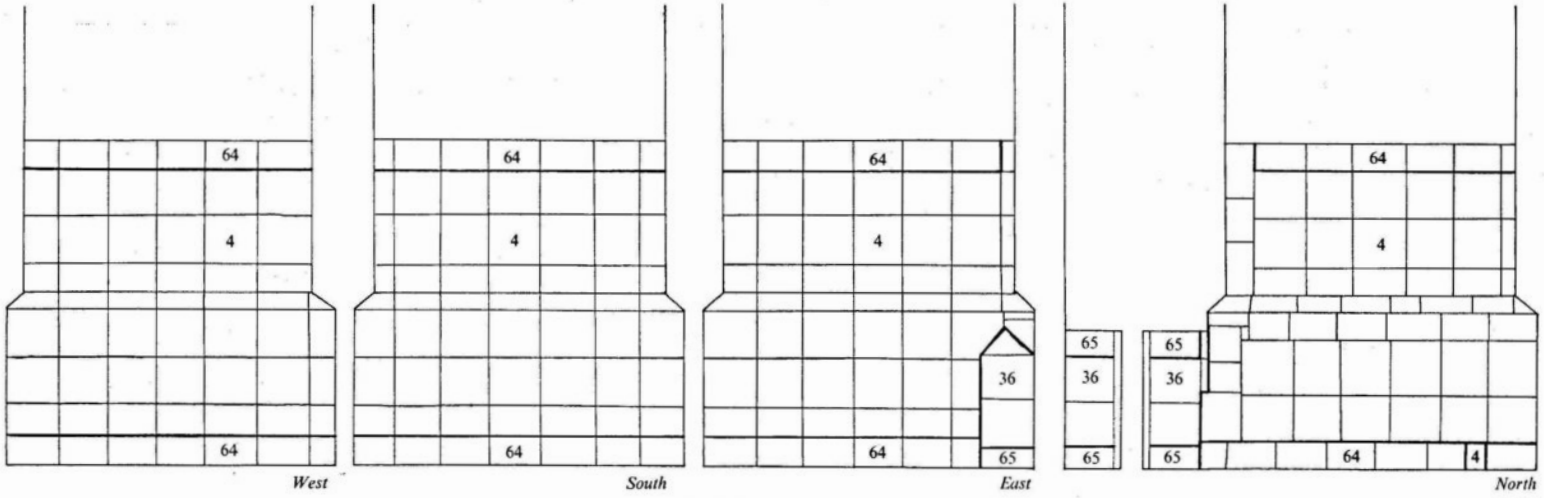
11. ST. JAMES CATHEDRAL South wall, I



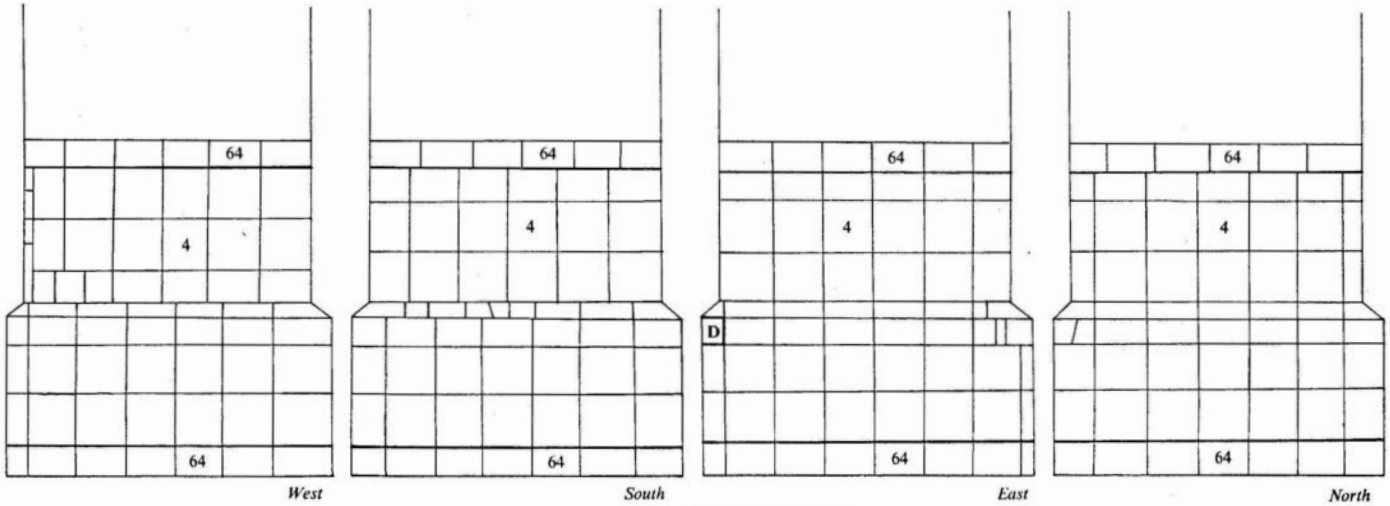
12. ST. JAMES CATHEDRAL South wall, II



13. ST. JAMES CATHEDRAL South wall III

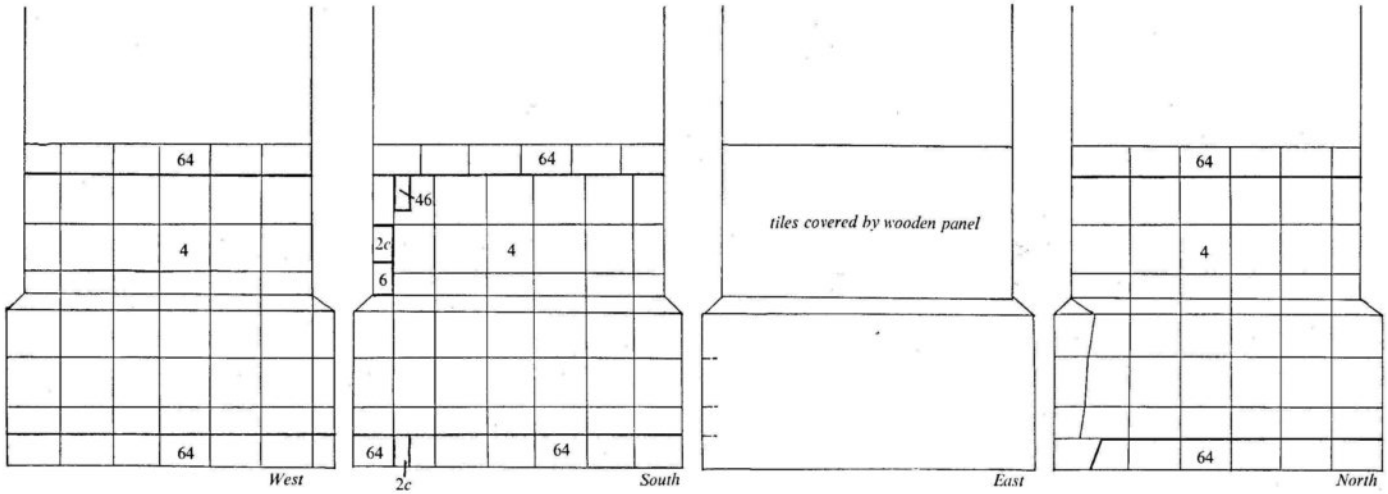


NORTH-WEST PIER

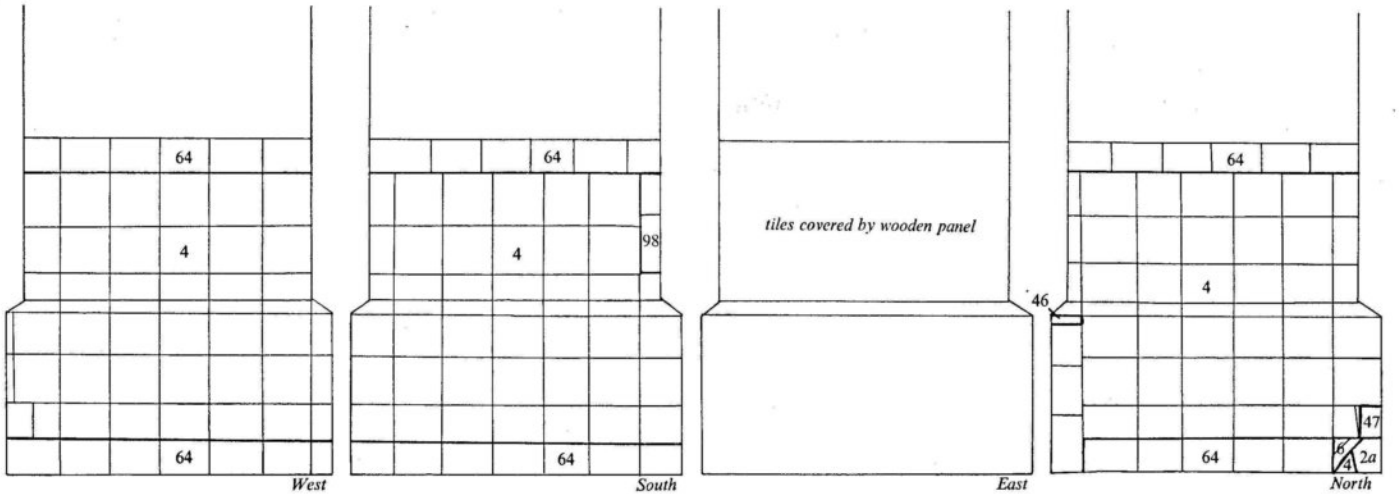


SOUTH-WEST PIER

14. ST. JAMES CATHEDRAL North-west pier, South-west pier

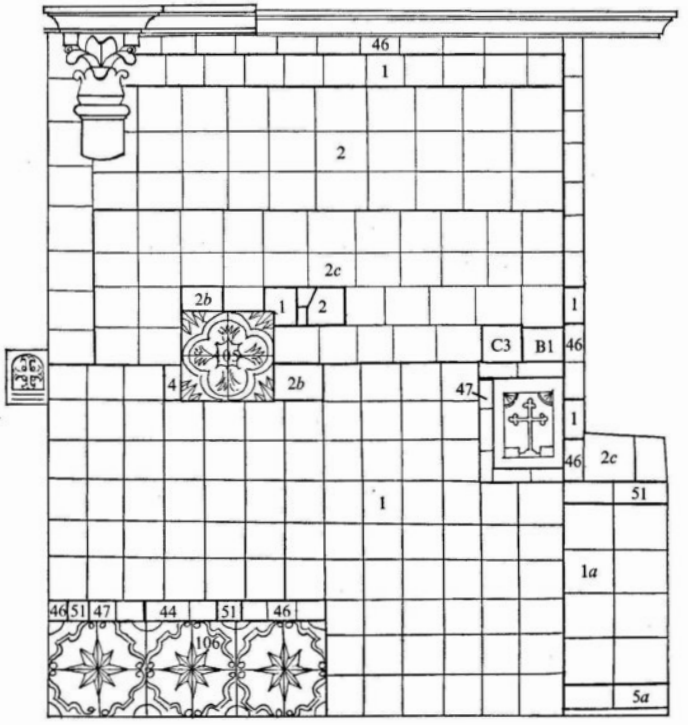


NORTH-EAST PIER

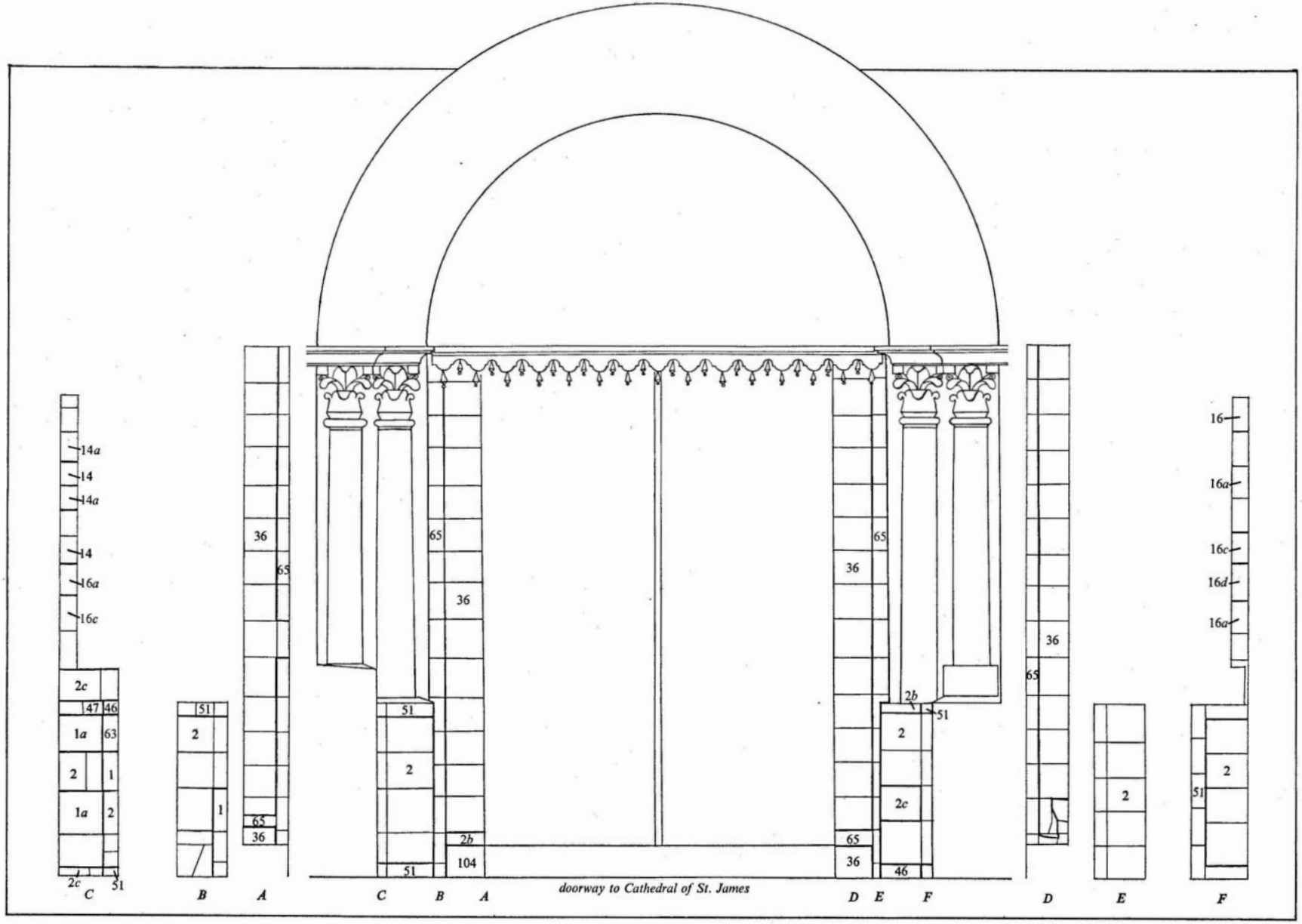


SOUTH-EAST PIER

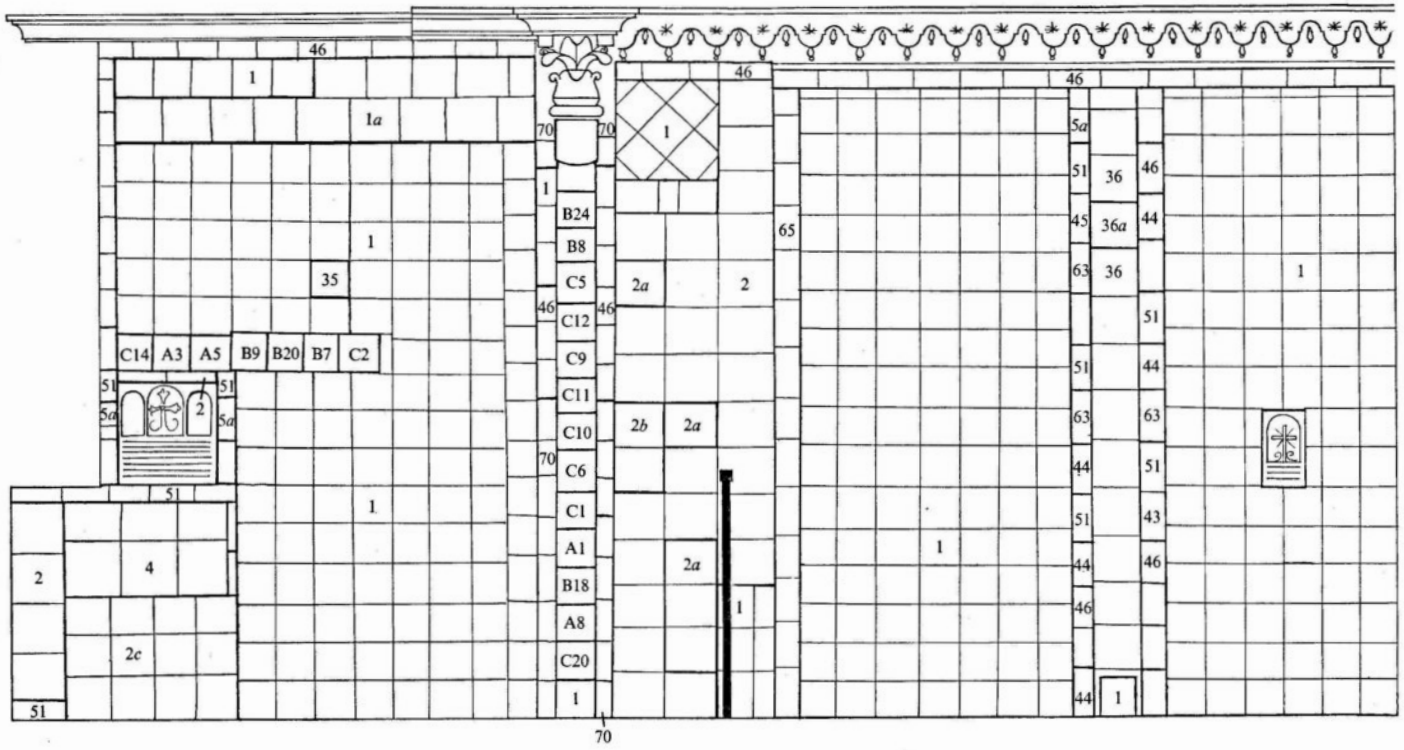
15. ST. JAMES CATHEDRAL North-east pier, South-east pier



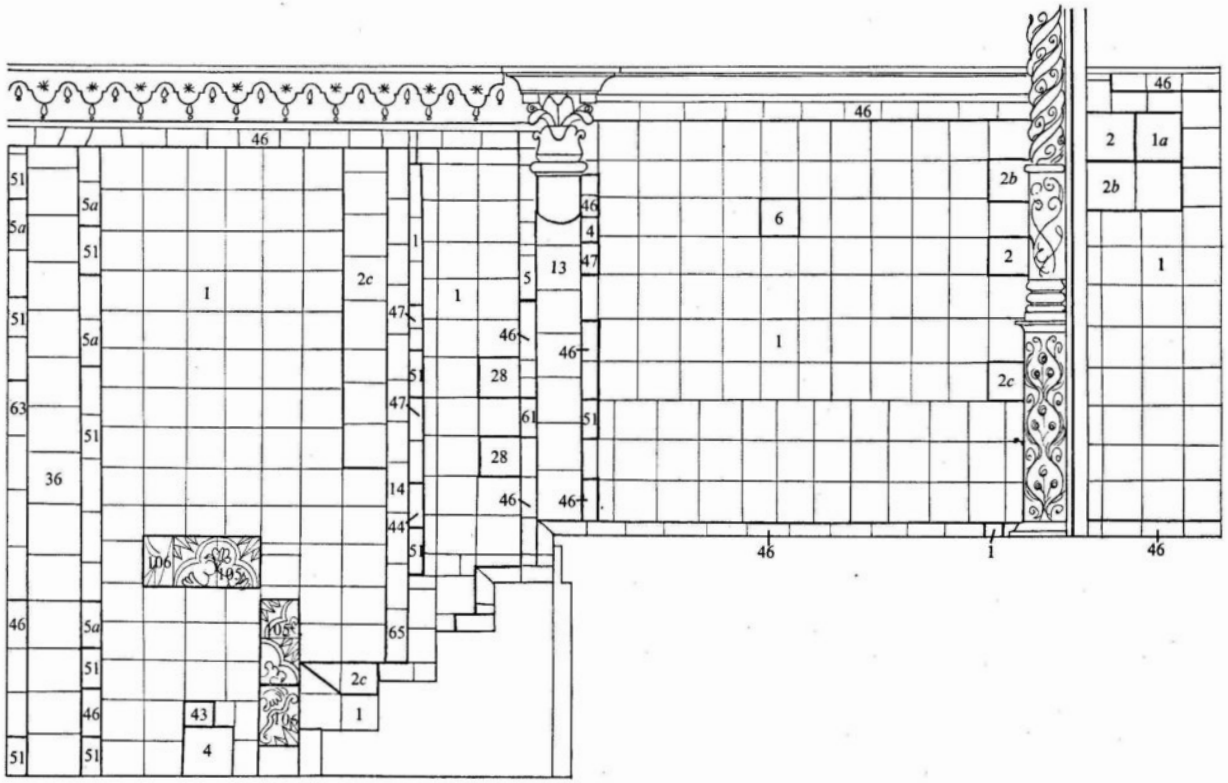
16. ST. JAMES CATHEDRAL Etchmiadzin Chapel, North wall, I



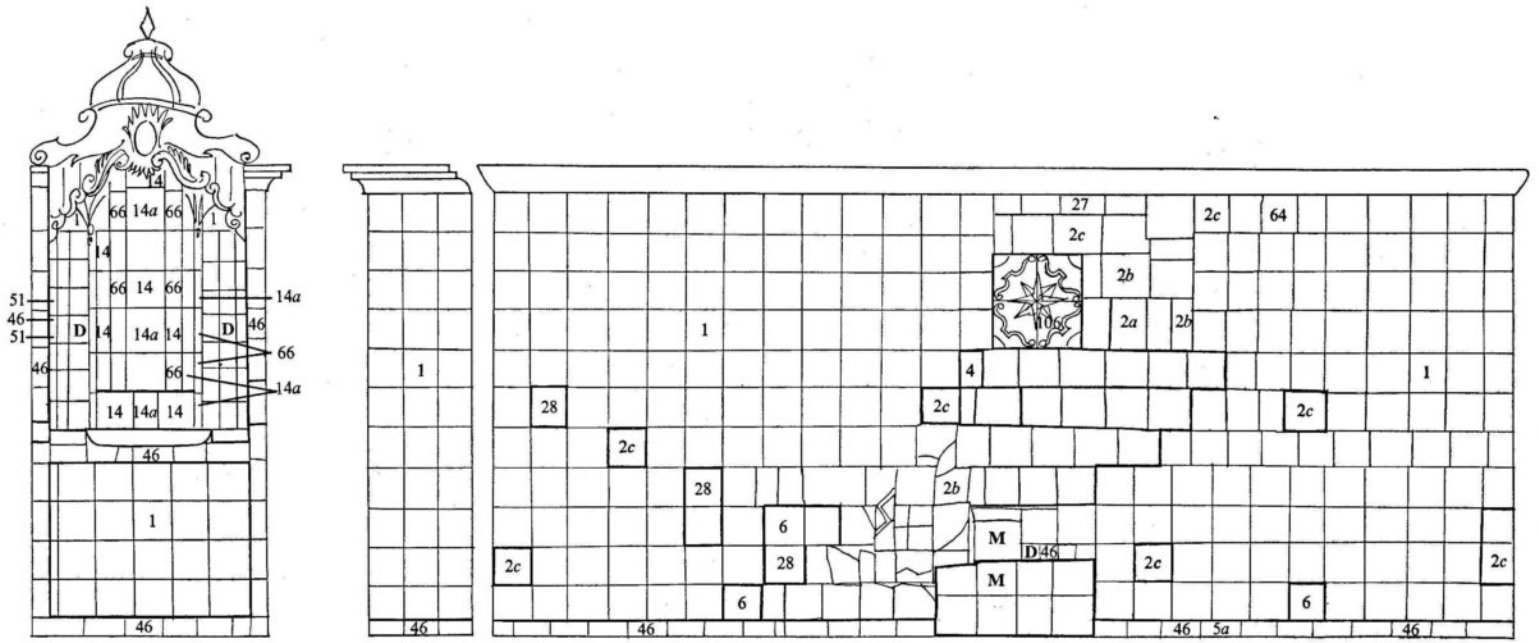
17. ST. JAMES CATHEDRAL Etchmiadzin Chapel, North wall, II



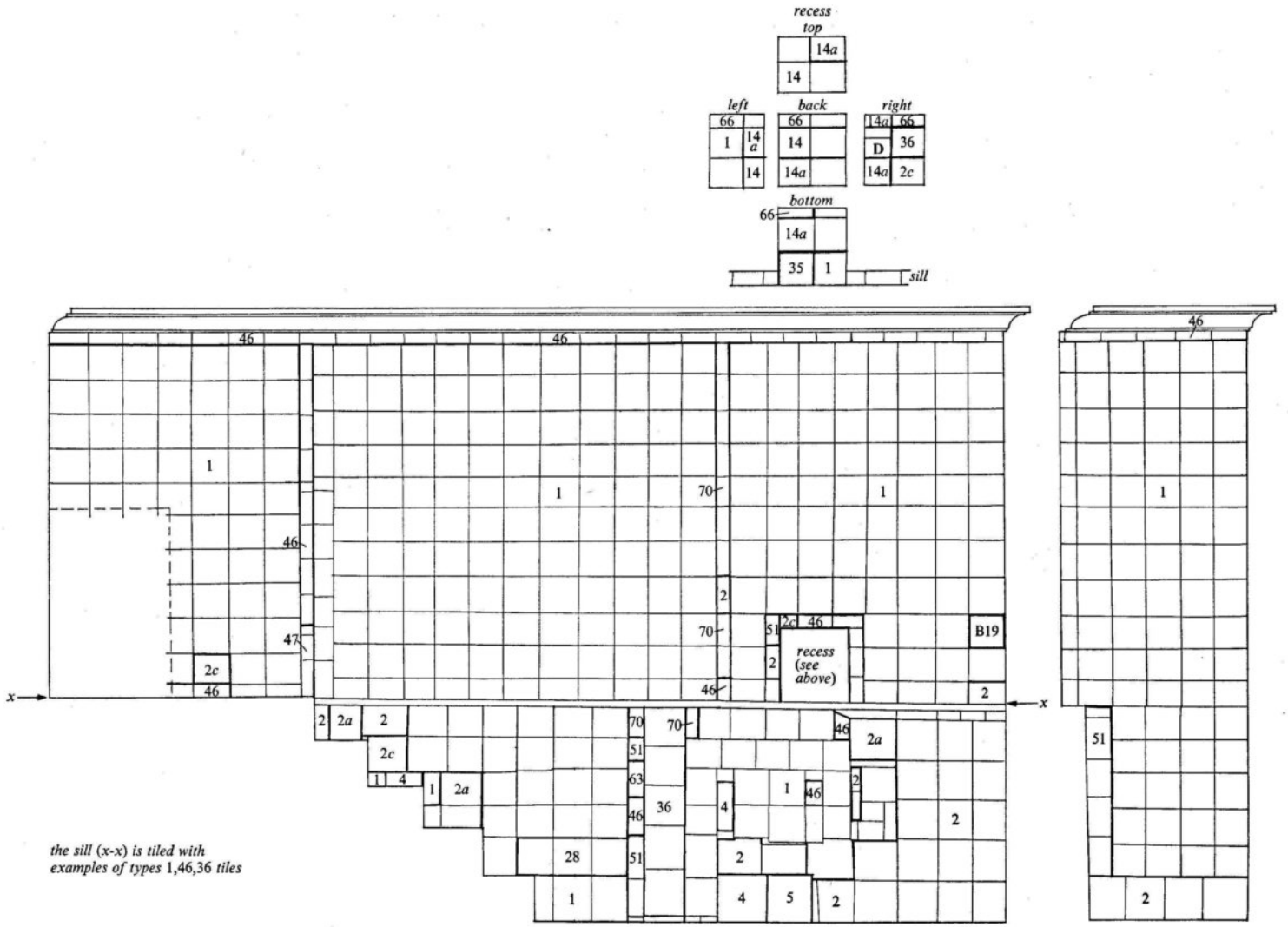
18. ST. JAMES CATHEDRAL Etchmiadzin Chapel, North wall, III



