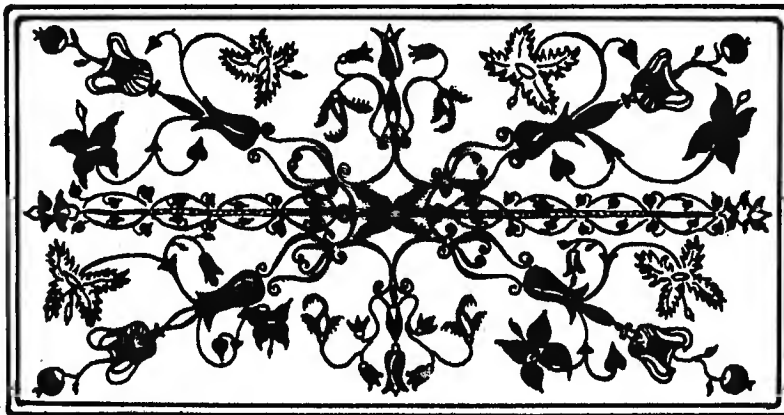


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# GEOMETRIC AND FLORAL PATTERNS IN ANCIENT MOSAICS

A Study of their Origin in the Mosaics  
from the Classical Period to the Age of Augustus



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*In memory of my father  
Haim Ovadiah*

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Tel-Aviv University  
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Asher Ovadiah

## *Abbreviations and Bibliography*

AA	Archäologischer Anzeiger.
AB	The Art Bulletin. A Quarterly Published by the College Art Association of America.
ABSA	The Annual of the British School at Athens.
AD	Archaiologike Deltion (Ἀρχαιολογικὸν Δελτίον)
AEp.	Archaiologike Ephemeris (Ἀρχαιολογικὴ Ἐφημερίς)
AIEMA	Bulletin de l'Association Internationale pour l'Étude de la Mosaïque Antique.
AJ	The Antiquaries Journal
AJA	American Journal of Archaeology
AM	Mitteilungen des Deutschen Archäologischen Instituts; Athenische Abteilung.
Andrae, CCA	W. Andrae, Coloured Ceramics from Ashur, London 1925.
Anson, NG	L. Anson, Numismata Graeca, Parts I-VI (Text and Plates), London 1910-1916.
Anthony	E.W. Anthony, A History of Mosaics, Boston 1935 (New-York 1968), pp. 27-56.
AR	Archaeological Reports.
Archaeology.	
Arias-Hirmer	P.E.Arias and M. Hirmer, A History of Greek Vase Painting, London 1962.
ASAA	Annuario della Regia Scuola Archeologica di Atene.
Athenaeus	Athenaei Naucratis et Dipnosophistarum, Libri XV, rec. G. Kaibel, Vol. I, Lipsiae 1887 (1923); Vol. II, Lipsiae 1886 (1923); Vol. III, Lipsiae 1890 (1925).
Baumeister, DKA	A. Baumeister, Denkmäler des Klassischen Altertums. Vol. II, München & Leipzig 1887, pp. 927-933, s.v. "Mosaik".
BCH	Bulletin de Correspondance Hellénique.
BCIA	Bulletin de la Commission Impériale Archéologique.
Blanchet	A. Blanchet, La Mosaïque, Paris 1928.
BM	British Museum, A Guide to the Principal Coins of the Greeks (Based on the Work of B.V. Head), London 1965.

