# THE UNIVERSITY MUSEUM 

## CATALOGUE OF THE MEDITERRANEAN SECTION

## PHILADELPHIA 1921

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## LIST OF ABBREVIATIONS USED IN THIS CATALOGUE.

A.J.A.: American Journal of Archæology, 1886-96 (1st series), 1897(2d series).
C.I.L.: Corpus Inscriptionum Latinarum.

Dussaud, Civilizations Préhelléniques: Renć Dussaud: Les Civilizations Préhelléniques dans le Bassin de la Mer Egée. 2d edition. Paris, 1914.
J.H.S.: Journal of Hcllenic Studies. London, 1880-.

Klein, Meistersignaturen; W. Klcin, Die griechischen Vasen mit Meistersignaturen. 2d edition. Vienna, 1887.

Sitzungsberichte der Akademie zu München; Sitzungsberichte der philosophisch-philologischen, und der historischen Klasse der K. B. Akademie der Wisscnschaften zu München. Munich, annually.

## INTRODUCTION

This catalogue aims to give information to students not only in Philadelphia, but cspecially to those who are unable to see the collections, as to what objects of Classical Art are to be found in the University Museum. The arrangement of the Catalogue is to take the objects of each kind scparatcly, and cataloguc them. In this, their arrangement in the Section has been adhered to, so that a student may find in this catalogue a practical gallery handbook as well, in which he will find all the objects in any given case described together. For a brief account of the Section see the Museum Journal for Junc, 1920 (Vol. XI, No. 2).

The collections of the Mediterranean Section are to be found on the second floor of the Museum, in the rooms directly to the left and right of the main staircasc. These will be spoken of as the East and West Rooms respectively.

In the East Room are to be found the collections from Crete, the results of four expeditions sent out by the Museum to explore and unearth the ancient Minoan civilization, the discovery of which is the principal event in Classical archæology in the twentieth century. In the work done for the Museum at Gournia, Vasiliki, and other sites, the Muscum has helped to enlarge this discovery and at the same time it has enriched its collections in Minoan archæology.

In this room will also be found the large and important Etruscan collection. The objects in this collection were acquired as the result of excavations in Etruria, particularly at Narce and Vulci, conducted in behalf of the Muscum. The tomb groups exhibited hore are extremely instructive to the student of Etruscan antiquities.

The exhibits in this room include also the collection of Greek vases, containing examples of nearly all the important techniques, and some unique specimens; a small collection of antiquities from Cyprus, which gives a good idea of the peculiar art and culture of that out of the way island; a good collection of Roman lamps; and some terracotta figurines. In the center of the room, three Attic grave stelæ are displaycd, of which the example facing the entrance is of especial excellence.

The West Room contains the rest of the collection of Greek and Roman sculpture. This includes several fine pieces, showing particularly the skill of the Romans in portraiture. Next in importance is the large collection of Roman glass, most of which was found in the Holy Land. Here also are included a small collection of necklaces of glass beads, and beads of scmiprecious stones. Further on is a small case full of Greck. Etruscan and Roman gold objects and jewelry. Other things to be seen here are the large collection of reproductions of fresco paintings, gold cups, swords, and vases of Minoan and Nycenæan times, and cases of tcrracotta figurines, bronze helnets, and misccllaneous bronze articles.

The John Thompson Morris Collection of Coins and Medals, which is also in this room, will not be catalogucd here, as it is of a size and importance meriting a separate publication.

As is usual in all museums, numbers of objects have had to be withdrawn from exhibition, which by rights deserve description. In all cascs the most important of these objects have been described under the headings in which they belong. The John Wanamaker collcction of reproductions from Herculaneum and Pompeii, most of which has been retired from exhibition to make room for originals, will not be described here, but it is hoped that a catalogue of this collection will be made for the use of students.

Most of the collections that were not acquired by expeditions in the field have been olstaincd either by purchase or by gift. The purchases have in cach casc becn made through moncy subscribed by friends of the Muscum: white the moncy to support the expeditions to Crete and Italy was raised in the same way.

Especial mention should be made of the following persons, who, by their generosity, have enriched the collections: Mrs. Lucy Wharton Drexcl, who, during her lifctime, presented the Museum with the bulk of its cxamples of Creck and Roman Sculpture; Miss Lydia T. Mlorris, who donated to the Museum the John Thompson Morris Collection of Coins and Medals, and of Roman Glass: Mr. John Wanamaker, through whose intcrest the Muscum obtained the reproductions of objects from Pompcii and Herculaneum, and a large number of the Greck vases and Greek, Etruscan, and Roman jeweiry: Mrs. Phoebc A. Hcarst, who, with Mr. Wanamaker, financed the expedition that procurcd the Etruscan collections, and who gave the loulk of the collection of jewelry: Mrs. Dillwyn Parrish, who presented the collection of Roman mosaics, and a collection of

Greek and Roman pottery; and Mr. and Mrs. Samucl F. Houston, Mr. Calvin Wells, and Mr. Charles H. Cramp, who subscribed to the Cretan expeditions. The reproductions of Cretan and Mycenæan antiquities have for the most part been acquircd through the Lucy Wharton Drexel Fund for Casts, though some of the copies of the cups and gold objects from Mycenæ were given by Mr. C. Hartman Kuhn. Since thesc pages went to press the fine Cypriote head has been received frem Mr. Jchn Cadwalader. To Mrs. Charles Platt, Mrs. William Pepper, Dr. Charlcs C. Harrison, Mrs. E. W. Lehman, Mrs. John Harrison. and other generous patrons the Museum is indebted for everything included in this catalogue, and the thanks of the Museum arc due to them all.

The writer owes a personal debt to the following friends and colleagues, who have given him much advice and assistance in the preparation of this cataloguc: to Dr. G. B. Gordon, the Director of the Museum, and to the other members of the staff; to his colleagues at the University of Pennsylvania, Professors J. C. Rolfc, Walton Brooks McDaniel, W. N. Bates, H. Lamar Crosby, and IV. W. Hyde; and especially to Mr. Lcicester Bodine Holland, formerly of the University of Pennsylvania, and now of the American School of Classical Studies at Athens, with whom he studied the Etruscan architectural terracottas. He cannot let this catalogue go out of his hands without testifying to his eternal debt to his teacher and dear friend, Professor George H. Chase of Harvard University, who has never refused him advice and counsel, when such help was most needed. Others to whom he wishes at this time to extend his most hearty thanks are Dr. Arthur Fairbanks and Dr. Lacey D. Caskey of the Museum of Fine Arts in Boston; Miss Gisela M. A. Richter of the Metropolitan Museum in New York; Professor David M. Robinson of the Johns Hopkins University in Baltimore: Dr. Joseph Clark Hoppin; Miss Mary Hamilton Swindler of Bryn Mawr College; Mr. and Mrs. A. W. Van Buren of the American Academy in Rome; and Dr. C. W. Blegen of the American School of Classical Studics at Athens, who discussed the Minoan pottery with him during his last visit to America. But the two to whom he owes the most arc his predccessor, Mrs. Joscph M. Dohan (Miss Edith Hall), collaborator in the campaigns at Gournia, and the successful excavator of Viokastro in Crete, from whom he has never failed to get valuable help and counsel, and Miss Eleanor F. Rambo of the American School of Classical Studies at Athens, who, during

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the writer's service in the United States Nary during the late war, took his place at the Museum and at that time accomplished much that has made it possible to produce this book. To these and to other friends, who have helped him, he sends thanks and greetings.

Stephen Bieecker Luce.
Assistant Curator.
Mediterranean Section.
Iniversity Museum, Philadelphia.
July, IGzo.

## CONTENTS OF THE EAST ROOM.

Objects From Prehistoric Crete. Cases I-IV.
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Attic Graye Stelaf In center of room.

## OBJECTS FROM PREHISTORIC CRETE

Cases I-IV.
One of the most romantic events in the history of seicntifie achievement is the diseovery by British, Italian, and Ameriean archrologists of the eivilization of the Minoan periods in Crete. Seholars were prepared to find in Crete objeets similar to those found by Sehliemann at Myeenæ; they were not, however, prepared for the discovery that was foreed upon them by the results of the exea-vations-that Crete possessed a civilization greatly superior to that of Myeenre, and from whieh Myeena drew its inspiration.

In the West Room are reproductions of freseoes and famous vases and objects of stone, terracotta, and faience from Ninoan sites, and of gold objeets from the mainland of Grecee. But, after all, these are merely reproduetions; the four eases now to be examined contain original objects found on Cretan sites.

The University Nuseum has been one of the pioneers in the exploration of Crete, by its expeditions to Gournia, Vasiliki, and Vrokastro, sites on the eastern end of the island, and to the island of Pseira, off the east eoast, and has drawn most of its collection from the exeavation of these sites.

The results of these eampaigns have been published or summarized in the following places.

Gournia, Vasiliki, and other Prehistorie Sites en the Isthmus of Hierapetra, Crete. Exearations of the Wells-Houston-Cramp Expeditions, 1901, 1903, 1904. By Harriet Boyd Hawes, Blanehe E. Williams, Riehard B. Seager, Edith H. Hall, Philadelphia, 1908.
Exeavations on the Island of Pseira, Crete. By Riehard B. Seager. Philadelphia, University Museum, 1910. (University Museum, Anthropologieal Publications, Vol. III, No. 1.)
Exeavations in Eastern Crete: Sphoungaras. By Edith H. Hall. Philadelphia, University Museum, 1912. (University Museum Anthropologieal Publications, Vol. III, No. 2.)
Exeavations in Eastern Crete: Vrokastro. By Edith H. Hall. Philadelphia, University Museum, 1914. (Lniversity Museum Anthropologieal Publieations, Vol. III, No. 3.)

The Cemetery of Pachyammos, Crete. By Richard B. Seager.
Philadelphia, University Museum, 1916. (University Museum
Anthropological Publications, Vol. VII, No. 1.)
The following periodicals also contain important articles on these campaigns.

In the Transactions of the Department of Archæology, University of Pennsylvania. (The University Museum.)
Vol. I, Parts I and II, 1904. Gournia, by Harriet A. Boyd. Pp. 1-44. Vol. I, Part III, 1905. Gournia, by Harrict A. Boyd. Pp. 177-191. Early Painted Pottery from Gournia, by Edith H. Hall. Pp. 191-205.
Excavations at Vasiliki, 1904, by Richard B. Seager. Pp. 207-220.
Vol. II, Part I, 1906. The Decorative Art of Crete in the Bronze Age, by Edith H. Hall. Pp. 5-49.
Vol. II, Part II, 1907. Excavations at Vasiliki, 1906, by Richard B. Seager. Pp. 111-132.

In the Museum Journal
Vol. I, 1910, pp. 7 and 39.
Vol. III, 1912, pp. 39 -4. (By E. H. Hall.)
Vol. V, 1914, p. 47.
Vol. VIII, 1917, p. 86.
In the American Joumal of Archæology.
Vol. V, 1901, pp. 14-15, 125-157, and Pls. I-V. (By Harriet A. Boyd.)
Vol. VI, 1902, pp. 48, 71.
Vol. VIII, 1904, p. 359.
Vol. IX, 1905, pp. 77, 110, 352--353, 771.
Vol. X, 1906, p. 344.
Vol. XI, 1907, pp. 219, 349.
Vol. XIII, 1909, p. 78.
Vol. XV, 1911, pp. $73-74,89,9192$.
Vol. XVI, 1912, p. 571.
Vol. XVII, 191.3, pp. 91-92, 550.
Vol. XVIII, 1914, p. 525.
Vol. XXI, 1917, pp. 458-459.

In Art and Archacology.
Vol. I, 1914, pp. 33-36. (By Edith H. Hall.)
The following books should also be consulted, for information relative to these campaigns, and for cxpeditions, not under the auspices of the Muscum, from which objects have found their way into its collections, either through purchase or cxchange.

Books on Crete, and its archæology.
C. H. \& H. B. Hawes; Cretc, the Forerumer of Creece. This is the best small book on Minoan archæology. Chapter VI is devoted to Gournia, and Chapter VII describes Vasiliki, Pscira, and Vrokastro. 2d edition, 1911.
James Baikie; The Sea Kings of Cretc. Popular treatisc, copiously illustrated. For Gournia, see especially pp. 129-132. 1910.
Angelo Mosso; The Palaces of Crete and their Builders. Deals principally with the Italian cxcavations, but sce pp. 252-253, and 265. 1907.
Angelo Mosso; The Dawn of the Merliterrancan Civilization. Deals principally with the Italian cxcavations, but see pp. 113, 141, 289, 292, 316. 1910.
R. M. Burrows; The Discoverics in Crete, and their Bearing on the History of Ancient Civilization. See especially pp. 24, 2627, 49, 57, 106, 111, 113, 138, 152, 181. 2d edition, 1908.
René Dussaud; Les Civilisations Préhelléniques dans le Bassin de la Mer Eggée. 2d edition, 1914. See chapters I, VII and VIII, passim.
Donald A. Mackenzie; Myths of Crete and Prehellenic Europe. Passim, especially pp. $254-267.1917$.
H.R. Hall; Ægean Archæology. This is the leading book in English on this fied. Rcferences to the expeditions of the Museum will be found all through the book. 1918.
G. Maraghiannis; Antiquités Crétoises. Vol. I, Pls. XXXVIXXXIX; Vol. II, Pls. XIV-XXXII. 1907 and latcr. Text by L. Pernicr and G. Karo.

Books and articles on other expeditions, objects from which will be found in the collection.
Richard B. Scager; Explorations in the Island of Mochlos. Published by the American School of Classical Studies at Athens, 1912.

In the American Journal of Archæology.
Vol. XIII, 1909, pp. 273-303, Pls. VI-VIII. (On Mochlos, by Seager.)
Vol. XVI, 1912, p. 278.

## POTTERY OF THE MINOAN PERIODS.

Case I.
Three periods of Minoan culture are usually rccognized by archæologists-the Early, Middle, and Latc. Each of these periods is again subdivided into three subperiods, the First, Sccond and Third. Thus we are really dealing with nine Minoan periods, beginning with the First Early Minoan (usually abbreviated to E. M. I.) and ending with the Third Late Minoan (called L. M. III).

The dates of thesc periods are usually reckoned as follows.

| E. M. I | 2800-2600 B. C. |
| :---: | :---: |
| E. 11. II | 2600-2400 B. C. |
| E. M. III | 2400-22C0 B. C. |
| M. M. I | .2200-2100 B. C. |
| M. M. II | .2100-1900 B. C. |
| M. M. III | 1900-1700 B. C. |
| L. M. I. | . 1700-1500 B. C. |
| L. M. II | . 1500-1450 B. C. |
| L. M. III. | . 1450-1200 B. C. |

The period of Mycena begins at this time, and this culture lasts in the mainland of Greece until about 1000 B . C.

The first and second Late Minoan periods ( $1700-1+50$ B. C.) form the great age of Crete. It is to this epoch that the finest products of the ccramic art of the Minoans belong. Not only was the pottery at its most perfect stage, but in painting the acme of excellence was obtaincd at this timc. Knossos is the great site of this period, with its magnificent frescoes, reproductions of which arc on view in the West Room, and the large and beautiful palace style vases. Gournia and Pscira, howercr, are also especially noteworthy in this conncetion, as the ruins of the towns discovered on thesc sitcs are dated in the First Late Minoan Period. In this case are a few examples of the pottery found there. These specimens show the fertility of conception and design of the Late Minoan
vase painters; and many of these vases are of striking beauty. It is, then, at this period that the art of the Minoans reaches its highest stage of development.

This great age, however, eomes to a very sudden and abrupt termination at a date usually given as about 1450 B . C. At this time, apparently, the whole of Crete suffered some great eatastrophe, probably invasion and eonquest at the hands of people from the mainland of Greeee. Knossos, Pseira, and Gournia were all destroyed. About a generation afterwards, Knossos and Gournia were reoccupied, and life was resumed; but the pottery produeed was distinetly inferior in coneeption, form, and decoration. This is what is ealled the Third Late Minoan period, and lasts till about 1200 B. C. Examples of this pottery are in this ease, and ean be compared with the finer examples of the earlier period.

About 1000 B . C., iron is introduced, and the Homeric age, which is the age in which, and not the age about which, the Homerie poems were written, begins. In Crete, this is marked by a still further deterioration of artistie feeling, and by the presence of geometric pottery. Vrokastro, in Eastern Crete, exeavated by an expedition sent out by this Museum, is one of the principal sites of this period.

## Case I.

Nos. 1-12 are vases of the Second Early Minoan Period (E. M. II). By far the commonest pottery of this period, characteristie of it, and which is at onee thought of in connection with it, is the so called Vasiliki ware, named for the place where it was first found, and which has yielded the greatest number of speeimens. This is a eurious mottled red and black pottery, which, early as it is, is nevertheless wheelmade, showing that the Minoan potters were familiar with the wheel as carly as 2500 B . C.

No. 1. Group of three bowls of Vasiliki ware.
No. 2. Two small pitehers, with beaked spouts, ealled ordinarily sehnabelkannen, and a bowl of the same ware.
No. 3. A very typieal form in the Vasiliki teehnique; a low jug, on a foot, open at the top, and with an enormous beaked spout at one sidic.
No. 4. Group of three egge eup shaped vases of Vasiliki ware.
No. 5. Two bowls of the same period, of plain red ware.

No. 6. A medium sized schnabelkanne or beaked pitcher, of Vasiliki ware.
No. 7. A group composed of a Vasiliki egg cup, and a small jug, of the same period, from a site called Priniatiko Pyrgo, in Eastern Crete. This jug has decorations in red on a buff ground.
No. 8. Two bowls of Vasiliki ware.
No. 9. A small jar of the same ware.
No. 10. A small cup, with what is known as a bridge spout of the same ware.
No. 11. A vase of stone, with incised decoration, from Gournia, of the Second Early Minoan period.
No. 12. A cup of grey ware of the same period, from Sphoungaras, a site in Eastern Crete, explored by the University Museum's Cretan expedition. This shape, with its high handle, persists in Classical times, when it is called a kyathos.

Nos. 13-25 are vases of the Third Early and First Middle Minoan periods ( $2400-2100$ B. C.) with the exception of No. 14, which is of the Second Early Minoan period. It is now believed by specialists in Cretan archæology that these two periods are not really distinct, but should be merged together. We have in the epoch vases with geometric designs in dark color on a light ground, and the reverse process; hut in each case the designs show the same tendency.

No. 13. A group of four bowls with light patterns on a dark ground, from Vasiliki.
No. 14. Plate of the Second Early Minoan period, of red pottery, approximating the Vasiliki ware.
No. 16. A cup of the Third Early Minoan period, found on the Island of Pseira. The graceful decoration, of lines and dots, is one of the arguments for merging this period with the next, or First Middle Minoan.
No. 17. A small cup from Vasiliki, of lustrous buff clay, with designs in dark wash.
No. 18. A cup with a handle, also from Vasiliki, of the same period. The decoration is in white on a dark background.
No. 19. A small cup of Vasiliki ware with a broad white stripe at the top.

No. 20. A jug of a characteristic First Middlc Minoan type, with dark designs on a light ground, found at Pseira.
No. 21. A pair of pitchers from Vasiliki. The decoration, which is identical on the two vases, is in red and white on a black ground. The principal design is of a frieze of fish, which runs around the middle of the vase.
No. 22. A pair of lids of the same period from Pscira. The decoration is of dark lines laid dircetly on the clay, no slip being employed.
No. 23. A pitchcr, with much the same decoration as the above, from Gournia.
No. 24. A lid from Pseira, of buff clay, with a dark wash, and a decoration of white lines.
No. 25. A pitcher, with designs like those of No. 23, but in much better preservation, from Pseira.

Nos. 33-46 are for the most part vases of the First Niddle Ninoan period, the exceptions being No. 35, which is of the Second Middle Minoan agc; No. 39, which is of the Third Early Minoan period, and Nos. 41 and 43, which are of the Third Middle Minoan period.

No. 33. A curious jug, with a side spout, of coarse red clay, found at Pseira.
No. 34. Four small pitchers of buff clay, three from Sphoungaras, and one from Gournia.
No. 35. These fragments, which have red and white designs on a black ground, mark the best work of the potters of the Second Middle Minoan period, and this ware is known to students, from the place where it was first found, as Kamares ware.
No. 36. A small pot of undecorated grey warc, from Priniatiko Pyrgo.
No. 37. A tumbler shaped cup from Priniatiko Pyrgo, with a striped decoration of black and buff.
No. 38. A small jug, with a side spout, of polished grey ware, from Gournia.
No. 39. A cup, of the Third Early Minoan period, from Pseira, with white designs on a dark ground, which has become red from overfiring.

No. 40. A pair of cups, one from Gournia, the other from the first settlement of Vrokastro, both of buff clay, with a dark band at the top.
No. 41. A cup of the Third Middle Minoan period, in the shape of a tumbler, found at Gournia, with a design of running spirals in white on a dark ground.
No. 42. A cup, with a handle, from Sphoungaras, of undecorated grey ware.
No. 43. A pair of bowls, of the Third Niddle Minoan period, with a decoration of rumning spirals in white on a dark ground. One is from Gournia, the other from Priniatiko Pyrgo.
No. 44. A pair of cups like the pair, No. 40. Both were found at Sphoungaras.
No. 45. A cup with linear decoration in red on a buff ground, from Vasiliki.
No. 46. A cup of buff chay, covered with a dark wash, from Pseira.
No. 47. A group of eleven toy vases, of the First Late Minoan period (1700-1500 B. C.). A very remarkable and unusual collection.

Nos. 48-60 and 170-211 are vases of the First and Third Late Minoan periods. 'This period marks the height of the history of the ceramic art in Crete. The designs painted on vases by the Minoan potters of this epoch represent a technical skill and artistic feeling not to be surpassed.