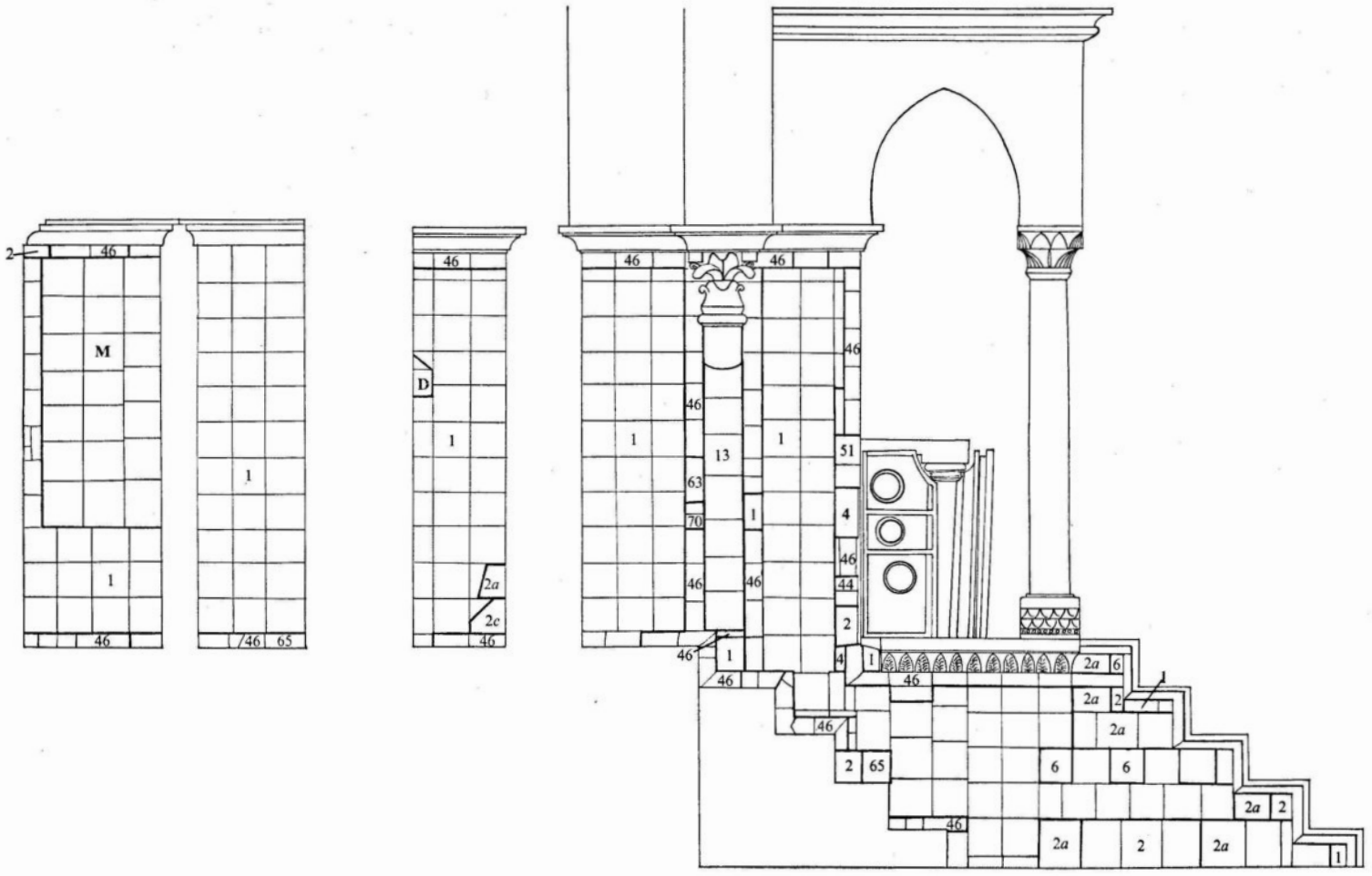
19. ST. JAMES CATHEDRAL Etchmiadzin Chapel, North wall, IV



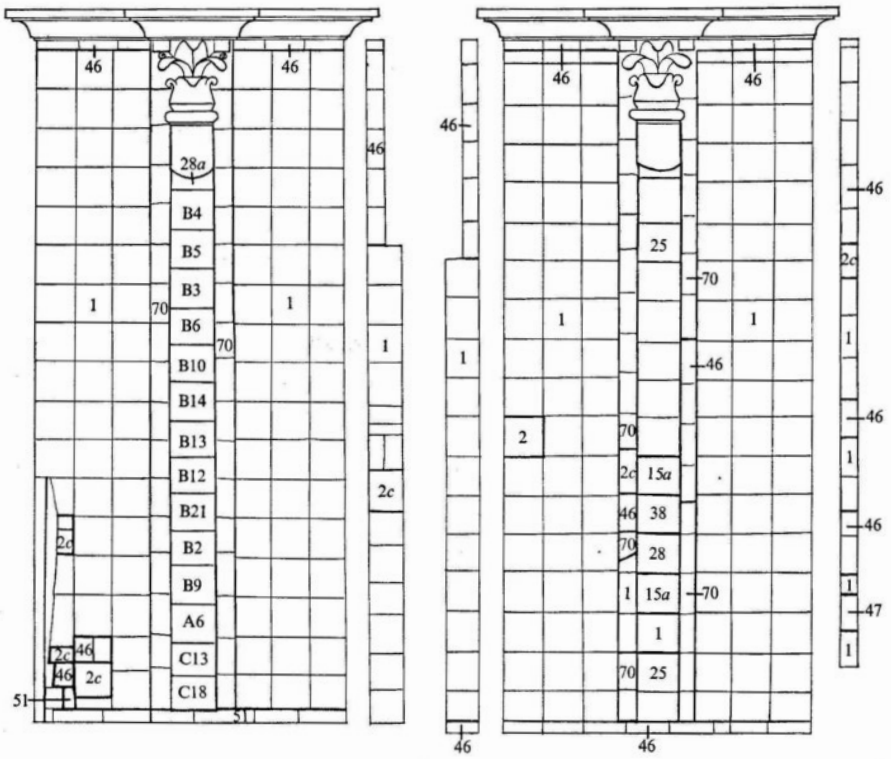
20. ST. JAMES CATHEDRAL Etchmiadzin Chapel, East wall



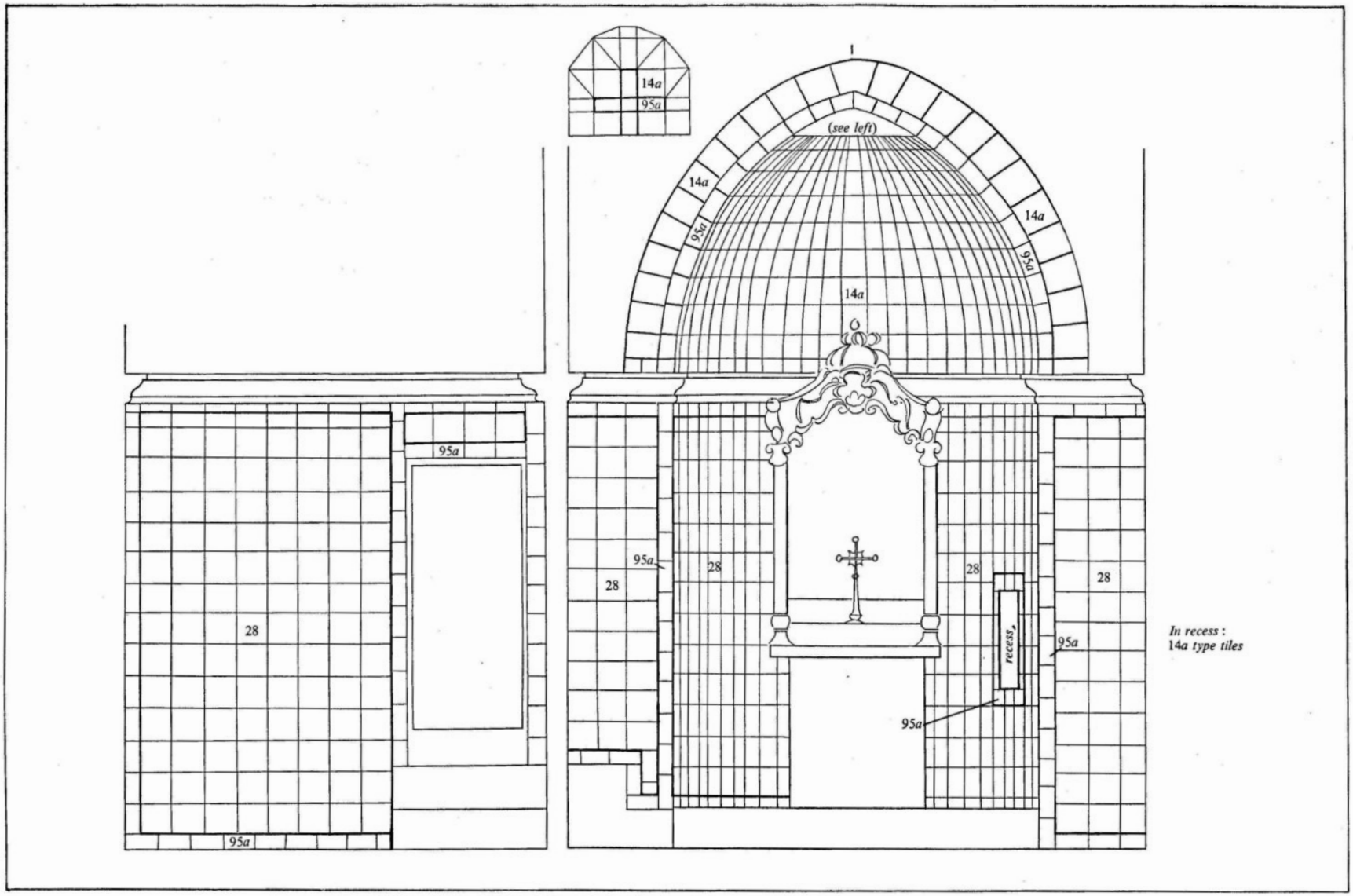
21. ST. JAMES CATHEDRAL Etchmiadzin Chapel, South wall, I



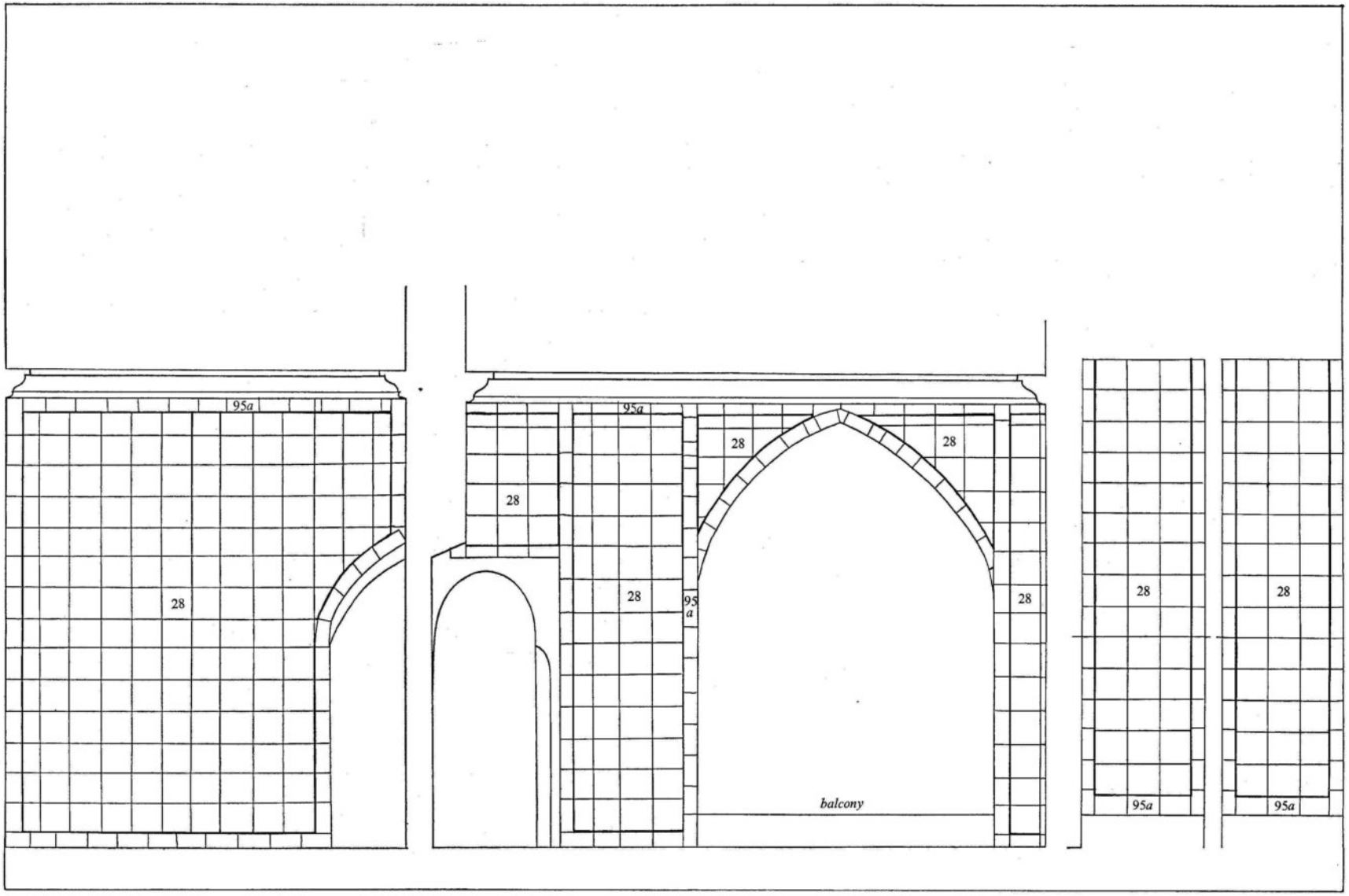
22. ST. JAMES CATHEDRAL Etchmiadzin Chapel, South wall, II



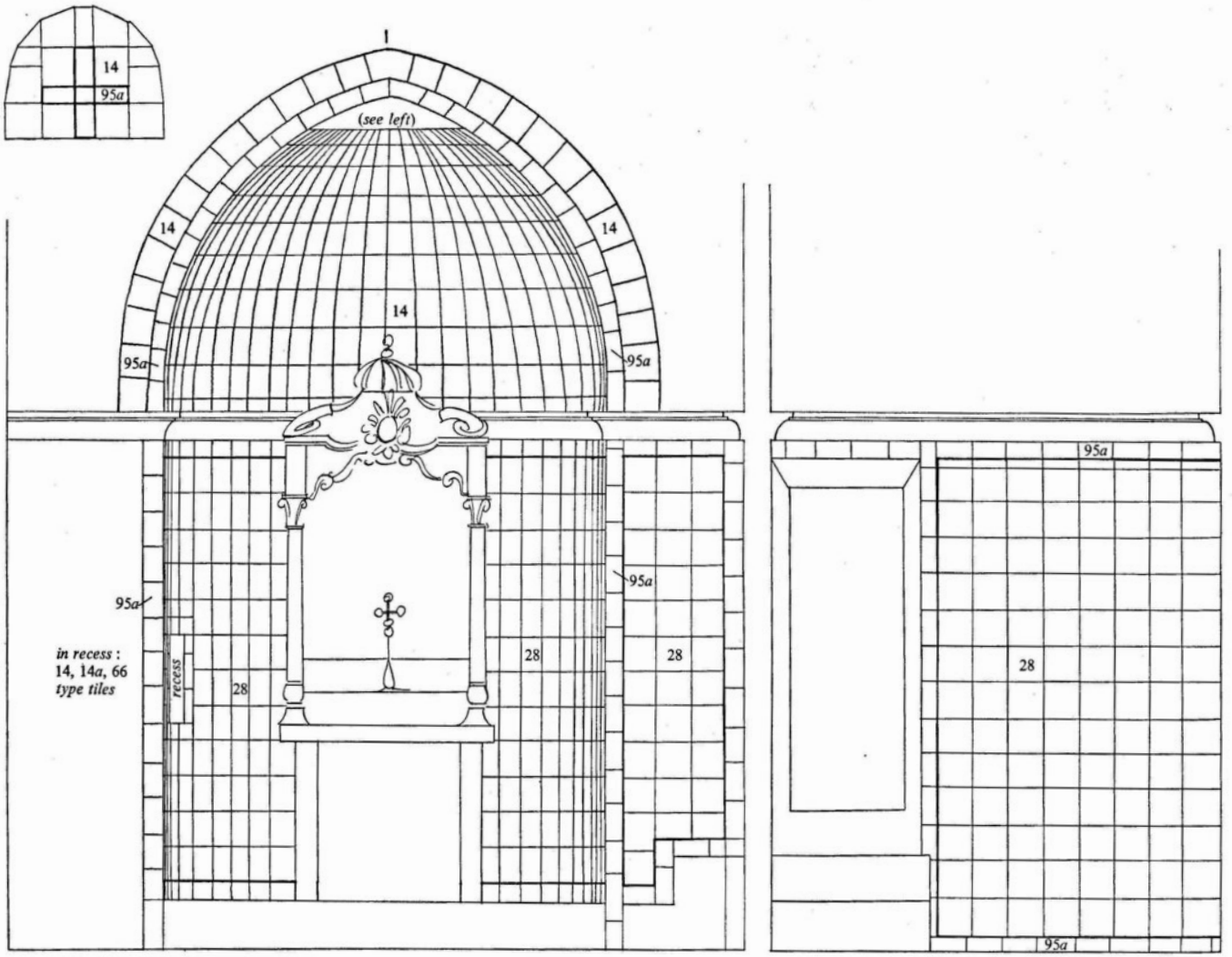
23. ST. JAMES CATHEDRAL Etchmiadzin Chapel, South wall, III



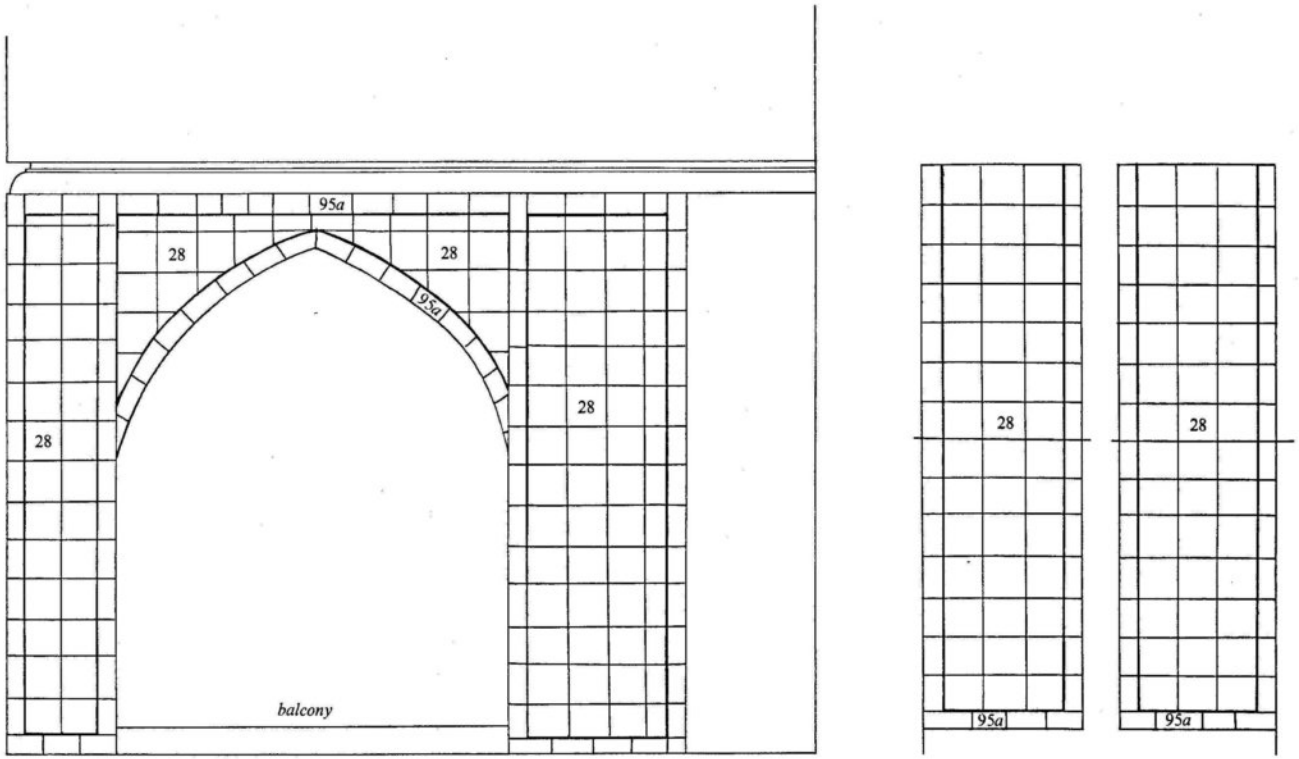
24. ST. JAMES CATHEDRAL Chapel of St. Peter, Altar and North wall



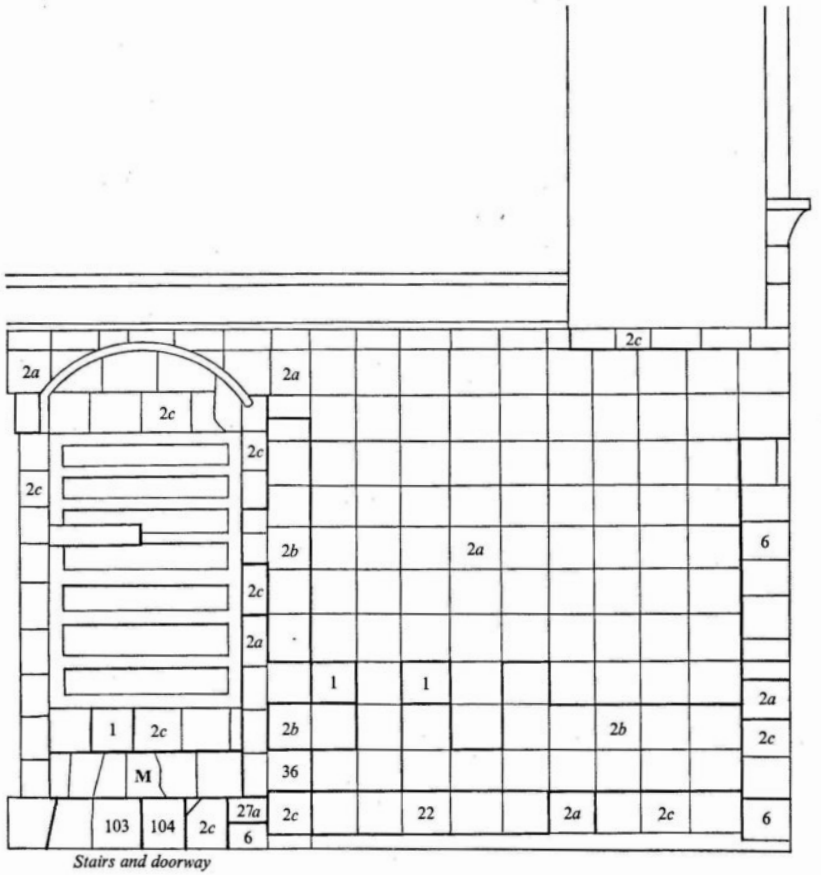
25. ST. JAMES CATHEDRAL Chapel of St. Peter, South and West walls



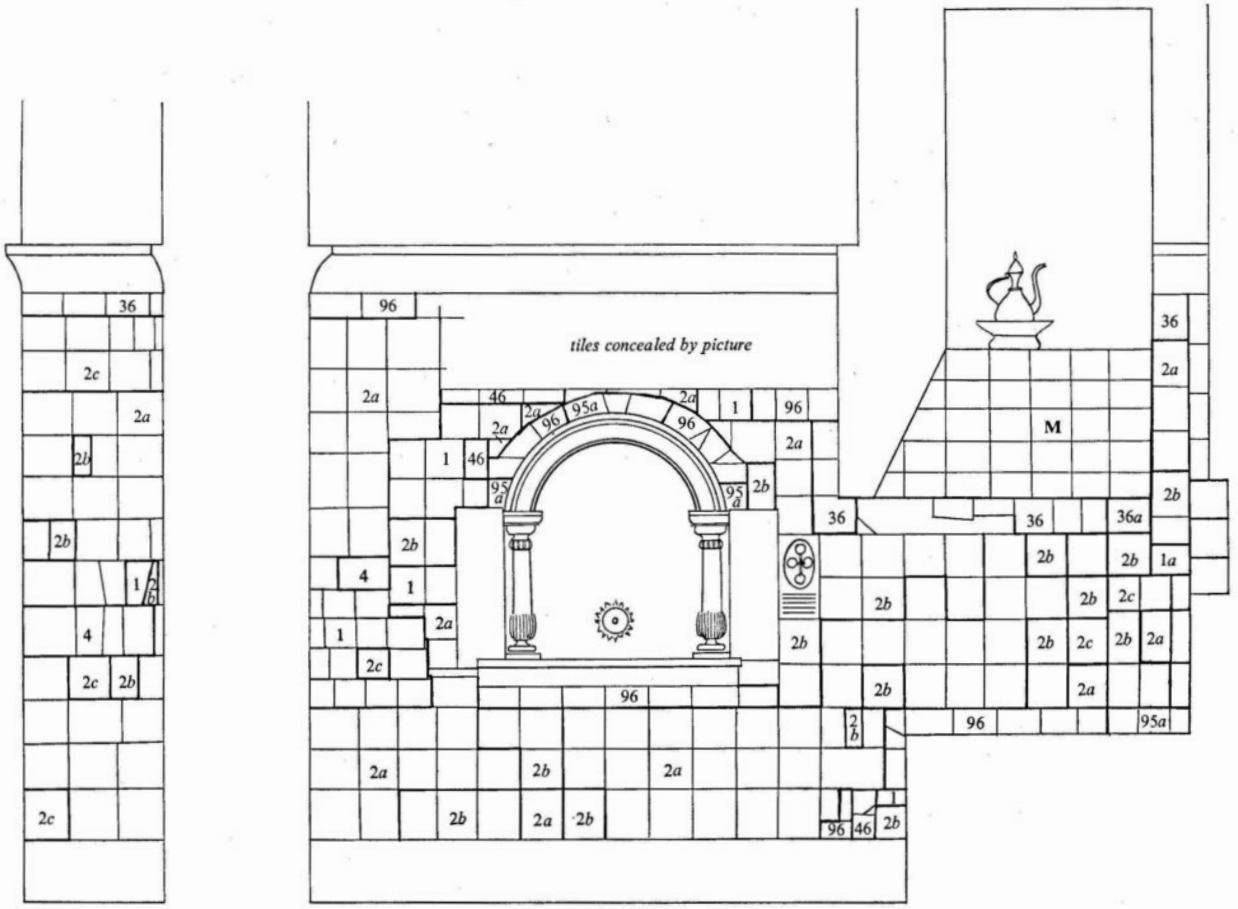
26. ST. JAMES CATHEDRAL Chapel of St. Paul, Altar and South wall



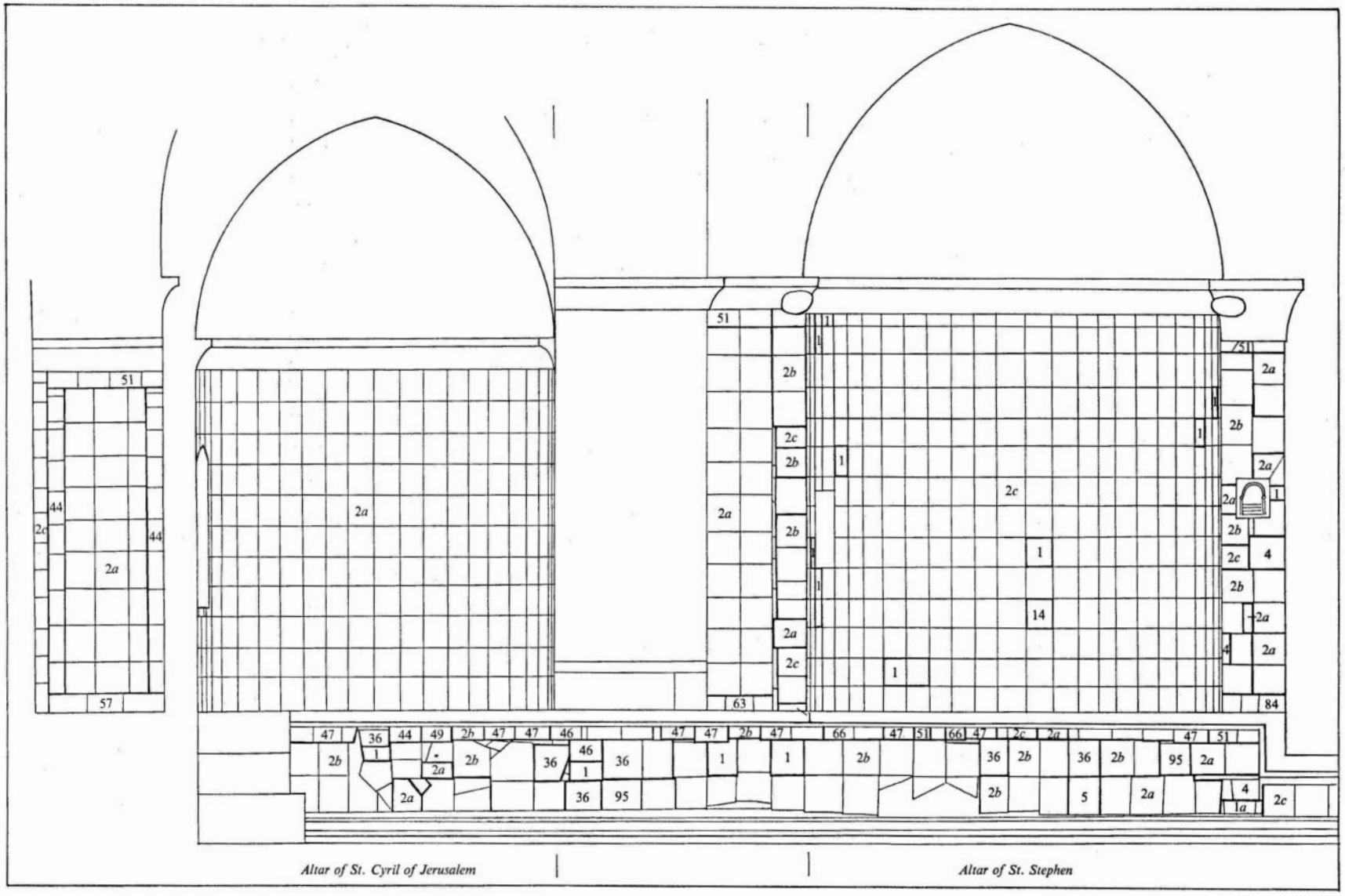
27. ST. JAMES CATHEDRAL Chapel of St. Paul, West wall