- BMQ The British Museum Quarterly
- Boardman, GA J. Boardman, *Greek Art*, London 1964.
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- BS Balkan Studies.
- BSAA Bulletin de la Société Archéologique d'Alexandrie.
- Bull. d. Comité Bulletin Archéologique du Comité des Travaux Historiques.
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- CSCP Cornell Studies in Classical Philology.
- DAGR Ch. Daremberg & E. Saglio, *Dictionnaire des Antiquités Grecques et Romaines*, Vol. I-IX, Paris 1877-1919.
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- Déchelette, SAF J. Déchelette, *Manuel d'Archéologie, Tome II (3e Partie), Second Age du Fer ou Époque de la Tène*, Paris 1914.
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- FA *Fasti Archeologici, Annual Bulletin of Classical Archaeology*, Vols. I-XX, Firenze 1946-1965.
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- Houston, AGRBC M.G. Houston, *Ancient Greek, Roman and Byzantine Costume and Decoration*, 2nd ed., London 1947.
- IEJ Israel Exploration Journal.
- ILN Illustrated London News.
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- Jacoby, FGH F. Jacoby, *Die Fragmente der griechischen Historiker*, Vols. I-II, Berlin 1923-1927.
- JAOS Journal of the American Oriental Society.
- JDAI Jahrbuch des (Kaiserlich) Deutschen Archäologischen Instituts.
- JHS The Journal of Hellenic Studies.
- JOAI Jahreshfte des Österreichischen Archäologischen Instituts.
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- JRAS The Journal of the Royal Asiatic Society.
- JRS The Journal of Roman Studies.
- KB *Kunstgeschichte in Bildern*, Nos. 2-4, Leipzig n.d.
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- MA Monumenti Antichi Pubb. per Cura della R. Accad. dei Lincei.
- MAAR Memoirs of the American Academy in Rome.



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- MGR La Mosaïque Gréco-Romaine (Paris, 29 Août - 3 Septembre 1963), Paris 1965.
- MJ The Museum Journal.
- MJK Marburger Jahrbuch für Kunstwissenschaft.
- MMA Mosaico e Mosaicisti nell'Antichità, Estratto dalla Enciclopedia dell'Arte Antica, Classica e Orientale, Roma 1967 (= D. Levi, Enciclopedia dell'Arte Antica, Classica e Orientale, Vol. V, Roma 1963, pp. 209 ff., s.v. "Mosaico").
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- PGr. Patrologiae Graecae.
- Photius, Bibl. Photius, Myriobiblon sive Bibliotheca, Vol. III (ed. J.P. Migne, PGr., Vol. 103, Paris 1900, 149b [cols. 619-620]).
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- Πρακτικά Πρακτικά της ἐν Ἀθήναις Ἀρχαιολογικῆς Ἐταιρείας.
- QDAP The Quarterly of the Department of Antiquities in Palestine.
- RA Revue Archéologique.
- RE Pauly-Wissowa, Real-Encyclopädie der Classischen Altertumswissenschaft.
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- Reinach, RVPGE S. Reinach, Répertoire des Vases Peints Grecs et Etrusques, 2 Vols., Paris 1899-1900.
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UPMB Bulletin University Museum, Philadelphia.
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## INTRODUCTION

Three important works dealing with mosaics and to some extent with mosaic patterns were published during the thirties and the fifties of this century.

1. Blake (1930) deals with mosaic pavements discovered in Roman buildings of the Republic and Early Empire (Pompeii, Rome, Spoleto and Téraamo). She also reviews the most important Classical and Hellenistic mosaics and discusses the origin and the development of the decorative motifs.
2. Hinks (Part II, 1933) deals with the collection of mosaics in the British Museum, and discusses the history of the development of mosaic and inlay work, from the earliest times to the Byzantine period, as well as the origin and the development of the decorative motifs appearing in these mosaics.
3. Brown (1957) deals, *inter alia*, with the Hellenistic (Ptolemaic) mosaics discovered in Thmuis and Shatbi, and compares their patterns with similar patterns appearing in other mosaic pavements, such as Delos, Pergamon, Tarsus, etc. She attempts to analyse the origin and the development of some of the decorative motifs, and also reviews briefly the mosaics of the Classical and Hellenistic periods.

These studies laid the foundation for any discussion of geometric and floral patterns in mosaic pavements, although this was not their principal objective, and the treatment of this subject was not comprehensive. Each author deals with the mosaics found in a particular geographical region, and attempts to determine the origin and the development of those patterns which appear in the mosaics included in his study. However, no comprehensive use is made of comparative material and where patterns are compared with examples from other arts and crafts<sup>1</sup>, there is a considerable time gap between these and the corresponding mosaic patterns. No study has as yet been published which would have as its main objective the inquiry into the origins of mosaic patterns. The aim of the present thesis is to supply this want.

