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Brick Stamp-Impressions of the Legio X Fretensis

Bricks bearing the stamp of the legio X Fretensis were known already in the last century¹. Most of the bricks of this sort known by the end of the First World War were included in the list of Latin and Greek inscriptions from the Jerusalem area compiled by Thomsen². Important finds of such bricks were made in the years after that war. In the summer of 1949, the largest number yet found came to light in the excavations of M. Avi-Yonah at Givat Ram (Sheikh Bader). In the present study, the various types of stamps published to date are classified, together with a number of unpublished types, with the intention of ascertaining the relative and absolute chronologies of some of them³.

Vorbemerkung:

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¹ For the history of the legio X Fretensis see the following: Daremberg-Saglio, *Dictionnaire des antiquités grecques et romaines*, II 2 (Paris 1904) s. v. legio X Fretensis; RE XII 2 (Stuttgart 1925) s. v. legio X Fretensis (Ritterling). Since the compilation of these articles additional evidence from the coins has lent support to Brünnow's opinion (R. E. Brünnow - A. von Domaszewski, *Die Provincia Arabia III* [Straßburg 1909] pp. 275 f.) that the legion's transfer from Jerusalem to Aila was made during the reforms of Diocletian; a coin of Aelia Capitolina depicting a boar and a vexillum with LXF on it was struck under Herennius Etruscus (249/251 A. D.) – see L. Kadman, *The Coins of Aelia Capitolina* (Jerusalem 1956) No. 186. Neapolis issued a coin under Trebonianus Gallus (251/254 A. D.) depicting a boar and Poseidon, both insignia of the legion (Stella Ben-Dor, RB 59, 1952, pp. 251–2, pl. IX 1; cf. G. F. Hill, *BMC of Palestine* [London 1914] pl. XL 2). Thus, the time of the transfer is reduced to between 251/254 A. D. and the start of the fourth century, for Eusebius (*Onomastikon*, Klostermann ed., p. 6, Αἰλίῳ) mentions that the legion was stationed at Eilat. For inscriptions of the Tenth Legion found in Palestine and Syria, see B. Lifschitz, *Roman Legions in Palestine* (BIES 23, 1959, pp. 60–66).

² P. Thomsen, *Die lateinischen und griechischen Inschriften der Stadt Jerusalem und ihrer nächsten Umgebung*. ZDPV 44, 1921, pp. 139 ff. No. 255; 64, 1941, p. 245.

³ This article was originally a seminar paper written during my studies at the Hebrew University in Jerusalem, supervised by Prof. M. Avi-Yonah. I must thank Dr. V. Clairmont-v. Gonzenbach, Princeton, for bringing to my attention a number of publications; Prof. Avi-Yonah, who enabled me to examine the finds from his excavations at Givat Ram, and permitted me to publish some of them here; and Dr. Y. Aharoni, for the same with the material from Ramat Raḥel. I am also grateful to Dr. A. Biran, Director of the Israel Department of Antiquities, for permission to publish here stamp-impressions on bricks in the Department's collections, and to his staff for their assistance while examining them. Likewise, I am grateful to Prof. N. Avigad, Head of the Department of Archaeology of the Hebrew University; Mr. K. Katz, Curator of the Bezalel collections at the Israel Museum; Dr. Y. Elgavish, Director of the Haifa Municipal Museum; Dr. S. Avizur, Director of the Absalom Institute; Mr. H. Alperin, Director of the Ha'aretz Museum, and Mr. A. Kindler, Director of the

Insignia

The legio X Fretensis had a rich group of insignia of two types:

1. The wild boar;
2. A group of maritime symbols.

Often the two types appear together. Our knowledge of these stems from the symbols appearing on one type of brick stamp, from coins and from countermarks on coins. An inscription from the aqueduct at Caesarea Maritima and one dedicated by soldiers of the first cohort of the legion, from the time of Hadrian's visit to the East (130 A. D.), also bear such insignia. Thus, most of these sources date to the first period of the legion's stationing at Jerusalem (70–133 A. D.). Additional information is gleaned from coins of Aelia Capitolina and Neapolis, from the period after the Bar Kokhba Revolt. From the period prior to 70 A. D. there is no direct evidence. The large variety of insignia of this legion is without parallel among the other Roman legions⁴.

1. The Boar

The boar, usually standing from left to right, is the main insignia of the legio X Fretensis. It appears in countermarks on coins, with L · X · F above and a dolphin below. On one type of brick stamp it appears together with the name of the legion and a galley. The boar also appears several times on coins of Aelia Capitolina⁵ and

Kadman Museum of Numismatics, all for allowing me to examine and publish stamp-impressions at their respective institutions. I am also grateful to the late Dr. B. Kirschner and to Mr. E. Chaikin, of Jerusalem, for placing at my disposal material in their collections. Special thanks go to the Israel Exploration Society, and to its Secretary, Mr. J. Aviram, who aided in the preparation of my material for the press, and who took the financial responsibility for the preparation of the drawings and photographs. The former were prepared by Miss Yael Avi-Yonah; the photographs by Mr. W. Rosenbaum. The impressions given in the plates are preserved in the following collections: Israel Department of Antiquities: fig. 4,2. 5–6. 13–20. 22–27; fig. 5,1–4. 6–12. 14–17. 22–23. – Hebrew University: fig. 4,3. 11–12. 21. – Ramat Raḥel Expedition: fig. 5,18–19. – Bezalel Collection, Israel Museum: fig. 4,9. – Ha'aretz Museum: fig. 5,21. – Absalom Institute: fig. 5,20. – Haifa Municipal Museum: fig. 4,8. 10. – Prof. Reifenberg Collection: fig. 4,1; fig. 5,5. – A. Chaikin Collection: fig. 4,4. 7; fig. 5,13.

Abbreviations

C	=	Citadel, Jerusalem
GR	=	Givat Ram (mostly finds of the 1949 excavations)
H	=	Haifa Municipal Museum
HU	=	Hebrew University, Department of Archaeology
IM	=	Israel Museum (formerly in the Bezalel Museum)
MH	=	Museum Ha'aretz, Tel Aviv
MO	=	Mount of Olives
MZ	=	Mount Zion
PBI	=	Pontifical Biblical Institute
R	=	Collection of the late Prof. A. Reifenberg
RR	=	Ramat Raḥel

⁴ For the insignia of the Roman legions, see Daremberg-Saglio: *op. cit.* (n. 1), pp. 1065–1066; Ritterling: *op. cit.* (n. 1), cols. 1371–1376. These two discussions were much used in A. von Domaszewski, *Die Fahnen im römischen Heere*, *Abh. Arch. Epig. Sem. Univ. Wien V*, 1885; *Die Thierbilder der Signa*, *Arch.-Epig. Mitt. aus Öst. XV*, 1892) pp. 182–193. See also H. M. D. Parker, *The Roman Legions* (Cambridge 1958) Appendix A, pp. 261–263.

⁵ G. F. Hill: *op. cit.* (n. 1) p. 82 No. 3 (Hadrian), p. 87 No. 29 (Antoninus Pius), pls. VIII–18, IX–8 (L. Kadman: *op. cit.* [n. 1] p. 57 Nos. 6, 33).

once on a coin of Neapolis⁶. On a coin of Aelia Capitolina under Elagabal, a boar is depicted at the top of a vexillum, from right to left⁷, and on a coin of Herennius Etruscus, also from Aelia Capitolina, the boar is shown with an eagle flying above, together with the vexillum of the legion⁸.

De Saulcy interpreted this symbol as being intended to offend the religious feelings of the Jews⁹, though this supposition was rightly rejected, for the same symbol was used by legions having no connection with the wars against the Jews¹⁰. According to Domaszewski, the boar signifies the god Quirinus¹¹.

The Bull

On a gold coin struck by Victorinus, about 268 A. D., there appears a bull surrounded by the inscription LEG X FRETENSIS P. F.¹². The bull and title P(ia) F(idelis) are known to be connected with the legio X gemina, though there is no other indication of its use in connection with the legio X Fretensis. Thus, it may have been that, for unknown reasons, insignia of the legio X gemina were used for its sister legion on this coin¹³.

Domaszewski¹⁴, and hence Ritterling, regarded the bull on this coin, being the zodiac symbol for the month of Venus, the mother of the gens Julia, as being an indication that this legion was founded by Julius Caesar. Though this could be the intent of the authority issuing the coin, this evidence is too slim to prove the matter, and seems to conflict with the other evidence.