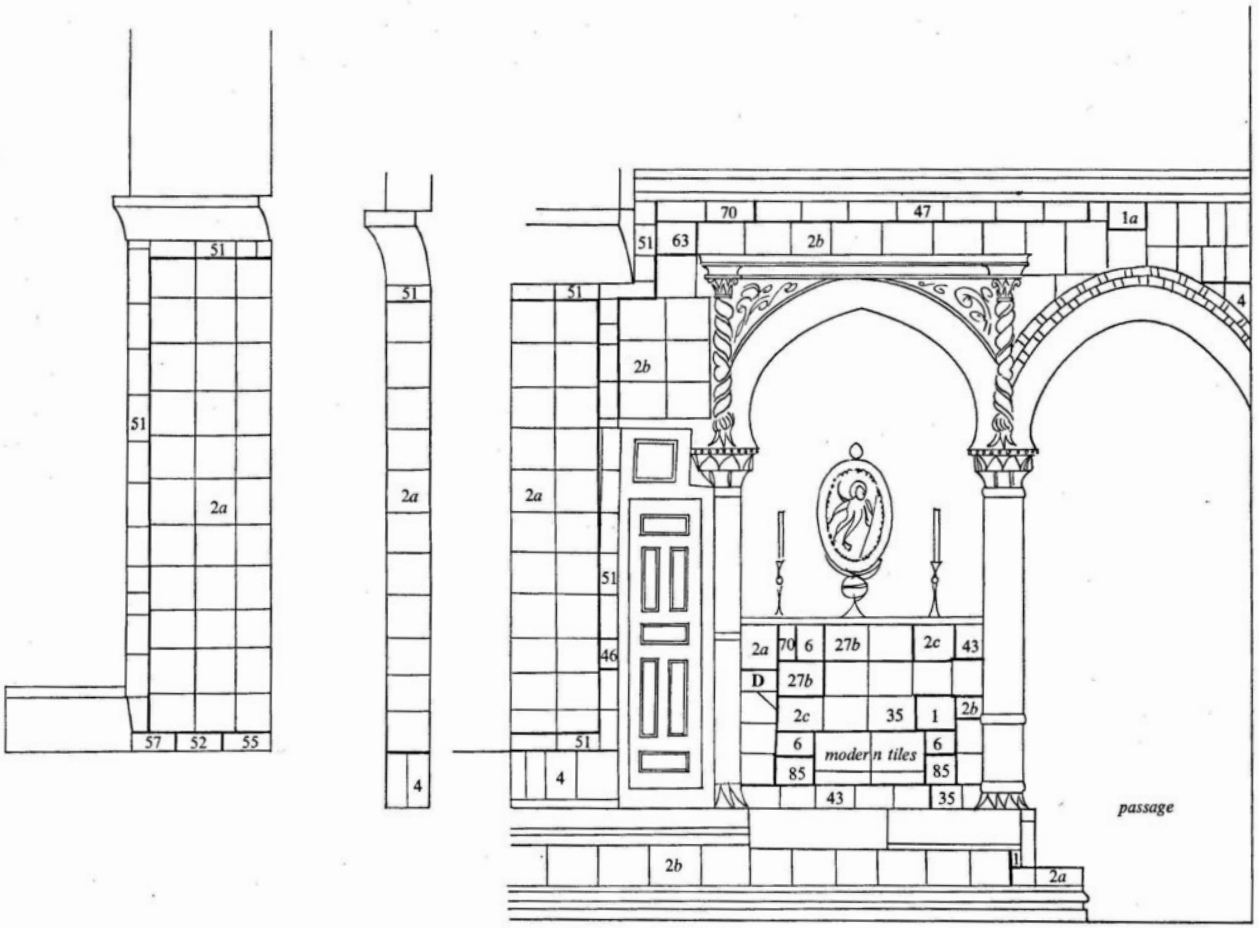
28. ST. JAMES CATHEDRAL Sacristy, North wall, I



29. ST. JAMES CATHEDRAL Sacristy, North wall, II

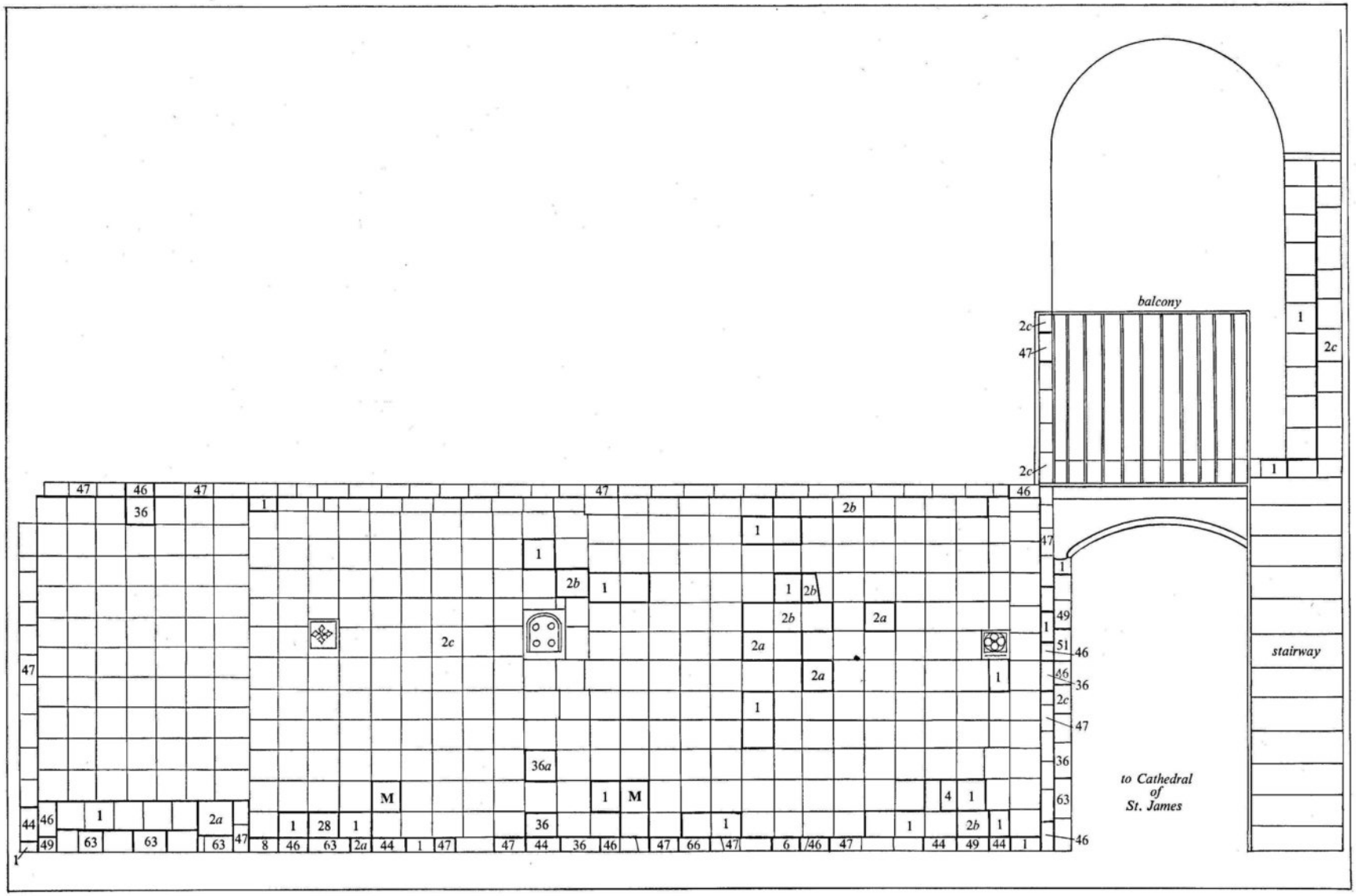


30. ST. JAMES CATHEDRAL Sacristy, East wall, I

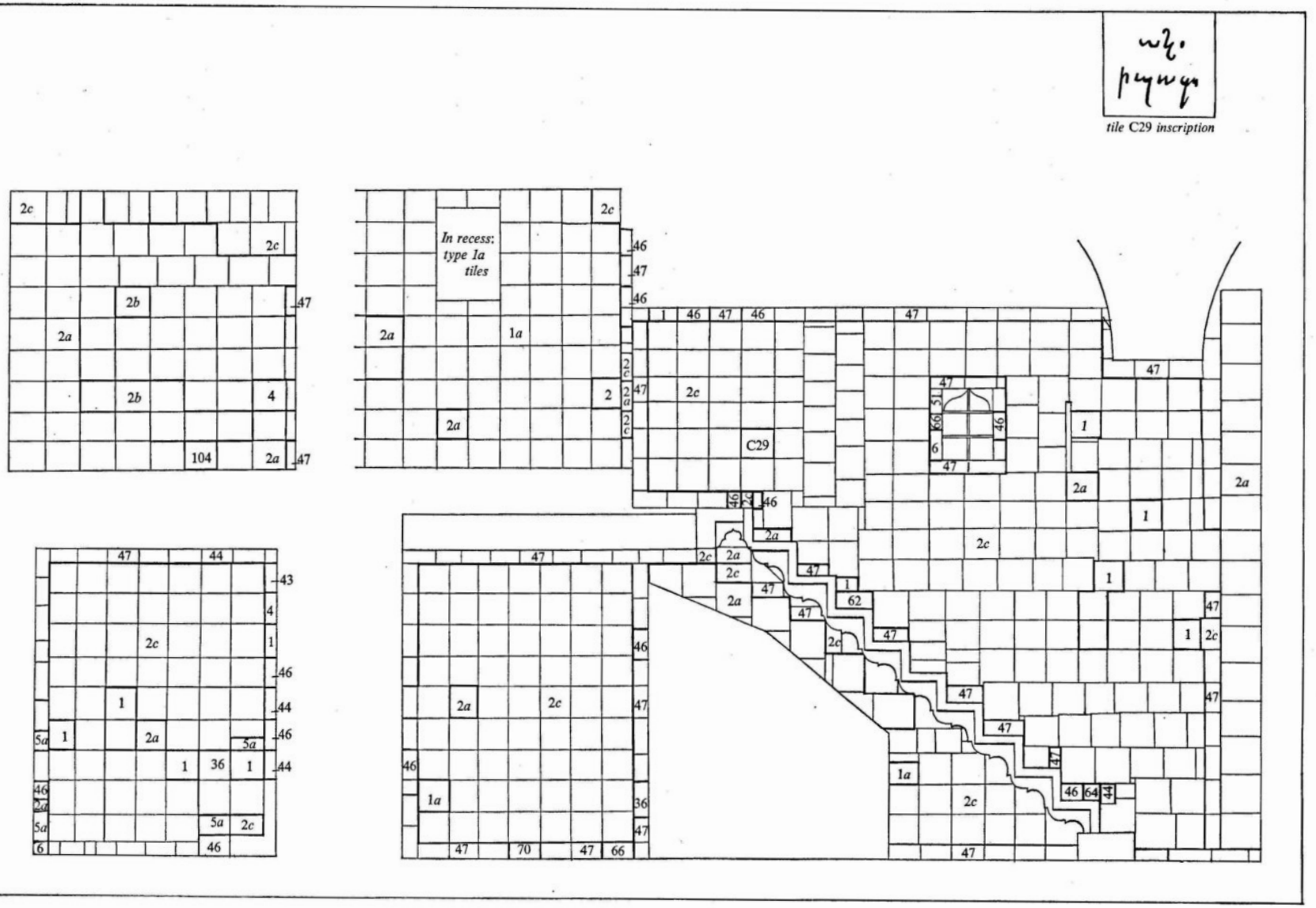


Altar of St. Gregory the Illuminator

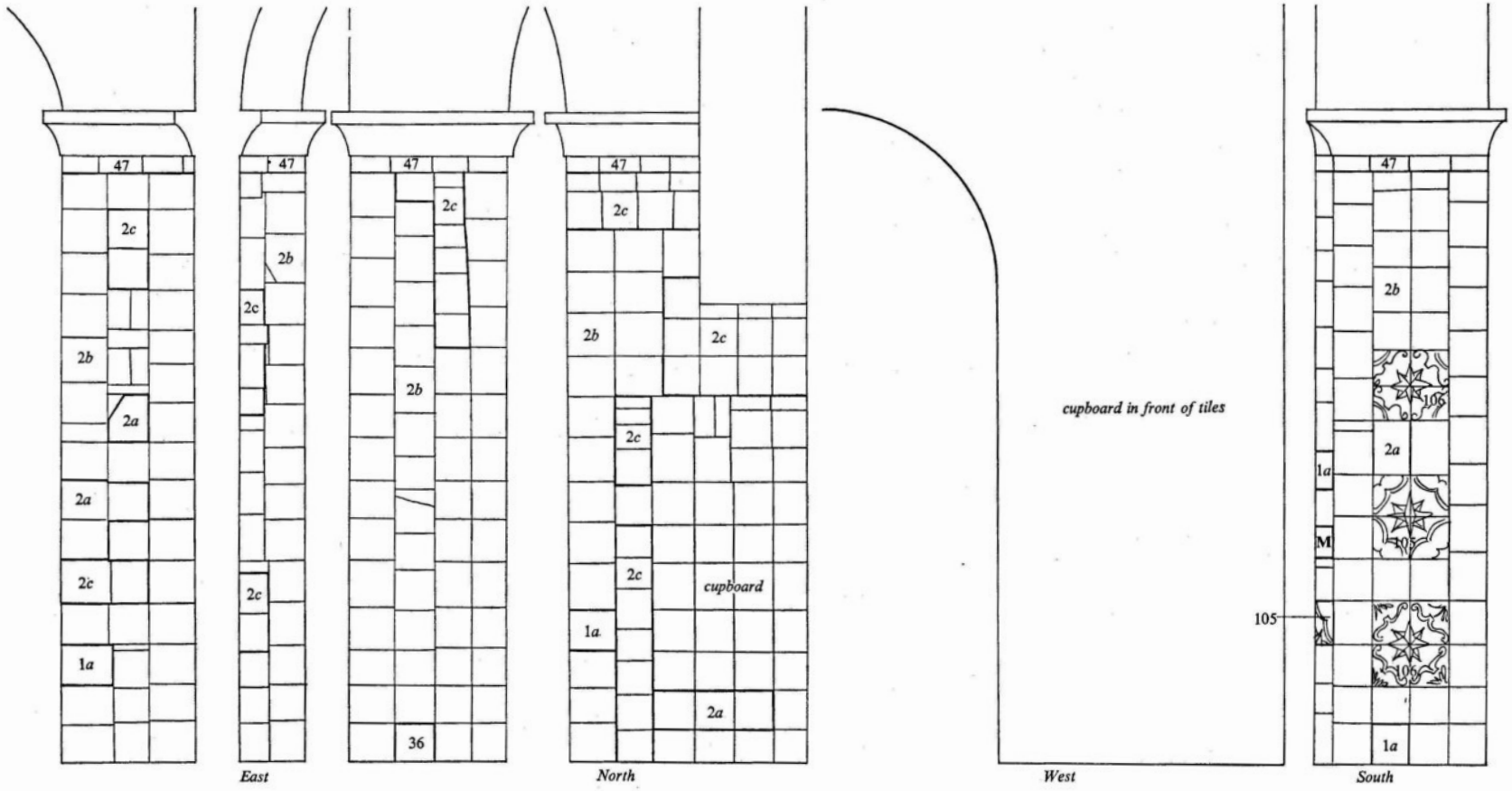
31. ST. JAMES CATHEDRAL Sacristy, East wall, II



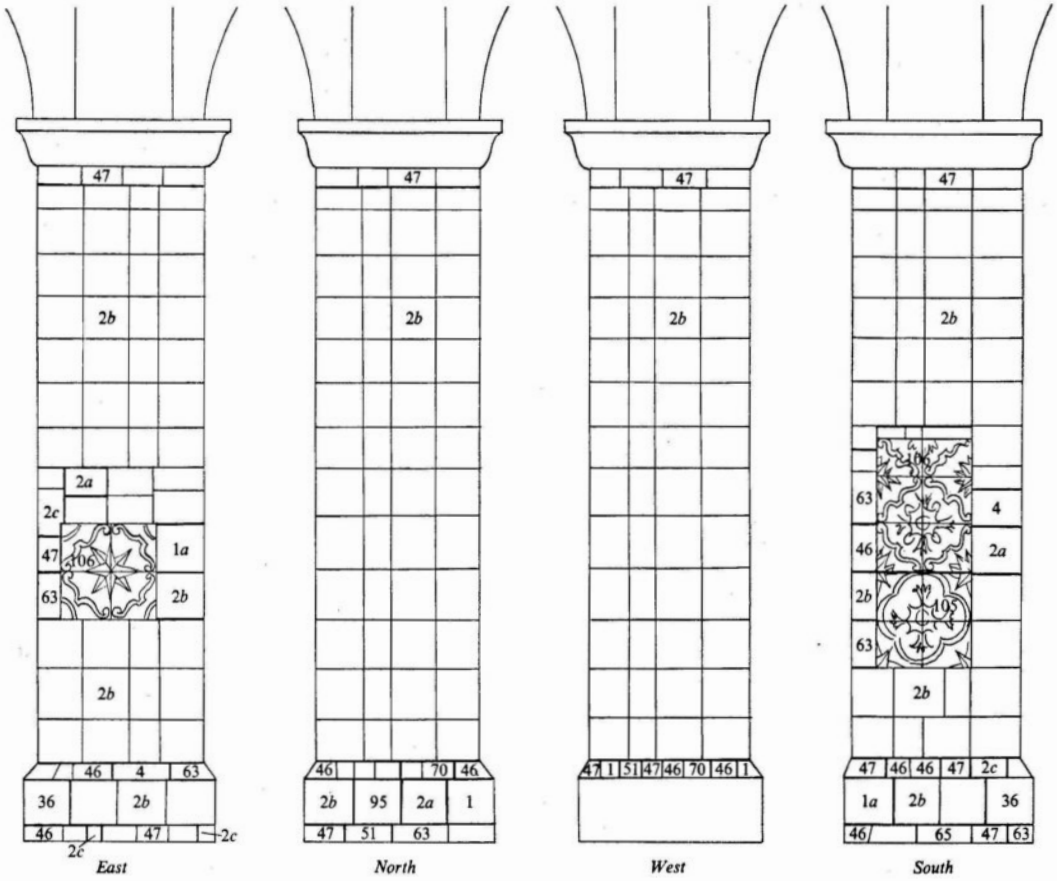
32. ST. JAMES CATHEDRAL Sacristy, South wall



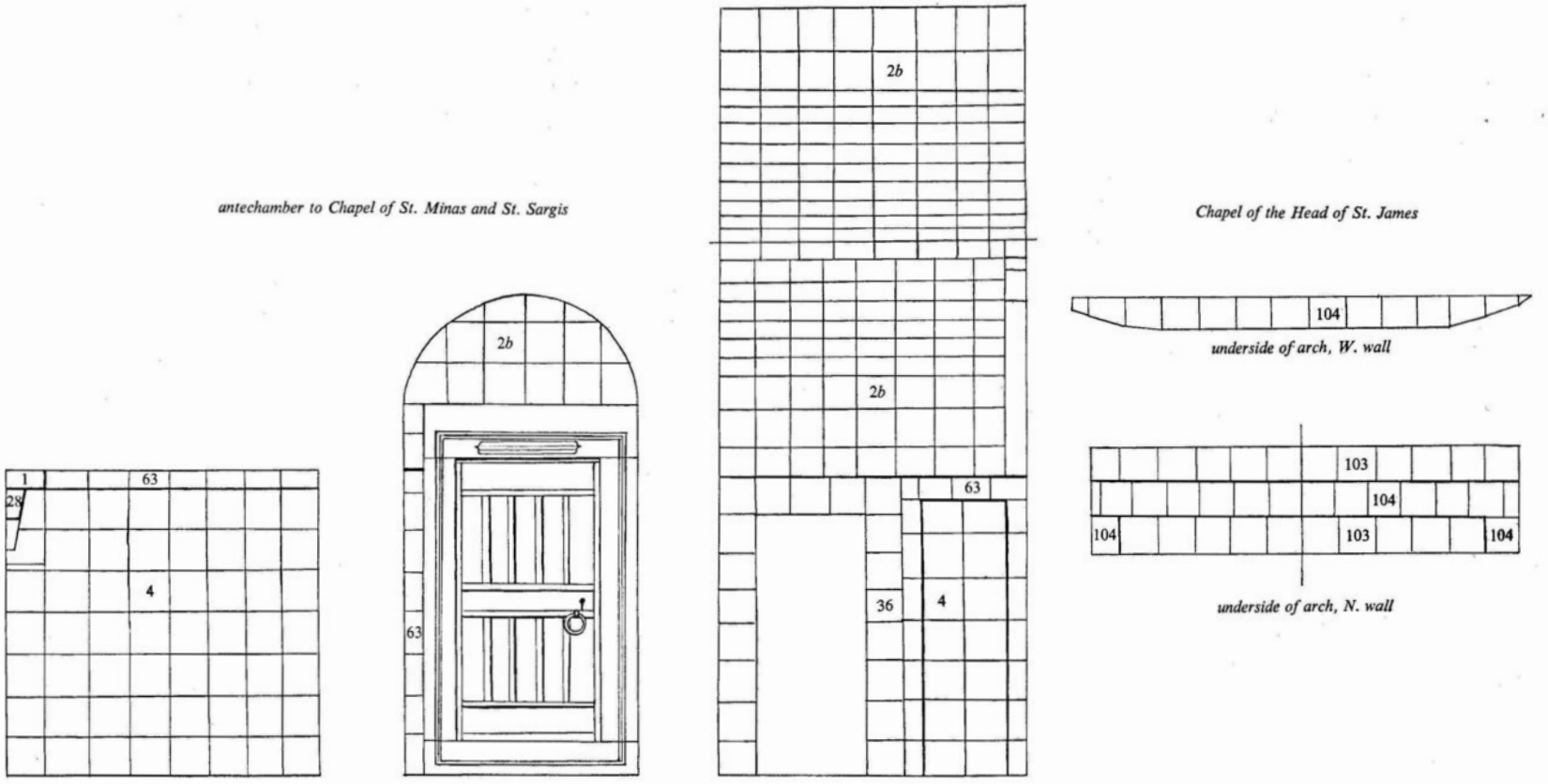
33. ST. JAMES CATHEDRAL Sacristy, West wall



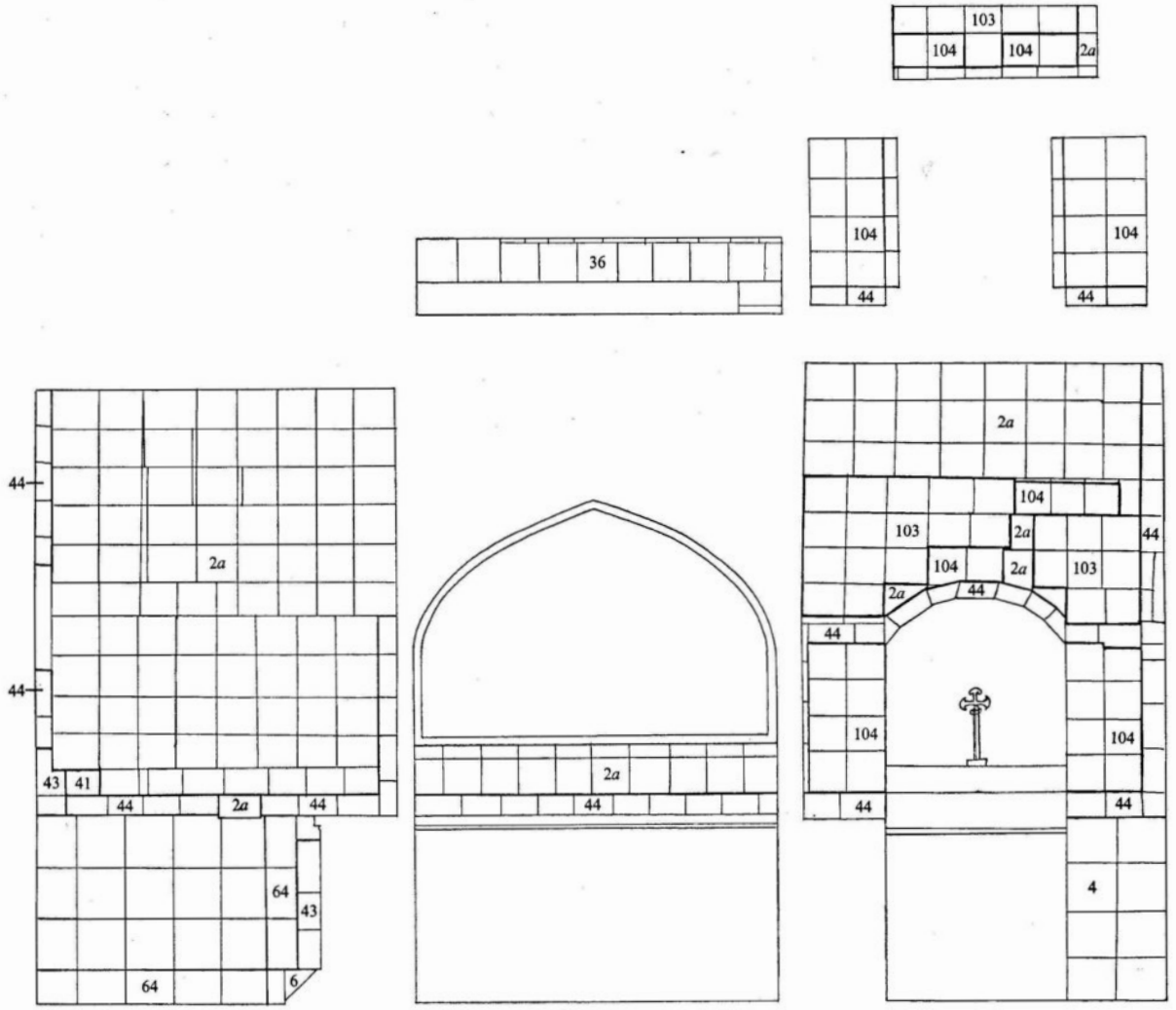
34. ST. JAMES CATHEDRAL Sacristy, South pier



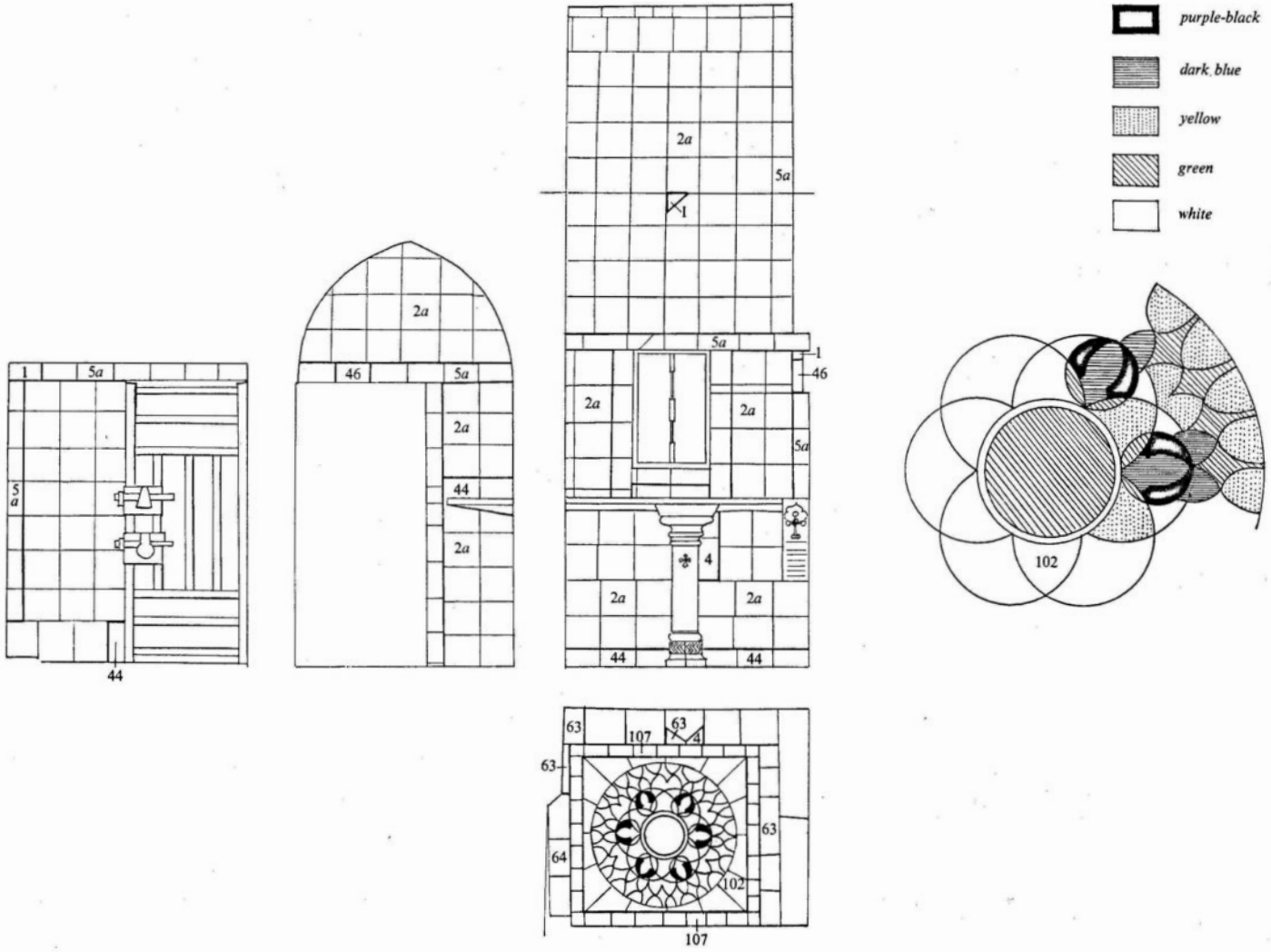
35. ST. JAMES CATHEDRAL Sacristy, North pier