No. 48. A pitcher of reddish clay, with a light slip, and decoration in black, from Pseira.
No. 49. Two small jugs, found at Pseira, one with dots in red, and one with a scale pattern in black.
No. 50. A flask from Pseira, with three small handles on the shoulders, and with decorations, in black.
No. 51. A shallow dish, with a long beaked side spout, found at Gournia. This vase, though perhaps of the First, is more probably of the Third Late Ninoan period.
No. 52. A small jar, found at Pseira. It was made with a handle, which has been broken off. It is decorated with a design of foliage.
No. 55. A large twohandled cooking pot, on three high legs. The pot is of coarse red clay, and the rim is pinched to form a
spout. It was found at Gournia, and belongs in the First Late Minoan period.
No. 60. A large brazier, or firc box, of coarse red clay, with a flaring rim and a high handle. 'This also is dated in the First Late Minoan Pcriod, and was found at Gournia.
No. 170. A small onehandled cup of buff clay, with a design of running spirals in black, and black bands around the body. Mcnded and restored. First Late Minoan period. From Priniatiko Pyrgo.
No. 171. A onchandled cup on a high foot. put together from many fragments and of which much is missing. It is of buff clay, and is dccorated with brown bands and a row of double axcs. The double axe had a very definite religious significance among the Minoans. First Late Minoan period. From Gournia.
No. 172. A bowl, much restored, and decorated both outside and in the intcrior. On the outside is a scries of vertical black lines, wide at the top, and narrowing at the bottom, called a ripple. Inside is a wave pattern. Same period. From Priniatiko Pyrgo.
No. 173. A small jar. in perfect prescrvation, of buff clay, with threc small handles at the neck. The decoration of octopuscs is very naturalistic and bcautiful; bclow is a series of bands. Same period. From Pseira.
No. 174. A large pitcher, put together from fragments, some of which are missing. Buff clay with designs of bands, whorls, and crescents in black. Same period. From Pseira.
No. 175. A cup without handles, with a ripple pattern like No. 172, of the same period, and from the same site as that specimen.
No. 176. Two cups, decorated with white bands and running spirals on a dark ground. Both are put together from fragments and restored. Same period. Onc is from Gournia, the other from Pscira.
No. 177. A large vase, of a shape peculiar to the Minoan civilization, often called a stirrup jar, or a falsenceked amphora, but more commonly by the German term bügelkannc. Put together from many fragments; much is missing. Whon complete, two handles joined the falsc neck, which was closed, while the truc mouth of
the vase was on the shoulder at one side. This specimen is of buff clay, with a very naturalistic plant decoration on the shoulder, and bands and zigzags on the body. Samc period. Found on the island of Mochlos, off Eastern Crete, but probably made at Gournia.
No. 178. Sidespouted jar, in perfeet preservation. It has two horizontal side handles, and a vertical rear handle. Buff clay, with decorations of bands. Same period. From Pseira.
No. 179. A cup of buff clay, with a decoration of black bands and crescents. Put together from fragments, and part missing. Same period. From Pseira.
No. 180. A pitcher, in almost complete preservation, of buff clay, with a decoration of bands and running spirals in black, to which white overcolor has been added. Same period. From Pseira.
No. 181. A very small pot, put together from fragments, with a decoration of bands and a garland of lcaves running around the body. Same period. From Gournia.
No. 182. This is perhaps the fincst original Cretan vase in the collection, and shows to what heights the Minoan ceramic art attained. It is a bottle shaped vase, with a narrow mouth and one handle, with a finely conceived design of dolphins swimming in front of a mass of seawecd. In the bottom is a holc, made by intention, showing that it was a form of strainer for winc. Same pcriod. From Pseira.
No. 183. A very small eup, much restored, decorated with a most naturalistic plant pattern. Same pcriod. From Pscira.
No. 184. A small jug of buff clay, with a bcaked spout, decorated with bands and dots. Same period. From Pscira.
No. 185. A large cup, or bowl, without handles, of the usual buff clay, decoratcd with bands and a leaf pattern. Samc period. From Pscira. Mueh restored.
No. 186. A cup of buff clay with one ordinary handle and onc lug handle. The rim has been pinched to form a spout at one sidc. It is put together from fragments and the missing parts are restored. Around the rim is a heavy band of black, on which is a design of running spirals in white.

Below the ordinary handle are two bands of brown. Same period. From Pseira.
No. 187. A cup of very thin clay, mended, about half missing, and restored. The decoration is of bands and a leaf pattern in brown. On the bands narrow white stripes have been added. Same period. From Pseira.
No. 188. A side spouted jar, put together from fragments, with only one handle missing. The decoration is of bands and a leaf pattcrn. Same pcriod. From Pseira.
No. 189. This vase, with No. 182, ranks as onc of the most beautiful examples of Cretan pottcry in the collection. It is of interest not only for its designs but for its shapc. It will be scen that it is one of those funnel shaped vases such as are depicted in the cup bearcr fresco, and in the reproduction of the boxer vasc. The decoration of spirals is particularly charactcristic; but other typical patterns occur, such as bands, rows of dots, and a leaf pattern. Same pcriod. From Gournia.
No. 190. A group of two small cups, put together from fragments, of the usual buff clay, and with the usual decorations of dots, leaf pattern, and spirals. Same pcriod. From Pseira.
No. 191. A bowl of buff clay, with the rim pinched to form a spout, and two side handles. Put together from fragments, and the missing parts restorcd. The decoration consists of heavy black bands around the body. Samc period. From Pseira.
No. 194. A largc, cylindrical jar without handles, of buff clay, and originally furnished with a lid. For decoration, it has conventional wave, checkcrboard, and scale patterns in panels. This comes from Gournia, and was made at the time of the reoccupation of the city, in the Third Late Minoan Period.
No. 195. Five characteristic pots of the Third Late Minoan period, coming for the most part from Gournia. These arc of the shape callcd stirrup jars, or falscnecked amphoræ, and vases of this form constitute the principal finds of this period, as far as pottcry is concerncd. For an example of this shape in the First Late Minoan pcriod, sce No. 177 in this case, and also the reproduction of the octopus
vase in the West room, Alcove C, Case IV, No. 13. We should observe that the naturalism to be found in such vases as the octopus vasc, or in No. 182 in this case, has degenerated into very conventional patterns.
No. 196. A fine, large, falsenceked amphora, in almost perfect preservation, the only lost part being a piece chipped off the rim of the mouth. It is tall, with a wide shoulder, tapering to a small foot, and is dccorated with a series of broad red stripes. This is also of the Third Latc Minoan period. From Gournia.
No. 197. A pair of small pitchers from Gournia, of the same period, with conventional decoration.
No. 204. A large water flask of the Post Minoan period, from Vrokastro. It is decorated with concentric circles and zigzags. Put tngether from fragments and the missing parts restored.

The visitor's attention should now be turned to three vases that are exhibited on top of Case I.

No. 205. A fine large jar of the First Late Minoan period, with four handles at the shoulder, and beautiful designs of spirals, lobes and plant decoration, from Gournia. Put together from fragments, and the missing parts restored.
No. 206. A large amphora of the Crctan geometric period, with side handles, and a decoration in panels in the center, of spirals, and other conventional ornaments. Found at a site in Crete called Kalo Khorio, and put together from fragments with the missing parts restored.
No. 207. A small pithos, or jar, with three handles on the shoulder, and of coarse clay with a trickle ornament. Found at Gournia, and put together from fragments. Third Middle Minoan period (1900-1700 B. C.).

Three other rascs of equal importance will be found on top of Case III.

No. 208. A large side spouted jar, with spirals, a band of leaves, and a ripple pattern. P11t together from fragments, and the greater part restored. Found on the Island of Mochlos, off Eastern Cretc. First Latc Minoan period (17001500 B. C.).

No. 209. A small pithos, put together from fragments, and nearly complete, decorated with lobes, bands and plant patterns. Same period and from the same site as No. 208.
No. 210. A large krater, or bowl, of buff clay, with a debased octopus pattern. Third Late Minoan period ( $1450-1200 \mathrm{~B}$. C.). From Gournia.

Finally, in the first of the center alcoves to the left will be foundNo. 211. A large jar, or pithos, of coarse clay. This is of the First Late Minoan period, and comes from Gournia. This pithos was used for the storage of grain, or oil, and is one of a large number of such objects that have been found in Cretan palaces. Hundreds of them were found at Knossos, arranged in galleries opening out into a longer gallery, and these galleries constituted the store rooms of the palace. And so at Gournia a large number were found similarly arranged.

## POTSHERDS FROM CRETE, OF VARIOUS PERIODS.

Case II.
Besides containing a representative collection of sherds that trace the history of the decorative art of Minoan times, this case also contains examples of loom weights, spindle whorls, beads, and the like, and a group of neolithic sherds from Thessaly, examples of the oldest civilization on the mainland of Greece.

No. 67. A crude roller, of white limestone, and a saddle quern, or hand mill, of trachyte, used together to grind corn and other grain. This is a primitive method to find employed by a people in other respects so highly civilized.
No. 68. Piece of a terracotta street drain from Gournia, at the height of the town's prosperity in the First Late Minoan period ( $1700-1500 \mathrm{~B} . \mathrm{C}$.$) .$
No. 69. A stone corn rubber, or mortar, of the same period, or earlier, from Gournia.
No. 70. A terracotta polisher, from Sphoungaras, and a whetstone from Gournia, of the same period.
No. 71. A pair of loom weights, of red clay, and spherical, with a hole through the center.

No. 72. A pair of the same, but flat and eireular.
No. 73. A pair of the same, but eubie. All these examples are from Gournia.
No. 74. A pair of stone weights from Gournia.
No. 75. Three sherds of Neolithic, pre-Minoan pottery of Crete, dating at about 3000 B. C., and found at Sphoungaras.
No. 76. A series of twelve potsherds of Vasiliki ware.
No. 77. A fragment of a large jar of the Third Early Minoan period, from Vasiliki, with white decorations on a red ground.
No. 78. A series of fifteen sherds of the same period, from Gournia.
No. 79. Fragment of a lid, like those under the number 22, from Gournia. First Middle Minoan period.
No. S0. A group of eight sherds of the same period (First Middle Minoan), from Gournia.
No. 81. Three sherds of the Third Middle Minoan period, also from Gournia.
No. 82. Part of the lid of a pithos, or large jar, of the First Late Minoan period, put together from three fragments. Found at Gournia.
No. 83. A colleetion of seventeen sherds, mostly from Gournia, of the First Late Minoan period, the aeme of the Cretan ceramic art.
No. S4. A fragmentary bowl of the same period, also from Gournia.
No. 85. A sherd from Gournia, of the Third Late Minoan period (1450-1200 B. C.).
No. 86. Two fragments from iron saws, of the Cretan geometric period. The Minoan eivilization was a purely Bronze Age culture, and was followed by an Early Iron Age with geometric pottery. These fragments were found at the Cretan geometrie settlement of Vrokastro, and are probably in the period centering at about 1000 B . C.
No. 87. Four clay spindle whorls, and one of shell, from Gournia, dating in the First Late Minoan period.
No. 88. A glass bead, with beautiful iridescence, probably an importation from Egypt, and found at Vrokastro. It is of later date than the Late Minoan culture.
No. 89. Four stone spindle whorls, and two other implements of stone, from Gournia.
No. 90. A collection of twelve potsherds from two prehistorie sites in Thessaly, now ealled Dimini and Sesklo. These sherds
belong to a Late Stone Age culture, perhaps contemporaneous with the First Early Minoan period in Crete. They show a great decorative sense on the part of these primitive peoples.

## STONE VASES FROM CRETE.

## Case III.

The Minoans were not only expert potters, but also possessed great technical skill in the working of stone. In the West Room are reproductions of the three most famous stone vases that have been found-the socalled harvester, chieftain, and boxer vases, ornamented with designs in relief. The vases exhibited in this case are of humbler origin, but show the great sense of form possessed by these early craftsmen.

It is a curious fact that as the Minoans became increasingly familiar with the manufacture of pottery, they lost the art, little by little, of carving vases in stone. The finest stone vases date in the Early Minoan period, and were found on an island called Mochlos, off the north coast of Eastern Crete, in excavations conducted by Mr. Richard B. Seager for the American School of Classical Studies at Athens. The Museum is fortunate in having one or two of these specimens in its collection, as well as examples from all the sites excavated by its own expeditions. The collection here shown represents examples of every period; and it will be noticed how much finer, as a rule, the earlier specimens are than those which succeed them.

The material most commonly used is a kind of soapstone called steatite; but a soft veined marble is also employed, as well as alabaster.

No. 29. This object, from Gournia, is known, for want of a better term, as a pair of horns of consecration. The purpose is unknown, but it seems to have had some religious significance.

For a discussion, and a new interpretation of the meaning of these objects, see Holland, A. J. A., XXI, 1917, pp. 129-135, and 417-419. He considers them to be seats of honor for the gods.

No. 62. A clay lamp, on a very high, hollow foot, broken and mended. Buff elay, with traces of a red slip. Found at Gournia. First Late Minoan period.
No. 91. A very small eup of veined marble, broken and mended. This little vase eomes from Moehlos, and is of the Second Early Minoan period, ea. 2500 B. C.
No. 92. A small steatite bowl, from Pseira. It is dated in the Middle Minoan period (ea. 2000 B. C.), beeause of other objeets found with it.
No. 93. A small steatite jar, with a eover. It has been mended, and eomes from Pseira, and dates in the Middle Minoan period. It is decorated with ineised lines.
No. 94. A small basin shaped bowl, of veined marble, mueh restored. It was made in the Seeond Early Minoan period, about 2500 B. C.
No. 95. A eup of alabaster, on a stem, shaped something like a elaret glass, found at Pseira, and dated either in the end of the Middle Minoan, or the First Late Minoan periods (2000-1500 B. C.).
No. 96. An alabaster jar of the First Minoan period, from Gournia. It is mueh restored, but the shape is eorreetly rendered. Near the rim are two horizontal handles.
No. 97. This is one of the most pleasing specimens in the eolleetion. The outer surfaee is ehiseled to represent sheathing leaves, with strong midribs. It is ealled a blossom bowl, and is a peeuliarly Cretan type of vase, of the First Late Minoan period. This example was found at Gournia and is of steatite.
No. 98. An alabaster jug, of the Seeond Early Minoan period, restored. Notiee the skill shown in working the alabaster, and the almost egg shell thinness of the walls of the vase.
No. 99. A small steatite jug and eover from Gournia. Besides the baek handle, there are two small lug handles at the sides. This vase, whieh is of the First Late Minoan period, should be eompared with No. 98, showing how the art of making vases out of stone deteriorated, as the skill of the potter inereased.
No. 100. A small double vase of steatite, with ineised decoration, from Vasiliki, belonging in the Seeond Early Minoan period, the era of the Vasiliki ware.

No. 101. A tiny marble dish, of exquisite workmanship, with a side spout. This little vase comes from Mochlos, and is of the Second Early Minoan period.
No. 102. A tiny vase with a side handle, of green steatite, of the same period, from Sphoungaras.
No. 103. A very small steatite bowl from Cournia. First Late Minoan period.
No. 104. A marble bowl from Pseira, of the Third Late Minoan period ( $1450-1200 \mathrm{~B} . \mathrm{C}$.). This shape with rery thick walls, and very small interior, is peculiar to this period.
No. 105. A basin like bowl, with two lug handles, found at Pseira, but of the Second Early Minoan period (ca. 2500 B. C.).
No. 106. A steatite bowl, from Gournia, with a horizontal ribbed decoration on the shoulder. First Late Minoan period.
No. 107. A blossom bowl like No. 97, and of the same period, but larger. Found at Pscira.
No. 108. A steatite cup, also from Pseira, of the Middle Minoan period (ca. 2000 B. C.).
No. 109. A wide bowl, or drinking cup, with two luys handles, of the same period, and from the same site as the preceding.
No. 110. A cylindrical steatite cup, of the same period, and from the same site.
No. 111. Two stone lids, for vases, each with a central knob handle, found at Gournia, and belonging in the First Late Minoan period.
No. 112. A fragment, perhaps from a drinking cup, of steatite, one handle of which is preserved, and which seems to be in the form of the horns of a bull. This specimen comes from Gournia, and belongs in the First Late Ninoan period.
No. 113. A small steatite bowl, with four small handles, found at Pseira, and belonging in the Early Minoan period.
No. 114. A square steatite bowl, with a central circular depression, from Gournia, dating in the First late Minoan period.
No. 115. Two bowls of the typical shape of the Third Late Minoan period, of veined marble, one from Gournia, the other from V rokastro.
No. 116. A fragment of a steatite cup, with a handle, of the First Late Minoan period, from Pseira.

No. 117. A large bowl of steatite, with two lug handles, from Gournia. First Late Minoan period.
No. 118. A bowl of the same kind, but smaller, of the same iperiod, and from the same site as the preceding.
No. 119A. A steatite bowl from Sphoungaras, of the Early Minoan age.
No. 119B. A steatite bowl of identical shape, but of the First Late Minoan period, showing the continuity of the forms employed.
No. 120. Two small bowls of similar shape, of the First Late Minoan period, one from Gournia, the other from Pseira.
No. 121. A small steatite bowl, with two lug handles, broken and mended, from Pseira, belonging in the Second Early Minoan period.
No. 122. A bowl of somewhat larger size, from the same site, but of the First Late Minoan period.
No. 123. A fine bowl of steatite, with two lug handles, from the same site, but of the Second Early Minoan period.
No. 124. A small steatite lid for a vase, from the same site, and assigned to Middle Minoan times. The exact period is uncertain.
No. 125A. Part of a slender cup of green steatite on a foot, from the same site, and belonging in the Second Early Minoan period.
No. 125B. A vase of the same period, and of the same shape, but larger. It is of breccia, and was found at Mochios. Only a fragment is preserved.
No. 126. A large bowl of steatite, from Gournia, of the First Late Minoan period, broken and mended.
No. 127. A small steatite bowl of the same period, from Pseira.
No. 128. A marble cup of the same shape and period (Early Minoan II) as No. 91, but much larger. Found at Gournia.

No. 129. A pair of small lug handled bowls from Pseira, of the end of the Middle Minoan, or beginning of the Late Minoan period.
No. 130. Two fragments of a double libation bowl or offering stand of the Second Early Minoan period. Beside them has been placed a restoration in plaster, to show what such a bowl looked like in its original state. At the four corners, and between the two receptacles, are
slight circular depressions. Furthermore, the bowl is everywhere ornamented with incised decorations. This bowl is of steatite, and comes from Gournia.
No. 131. A bowl, with a rim, of steatite, from Pseira, and belonging in Middle Minoan times (ca. 2000 B. C.). The presence of the rim is unusual.
No. 132. A bowl of the same shape and period as No. 106, but smaller, from Pseira.
No. 133. Two bowls of veined marble, of the same shape as the two numbered 115, which is a shape common in the Third Late Minoan period. One is from Gournia, the other from Vrokastro.
No. 134. Part of a steatite vase, possibly a filler like that carried by the man in the cup bearer fresco from Knossos, a reproduction of which is shown in the West Room, No. 3 in the collection of reproductions of frescoes. The so called boxer vase, a reproduction of which is also shown in the West Room, Alcove C, No. 15, is also an example of this shape. An original filler in pottery is exhibited in Case I, No. 189. This fragment comes from Pseira, and belongs in the First Late Minoan period.
No. 136. A small cylindrical cup, of the same shape and period, and from the same site, as Nos. 108 and 110 in this case.

## MISCELLANEOUS OBJECTS FROM CRETE.

## Case IV.

In this case are included such widely diversified things as lamps, stone objects, called for want of a better or more accurate term, tables of offerings, and miscellaneous bronze specimens, from the different expeditions to Crete sent out by the Museum.

The Minoans were a Bronze Age people. Iron articles do not appear until after the true Minoan culture had passed, and the Geometric Age had set in. At that time we find many traces of a great familiarity with iron. In Case II, under the number 86, are two small fragments of iron saws from Vrokastro, one of the principal sites of this geometric period; in this case are other specimens of this culture under the numbers 168 and 169.

The true Minoan civilization, then, was of the Bronze Age.

In the working of this metal it resembles very strongly, in certain respeets, the work done in Cyprus, which will be found in Case VII, Nos. 70-77, and 90-97. Tt is very likely that the Cypriotes knew of bronze before the Minoans, on account of the resources in copper that their island possessed; indeed, knives like the ones shown here were made in Cyprus in the Early Bronze Age (corresponding to the Early Minoan period), while these knives were made in the First Late Minoan period, or, in Cypriote chronology, early in the Late Bronze Age. It is probable, however, that the Minoans, onee they started, made greater progress than the people of Cyprus, and that it was from them that the Cypriotes learned to fasten their spear heads to the shafts by sockets rather than by a tang.

The objects in this case show the wide use of bronze in the daily life and oceupation of the Minoans. Here are to be found knives, axes, chisels of different kinds, awls, saw blades, tweczers, needles, bodkins, weaving hooks, fish hooks, seale pans, and, last but not least, a drinking cup. All of this shows that the Minoans were no mean workers in bronze.

Nos. 26-32 are lamps, of pottery or steatite. The greater part of these objeets are of the First Late Minoan period (1700-1500 B. C.).

No. 26. Two clay lamps, the tall one of Middle Minoan date, from Gournia, the other, of Early Minoan times, from Sphoungaras.
No. 28. A pair of lamps of coarse red clay, of the first Late Minoan periorl, from Gournia.
No. 30. A steatite lamp on a foot, from Gournia. First Late Minoan period.
No. 31. Three small steatite lamps, of very much the same shape, and of the same period. Two are from Pseira, and one from Goumia.
No. 32. A elay lamp from Gournia, of the same period.
No. 61. A large thick dise, of heary grayish clay, almost as heavy as stone. In the eenter of this dise is a eireular clepression, the purpose of which is obseure. Around the depression are incisions, possibly meant for ornamentation, though probably purely aceidental. Half way from the center to the outer circumference, a groove rums around the dise: The purpose of this object is not absolutely eertain;

## MEDITERRANEAN SECTION

by some, it, and objects like it, are thought of as tables of offerings; by others, it is considered as a rest for a distaff; but the most probable suggestion that has as yet been made is that it is a potter's wheel. This object has been broken and mended.

See M. L. Franchet, Rapport sur une Mission en Crète et en Egypte, in Nouvelles Archives des Missions Scientifiques, Vol. XXII, No. 1, especially pp. 46-50, and Pls. I, II. (Published in 1917.)
No. 63. A low lamp of coarse dark clay, and of large size. It had a handle, now missing, and is as strong and heavy as stone. It was found at Gournia, and is of the First Late Minoan period.
No. 137. Two stone celts for axe heads, from Vrokastro. The period is uncertain.
No. 138. A collection of obsidian fragments from various Minoan sites. Obsidian was evidently much sought for, and the discovery of chips and larger pieces of it in Crete, where it does not occur in the natural state, points to commercial relations with other kingdoms, like that on the Island of Melos, where it was produced. From the large pieces, called cores, small fragments were chipped off, and an edge could be obtained in this way on a chip of obsidian, sharp enough to shave with. The use of this mineral seems to have gone on throughout the Minoan age, as it could take a keener edge than bronze.
No. 139. A collection of three axe heads, of the First Late Minoan period, the one with the dark patina coming from Pseira, the other two from Gournia. It is to be noted that they are double axes.
No. 140. A bronze blade of a leather knife with two rivets still in position, where it was fastened to its handle. This blade, of the First Late Minoan period, comes from Gournia.
No. 141. A curved bronze blade, of the same period, with a tang for the handle, from Pseira. It suggests in shape the modern razor, but was not used for that purpose.
No. 142. A bronze blade from the same site and of the same period, wide at the top, and tapering to a point at the bottom. Two rivet holes at the top, with one rivet still in place.