2. Maritime Symbols

a. The Galley.

The galley appears in countermarks on coins of the first period of the stationing of the legion at Jerusalem. This symbol is peculiar to this legion and is not used by any other. Clermont-Ganneau suggested a connection between this symbol and the sea victories of the legion in the Jewish War¹⁵. The several maritime symbols used by the legion indicates their importance to it, and thus it is difficult to accept such a weak connection. A much more acceptable explanation is to be found in connecting these symbols with the early days of the legion, and to its supposed outstanding performance

⁶ See Ben-Dor, *op. cit.* (n. 1) pp. 251–252.

⁷ Hill, *op. cit.* (n. 1) p. XLIV, pl. XL–10; Kadman, *op. cit.* (n. 1) p. 57 No. 128.

⁸ For this coin see n. 1.

⁹ F. de Saulcy, *Lettre à M. Léon Renier sur une monnaie antique contremarquée en Judée*. *Rev. Arch.* 20, 1869, p. 254.

¹⁰ Leg. I Italica; leg. II Adiutrix; leg. XX Valeria Victrix.

¹¹ Domaszewski, *op. cit.* (n. 4: *Die Thierbilder . . .*) p. 192.

¹² H. Cohen, *Description historique des monnaies . . . VI*.² (Leipzig 1930) p. 75 No. 62.

¹³ For the insignia of the above legion: Daremberg-Saglio: *op. cit.* (n. 1) p. 1066, fig. 4411; Ritterling, *op. cit.* (n. 1), col. 1678. It is interesting to note that the legio XXX Ulpia Victrix was also attributed insignia other than the usual by Victorinus — see Domaszewski: *op. cit.* (n. 4: *Die Fahnen . . .*) p. 55. For the problem of why Victorinus struck coins in honour of legions in the East not having any influence on events in the West, see P. H. Webb, in Mattingly-Sydenham, *The Roman Imperial Coinage V 2* (London 1933) pp. 382–384 p. 388 No. 17. See also Ritterling *op. cit.* (n. 1) cols. 1343–1344, and 1675.

¹⁴ Domaszewski, *op. cit.* (n. 4: *Die Thierbilder . . .*) p. 184; Ritterling, *op. cit.* (n. 1), col. 1671.

¹⁵ See n. 18; against this assumption, see E. Michon: *RB* 9, 1900, pp. 104 f.

in the sea-battle against Sextus Pompey¹⁶. On a coin of Aelia Capitolina, under Antoninus Pius, the galley appears, according to Kadman signifying the legion¹⁷. A single-masted ship with ram, though without oars, appears at the top of one type of brick stamp. Though in details this warship differs from the galley of the countermarks, it is confidently assumed that the intention is the same in both cases.

b. Neptune.

On the inscription commemorating Hadrian, set up during his visit to the East (130 A. D.) by the soldiers of the first cohort of the legion, Neptune is depicted together with his trident, holding a dolphin in his right hand and with one foot on the prow of a ship¹⁸. On a coin of Neapolis, Neptune is seen together with the boar, and this coin is undoubtedly dedicated to the legio X Fretensis¹⁹. Neptune was an insignia of two other Roman legions²⁰.

c. The Dolphin

The dolphin is depicted in countermarks on coins, below the boar. It also appears on the commemorative inscription mentioned above, held in Neptune's hand, and alone on an inscription from the aqueduct of Caesarea Maritima²¹. The dolphin is depicted in brick stamp-impressions, which might have belonged to the legion. Symbolizing the calmness and the quiet of the sea, the dolphin is, of course, one of Neptune's attributes.

Legionary Installations Discovered at Givat Ram

Shortly after the capture of the Sheikh Bader Quarter (now Givat Ram) of Jerusalem in 1948, fragments of broken bricks, tiles, etc., were discovered there bearing stamp-impressions of the legio X Fretensis. The frequent visits of amateur archaeologists who carried off many of these remains, and especially the plan to construct a convention centre on the site, necessitated scientific excavations there, to ascertain the exact nature of the remains.

The hill is situated at the western approaches to modern Jerusalem (grid ref. 1693–1325), at an elevation of approximately 820 metres above sea-level. It lies at the northern end of an elongated ridge running north-south, to the west of the Valley of the Cross. To the north of the site, the ancient road to Jerusalem leads toward the city. In the summer of 1949 excavations were carried out there by the Israel Exploration Society, under the direction of M. Avi-Yonah. A brief report, summarizing the main results of the excavation, was published shortly after²².

According to the report, in four of seven trial trenches, there were found remains,

¹⁶ Th. Mommsen, *Res Gestae divi Augusti* 2 (Berlin 1883) p. 69.

¹⁷ L. Kadman; *op. cit.* (n. 1) pp. 56–57, No. 34.

¹⁸ Ch. Clermont-Ganneau, *Recueil d'archéologie orientale* II (Paris 1898) pp. 299. A photograph of this inscription has recently been given in G. Cornfeld (ed.), *Daniel to Paul* (New York 1962) p. 347.

¹⁹ See n. 6.

²⁰ Leg. XXX Ulpia, leg. XI Claudia.

²¹ D. Barag, *An Inscription from the High Level Aqueduct of Caesarea-Reconsidered*. *IEJ* 14, 1964, pp. 250–252, pl. 55.

²² M. Avi-Yonah, *The Excavations at Sheikh Bader* (1949). *BIES* 15, 1950, pp. 19–24, pls. 6–7 (Hebrew).

defined on the basis of sherds, as belonging to the Herodian-Roman period. Among these were the remains of a quarry, several foundations, and debris containing sherds and broken bricks. The main remains were found on the slopes of the hill, in the area referred to in the report as area D²³. At this spot, 500 sq. m. were cleared, in which traces of quarrying were found oriented on north-south and east-west axes, and the foundations of several rooms, cut into the rock. The many cisterns found, some of which had several openings, were suggested to be for water and grain storage and cellars. These remains were ascribed to the period prior to the destruction of the Second Temple, on the basis of the sherds, which were described as being 'evidently of mid-first century A. D.', found under part of a plastered floor, some 30–40 cm. above the quarried bedrock. On historical considerations, it was suggested that these remains be connected with the widespread building activities in Jerusalem in the century prior to the destruction. In the period after this, according to the report, the hill was occupied by the legio X Fretensis for its command-value over the road coming from the west. The soldiers of the legion took advantage of the installations on the site and reused them for a brickworks. In several cisterns there were large quantities of sandy, greenish-yellow clay (possibly brought to the site from the Motza-Castel area) and traces of brown soil, which most likely were meant for brick-making. Of one of the rectangular depressions found it was stated in the report that it had once been used as a kiln. It had traces of soot on its walls. In a later phase, one of these was blocked up; a network of pottery pipes drained rainwater into the cisterns. In this period the industry on the site may have been different from that of the previous one. Byzantine sherds found in one of the cisterns indicate that it was used for water storage in that period.

The excavator points out two important facts: a. Raw materials for the production of brick were found on the site; b. Though many bricks, tiles, etc., were found, on none of them were there any traces of plaster, which would indicate them to have actually been used. These facts were brought forth in the report as evidence that there was a brickworks on the site. Several more facts can be given to prove, in my opinion, that this was definitely a brickworks of the legio X Fretensis:

a. Though the area excavated was small, checks were made at various spots on the site and no building remains were found, in which there were used bricks manufactured there.

b. To this day there are fragments of many thousands of bricks, tiles, etc., all fired. In spite of the large quantities, only very few examples of whole bricks were found²⁴. On the fragments, as stated in the report, there are no traces of plaster, and thus they had evidently never been used. Thus, it may be assumed that these are the remains of bricks, etc., which were broken or cracked during the firing and were later discarded.

c. As we shall see below, many types of stamp-impressions were found on the bricks, etc., discovered on the site. The number of types, not only the quantity of bricks, etc., exceeds anything known at any other site in the Jerusalem area. Had the buildings been constructed on the site, there would have been large quantities of one type of stamp-impression, or at least of just a few types, with a further few belonging to

²³ *Ibid.*, pp. 21–22.