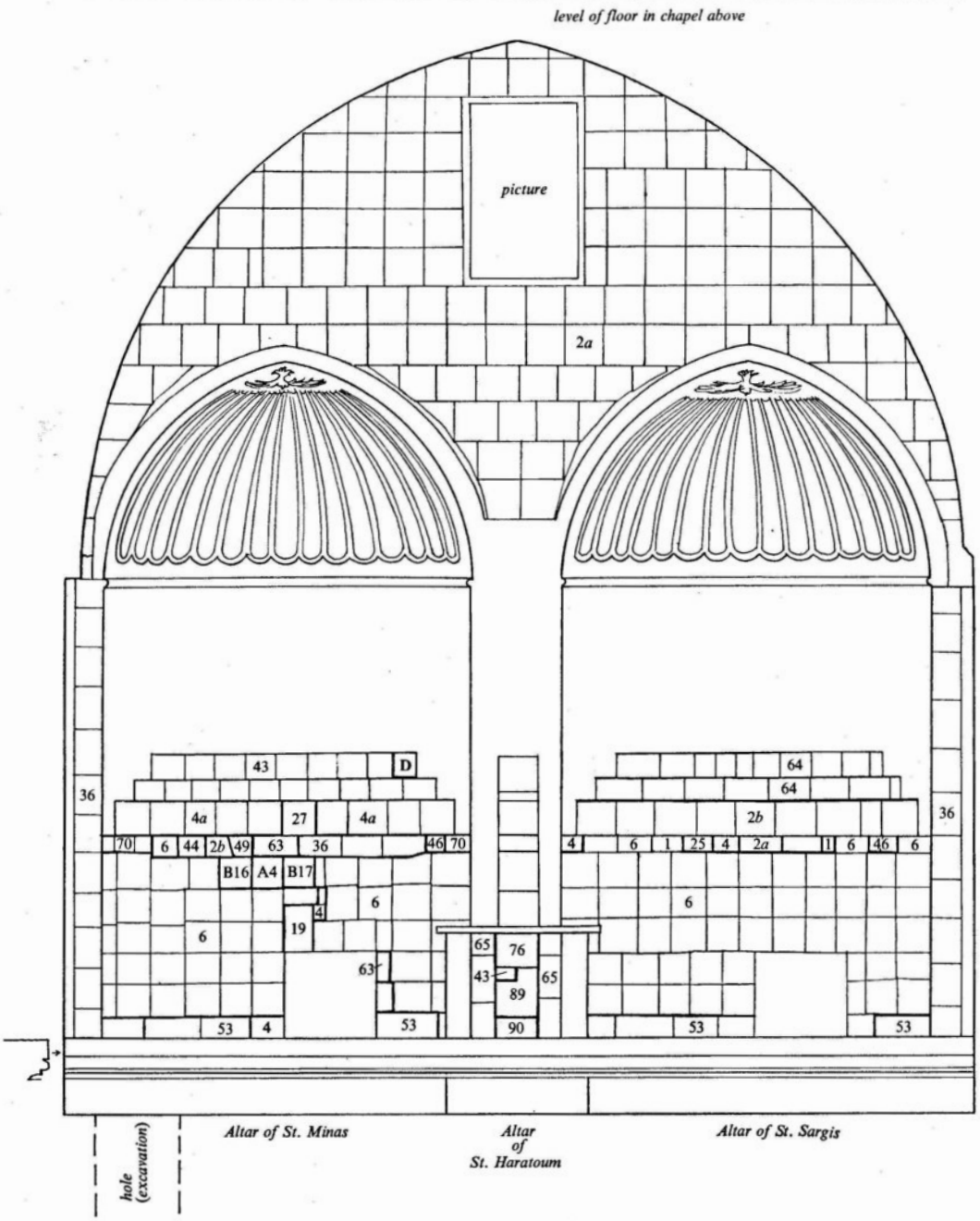
36. ST. JAMES CATHEDRAL Chapel of the Head of St. James, and antechamber to Chapel of St. Minas and St. Sargis



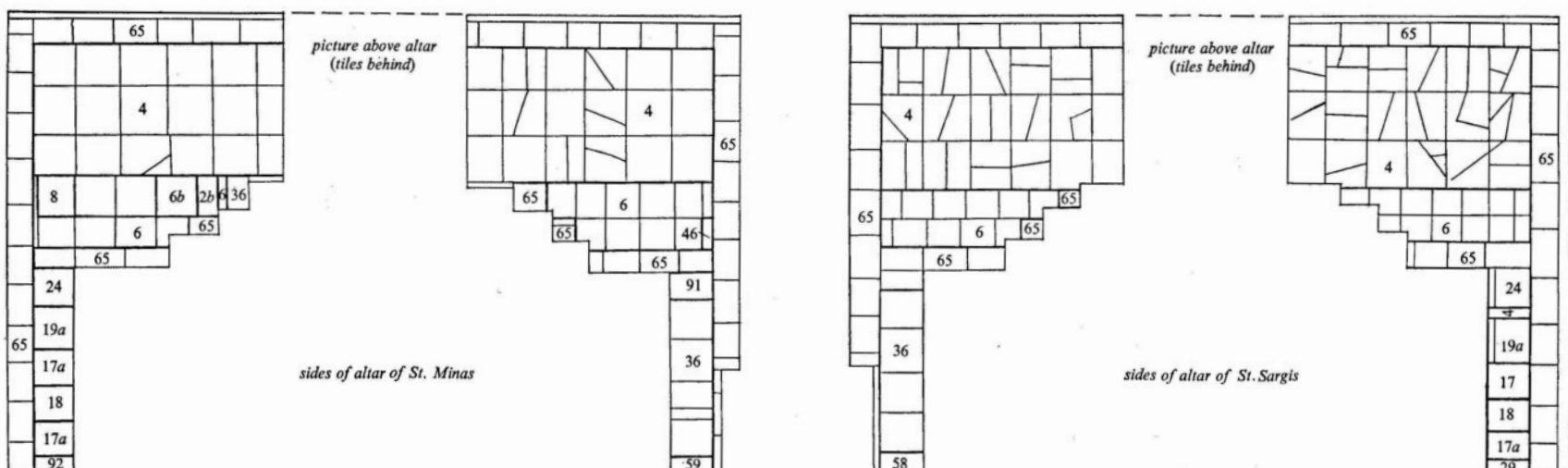
37. ST. JAMES CATHEDRAL Chapel of St. Makar



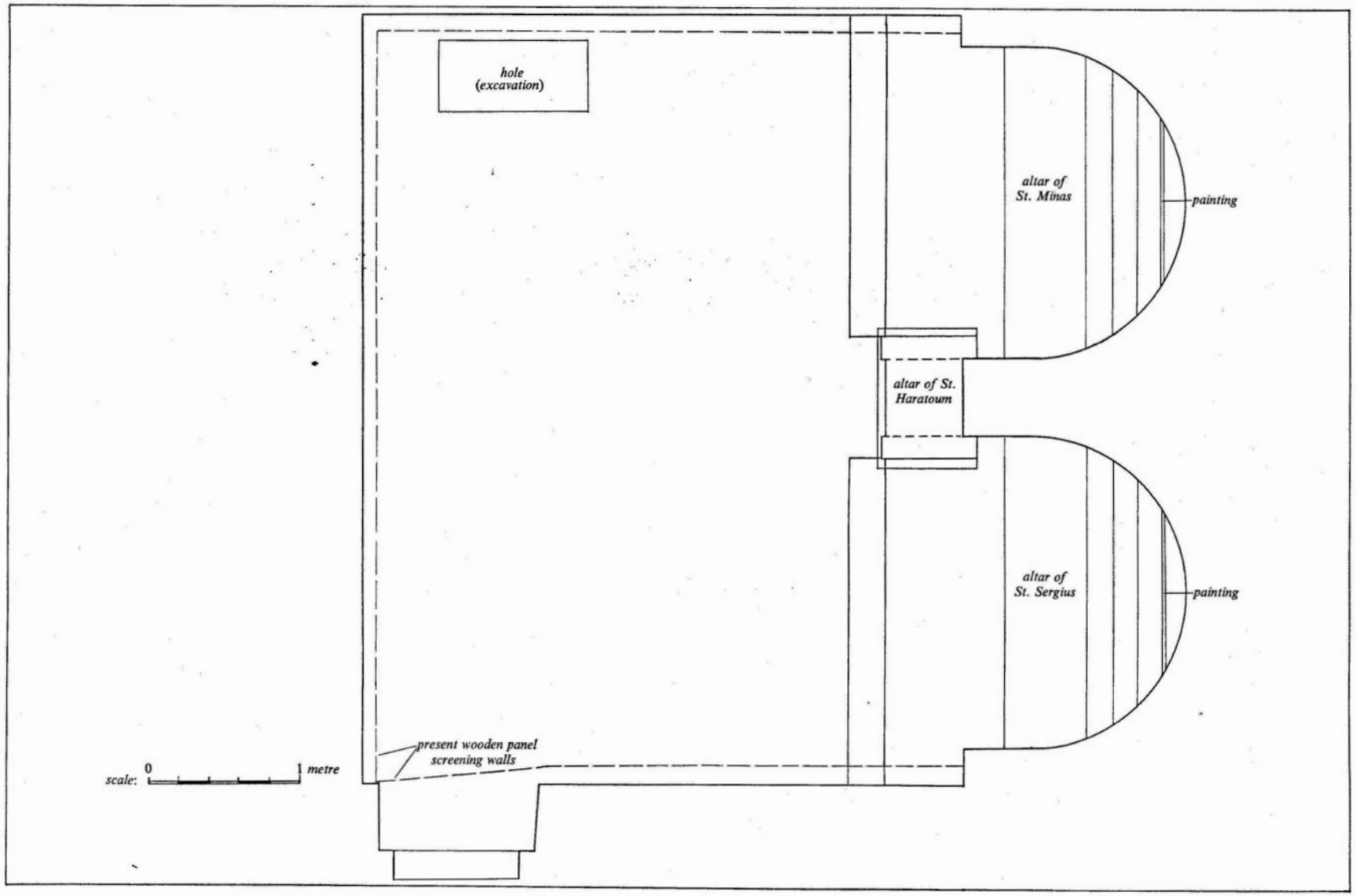
38. ST. JAMES CATHEDRAL Chapel of St. Nishan



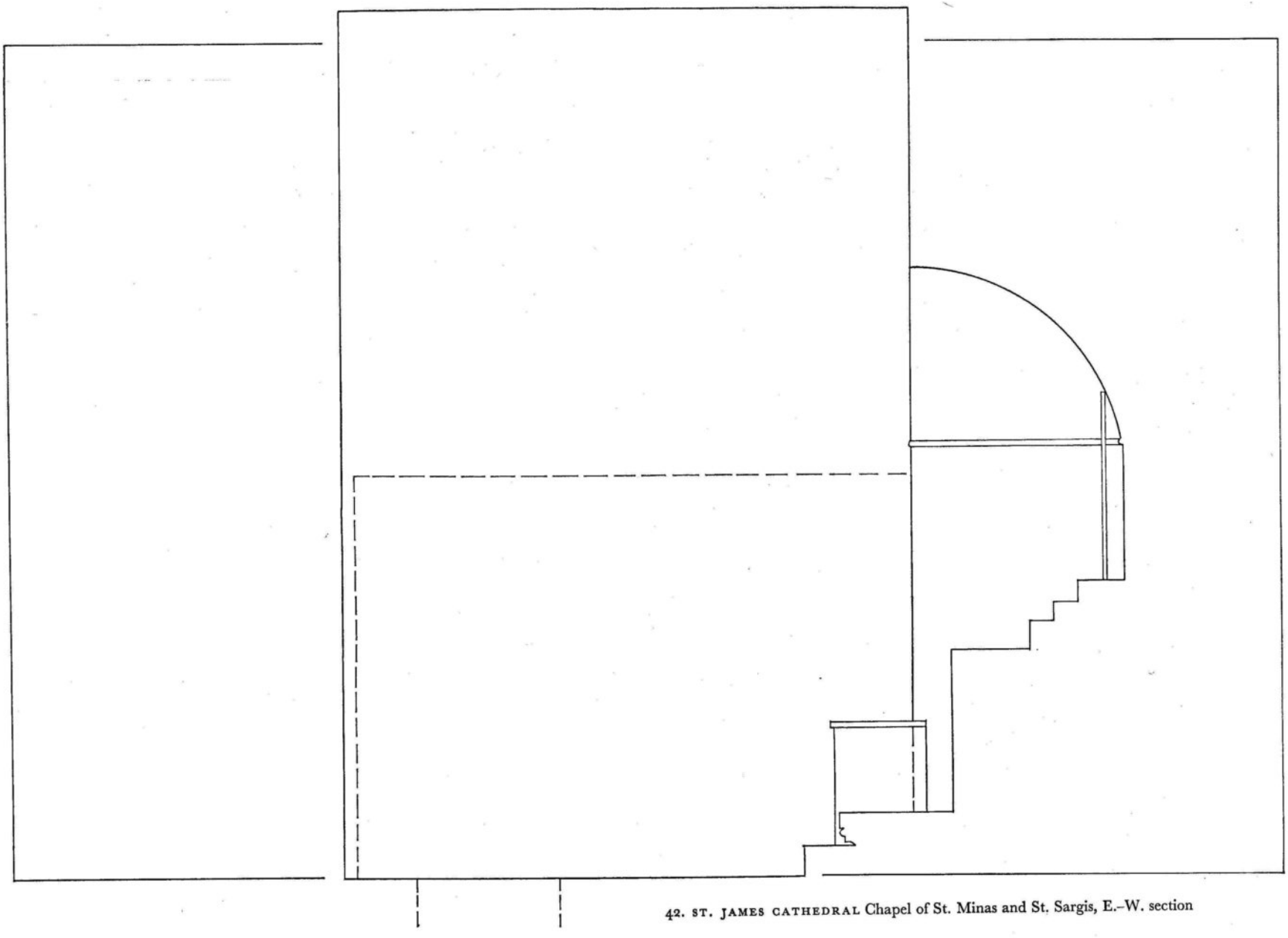
39. ST. JAMES CATHEDRAL Chapel of St. Minas and St. Sargis, the altars



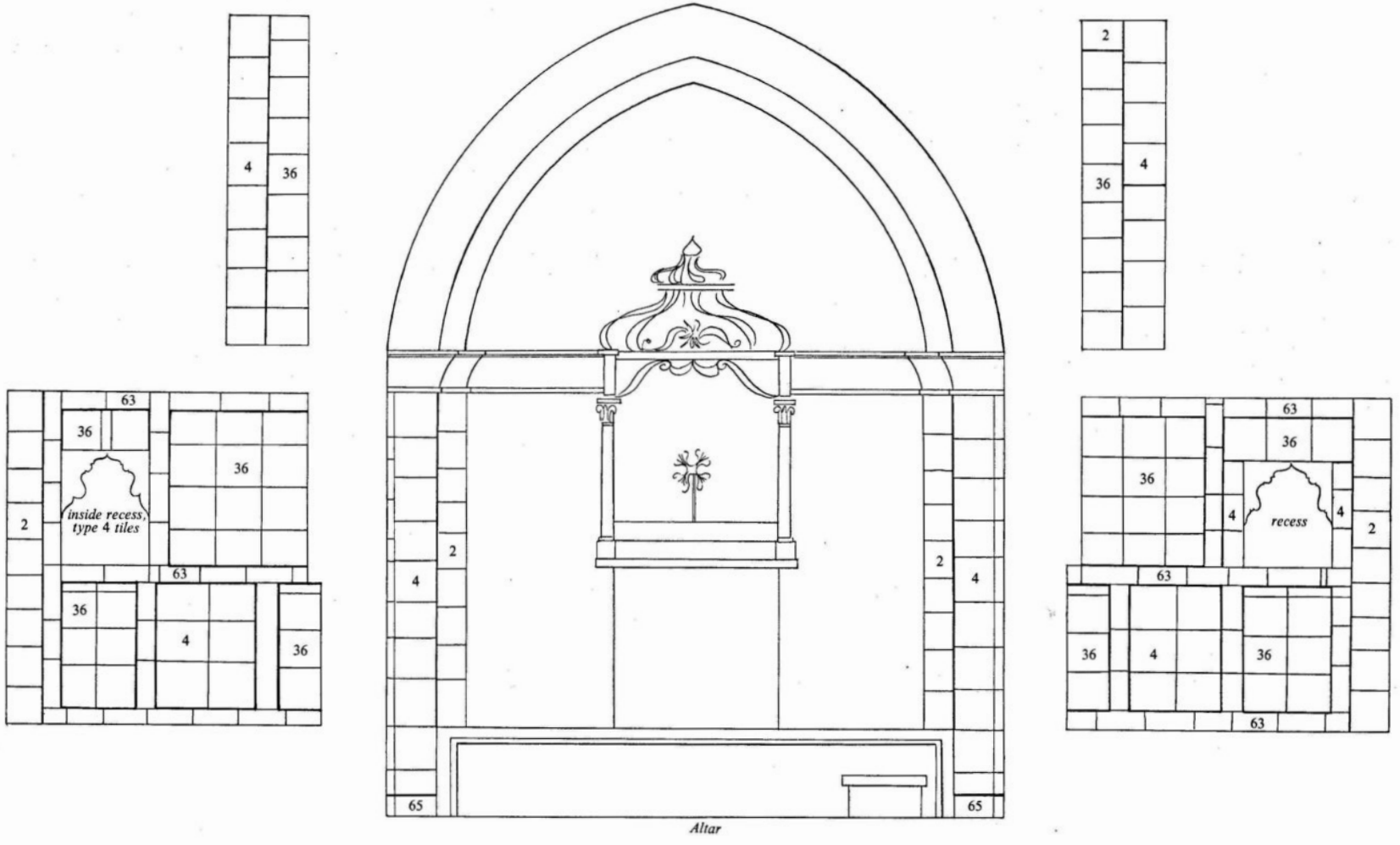
40. ST. JAMES CATHEDRAL Chapel of St. Minas and St. Sargis, the altars, North and South sides



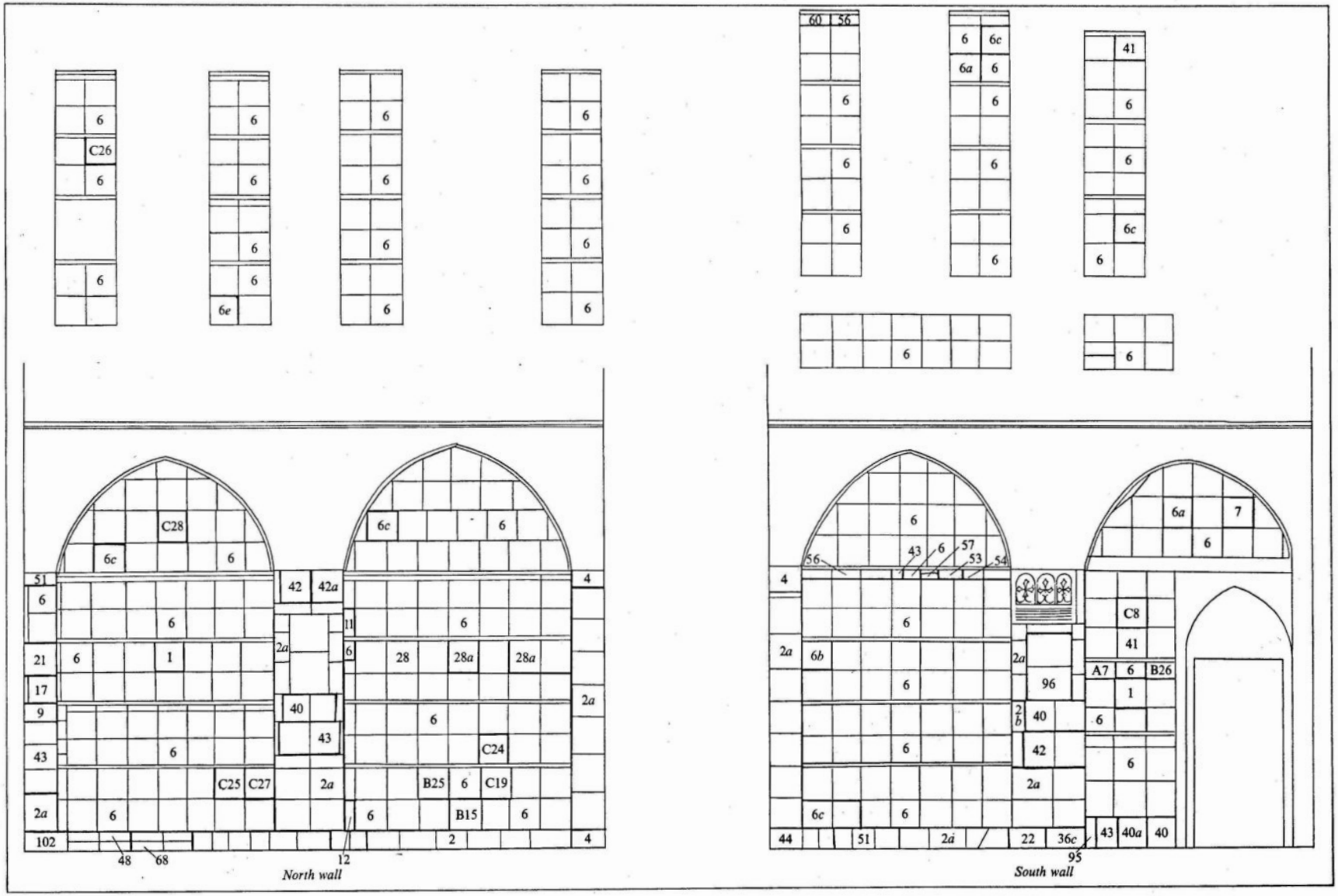
41. ST. JAMES CATHEDRAL Chapel of St. Minas and St. Sargis, ground plan



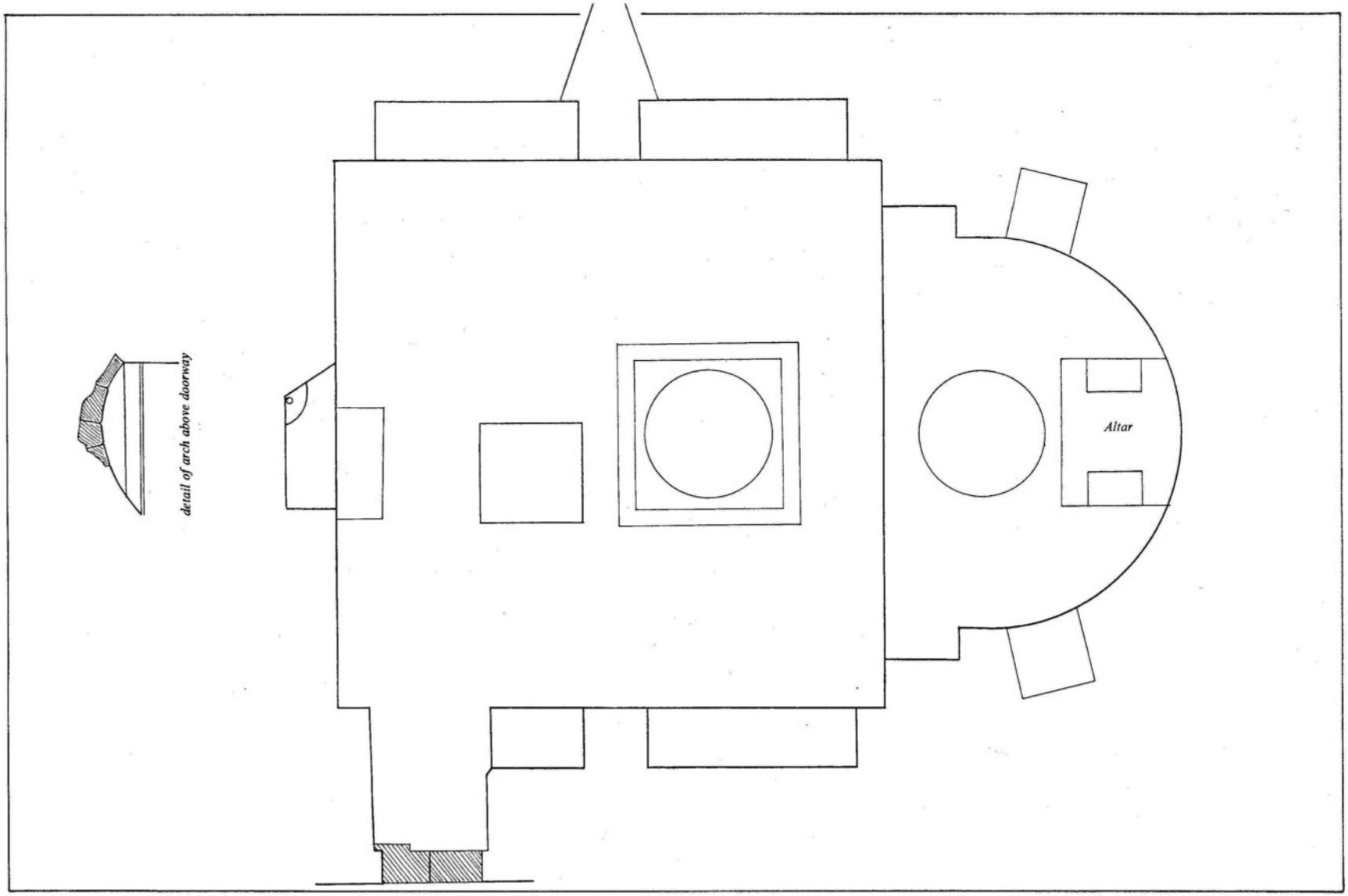
42. ST. JAMES CATHEDRAL Chapel of St. Minas and St. Sargis, E.–W. section



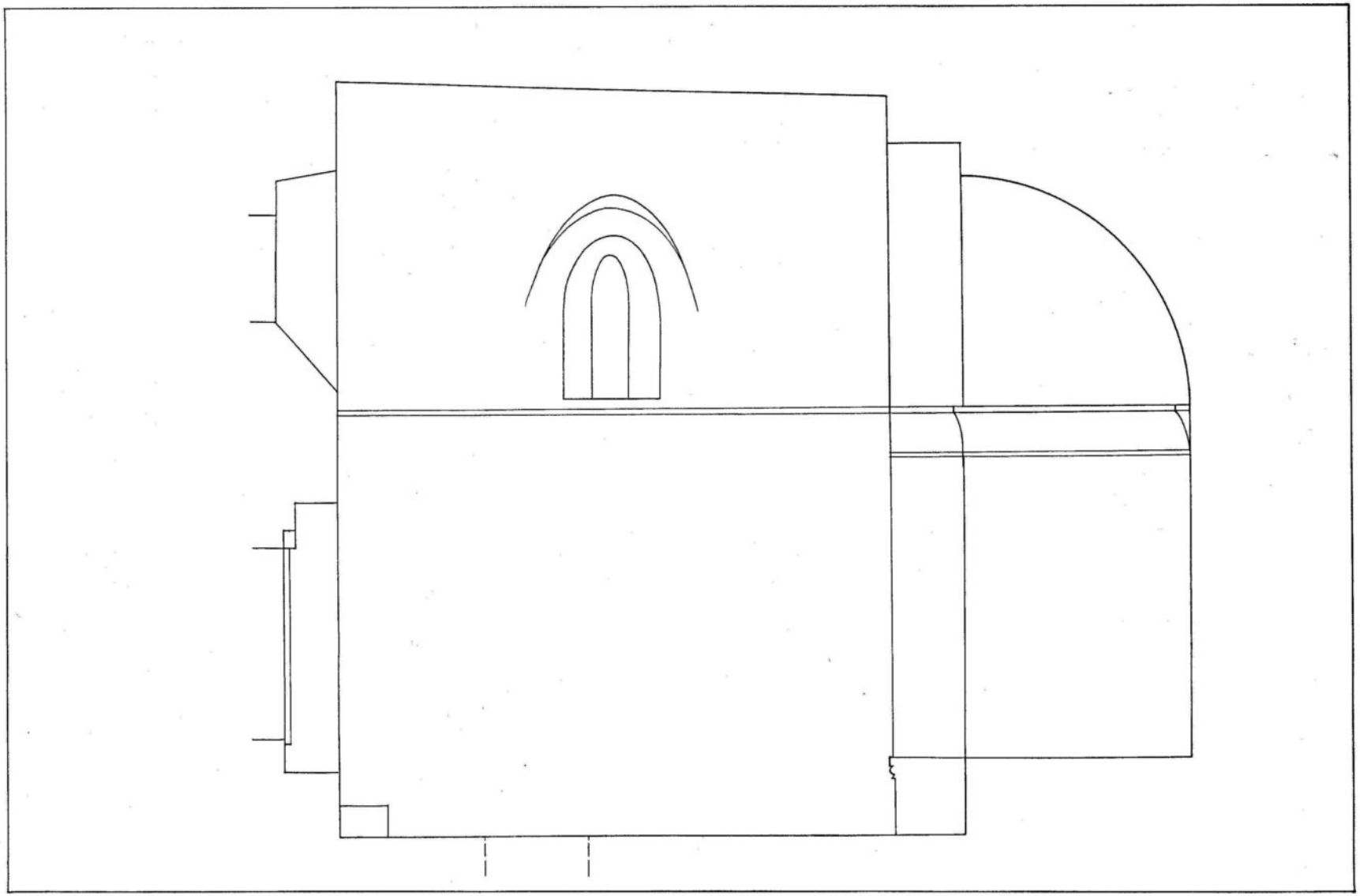
43. ST. JAMES CATHEDRAL Chapel of the Apostles, East wall



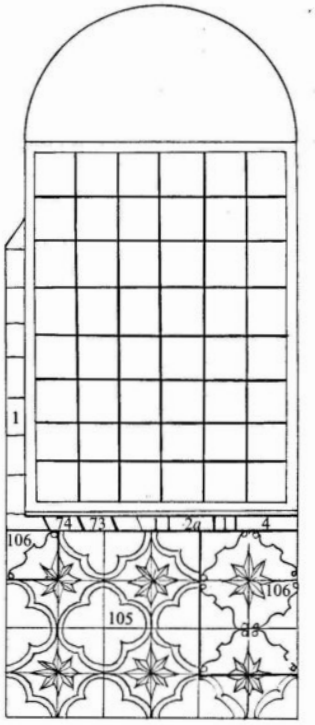
44. ST. JAMES CATHEDRAL Chapel of the Apostles, North and South walls