No. 143. A long, narrow knife blade, of the Third Late Minoan pcriod, from a site called Kavousi. Two rivet holes, one rivet in place.
No. 144. A bronze knife blade, of the First Late Minoan period, from Gournia. This blade is curved and flat. It was fastcned to the handle by two rivets, the holes for which appear.
No. 145. Five knife blades, the one with the dark patina from Pseira, the rest from Gournia, and all of the First Late Minoan period. In all of these examples the blades are short and broad.
No. 146. A bronze knife blade, which is datable by the objects found with it, in the Second Early Minoan period. This shows that as far as these knife blades are concerned, there was little progress in the Minoan civilization, after the use of bronze became general.
No. 147. A small bronze chisel, from Gournia, of the First Late Minoan period.
No. 148. Four chisels, one of them narrow, one of them heavy, thick and narrow, the other two broad and flat. All come from Gournia, and belong in the First Late Minoan period.
No. 149. A bronze awl, from the samc site, and of the same period.
No. 150. A collection of six bronze needles, of various sizcs, from Gournia, and of the First Late Minoan period.
No. 151. A needle, or bodkin, of bone, found in the famous Dictæan Cavc in Crete. It is impossible accurately to date this object, but it is probable that it is of the Third Latc Ninoan period.
No. 152. Two small bronze objects, a ring and a small handle, from the same sitc. The same difficulty as to the datc of these objects exists in this casc, as in the case of No. 151.
No. 153. A thin knife blade, about threc inches long, of bronzc, also from the Dictean Cave. It is impossible to assign a date to this object.
No. 154. Two fragments from bronze saws, of the First Late Minoan period, one from Gournia, the other from a site known as Priniatiko Pyrgo.
No. 155. A group of tweezers, two completc pairs, and fragments of one other, all from Gournia, and all of the First Late

Minoan period. It is usually believed that these tweezers were used to pluck out superflous hairs.
No. 156. A fragmentary knife blade, of the same period, from Priniatiko Pyrgo.
No. 157. A collection of four weaving hooks from Gournia, of the same period.
No. 158. A bronze cup. with a handle, very thin, and badly corroded, so that it is broken in many pieces. It has been partly put together, and restored on a frame. It was found at Gournia, and belongs in the First Late Minoan period.
No. 159. A collection of twenty-four seal stones, of the Middle and Late Minoan Ages. The intaglios are probably Cretan pictographs: but at present this Cretan script is unknown to us. These seals come from various sites, and were mostly acquired by purchase, and not found in the excavations conducted for the Museum.
No. 160. A bronze piercer, for punching holes in leather, of the First Late Minoan period, found at Gournia.
No. 161. A bar of lead. from Gournia.
No. 162. A bronze nail, from the same site, of the Late Minoan age.
No. 163. Six nails of a later period, possibly even Roman, found at Yrokastro.
No. 164. Two fish hooks, of bronze, of the Late Minoan epoch, one from Gournia, and one from Vrokastro.
No. 165. A pair of scale pans, of the same period, from Gournia. Each has a slight rim, and is perforated with four holes, for the chains or cords that attached them to the beam.
No. 166. A piece of sheet bronze from Gournia.
No. 167. A small ring and a small bracelet, both of bronze, and both spiral in form, from Gournia. First Late Minoan period.
No. 168. A group of bronze pins of the Cretan geometric age, from Vrokastro, one of the principal sites of this period. They probably date around the year $1000 \mathrm{~B} . \mathrm{C}$.
No. 169. A collection of four fragmentary fibulce, or brooches, from Vrokastro. These are of bronze, and belong in the Cretan geometric period.
No. 192. Part of a brick, of the kind from which the Minoans built their houses, in the First Late Minoan period. From Gournia.

No. 193. An object, generally called a table of offerings of steatite. It has been much restored, only a very small part of it being original, but the restoration is correct. It has a circular top, and stood originally on three legs. First Late Minoan period. From Gournia.

## OBJECTS OF THE MINOAN PERIOD NOT ON EXHIBITION.

No. 14B. A plate, of the Second Early Minoan period, of red pottery, approximating the Vasiliki ware. Found at Sphoungaras.
No. 15. A fine schnabelkanne, or beaked pitcher, of Vasiliki ware, from Vasiliki.
No. 20B. A small jug of characteristic First Middle Ninoan make, with dark designs on a light ground, found at Sphoungaras.
No. 27. A pair of steatite lamps, one on a high foot from Gournia, the other, on a lower foot, from Pseira. First Late Minoan period.

Nos. 53-66. These objects are domestic utcnsils, principally for the preparation of food some of them arc of stone, but most are of coarsc red pottery. Unless expressly so stated, all of these objects were found at Gournia, and are properly assigned to the First Late Minoan period.
No. 53. A onehandled cup, of coarse red clay, from Sphoungaras, made in the Second Early Minoan period.
No. 54. A small jug on three feet, callcd a tripod jug, and used for cooking.
No. 56. A twohandled cup of coarse clay, from Vasiliki, made in the Sccond Early Minoan period.
No. 57. A small cup on three low feet, probably used as a measurc.
No. 58. A group of threc cooking pots, cach of which is on three high legs.
No. 59. Two small brazicrs, or fire boxes.
No. 64. A double vase of fine, undecorated, red clay, badly broken.
No. 65. A cylindrical vase, or support, of coarse, whitish clay, mended.
No. 66. A low three legged basin of trachytc, very shallow, and sometimes called by archæologists a libation table, for want of a better term.

No. 135. A standard, of limestone, graded in steps, dating in the First Late Minoan period, found at Gournia.
No. 178B. A side spouted jar of buff clay, with a decoration of bands, and a leaf design. It has bcen put together from fragments, and much is missing. It has two horizontal side handles, and a vertical rear handle. It was found at Pseira, and belongs in the First Late Minoan period.
No. 193B and 193C. Two objects, generally called tables of offerings of steatite. They have been much restored, only a part of each being original; but the restoration is corrcct. They had a circular top, and stood originally on thrce legs. They come from Gournia, and bclong in the First Late Minoan pcriod.
No. 198. A wide mouthed jar of buff clay, with two vertical handles on the rim. The decoration consists of a debased octopus pattern in red. This vase was found at Vasiliki, and belongs in the Third Late Minoan period.
No. 199. A small skyphos, or bowl, of the geometric period (1000800 B. C.), from Vrokastro, the finds from which site are nearly all of this post-Minoan period. It is of buff clay, covered below the handles with a thin red wash, and above this, between the handles, panels, decorated with a dcsign of quirks. The vase has been put together from fragments, and much is missing.
No. 200. A skyphos of the same period, also from Vrokastro. In panels between the two handles is a decoration of vertical and diagonal lines. The vase has been put together from fragments, and the missing parts are very cleverly restored.
No. 201. A pair of small undecorated cups, on small feet, and with two side handles, a type very commonly found on sites of the geometric period. These vases also come from Vrokastro.
No. 202. A larger cup of the same shape, from the same site, and of the same period. It is of buff clay, with linear designs in red. Put together from fragments, and much missing.
No. 203. A large krater, or bowl, also from Vrokastro, and of the early geometric period, sometimes called the quasi-geometric period, when Late Minoan designs still are found contending with the geometric for the mastery. This specimen is put together from fragments, and very little
is missing. The clay is buff in color, and the decoration consists of horizontal and vertical lines. The outer vertical lines are decorated with a kind of fringe pattern.
No. 212. A sarcophagus, of the type called by Minoan archroologists a larnax, from Gournia, and probably belonging in the First Late Minoan period. It is of coarse red clay and is undecorated. The body of the sarcophagus is covered with a heavy whitish wash, while the lid is covered with a creamy white slip. The larnax rests on four short, heavy feet, and is fitted with six small loop handles, two on each side and one at each end. Of these all but one of the side handles are preserved. The lid is high, and tapers away from the sides towards the top, like a roof. It also is fitted with small loop handles, two to each side; but only one of these has been preserved. The specimen was broken and has been mended very skilfully.

## ANTIQUITIES FROM CYPRUS.

## CYPRIOTE SCULPTURE AND POTTERY.

No. 56. A stone head. 6th Century B. C.
Case V .
This and Case VII are devoted to antiquities from Cyprus. It will be seen that this island developed an artistic culture peculiar to itself, distinct both from that of Crete and the subsequent art o the mainland of Greece, and inferior to both. At the time that the Minoans in Crete were at the height of their skill in the making and decorating of their beautiful wheelmade vases, the Cypriotes were still making their pottery by hand. It is Cretan colonists or refugees, who, in the end of the Late Minoan period, bring the knowledge of the potter's wheel to Cyprus.

The chronology of the art of this island is divided into an Early, Middle, and Late Bronze Age, corresponding very closely with the Early, Middle, and Late Minoan periods in Crete. In the last of these epochs (the Late Bronze Age), Cretan and Mycenaean influence comes in, and pottery of the Mycenaean type prevails. Then follows an Early Iron Age, divided into three periods; the transitional, or early period, lasting from 1200 to $1000 \mathrm{~B} . \mathrm{C}$. ; the geometric, or middle, from 1000 to $750 \mathrm{~B} . \mathrm{C} .:$ and the Graeco-Phoenician, or late, from 750 to 500 B . C. After these periods comes the Hellenic age, lasting to the reign of Alexander the Great; which is followed, as is to be expected, by the regular Hellenistic and Roman periods.
No. 1. Early Bronze Age pottery (3000-2000 B. C.). Five specimens, all but one of which are ladles of red ware, with high handles. The other is a jug of the same ware.
No. 2. Early Bronze Age pottery. Six specimens, principally ladles, but including a large bowl, and a cup with incised ornaments on the mouth.
No. 3. Four Early Bronze Age flasks of red ware, decorated with lines scratched on the surface, showing that the early inhabitants of Cyprus were familiar with gourds, and made vases in imitation of them.

No. 4. A large pot, with a cover, of the same ware. This is a piece of unusual shape, and is a fine specimen of this incised red ware.
No. 5. Two cups of the same ware.
No. 6. A small flat bottle of white painted ware, the commonest ware of the Middle Bronze Age (2000-1500 B. C.). The clay is cream colored, on which the design is painted in umber paint, of black or brown, which in this case, and in the cases of other specimens in this collection, has become brick red through over firing. The vases of this class are nearly all of small size.
No. 7. An amphora of the Middle Bronzc Age, of characteristic shape and technique. It is madc of a light clay which is completely covered with a black slip.
No. 8. A small ladle of white painted ware.
No. 9. A small jug of the same ware.
No. 10. Fragment of a four bodied flask, of the same ware; the four bodies were originally joined to one neck at the top.
No. 11. A small flask of the same ware, of a shape characteristic of this style of pottery, with a long, thin nock and spout.
No. 12. A bowl of white painted ware.
No. 13. Part of a very small alabastron of whitc painted ware, the design in this case being in brown.
No. 14. A small flask of the same ware.
No. 15. A bottle of the same ware with designs in black.
No. 16. A small pitcher of black slip ware, made in the Middle Bronze Age about the same period as the white painted pottery.
No. 17. A bowl of red clay, with a buff slip, decorated with linear and wavy designs in black, which has in places turned red from overfiring. It is hand made, and dates in the Middle Bronze Agc.
No. 18. A jug, of the incised red slip ware of the Middle Bronze Age, which was the logical development of such vascs as 3,4 , and 5 .
No. 19. A small bowl of white painted ware, of the Middle Bronze Age.
Nos. 20-23. Vases of white slip warc. This is the commonest pottery of the Late Bronze period in Cyprus (1500-1200 B. C.). It was popular not only in Cyprus itself, but was
exported to many other places, where examples of it have been found. It is hand made, the use of the wheel being still unknown. The vases are of grey or slatecolored clay, entirely covered with a thick, dead white slip. In shape and decoration they are intended to resemble vessels of leather, the black vertieal design being in imitation of the seams sewn to stitch two skins together. This ware is supposed to be late in the Late Bronze Age, about contemporaneous with the Third Late Minoan period in Crete.
No. 20. A round bowl of this ware, with a side handle.
No. 21. A jug with a wide neek. The neek, besides being wide, is rather long, and of slightly coneave form.
No. 22. A krater, or mixing bowl, in excellent preservation, with a fine side handle preserved.
No. 23. A round bowl, with side handle.
No. 24. Vase of a technique known as base ring ware, made in the Late Bronze Age. This pottery, like the white slip ware with which it is approximately contemporaneous, was exported from Cyprus to other places, notably Egypt. In Case 18 in the Egyptian Section of this Museum will be found examples of vases of this technique found in Egypt.
No. 25. Amphora of the transitional period between the Myeenaean age, and the geometric age (about 1200 to 1000 B. C.). The wavy lines on the body from handle to handle are typical of this epoch, when the Mycenacan and geometric ornamentations were fighting for the supremacy.
No. 26. A krater, or mixing bowl, with fully developed geometric decoration. The use of red adds to the effectiveness of the ornamentation of the vase. This is an example of the best pottery of the geometric period, $1000-750 \mathrm{~B}$. C.
No. 27. A pitcher of the fully developed geometric style, contemporaneous with the krater above described, and decorated with lines and concentric cireles.
No. 28. A small amplora of Cypriote geometric ware.
No. 29. A most interesting specimen of Cypriote geonetric ware, a socalled barrel jug, a shape peculiar to that island. It is not only peculiar to this locality, but extremely eommon, and may be said to be the characteristic shape of Cypriote pottery.

No. 30. A pitcher, with a type of decoration known as vertical circle ornament, and belonging in the Graeco-Phoenician period, $750-500 \mathrm{~B}$. C.
No. 31. A head of a man in stone. This represents the very beginning of sculpture in Cyprus, and belongs in the ninth or eighth conturies B. C.
No. 32. Another malc head of a somewhat later date, belonging possibly in seventh century $B$. C.
No. 33. Head of a youth, belonging in the sixth century B. C., and therefore the latest of the three.
No. 34. A pair of pitchers, in imitation of bucchero ware. The archæologist ordinarily thinks of bucchero in connection with the Etruscans, who brought the pottcry of this type to its highest stagc of perfection. But the Cypriotes also were familiar with this kind of pottery, and manufactured a red bucchero ware as wall as a black. They were made in the transitional period, $1200-1000 \mathrm{~B}$. C.
No. 35. A bowl, of similar ware, of the same period.
No. 36. A small wheelmade cup of umpainted white ware. As we have no knowledge of the other objects found with this vase, it is impossible to fix its date.
No. 37. Small kylix of Cypriote geometric warc (1000-750 B. C.), decorated with concentric circles.
No. 38. Pitcher of the Graeco-Phoenician period ( $750-500$ B. C.). Its decoration is of the plain bodied type common in that epoch of Cypriotc culturc.
No. 39. A group of vases, thirteen in number, mostly of the same period. Of thesc, ten are of the red painted ware so characteristic of the Gracco-Phoenician periock, while the other threc are small flasks and barrel jugs of white painted ware of the preceding period.
No. 40. Terracotta group of animals (a squirrel and her young), hand made, without the use of a mould, in the so called snow man technique, which will be described in studying the rest of the terracottas in Case VII. Figures of this sort are typical of the transitional and geometric periods of the Early Iron Agc, 1200-750 B. C.
No. 41. A bowl of the Early or Middle Bronze Age, of a very light clay, made in imitation of basketwork.

No. 42. A vase of red pottery, possibly a small brazier, for warming a room. This was probably made in the transitional, or geometrie period of the Early Iron Age.
No. 43. A pitcher of the Hellenie period (500-350 B. C.), showing the entrance of Greek influenee, and the degeneration of the native ceramic art.

## CYPRIOTE TERRACOTTAS AND BRONZE OBJECTS.

Case VII.
In this ease is exhibited a small eollection of minor objeets of the art of Cyprus, and of implements of daily use in the various periods of eulture in that island. These objeets embrace terraeotta figurines, spindle whorls, and ornaments; bronze knife blades, needles, and other implements; and a few fragments of silver ornaments.

The numbers between 44 and 69, both inelusive, are terraeotta figurines. This collection illustrates very well the archaie periods, from prehistoric times to about 750 B . C. There are also a few of later date, whieh bring the latest date to about 550 B . C.; but there are none whieh ean lay claim to be later than that. The eollection is espeeially rieh in the very earliest style, whieh belongs in the Early Bronze Age, contemporaneously with the vases Nos. 3, 4, and 5, in Case VI.

No. 44. Fragment of a statuette of a human figure, of red polished ware, roughly modeled as a flat slab of clay. It is decorated with ineisions to represent drapery, and holes punched into the elay, which is of a light eolor, and eovered with the polished red slip.
No. 45. A similar figurine of a woman. The former one in all probability is also of a woman, but there is nothing to indieate the sex. Here the breast is represented as bare, but above and below are ineisions similar to those in No. 44 , but eruder, probably to represent drapery. Some attempt is also made to portray the head.
No. 46. Crude figurine of a woman, of the same period. She is represented as nude. Part of the head is lost, but there remain the rough portrayal of the mouth, one ear, and part of the nose. Her hands rest on her body below the breasts,
and the navel is indicated by an indentation, just below which the figurine ends.
No. 47. Fragment of a figurine of red polished ware, of the same period (3000-2000 B. C.) with ineised decoration. The fragment is made of two pieces, which fit together. There is no indication of the sex, but it was probably female.
No. 48. Another figurine of the same red polished ware, moulded in the form of a slab. One arm is represented as extended.
No. 49. Fragment of a figurine of the same type.
Dussaud, Civilizations Préhelleniques, p. 367, Fig. 272, No. 1.
No. 50. Fragment of a similar figurine. The head is preserved, with the eyes indicated by two holes. The nose, nostrils, and mouth are also shown. At the sides are crude representations of ears. Around the neek is a necklace. The hands, as is usual with these figurines, rest on the body, below the breasts, and there are some incised designs above to indicate drapery.

Dussaud, Civilizations Préhelleniques, p. 367. Fig. 272, No. 2.
No. 51. Small fragment of a figurine, of the same period, with the hands on the body.
No. 52. Fragmentary statuette of a woman, of the snow man technique, so called on account of the crude method of execution. It is to be noticed, however, how much better modeled the head is than in the specimens already described. This statuette belongs early in the period between 1200 and 750 B . C., and is possibly of Aphrodite. It is said to have been found in the Sacred Grove of that gockdess, at Salamis in Cyprus.
No. 53. Figure of a camel, in solid red clay. This interesting specimen seems to belong in the Early Iron Age, and may be thought of as having been made under the influence of the snow man teehnique.
No. 54. Head, shoulders, and back of a ram, in soft stone. This interesting little picee of sculpture was probably made in the period between the eighth and sixth centuries B. C. The head and horns are rendered with great naturalism.
No. 55. This little shrine in pottery is one of the most remarkable, if not the most remarkable, object in the collection of
antiquities from Cyprus. It is said to have been found in a tomb of the geometric or Gracco-Phoenician period, at Amathus in Cyprus. It is of note from the resemblance which it bears to shrines found in deposits of the Sumerian period in Babylonia. A very famous example, found at Nippur, and now in the Babylonian Seetion of this Museum, bears very striking resemblances to this specimen. It is quite certain that this little shrine is not native to Cyprus, but is rather an importation from Phoenicia. The image within the shrine would, therefore, probably be that of the goddess of fertility, Astarte, who was often represented as a snake goddess, as in this case.
No. 56. Miniature figurine of a goddess. of the same period as No. 48, and closely resembling that object, but very much smaller.
No. 57. Head of a divinity, of base ring ware, the characteristic Late Bronze Age style of terracottas ( $1500-1200$ B. C.).
No. 58. A pottery spoon, of the Niddle Bronze Age (2000-1500 B. C.).

No. 59. Figurine of a bird, of the snow man technique, 1200-750 B. C. A very fine speeimen, with outstretehed wings.

No. 60. The lower part of a figurine of white painted ware, of the Middle Bronze Age (2000-1500 B. C.), showing merely the legs and feet.
No. 61. Figurine of a chariot of the snow man technique, of coarse pinkish elay, with red and black polyehrome decoration. The wheels are missing, and in front is a hole for the insertion of a pole. This fragment is typieal of Cypriote geometrie work in terraentta.
No. 62. A statuctte of a bird, in the snow man technique, hand modeled without the use of a mould. It appears to be a dove. The wings, which are elosed, are indicated by black lines.
No. 63. Fragmentary solid figurine of a bird, of incised red clay, of the Middle Bronze Age (2000-1500 B. C.).
No. 64. Head of an animal, of base ring ware. Late Bronze Age (1500-1200 B. C.).
No. 65. Statuette of a cow, in a style akin to the snow man teehnique. with designs in black. Cypriote geometrie period ( $1000-750$ B. C.).

No. 66. Head of a small stone statuctte of a woman, of the late sixth century B. C., found at a site called Bumo in Cyprus.
No. 67. Torso in relief of a woman, nude, with a diselike object in her right hand, which rests across her body, under the bosom. Around her neek is a neeklace. From the quality of the modeling, it seems to belong in the fifth century B. C. It was found at Salamis, in Cyprus.
No. 68. Head of Hathor, of pottery, of which traces of the original green glaze still exist. This object was an importation from Egypt, and is probably of the seventh century B. C.
No. 69. Fragment of a human foot, from the base of a statue of about two thirds life size. On the toes are rings. The excellent workmanship points to this being made in the fifth century B. C.

The numbers $70-77$, both inclusive, are devoted to a small collection of bronze and iron objects of various periods in Cypriote culture. As is well known, Cyprus is by nature very rich in copper and iron ore. The actual working of iron, however, does not begin until about 1000 B . C.. while the art of working copper came in with the knowledge of pottery. There seems to be no pure Stone Age period in Cyprus, although stone implements oceur.

The first metal objects are nearly all of pure copper, and it is interesting to note the gradual addition of tin to form bronze, and give hardness to the blades, in the ease of daggers, and to prevent bending in the case of needles. tweezers, and other such objeets.

No. 70. Fragment of a seraper, used by women to scrape paste, of the Early Bronze Age.
No. 71. Three fragments of bronze tweezers, of the same period. It seems probable that in this period men used these to remove superfluous hair, as Cyprus had no fine flint, as did Egypt, nor obsidian, to use for shaving.
No. 72. A seraper, of iron, of the Early Iron Age.
No. 7.3. A collection of blades of the earliest period. These are flat, or with a very slight midrib, and were fastened, either to a eleft stick, or to a hilt, by means of two or three rivets. The use of a tang comes later. Some of these blades are of pure copper; and, in nearly all, the alloy of tin is very slight, and merely in the experimental stage.

No. 74. Bronze dagger of a later period. The two pieces join together. Notice the pronounced midrib, and the curved tang which was inserted in the hilt. This is a fine specimen of the bronze work of the Middle Bronze Age.
No. 75. A fragment of a similar blade, of the same period.
No. 76. Spearheads of the Late Bronze Age. With the Mycenaean colonizaton of Cyprus, which comes in this period, came the introduction of the art of making perfect bronze with the full proportion of tin. In consequence, the art of making spearheads with a socket, as in the case of these specimens, is introduced.
No. 77. A flat celt, for an axe, of the Middle Bronze Age.
The numbers $78-84$, both inclusive, are given to a collection of beads and spindle whorls, principally of the earlier periods of Cypriote culture. Of these, those in clay antedate the ones of stone or other materials.

No. 78. A group of twenty five clay spindle whorls, of the Bronze Age, many of them with incised patterns. In general, it can be safely said that the red ones are the earlier, the black ones the later in this group.
No. 79. Five stone whorls of the Late Bronze Age. At this time pottery whorls disappear from use.
No. 80. A collection of seven beads or small spindle whorls of pottery, belonging in the Early or Middle Bronze Age periods.
No. 81. A group of similar large beads, or small spindle whorls, of soapstone or steatite, belonging in the Late Bronze Age.
No. 82. Two flat whorls of highly polished stone, belonging in the transitional period.
No. 83. A large glass bead, probably an importation from Egypt, of Graeco-Roman times.
No. 84. A green glaze bead, either an Egyptian importation, or a Cypriote imitation of Egyptian work. In any case, it belongs in what is known as the Cypro-Mycenaean period in the Late Bronze Age-that time when the colonists (or possibly refugees) from Crete began to arrive in Cyprus.
No. 85. Small cylindrical bead of the same form of pottery, with the surface worn off.