²⁴ One square brick bearing a stamp-impression was found on the site, used as an inspection hole lid within the drainage network (see *ibid.* p. 22, pl. 6, fig. 3. A second brick is today preserved in the collections of the Department of Antiquities – No. 49–2011.

repairs and additions. Ramat Raḥel serves as a good example of this point, where the legion constructed various installations and only a limited number of types of stamp-impressions was found²⁵.

d. As demonstrated below, the types of stamp-impressions found at Givat Ram belong to the entire period of the extended stationing of the legion at Jerusalem. Such continuity of types requires a most intensive construction activity, and no such traces have been found on the site.

e. A comparison of the stamp-impressions found in the Jerusalem area with those found at Givat Ram indicates that, with the exception of three types till now not found at the latter site, all types from other sites are represented here too, and that at Givat Ram many types not known at any other site were also found. This fact would be expected at a brickworks. The lack of one type or another among those found till now at Givat Ram may indicate the existence of an additional brickworks, though it is not necessarily so that every stamp type be preserved among the incomplete material recovered.

It would seem that these data should suffice to turn the scales in favour of the opinion that there was a brickworks of the legio X Fretensis on this site.

The aspect of a military brickworks in the Roman period has been revealed, for example, in the excavations at Holdeurn in the Netherlands²⁶. In the latter, there were three separate units. In one were found a cellar for the clay and an installation for its screening and refining. The second unit was a large rectangular area, evidently open, but roofed over (8.5 x 27 metres), in which the bricks had been dried. The third unit was a bank of kilns in which the bricks were fired.

The drying area and the kilns of the brickworks at Givat Ram have not yet been located. In area D there, excavated in the summer of 1949, it was possible to distinguish rectangular areas, some of which were rectangular pools, quarried into the rock, and, nearby, the openings of the cisterns. Several of the latter were found, according to the report, to contain traces of clay for bricks. It is quite clear that these are not quarries or kilns, and in my opinion they were actually the units in which the clay had been prepared for use. The cisterns also served for the storage of water so necessary in the preparation of any clay. The flat areas served for kneading and further preparation. This conjecture is strengthened by the fact that in a corner of one of these pools there was found a sort of receptacle filled with clay. Some of the deeper pools may have served as settling and evaporation basins after the initial washing. The present condition of the site does not allow an explanation of each part of the installation, each pipe and channel, etc., and it is difficult to assume that all the cisterns and shallow pools were used at one time; the source which fed the water pipes found on the site is also still not clear. Many of the installations may have gone out of use already in ancient times. The traces of soot and the fragments of bricks found in some of the cisterns would indicate that some of these had been filled, when in use as dumps for ashes and refuse from the kilns.

²⁵ Y. Aharoni, *The Second Season of Excavations at Ramat Raḥel*, BIES 24, 1960, p. 97, fig. 12 (Hebrew); Y. Aharoni et al., *Excavations at Ramat Raḥel, Seasons 1959 and 1960* (Rome 1962) pp. 4, 26 f., figs. 5, 19-1, pl. 23 : 8.

²⁶ J. H. Holwerda - W. C. Braat, *De Holdeuren bij Berg en Dal, Centrum van Pannembakkerij en Aardewerkindustrie in den Romeinschen Tijd* (Internat. Archiv f. Ethnographie, Vol. XLV, Suppl.) (Leiden 1946). I must thank Mr. L. Y. Rahmani for calling my attention to this publication.

It is difficult to determine whether some of the cisterns existed prior to the use of the site as a brickworks, and whether some of the depressions may previously have served as wine presses²⁷. Though it is impossible to definitely dispel the probability that the initiators of the original brickworks were drawn to the site because of the existence of wine presses and cisterns there (and this theory would explain why this site was especially chosen to serve as a brickworks), the extant remains are definitely not those of wine presses.

Building Materials Manufactured at the Givat Ram Brickworks

Sun-dried bricks are of the most common building materials in Palestine in antiquity and in the ancient East in general. However, the preparation of bricks and their firing in kilns was quite foreign to the architectural traditions of this area prior to the Roman period. Even in this latter period, the traditional methods of building in stone continued in Palestine and Syria; this fact is agreed upon by all who have studied the history of architecture of this area. Under Roman influence, mainly roof tiles and ceramic pipes came into widespread use. Burnt bricks are normally found used only in the construction of certain parts of baths (thermae).

An examination of the brick fragments found at Givat Ram shows them to have been prepared in wooden moulds. After the clay had been forced into the mould, the open top was smoothed off with a board. On the floors of the drying sheds there was a layer of fine gravel, some of which stuck to the bottom sides of the bricks. This gravel was meant to prevent the bricks from sticking to the drying-floor. At this stage, some of the bricks were stamped. Holwerda, who studied the stamp-impressions found at Holdeurn, suggested that one type of bricks were made in moulds already containing the fixed stamp-design²⁸. This technique is not indicated among the bricks found at Givat Ram. The bricks bearing stamp-impressions may be classified as follows:

1. Rectangular Bricks

One rectangular brick was found at Givat Ram: 15.5 x 30.5 x 4.5 cm. Several additional fragments of this type were also found, though it seems to have been uncommon. The average thickness of many fragments is 4.5–5.5 cm., though it is impossible to ascertain that they definitely belonged to this class. Several fragments indicate the existence of a small and thin rectangular brick type.

There are also a number of bricks of trapezoidal section (Fig. 1), possibly for use in arches and vaults, as was suggested for a fragment of this type by Clermont-Ganneau²⁹.

2. Square Bricks and Floor Tiles

A square brick of the type used in the construction of supporting pillars in hypocausts of baths was found in situ at Givat Ram, in use as a cover for an inspection hole of the pipe network³⁰. This brick has since been lost and its exact dimensions are

²⁷ This was suggested by Mr. G. Foerster in a private discussion at the site.

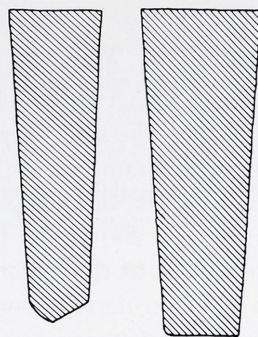
²⁸ Holwerda, *op. cit.* (n. 26) p. 133.

²⁹ Ch. Clermont-Ganneau, *Archaeological Researches in Palestine*, I (London 1899) pp. 322 f.

³⁰ Avi-Yonah, *op. cit.* (n. 22) p. 22, pl. 6 : 3.

unknown. A few bricks of this type were found at Ramat Raḥel in situ, in the pavement of the hypocaust there. Their dimensions are $18.5 \times 18.5 \times 3\text{--}3.5$ cm³¹. A small pool at the same bath at Ramat Raḥel had been paved with square tiles of 30×47 cm³². Many fragments found at Givat Ram were of 3–4 cm. average thickness, and were most likely of square bricks of this type.

Square bricks with stamp-impressions of the legion are mentioned several times in archaeological literature. A brick $19 \times 19.5 \times 3$ cm. was published by Merrill³³. Another, $17.5 \times 18.5 \times 3.7$ cm., is at present in the Louvre³⁴. On the basis of their measurements, these seem to be similar to those found at Ramat Raḥel. A square brick, $30 \times 30 \times 4$ cm., is in the collection of the Department of Archaeology of the Hebrew University in Jerusalem³⁵. Bricks measuring $39 \times 40 \times 4$ cm. were found used as covers of arcosolia at Karm es-Sayyad³⁶. In my opinion, such bricks were not originally intended for this use. In the excavations of the remains of a bath on the eastern slope of Mount Zion in Jerusalem, a large square brick, $61 \times 61 \times 7.5$ cm., was found, as was a smaller one³⁷.



1 Bricks of trapezoidal section (scale 1 : 5).

3. Round Bricks

One fragment from Givat Ram is of a round brick with a stamp-impression.

4. Roof Tiles (Tegulae)

Very many fragments of roof tiles were found at Givat Ram; their thickness varies between 1.8 and 2.5 cm. Together with the bricks found in the tombs at Karm es-Sayyad there were also roof tiles. It has been noted that they are 41.5 cm. wide. A dozen or so roof tiles used as grave lids were found in a tomb on the Mount of Olives. They measure $44\text{--}47 \times 54 \times 3\text{--}4$ cm. The longer edges of these tiles are ridged³⁸. One roof tile is preserved in the Museum Ha'aretz. It measure $46\text{--}48 \times 49\text{--}50 \times 2.5$ cm.

5. Curved Roof Tiles (Imbrices)

Many fragments of curved roof tiles (imbrices), used to cover the joints between the flat roof tiles (tegulae), were found at Givat Ram. Their average thickness varies between 1.5 and 2 cm.

³¹ Y. Aharoni et al., op. cit. (n. 25) p. 26, fig. 19 : 1, pl. 23 : 8.

³² Ibid.