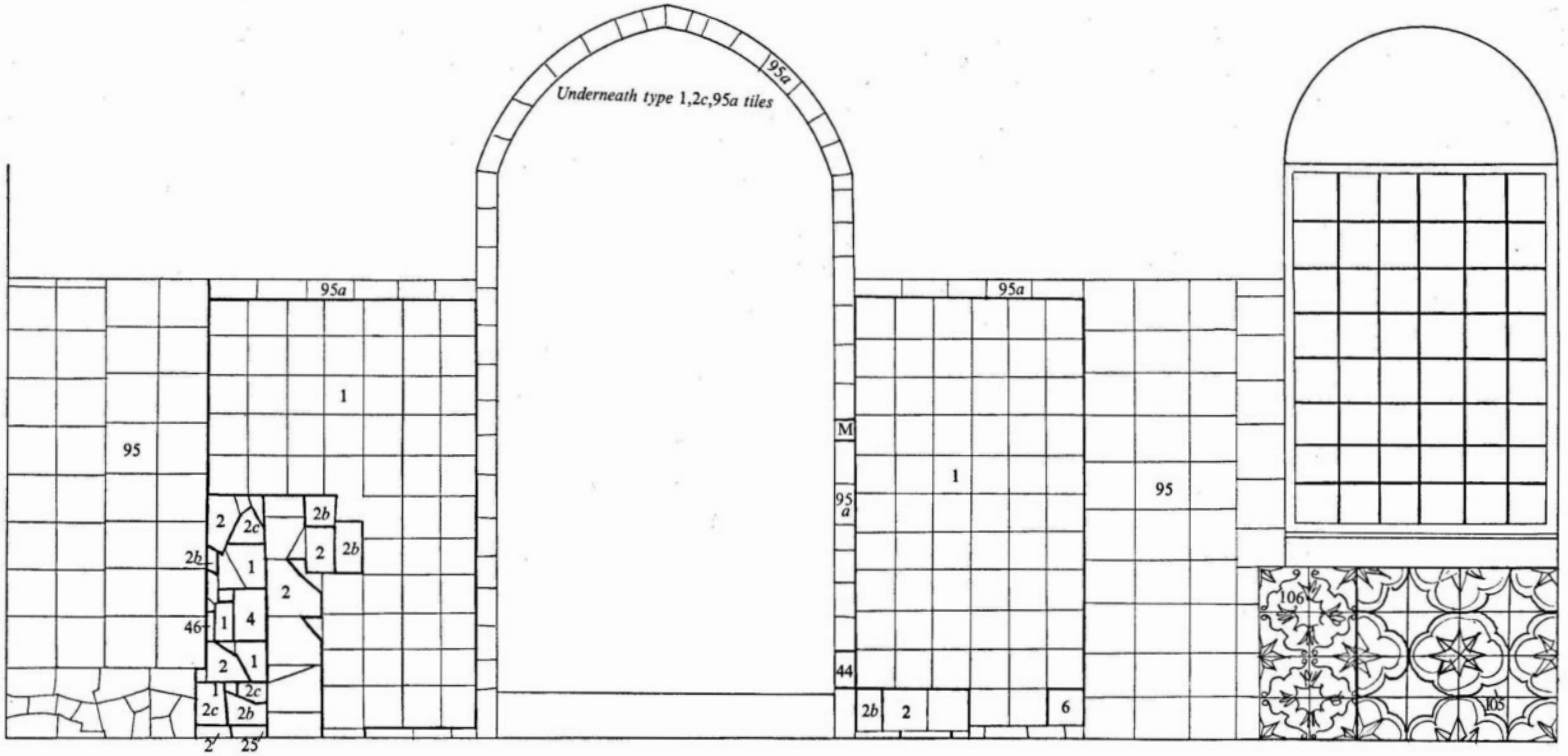
45. ST. JAMES CATHEDRAL Chapel of the Apostles, ground plan



46. ST. JAMES CATHEDRAL Chapel of the Apostles, E.–W. section



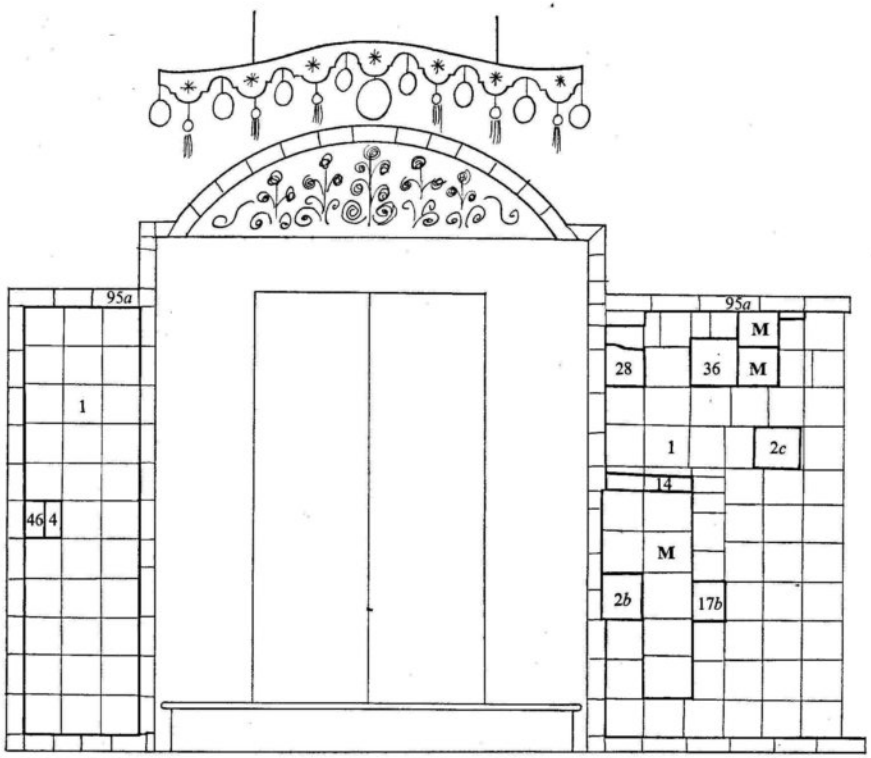
47. CHURCH OF THE HOLY ARCHANGEL West wall, 1

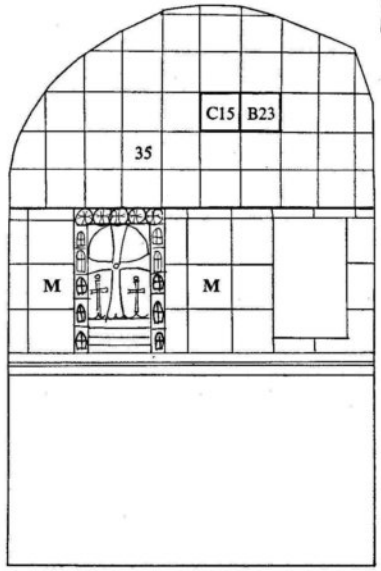


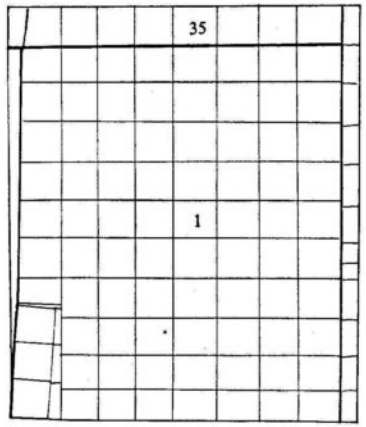
48. CHURCH OF THE HOLY ARCHANGEL West wall, II

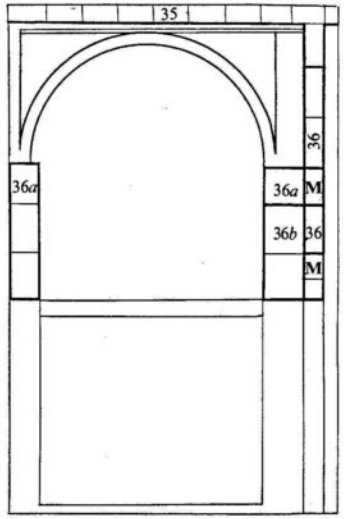
817176.32

X



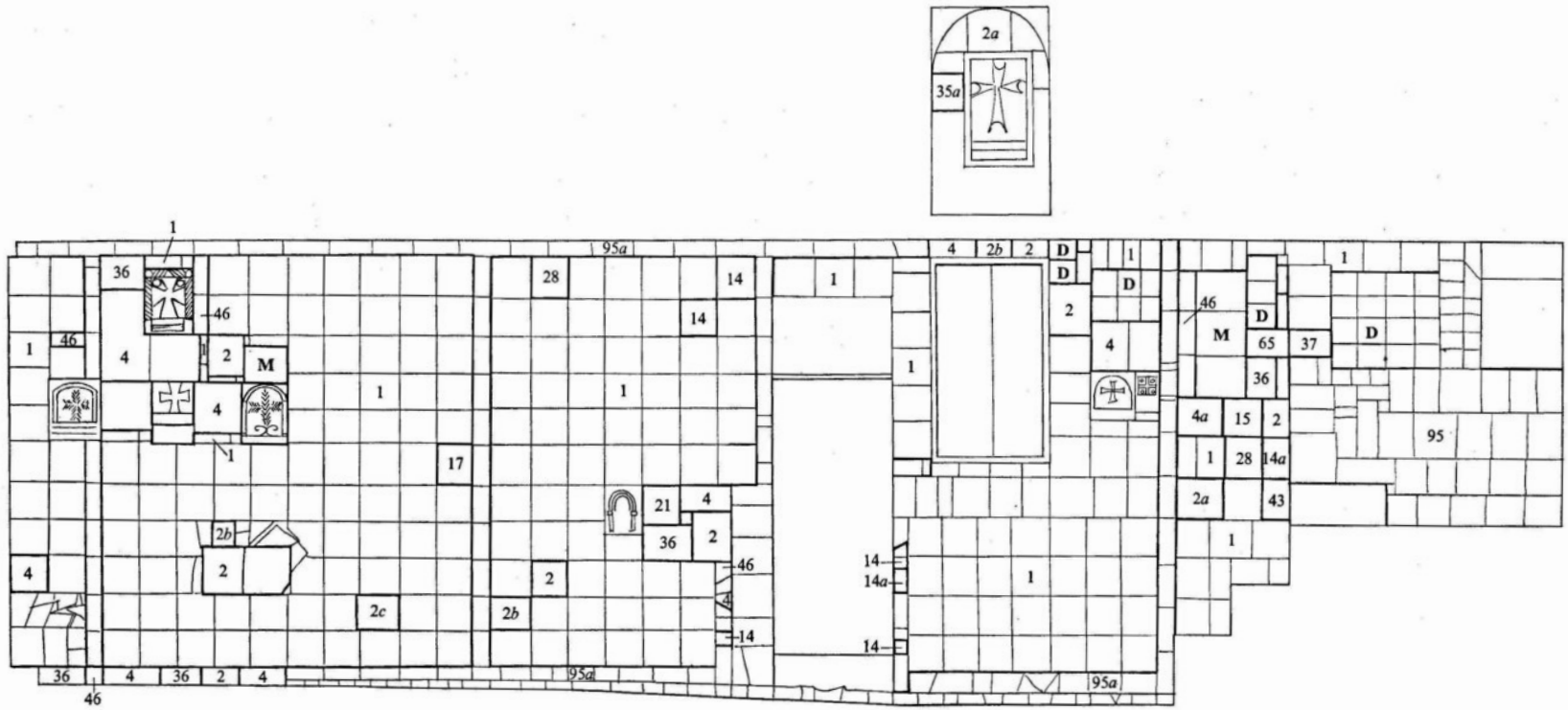




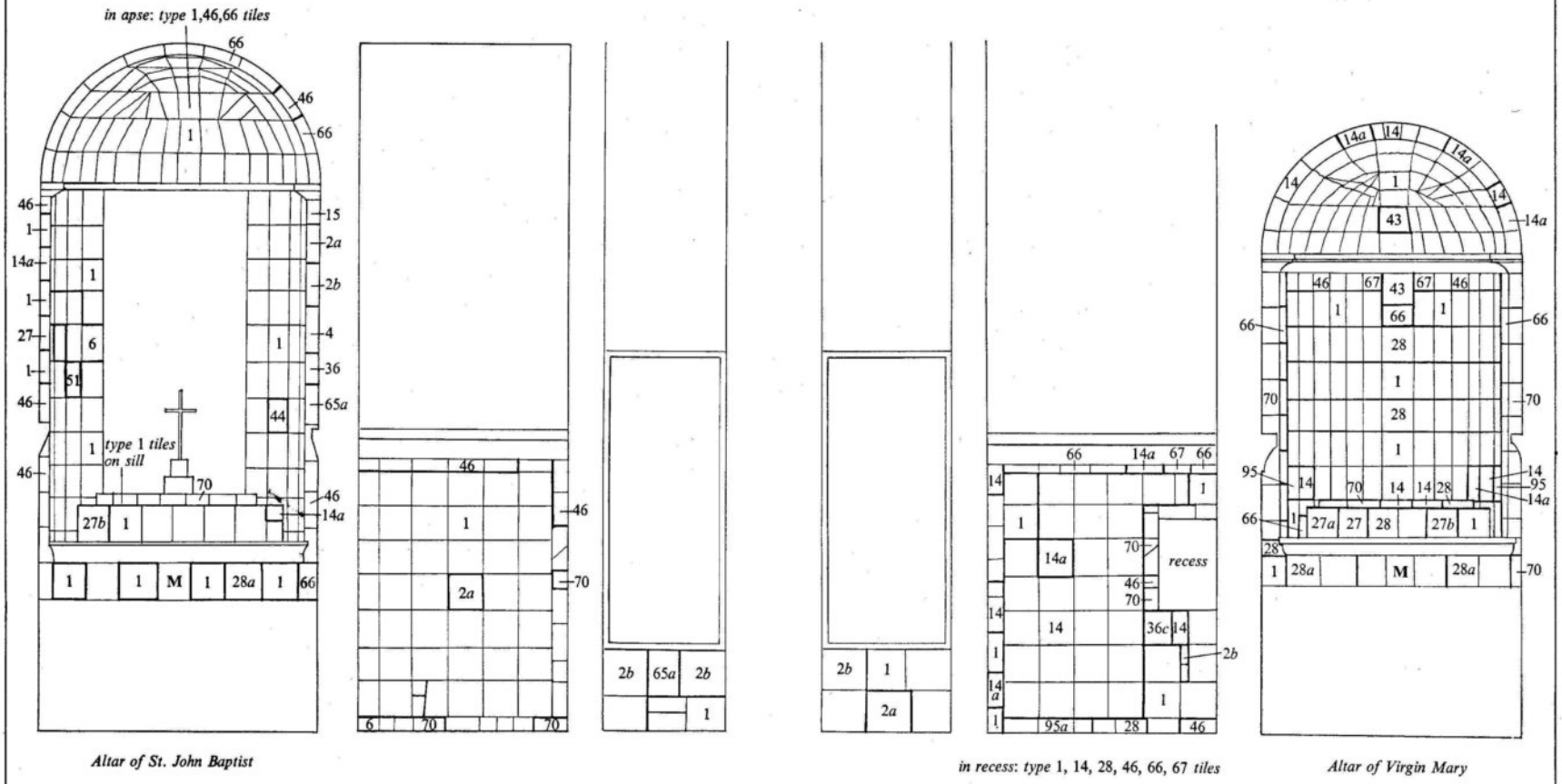


Chapel of the First Prison of Christ

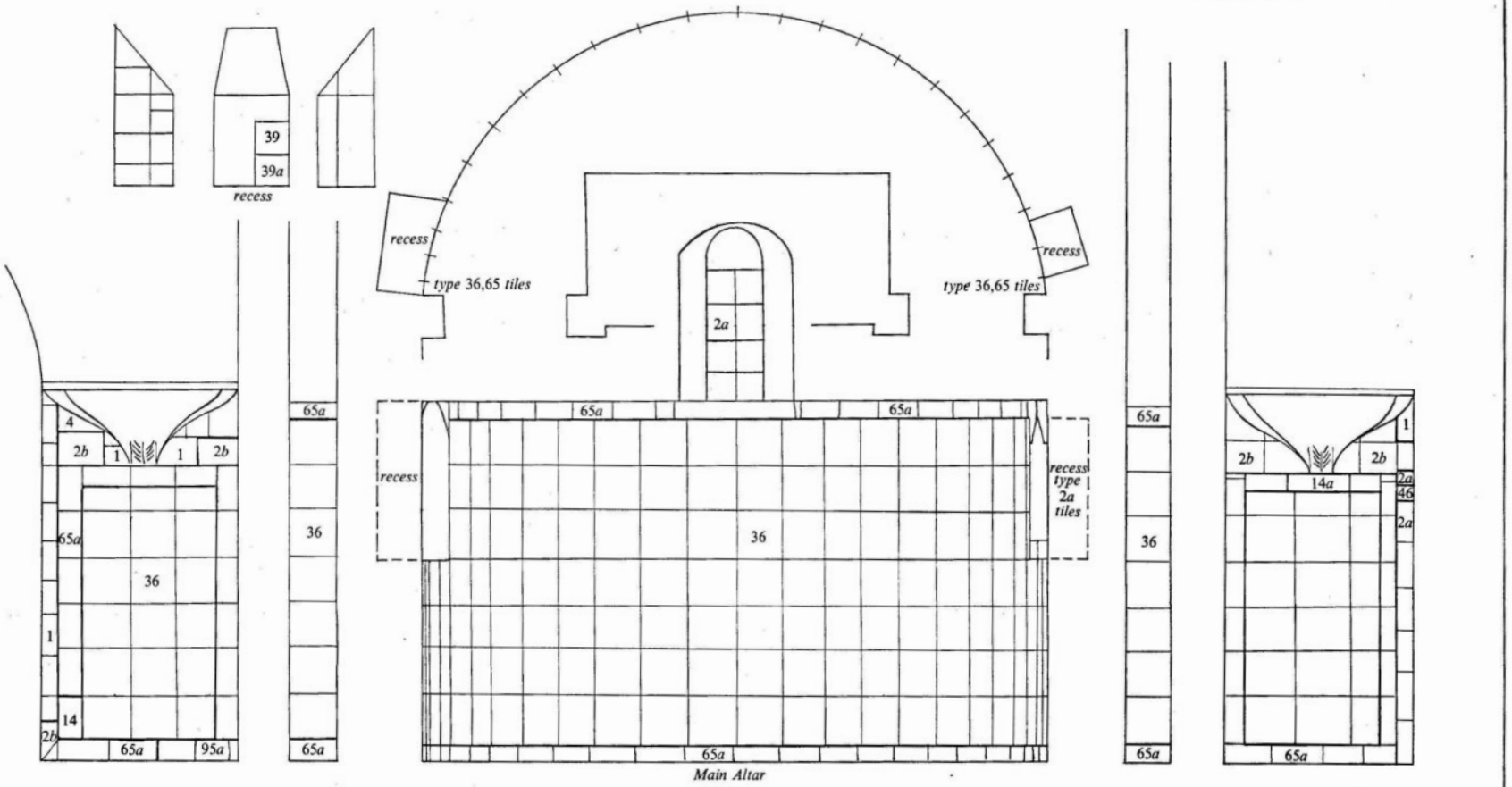
49. CHURCH OF THE HOLY ARCHANGEL North wall, I; Chapel of the First Prison of Christ



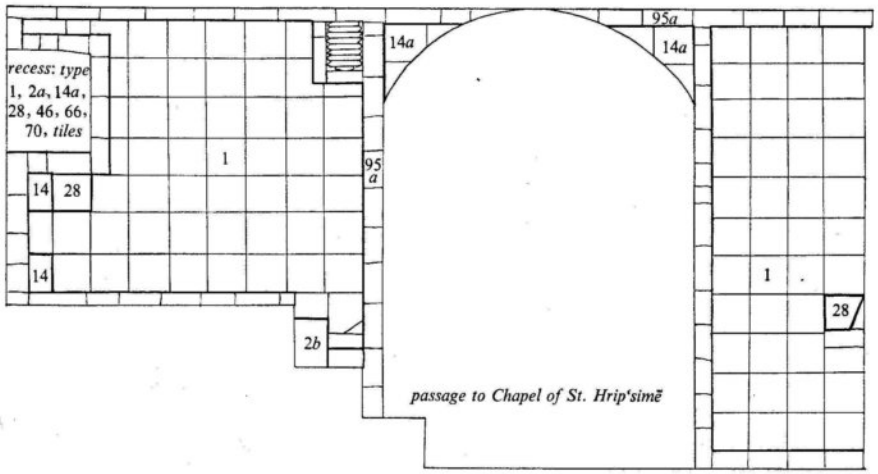
50. CHURCH OF THE HOLY ARCHANGEL North wall, II

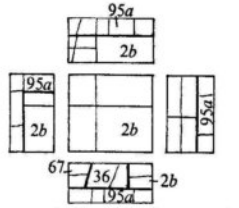


51. CHURCH OF THE HOLY ARCHANGEL Altar of St. John the Baptist and Altar of the Virgin Mary



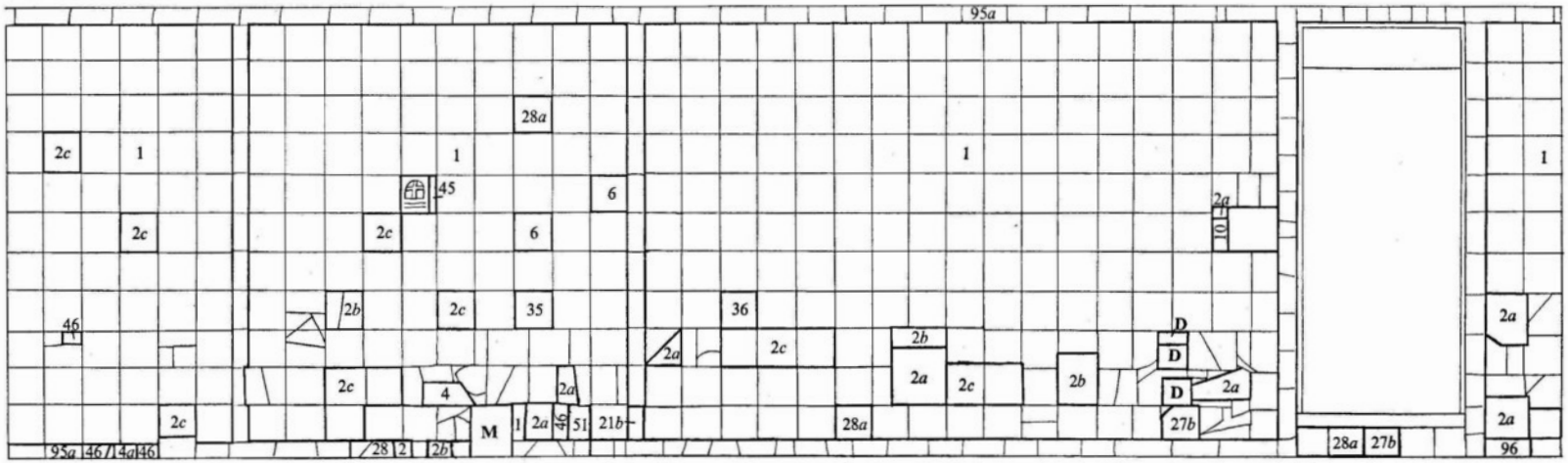
52. CHURCH OF THE HOLY ARCHANGEL Main altar



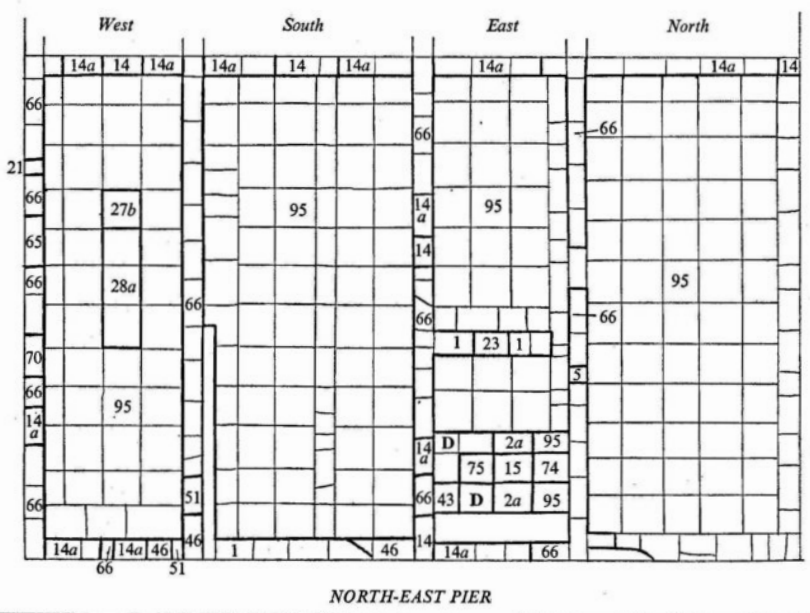


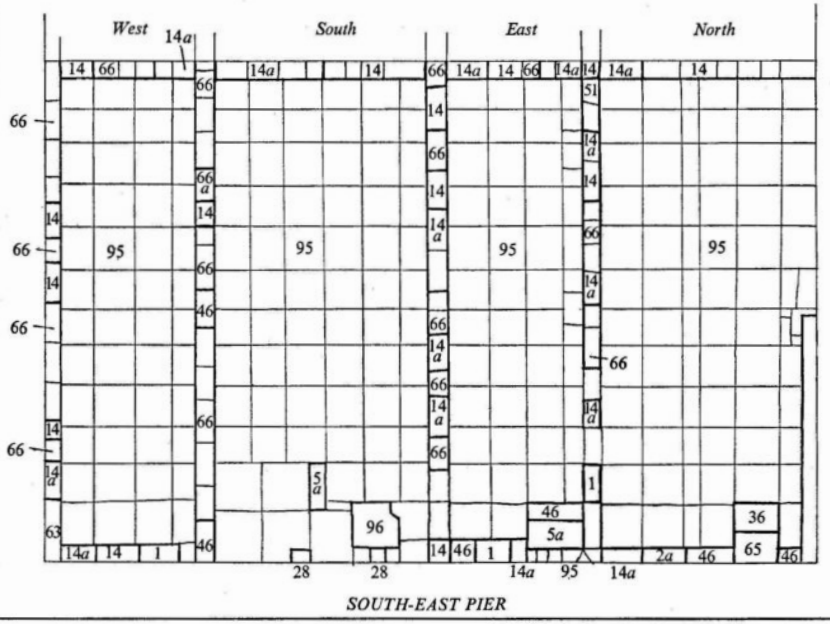
recess in East side of passage to St. Hrip'simē Chapel

53. CHURCH OF THE HOLY ARCHANGEL South wall, I

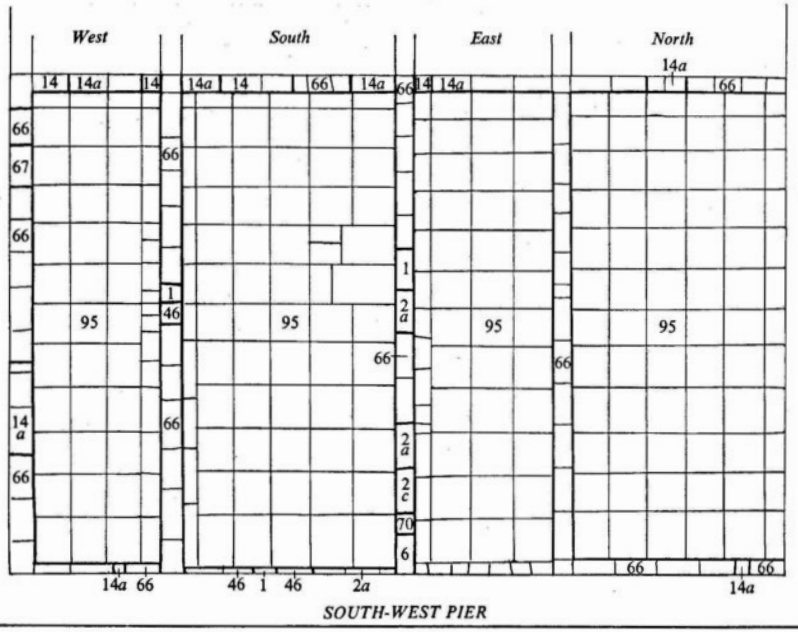


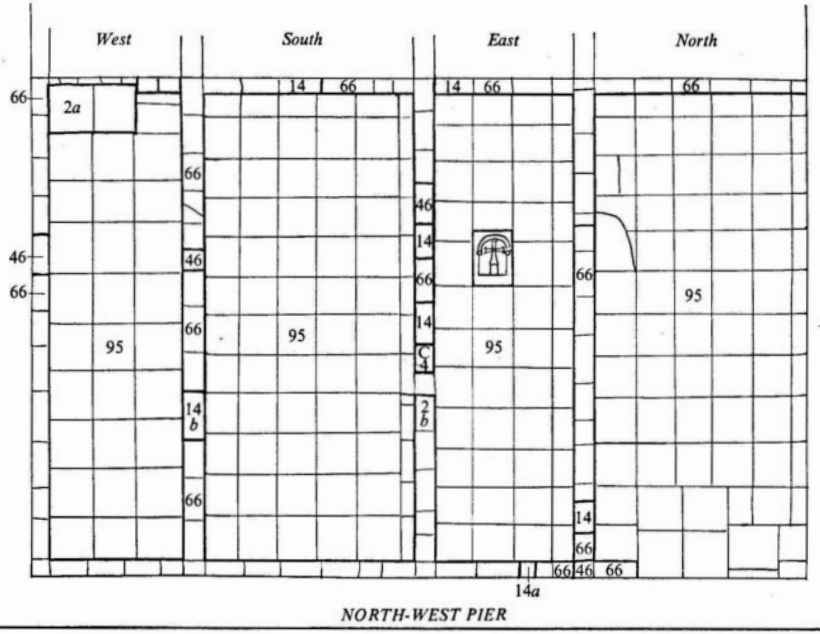
54. CHURCH OF THE HOLY ARCHANGEL South wall, II