No. 86. Two pendant ornaments, one of pottery, one of polished stone, belonging to the Late Bronze Age.
No. 87. A very small whetstone, a curious specimen.
No. 88. Large whetstone of Bronze Age times, of a soft white stone, perforated at one end, to be hung by a string or thong.
No. 89. Stone celt for an axe head, of the Early Bronze Age.
In Nos. 90-97, both inelusive, is to be found another series of bronze objects, of all periods. Most of these implements are of the later epoehs of the culture of Cyprus; but there is a series of awls that seems to go into the Early Bronze Age times.

No. 90. A distaff, of bronze, dating in the Late Bronze Age. This is a very rare and unusual speeimen, from an arehæological point of view.
No. 91. The upper half of a bronze nail of the transitional period. The fine patint should be notieed, otherwise the specimen is common, as quantities of these nails are found in excavations in Cyprus.
No. 92. A spatula of bronze, of the Hełlenistic period.
No. 93. Another spatula, of somewhat different shape, of the same period, or a little later.
No. 94. A chisel, of the Early Bronze Age.
No. 95. Two needles, of the same period.
No. 96. Three awls, of the Early or Middle Bronze Ages.
No. 97. An iron nail, of the Early Iron Age.
No. 98. This is a very rare specimen. It is a seal, of elay, very few of which have been found in Cyprus. From the crudity of the design, it dates very early indeed, probably in the Early Bronze Age.
No. 99. A small bronze mirror, of the Hellenistie period in Cyprus. It is a small, heavy dise of east and turned bronze, with no tang or handle. It is uncceorated.
No. 100. Two fragments of a silver fibula, or brooeh, of the Early Iron Age.
No. 101. A highly polished stone hammer head, of the Early Bronze Age.
No. 102. Six bronze rings, or small bracelets.
No. 103. A large group of small bronze and silver ornaments of different kinds.
No. 104. A eolleetion of thirty one Roman weights, of varions sizes.

These weights are made with much care, and are carefully graded. Although we know them to be Roman, the exact date of their manufacture is uncertain. Some of them have inscriptions giving the weight represented, and on one is a Roman name. They form an interesting subject for study.

## GREEK VASES

## Cases VI, VII, IX-XIII, XV, XXXV.

These cases give a very complete and representative collection of Greek pottery. The earliest examples are of the geometric type, with decorations of a geometric nature on a buff ground. Of these the most interesting are the Attic dipylon vases, of which the Museum possesses one important example-No. 126, at present in the West Room, Case XXVI. Other geometric vases will be found in Case X. These vases were made in the eighth century B. C. Next in our series come the Corinthian vases, the manufacture of which began a century later, and which may be found in Cases X, XI, and VI. These are divided into two styles-the protoCorinthian and Corinthian. A few proto-Corinthian vases will be found in Case XI, while the most important Corinthian specimens are in Case VI. The difference between the proto-Corinthian and the Corinthian techniques is that the former are usually very small vases of egg shell clay, decorated either with painted linear designs, or with very delicate incised decoration; while in the latter class, the clay is coarser and heavier, the size of the vases is larger as a rule, and the decoration is usually composed of bands of animals, with a profusion of rosettes and other oriental ornaments, the details of which are brought out by a copious use of incised lines.

## GEOMETRIC AND CORINTHIAN VASES.

Case X.
No. 1A. A small pitcher, or oenochœ, with geometric decorations in red on a buff ground. Found at Tulci in Etruria.

Accession No. MSi01. Height, 6.1 cm .
No. 1B. A similar pitcher, from Attica, acquired by exchange with the National Nuseum in Athens. The designs are in black. Accession No. MS5286. Height, 9.4 cm .
No. 2. A bowl, with vertical looped handles. Geometric designs in red on a buff ground. Acquired by exchange with the National Museum in Athens.

Accession No. MS5290. Height, $14.3 \mathrm{~cm} . ;$ diameter, 15.7 cm .

No. 3. A toilet box, or pyxis, of geometric ware, found in Attica, but resembling the Bootian style of geometric vases. Acquired by exchangc with the National Museum in Athens.

Accession No. MS5288. Height, 7.5 cm .; diameter, 8.5 cm .

No. 133. A Corinthian pyxis, or toilet box, with a cover, decorated with a frieze of panthers, birds, and a siren, ranged on each side of a complicated ornament composed of lotus buds and palmettes. The provenance is unknown. Acquired 1918.

Accession No. MS5482. Height, $11.9 \mathrm{~cm} . ;$ diameter, 16.3 cm . E. F. R (ambo), Museum Journal, X, 1919, p. 14, Fig. 5.

No. 4. A pyxis of Attic gcometric ware, of the dipylon style. Provenance unknown. The pyxis has a cover with a large knob, or handle.

Accession No. MS411. Height, 14.3 cm. ; diameter, 16.4 cm .

No. 5. A small round aryballos, or oil jug, from Vulci, of Corinthian ware.

Accession No. MS700. Height, 6.7 cm ., diameter, 5.6 cm .

No. 6. A pyxis of proto-Corinthian ware, on three high feet, decorated with wavy lines, and checkerboard pattern in brown on a buff ground. The provenance is 1unknown.

Accession No. MS2732. Height, 17.5 cm .; diameter, 15.4 cm . Furtwängler, Sitzungsberichte der Akademie zu München, 1905, p. 255, No. 8.
No. 7. A small bowl of Corinthian ware, found at Vulci.
Accession No. MS707. Height, 3.6 cm .; diameter, 7.7 cm .

No. 8. A group of three proto-Corinthian lekythoi in the form of animals; one, a rabbit (Accession No. MS702; from Vulci), one, a ram (Accession No. MS3494; from Rhodes), and the third, a kneeling deer (Accession No. MS558; from Vulci).
No. 9. A group of three proto-Corinthian ringshaped vases, for oil or perfume, all from Vulci.

Accession Nos. MS559, MS560, and MS699. Diameters, 7,10 , and 6 cm . respectively.

PROTO-CORINTHIAN AND CORINTHIAN VASES.
Seventh and Sixth Centuries B. C.
Case XI.
No. 10. A group of three small proto-Corinthian lekythoi, which were used for holding oil.
A. A small lekythos with a decoration of brown lines on a creamcolored slip, said to have come from Athens. Accession No. MS393. Height, 7.1 cm .
B. A specimen of somewhat larger size, with heavy purple bands around the body, and linear designs. Found at Vulci in Etruria.
Accession No. MS703. Height, 10 cm .
C. Similar in shape and design to B, but slightly smaller, also from Vulci.
Accession No. MS704. Height, 9.7 cm .
No. 11. Two small flasks, or alabastra, of the same ware.
A. A very small specimen, with reddish bands on a creamcolored slip, and a central frieze of running animals. Found at Narce in Etruria.
Accession No. MS74t. Height, 9.4 cm .
B. A larger example, with a decoration of dots and horizontal stripes of brown and purple. Provenance not known. Accessicn No. MS5279. Height, 12.1 cm .
No. 12. A cup of Corinthian ware, on a high stem, decorated with bands of animals. Found at Orvicto, and put together from fragments.

Accession No. MS4837. Height, 14.8 cm .; diameter, 15.2 cm .
No. 12B. A small dish on three feet, of Corinthian ware, of unknown provenance, with decorations in red on a buff slip.

Accession No. MIS266. Height, 4.8 cm .; diameter, 10.1 cm .

No. 13. A Corinthian bowl, with a decoration of a band of swans around the shoulder. Provenance unknown.

Accession No. MS2759. Height, 6.3 cm .; diameter, 10.6 cm .

No. 14. A covered jar, found at Vulci in Etruria, of Italo-Corinthian ware, or ware made in Italy in imitation of the Corinthian
warc, in the sixth contury $\mathrm{B} . \mathrm{C}$. Decorated with bands of brown on the buff clay.

Accession No. MS646. Height, $14.7 \mathrm{~cm} . ;$ diameter, 15.8 cm .

No. 15. An alabastron, or oil flask, of Corinthian or Italo-Corinthian ware, with horizontal stripes of brown and purple, and a central frieze of rumning animals, similar to that on No. 11A. Provenance unknown.

Accession No. MS4803. Height, 17.3 cm .; diametcr, 6.9 cm .
No. 16. Another covered jar, like No. 14, of Italo-Corinthian ware, decorated with brown horizontal stripes on a cream colored slip. Found at Vulci in Etruria.

Accession No. MS645. Height, $15.4 \mathrm{~cm} . ;$ diameter, 15.7 cm .

No. 17A. A proto-Corinthian skyphos, or small drinking cup, found at Narce in Etruria, and decorated with linear and animal designs in red on a buff ground.

Accession No. MS1314. Height, 8.6 cm . : diameter, 10.4 cm .

No. 17B. A Corinthian skyphos, showing the difference between that technique and the proto-Corinthian. Found at Vulci, and decorated with a frieze of birds.

Accession No. MS620. Height, $6 \mathrm{~cm} . ;$ diameter, 12.1 cm .

No. 18. A large globular jug, of the type called an aryballos, of Corinthian ware, with a solid brown band on the body. Found at Vulci.

Accession No. MS709. Height, $13.6 \mathrm{~cm} . ;$ diameter, 12.3 cm .

No. 19. A Corinthian skyphos, said to have been found in Cyprus, decorated with a band of animals.

Accession No. MS295A. Height, 10.1 cm ; diameter, 16.1 cm .

# CORINTHIAN AND ITALO-CORINTHIAN VASES. 

Seventh and Sixth Centuries B. C.
Case VI.
Corinthian vases can be distinguished from their Italic imitations by the color of the clay, by the superiority in design, by the greater use of incised line drawing for details of the figures, and by the greater crowding of ornamentation, which is typical of the Corinthian pottery of the seventh century B. C. This is thought to show the influence in Corinth of her trade relations with Asia Minor, and this pottery, with animal decoration, rosettes, and all manner of filling ornaments, is often called orientalizing ware.

No. 21. A pair of Italo-Corinthian jugs, or olpæ, with identical decoration of brown and purple bands, a tongue pattern on the shoulder, and a crude incised decoration called a scale pattern. Found at Vulci in Etruria.

Accession Nos. MS647 and MS648. Heights, 21.6 and 20.3 cm . respectively.
No. 22. A pair of Italo-Corinthian alabastra, or flasks, from Vulci in Etruria, with identical decorations of two friezes, one of animals, and one of birds. This decoration, in imitation of the Corinthian vases, shows less oriental influence, and a noticeable lack of incised line drawing.

Accession Nos. MS710 and MS711. Heights, 24.7 and 24.5 cm . respectively.
No. 23. A pitcher, or oenochœ, of Corinthian ware, from Vulci. On the shoulder is a carefully incised scale pattern, and below the neck is an equally careful tongue pattern. Around the body an orientalizing band of animals was drawn, but this is much worn away.

Accession No. MS642. Height, 25.5 cm .
No. 24. A pair of Italo-Corinthian skyphoi, or cups, decorated with bands of swans, very carelessly drawn.

Accession Nos. MS639 and MS640. Heights, 8.6 and 8.2 cm . respectively; diameters, 15.3 and 14.2 cm . respectively:
No. 25. An olpe of characteristic Corinthian ware. Notice the oriental influence shown in the sphinxes and other animals that are drawn in a band around the body. The
oriental influence is also shown in the wealth of decoration in the form of rosettcs of various sizes, crowded into every available space, with a typical horror vacui. The presence of incised lines for accentuating details is also characteristic, and, last of all, the clay is of the color usual in the true Corinthian vases.

Accession No. MS2523. Hcight, 31 cm . Formcrly in the Coleman collection; said to come from one of the Grcek Islands.
No. 26 A pair of Italo-Corinthian olpae, of identical shape and decoration, undoubtedly made by the same hand, on the same day. The glazc and designs, which should have been in black, have turned red from overfiring. The decoration takes the form of bands of palmettes and lotuses, incised. Found at $V$ rulci in Etruria.

Accession Nos. MS6t3 and MS6tt. Heights, 30 and 28.2 cm . respectively.

No. 27. A pair of Italo-Corinthian skyphoi, similar in shape and design to No. 24. Very poor execution. Found at Vulci.

Accossion Nos. MS556 and MS557. Heights, 8.7 and 8.9 cm . respectively; diameters, 14.6 and 14.5 cm .
No. 28. An Italo-Corinthian olpe. This vase is made in direct imitation of the Corinthian style, as shown on such vases as 25 , or 29,30 or 31 , described below. The imitation can be distinguished from the true Corinthian ware by the color of the clay, which is somewhat darkcr, and which, moreover, is dull, not lustrous, as with the Greek vases, and by the lack of incised linc drawing, in which the true Corinthian technique is rich. This decoration is in four friezes of animals, lions, swans and deer being on all of the friezes. Found at Vulci.

Accession No. MS551. Hcight, 39.8 cm .
No. 29. A pair of alabastra of truc Corinthian ware, from Vulci, mended from fragments. They are decoratcd with three friezes of human figures, facing the right, with the entire ground filled with rosettes and other ornaments. They have been cxhibited next to No. 28 to accentuate the difference between the true Corinthian and the contem-
porary Italic imitation. The design is the same on both vases.

Accession Nos. MS55t and MS555. Hcights. 28.4 and 27.8 cm . respectively.
No. 30. A Corinthian amphora, found at Vulci, decorated with a design of roscttes in white on the neck, which is covered with a brown wash. On the shoulder are panels, the same on either sidc, showing five figures, two seated and three standing, with the usual rosettes and filling ornaments in the background. On the body are two continuous friezes; the upper is of human figures, all marching to left, while the lower is the usual band of orientalizing animals. At the bottom arc rays. The amphora has, unfortunately, been somewhat overfircd; but it is, in spite of that dcfect, the most important vase in the case.

Accession No. MS552. Height, $40.5 \mathrm{~cm} . ;$ diameter. 32 cm . Furtwängler, Sitzungsberichte der Akadcmie zu München, 1905, p. 255, No. 9.
No. 31. A pair of huge Corinthian pitchers, or œnochoæ. These, also, are of the true Corinthian ware, and are identical in design. One of them has been much worn. Each has a decoration of three friezes of animals: sphinxes, panthers, lions, swans, and grazing deer being the oncs found in the different friezes. They were found at Vulci.

Accession Nos. MS547 and 548. Heights, 43 and 39 cm . respectively.
No. 31C. A similar pitcher, of uncertain provenance, with a similar design of friezes of animals and rosettes, lent to the Muscum by Mrs. John Kcarslcy Mitchcll.

Accession No. Loan G1. Height, 42.7 cm . S. B. L(uce), Museum Journal. VIII, 1917. pp. 188-89, Fig. 72. A. J. A., XXII. 1918, p. 83.

No. 32. An Italo-Corinthian alabastron, with a design of two lions facing each other, covering the whole body of the vase. This is crudcly treated, in comparison with the Greck design that it secks to imitatc.

Accession No. M1S2990. Height, 18.3 cm . Provenance uncertain.
No. 3.3. An Italo-Corinthian alabastron from Vulci, of clongated shape, decorated with threc of the usual bands of animals.

The color of the clay approaches that of the true Corinthian vases, and the imitation is very successful.

Accession No. MS712. Height, 36.2 cm .
No. 34. An Etrusco-Corinthian olpe, made by an Etruscan potter in imitation of the Corinthian ware. It is decorated with a frieze of warriors around the body, painted in the Etruscan manner, and an incised tongue pattern below the neck. Another indication of the Etruscan origin of this vase is given in the color of the clay, which has a slight reddish tinge, not seen in either Corinthian or Italo-Corinthian pottery. Found at Vulci in Etruria.

Accession No. MS714. Height, 25.2 cm . Furtwängler. Sitzungsberichte der Akademic $2 u 1$ München, 1905, p. 256 , No. 10.

No. 35. A group of three olpe of Italo-Corinthian manufacture, imitating merely the shape of the Corinthian vases, and not the orientalizing style of decoration.
A. In this vase the design is of rosettes and a tongue pattern in white overcolor on a brown wash, with three stripes left in the color of the clay around the body. The handle ends in medallions decorated with a cross. At the bottom of the vase, rays in brown on the uncolored clay. No incision is used. From Vulci. Accession No. MS71.3. Height, 28.4 cm .
B. This vase, also from Vulci, is completely covered with a black wash except for the bottom, which is left in the color of the clay and is decorated with rays. On the shoulder is a carefully incised tongue pattern in red and black. The medallions at the end of the handle are decorated with rosettes, and there is a rosette on the inside of the lip where the handle joins. Around the body are three red and buff stripes.
Accession No. MS715. Height, 27.7 cm .
C. This vase, of uncertain provenance, is covered with a thin wash, which, from overfiring, has taken on a brown color. On the shoulder is a crudely incised scale pattern, the rows being alternately in red, and in the color of the vase. On the neck, and on the medallions at the ends of the handle, are rosettes. Around the body rums a series of narrow red stripes.

On the foot are rays in brown, on a background of the color of the clay.
Accession No. MS5316. Height, 26.3 cm .
No. 36. Two Italo-Corinthian olpæ, of identical design, decorated with the usual bands of animals. One of these specimens is much worn. They closely resemble No. 28, and are probably by the same hand. The color of the clay, and the lack of incised line drawing are the chief differences between these vases and the true Corinthian ware. Found at Vulci.

Accession Nos. MS549 and MS550. Heights, 37.9 and 40 cm . respectively.
No. 37. A pair of pitchers, decorated with scale patterns, grouped together to show the difference between the careful work of an earlier period, and the later decadent careless work. A. In this vase the scale pattern on the shoulder is carefully incised and the scales colored alternately red and black. Above them, on the shoulder, is a tongue pattern equally carefully rendered. Below the scales are heavy bands of red and black, and rays. This vase, though probably of Italo-Corinthian manufacture, is almost good enough to be of the true Corinthian ware. Its provenance is uncertain. Sixth century B. C.
Accession No. MS3427. Height, 24.6 cm .
B. This vase has been grouped with the one preceding to show the decadence of a later period. Here the scales are much larger, and very crudely incised. The other decoration took the form of heavy red stripes around the body, but this has for the most part worn off. Found at Vulci. Late sixth century B. C. Accession No. MS641. Height, 25.9 cm .
No. 38. A large Corinthian alabastron, of the true Corinthian ware, dating in the seventh century or early sixth century B . C., and decorated with three friezes. The upper frieze has in the centre a gorgoneion, with a sphinx facing it on either side; at the back, between them, is a lion. The middle frieze has in the centre of the front two horsemen facing each other, with a small tripod between them; behind them, and following them, are a pair of panthers;
while at the back is a dancing man, bearded, facing left. The bottom friezc consists of an eagle, two lions and a grazing deer. This vase was found at Vulci in Etruria, and is one of the finest Corinthian vases in the collcction.

Accession No. MS553. Height, 35.5 cm .

## GREEK VASES FROM CHALCIS, IONIA, AND ATTICA.

 Sixth and Fifth Centuries B. C.Case Vili.
The vases in this case are of different techniques and pcriods; the description of the Attic development will be given more fully in connection with Cases XII, XIII, and XV.

No. 39. A Chalcidian amphora. In the early sixth century B. C., Chalcis, the principal city on the island of Eubœea, was the leading rival of Athens in the field of pottery, and was, therefore, one of the ceramic centres of Greece. The vases from this place show a considerable amount of oriental and Corinthian influence in the choice of subjects, and form a link betwcen the Corinthian and Attic vases.

This vase has on the obverse, on the shoulder, two grazing rams and a swan, while the reverse has two grazing goats and an owl. On the body of the vase, the obverse has a design of two lions attacking a deer, while the reverse has two sphinxes facing a palmette-lotus decoration. This vase is said to have been found on one of the Greek Islands.

Accession No. MiS398. Hcight, 29 cm . Furtwängler, Sitzungsberichte der Akademic zu München, 1905, p. 256, No. 11. E.H.H(all), Museum Journal, V, 1914, pp. 226-229, Figs. 114, 115.
No. 45. An Attic blackfigured panel amphora. The vase is completely covered with a lustrous black glaze, with the exception of a pancl left in the color of the clay on either side, on which the design is drawn in black silhouetted figures. On the neck is a design of palmettes. On the obverse are two boxers, nude, with their trainer at the left and a third, nude athlete at the right: on the reverse is a discus thrower, and a man with two javelins,
with their trainer. In each painting the trainer wears a long mantle, or himation, and carries a staff. This vase is also said to come from one of the Greek Islands.

Accession No. MS403. Height, 29.2 cm . S.B.L(uce), Museum Journal, VI, 1915, pp. 169-172, Figs. 89, 90. Luce, A. J. A., XX, 1916, p. 440, Fig. 4, and p. 457, No. 13, and 487.
No. 41. A socalled Tyrrhenian amphora, said to have been found in one of the Greek Islands. It is not known where vases of this class were made. They are sometimes called Attico-Corinthian and sometimes Attic Ionic, but neither of these names is absolutely satisfactory. Many people have studied them, but no one has as yet shown conclusively whence they originally came. It is generally believed nowadays by students of Greek vases that they are probably of Ionian manufacture, but this cannot be conclusively proven.

The subjects represented in the principal decoration of this vase are, on the obverse. Achilles lying in ambush for Troilos, and, on the reverse, two discus throwers. In the obverse design, Achilles, completely armed, stands at the left, facing the right, behind the fountain, which is represented by a column and a basin. Polyxena is drawing water at the fountain; she holds a large hydria in her hands. Behind her, and facing the fountain, are Troilos, mounted on horseback, and two warriors on foot, equipped with helmets, round shields, and greaves. On the reverse, the two discus throwers are in fantastic attitudes; at left and right are humanheaded birds. Underneath these principal designs are two friezes of animals, with sphinxes and sirens in the upper frieze.

Accession No. MS2522. Height, 38.7 cm . Furtwängler, Sitzungsberichte der Akademie zu München, 1905, p. 256, No. 14. Bates, A. J. A., XI, 1907, p. 57, and pp. 429-440. Robinson, A. J. A., XII, 1908, pp. 433-435.
No. 127. An Attic blackfigured amphora. Here the whole body is left in the color of the clay, not merely a panel on each side. The obverse shows Herakles fighting two Amazons. He attacks them with his sword in his right hand, and grasps one of them by the crest of her helmet with his left.
foreing her to the ground; on the right, the second Amazon comes to her comrade's reseuc. On the reverse, two Greeks attaek and subdue an Amazon, whom they are on the point of slaying. This amphora is of the early blaekfigured style, and was probably made in the neighborhood of 530 B . C. Its provenance is not known.

Aecession No. MS5467. Height, 40 cm . Formerly in the Borelli Bey Collection; sale catalogue, No. 221. S. B. L(uce), Museum Journal, VIII, 1917. pp. 145-147, and Figs. 52, 53. A. J. A., XXII, 1918, p. 210, No. 1.
No. 129. An Attic redfigured amphora, with twisted handles. This beautiful vase is said to have been found at Capua, and was made about 450 B . C., at the beginning of the free or fine style of the redfigured technique. Here the reverse process is employed from that on Nos. 45 and 127, the whole vase being covered with the black glaze, and only the figures left in the color of the clay. On one side are Apollo and Artemis, on either side of an altar; on the other Dionysos and a mænad. On the neek, and under the handles, are beautiful palmette decorations.