³³ S. Merrill: PEFQSt. 17, 1885, pp. 132 f.; Thomsen, op. cit. (n. 2) No. 255 d.

³⁴ R. Dussaud, *Les monuments palestiniens et judaïques* (Paris 1912) No. 20, pp. 37 f.; Thomsen, op. cit. (n. 2) No. 255 e.

³⁵ Museum of Jewish Antiquities No. 2435; purchased from the Dormition Collection (No. D. 840).

³⁶ G. Schick, ZDPV 12, 1889, p. 199; idem, PEFQSt 21, 1889, p. 183, fig. 1; Thomsen, op. cit. (n. 2) No. 255 i.

³⁷ G. Schick, PEFQSt 23, 1891, pp. 19 ff.; Thomsen, op. cit. (n. 2) No. 255 k.

³⁸ R. Savignac, RB 13, 1904, pp. 263–265; Thomsen, op. cit. (n. 2) No. 255 q. A fact pointing to this not being their primary use is that on the dozen roof tiles found, three separate stamps are evident.

6. Pipes

Though ceramic pipes were found both at Givat Ram and in the bath at Ramat Raḥel, in networks in situ, none bore stamp-impressions. Only in the excavations by Johns in the Old City of Jerusalem, in the area of the late Citadel, were found pipes with the stamp of the legion³⁹. Some of the fragments defined as curved roof tiles may have in fact been of pipes.

From the above, the following facts are derived concerning the uses of these building materials of the legion:

- a. The tegulae and imbrices were used in roofing over the buildings of the legion.
- b. The pipes and square bricks were used in the construction of certain parts of the baths at Ramat Raḥel and on Mount Zion⁴⁰. Pipes were also found in the brickworks at Givat Ram and in the Old City.
- c. Rectangular and tapered bricks, used in arches, etc., are rare. Till now, no building or section of wall built of such bricks has come to light in the Jerusalem area. Though at the present it must remain in the realm of conjecture, it may be supposed that the various types of rectangular bricks were also mainly used in the construction of baths, and that the buildings of the legion were constructed, like the other buildings of Palestine and Syria, of stone.
- d. In three cases, roof tiles and square bricks were found in use as covers of burials⁴¹. This appears not to have been the originally intended use of these materials.

Classification of the Brick-Stamps

The motives for the Roman army's practice of stamping ceramic building materials with stamps of the various military units using them is not clear. One might assume that it was done to prevent their misuse; however, it is known that only a part of their construction materials were thus stamped. It may have been done to leave a lasting testimony for succeeding generations⁴².

There were two especially typical forms among the brickstamps of the Roman army – round, and rectangular⁴³. Often the legionary insignia appears at the centre of the round stamps. The rectangular stamps are often in the form of a tabula ansata; occasionally they are bordered, and often there is a motif besides the inscription. Other forms are known, and a brief glance at the CIL XIII, Fasc. 6, or at the plates in the report of the excavations at Holdeurn, will suffice to demonstrate the variety of types⁴⁴. In lack of an adequate published study on this subject, several important questions remain unanswered, i. e. whether certain forms are peculiar to particular periods, etc.

Generally, the letters were carved on the stamps intaglio, thus appearing in relief in impression; however, here and there they were cut so as to give an intaglio impression⁴⁵.

³⁹ C. N. Johns, QDAP 14, 1950, pp. 152 f., fig. 17.

⁴⁰ Germer-Durand, RB 1, 1892, p. 382. – See Schick, op. cit. (n. 37).

⁴¹ See n. 36, and Thomsen, op. cit. (n. 2) No. 255 v.

⁴² For these problems, see Ritterling, Introduction to CIL XIII fasc. 6, and Holwerda, op. cit. (n. 26) pp. 107 and 133.

⁴³ R. Cagnat, Cours d'épigraphie latine 3(Paris 1898) pp. 309 and 313 f.

⁴⁴ Holwerda, op. cit. (n. 26) pls. XXVI-XXXIII.

⁴⁵ Ibid. p. 133.

The brick-stamps of the legio X Fretensis belong to the most usual type. All the known impressions of this legion are in relief. One type of round stamp is evident, though most of the types are rectangular, and in a few cases almost square. An examination of the stamp-impressions revealed that the stamps had been made of wood. This fact was demonstrated by the following points:

- a. In several cases there were clear traces of wood grain impression between the letters⁴⁶ (Fig. 5,2).
- b. Of type IIc there are a number of impressions made after the stamp had become damaged; the character of this damage points to wood having been used.
- c. Type II f4 continued to be used after it became cracked, as one impression indicates (Fig. 5,1).
- d. Of type II f6 there are impressions of one stamp showing increased and successive damage with its continued use, including a repair. The stamp had become increasingly cracked and was even nailed together (Figs. 3,6; 5,6-10).

The excavators at Holdeurn express their surprise at no brickstamps having yet been discovered. In their report a photograph is given of a stamp made of pottery. They opine that most of the stamps had been made of unfired clay, the letters having been stamped into them with metal matrices. This seems to be a little far-fetched, for if this were so nothing could prevent such stamps from having been fired, and in such cases at least fragments of this type of stamp would have been discovered. Also, it is highly doubtful whether an unfired clay stamp would be suitable for such a task. The stamps used at the brickworks at Givat Ram were of wood, and it is very likely that in many other brickworks, as well, the stamps were normally made of this material.

The inscriptions on the stamps are in Latin, except for one type which is in Greek. They are comprised of three elements:

- a. The statement that the unit is a legion (legio), which is abbreviated to L, LE or LEG.
- b. Its designated numeral. The letter X appears, with a bar above marking it as a numeral, or sometimes without the line.
- c. The title of the legion, Fretensis, which is abbreviated to F, FR, FRE or FRT. A fourth element is sometimes appended: the title Antoniniana appears, once in its full form and once abbreviated to AN.L.

One type is outstanding, in which the appellation of the legion is lacking: LX.

Ten variants were used in the Latin inscriptions of the stamp-impressions:

- | | |
|----------|---------------------|
| a. LX | f. LXFRE |
| b. LXF | g. LEGXFR |
| c. LCXF | h. LXF/AN.L |
| d. LEXFR | i. LXFAN/TONINIAIAA |
| e. LEGXF | j. . . . FRT |

⁴⁶ It may be assumed that traces of the grain in the wood would be evident only at the start of use of a stamp; later the grain would become filled with fine particles of clay, blurring it.

The craftsmen making the stamps often made mistakes in direction in their carving and often the letters are formed backwards. Occasionally single letters are carved wrongly. Dots used to separate the various elements are rare. Simple ligatures are found fairly often.

As the suggested absolute and relative chronologies relate to only a few of the types, the list below is compiled without taking period into account, and the rectangular stamps are grouped according to the variant forms of inscription. In practice, an attempt has been made to ascribe each stamp according to its size and its special peculiarities. The dimensions of the stamps are given here with some reservation, for some of the impressions are somewhat vague around their edges, and in several cases the measurements of fragmentary impressions are restored. An additional reason for this reserve is the fact that the pressure used in making the impression, and the angle at which the stamp had been held, brought about differences in the sizes of the impressions of even a single stamp. In some of the publications, inaccurate drawings or no photographs were given, and they thus cannot be referred to here.

Type I: Round Stamps

Variant: LEG · X · F (Figs. 2,1–2; 4,1–3).

Diameter: about 8.5 cm.

Material: Roof tile.

The round type of stamp, with a warship above, the inscription LEG · X · F in the middle, and a boar running right, below, is represented at Givat Ram by only four fragments⁴⁷. From the examples published over the years⁴⁸, and from others examined in various collections⁴⁹, the diameter seems to be about 8.5 cm. The existence of a dot between LEG and X is certain; in some cases such a dot is seemingly evident between the X and the F, as well. In all the examples examined (11 of 23 known), this type of stamp appears on roof tiles. No complete impression has been preserved, and most of the fragments are in a rather mediocre state. On the basis of minor differences, several stamps of this type were most probably in use.

⁴⁷ Three fragments, according to the excavation catalogue: Nos. 1, 985 and 1410. The last is today preserved at the Department of Antiquities, No. 49.1457. – Here Fig. 5,22.