1. For the convenience of the reader, no distinction will henceforth be made between the terms «art» and «craft», the word «art» being used for both.

The main concern of this work is, therefore, to study the origins of the geometric and floral patterns of mosaic pavements by seeking comparative material from other earlier arts, and to show to what extent they influenced directly mosaicians in the creation of their designs. We have endeavoured to treat the subject in greater detail than has been done hitherto, and to give many more comparative examples, which are chronologically closer to the mosaic pavements.

The following two questions arise: were the geometric and floral mosaic patterns original creations, or were the mosaicians influenced by similar patterns from other arts? Were the patterns established by tradition, or did the artists enjoy creative freedom?

The scope of this work does not include the study of the origins and development of the patterns, beginning with the arts of the ancient Orient (Anatolia, Mesopotamia, Egypt and Persia) and up to the appearance of the first mosaic pavements. We also do not intend to deal with the factors that influenced the various arts in the period anteceding the mosaic pavements. This is a wide subject, requiring separate treatment.

The method chosen in this work is as follows:

- a) Selection of patterns discussed: since it is possible to form an almost infinite variety of combinations of geometric patterns, we shall deal only with the most basic and simple of these patterns<sup>2</sup>. The floral patterns show a tendency towards stylization and departure from realism, as seen in the rosettes, palmettes, trailing branches, acanthus-leaves, lotus flower, etc., and it is not always possible to determine the exact botanical definition of the plants appearing in the mosaic. We have selected only such plants as can be identified and named, and in addition, groups of plants which form an ornamental design, such as garlands and «embroidery» pattern. We have not included representations of fruit, such as pomegranates, pears, apples, clusters of grapes, etc. In all, 67 patterns have been selected, of these 55 geometric and 12 floral.
- b) The definition of the geometric patterns and their classification into main groups and types, are based on the work of M. Avi-Yonah<sup>3</sup>. Patterns not mentioned in Avi-Yonah's work have been defined and classified in accordance with his system.
- c) The comparative examples are taken from arts that anteceded mosaic pavements, such as architecture, weaving, metalwork, vase-painting, wall-paintings (in tombs), etc. Material for these comparisons was gathered from illustrations in the works listed in the bibliography, and

2. Cf.: Hinks, p. LVII.

3. See: M. Avi - Yonah, QDAP, Vol. II (1933), pp. 138-141; see also: the recent classification of mosaic patterns in Bulletin de l'Association Internationale pour l'Étude de la Mosaïque Antique (= AIEMA), Répertoire graphique du décor géométrique dans la mosaïque antique, 4e Fascicule, Paris 1973.

especially publications of Petrie (DP), Bossert (Or.), Jones (GO) and Speltz<sup>4</sup>, which deal with decorative patterns from various cultures, arts and periods.

d) This study is divided into five chapters:

I. *Mosaic Patterns according to their Provenance:*

This chapter lists in alphabetical order the sites where mosaic pavements of the Classical and Hellenistic periods up to the time of Augustus were discovered.

The following particulars are given in respect of each site:

- some data on the excavation;
- technique (pebbles or tesserae) and colours;
- type of structure in which the mosaic was discovered;
- geometric and floral patterns;
- date of the mosaic pavement;
- bibliography.

The list should be regarded as a technical aid towards achieving the aim of the work. This work does not include sites yet unpublished, nor those currently in the course of preparation. It is worthwhile to point out that all the geometric and floral patterns are identical and repeated in the various mosaic pavements. The repertoire of the patterns described in this work covers those motifs depicted in the pavements of other sites which do not appear here (some of them are represented in the plates, such as Aquileia, Cividale, Este, Faenza, Fossombrone, Jericho, Jerusalem, Maronia, Milan, Parma and Rhodes).