Accession No. MS5466. Height, 47.7 cm . Le Musée, Vol. III, p. 432, and Pl. 63, 1. S. B. L(uee), Museum Journal, VIII, 1917, pp. 25-27, Figs. 5 and 6. A. J. A., XXI, 1917, p. 353, No. 5. Beazley, Attic Red Figured Yases in America, p. 145, No. 20 (attributes to his Altamura painter). Hoppin, Handbook of Red Figured Vases, Vol. I, p. 25, No. 26.
No. 119. A blackfigured amphora, similar to No. 127, found at Corneto-Tarquinia. The lid is preserved and rests on the vase. The obverse side shows Herakles in battle with two Amazons, whose sex is distinguished, as always, by the use of white overcolor for the nude parts of the body. Herakles has conquered one, whom he grasps by the erest of her helmet, and whom he is on the point of slaying with his sword; while from the right, the second Amazon, dressed in Phrygian style, with pointed eap and erescentshaped shield, advances, thrusting at the hero with her spear. On the reverse are two Amazons on horseback, moving to the right. The leader is in Phrygian costume,
the other in Greek armor. With them are two dogs. This is one of the best vases in the collection, and dates at about 525 B. C.

Accession No. MS1752. Height, 46 cm . Furtwängler, Sitzungsberichte der Akademie zu München, 1905, p. 256, No. 15. S. B. L(uce), Museum Journal, VIII, 1917, pp. 147-150, Figs. 54, 55. A. J. A., XXII, 1918, p. 210, No. 2.
No. 130. An Attic redfigured Nolan amphora, so called because most of the amphore of this shape have been found at Nola in Campania It is of about the same period as the vase numbered 129. On the front side is Apollo, with his lyre in one hand, and a shallow bowl, or patera, in the other, standing in front of an altar. On the reverse is a woman (a priestess?) with an oenochœ or pitcher.

Accession No. MS5465. Height, 34.2 cm. S. B. L(uce), Museum Journal, VIII, 1917, pp. 27-28, Fig. 7. A. J. A., XXI, 1917, p. 353, No. 6.

No. 43. An amphora of a type practically unique among vases. It is closely allied to the class called Caeretan hydriæ or water jars, so called because all the vases of this class, so far as their provenance is known, were found at the site of the ancient city of Caere (the modern Cervetri) in Etruria. All of them are water jars with two side handles, and one connecting the mouth with the body. For examples of the hydria shape, see Nos. 106 and 117 in Case XII. This vase that we are discussing, however, is an amphora, or jar for holding wine. In spite of their Etruscan provenance, the Cacretan hydrix are not Etruscan vases, but are either importations from Ionia, or, if made in Etruria, are the work of Ionian potters. That this is true is proven by the existence of a class of Etruscan vases made in imitation of them. This amphora, which seems to be of the Caeretan technique, is said to have been found in one of the Greek Islands, either Chios or Samos; and, if this be the case, it may be said to prove the Ionian origin of the Cacretan hydrix.

This vase has a shoulder decoration of alternate black and white rays while on the body there is a series of black
horizontal stripes. On the foot is a tongue pattern, alternate red and black and white and black.

Accession No. MS405. Height, 29 cm . Furtwängler, Sitzungsberichte der Akadcmic zu München, 1905. p. 255, No. 12. Bates, Transactions of Dept. of Archaeology, University of Pennsylvania, Vol. II, Part II, 1907, pp. 155-157, and Pl. XI. A. J. A., XI, 1907, p. 57; XIII, 1909, p. 209.
No. 42. A little amphora of Ionian manufacture, said to have been found on one of the Greck Islands. The designs are in panels on the body, while on the neck is a continuous frieze of lotus buds. On one panel is a lion, on the reverse, a deer. Several vases are known by the hand that produced this amphora, the most famous being the Phineus kylix in the Antiquarium at Würzburg. The place where these vases were made was possibly the Island of Naxos.

Accession No. MSt01. Height, 24.4 cm . E. H. H(all), Museum Journal, V. 1914, pp. 218-222, Figs. 109, 110. A. J. A., XIX, 1915, p. 77.

## FRAGMENTS OF GREEK AND ROMAN POTTERY.

## Case IX.

No. 47. Thirty-three fragments of small Attic blackfigured drinking cups (skyphoi) and ladles (kyathoi); these are for the most part appropriately painted with Bacchic scenes, although there are sometimes scenes of warriors in combat, or labors of Herakles. All were found at Orvieto.

Accession No. MS4863. Two of these fragments are published by S. B. L(ucc), Muscum Journal, VIII, 1917, p. 15.), and Figs. 56 and 57 ; and one by E. F. R (ambo), ibid., X, 1919, p. 13, Fig. 4. See also A. J. A., XXII, 1918, p. 210, Nos. 3 and 4.

No. 48. Fragments of an early Attic blackfigured hydria, or water jar. The principal scene shows a warrior mounting his war chariot. From Orvieto.

Accession No. Mis4862.
No. 50. A fragment of a blackfigured amphora, showing two satyrs, or silens, under a grape vine eating the clusters. This is a
rather unusual subject among the representations of Bacchic scenes, and deserves to be looked at with care, not only on that account, but because it is a good example of the best period in the black figured technique. Found at Orvieto.

Accession No. MS4861. E. H. H(all), Museum Journal, IV, 1913, p. 161, and Fig. 138.
No. 51. Fragments of an Ionian kylix, or drinking cup, of paler clay than the pottery of Attica. The large prophylactic eyes were put on to avert the evil eye from its owner, just as today the fishermen of Sicily paint eyes on the bows of their boats for the same reason. Between the eyes is a very conventionalized nose. This vase was made by Ionians, probably in one of the Greek Islands, in the sixth century B. C. Later, vases of this kind, with eyes, were made in Attica, and became the principal type of Attic blackfigured kylix. Found at Orvieto.

Accession No. MS4864.
No. 52. Seven fragments of what are known as Kleinmeister kylikes, or kylikes of the minor artist type. These were made in Athens in the period of the blackfigured technique, and consist of a band of the color of the clay between two of black, with a decoration of a continuous frieze of small figures; or else, the entire vase is left in the color of the clay, and a very small design of figures or animals is drawn on the centre of each side. The principal artist to sign vases of this kind is the potter Tleson, who seems to have lived and flourished in the neighborhood of 510 B. C. All of these vases in this case came from Orvieto. Accession Nos. MS3433, MS4858, MS5446.
No. 53. Four fragments from an Attic blackfigured amphora, one of them showing a horse, two others a warrior with helmet, round shield and spear, and the fourth an archer, in oriental costume, wearing the trousers characteristic of the Persians. It is believed by many scholars that the pictures of such archers on vasepaintings are of Scythian mercenaries in the Athenian army; but the vase is of too early a period for this to be possible, as no soldiers of this type were employed by the Greeks when this vase was painted. It may be either that Greek bowmen adopted
the Scythian costume, which sccms most unlikely; or that here we have a representation of a Persian. Found at Orvieto.

Accession No. MS4873. E. H. H(all), Muscum Journal, IV, 1913, pp. 159, 160, Fig. 136.
No. 54. A small vase, commonly called an amphoriskos, probably of Ionian manufacture, in good preservation. The body is decorated with horizontal bands. As large quantities of vases of this kind have been found in the American excavations at Sardes, it is suspected that this shape may be peculiar to that placc. Thesc vascs seem to belong in the sixth century B. C. The provenance of this specimen is not known, but it comes from some sitc in Italy.

Accession No. MS3980.
No. 55. The fragments included under this number were found at Orvieto, and arc of a kylix, or drinking cup, of the Attic redfigured technique, dating about +80 B . C. In the inside picture, a nude youth is represented, with a large krater, or mixing bowl for wine, on the ground beside him. The outside shows a scene of banqucters.

Accession No. MS4871. Beazley; J. H. S., XXXIX, 1919, p. 87, and Pl. II, 2 (attributed to his Colmar paintcr). See also Bcazley, Attic Rcd Figured Vases in America, pp. 81-82, No. 11, and Hoppin, Handbook of Red Figured Vases, Vol. I, p. 199, No. 13.
No. 56. A group of eleven potsherds that differ radically from the others in the case. They are covcred with a lustrous red glaze, and are ornamented with designs in relief. They were not turned on the wheel, but werc made in moulds. These fragments date from Roman times and arc of the Arretine ware, wheh is named for the place of its manufacturc, the city of Arretium, the modern Arezzo. This ware was manufactured from the first century B. C., through the first contury A. D., and even later.

Accession No. MiS4877.
No. 131. A redfigured pyxis, or toilet box, of the latest Athenian style, belonging in the fourth century B. C. On the cover is the marriage of Herakles and Hcbe, in the presence of Zeus, Athena, Hera, and Hestia, the goddess of the hearth, who welcomes them to their home among the gods.

Behind the bridal pair are two bridesmaids, while threc love gods, or Erotes, appear at different parts of the vasc. In the centre of the cover is a bronze ring. On the side of the pyxis is a pattern of myrtle leaves and berries. Originally, gilding was employed, and the vase was much richer in color than it is now. White is employed for the flesh and garments of Hebe, the flesh of the Erotes, and the upper garment of Athena; while an incense burner beside the throne of Zeus is also white. On the white draperies of Athena and Hebe, details arc picked out in yellow, purple, and brown. This vase is very well known, and was one of the principal ornaments in a celebrated collection of vases in England, known as the Forman Collection. From that collection it passed into the collection of Mr. J. E. Taylor in England, who exhibited it at the Burlington Fine Arts Club in 1904. The Museum acquired it in 1916. Accession No. MS5462. Diameter, 21 cm . Forman Sale Catalogue, No. 364 , and platc facing p. 76. Catalogue of Exhibition of Burlington Fine Arts Club, 1904, pl. XLVI, and pp. 118-119, No. 74. S. B. L(uce), Museum Journal, VII, 1916, pp. 269-276, Figs. 204, 205, and VIII, 1917, p. 153. A. J. A., XXI, 1917. p. 352, No. 1, and p. 455, Fig. 1; XXII, 1918, p. 210, No. 12.
No. 139. An Attic redfigured kylix, of uncertain provenance (probably Orvieto), and put together from fragments. The subject of the outside, which is the only part with designs preserved, is of women engaged in various domestic pursuits. It belongs to the period between 465 and +50 B. C., and is a work of a painter usually called the Penthesilea master.

Accession No. MS5670. S. B. L(uce), Muscum Journal, MI, 1920, pp. 63-66, No. 6, and Fig. 41.

ATTIC BLACKFIGURED VASES, VI CENTURY B. C. Case NII.

In the field of pottery, as well as in all other fields where a scnse of beauty is of the first importance. Athens carly became the dominant figure of Crecec. The great masters of the Creek ceramic art were either Athenians, or came there from other places because
at Athens was to be found the centre of all artistic production. The great age of Greek vases is that of the supremacy of the Attic pottery, and begins at the time of the Peisistratid tyranny, or about 560 B. C., although the earlier blackfigured vases may antedate this.

Attic vases may be divided into two styles-the blackfigured and the redfigured. All the vases in this ease belong to the former style. The figures are painted in black silhouctte on a background of the color of the elay. Details are rendered by ineised lines, and white, purple, and other colors are employed. Often all of the vase is covered with a lustrous black glaze or varnish, exeept for a panel left in the color of the clay, in which the design is painted. Often the entire vase is left in the color of the clay, the panel decoration not being employed.

The Attic blackfigured style lasted down to the end of the sixth century B. C., and perhaps into the fifth. For many years it divided the honors with the later redfigured technique, but finally subsided. The principal potters and painters working in this technique are Exekias, Amasis and Nikosthenes.

The vases are described beginning with the vase at the left on the top shelf, and going from left to right on that and the lower shelves.

No. 60. A fragment of a blackfigured amphora, found at Orvieto, and put together from fragments. It is painted with a Dionysiac scene, and was probably used to hold a rare and precious wine. Here we have three satyrs, one of whom is walking, and leading a mule on which the other two are riding. All are represented as extremely drunk,an eminently proper state in which to portray the attendants of Dionysos. To this vase belongs the fragment No. 50 , in Case IX.

Accession No. MS4861. E. H. H(all), Nuseum Journal, IV, 1913, p. 161 and Fig. 1.39.
No. 78. A very small and early blackfigured lekythos, painted in Attica under Chaleidian influence. The design shows two draped men, a horseman, a winged male figure, and a running man, who seems to be attacking the rider. Behind the rider is a flying bird. Found at ()rvicto and put logether from fragments.

Aecession No. MS4849.

No. 77. Fragmentary Attic blackfigured lekythos, or oil jar, of large size for a vase of this kind. It was found at Orvieto, and put together from many small pieces; but much is missing. On the body is portrayed a chariot drawn by four horses, going to right; the driver has his shield strapped to his back. Beside the chariot stands an old man, draped in a long himation, facing the driver.

Accession No. MS4839. Hcight, 20.6 cm . E. H. H(all), Museum Journal, IV, 1913, p. 155, No. 9.
No. IIt. A blackfigured amphora, found at Orvieto and put together from fragments. Much is missing, including both handles. On the obverse, three goddesscs, one of them Athena, are led towards the right by Hermes. At the right is a man, facing them. This is the early form of rendering the scene of the Judgment of Paris, and is the method regularly found on the black-figured vases that show the subject. It is called the procession type. The reverse side, much of which is lost, seems to have had the departure of a warrior.

Accession No. MS4840. Height, 29.3 cm . E. H. H(all), Museum Journal, IV, 1913, pp. 153-155, No. 6, and Fig. 132. (The subject is there wrongly interpreted.)
No. 46. An Attic blackfigured panel amphora, with a design on one side of Athena brandishing her spear, and facing a tripod, with a draped male figure on either side of her. The reverse shows a group of three nude dancers. Found at Orvieto.

Accessicn No. MS2489. Height, 33.3 cm .
No. 58. An early panel amphora, with black figures. This vase is probably not Attic, but may be either Chalcidian, or an Italic imitation of the Attic ware. It is said to have been found in one of the Greek Islands, but this information is suspected. On the obverse is a group of four draped men and a warrior; on the reverse two men, and a warrior brandishing his spear.

Accession No. MSt02. Height. 32 cm.
No. 109. A blackfigured panel amphora, found at Orvieto, and put together from fragments. On the obverse, a lyre player is performing on his instrument before two seated figures; on the reverse side, the same figure is shown alone.

Aecession No. MS $48+1$. Height, 29.3 cm . E. H. H(al1), Museum Journal, IV, 1913, p. 152, No. 4, and Figs. 130a and 130b.
No. 62. An Attie blackfigured krater, or mixing bowl. The aneient Greeks never drank their wine straight, but always diluted it with water, and so at banquets the wine was mixed in one of these bowls before being served to the guests. This bowl is of the shape ealled a columnar handled krater, or kelebe, from the form of the handles, whieh are vertieal, and rise in a straight line from the shoulder to the overhanging lip. The vase belongs at about 535 B . C. The seene represents Herakles in his famous eneounter with the Nemean Lion, the first of his labors. He is here shown wrestling with the lion standing. In the later vases he is always shown bending over the ferocious monster. Watching the contest are, on the left, Iolaos, the hero's nephew, and faithful squire and eompanion, and, on the right, the goddess Athena, who is the patroness of Herakles. On the reverse are four fully armed warriors. Said to have been found in one of the Greek Islands.

Aecession No. MSt0t. Height, 22.9 em. S. B. L(uee), Museum Journal, V'III, 1917, p. 155, No. 2, and p. 152, Fig. 60. A. J. A., XXII, 1918, p. 210 , No. 7.

No. 136. An Attie blaekfigured skyphos of the late sixth eentury B. C. Around the body runs a representation of the eontest of Herakles and Nereus, the old man of the sea. On one side, Herakles has caught the god, while two of his daughters, the sea nymphs or Nereids, rush off in terror; on the other side, Athena, Iolaos and Hermes stand watehing the eombat. Under one handle is a large ram, the attribute of Hermes. Aequired in 1918. Provenance mknown.

Aeeession No. MS5 881 . Height, 19.4 em.; diameter, 23.2 em. E. F. R (ambo), Mluscum Journal, X, 1919 , pp. 15-19, Figs. 6 and 7. A. J. A., XXIV, 1920, p. 104.
No. 69. An Attie blaekfigured oenoehœ, or pitcher, from Orvieto, deeorated with two manads, daneing away from each other. It belongs to the period of about 525 B . C.

Aecession No. MS2492. Height, 22.4 cm .

No. 61. A fragmentary blackfigured amphora of a very interesting type, usually called the affected style. These affected vases, which are all amphorec, were first studied carefully by Karo (J. H. S. XIX, 1899, pp. 147-160), who thinks that all of them come from the same atelier, if they are not by the same hand. This specimen was found at Orvieto, and put together from fragments; and all of the previously known "affected" vases have also been found in Italy. Walters, in discussing these vases (Hist. Ancient Pottery, I, pp. 387-388, pl. XXIX. 2), says that they show excellence of technique and careful workmanship, but are "lifeless and monstrous almost to grotesqueness," and that their style is "peculiar and mannered."

Of this specimen, only parts of the neck and shoulder remain. They show a design of draped figures and horsemen, with small horsemen filling the small space under the handles. It belongs near the middle of the sixth century, B. C.

Accession No. MS4852. E. H. H (al1), Muscum Journal, IV, 1913, p. 155, No. 7.
No. 71. A blackfigured jug, or olpe, decorated with three dancing warriors in armor and two draped men. On the base is the meaningless graffto $\langle V \otimes V$ XADILH.

Accession No. MSt800. Height, 22 cm .
No. 117. A blackfigured hydria, or water jar, found at Chiusi, and mended. The designs, as is the custom on vases of this shape, are in panels on the shoulder and body. On the shoulder is represented the combat of Herakles with the Nemean Lion; the hero bends forward and presses against the animal, who strikes at his head with his left hind paw. Above Herakles hang his cloak and quiver. At the left is Athena; at the right, Iolaos; both are seated.

The principal painting, on the body, is of girls drawing water at a fountain. The fountain which is at the right, is like those in Modern Greece, being a wall with a spout, out of which the water runs. Here the spout is in the form of a lion's head. (For the significance of the lion's head as a waterspout see Eleanor F. Rambo, Lions in Greek Art, Bryn Mawr Ph.D. thesis, pp. 29, 30.) On the top of the spring is a crow, while conventionalized
branehes in the field suggest that it was situated in a grove. The maidens are three in number. At the right, one is about to fill her jar; she is on the point of putting it under the water spout. The girl in the centre has filled hers, has put it upright upon her head, and is going home with the day's supply. At the left, another girl approaches, who is also carrying her pitcher on her head, but sidewise, showing that it is empty. Between these two maidens flies a bird (mostly lost). This vase can surely be put at the latter half of the blaekfigured period, in the neighborhood of 500 B . C., and reealls the style of the transitional artist Pamphaios, who painted both blackfigured and redfigured vases.

Accession No. MS2463. Height, $46 \mathrm{~cm} . ~ S . B$. L(uce), Muscum Journal, VIII, 1917, p. 153, No. 61, and p. 155, No. 3. A. J. A., XXII, 1918, p. 210, No. S.

No. 116. A blackfigured panel amphora, found at Chiusi. On the obverse side are four satyrs, three of whom carry nymphs or mænads on their shoulders. The fourth, at the right, is swinging a mænad into place, and holds her in his arms. On the reverse, Dionysos stands in the centre, facing to the right. Opposite him are Athena and Hermes; at the left, behind him, a manad and a satyr. The lid of this amphora has been preserved and rests on its mouth. The vase has been somewhat restored. It belongs in the latter half of the sixth eentury B. C.

Aceession No. MS2462. Height, 48.7 cm .
No. 106. A blackfigured hydria, or water jar, found at Orvicto, and put together from fragments. The neek, lip, back handle, one side handle, baek of the shoulder, foot, and a large part of the body are restored. On the shoulder panel is a design of two warriors playing pessi, or dice, in the presence of Athena. Behind them the warriors have stacked their helmets and shelds. The main decoration, on the body, shows Athena mounting her chariot, which faces right. With her is a bearded man. holding a club. Beside the horses are Apollo, playing his lyre, and Dionysos; and Hermes stands at the horses' heads. Owing to the seated figure carrying a chub, this painting may possibly represent the apotheosis of Herakles, which is regularly shown this
way in the blackfigured vases, the only differenec being that the hero is almost invariably elad in the lion's skin.

Aecession No. MiS4831. Height, 40.3 em.; diameter, 28.7 em . E. H. H(all), Museum Journal, IV, 1913, Fig. 127, and pp. 149-150, No. 1. S. B. L(uee), Museum Journal, VIII, 1917, p. 152. A. J. A., XXII, 1918, p. 210, No. 11.
No. 135. A small blackfigured amphora, very erude. On the obverse, Herakles wrestles with the Nemean Lion, standing, in the presence of Iolaos, Athena(?) and Hermes(?). The reverse shows a seated figure, facing left, in the centre, flanked to right and left by four standing figures, two winged vietories, with flesh parts rendered in white, and two draped figures.

Aeeession No. MS4802. Height 17 em . S. B. L(uee), Museum Journal, VIII, 1917, p. 151, Figs. 58, 59, and p. 154, No. 1. A. J. A., XXII, 1918, p. 210 , No. 6.
No. 63. Fragment of a water jar, put together from many small pieees. Found at Vulei in Etruria. The Greeks employed two shapes of such vases; the hydria (see Nos. 106 and 117 in this case), the characteristics of whieh are a large mouth, the neek sharply separated from the shoulder, which is almost flat, and the body in its turn distinet from the shoulder, and sloping away to the foot. There are three handles, two on the body, one conneeting the mouth with the shoulder. In the other form, known as the kalpis, of which these fragments are an example, the neck melts into the shoulder, whieh is rounded and not separated from the body. The arrangement of the handles is the same, exeept that the baek handle usually does not join the mouth, but the neck immediately under it.

The kalpis form is rare in the blaekfigured period, and is, on the other hand, the standard form for a redfigured water jar to take, while the reverse is true of the hydria, it being the usual blaekfigured form, and rare in the following period. This kalpis, then, being in the earlier style, in itself a rather unusual thing, should be regarded as coming at the end of the blackfigured period, possibly in the transition between it and the redfigured style, in the neighborhood of 500 B . C. The scene, a conversa-
tion between two men and two women in front of a colonnadc, is in the spirit of the redfigured period, rather than the blackfigured, although the earlice technique is employed.

Accession No. MS694. Too fragmentary for accurate measurcment.
No. 70. A blackfigurcd oenochœ, or pitchcr, with a design of three warriors, the one in the contre being on the point of mounting a horsc, which faces the right. The other two carry big shiclds shaped somewhat like the body of a violin, which arc known as Bocotian shiclds, owing to their being represented on the coins of the city of Thebes. The provenance of this vase is unccrtain.

Accession No. MS2493. Hcight, 23.4 cm .
No. 113. A blackfigured panel amphora, found at Orvicto, and put together from fragments. The obversc has a chariot drawn in three quarters vicw, facing the right. This is rather unusual, as the Greck vascpainters generally drew chariots in prefile. At the right, an Amazon is seen running, while a dog darts alongside the horses. On the opposite side is a group of musicians and listeners, most of which is missing.