⁴⁸ a. Germer-Durand, *op. cit.* (n. 40), p. 384, mentions this type among the finds from the excavations on Mount Zion and an almost complete example in the collection of the Russian Archimandrite.

b. F. J. Bliss-A. C. Dickie, *Excavations at Jerusalem 1894–1897* (London 1898) pl. 262 and 265, pl. XXVII–36.

c. Michon, *op. cit.* (n. 15) p. 101, pl. II, gives two fragments from the collection of Baron Ustinov.

d. H. Vincent, *RB* 19, 1910, p. 264, and fig., gives a fragment from the Ustinov Collection, found in a tomb on the Mount of Olives.

e. J. E. Hanauer, *Walks about Jerusalem* (London 1910) pp. 25 f., fig. 19. This fragment was found during construction work near remains of the 'Second Wall', some 80 meters north of David's Tower; see also S. Merrill, *PEFQSt* 18, 1885), p. 24; Thomsen, *op. cit.* (n. 2) No. 255 h.

f. A. Reifenberg, *JPOS* 11, 1931, pp. 157 f., pl. IV : 3.

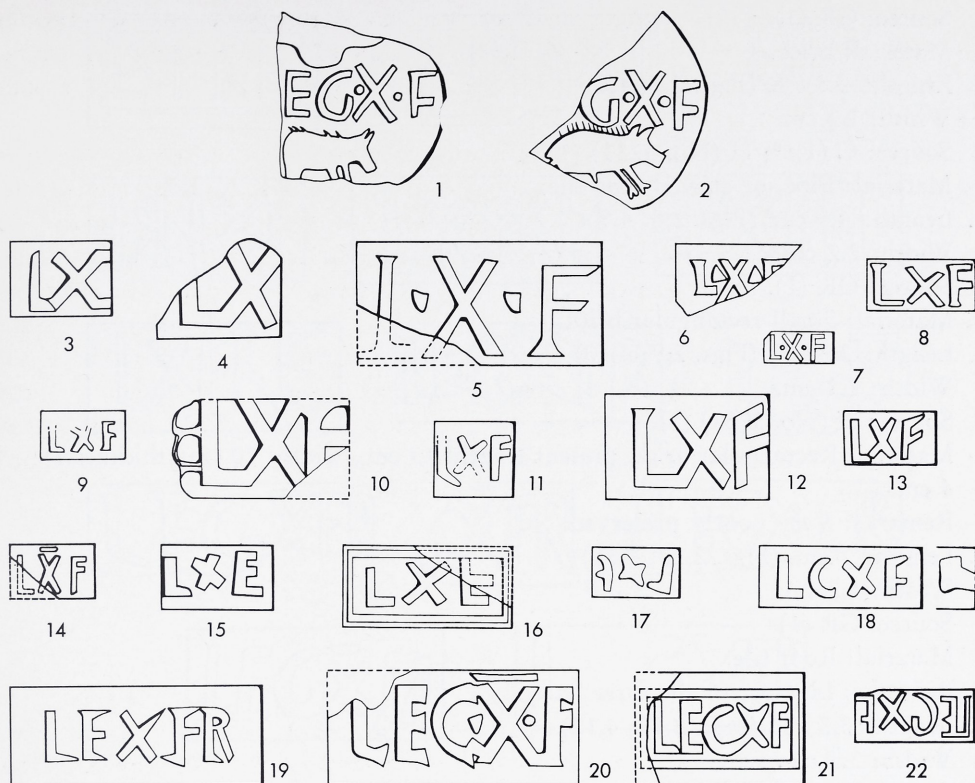
g. J. H. Iliffe, *QDAP* 2, 1932, p. 125 Nos. 10–11, pl. XLVIB.

h. P. A. Spijkerman, *Liber Annuus* 12, 1961–62, p. 328.

⁴⁹ a. In the collections of the Department of Archaeology of the Hebrew University (No. 441). – Here figs. 2,1; 4,3.

b. Ha'aretz Museum (Nos. 246, 2814, 167361, and one not numbered).

c. Dr. Kirschner Collection, Jerusalem, three fragments.



2 Type I and Type II, variants a-e (scale 1 : 3).

1-2: Type I; 3 : IIa1; 4 : IIa2; 5 : IIb1; 6 : IIb2; 7 : IIb3; 8 : IIb4; 9 : IIb5; 10 : IIb6; 11 : IIb7; 12 : IIb8; 13 : IIb9; 14 : IIb10; 15 : IIb11; 16 : IIb12; 17 : IIb13; 18 : IIc; 19 : IID; 20 : IIe1; 21 : IIe2; 22 : IIe3.

Type II: Rectangular Stamps

Variant a: LX, in ligature.

1. Length: 4.2 cm. (Figs. 2,3; 4,4)
Width: 3.2 cm.
Material: Brick, average 4 cm. in thickness.
Source: GR (1)
2. Length: 5.1+ cm. (Figs. 2,4; 4,5)
Width: 4.1+ cm.
Material: Brick, 2.8 cm. thick.
Source: GR (1).

Variant b: LXF

1. Length: 9.8 cm. (Figs. 2,5; 4,6)
Width: 5 cm.
Source: GR (3).
Material: Roof tiles or thin bricks.
Remarks: There are dividing dots between the letters.
2. Length: 5.1+ cm. (Figs. 2,6; 4,7)
Width: 2.9+ cm.

- Source: GR (1).
Material: Brick.
3. Length: 2.8 cm. (Figs. 2,7; 4,8)
Width: 1.3 cm.
Source: C (1)⁵⁰; H (No. 3231) (1).
Material: Pipe, or curved roof tile.
4. Length: 4.5 cm. (Figs. 2,8; 4,9)
Width: 2.2 cm.
Source: GR (1).
Material: Small rectangular brick.
5. Length: 3.5 cm. (Figs. 2,9; 4,10)
Width: 2.1 cm.
Source: H (No. 3231) (1).
Material: Rectangular brick, present length: 13 cm., width: 10 cm., thickness: 4 cm.
Remarks: Very poorly preserved.
6. Length: 7 cm. (Figs. 2,10; 4,11)
Width: 4.2 cm.
Source: GR (1).
Material: Roof tile.
Remarks: Ligature of the three letters.
7. Length: 3.3 cm. (Figs. 2,11; 4,12)
Width: 3.1 cm.
Source: GR (3); HU (No. 440) (1); IM (No. 231/14) (1).
Material: Bricks.
8. Length: 6.8 cm. (Figs. 2,12; 4,13)
Width: 4.2 cm.
Source: GR (4).
Material: Roof tiles or thin bricks (2), bricks (2).
Remarks: Ligature of L and X.
9. Length: 3.8 cm. (Figs. 2,13; 4,14)
Width: 2.1 cm.
Source: Gr (2).
Material: Trapezoidal brick (1).
Remarks: A stamp on a square brick in the Louvre may be of this type⁵¹.
10. Length: 3.4 cm. (Fig. 2,14)
Width: 2 cm.
Source: RR (1)⁵².
Material: Unidentified.
Remarks: Bar over the X.
11. Length: 4.8 cm. (Fig. 2,15)
Width: 3 cm.
Source: GR (4).

⁵⁰ Johns, *op. cit.* (n. 39) erroneously gave the diameter of the pipe as 7 cm., however it should read 14 cm. cf. the scale on the photograph in PEQ 1940, pl. VIII : 2.

⁵¹ See n. 34.

⁵² Aharoni, *op. cit.* (n. 31) fig. 5 No. 2.



3 Type II, variants f-j (scale 1 : 3).

1 : II f1; 2 : II f2; 3 : II f3; 4 : II f4; 5 : II f5; 6 : II f6; 7 : II f7; 8 : II g1; 9 : II g2;
10 : II g3; 11 : II g4; 12 : II g5; 13 : II g6; 14 : II g7; 15 : II h; 16 : II i; 17 : II j.

Material: Bricks; curved roof tile (1).

Remarks: All the examples are worn. The last letter is evidently E, a mistake for F.

12. Length: 7 cm. (Figs. 2,16; 4,15)

Width: 3.3 cm.

Source: GR (2).

Material: Roof tile (1); curved roof tile (1).

Remarks: Broad border (3 mm.); the F is reversed or possibly as in type II b11, above.

13. Length: 3.5 cm. (Figs. 2,17; 4,16)

Width: 1.9 cm.

Source: GR (1); an example possibly of this type was published by Reifenberg⁵³.

Remarks: Inscription reversed.

The variant LXF was brief but accurate, and was the simplest of all the variants, and thus it is not surprising to find it so much in use. Eleven of the 13 types of this stamp-impression variant are known from Givat Ram. Impressions of this same variant are

⁵³ Reifenberg, *op. cit.* (n. 48 f.) p. 158.

often mentioned in archaeological literature⁵⁴, though mostly without illustrations or adequate description, thus not enabling us to ascertain whether they are similar to those gathered here.