The list of the sites with their mosaic pavements does not purport to be a corpus or a catalogue, although it includes the majority of the sites. This is a selective list which forms a model illustrating the thesis of the origin of the patterns.

II. *The Origin and Development of Mosaics up to the Time of Augustus:*

This chapter discusses the historical and archaeological aspects of the origin and development of mosaic pavements. An attempt is made to prove that the mosaic technique originated in the East, from where it spread to the West by way of Gordion. The developments of mosaic technique in the West are discussed — when and how pebble-mosaics gave way to tessera-mosaics, and what caused this transition.

III. *The Function of Geometric and Floral Designs in the Decorated Mosaic Pavements:*

This chapter discusses the question whether the patterns were only a decorative frame for a central subject, or whether they were field patterns.

4. See list of abbreviations and bibliography.

IV. *Comparison with Designs from other Arts:*

This chapter attempts to trace the origins of mosaic patterns by comparing them with other, earlier, art forms.

V. *Summary and Conclusion:*

In this concluding chapter an attempt is made to answer the questions posed above, on the basis of the discussion in Chapter IV, and the attached table.

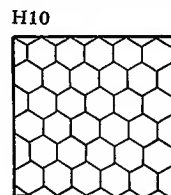
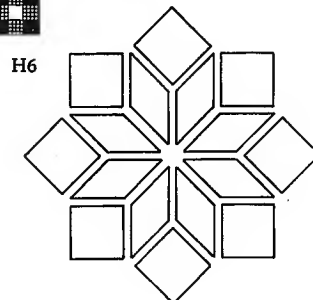
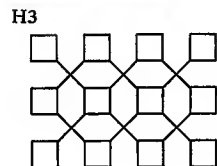
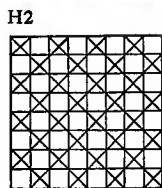
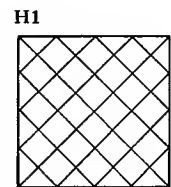
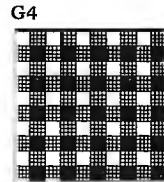
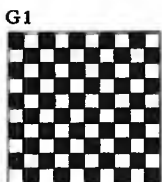
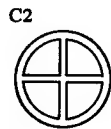
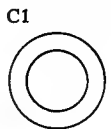
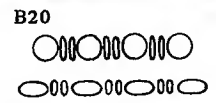
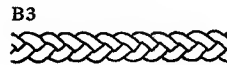
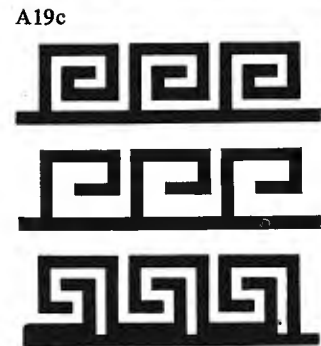
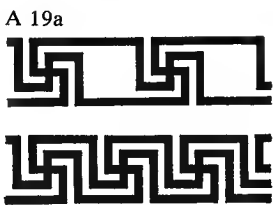
Additional technical details are given at the head of each chapter.