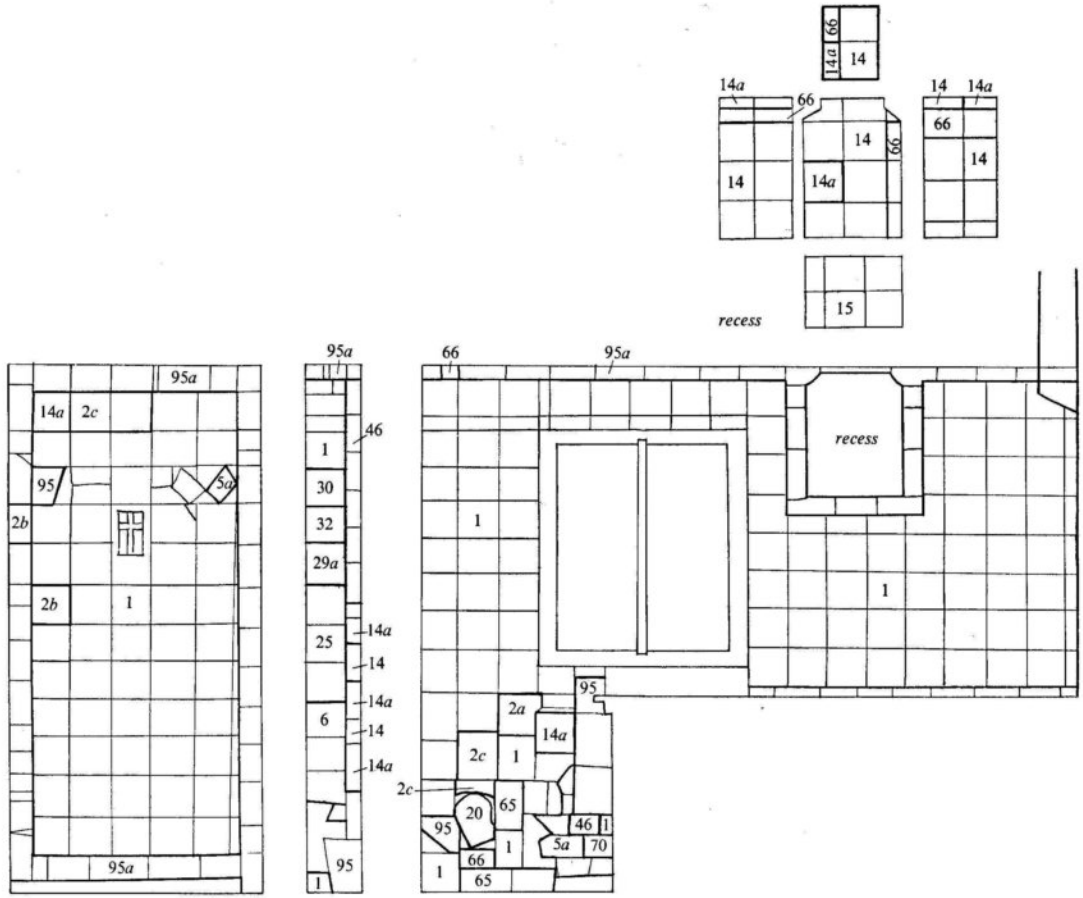
55. CHURCH OF THE HOLY ARCHANGEL North-east pier and South-east pier



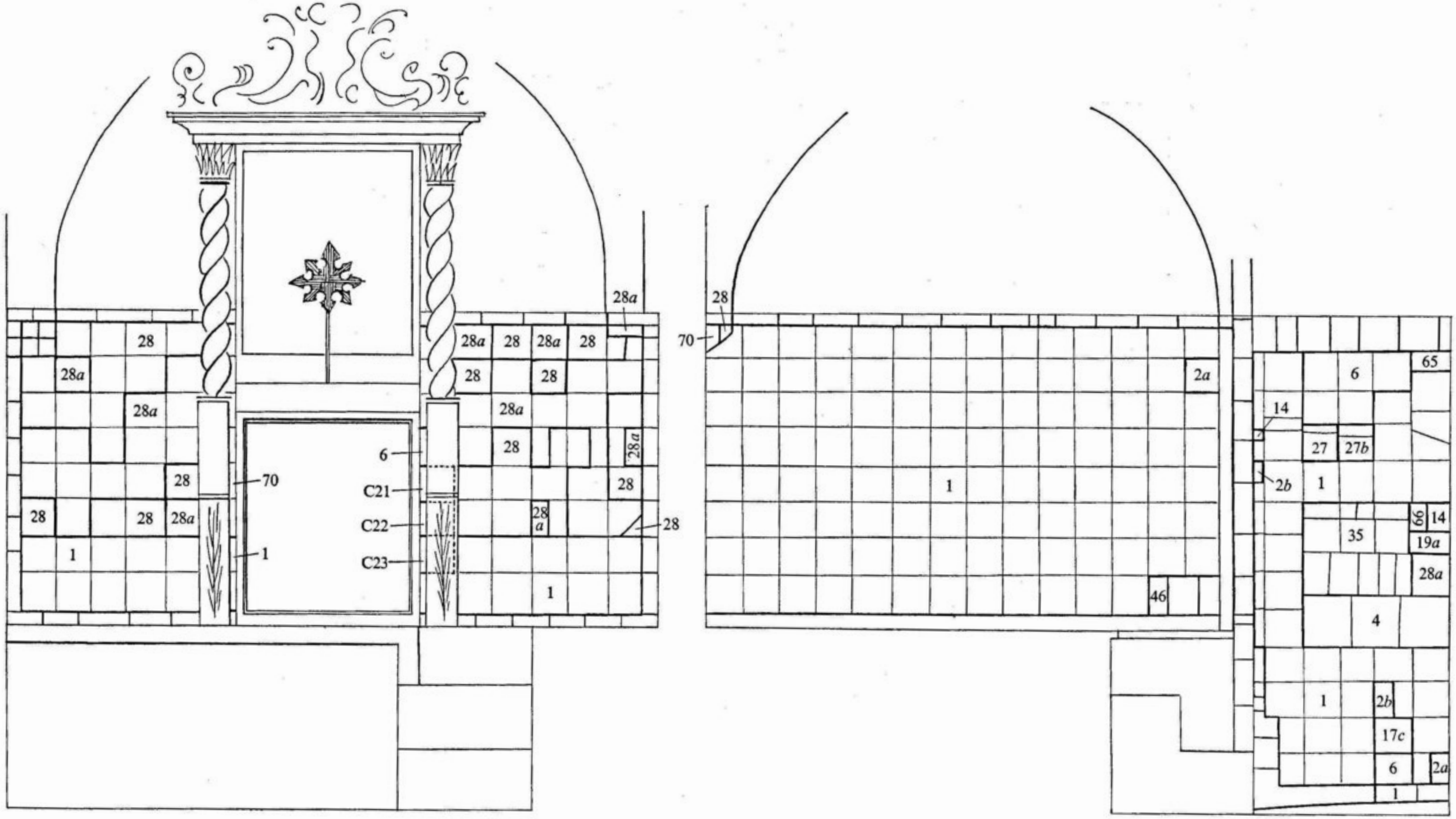


56. CHURCH OF THE HOLY ARCHANGEL South-west pier and North-west pier

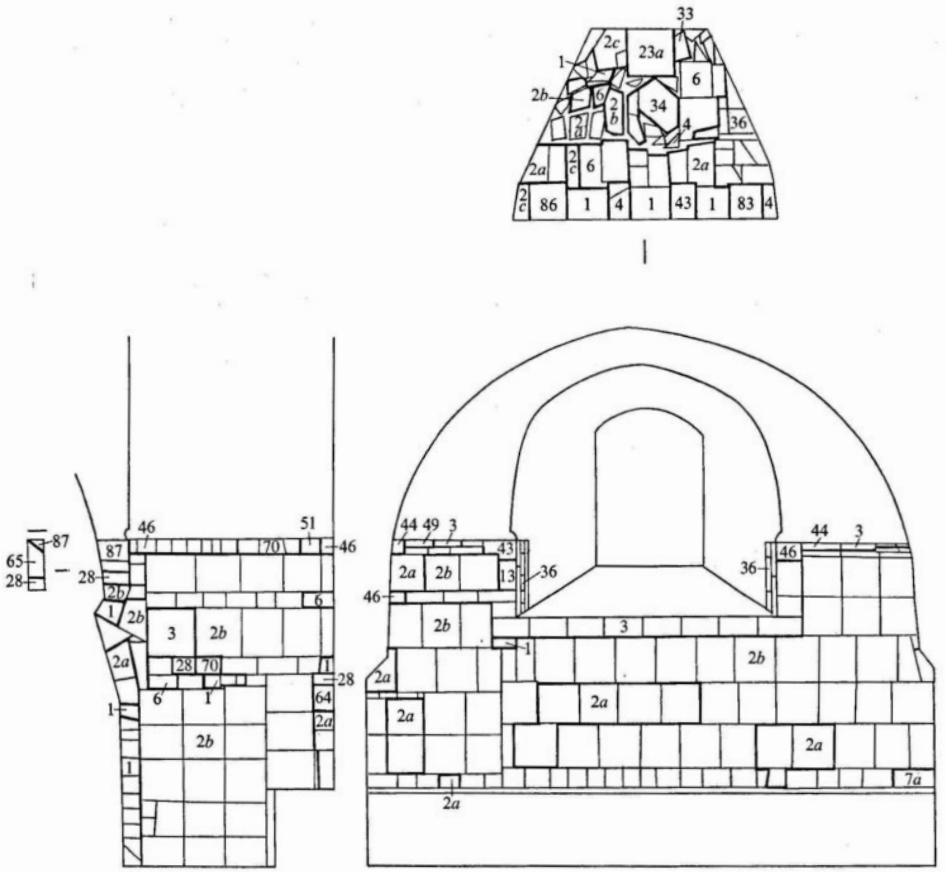
81171/6.2



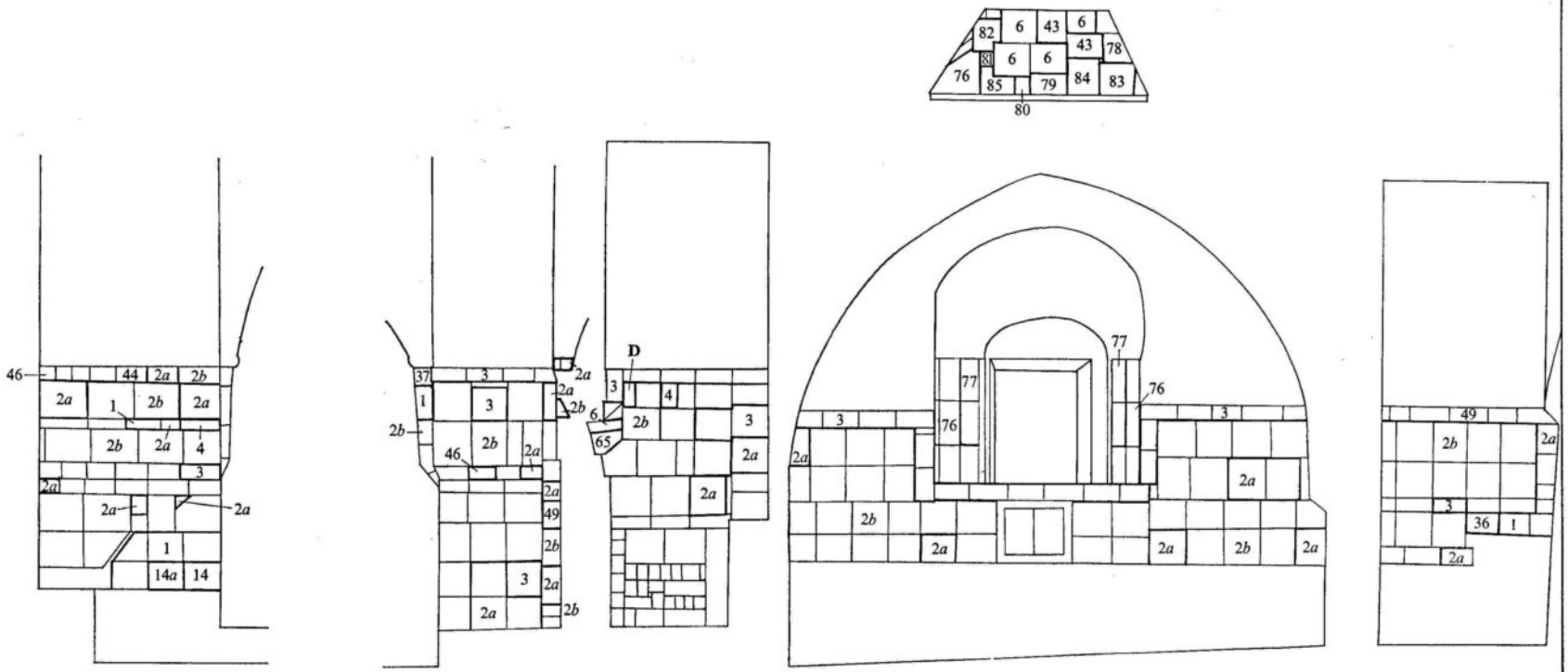
57. CHURCH OF THE HOLY ARCHANGEL Chapel of St. Hrip'simē, North wall



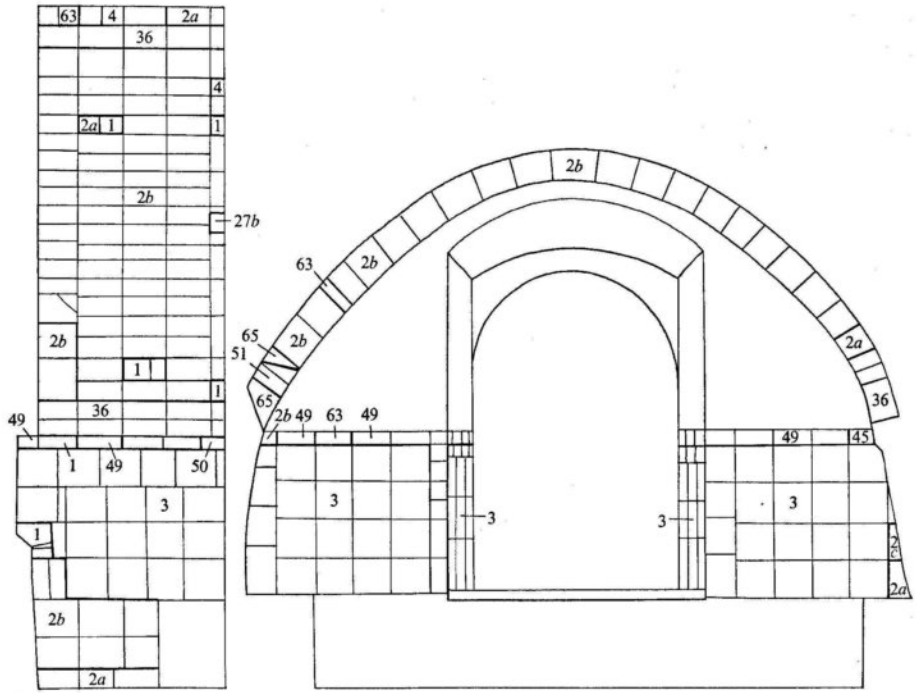
58. CHURCH OF THE HOLY ARCHANGEL Chapel of St. Hrip'simē, the Altar, and South wall