Variant c: LCXF

Length: 6.8 cm. (Figs. 2,18; 4,17–18)

Width: 2.6 cm.

Source: GR (11); PBI (1).

Material: Bricks (3); trapezoidal bricks (2); roof tiles (5); curved roof tiles (1).

Remarks: C for G; F damaged with use, displaying a crack.

Variant d: LEXFR

Length: 10.4 cm. (Figs. 2,19; 4,19)

Width: 4 cm.

Source: GR (27); O (1)⁵⁵; HU (No. 2435) (1); MZ (1)⁵⁶; etc.⁵⁷.

Remarks: The letters are occasionally very thin, possibly because of clogging in the stamp.

*Variant e: LEGXF*⁵⁸.

1. Length: 10.2 cm. (Figs. 2,20; 4,20–21)

Width: 4.8 cm.

Source: GR (1); O (1)⁵⁹; a square brick (19 × 19.5 × 3 cm.), bearing and impression of this variant was published by Merrill⁶⁰; etc⁶¹.

2. Length: 6.4 + cm. (Figs. 2,21; 4,22)

Width: 4.6 cm. (?).

Source: GR (1); O (1)⁶²; H (1).

Material: Roof tile.

Remarks: Bordered. Ligature of EG and possibly also X. All examples are worn.

3. Length: 5 cm. (Figs. 2,22; 4,23)

Width: 2 cm.

Source: GR (2).

Material: curved roof tiles.

Remarks: Letters reversed. Ligature of LE and of GXF.

Variant f: LXFRE

1. Length: 9.4 cm. (Fig. 3,1)

Width: 4.6 cm.

Source: Unknown.

Material: Thin brick.

Remarks: This type is mentioned among the collection of the German Evangelical Institute in Jerusalem; published by Dalman⁶³.

⁵⁴ Thomsen, op. cit. (n. 2) No. 255 f, g, i.

⁵⁵ Ch. Clermont-Ganneau, Trois inscriptions de la Xe Légion Fretensis trouvées à Jerusalem. Comptes Rendus de l'Académie des Inscriptions et Belles-Lettres (1872) p. 5.

⁵⁶ Germer-Durand, Un Musée palestinien ³(Jerusalem 1906) p. 200, fig. 37.

⁵⁷ Ha'aretz Museum No. 249. One example in the Dr. Kirschner Collection.

⁵⁸ The variant is identical with that of the stamps of the round type (type I).

⁵⁹ Bliss-Dickie, op. cit. (n. 48 b) pp., 262 and 265, pl. 27 No. 38.

⁶⁰ See n. 33. The figure there is inaccurate.

⁶¹ The Collections of the Department of Archaeology of the Hebrew University, No. 439. Ha'aretz Museum Nos. 247, 2813 and 3946–47, Haifa Municipal Museum No. 3245.

⁶² R. A. S. Macalister and J. G. Duncan, PEFA 4, 1926, p. 167, fig. 170.

⁶³ G. Dalman, MNDPV 9, 1903, p. 18, Abb. 5; Thomsen, op. cit. (n. 2) No. 255 p. Lacking a photograph, it is impossible to know whether it is a stamp imitating a tabula ansata as drawn there.



4 Type I and Type II, variants a–f3 (scale 1 : 3).

1–3 : Type I; 4 : IIa1; 5 : IIa2; 6 : IIb1; 7 : IIb2; 8 : IIb3; 9 : IIb4; 10 : IIb5; 11 : IIb6;
 12 : IIb7; 13 : IIb8; 14 : IIb9; 15 : IIb12; 16 : IIb13; 17–18 : IIc; 19 : IID; 20–21 : IIe1;
 22 : IIe2; 23 : IIe3; 24–25 : IIf2; 26–27 : IIf3.

2. Length: 9.6 cm. (Figs. 3,2; 4,24–25)

Width: 4.5 cm.

Source: GR (15); MO (1 – roof tile)⁶⁴; O (1)⁶⁵; a fragment published by Iliffe⁶⁶;
 MH (1 – roof tile)⁶⁷.

Material: At Gavant Ram, bricks (2) and thin bricks or roof tiles (13).

Remarks: Bordered. The letters are reversed.

⁶⁴ See n. 38.

⁶⁵ Bliss-Dickie, *op. cit.* (n. 48 b) pp. 262, 265, pl. 27 No. 37.

⁶⁶ Iliffe, *op. cit.* (n. 48 g) p. 125 No. 12, pl. 46, 4 b. The border misled Iliffe, who read it as T.

⁶⁷ Un-numbered. Length: 49/50 cm; width: 46/48 cm; thickness: some 2,5 cm.

3. Length: 6.1 cm. (Figs. 3,3; 4,26–27)
Width: 3 cm.
Source: GR (14); Jaffa (1)⁶⁸.
Material: At Givat Ram, bricks (2) and thin bricks or roof tiles (13).
Remarks: Bordered. The letters are reversed. Similar to type IIf2, but smaller.
4. Length: 9.5 cm. (Figs. 3,4; 5,1–4)
Width: 4 cm.
Source: GR (23); MO (1 – roof tile)⁶⁹; O (1)⁷⁰; MZ (1)⁷¹; etc.⁷².
Material: At Givat Ram, trapezoidal bricks (4) and thin bricks and roof tiles (19).
Remarks: The letters are reversed. Several examples show that the stamp became cracked, but continued to be used.
5. Length: 10 cm. (Figs. 3,5; 5,5)
Width: 4.4 cm.
Source: GR (5); R (1 – an excellent example)⁷³.
Material: At Givat Ram, a brick, a trapezoidal brick and roof tiles (3).
Remarks: Ligature of LX and of RE.
6. Length: 9.8–10 cm. (Figs. 3,6; 5,6–10)
Width: 4.2 cm.
Source: GR (16); MO (1)⁷⁴; O (1)⁷⁵; RR (1)⁷⁶; etc.⁷⁷.
Material: At Givat Ram, bricks (2), a trapezoidal brick, roof tiles (13).
Remarks: Ligatures of LX and of RE. The vertical stroke of the E sometimes misleadingly appears to be the end of the stamp, where the stamp is broken. Thus are seemingly explained the cases where the variant LXFR is published⁷⁸. This latter variant was not met with, in compiling this list, among the finds from Givat Ram, in the various collections or in drawings and photographs published till now.
- 6a. The same stamp as type IIf6, but several examples indicate that in the course of time the lower right hand part of the X became damaged, it being replaced, in the impression, with the imprint of a nail-head. This was evidently an early stage in the history of damage of this particular stamp, prior to the formation of several horizontal cracks, which stage is represented by IIf6b, below (Figs. 5: 6–7).
Source: The first brick stamp-impression of the Legion to be discovered was of this type. De Saulcy (1865)⁷⁹ was misled by, among other things, the impression of the nail-head, and read it as an O, thus failing to decipher and understand the inscription. Clermont-Ganneau corrected the reading (1872)⁸⁰. O (1)⁸¹; GR (2).

⁶⁸ J. Kaplan, IEJ 12, 1962, p. 150. The impression was examined by me in Jaffa through the courtesy of Dr. J. Kaplan.

⁶⁹ See n. 38.

⁷⁰ See n. 62.

⁷¹ See n. 56.

⁷² Collections of the Department of Archaeology of the Hebrew University No. 443; Ha'aretz Museum No. 4870.

⁷³ Reifenberg Collection No. 83.

⁷⁴ See n. 38.

⁷⁵ See n. 62.

⁷⁶ Aharoni, *op. cit.* (n. 31) p. 4, fig. 5 No. 1.

⁷⁷ I. e. Ha'aretz Museum No. 2812. This type is very common and is found in many collections.

⁷⁸ Thomsen, *op. cit.* (n. 2) No. 255 k.

⁷⁹ F. de Saulcy, *Voyage en Terre Sainte II* (Paris 1865) p. 198.

⁸⁰ Clermont-Ganneau, *op. cit.* (n. 55) pp. 6–7.

⁸¹ Macalister-Duncan, *op. cit.* (n. 62) p. 168, fig. 171.



5 Type II, variants f4–j (scale 1 : 3).

1–4 : II f4; 5 : II f5; 6–7 : II f6b; 8–10 : II f6c; 11–12 : II f7; 13 : II g1; 14 : II g2;
15 : II g3; 16 : II g4; 17 : II g5; 18 : II g6; 19 : II g7; 20 : II i; 21–22 : II h; 23 : II j.