### *List of Patterns*

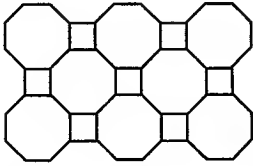
1. A1 — Plain stripe (= AIEMA Nos. 137-140)
2. A3 — Embattled line or Dentil (= AIEMA No. 144)
3. A5-6 — Crowstep (= AIEMA No. 162)
4. A11 — Saw-tooth (= AIEMA No. 158)
5. A15 — Row of diamonds between parallel lines (= AIEMA No. 165)
6. A18 — Lozenges arranged to look like a braid (= AIEMA No. 151)
7. A19 — Plastic or isometric double meander
8. A19a — Plain double meander (= AIEMA Nos. 261, 264)
9. A19b — Composite double meander
10. A19c — Broken meander (= AIEMA Nos. 244, 245)
11. A23 — Herringbone (= AIEMA No. 152)
12. A24 — Turreted border (= AIEMA No. 304)
13. A25 — Triangles set tip to base (= AIEMA No. 159)
14. A26 — Lozenges alternating with two triangles set tip to tip
15. B1 — Scroll (Wavy ribbon) (= AIEMA No. 221)
16. B2 — Two strand guilloche (= AIEMA Nos. 194, 205)
17. B3 — Three strand guilloche (Braid) (= AIEMA No. 196)
18. B7-8 — Waves (= AIEMA No. 190)
19. B12 — Composite guilloche (= AIEMA No. 200)
20. B18 — Egg and dart (= AIEMA No. 183)
21. B19 — Doric frieze
22. B20 — Beads or Astragals (= AIEMA No. 300)
23. B21 — Spearheads
24. C1 — Two concentric circles
25. C1a — Three concentric circles
26. C2 — Circle containing cross, or Wheel
27. D1 — Equal-armed cross (= AIEMA No. 106)
28. D3 — (= AIEMA No. 106')
29. D4 — Crosslet formed by lozenges (= AIEMA No. 106')
30. G1 — Chequerboard (= AIEMA No. 502)



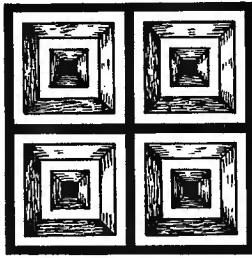
- 31. G2 — Three-coloured chequerboard
- 32. G4 — Weaving pattern («Pepper-and-Salt»)
- 33. H1 — Reticulate pattern (= AIEMA Nos. 311, 504)
- 34. H2 — Cancellum (Screen) (= AIEMA Nos. 503, 514)
- 35. H3 — (= AIEMA Nos. 350-352)
- 36. H6 — Star composed of lozenges and squares (= AIEMA No. 592)
- 37. H10 — Honeycomb (= AIEMA No. 395)
- 38. H11 — Octagons and squares (= AIEMA No. 344)
- 39. H12 — Coffers (= AIEMA No. 499)
- 40. I4 — Interlacing oval rings (Solomon's knot) (= AIEMA No. 54)
- 41. I6 — Single lozenge (= AIEMA No. 19)
- 42. I7 — Stylized four-leaf rosette within circle
- 43. I10 — «Shield» of concentric rows of curvilinear triangles (= AIEMA No. 531)
- 44. I14 — Pelta (= AIEMA No. 76)
- 45. I15 — Spirals
- 46. I16 — Hourglass (= AIEMA No. 73)
- 47. I17 — Swastika (= AIEMA No. 38)
- 48. I18 — Cross within a square
- 49. I19 — Fan (semicircle or circle) (= AIEMA No. 556)
- 50. J1 — Interlacing circles (= AIEMA No. 481)
- 51. J3 — Imbrication (Scale-pattern) (= AIEMA No. 448)
- 52. J4 — Intersecting circles (= AIEMA No. 437)
- 53. K1 — Labyrinth (= AIEMA No. 614)
- 54. K2 — Lozenges and rectangles (one within the other)
- 55. K3 — Plastic cubes (three-dimensional) (= AIEMA No. 496)
- 56. — Trailing branch
- 57. — Bell-shaped floral pattern
- 58. — Wreath (Garland) (= AIEMA Nos. 281-282)
- 59. — Acanthus-leaf (= AIEMA No. 121)
- 60. — Vine-leaf (= AIEMA No. 275)
- 61. — Ivy-leaf (= AIEMA Nos. 283,301)
- 62. — Fig-leaf
- 63. — Lotus-flower (= AIEMA No. 104)
- 64. — Plants forming an «embroidery» pattern
- 65. — Tendril
- 66. — Rosette (various number of petals ) (=AIEMA Nos. 110-111)
- 67. — Palmette (= AIEMA No. 105)