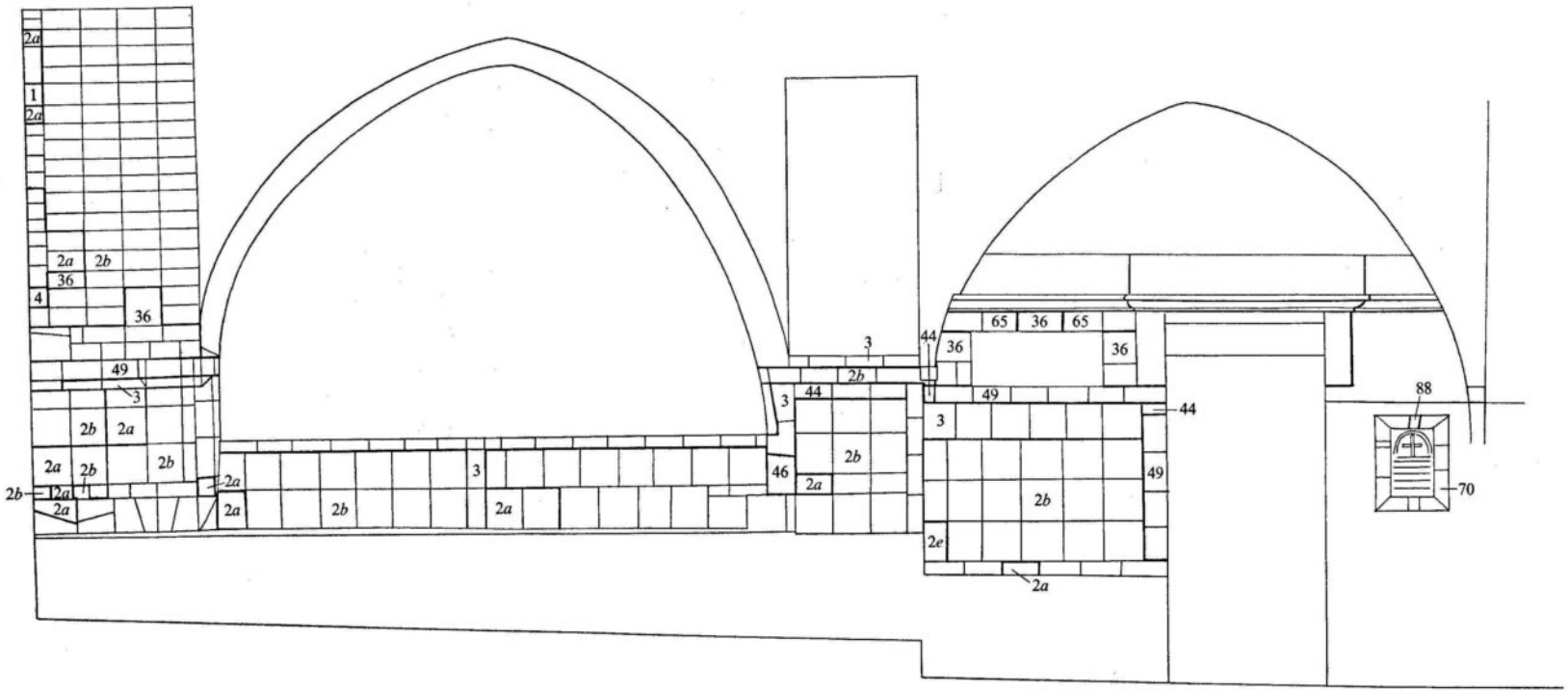
59. THE REFECTORY West wall, I



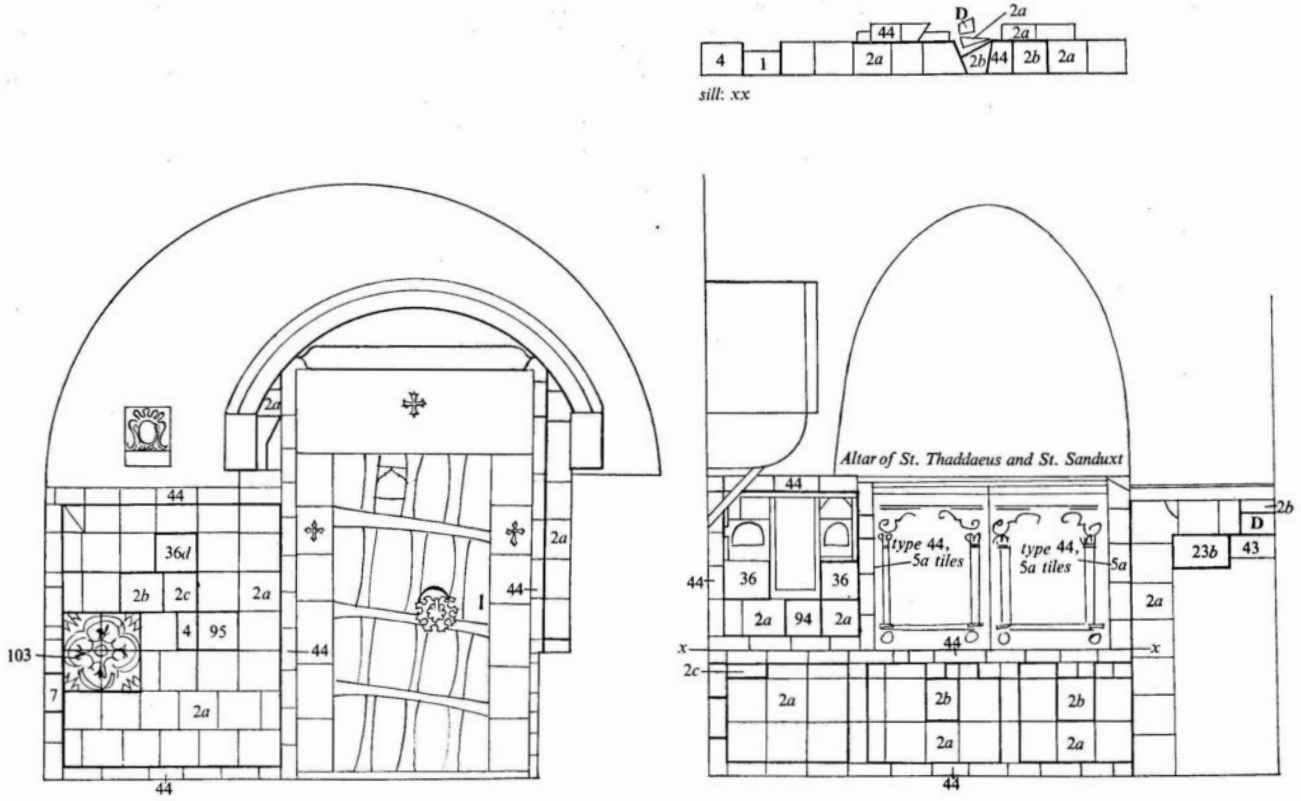
60. THE REFECTORY West wall, II



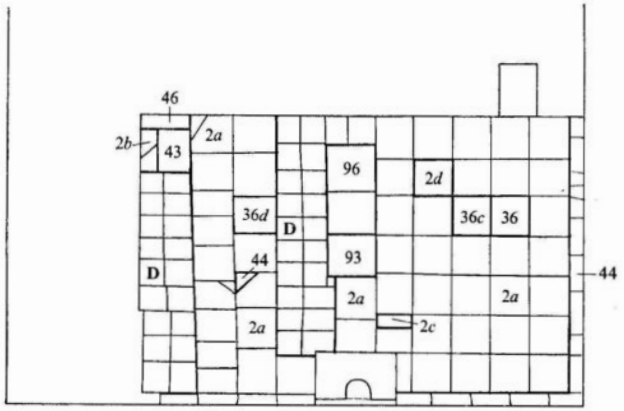
61. THE REFECTORY North wall



62. THE REFECTORY South wall

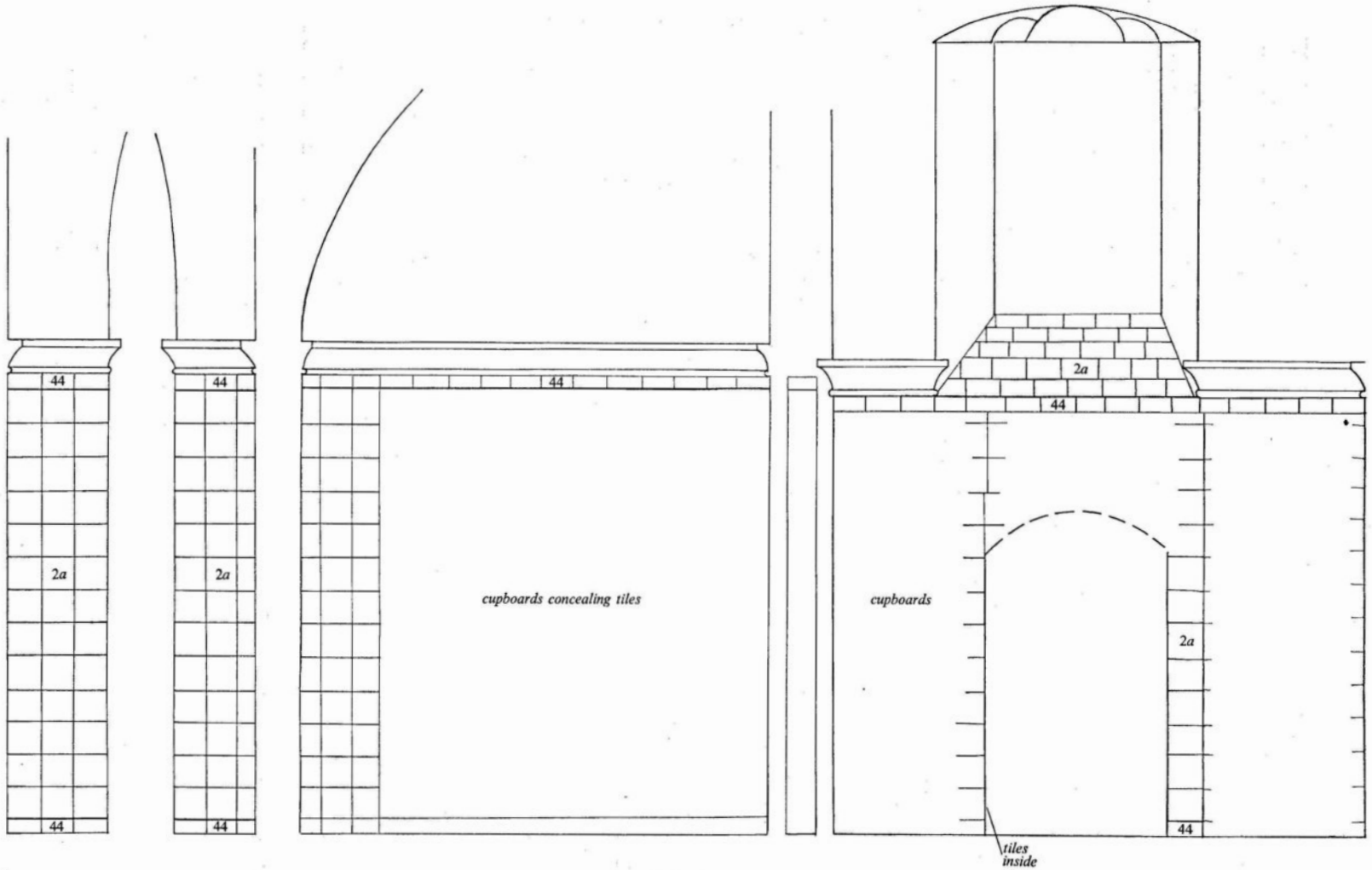


63. CHURCH OF ST. THEODORE Porch; North and East walls

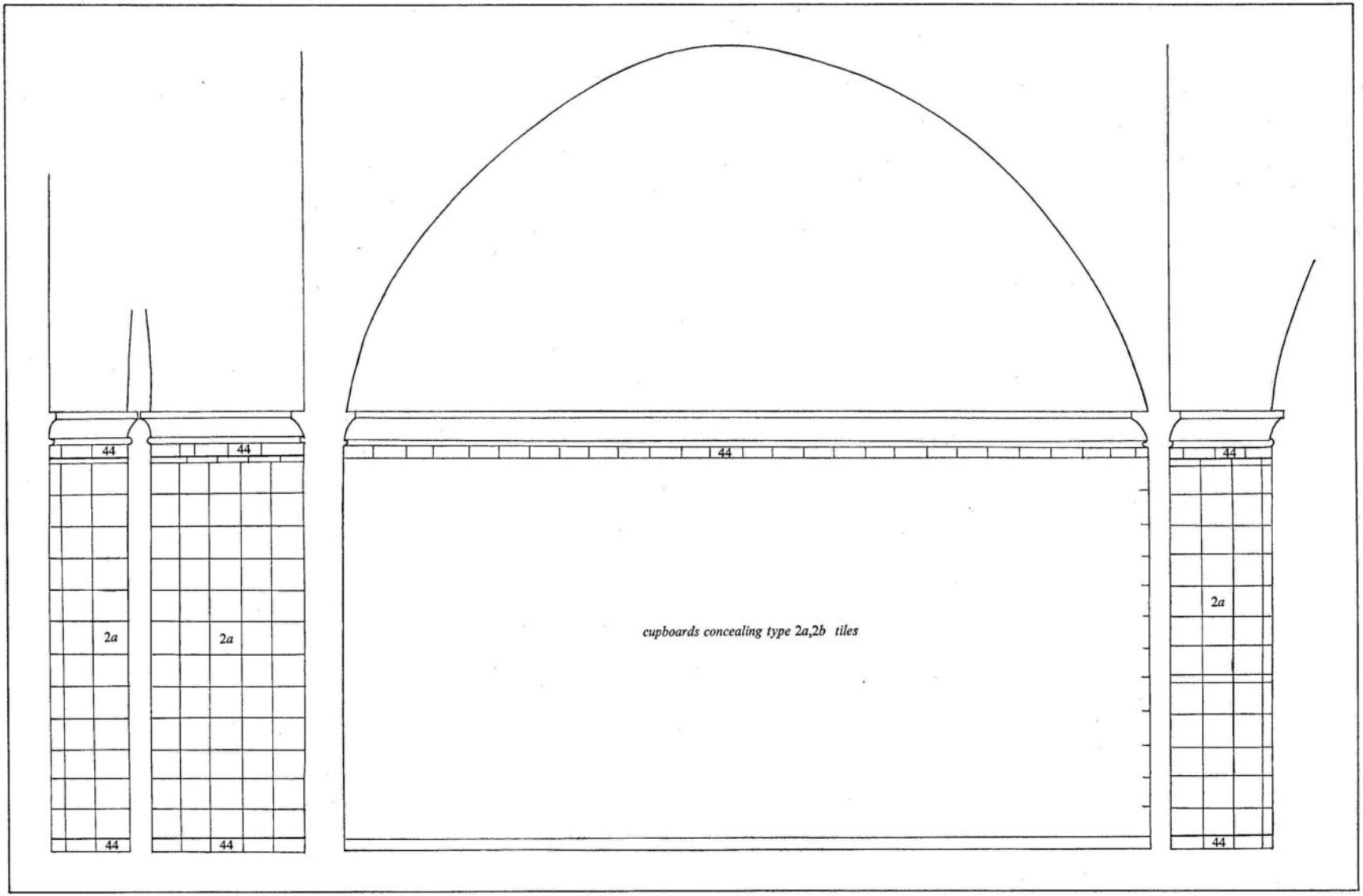


64. CHURCH OF ST. THEODORE Porch; West wall

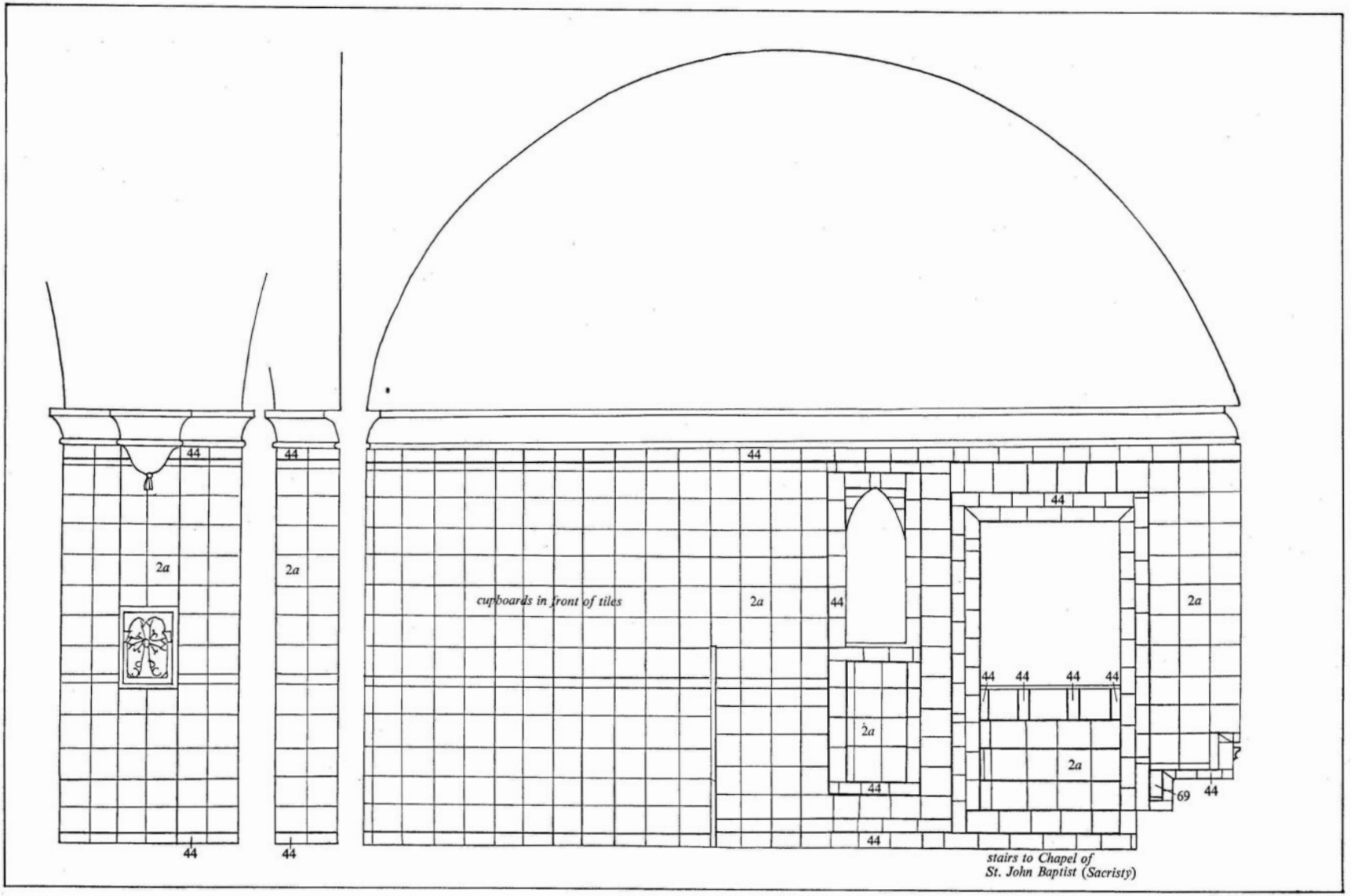
817.19.2



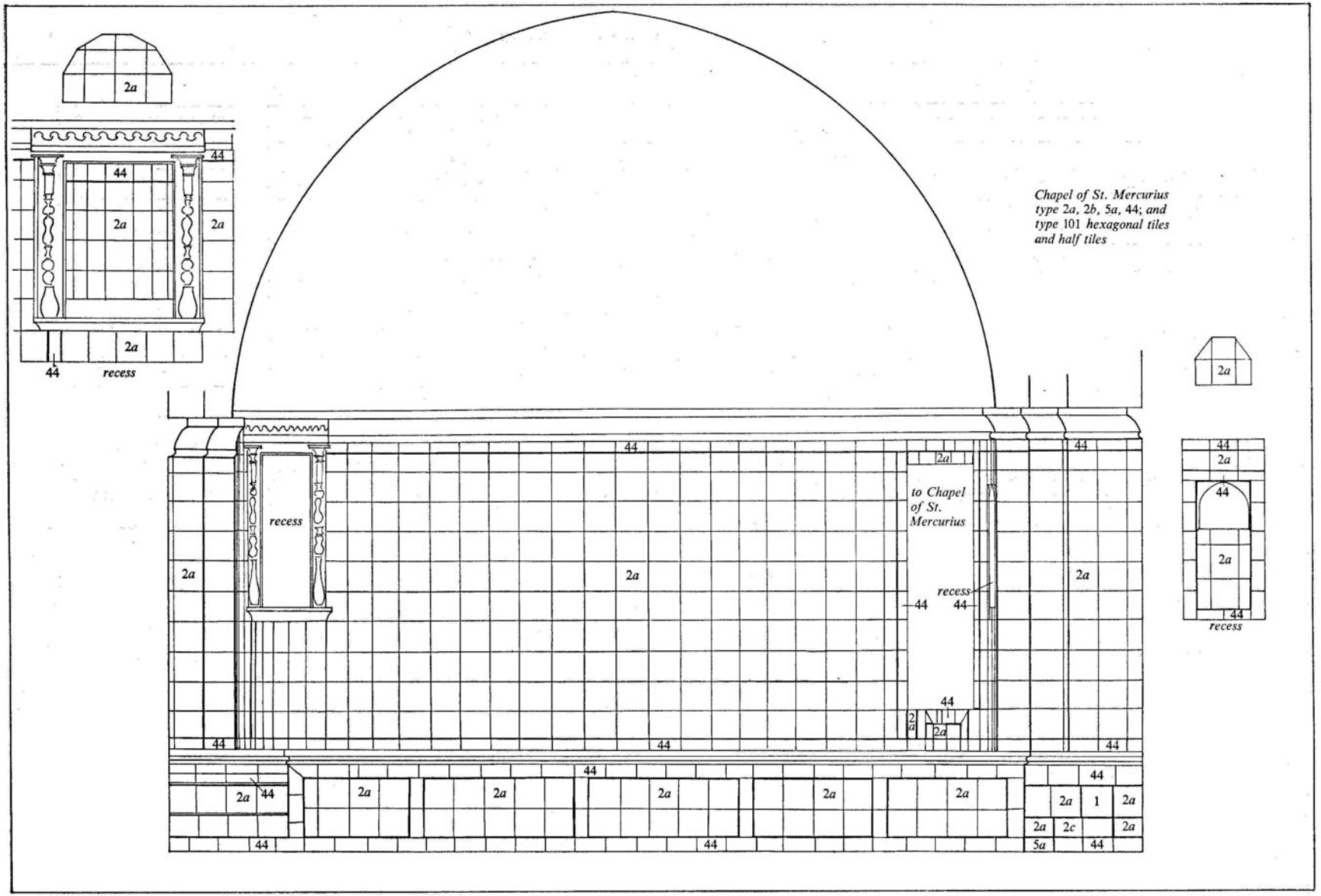
65. CHURCH OF ST. THEODORE West wall



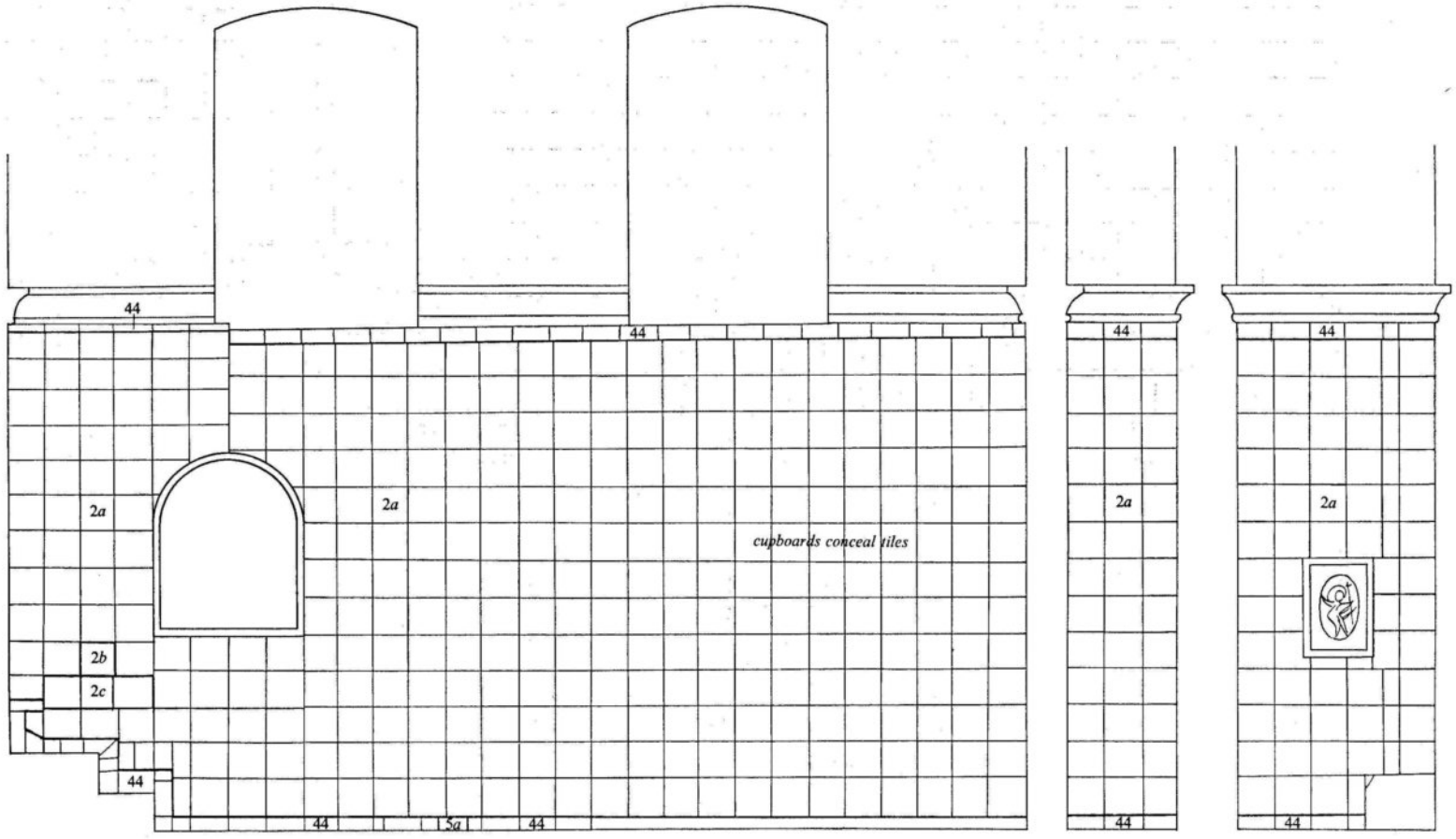
66. CHURCH OF ST. THEODORE North wall, I



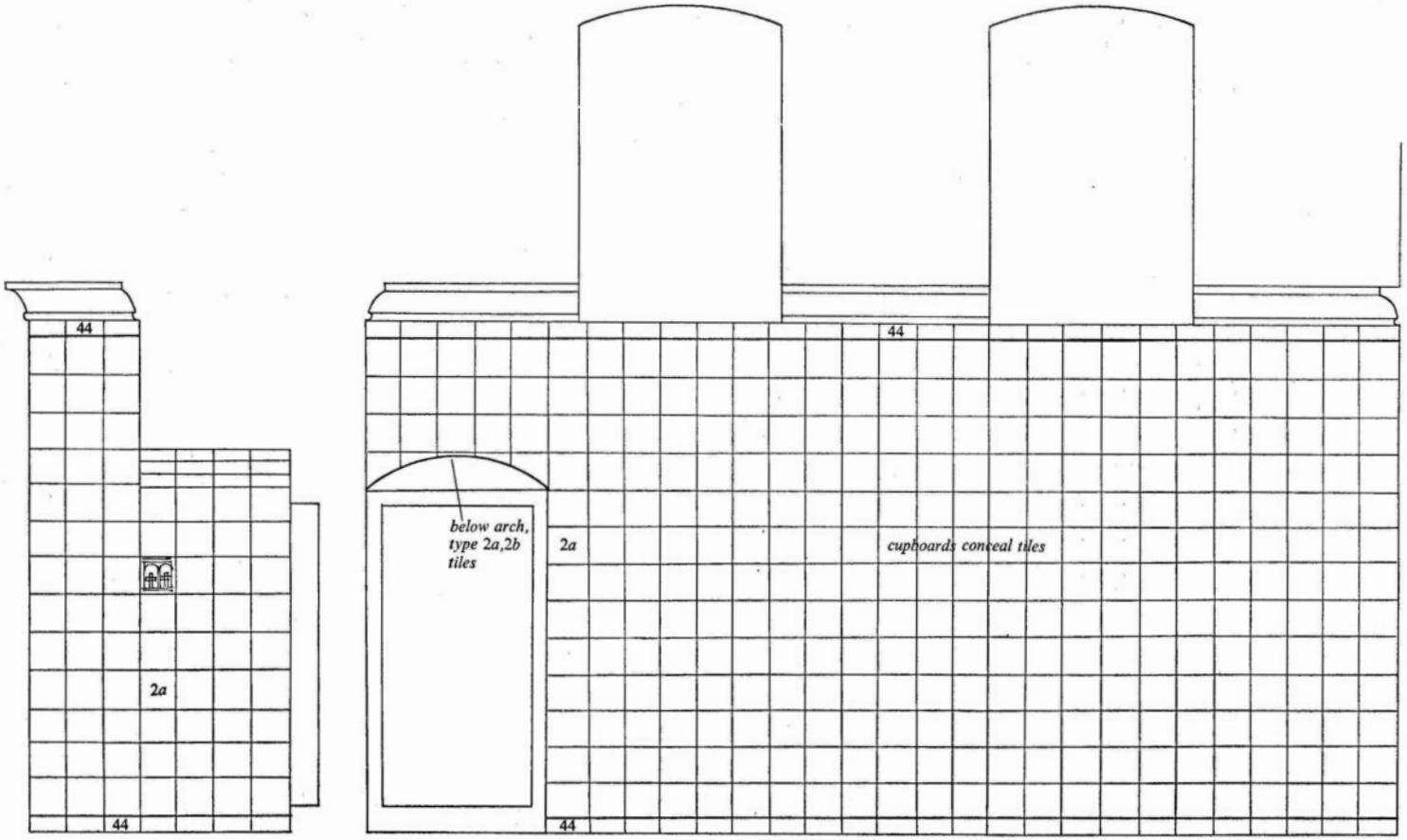
67. CHURCH OF ST. THEODORE North wall, II



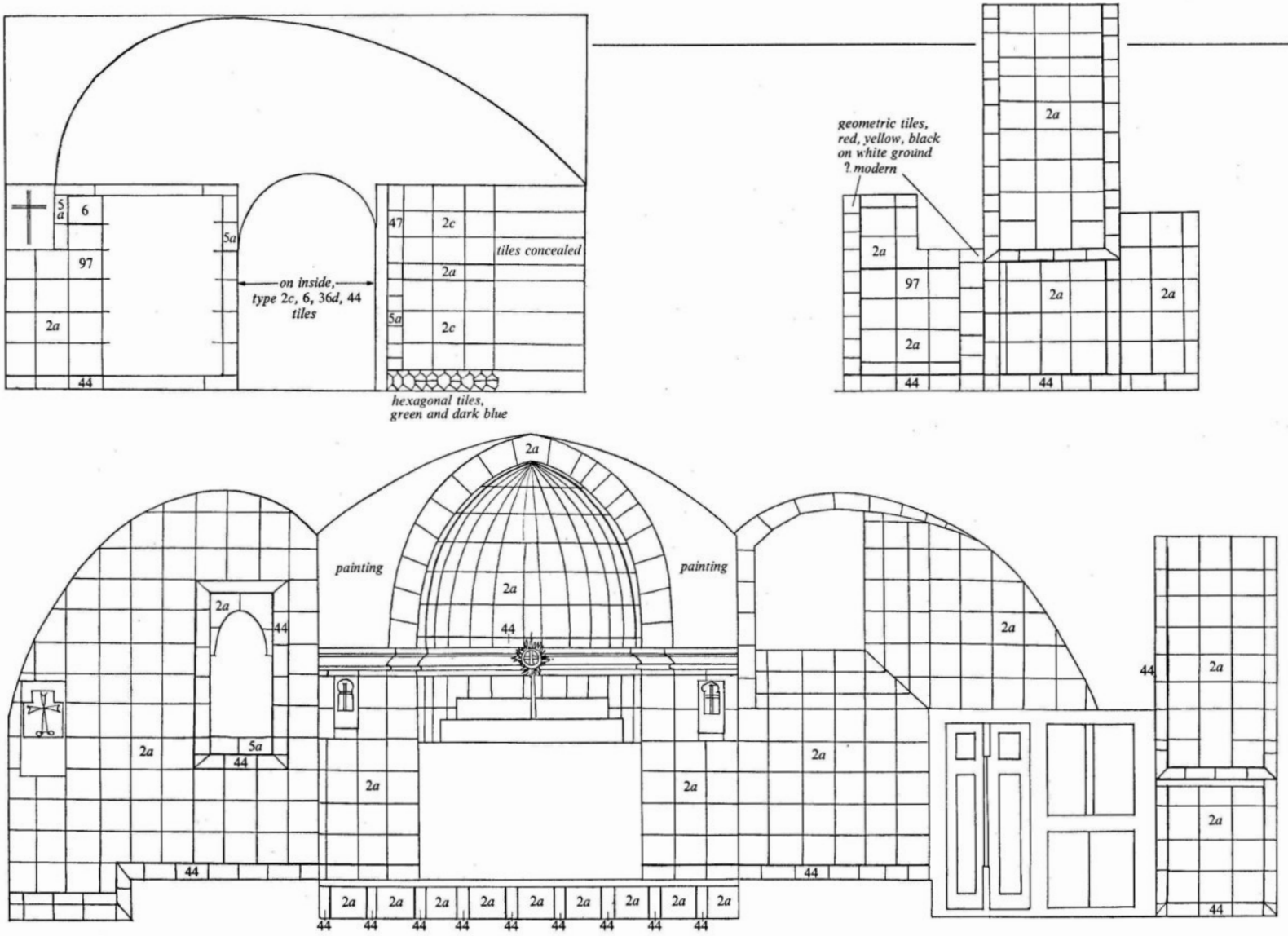
68. CHURCH OF ST. THEODORE The Altar



69. CHURCH OF ST. THEODORE South wall, I



70. CHURCH OF ST. THEODORE South wall, II



71. CHURCH OF ST. THEODORE The Sacristy, Chapel of St. John the Baptist



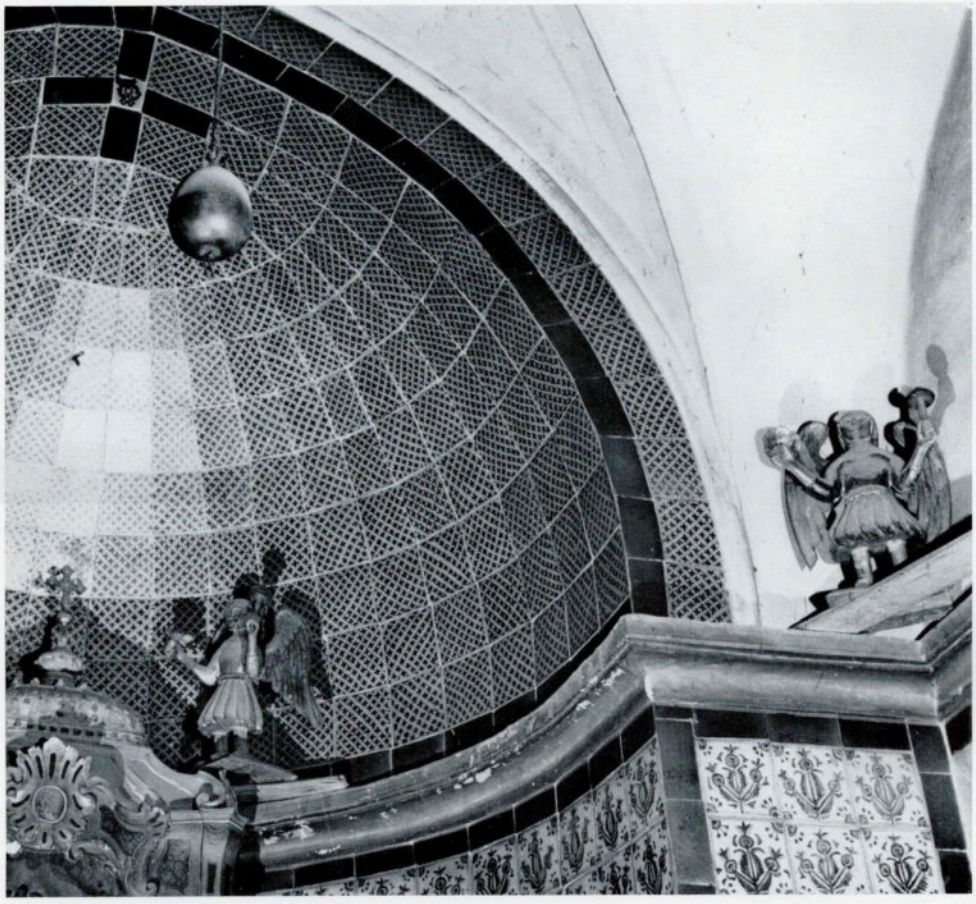
ETCHMIADZIN CHAPEL, in the Cathedral of St. James, Jerusalem; looking SE., towards the altar at Sinai



a



b



c

THE CHAPEL OF ST. PAUL, in the Cathedral of St. James

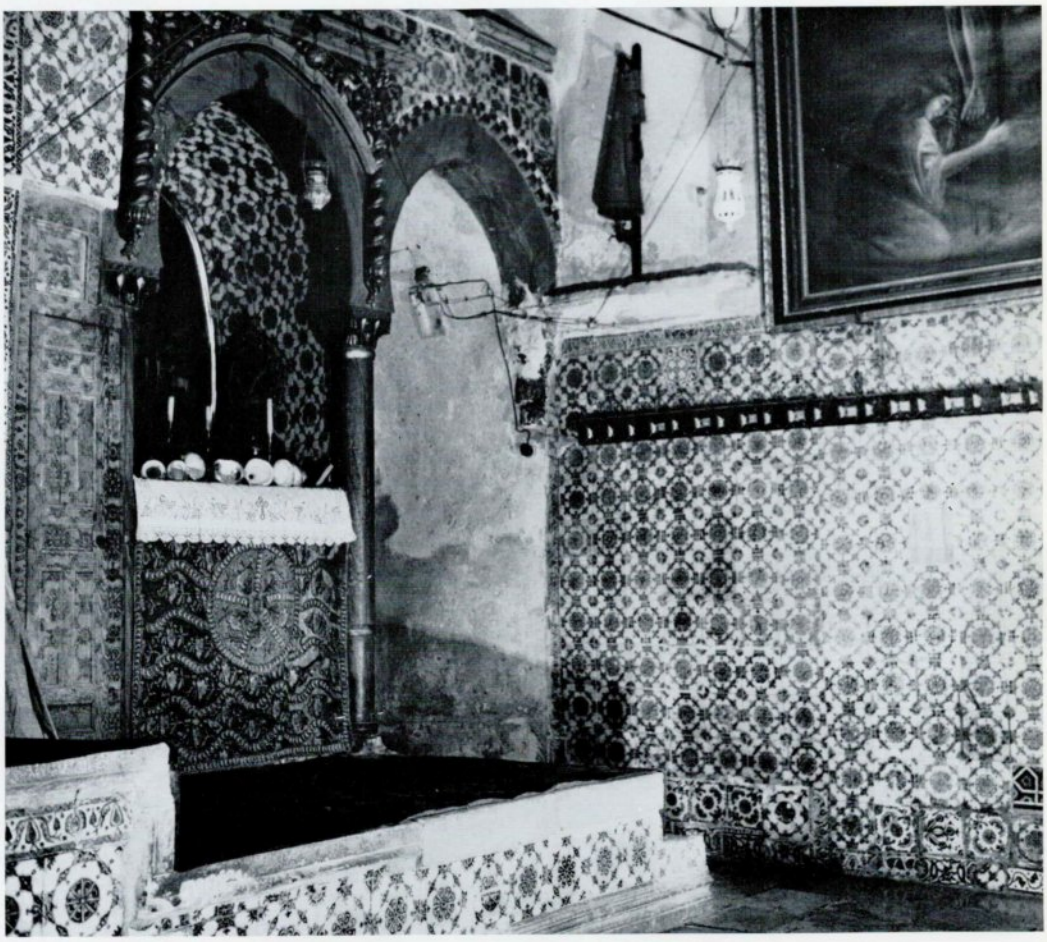
a. West side. *b*. The altar. *c*. The roof



a



b



c

THE SACRISTY, in the Cathedral of St. James

a. The altar of St. Cyril of Jerusalem. *b*. The altar of St. Stephen. *c*. The altar of St. Gregory the Illuminator



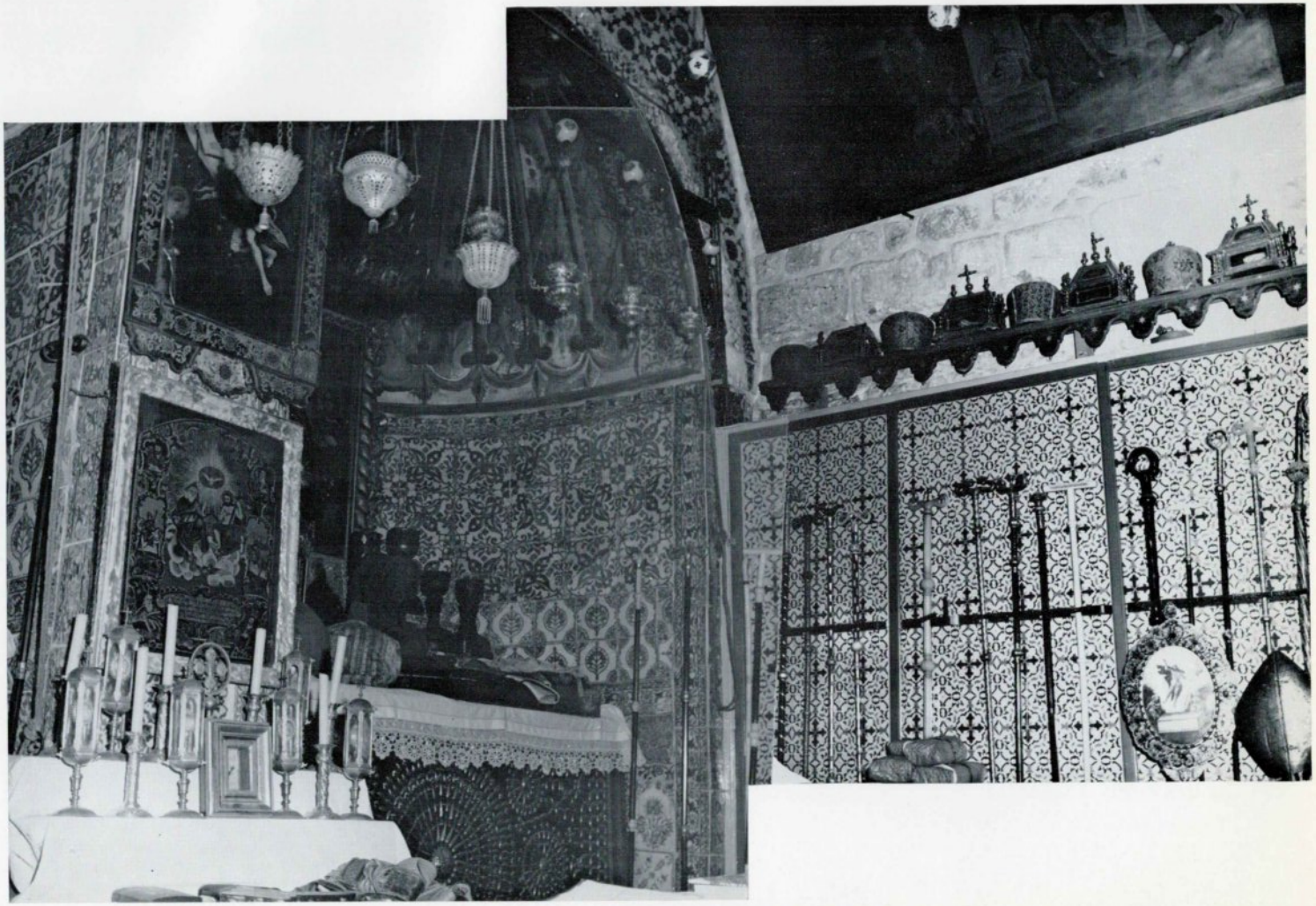
a



b

THE CHAPEL OF ST. MINAS AND ST. SARGIS, in the Cathedral of St. James

a. The altars of St. Minas and St. Sargis *b.* The entrance from the Cathedral, showing cut stones above the doorway



THE CHAPEL OF ST. MINAS AND ST. SARGIS, in the Cathedral of St. James; the altar of St. Sargis, and part of the south wall