6b. The same stamp as II f6a, but at a more advanced stage of damage, displaying further horizontal cracking (Figs. 3,6; 5,8–10).

Source: Many fragments exist in various collections. The two horizontal cracks to the left of the L were the cause of the mistaken reading by De Saulcy⁸².

7. Length: 10.3 cm. (Figs. 3,7; 5,11–12)

Width: 4.2 cm.

Source: GR (5); MZ (1 – square brick⁸³); H (No. 3247) (1).

Remarks: Ligature of LXF and of RE.

⁸² Thomsen, *op. cit.* (n. 2) No. 255 p.

⁸³ See n. 56.

Variant g: LEGXFR

1. Length: 11 cm. (Figs. 3,8; 5,13)
Width: 4 cm.
Source: GR (8).
Material: Roof tiles.
Remarks: Bar over X.
2. Length: 7+ cm. (Figs. 3,9; 5,14)
Width: 4.5+ cm.
Source: GR (1).
Material: Thin brick.
Remarks: Bar over X. The ascribing of this type to variant g is conjectural; it may belong to variant e.
3. Length: 11.6+ cm. (Figs. 3,10; 5,15)
Width: 3.8+ cm.
Source: GR (1).
Remarks: Bar over X.
4. Length: 6.5+ cm. (Figs. 3,11; 5,16)
Width: 4.2 cm.
Source: GR (1).
Material: Brick.
5. Length: 10.9+ cm. (Figs. 3,12; 5,17)
Width: 3.8 cm. ?
Source: GR (1).
Material: Roof tile.
Remarks: Ligature of EG.
6. Length: 10.2 cm. (Figs. 3,13; 5,18)
Width: 4.5 cm.
Source: GR (8); MO (1)⁸⁴; O (1)⁸⁵; RR (square bricks from hypocaust)⁸⁶; etc.⁸⁷.
7. Length: 11.8 cm. (Figs. 3,14; 5,19)
Width: 4.2 cm.
Source: RR (1 – unpublished).

Variant b: LXFAN/TONINIAIA

Length: 9.5 cm. (Figs. 3,15; 5,21–22)

Width: 4.5 cm.

Source: GR (5). This type was first published by Reifenberg in 1931⁸⁸ – found at Motza, according to the catalogue of his collection. MH (1)⁸⁹.

Material: Bricks and roof tiles.

Remarks: Bordered. The third N is reversed. The style of TO reflects influence of Greek paleography.

⁸⁴ See n. 48 d.

⁸⁵ See n. 62.

⁸⁶ See n. 31.

⁸⁷ Ha'aretz Museum Nos. 248, 252, 3951; Haifa Municipal Museum No. 3246.

⁸⁸ Reifenberg, *op. cit.* (n. 48 f) pp. 157–158, pl. 4 No. 4.

⁸⁹ Ha'aretz Museum No. 167161.

Variant i: LXF/ANL

Length: 6.3 cm. (Figs. 3,15; 5,20)

Width: 4 cm.

Source: GR (2) – (one of which is at present at the Absalom Institute).

Material: Rectangular brick (17 x 23+ cm.); (1); unknown (1).

Remarks: The letter A is lacking its crossbar, possibly confused with the Greek Α.
The T is upside-down.

Variant j: . . . FRT

Length: 4.7+ cm. (Figs. 3,7; 5,23)

Width: 3.6+ cm.

Source: GR (1).

Material: Roof tile.

Ilfie published a roof tile fragment in 1933 which bore the inscription ΩΝΟΣ, beneath which was a dolphin (?) facing left. Another fragment was examined by Ilfif in the collections of the Franciscan Fathers in Jerusalem⁹⁰. At Givat Ram no such impression has turned up as yet. Because of its fragmentary condition, its attribution to the legion is doubtful. If it did belong to the legion, it certainly is quite different from the other stamps, (a) in its language, (b) in the depiction of dolphins, (c) in the fact that it had been stamped on two bricks at once so that only half appeared on a single brick, and (d) in its dimensions, which are far larger than those of any of the other stamp-impressions.

Chronology of the Stamps

It is known that the legion was stationed in Jerusalem as a permanent occupying force from the end of the Jewish War till the end of the third century A. D., with a short gap during the Bar Kokhba Revolt, i. e. a period of more than two-hundred years. During such a long period installations belonging to the legion were undoubtedly built and destroyed, repaired and rebuilt, several times over. We may definitely assume that there was widespread building activity in two specific periods: After the Jewish War, when it was decided to keep the legion in Jerusalem, and after the Bar Kokhba Revolt, during the construction of Aelia Capitolina. Besides these two periods, there was undoubtedly, now and then, a need for ceramic building materials for repairs and normal construction. It is supposed that the brickworks was used only in time of need of such materials.

In the above list, there are 38 different stamps (additional stamps may be preserved in collections not accessible to me, including those in the Arab zone of Jerusalem). This corpus of stamps demands an attempt to ascertain, if at all possible, the dates of at least some of the stamp-types within the wide chronological range of the stationing of the legion in Jerusalem. Lacking a general summary of the types of brick-stamps used by the Roman army, and doubting that such a summary could provide parallels necessary for the exact ascertaining of dates, we must suffice with an examination and comparison of the various stamps of the legion among themselves, and with the meagre stratigraphical evidence available. We have used paleographical evidence as far as possible, though this was generally not of much help in fixing exact dates:

⁹⁰ Ilfif, *op. cit.* (n. 48 g) p. 124 No. 8, pl. 4 : 45 b.

1. The Date of the Round Type of Stamp (Type I).

An investigation of the countermarks of the Tenth Legion on coins showed that these are to be ascribed to the period between 68 A. D. and the end of the first century A. D.⁹¹

Of special importance to the present study are those coins bearing countermarks showing the galley and boar together side-by-side. In this pattern there is to be seen a great similarity with the round stamp-type bearing a warship above and the boar below. I think it not too bold to assume that the only stamp-type of the 38 bearing this combination may be considered contemporary with the countermarking of the coins. From the fact that there was more than one actual stamp of this type, it may have remained in use for more than just a short period. Thus, we may suggest that it belongs to the first period of stationing in Jerusalem, i. e. the period after the Jewish War, till the Bar Kokhba Revolt⁹².

2. The Stamps with the Title 'Antoniniana' (Types IIh-i).

The title 'Antoniniana' was confined to the period under Caracalla and Elagabal, or possibly only under the latter. The fact that only two stamps of the 38 bear this title allows for the assumption that it was in use for just a short time. That we have two stamps which are definitely from between 212 and 222 (or possibly only 218–222) A. D. is quite important, for this provides a point of reference for the dating of further types.

3. The Stamps from Ramat Raḥel

In the excavations at Ramat Raḥel there were discovered the remains of a bath in which building materials of the Tenth Legion were used⁹³. Several examples of type IIg6, one of type IIg7 and fragments of types IIIf6 and IIb10 were found⁹⁴. The 150 coins found there⁹⁵ indicate a gap in the finds between 70 A. D. and the third century. Only one coin is from the period of the gap – one struck at Raphia in 180/181 A. D. – and four found are from the third century. This evidence apparently indicates that the installations of the legion there were built in the third century. The few other finds belonging to this period, between the Jewish War and Byzantine times (Level III), are from no earlier than the third century.

Two other relevant facts: a. The excavator states that the remains of the legionary installations were preserved in an excellent condition and were reused in the Byzantine

⁹¹ D. Barag, *The Countermarks of the Legio Decima Fretensis* (Preliminary Report). Proceedings of the International Numismatic Convention, Jerusalem 27–31 December 1963 (Tel Aviv 1967) pp. 117–125, pls. IX–XI.

⁹² Ritterling (CIL XIII, fasc. 6, p. VII) states that the first stamps with figures appear at the end of the first century A. D.; this complies with the date suggested here for type I.

⁹³ Aharoni, *op. cit.* (n. 31) pp. 4, 24–27, figs. 1, 5, 19, pls. 17–22, 23–No. 8; Y. Aharoni, *Excavations at Ramat Raḥel, Seasons 1961 and 1962* (Rome 1964) pp. 39 f., 121; M. Kochavi *loc. cit.* pp. 81 ff.

⁹⁴ Impressions of another stamp with the inscription IVL were found on several of the stamps (Aharoni), *op. cit.* (n. 31), p. 26, fig. 19 No. 2, pl. 23 (No. 9). As the stamp appears on building materials used within the same building as material bearing stamps of the legion, it may be grouped together with these. Could a certain IVL(ius) have been in charge of the brickworks?