Accession No. MS4832. Height, 41 cm . E. H. H(all), Muscum Journal, IV, 1913, p. 148, Fig. 128, and pp. 150-151, No. 2.
No. 118. A blackfigured amphora of the redbodied variety, found at Corneto-Tarquinia. The obverse has a fine drawing of Hcrakles wrestling with the Ncmean Lion, in the presence of Athena. The hero bends against the lion, who strikes at his face with his left hind paw. This is a splendid example of the best period of the blackfigured technique. The drawing is vivid and lifelike; details are abundantly and accuratcly given by a copious use of incised lines. The reverse side is largety missing, and what remains is so badly preserved that it is impossible to interprct its subject; but the figures of Hermes and Herakles can be identified. This vasc was made at about 525 B. C.

Accession No. MS1753. Height, 45 cm . S. B. L(uce), Museum Journal, VIII, 1917, p. 154, Fig. 62, and p. 155, No. 5. A. J. A., XXII, 1918, p. 210, No. 10.

No. 112. A blackfigured panel amphora from Orvieto, put together from fragments. The obverse of this vase portrays the combat of Theseus with the Minotaur. On the right, looking on, are three draped male figures; on the left, a woman (flesh in white overcolor) and another male figure. The woman is to be identified, of course, as Ariadne, daughter of King Minos. Theseus wrestles with the monster, much in the manner of the earlier representations of Herakles wrestling with the Nemean Lion, standing, and grappling with him with one hand, while with the other he thrusts his sword into him. This is a very common subject in Attic vasepaintings of all periods; and it should be compared with the bullfighting fresco from the palace at Knossos (West Room, Reproductions of Minoan Frescoes, No. 21). It was from combats like the one depicted in the freseo that the myth of the Minotaur was undoubtedly derived, and this vasepainting gives us the classical Greck idea of these combats; for we must realize that the Miinoan period was less familiar to the Grecks of the classical age than it is to us. If arehicology had existed as a science in the sixth century B. C., the Minoan civilization would have been as much archroology to the Greeks of that period as to us.

The reverse shows a quadriga facing left. In it is a draped figure, of whom only the lower part remains. Bchind him stand a warrior and a woman, facing left. In front of the horses stand another warrior and a woman, facing right, the woman being at the horses' heads. Under the horses' heads is a little boy. Beside the horses were two other draped figures, one male and one female, but they are mostly lost, only the lower parts remaining. This vase is early in the blackfigured period, about 540 B. C.

Accession No. MSt833. Height, 53.1 cm . E. H. H(all), Muscum Journal, IV, 1913, pp. 149, 150, Figs. 129a and b, and pp. 151-52, No. 3.
No. 107. A blackfigured panel amphora, found at Orvicto, and put together from fragments. The obverse shows the birth of Athena from the head of Zeus. Zeus is seated in the centre of the panel in his throne, facing right. Out of
his head eomes Athena, fully armed, represented as very small. In front of him at the right are two female divinities (flesh white), identified as Eilcithyiai, or divinities presiding over childbirth; behind them are Ares and Dionysos. Behind Zeus are Apollo, playing his lyre; Poseidon, with his trident; a female dirinity, either Artemis or Amphitrite, the wife of Poseidon; and Hermes. Under the throne of Zeus is a winged human figure, with the head of a dolphin.

The reverse shows a seene of departure. A number of warriors surround a chariot, which faces the right, and is driven by a draped male figure. Behind the chariot are two warriors and a woman, in front of it two more warriors and another woman, with a dog, while beside it are two more warriors, two bearded male figures, and a third woman.

Aecession No. MS3440. Height, 54 em. Furtwängler. Sitzungsberichte der Akademie zu München, 1905. p. 257, No. 17. E. H. H(all), Museum Journal, III, 1912, pp. 68-75, Figs. 36-38.
No. 108. A blackfigured panel amphora, found at Orvicto, and put together from fragments. The obverse shows the birth of Athena from the head of Zeus. In this vase, Athena stands on the knee of Zeus, who is seated in his throne, facing the right. He holds his thunderbolt in his right hand. In front of Zeus is an Eileithyia, or divinity presiding over childbirth, who has eome to support him in his travail. Behind her is Ares, fully armed. Behind Zeus, are Apollo, playing his lyre, and another male divinity who cannot be identified, as most of him is lost. Under the throne of Zeus is a winged female figure, probably a Niké, or victory. In the field are meaningless inseriptions.

In the reverse, Zeus and Athena are seen seated side by side, receiving the congratulations of the other gods. They face right, and in front of them stands Ares, with three divinities, two male, one female, whose identificution is not elear, behind him. Behind the throne are Poseidon, with his trident, accompanied by a female divinity,
probably his wife, Amphitrite. Under the throne of Zeus is a sphinx.

Accession No. MS3441. Height, 58.2 cm. Furtwängler, Sitzungsberichte der Akademie zu1 München, 1905, p. 257, No. 16. E. H. H(all), Museum Journal, III, 1912, pp. 68-75, Figs. 33-35.
No. 138. A blackfigured panel amphora, of unknown provenance. On the obverse, a warrior is seen, mounting his chariot, which faces the right. Three other warriors stand facing him beside the horses. On the reverse, is a horseman, facing the left, between two warriors. This vase is lent to the Museum by Mrs. John Kearsley Mitchell.

Accession No. Loan G2. Height, 43.6 cm . S. B. L(uce), Muscum Journal, VIII, 1917, pp. 188-196, Figs. 73, 74. A. J. A., XXII, 1918, p. 83.
No. 59. A blackfigured amphora of the redbodied type, found at Orvieto, and put together from fragments. This example is typical of the best blackfigured period, 525 B. C. On the obverse is Dionysos at the left, facing right, a kantharos in his left hand. Beside him is a goat. In front of him is a mænad, facing him, who dances to the accompaniment of the castanets which she holds in her hand. On the reverse side, much of which is missing, is Athena, facing right, and a maiden in front of her.

Accession No. MSt834. Height, 42.2 cm . E. H. H(all), Museum Journal, IV, 1913. pp. 152-53, No. 5, and Fig. 131.

ATTIC BLACKFIGURED AND REDFIGURED VASES, AND YASES FROM SOUTHERN ITAIY.
Case XIII.
This case continues the collection of Attic blackfigured vases, and then brings the history of Greek pottery through the fifth and fourth centuries B. C. Following the blackfigured vases come the vases where the reverse technique is employed-the vase entirely covered with the black głaze except for the figures, which are left in the color of the clay. The redfigured technique represents the highest achievement of the Attic potters and vase painters, and the most beautiful specimens in the collection are of this ware. Beginning in
the end of the sixth contury and existing side by side with the blackfigured pottery for a short period, the new style finally drives out the old, at about the beginning of the fifth century B. C., and continucs throughout the century. Details are here given, not by incised lines, but by fine lines painted freehand on the figures. Archroologists can trace the development of this style, by means of the draftsmanship of the paintings, and are cnabled to date the vases with a fair degree of accuracy. Four styles are distinguishecl-the severe, or archaic, followed by the strong, or ripe archaic, which in its turn is succeeded by the free or fine style, which degenerates into the late fine group. Following this is a class that are usually considered Attic, though the principal finding place has, up to now. been in the Crimea. Of this class the Museum possesses no examples, (unless the pyxis No. 131 in Casc IX is to be classed as such), and they are not often to be found in America. The principal makers and painters of redfigured vases are Epiktetos, Cachcylion, Euphronios, Euthymicles, Phintias, Duris, Hieron, Makron, Brygos, Hermonax and Meidias.

At the time of the Peloponnesian War, the free style was in vogue in Athens, and was even then losing its strength and vigor. Of course that war stopped all export of vases from Athens, which was herself losing her grip on the supremacy in ceramics. The scene then shifts to Southern Italy where Greck colonists were firmly ensconced in Campania, Lucania and Apulia. Vases began to be made in great numbers in these colonies, and soon four distinct styles of South Italian vases can be icłentified-each of the sections above named having its own peculiar ware, while the fourth style, known to archacologists as the School of Paestum, is, both geographically and stylistically, close to the Campanian ware. Makers of vases of this technique sometimes sign their works-the principal name to remember being that of Assteas-but the other South Italian vases are rarely, if ever, signed.

The vases from Lower Italy on view in the Museum are nearly all of the Apulian technique, which is by far the commonest of the four styles, and the centres of manufacture for which seem to have been Tarentum and Rubii (now known as Taranto and Ruvo di Puglia). There are a few specimens also which may be Campanian, but it is admittedly hard in many instances to distinguish the Campanian from the Apulian vases.

After the middle of the fourth century B. C., the South Italian
vases begin to deteriorate in artistic exccllence，and give place to vases made from moulds，the types known as Megarian bowls and Calene phiale being the principal examples．

The vascs in this case will be described，beginning with the three left hand shelves from top to bottom，then the two central shelves，and then the threc right hand shclves，the vases at the bottom being the last to be discussed．

No．86．Threc undecorated Attic vases，completely covered with the black glaze．Two are known as lekance and are in perfect preservation；their provenance is uncertain．The third，an alabastron，was found at Orvieto and put together from fragments，and a good deal of it is missing．

Accession Nos．of the lekanæ，MSt09 and MSt10． Heights 5.4 and 5 cm ．respectively；diameters， 12.6 and 12.1 cm ．respectively．No．of the alabastron，MS4920． Height 18.8 cm ．，diamcter， 6.8 cm ．
No．79．A small Attic white lekythos，said to have been found in Attica．The design，in black on the cream colored slip． is of a girl，sitting in a chair，facing right，making a wreath． In front of her is a large basket．Above her head is a scrpent．This vase is carly in the redfigured period，or rather，the period of the white lekythoi，and belongs at about 475 B ．C．

Accession No．MS531t．Height 13.5 cm ．，diameter 5 cm ． Formerly in the Lamborn collection．
No．128．An Attic white lekythos，said to have come from Athens itsclf．Thesc vases are only found in tombs，and were used cnly for funeral purposes．This vase is fairly early in this type，as it corresponds with the end of the strong style of the redfigured technique，or about 465 B ．C．It bears the dedicatory inscription，$\Delta I \Phi L \Lambda O E K A \Lambda O$ ，＂Diphilos is fair．＂Many of these white vases have been found bearing this name，and it has been shown that they are all by the same hand．The subject of this vase is a seated woman． stringing a neeklace of beads，while before her stands another woman，with a basket of offerings．（On the wall hang a pitcher，a mirror，and a sakkos．Açuired in 1916.

Accession No．MS546．3．Height， 38.5 cm ．Formerly in Borelli Bey Collection；sale catalogue，No．223，and

Pl. XXifl. S. B. L(uec), Muscum Journal, Vili, 1917, pp. 21-25, Figs. 3, 4. A. J. A., XXI, 1917, pp. 352-53, No. 3. Luee, A. J. A., XXIII, 1919, pp. 19-32 (attributes to Beazley's Achilles mastcr).
No. 8t. An Attie white lekythos, aequired by exchange with the National Museum in Athens. This example is later than No. 128, and belongs in the second half of the fifth century B. C. On the white ground are painted designs in polychrome, showing a man and a woman bringing gifts to a stele, or tombstonc. These designs, which were originally rendered in a bright polyehromy on a chalky white slip, have largely rubbed off.

Accession No. M1S5291. Height, 30.6 em. S. B. L(uec), Museum Journal, VIII, 1917, pp. 23-25. A. J. A.. XXI, 1917, pp. 352-5.3, No. 4.
No. 132. A small redfigured skyphos from Athens, of the late fine style, having on the obverse Dionysos, seated, facing the left, with a woman standing in front of him. On the reverse is a manad, standing, with a thyrsos in her hand, facing the left, with an Eros in front of her

Aecessicn No. MS5468. Height. 5.8 cm . S. B. 1.(uce), Museum Journal, V1II, 1917, p. 187.

No. 121. An Attic redfigured pelike, found at Orvieto, and put together from fragnents. The designs are in panels on the front and back. They are of the same general character on both sidcs, being of Dionysos and a satyr. Much of the reverse is missing, and what remains is in poor preservation. The obserse shows Dionysos at the right, with his head turned to the left, with a branch of a rine in one hand, and a kantharos in the other. At the left, moving to the right, is a satyr, mude, who holds a piteher in his right hand. and with his left holds the neek of a wine skin, which he carrics over his shoulder. On the reverse the same painting secms to have been shown. but the satyr is there represented as rumning away. This rase belengs to the period between 480 and +60 B . C.

Acecssion No. MS3H4. Height, 37.1 cm . Beazley, Attic Red Figured Vases in Ameriea, p. 61 (attributes to his Troilos painter): Hoppin, Handbook of Attie Red Figured V'ases, Vol. II, p. 457, No. 12.

No. 83. A redfigured eup with one handle. The sole decoration of this little cup is a design of an athlete, nude, leaning forward, with his arms stretehed toward the ground. He is facing the right. This design is drawn with a delieacy and restraint that puts this vase in the period between 450 and 430 B . C.- the fine style of the Attic redfigured teehnique. Its provenance is not known.

Accession No. MS2272. Height, 8.3 cm .
No. 81. A redfigured kylix, found at Chiusi. Only the interior is decorated. A nude athlete runs to the right; behind him, at the left of the seene is a chest, while a pair of halteres, or jumping weights, lie on the ground by his feet. The vase painting ean be surely assigned to the painter Makron, who flourished in the period between 480 and 460 B . C., and who painted most of the vases that are signed by the potter Hieron.

Accession No. MS2515. Height, 8.4 em., diameter, 19.1 cm. Beazley, Attie Red Figured Vases in Ameriea, p. 101, and p. 106, No. 95. Hoppin, Handbook of Attic Red Figured Vases, Vol. II, p. 107, No. 110.
No. 72. An oenochoe, put together from fragments found at Orvicto, but of which the greater part is missing. The vase is of the very early blackfigured style, and seems to be Attie, showing strong Chalcidian influence. The scene is the pursuit of Troilos by Achilles. Polyxena flees to right, on foot, followed by Troilos on horseback. Under the horse of Troilos is a hydria, that Polyxena has dropped in her flight. Achilles, fully armed (only his head and legs are preserved) pursues them on foot. A curious feature, but not uncommon with these early vases, is that the horse of Troilos is drawn with eight legs. This vase should be studied in connection with No. 41, in Case VIII, as it continues the tale begun there.

Accession No. MS4857. Too fragmentary for aceurate measurements to be made.
No. 82. A redfigured kylix, found at Chiusi, and of the period of the artist Euphronios, though not by his hand. It therefore belongs at about 480 B . C. . or a little later. Only the interior is decorated. A youth, draped in a small chiton, moves to the right. He is obviously going to
sacrifice, probably to Demeter. He holds with his right hand a pig, by the lcft hind foot. This is the animal that is always sacrificed to Demeter at the famous Eleusinian Mysteries. The object that he holds in his left hand appears to be one of the curious sacrificial implements usually described as trays or baskets for first fruits, that are often found on Greek vase paintings. Around him is the inscription O ГAIIKAMOE.

Accession No. MS24t8. Height, 9.3 cm . ; diameter, 24.1 cm . Bates, Transactions, Dept. of Archæology, University of Pennsylvania, Vol. II, Part II, 1907, pp. 144-46, No. 3, and Pl. XXXVI. A. J. A., XI, 1907, p. 57. E. H. H(all), Museum Journal, IV, 1913, pp. 162-63, Fig. 140. A. J. A., XLX, 1915, p. 77. Beazley, Attic Red Figured Vases in America, p. 111 (attributes to his Lysis, Lykos and Laches group). Hoppin, Handbook of Attic Red Figured Vases, Vol. II, p. 170, No. 22.
No. 40. A small oenochœ, or pitcher, of the blackfigured stylc, showing both Attic and Chalcidian characteristics, and probably to be considered a late product of the latter style. Found at Orvieto, and put together from fragments. At the left, two sphinxes are seated, facing cach other, while at the right, two contaurs are represented, fleeing towards the right. The vase is in very fragmentary condition.

Accession No. MiSt835. E. H. H(all), Museum Journal, V, 1914, pp. 229-230, Fig. 116.
No. 80. A redfigured kylix, found at Orvieto, and put together from fragments. The interior only is decorated. It consists of a boy, seated, facing right, draped in a himation, either writing or drawing with a stylus on a tablet. This vase probably should be placed at about 470 B . C.

Accession No. MS4842. Height, $7.7 \mathrm{~cm} . ;$ diameter, 20.8 cm . E. H. H(all), Museum Journal, IV, 1913, pp. 156157, No. 10, Fig. 134. Beazley, Attic Red Figured Vases in America, p. 46 (attributes to his Eucharides painter). Hoppin, Handbook of Attic Red Figured Vases, Vol. I, p. 360, No. 21.

Nos. 73-76. Four covered bowls, of the blackfigured technique, found at Orvieto. They are noteworthy chiefly for their
shape, which is most unusual among Greek vases. The style is in the middle of the blaekfigured period. By great good fortune a bowl of this shape in the Arehæologieal Museum in Florence bears the signature of the maker, Nikosthenes, one of the most prolific of all the potters of Athens, and who worked in both the blaekfigured and redfigured teehniques. No less than a hundred or more vases and fragments are known whieh bear his signature. It is, therefore, quite possible to attribute unsigned vases to his hand, through the study of all this material. These four bowls, whieh may have been used for sweetmeats, have many resemblances to some of the work of Nikosthenes, and may perhaps be by him. Each one will be deseribed in detail.

Aceession Nos. MS3437, MS3438, MS3439, and MS4868. E. H. D(ohan), Museum Journal, VI, 1915, pp. 173-179, Figs. 94-98. A. J. A., XX, 1916. p. 487, Fig. 1.
No. 73. On the body is a continuous frieze of youths, men, and maidens in conversation. The cover has a design of a warrior on foot attacking a horseman, four times repeated.

Aecession No. MS3438. Height, 21.9 em.; diameter, 17.1 em. Published, lce. eit., p. 176, Fig. 96 (eover only).

No. 74. The body is decorated with a seene similar to that on No. 73, a continuous frieze of youths, maidens, and old men. The eover has a design of horsemen, men and maidens.

Accession No. MS.3439. Height, 22 em.; diameter, 17 em . Published loe. cit., p. 174, Fig. 94 (hody only).
No. i5. Very fragmentary. On the body is a continuous frieze, representing an assemblage of the gods, of whom Iris, Zeus, Ares, and Hermes ean be definitely reeognized. The cover is deeorated with a band of galloping horsemen, going to the right.

Aecession No. MS 5868 . Height, 20.5 em.; diameter, 18.3 em. Published, loe. eit., p. 178. Fig. 98 (body only; identified as a Birth of Athena seene on insuffieient evidence).
No. 76. The body of this bowl is decorated with a continuous frieze, showing Dionysos with his band of satyrs and menads. On the cover is a design of horsemen, warriors fighting, old men, and maidens.

Accession No. MS3437. Height, 23.6 cm .; diamcter, 18.5 cm . Publishcd, loc. cit., p. 175, Fig. 95 (body) and p. 177, Fig. 97 (cover).

An outline drawing of a covered lowl of this shape signed by Nikosthenes, in the Villa Giulia at Rome, can be found in Hoppin, Handbook of Attic Red Figured Vases, Vol. II, p. 231. See also Perrot and Chipiez Historic de l'Art dans l'Antiquité, Vol. X (La Cćvamiquc d'Athènes) p. 261, Fig; 165.

No. 91. An Apulian ocnochœ. The design is of two women, one seated, facing left, with a basket in her right hand, and one standing in front of her. It is quite characteristic of the height of the Apulian style, of the fourth century B. C.

Accession No. MSt801. Height 23.1 cm .
No. 87. A deep bowl, or phialc, found at Corneto-Tarquinia. It is probably of South Italian manufacture, and belongs in the fifth century B. C. In the intcrior is a gorgon's head, and, outside, a design of ivy leaves.

Accession No. MiS1754. Height, 7.7 cm .; diameter, 20.7 cm . E. H. H(all), Muscum Journal, V, 1914, p. 216, Figs. 105, 106.
No. 93. A crude pelike, cither Apulian or Campanian, but probably the former. On one side is a mude youth, on the other, a woman.

Accession No. MISt010. Height, 15.5 cm .
No. 92. An Apulian lekythos of the late fifth century B. C., with a design of a mude youth seated on a rock, facing left. Notice the globular shape, so different from such vases as Nos. 77, 79, or 84 . The provenance is not known. This shape of vasc, known as an aryballic lekythos, is found in Attica as well as in Southern Italy.

Accession No. MS412. Height, 14.1 cm .
No. 89. An Apulian pyxis, or toilet box, with a cover. The decoration consists of a woman's head, profile to left, on the eover, with a rough palmette decoration. On the body is a wave maeandcr pattern. The provenance is unknown.

Accession No. MS3425. Height, 12.5 cm .
No. 88. An Apulian pelike, said to have been found at Rugge. This vase is fairly early in the Apulian style. and seems to belong at the end of the fifth century B. C. On the obverse
is a youth, mude, with a chlamys, or eloak, thrown shawl fashion over his left arm, and a pail in his right hand. He faces left, towards a maiden, who is clraped in a chiton, with kolpos, who is looking at him. On the reverse are two draped youths, facing each other.

Accession No. MSt007. Height, 30.9 em.
No. 85. An Attic oenochœe, in the form of the head of a woman, made in the redfigured period, or in the fifth century B. C. Around the head is painted a wreath of ivy leaves. Its provenance is unknown. Beside it has been put a toy pitcher of the same variety.

Accession No. of large oenochœ, MS5409. Height 19.2 cm. Accession No. cf toy oenochœe, MS27t. Height, 2.9 cm .

No. 90. An Apulian askos (so called from a fancied resemblance to a wine skin), deeorated with a myrtle leaf pattern. Provenance unknown.

Accession No. MS407. Height, 8.7 cm . ; diameter, 9.3 cm .
No. 44. An Italo-Ionian amphora, that is a vase made in Italy in imitation of the Ionian pottery. In shape it bears a close resemblance to the Tyrrhenian amphore, but the technique is somewhat different, and bears a distant relaticn to the class sometimes known as Pontic vases. It was found at Orvieto, and belongs in the sixth century B. C

The obverse and reverse have the same decoration, in panels high on the body. On the neck and below the prineipal design are bands of palmettes and lotuses. The principal design in each case is of a horseman, riding to left, pursuing a deer, which is standing on its hind legs.

Accession No. MS2491. Height, 33.6 cm. Furtwängler, Sitzungsberiehte der Akademie zu München, 1905. p. 257, No. 13. E. H. H(all), Museum Journal, V, 1914 , pp. 222-226, Fig. 113.
No. 57. An Italo-Ionian amphora, with designs in panels. The shape is graceful enough, but the execution is careless. and shows a deplorable lack of skill. The lid is preserved, and rests on the vase. The vase has been overfired, hence the figures and body, instead of appearing black, have come out red. On the neck is a zigzag decoration; on the body, on one side, is a warrior, nude, charging to right, with a shield in his left hand. On the other side is a
horse, facing right. This vase was found at Orvieto, and bełongs in the sixth century B. C. It represents the last period of Italo-Ionian art, and, though of no artistic beauty, has a certain arehæological value.