THE ALTAR OF THE CHAPEL OF THE APOSTLES, in the Cathedral of St. James



a



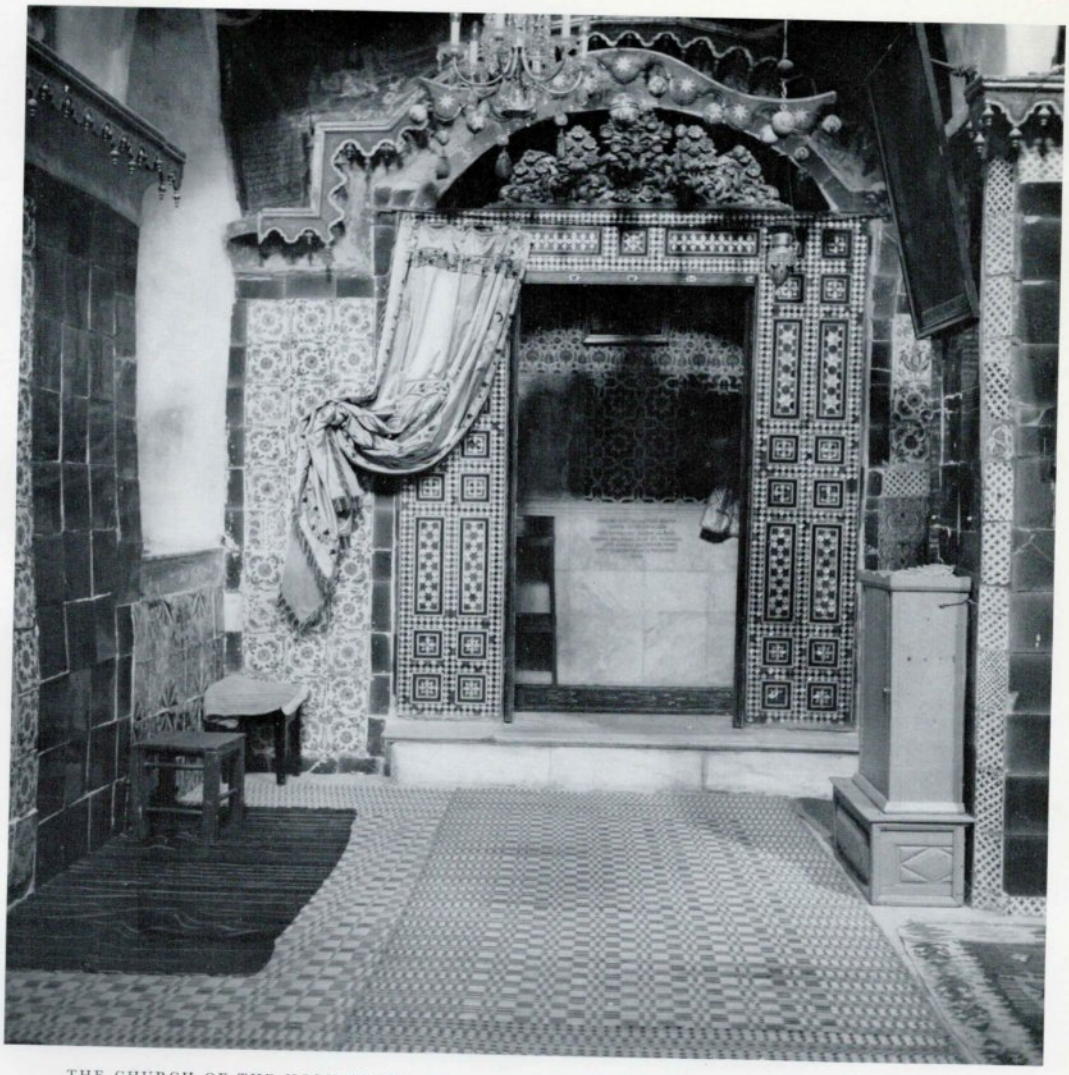
b

THE CHAPEL OF THE APOSTLES, in the Cathedral of St. James

a. South wall (E. end). *b*. South wall (W. end)



THE CHURCH OF THE HOLY ARCHANGEL, IN JERUSALEM; the altar



THE CHURCH OF THE HOLY ARCHANGEL, IN JERUSALEM; the chapel of the First Prison of Christ



a



b

THE CHURCH OF THE HOLY ARCHANGEL, IN JERUSALEM

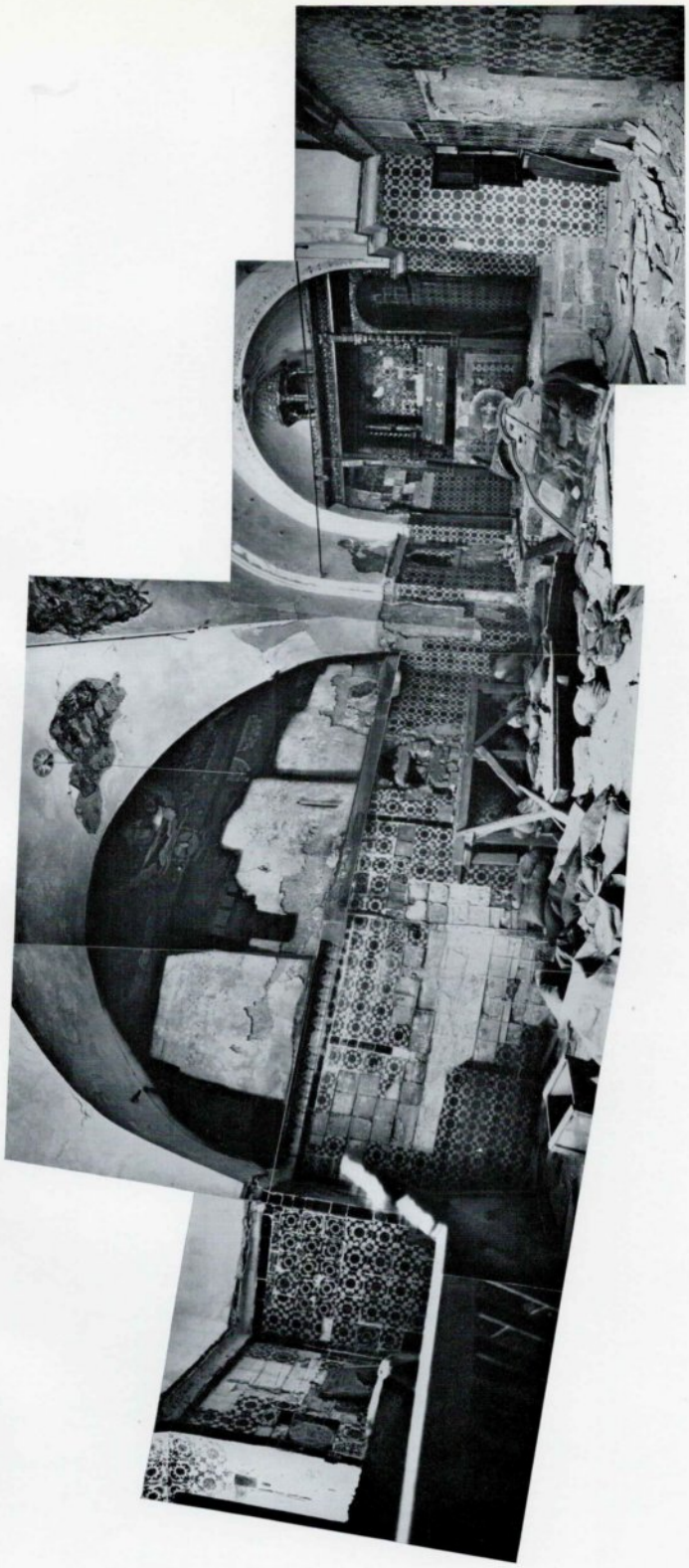
a. The altar of the Virgin Mary. *b*. The chapel of St. Hrip'simē



THE CHURCH OF ST. THEODORE, IN JERUSALEM; the entrance porch



THE CHURCH OF THE HOLY SAVIOUR, ON MOUNT ZION, JERUSALEM; looking west (*February 1968*)



THE CHURCH OF THE HOLY SAVIOUR, ON MOUNT ZION, JERUSALEM; panoramic view of the interior (*February 1968*)



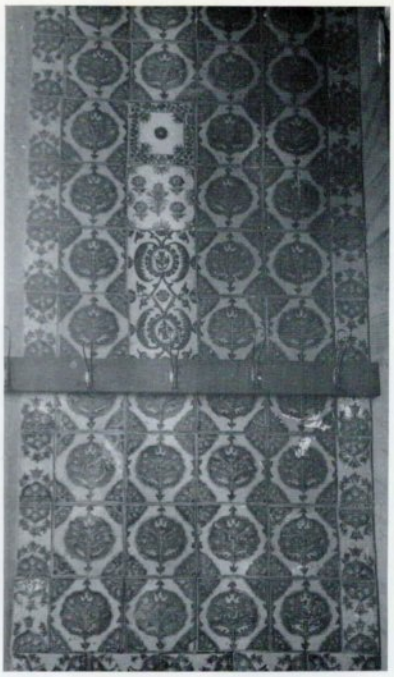
a



b

THE SYRIAN CONVENT OF ST. MARK, JERUSALEM

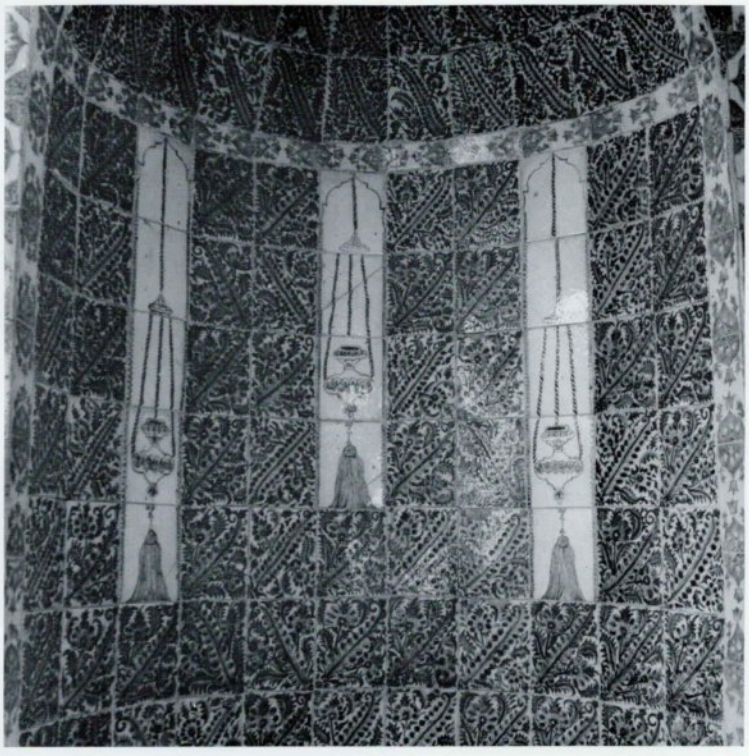
a. Wall to the left of the altar. *b*. The altar



a



b



c

THE MOSQUE OF ALI PASHA, IN KÜTAHYA

a. Kütahya wall tiles. *b*, *c*. Details of Kütahya tiled *mihrāb* (see also I, Plate 44*a*)



a



b



c



d



e

THE ARMENIAN MONASTERY AT EFKERE, NEAR KAYSERI

a, *b*. Walls stripped of tiles. *c*, *d*, *e*. Kütahya tiles from the monastery, now in the Archaeological Museum, Kayseri



a



b



c

a. LATE MING CHINESE PORCELAIN DISH, the underside; from Damascus
b. JAPANESE ENAMELLED PORCELAIN BOWL; early eighteenth century; from Damascus
c. TWO LATE MING CHINESE PORCELAIN BOWLS, painted in underglaze blue; from Damascus



a

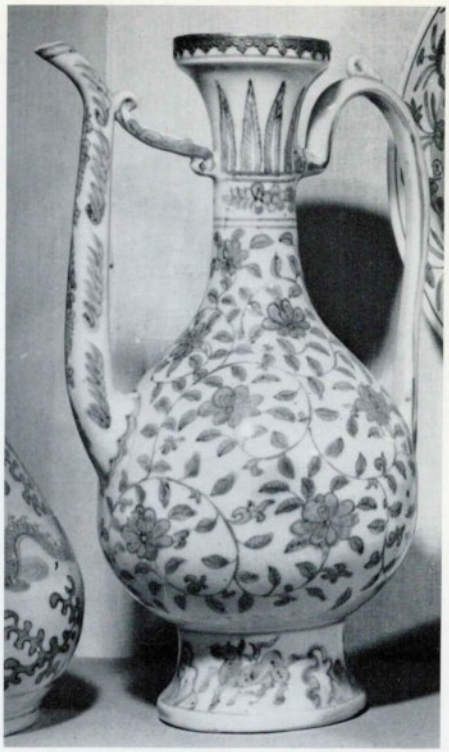


b

a. CHINESE CELADON EWER AND DEEP BOWL
b. DEEP BOWL with a pierced cover, of Chinese porcelain; painted in underglaze blue
Topkapu Sarayı Museum, Istanbul



a



b



c

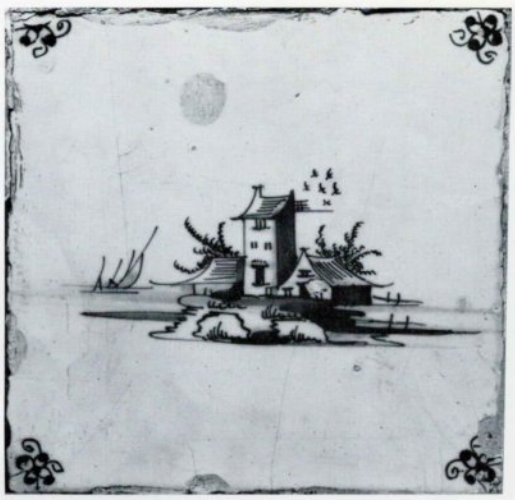


d

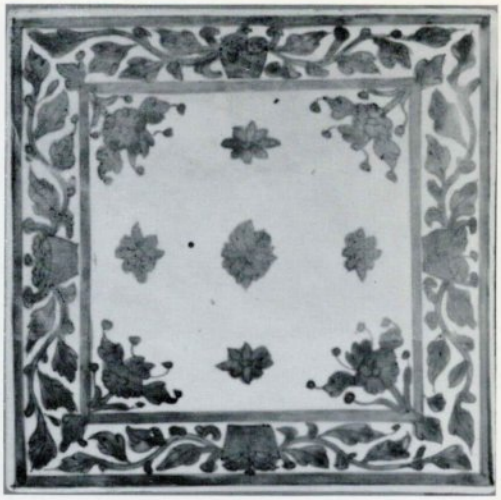
a. METAL EWER AND BOWL with pierced cover; made in Aleppo in A.D. 1947 for the Cathedral of St. James
b. LATE 16TH-CENTURY CHINESE PORCELAIN EWER, decorated in underglaze blue; Topkapu Sarayı Museum
c, *d*. PIERCED HANGING LAMPS, from the Gulbenkian Library collection, in Jerusalem



THE INTERIOR OF ONE OF THE BUILDINGS IN THE 'AZM PALACE, DAMASCUS (1749 A.D.); between the figures is a water-cascade, with a backing of thirteen Chinese porcelain tiles



a



b



c



d

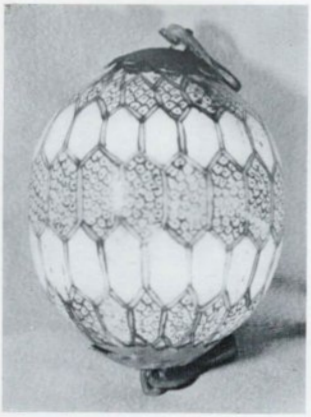
a. A 17TH-CENTURY DUTCH TILE, Victoria and Albert Museum, London
b. A CHINESE PORCELAIN TILE, Victoria and Albert Museum
c, d. EARLY 18TH-CENTURY KÜTAHYA TILES, Arab Museum, Cairo



a



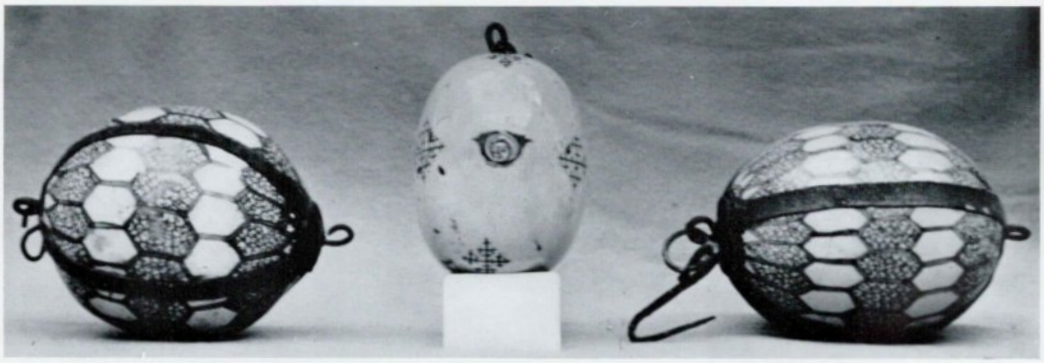
b



c



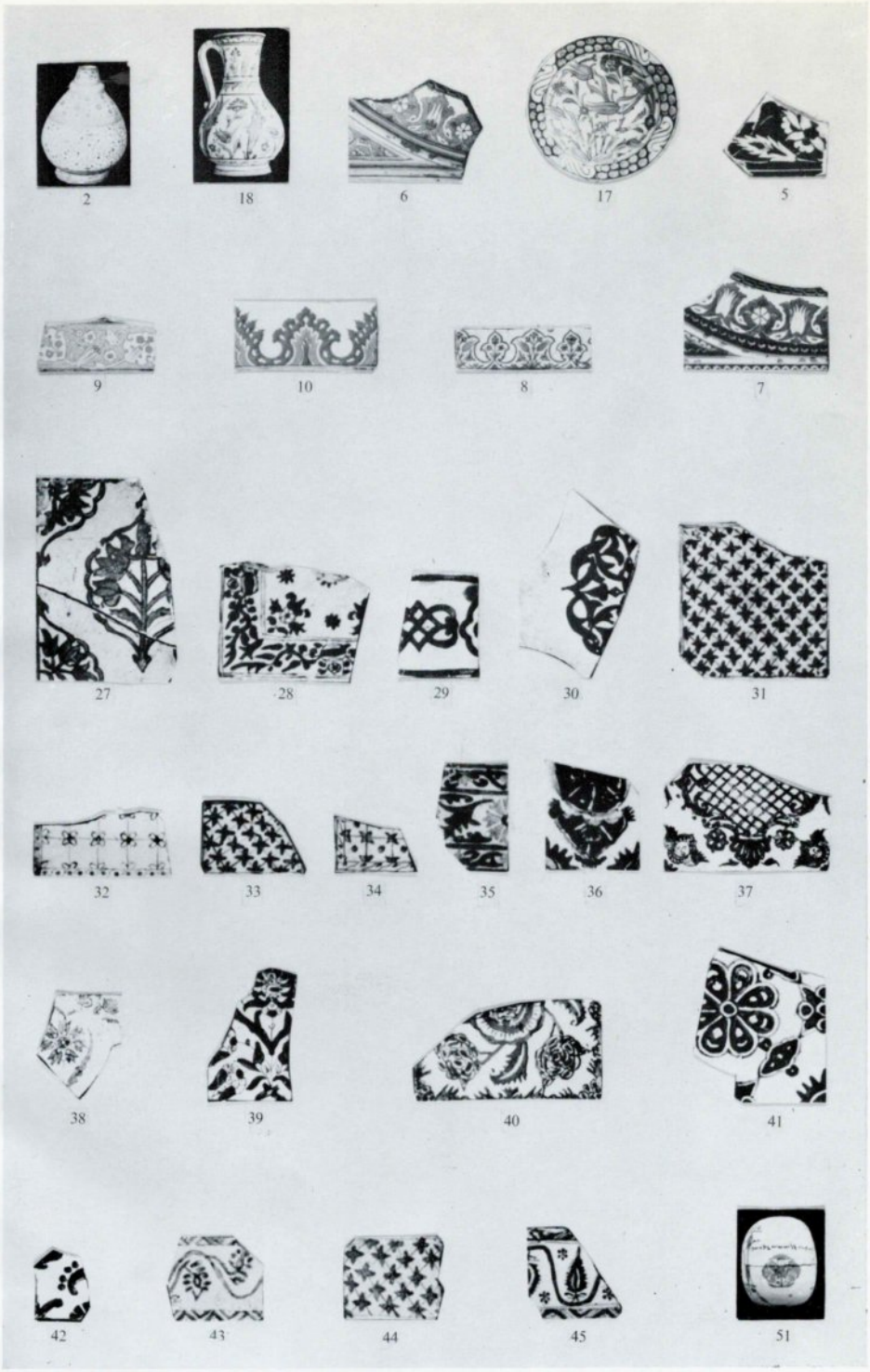
d



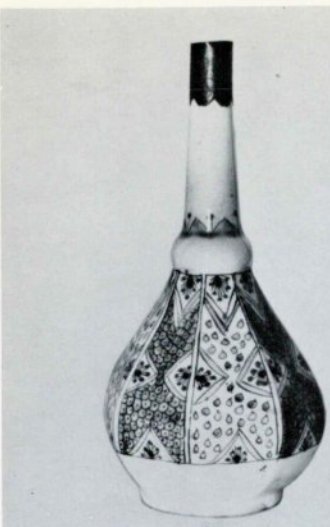
e

HANGING ORNAMENTS IN JERUSALEM

a, *b*. In the Gulbenkian Library collection
c. Above the altar of St. Gregory, in the Cathedral sacristy
d. From the sacristy storeroom, in the Cathedral of St. James
e. Above the Sinai altar, in the Cathedral of St. James



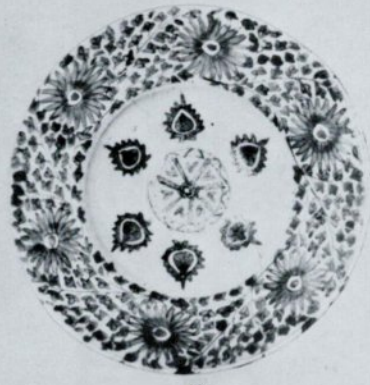
SAMPLES OF POTTERY TESTED BY SPECTROGRAPHIC ANALYSIS



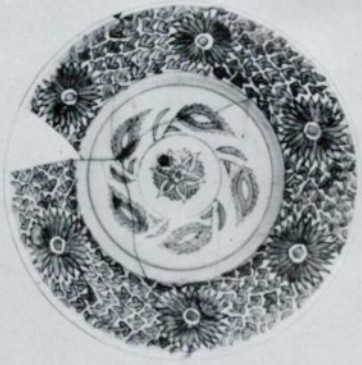
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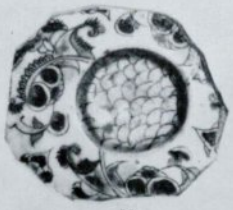
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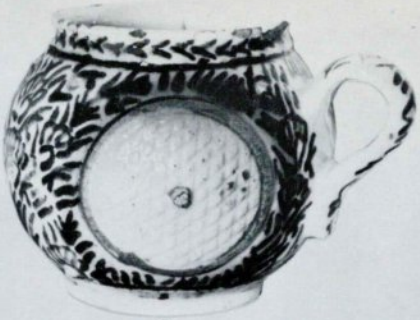


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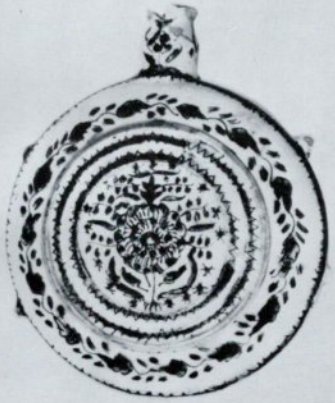
SAMPLES OF POTTERY TESTED BY SPECTROGRAPHIC ANALYSIS



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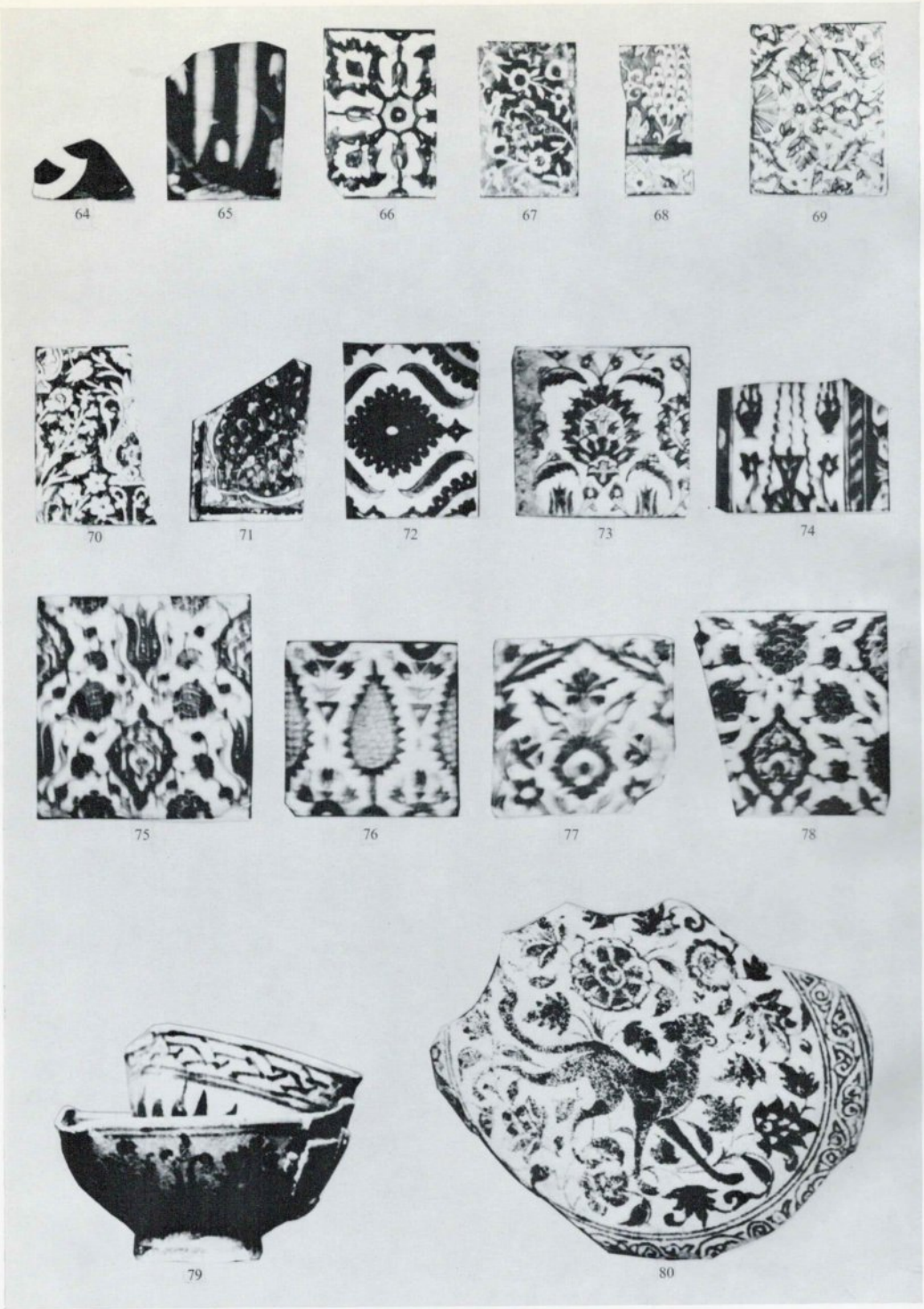


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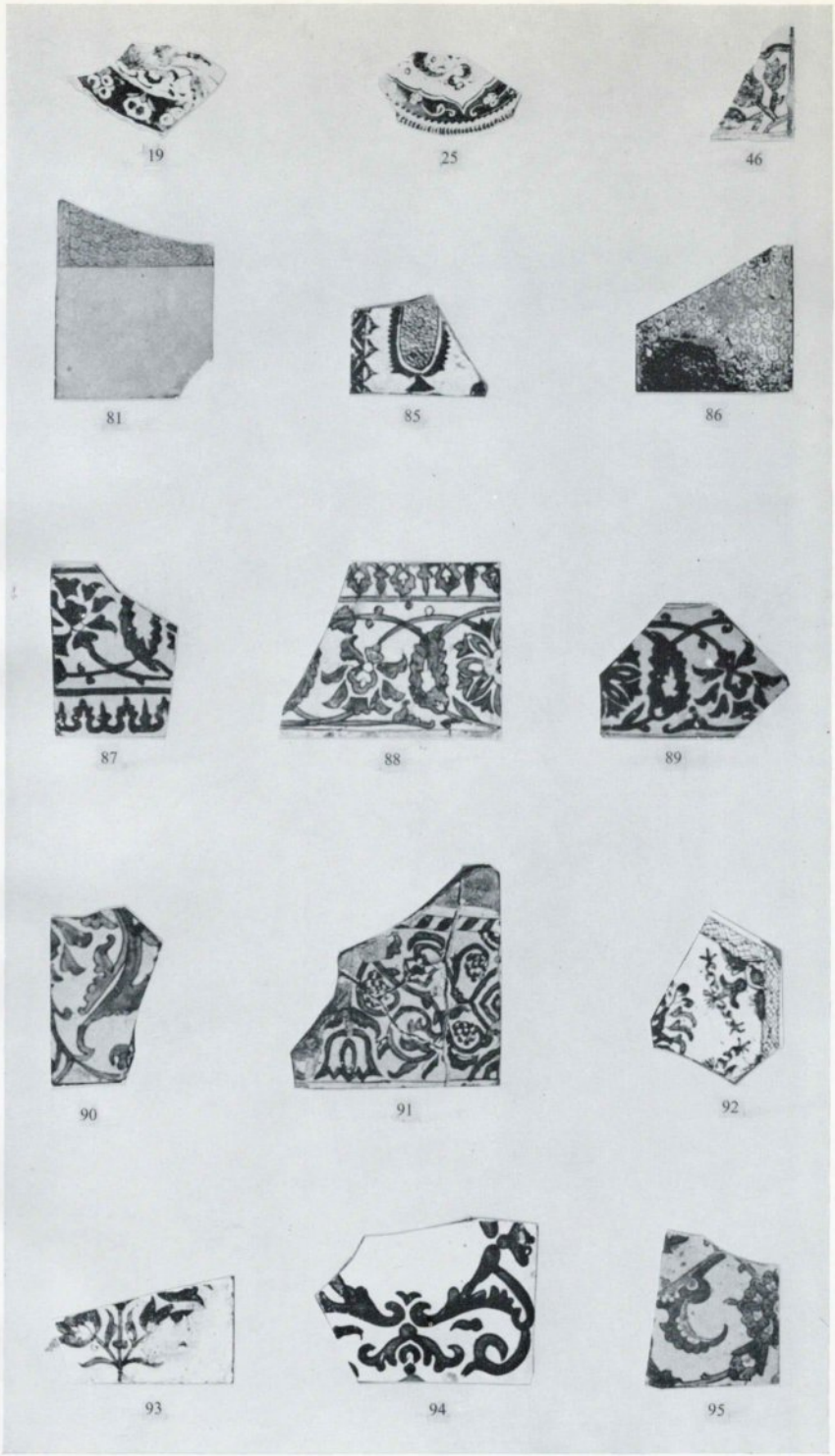


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SAMPLES OF POTTERY TESTED BY SPECTROGRAPHIC ANALYSIS



SAMPLES OF POTTERY TESTED BY SPECTROGRAPHIC ANALYSIS



SAMPLES OF POTTERY TESTED BY SPECTROGRAPHIC ANALYSIS