⁹⁵ L. Y. Rahmani, *apud* Aharoni *op. cit.* (n. 93) pp. 109, 115 ff. It should be noted that Aharoni, Kochavi and Rahmani state that the legionary installation at the site is to be dated to the second half of the third century A. D.

period. b. In the bath no major changes were evident, only small repairs, etc., being found, and only four stamp-types were found on the site. These two facts indicate that the bath was not used by the legion for a lengthy period, and that it was built in the third century.

Lacking any bricks bearing the title Antoniniana there, together with the other data, it would seem that the types found at Ramat Raḥel belong to the third century A. D., and more specifically to the period after Elagabal. To this must be added that the stamps of types IIf6 and IIg6 display ligatures and late forms in the letters. Though such paleographical evidence must be used with caution in exact dating, this also points to a late date.

4. Types IIf1–4.

Stamps of types IIf1–4 represent a homogeneous group. All four types have in common, besides the inscription LXFRE, several other points: a. In all the letter X is small and appears in the same manner next to the L. – b. In three of the four the letters are reversed, i. e. read from right to left. – c. Three are surrounded by a border. – d. In all four the cross-strokes of the F are slanted.

The border and the peculiar F, with its slanted strokes, are also observed in type IIh, where the title 'Antoniniana' is present. Two differences should be noted: The border of type IIh is slightly different from that of type IIf1–4, and also the lower stroke of the L, in the former, is slanted.

In spite of these differences, two conclusions are evident: a. The four stamps represent a homogeneous group and are more or less contemporary. – b. There is a stylistic and paleographical connection between this type and type IIh. It is not assumed that the stamps were used in the period in which the legion bore the title 'Antoniniana', and thus this type is either earlier or later than the period of Caracalla-Elagabal. As these types are not found at Ramat Raḥel, and as the letters are well-formed and thus earlier, this type might be ascribed to the end of the second century and the beginning of the third century A. D.

5. Stamps of the Second Century.

Though we have no definite data, the question may be raised, are there, among the remainder of the types, those which should be ascribed to the second century? At present, we must rely solely on general paleographical considerations in answering this. Below are several types probably belonging to the second century:

Type IIf1–3 (L · X · F) has dots separating the letters. This element is seen also on type I. The form of the letters is finer than the types ascribed to the third century. – Type IIe1 (LEG · X · F) has dots separating the elements and the letters are fine and well-executed. – The style of the letters of type IId is very similar to that of the letters of type I. The 'tail' flowing back from the bottom of the F is characteristic of the second century A. D. and on. In spite of the unreliability of paleographical evidence in general, the above three types should most likely be ascribed to the second century.

Though not definitely sure, the form of the F may also indicate that types IIf5 and IIg1 also belong to this same period. From a stylistic comparison of the letters, types IIg2–4 may also be of the second century A. D.

6. The Remaining Stamps.

Among the remaining types, it may be assumed that some (IIa1–2; IIb7–9; IIc7) are, stylistically, of the third century.

If the dates suggested here are correct, we may assume that, except for the use of the title 'Antoniniana', the specific form of the inscription is of little importance, and that some of the variants went in and out of use time and again over the years. In spite of this, type IIe (LEG · X · F) seems most characteristic of the first century (from 70 A. D. on) and the second century A. D., and type IIc (LXFRE) was mostly of the end of the second century on.

Distribution of the Building Materials of the Tenth Legion

Most of the bricks, etc., of the legion were found within the confines of Aelia Capitolina or its immediate neighbourhood. Though in archaeological literature bricks, roof tiles and pipes found from time to time have been published, only two cases are known in which they were found *in situ*.

In 1890, Père Germer-Durand excavated the remains of a bath of the Roman period on the eastern slope of Mount Zion. As stated by him in his paper on the history of Aelia Capitolina, there were found on the site fragments of bricks with stamp-impressions of the round type (type I)⁹⁶. From the few details given by the architect, Schick, on these excavations⁹⁷, it may be understood that the square bricks found there bore stamps of type IIe3, which we ascribe to the second century. Thomsen writes that the finds from this site were preserved in the Notre Dame-collection. Among the stamp-types found, he mentions that of type IIc, which we also ascribe to the second century⁹⁸. Stamps of the later types (variant f) are mentioned as being among the finds from this site⁹⁹. From these details, it would seem that the bath was built in the period between 70 and 132 A. D., and continued in use till the third century.

The ceramic pipes found by Johns within the late Citadel are the second case of such finds being made *in situ* in Jerusalem proper. The stamp on these pipes (type IIb3) evidently belongs to the second century.

In every other case, fragments of the various types were found out of context. In mentioning these discoveries, mention should be made of those found from time to time on the Ophel and its vicinity¹⁰⁰, which represent a continuous line of types, belonging according to our division to all the periods of the stationing of the legion in Jerusalem. Farther from the built-up, urban sections, but still within the municipal boundaries of the city are the finds from Ramat Rahel, of the third century, after Elagabal. The remains from Givat Ram are, as already stated, those of a legionary brickworks. If the chronology suggested in the present paper is correct, the brickworks thus served the legion for the duration of its lengthy stationing in Jerusalem; however, the quantity

⁹⁶ See n. 48 a.

⁹⁷ See n. 37.

⁹⁸ Thomsen, *op. cit.* (n. 2) No. 255 r.

⁹⁹ Germer-Durand, *op. cit.* (n. 56), mentions the stamp of the round type and gives photographs of a large square brick with impressions of type IIc, a small square brick with an impression of type IIc7, and a fragment with an impression of type IIc2.

¹⁰⁰ See Clermont-Ganneau, *op. cit.* (n. 55); D. H. Guthe; ZDPV 5, 1882, Taf. XA; Bliss-Dickie, *op. cit.* (n. 48 b); Macalister-Duncan, *op. cit.* (n. 62).

of fragments with the round stamp found on the site is small, and thus possibly the brickworks was not constructed immediately after the end of the Jewish War, and thus some of the roof tiles bearing stamps of this type (type I) were possibly not made at this site.

The excavations of Père Saller at el-Azariah on the Mount of Olives uncovered two small fragments of bricks belonging to the legion. One is of type IIb and the other of type II f6. Because of their poor condition the excavator did not recognize what he had before him¹⁰¹. Most interesting are the rectangular stamps in which a quadruped is depicted¹⁰². It may very well be that this is an additional type of legionary stamp, i. e. a rectangular stamp with the boar, though until further examples in better condition are found, this matter will remain in doubt.

In two cave-tombs, roof tiles of the legion had been used in covering burials¹⁰³. In a cave at Karm es-Sayyad (Viri Galilei), 42 tiles bearing variants b and f were found. Variant f is typical of the period from the end of the second century on; this might be in secondary use, the tiles having been used after the legion had left the city¹⁰⁴. A similar conclusion must evidently be reached concerning 12 tiles found in another cave on the Mount of Olives. Evidently only variant f occurs among these latter tiles, though several individual stamps are evident.

A brick published by Clermont-Ganneau is said by him to have been found either at Jerusalem or at Beit Djallah. A brick of type IIh (with the title 'Antoniniana'), now in the Reifenberg collection, is supposedly from Motza. This is not surprising, for in Motza Vespasian settled veterans, granting them the status of 'colonia'. It is possible that, as at Kiryat Ye'arim (Abu Ghosh), the legion had installations at Motza. It is interesting to note that the Mandatory Department of Antiquities uncovered there remains of a bath of the Roman period¹⁰⁵. A find somewhat conflicting with the general picture of this subject is a stamp of type II f3, found in excavations at Jaffa. From this discovery, we can possibly infer that the legionary brickworks may have supplied bricks, etc., for the construction or repair of a legionary building in Jaffa, at the end of the second century A. D.

¹⁰¹ S. J. Saller, *Excavations at Bethany (1949-1953)* (Jerusalem 1957) p. 324, pl. 130 a.

¹⁰² *Ibid.*, pl. 130 a : 2.

¹⁰³ See nn. 36 and 38.

¹⁰⁴ No basis was found for Abel's assumption that these tombs belong specifically to the time of Titus' siege of Jerusalem. F. M. Abel, *Histoire de la Palestine II* (Paris 1952) p. 19 n. 3, No. 3.

¹⁰⁵ See J. Press, *Encyclopaedia of Palestine III* (Jerusalem 1952) pp. 558-559 (Hebrew).