Accession No. MS2490. Height, 29 cm. E. H. H(all), Museum Journal, V, 1914, pp. 222-226, Figs. 111, 112.
No. 94. An Apulian krater, or mixing bowl, of the shape known as a bell krater. This shows the typieal Apulian decoration for fairly large vases. The prineipal side shows a nude youth, standing before a seatec maiden. He is wreathed and garlanded, and holds a mirror in his right hand. The maiden sits facing him; the upper part of her body is nude, and is rendered in white. Her garment is thrown aeross her knees. She offers food to the youth from a basket in her left hand. Her hair is very elaborately dressed. The drawing shows great freedom and knowledge on the part of the painter; but this knowledge has led to decadence, and to a lack of vitality, which makes this vase less pleasing than the Attic vases of a century carlier. Fourth century B. C.

Accession No. MS 8806 . Height, 35 cm .
No. 123. An Attie redfigured stamnos, or amphora with side handles like those of a hydria. The provenance is unknown: it was aequired by purchase in fragments in 1911, and put together in the Muscum. The obverse shows the departure of a warrior. He stands in the centre, facing the left. He wears a short chiton, and a chlamys, or cloak, and is armed with a helmet, round shield (with the device of a lion) and spear. In front of him is a youth dressed for a journey, with a cloak and traveling hat, or petasos, and two spears. Behind the warrior is a woman, perhaps his wife. She faces towards him and holds an oenoehoe in her right hand, and a kylix in her left. She wears a long ehiton and himation. On the shield of the warrior is the inseription KAAOE, "handsome;" between him and the woman the inseription KAAE, referring to the woman. The reverse has in the centre a woman, facing the left, draped in a long chiton, holding a kylix in her right hand. On either side of her stands a draped youth, facing towards her. This vase belongs to the fine style of the red-
figured technique, $450-420$ B. C., which corresponds roughly to the Age of Perikles.

Accession No. MS4830. Height, 37 cm . E. H. H(all), Museum Journal, V, 1914, pp. 38-42, Figs. 21, 22 (attributes to maker of vascs in Munieh and Petrograd, called by Beazley the Kleophon painter). Beazley, Attic Red Figured Vases in America, p. 171 (attributes to his Hektor painter). Hoppin, Handbook of Attic Red Figured Vases, Vol. II, p. 14, No. 5.
No. 125. An Attic redfigured kelebe from Chiusi. On the obverse are two athletes, nudc, in conversation with their trainer, who stands in the contre, with his head turned to the left, and whom they face. They are gesticulating with their hands. The trainer is draped in a long himation, and carries a staff; he moves to right, with his head turned to left. The reverse shows two nude athletes exercising. This vase was painted between 475 and 465 B. C.

Accession No. MS2465. Height, 39.8 cm . Beazley, Attic Red Figured Vases in America, p. 59, No. 8. Hoppin, Handbook of Attic Red Figured Vases, Vol. I, p. 453, No. 9. (Both Beazley and Hoppin attribute this vase to the socalled Flying Angel Paintcr.)
Nos. 95, 96. These two vases, both amphore, were found at Orvicto. They are very rare and unusual; and although they were found on an Etruscan site, seem to bc of South Italian make, probably late Apulian. The place of thcir manufacturc was probably Canusium (the modern Canosa di Puglia). They belong at the end of the fourth century B. C., or the beginning of the third. Most of the designs have worn away, but they consisted of decorative patterns, such as palmettes and other floral decorations. The handles arc moulded, and deeorated in polychrome, and end in the heads of sea horscs.

Accession Nos. MS2510, MS2511. Heights, 64.1 and 39.8 cm ., respcctively.

No. 124. An Attic redfigured kelcbe, found at Chiusi. On the obverse of the vase a banquet is dcpicted. Two bearded men recline on couehes, facing left, each with a small table in front of him, on which the good things are sprcad. Between the two couches a third bearded man stands,
facing the right, playing the double flute. On the back are three youths in mantles, eonversing. This vase is of the same period as No. 125, i. e., $475-465$ B. C.

Accession No. MS2464. Height, 39.8 cm .
No. 122. An Attic redfigured stamnos, found at Orvicto, and put together from fragments. The subjeet, of athletes in the palaestra, or gymmasium, is interesting. 'There is a diseus thrower in the centre, faeing right, about to throw his diseus; behind him is another athlete, with a jumping weight in his left hand, and his right arm extended behind him. Both of these athletes are nutle. In front of the discus thrower stands the trainer, face to the front, draped in a himation, and earrying his long staff, with which he was aceustomed to beat youths who were unskilful or disobedient. At the right is a flute player, facing the left, playing his flute, that the young athletes might do their exercises in eadence. At each end of the seene is a column. indieating the wall of the palaestra. Most of the reverse is missing, but it portrayed a similar scene. Here again there are two trainers and two athletes, one of whom may be another diseus thrower. This vase was painted about 470 B. C.

Aecession No. MS4872. Height 36.5 cm . E. H. H(all), Nuseum Journal, IV, 1913, pp. 157-59, No. 11, Fig. 135. Beazley, Attic Red Figured Vases in America, p. 39 (attributes to the sehool of his Naster of the Berlin Amphora). Hoppin, Handbook of Attic Red Figured Vases, Vol. I, p. 73, No. 91.
No. 137. An Apulian bell krater, of unknown provenanee, lent to the Museum by Mrs. John Kearsley Mitehell. This is of earlier date than No. 94, and more elosely resembles Attic ware. On the obverse is a youth, seated, facing the right. He is mude, and his garment rests on the roek on which he sits. He holds a kylix in his left hand. In front of him stands a satyr, nude, facing the left. Behind the youth is a maiden. The youth may be the youthful Dionysos. On the reverse are two draped young men. Aceession No. Loan G3. S. B. L(uce), Museum Journal, VIII, 1917, pp. 188-96, Figs. 75, 76. A. J. A., XXII, 1918, p. 83.

## BLACKFIGURED AND REDFIGURED KYLIKES.

Case XV.
The kylix, or drinking cup, was the favorite shape of the Greek vase painters. On it they put their very best work, and to many of these vases they signed their names, with as much conscious pride as any artist of today would show in signing one of his canvases. The large, almost flat, surfaces of the exterior give the painter plenty of space for original and pleasing compositions, whilc in the interior the usual treatment is to leave the whole in the black glaze, save for a medallion in the centre, in which a small scene is rendered. We have secn kylikes in the preceding case (Case XIII) and some fragments also in Case IX.

On the earlier blackfigured kylikes, it will be noticed that a large part of the decoration consists of eyes, painted in black and white on the sides of the vase. These eyes are known as prophylactic eyes, and were doubtless put on the cups to avert the evil eye from the user. In Case IX, No. 51, a similar example from Ionia may be seen.

The vases will be described beginning with the top shelf, and going from left to right.

No. 66. A blackfigured kylix, with prophylactic eyes. The interior is undecorated. On the exterior, between the eyes, are, on one side, two nude youths, about to start wrestling, and, on the other, another nudc youth before a sphinx, suggestive of the story of Oedipus and the Sphinx. From Orvicto.

Accession No. MIS2497. Height, 9 cm .: diameter, 22.8 cm .

No. 68. A small blackfigured kylix on a low foot, similar to No. 67. Its exterior is decorated with two dancing satyrs and mænads, carelessly drawn, on each side. The provenance is unknown.

Accession No. MIS+17. Height, 9.1 cm.; diamcter, 21.5 cm .

No. 97. A redfigured kylix, found at Orvieto. It dates at about 460 B . C. The workmanship is carcless, and the subjects unintcresting. In the interior are two youths draped in himatia, facing each other and conversing. The exterior
has, on each side, a design of three young men, similarly draped, engaged likewise in conversation.

Accession No. MS2496. Height, 7.2 cm .; diameter, 22.3 cm . Beazley, Attic Red Figured Vases in America, p. 132 (attributes to the Penthesilea master). Hoppin, Handbook of Attic Red Figured Vases, Vol. II, p. 348, No. 46.
No. 64. An Attic blackfigured kylix, found at Orvieto, and put together from fragments. It is a beautiful example of unusual size. It has the design of prophylactic eyes, that is found on No. 51 in Case IX, and on Nos. 65 and 66 in this case, but this vase is Attic, not Ionic. This is proven by the color of the clay, which is redder than in the Ionic vases, and also by the bolder drawing of the Attic painter, who retains the conventional nose, but does away with the ears that are seen on the Ionic example. In the case of this vase, the bunches of grapes around the handles are a peculiarly Attic touch. This vase was made in the neighborhood of 525 B . C.

Accession No. MSt851. Height, $12.2 \mathrm{~cm} . ;$ diameter, 30.5 cm . E. H. H (all), Museum Journal, IV, 1913, p. 155, No. 8, and Fig. 133.
No. 104. An Attic redfigured kylix, found either at Cortona or at Chiusi. In the inside a draped youth stands, facing the right, making offerings at a herm, or wayside image of a god, corresponding to the wayside shrines found today in Italy and Greece. On the outside the same design, of a winged Niké, or Victory, flying to left, between two youths draped in himatia, is repeated on both sides. The execution is carcless and porr, and the vase dates about 460 B. C.

Accession No. MIS2440. Beazley, Attic Red Figured Vases in America, p. 132 (attributes to the Penthesilea master). Hoppin, Handbook of Attic Red Figured Vases, Vol. II, p. 347, No. $4+$
No. 67. A blackfigured kylix on a low foot, of unknown provenance. That it is of later date than the eye kylikes is shown by its careless execution. Its interest is derived from the subject that it portrays on both sides; the rape of the sea nymph Thetis by Peleus. Peleus faces the right; he
grasps Thetis round the waist. On either side is a Nereid, who is running away in terror. From this union was born the hero Achilles. This subject is repeated on the reverse.

Accession No. MSt18. Height, $9 \mathrm{~cm} . ;$ diameter, 19.2 cm .

No. 65. An Attic blackfigured kylix, of the regular type with prophylactic eyes. In the interior there is a gorgon's head, bearded; while both sides of the exterior have the same design, a garlanded helmet between the two eyes, with bunches of grapes between the eyes and the handles. Found at Orvicto.

Accession No. MS2498. Height, 8.6 cm .; diameter, 22 cm .
No. 103. A redfigured kylix of uncertain provenance, probably from Chiusi or Cortona. It is put together from a number of fragments, and is important, not only for the subjects shown, but for the fact that it bears the dedicatory inscription, partly retrograde, Zo.AAKLVKOZ, "Lykos is fair." This vase shows the influcnce of the famous moker and painter Euphronios to a marked dcgrec, and is probably the work of an artist who worked under him. In the interior is a mude youth with a staff; and it is here that the inscription is found. A pair of halteres, or jumping weights, lie on the ground, and a discus, in its case, hangs in the field. On the outside, one picture shows a pair of nude wrestlers, with their trainer standing over them, draped in a himation, with his staff. Behind his head is the retrograde inscription ZOAAK. At the left is a column, to represent the palaestra. In the field are a pair of halteres, a discus in its case, and two throwing spears. The opposite picture shows thrce athletes, one at the left holding a cord in both hands, moving to the left. In the, centre another reclines on the ground looking back toward the left, as if in conversation with the one at the left. Between them runs the retrograde inscription $Z(\mathrm{O}) . \Delta \mathrm{AK}$. The rope was used, perhaps for a contest something like our tug of war. At the right is a third athlcte, practicing the javelin throw. In the field are a bunch of thongs such as were worn by boxers, and four throwing spears.

Aceession No. M1S244t. Height, 9.5 em.; diameter, 22.4 cm . Furtwängler, Sitzungsl)eriehte der Akademie zu München, 1905, p. 259, No. 22, 1. Bates, Transactions Dept. of Arehacology, University of Pennsylvania, Vol. II, Part II, 1907, p. 140-144, and Pl. XXXV (attributes to Onesimos). E. N. Gardiner, Greek Athletic Sports and Festivals, p. 392, Fig. 122. A. J. A., XIII, 1909, p. 210. Beazley, Attie Red Figured Vases in America, p. 111 (attributes to his Lykos, Laehes and Lysis group). Hoppin, Handbook of Attic Red Figured Vases, Vol. II, p. 170, No. 21.
No. 102. A redfigured kylix, found at Chiusi, dating at a period between 470 and 460 B . C. In the interior is a woman, facing the left, standing in front of a ehest, and raising the lid with her right hand. In her left she holds a small easket, perhaps for jewels. The treatment of the drapery, in fine lines, which reveal the difference in texture between the heary himation and the thin inner ehiton, shows great skill. On the outside are two seenes; in each, three women take part. In the first to be deseribed, they are seated: one, at the left faeing the right, plays the double flute; one, at the right, facing left, the eastanets, while the third in the centre, facing left, holds a bunch of grapes. In the field hangs the flute ease for the double flute. On the other side, the woman in the centre stands, faeing left, a mirror in her right hand, her left hand extended behind her. The other two women are seated, and look toward her; they are engaged in making garlands. In the field are a pair of eastanets. This vase is of the very best redfigured period, and seems to be by a pupil of Duris, though not by that painter himself.

Aceession No. M15244. Height, 8.9 em.; diameter, 23.3 cm .

No. 100. A redfigured liylix found at Orvieto, and belonging at about 460 B . C. The interior has a design of two draped youths faeing each other, engaged in eonversation, mueh as in No. 97 . On the outside are two designs. In one, a winged Niké, or Vietory, walks to right towards a draped youth, who carries a staff. She stretehes out her arms towards him. Behind her is another youth, similarly
draped. On the ground is a stool. The other side has a similar design, except that the Nike is there flying, and has a fillet in her hands.

Accession No. MS2495. Height, $9.8 \mathrm{~cm} . ;$ diameter, 23.7 cm . Furtwängler, Sitzungsberichte der Akademie zu München, 1905, p. 259 , No. 23, 2 (attributes to Penthesilea master). Batcs, Transactions Dcpt. of Archæology, University of Pennsylvania, Vol. II, part II, 1907. pp. 15254, Fig. 9, and Pl. XXXIX (attributes to School of Penthesilea master). A. J. A., XIII, 1909, p. 210. Miss Swindler, A. J. A., XIX, 1915, p. 406, No. 9 (attributes to Penthesilea mastcr). Beazley, Attic Red Figured Vases in America, p. 132 (confirms Miss Swindler's attribution). Hoppin, Handbook of Attic Red Figured Vases, Vol. II, p. 348, No. 45.

No. 101. A redfigured kylix, found at Orvieto, and put together from fragments. The interior shows two draped women, one of whom is apparently doing a sleight of hand trick for the amusement and bewilderment of the other. The one doing the trick stands at the right of the scene; she is taller than the other woman, and wears a chiton, with a himation loosely thrown over her left shoulder. The woman at the left is eloscly draped in a himation, and wears a snood over her hair. Around the edge of the inside runs a border of ivy leaves. The outside, much of which is lost, contains on cach side a group of five figures, malc and femate, in conversation, very carelessly rendered. This vase is by all scholars who have seen it assigned to the hand of the Penthesitea mastei. It therefore dates at about 460 B. C.

Acecssion No. MS3+36. Height, 13.2 cm . ; diameter, 30.7 em. Furtwängler, Sitzungsberichte der Akademic zu München, 1905, p. 259, No. 23. 1. Bates. Transactions, Dept. of Areheology, University of Pennsylvania, Vol. II, Part II. 1907, pp. 146-52, Pls. XXXVII, XXXVIII. A. J. A., XIII, 1909. p. 210. Niss Swindler, A. J. A.. XIX, 1915, p. 406, No. 8. Beazlcy, Attic Red Figured Vases in America, p. 1.32. Hoppin, Handbook of Attic Red Figured Vases, Vol. II, p. 348, No. 47.

No. 99. An Attic redfigured kylix, found at Orvieto. The preservation is very poor. In the interior is a warrior, charging to left, his shield (device, a cock) on his left arm. On the outside is a seene of battle, that runs all around the vase. On one side, in the centre, a warrior, armed with a spear and ereseentshaped shield (device, two birds), has driven to his knees another warrior, similarly armed (shield device, a triporl). At the right of this seene, another warrior, with a round shield (device, two dolphins) subdues his antagonist, of whom only the head and shield (device, a tripod) remain. On the other side, in the centre, a warrior advances to the left in pursuit of his adversary, who runs from him. The pursuer carries a short sword with a curving blade, in shape very much like a Malay bolo, called by the Creeks a кoтis, and a shicld (derice, the fore parts of a boar). Of the pursued, only the rear parts are preserved. At the right of this group, a warrior in Phrygian costume, with a pointed leather helmet, and carrying a shield (device, two dolphins) pierces with his spear a fallen warrior, who is armed with a short sword and a shield (device, wreath of ivy leaves). The interior, in the field, is the inseription, HOLA $\mathfrak{E K A S}=\dot{o} \pi a i(s)$ кa入os "the boy is fair;" on the first side to be deseribed, in the field, is the inscription KAOZEIIILTKOE, which has been interpreted as "Eтi久uкоя ка( $\lambda$ los. "Epilykos is fair." The other side has a repetition of the inseription on the inside. This vase belongs in the severe style of the redfigured technique, at about 500 B . C.

Accession No. MS3499. Height, 9.6 cm .; diameter. 26.1 cm . Bates, Transactions Dept. of Archeology, University of Pennsylvania, Vol. II, Part II, 1907, pp. 133-39, Fig. 1, and Pls. XXXIII and XXXIV (attributes to vase painter Epilykos). A. J. A., XIII, 1909, p. 210.
No. 98. Redfigured kylix, found at Cortona. This is the latest example of vases of this shape in the collection, and belongs in the free or fine style of the redfigured technique, about $450-430 \mathrm{~B}$. C. In the interior is a youthful knight, dressed in a chlamys, or traveling cloak, while fastened around his neek is a broad brimmed felt hat, or petasos, which was regularly worn by the ancient

Greeks when on a journey. His horse stands in front of him; both face to the left. Of the outside, one of the scenes is lost; the other shows the young knight in the centre facing the left, bidding farewell to a man, draped in a himation, leaning on a staff. Behind the youth is a woman, facing him, with a kylix in her right hand. These figures are to be thought of as the young knight's father and mother.

Accessicn No. MS2452. Height, 9.4 cm .; diameter, 23 cm .
No. 105. A redfigured kylix, of uncertain provenance, but probably from Vulci. This is an important specimen, and extremely well painted. In the interior, a nude youth advances to right, face to the front, a chlamys thrown shawl fashion over his left arm, a long, linotted staff in his right hand. On his feet are low shoes. His gait suggests that he has been drinking. On the outside, one scene only is completely preserved. It shows a procession of drunken youths. At the right, going right, is a nude youth with a chlamys and staff, similar to those of the youth in the interior design, and holding a skyphos in his left hand. Behind him comes a cithara player, draped in a himation, his head thrown back, as if singing to the accompaniment of his instrument. He is followed by a nude youth, doing a violent dance, with a flutc case in one hand, as well as a pair of castanets, which he is playing. In the other hand he has another pair of castanets. Behind him is a knotted stick. The other side shows a similar procession. Of the figure at the right only the lower part of the legs and the ends of a flute case remain. In the centre is a flute player, nude, with a chlamys on his left arm, and behind him another tipsy youth, like the one in the interior. This vase has been attributed to the workshop of the maker Brygos, and therefore dates at about 470 B. C.

Accession No. MS2445. Height, 9.6 cm.; diameter, 23.2 cm. Formerly in the Canino, Jarves, and Coleman collections. Furtwängler, Sitzungsberichte der Akademic 2.: Munchen, 1905, p. 259, No. 22, 2 (attributes to the Panaitios master). Bates, A. J. A., XVII, 1913, pp.

479-486 (attributes to Brygos). Beazley, Attic Red Figured Vases in America, p. 96, No. 24 (attrib)utes to his Painter of the Paris (iigantomachy Cup). Hoppin, Handbook of Attic Red Figured Vases, Vol. I, p. 138, No. 92 (attributes to Brygos).

## BLACKFIGURED AND REDFIGURED PANEL, AMPHORF.

Case XXV.
No. 120. Redfigured panel amphora, painted approximately between 510 and 500 B . C., and bearing on the foot the signature of the potter Menon, (Menon Eloiexien). This is the only extant vase that bears the signature of this maker. and it is the only vase in the collection that is signed. It was found at Vulei.

The obverse side shows in the centre, Apollo standing facing the right, (AOOMONOZ). He is dressed in a long ehiton, with sleeres, and high boots, and his hair is done in long corkserew eurls. Around his head is a wreath. He holds in his hands a large eithara, which he is playing. Behind him, stands his mother, Leto (VETO), dressed in ehiton and himation, the latter draped over the back of her head. She faces the centre and holds a flower in each hand. At the right stands Artemis (AptemiaOz), dressed in a long sleeved chiton and himation, facing Apollo. She holds a flower in her right hand, and a branch of laurel in her left. Her hair is done in a knot behind, and she wears a fillet.

In the reverse pieture a young warrior is leading two horses towards the right. He wears a short chiton and a chlamys, and on his feet are high boots that come almost to the knees, and end in flaps. ()n his head is a pointed leather eap with flaps that eome down over the ears, cheeks, and back of the neek. This costume has been identified as Thracian. With his right hand he holds the horses' reins, with his left, two spears. In the fiek are the inseriptions $\operatorname{\Sigma KONAON} \mathrm{r}^{\prime}(I \Sigma)$ TO CLPE』. The manes of the horses are rendered in white overeolor. The inseription $\check{K} K O \Theta O N$ is a corruption for $\xi a \nu \theta \hat{\omega} \nu$, "the
tawny ones" (i. e., horses). The other two inscriptions mean "the fire red" and "the faithful," and are the names of the two animals.

Accession No. MS5399. Height, 61.6 cm . Formerly in the Jarves and Coleman Collections. Nock des Vergers, L'Etrurie et les Etrusques, Vol. III, p. S, Pl. IX (fails to see signature). Klein, Meistersignaturen, 2d ed., p. 189 (attributes to Andokides). Six, Gazette Archéologique, 1888, p. 196 (denies Klein's attribution). Norton, A. J. A., 1896. p. t. Furtwängler, Sitzungsberichte der Akademic zu München, 1905, p. 258, No. 21 (first to identify the signature of Menon). Bates, A. J. A., IX. 1905, pp. 68. 170-181, and Pls. VI and VII (makes Menon painter as well as potter). D. M. Robinson, A. J. A., XII, 1908, pp. 431-433 (discusses inseriptions on the vase). Bates, A. J. A., XII, 1908, pp. 435-36. E. H. H(all), Museum Journal, V, 1914, pp. 31-37, Figs. 17-20 (assigns to Andokides's atelier; reveals the existence of new inscription). Buschor, Griechisehe Vasenmalcrei, 2d ed., p. 152. Nicole. Corpus des Céraminstes Grecs, 96. Hoppin, Euthymides and his Fellows, p. 37. Beazley, Attic Red Figured Vases in America, p. 6 (assigns to Menon painter). Hoppin, Handbook of Attic Red Figured Vases. Vol. II, p. 202, No. I (with plate).
No. 111. Blackfigured panel amphora, found at Orvicto, and put together from fragments. On the obverse, the death of Achilles is represented. At the right, Ajax leans over a prostrate body. His baek is turned to the centre of the painting, and his big Bootian sheld, with the claborate device of a leopard or panther seizing a fawn, with a serpent underneath, is strapped to his back. The prostrate warrior wears a white breastplate, and under that a short ehiton, adorned with an incised decoration. Over the breastplate is another black garment, probably a chlamys. with a very elaborate incised design. He wears greaves. His he'met, with its high crest of red, lies on the ground beside him. Beside him runs the retrograde inscription 70LLI, the last part of the name Achilles. At the left of this scene a warrior, fully armed, a spear in his right hand, and a round shick, rendered in white overeolor, with the
device of a dog tearing a picce of meat, on his left arm, and wearing a helmet with a crest supported by a writhing serpent, advanees to the left. Beside him is the inscription menela(os. Menclaus. He piereces with his spear a flecing Ethiopian, who is nude, and carries a crescent shaped shield on his left arm, and a club, like the Zulu knol) kerry, in his right hand. Frem his breast, where the spear has pierced him?, the blood rushes out. Over his head is the inscription AMAZOZ, i. e., Amasis, which is a non-Greek name applicd to this Ethiopian.