H11



H12



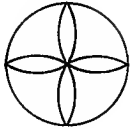
I 4



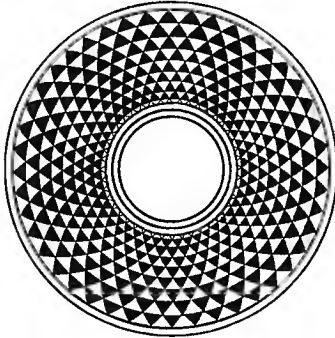
I 6



I 7



I 10



I 14



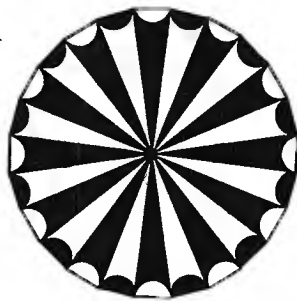
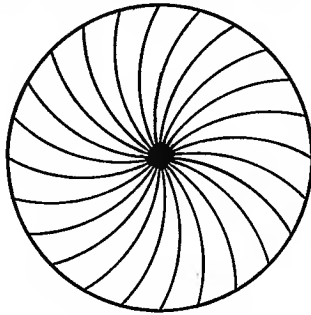
I 15



I 16



I 19



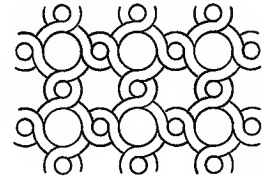
I 17



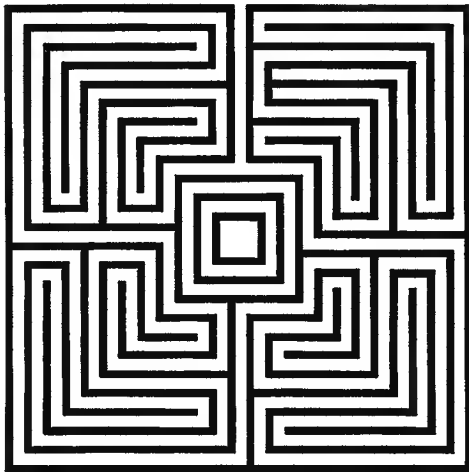
I 18



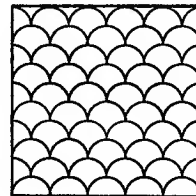
J 1



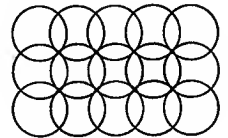
K 1



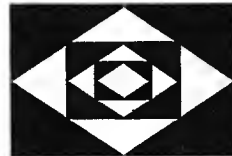
J 3



J 4



K 2



K 3



ACANTHUS-LEAF



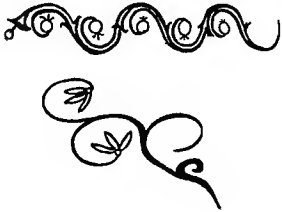
WREATH (GARLAND)



BELL-SHAPED  
FLORAL PATTERN



TRAILING BRANCH



VINE-LEAF



IVY-LEAF



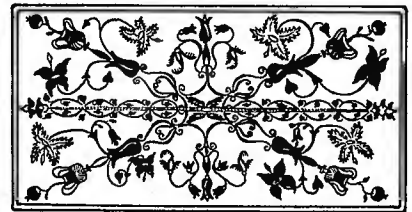
FIG-LEAF



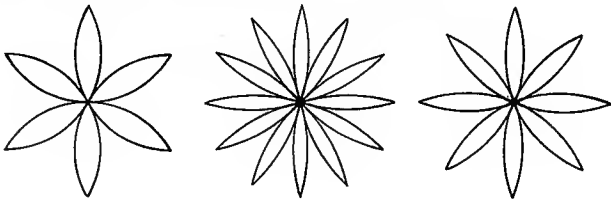
LOTUS-FLOWER



PLANTS FORMING AN  
"EMBROIDERY" PATTERN



ROSETTE (VARIOUS NUMBER OF PETALS)



TENDRIL



PALMETTE