The reverse has as its subject the death of Antiluchors. Very little of this scene has been preserved. The dead man, as on the obversc, lics in the middle; but here his head is at the left, and not at the right, as was that of Achillcs. He wears a white breastplate, and greaves of red. At the left, over his head, is the retrograde inscription ZONOLITNA, Antilcchos. Above him, three warriors in armor charge to the left, in pursuit of two nude figures, who are probably negrocs, as in the case of the obverse. Of the negroes only the bodies from the shoulders down are preserved. Of the leading warrior only the lower part of the head, neck, right clbow, part of right hand, and left foot remain. Of the second warrior part of the crest of the helmet, the round shicld (black with an outer band of red) and part of one leg are all that is left. The third warrior is better preserved, wears a helmet, and carries a spear in his right hand, and a round shield, rendered in white overcolor, and with the device of a raven in black, on his left arm. Beside him is the inscription El'ФOPBOZ, Euphorbos.

This vase is a fine example of the black-figured tcehnique, and may well be the work of the artist Exekias.

Accession No. MS34+2. Height, 56.2 cm . Bates, Transactions, Dept. of Archæology, University of Pennsylvania, Vol. I, Parts I and II, 1904, pp. 45-50, Pls. I, II (attributes to Amasis). A. J. A., VIII, 1904, pp. 87-88; IX. 1905, p. 208. Furtwângler, Sitzungsberichte dcr Akademie zu München, 1905, pp. 257-58, No. 20 (denics Bates' attribution; suggests Exckias). D. M. Robinson, A. J. A., XII, 1908, p. 433 (attributes to Exekias). Bates,

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\text { A. J. A., XII, 1908, p. } 436 . \text { E. H. H(all), Museum Journal. }
$$ VI, 1915, pp. 90-93, Figs. 68, 69.

No. 110. Large blackfigured panel amphora from Orvieto, put together from fragments. On the obverse, much of which is missing, Herakles bends over the Nemean Lion. He is nude. His head and the upper part of his body are missing, but it is certain that the lion was represented as striking at his face with his left hind paw. Over the group is the inscription HEPAK(LES) Herakles. At the left stands Athena (A@ENAZ), the patroness of Herakles, wearing a long, sleeveless chiton with a rich decoration rendered in incised lines. Her flesh is white; she carries a spear in her right hand, and on her left arm is a shield adormed with a gorgon's head. At the right is Iolaos, nude; only his head, shoulders, arms, left hand, and one foot remain. In his right hand he holds the club of Herakles, the greater part of which is preserved. Beside him is inscribed, retrograde, his name, ZOLLOI. At the left of the picture, is the retrograde inscription ZOLAKZE; owing to the style of the vase painting, which is undoubtedly the work of Exekias, the restoration (ONETOPIO) ENKALOS is suggested; this has the advantage of filling just the space lost between the preserved part and the top of the panel. It is the favorite калós name of Exekias.

The reverse is in very poor preservation. In the centre, facing left, is Dionysos ( $\triangle$ IONVSOS), holding a vine with four bunches of grapes in his left hand, and a kantharos (only the foot preserved) in his right. His head is missing. Behind him is a dancing mænad, dressed in a long chiton, elaborately decorated with an incised pattern. In front of him is a draped female figure; the upper part of her body is missing. In her arms she holds a pair of twins (only the feet and legs preserved). She may be Night, with her twin offspring, Sleep and Death. Behind her is a dancing mude figure, probably a satyr. Only his feet, legs, right arm, and back of head are left. Between him and the female figure are the letters ON, the remains of an inscription which it is impossible to restore.

As has been suggested above, this vase is without
duubt to be assigned to Exekias, and therefore belongs at about 525 B . C.

Aecession No. MS3497. Height, 58 em. Furtwängler, Sitzungsberichte der Akademic zu Münehen, p. 257, No. 18 (attributes to Exekias). E. H. H(all), Mus eum Journal, Ví, 1915, pp. 85-90, Figs. 65. 66. S. B. L(uee). ibid., VIII, 1917, p. 155. No. 4. A. J. A., XXII, 1918, p. 210, No. 9. For a diseussion of figures like the female with twins, see Jane Harrison, Prolegomena to the Study of Greek Religion, pp. 266-71 and Fig. 74.

GREEK VASES IN WEST ROON.

## Case XXVI.

No. 20. Italo-geometrie amphora, from Narce in Etruria. It is decorated with linear designs, and panels in which are birds.

Aceession No. MS1315. Height, 25.6 em.: diameter, 23. t em .

No. 126. An Attic geometric amphora, of the style known as dipylon ware. This fine specimen is decorated with rows of chariots and warriors. Around the lip, and lower neck, and on the handles are serpents in relief, the reason for whieh is not clear. 'This vase is a very important example, and is of great arehrological value. It was made in the eighth century B. C.

Aecession No. MS5464. Height, $0,3.5 \mathrm{~cm}$. Published. Luce, Museum Journal, VIII, 1917, pp. 15-21, Fig. 2, See also A. J. A., XXI, 1917. p. 352, No. 2. The height given in the artiele in the Museum Journal is ineorrect.

Other Greck vases will be found enumerated with the Etruscan collections, as they belong with various tomb groups, and should more properly be discussed in conneetion with them.

## GREEK VASES NOT ON EXHIBITION

No. 20B. A geometrie amphora, found at Vulci. On the neck is a erude maeander pattern, on the shoulder a row of birds, and on the body linear and zigzag designs. This vase is probably Italie, rather than Greek; i. e., made by Greek
colonists in Italy，or by Italians under strong Greek influenee．

Aeeession No．MS614．Height， 41.7 ent．
No．49．An Attic blackfigured amphora，found at Orvieto，and put together from fragments．On the obverse，Herakles is shown，bringing the Erymanthian Boar to Eurystheus． Eurystheus in his fear has hidden himself in a large pithos， or jar，that is sunk into the ground in the middle of the seene．Only his head and arms appear．He faces Her－ akles，and stretehes out his arms in supplieation．Herakles， clad in the lion＇s skin，puts one foot on the rim of the pithos， and holds the boar over his head，as if about to hurl it on Eurystheus．On the left，facing the centre，is Hermes，in a ehlamys and petasos，and earrying a eaduceus in his hand．At the right is Athena wearing the ægis，and earrying a spear．The reverse shows a four horse ehariot seen from the front．

Aceessien No．MS4860．Height， 49.9 em．E．H．H（all）， Musemm Journal，IV，1913，p．159，Fig．137，and p． 161. S．B．L（uce），ibid．，VIII，1917，p．152．A．J．A．，XXII， 1918，p．210，No．5．S．B．L（uee），Museum Journal，XI， 1920，pp．56－59，No．1，and Figs．34， 35.
No．115．A large blaekfigured panel amphora，found at Orvieto， and put together from fragments．The obverse and reverse have the same design；two horsemen facing the front，with their heads in profile．

Aecession No．MS3498．Height， 58.3 cm ．
No．134．A blaekfigured hydria，found at Orvieto，and put together from fragments．The shoulder design is lost．Of the body design，enough remains to show that it consisted of a ehariot，faeing the right．At the horses＇heads stands Hermes，in a chlamys and winged boots（head lost）．Of the figures in the chariot，only the lower part remains， while of a figure who stands beside the horses，part of the head is preserved．This figure，who faces the left，may be Dionysos．Below is a band of panthers and goats．

Aeeession No．MS485．3．Height， 46 em ．S．B．L（uce）， Museum Journal，XI．1920，pp．59，60，No．2，and Fig． 36.
No．140．A blaekfigured kelebe，found at Orvicto，and put together from fragments．On the obverse are the remains of a
scene of combat, with a chariot, moving to right, and, under the horses' hoofs, a fallen warrior. The reverse has only a very small part preserved; but that part shows a lion attacking a bull.

Accession No. MS5663. Height, 30.5 cm . S. B. L(uce), Museum Journal, XI, 1920. pp. 60-62, No. 3, and Figs. 37, 38.
No. 141. A blackfigured oenochœ, found at Orvicto, and put together from fragments. Hermes, of whom only the head, wearing a petasos, one foot in a winged shoe, and one hand with the caduceus remain, stands facing the right, while in front of him are two warriors, in helmets, round shields (devices, star, and thunderbolt, respectively) and greaves. Between the warriors flies a bird. At the right is a draped, bearded man, facing left, carrying a staff. This vase shows a certain amount of Chalcidian influence.

Accession No. MS4836. Height, 20.7 cm . S. B. L(uce), Museum Journal, XI, 1920, p. 62, No. 4. and Fig. 39.
No. 142. A blackfigured kylix without handles, and decorated only in the interior with a small medallion, in which is a bird, facing right.

Accession No. MS5669. Height, 9 cm .; diameter, 20 cm. S. B. L(uce), Museum Journal, XI, 1920, p. 63, No. 5, and Fig. 40.
No. 143. A south Italian stamnos, probably Apulian, though it may well be Campanian. Much polychrome decoration is employed. The handles are moulded in the form of serpents; one of these handles has been restored. The subject is in one continuous frieze around the body, and consists of a band of satyrs, mænads, and centaurs. The flesh of the female figures is in white, the satyrs sit on panther skins rendered in white, and the horse part of the one centaur preserved is of that color.

Accession No. MS4854. Height, 36.2 cm . S. B. L(uce), Museum Journal, XI, 1920, pp. 65, Fig. 42; 66-67, No. 7.

## PRE-HELLENIC ANI LOCAL APULIAN VASES.

These vases are not on exhibition owing to lack of space.
No. 1. A Messapian krater, found at Rugge. Decorated with leaf patterns and linear decorations on a cream colored slip. The handles have medallions at their highest points, and these vases are often called by the Italians, vasi con maniche a rotelle, from these discs. From this shape the Greek colonists in Lucania developed later the peeuliar krater that is often erroneously called nestoris.

Accession No. MS205. Height, 22.5 em . S. B. L(uce), Museum Journal, X, 1919, p. 219, Fig. 74.
No. 2. A Peucetian krater, of unknown provenance. The decorations are of a geometric nature, in black on a creamcolored slip. Even the bottom of the foot is decorated.

Accession No. MIS1594. Height, $24.6 \mathrm{~cm} . \mathrm{S} . \mathrm{B}$ L(uce), Museum Journal, X, 1919, p. 220, Fig. 75.
No. 3. A Daunian krater, of unknown provenance. In shape it is like a modern spittoon. The decoration is in the form of horizontal rings around the body, and a rough floral pattern.

Accession No. MS1593. Height, 21.3 cm . S. B. L(uce), Museum Journal, X, 1919, pp. 220-21, Fig. 76.
No. 4. A Daunian cup with one high handle. The provenance is unknown. The decoration is in the form of geometrical, eurvilinear, and floral designs in red and black on a cream colored slip.

Accession No. MS301. Height, with handle, 11.8 cm . S. B. L(uee), Museum Journal, X, 1919, p. 221, Fig. 77.

No. 5. An askos of local Apulian technique. The designs are all of the purely deeorative patterns, sueh as the wave maeander, and the ehain or tress (Italian, treccia) and conventional floral patterns.

Accession No. MS1591. Height, 23 cm . S. B. L(uce), Museum Journal, X, 1919, p. 222, Fig. 78, and p. 224.
No. 6. An askos similar to No. 5, but somewhat larger, and in poor condition, most of the design having worn off. Wave macander and chain patterns ean, however, be recognized.

Accession No. MS1592. Height, $24.8 \mathrm{em} . \mathrm{S} . \mathrm{B}$. L(uce), Museum Journal, X, 1919, p. 224.

No. 7. A double vase consisting of two pots, held together by a loop that has been formed between them. As in all these speeimens, polyehromy is employed. The deeoration is much as in Nos. 5 and 6, taking the form of wave macander, chain, and conventional floral patterns.

Aceession No. MS1590. Height, with handle, 20.3 em. S. B. L.(uce), Museum Joumal, X, 1919, p. 223, Fig. 79. and p. 224.

No. 8. A loeal Apulian vase, probably used for ineense. It is shaped so that it will stand on either end, as each end is in the form of a cup. It is deeorated with wave macander and eonventional floral patterns.

Aecession No. MS1595. Height, $18.4 \mathrm{~cm} . \mathrm{S} . \mathrm{B}$. L.(uce), Museum Journal, X, 1919. p. 224, Fig. So.

No. 9. A local Apulian incense burner, decorated with wave macan(lers, zigzags, and a very naturalistic ivy leaf pattern.

Accession No. 1597 . Height, 4.5 cm . S. B. L(uce), Muscum Journal, X, 1919, pp. 224-225, Fig. S1.

## LAMPS OF VARIOUS PERIODS, PRINCIPALLY ROMAN.

## Case XIV.

While lamps are said to have been invented by the Egyptians, and while many have been found in early sites (witness the large collection of Minoan lamps in Case IV, and the examples from Cyprus in this case) the bulk of the terracotta lamps of the classical period in the museums of the world can be assigned only to Roman tinces. There are two lamps in this case, Nos. 29 and 35. besides those from Cyprus, that can be said to be Greek, and they were made in the Roman period; all the rest are Roman.

Roman lamps (and indeed the Greek ones as well) were made in moulds. Some of these moulds exist. Often on the bottom of the lamp the maker's name, stamped in the mould, comes out in clear letters. As a rule, however, no signature will be found. When two lamps are obviously made in the same mould, and one is signed while the other is not, it means that the same mould was used for the top, but not for the rest of the lamp, and that they were both made in the same factory; but, apart from that, it is almost impossible to assign unsigned lamps to their makers on grounds of technique, as we can in the case of Greek vases.

Most of these Roman lamps have but one nozzle, and the only correct method of dating them is often by the shape of the nozzle. Of the typical Roman lamps, the earliest that have come down to us seem to start in the end of the second century B. C., after which we have a continuous series with which to work. The earliest form is that shown in the group 14 ; they are called delphiniform lamps from a fancied resemblance to a dolphin. In the Imperial period five forms are distinguished, and are here given according to their date. (1) Lamps with volute nozzles, like No. 5, and the one to the left in the group No. 7. (2) Lamps with pointed volute nozzles, like Nos. 25, 27, 31, 32, 40. (3) Lamps with grooved nozzles, like the group No. 47. (t) Lamps with small plain nozzles, like Nos. $8,10,15,23,24$ and others. (5) Lamps with heartshaped nozzles, like Nos. $3+$ and 41 . The first two groups begin in the first century B. C., and last through the first century A. D.; group 3 belongs in the first, 4 in the second, and 5 in the third century of our cra. In the
study of lamps with more than one nozzle, or in the study of bronze lamps, the same rules apply.

With these remarks, let us examine carefully the lamps themselves.
No. 1. A lamp from Cyprus. Lamps do not appear in excavations in this island in deposits earlier than the seventh century B. C. This primitive form, being merely a saucer with the rim pinched together to make a wickholder, is the earliest type.
No. 2. A small open lamp, also from Cyprus, with the rim pinched to form a spout, and a side handle. 'This probably is to be dated as in the sixth century B. C.
No. 3. A lamp, said to have been found in excavating a Phoenician site in the Island of Malta. It is made on the same plan as No. 1, but the rim is pinched twice to hold two wicks. Sixth century B. C.
No. 4. A plain, open lamp, with a back handle, and very much blackened from use. It was made in Etruria, either in the sixth century B. C., or else the century after.
No. 5. A lamp of the type with volute nozzles, with a design of three divinities seated, with two figures underneath them. On the bottom of the lamp, traces of a signature. First century B. C.-first century A. D.
No. 6. A lamp of the same period, with a relief of a satyr carrying a torch. The nozzle, which is missing, was probably of the pointed rolute type.
No. $7 \mathrm{~A}, \mathrm{~B}, \mathrm{C} . \mathrm{A}$ group of three lamps, each with a design in relief of Jupiter with his eagle. 'Two of them (A and B) have volute nozzles (one, 7B, has two nozzles) the third has a small, plain one. First and second centuries A. D.
No. 8. A lamp with a small, plain nozzle, and a device of Eros, winged, and carrying a torch on his shoulder. On the foot is the maker's name (illegible). Second century A. D.
No. 9. A lamp with two volute nozzles, and a handle, on which is a design in relief of acanthus leares. The principal design is of Cupid walking to the right with a bow in his hand, and a bar across his shoulders, on which hang two pails. First century B. C.-first century A. D.
No. 10. A lamp with a plain nozzle, and a design of cupids at a winepress. Second century A. D.

No. 11. An undecorated lamp with a high handle (now broken off), and four plain nozzles. Second century A. D.
No. 12. A terracotta lamp on a tall base, on which is a woman in relief. The lamp itself is small, and has four nozzles. First century A. D.
No. 13. An undecorated lamp, with a handle, and nine small nozzles. Second century A. D.
No. 14 A. B. C. A group of three delphiniform lamps, undecorated. First century B. C.
No. 15. A lamp of red clay, with a small, plain nozzle, and a relief of Lecła and the Swan. On the bottom is stamped the maker's name [CLOS] (very indistinct), and a human foot. Said to come from Athens, but certainly of Roman manufacture. Second century A. D.
No. 16. Another lamp with the same subject, also said to have come from Athens, but with a volute nozzle. First century B. C.-first century A. D.

No. 17. An mindecorated bronze lamp, of about the same period, with a crescentshaped handle.
No. 18. A bronze lamp of either the second or third centuries A. D., with a crescentshaped handle.
No. 19. A bronze lamp, resembling the delphiniform type. First century B. C.
No. 20. A large bronze lamp with a crescentshaped handle, and a nozzle. First century B. C.
No. 21. A bronze lamp, in the form of a satyr's head, so adapted that the mouth becomes the hole for the wick. Found in Etruria. Second-first centuries B. C.
No. 22. A bronze lamp, in the form of an open saucer, with a channel for the wick. First century B. C.
No. 23. A small lamp with a plain nozzle. The design is of a grotesque figure in a boat. On the foot is the maker's name, F (?)VRT•EPII. Second century A. D.
No. 24. A lamp of the same period, and perhaps from the same factory. The decoration is a relief of a bull in front of an altar, on which are offerings. Second century A. D.
No. 25. A small ramp, with a pointed volute nozzle, and a rosette design. The handle has been broken off. First century A. D.
No. 26. A lamp of the same period, with two volute nozzles (one
broken), and the handle also broken off. In the centre is a rosette pattern.
No. 27. A lamp, with a pointed volute nozzle, no handle, and a curious design, the meaning of whieh is not clear. First century $\mathrm{A} . \mathrm{D}$.
No. 28. A late lamp. of the third century A. D., if not later, with a design of a warrior advancing to the right, spear in hand.
No. 29. A lamp of Greek manufacture, but made late in the Roman Imperial period. It hears a representation of two gladiators fighting. On the bottom is the name of the maker, in the genitive case, IIPEIMOr. This manufacturer is well known, and works of his are to be found in many museums. Thircl century A. D).
No. 30. A small lamp, with a pointed volute nozzle, broken, and a design of two short swords and two round shiclds. First century A. D.
No. 31. A lamp of the same class and period, with a spirited relief of a running gladiator, fully armed with helmet, breastplate, graves, shield, and sword. Underneath is the sign $\pi$.
No. 32. A small lamp of the same elass and period, with a relief of two glacliators' helmets.
No. 33 A. B. C. A group of three lamps with chariot scenes. One (33A) has an ordinary volute nozzle, the other two pointed volute nozzles. One was found at Chiusi in Etruria, the other two were acquired at various times.
No. 34. A lamp with a heartshaped nozzle. The relief is of the youthful Herakles. Around the outside is a border of vine leaves and lounches of grapes. On the bottom is the name of the maker, STERCEI(?). Third century A. D.
No. 35. A lamp of Greek manufacture, with a design of Apollo with a mirror, standing by a tripod. On the bottom, is the maker's name, K.l.IIKTO؟, in late Greek characters. Thirl century A. D.
No. 36. A lamp with two plain nozzles, and a crescentshaped handle, in the form of a bull's head in relief. Second century A. D.
No. 37. A (loul)le lamp, with a nozzle at cach end, and a ring in the centre. by which it was suspended. It the sides are animals' heads. On the bottom is the name QV CLVS • HER. Second century A. I).
No. 38. A small, plain lamp, or oil pourer, shaped like a jug with the
spout at the bottom, and a back handle. From Jerusalem. First or second century A. D.
No. 39. A lamp with a small, plain nozzle, and the relief of a lion. On the bottom is the name CAS : VICT. (Cassius Victor). Second century A. D.
No. 40. A lamp with a pointed volute nozzle, and a decorative design of conventional foliage. First century A. D.
No. 41. A lamp with a heartshaped nozzle, and a border in the form of a garland of myrtle. On the bottom is the name LVCANI. Third century A. D.
No. 42. A lamp, formerly on a high base (partly broken off), with a handle (broken), and scven volute nozzles (one broken). First century A. D.
No. 43. A lamp with a small, plain nozzle, and a crude design of a running animal in relief. On the bottom are the letters C•OP•REST, probably an abbreviation of the maker's name (C. Oppius Restitutus). Second century A. D.

No. 44. A crude lamp of black clay, with a design of a lizard in relief. Said to have come from Pompeii. First century A. D.
No. 45. A small lamp of black clay, with a small, plain nozzle. The design is of a krater shaped vase in relief. On the bottom are the letters CISTIFAN, probably an abbreviation of the maker's namc. Second century A. D.
No. 46. A small lamp of a shape somewhat resembling the delphiniform type, and with a decoration of a guilloche, and an animal's head. Said to have come from Jerusalem. First century B. C.
No. 47. A and B. A group of two lamps, of the type with grooved nozzles, with the peculiarities of this very intcresting class, such as the sunken contre, raised rim, clongated nozzle, and projecting knobs at the sides. One of these lamps (47A) is undecorated, the other (47B) has only a comic mask. Both have the maker's name, in the genitive case, on the bottom, STROBILI, in good raised letters. This maker is well known, and numbers of lamps from his factory are extant. The undecorated specimen is said to have come from Cologne: the other camc from Chiusi in Etruria. It
is believed that these lamps were manufactured at Mutina, the modern Modena. First century A. D.
No. 48. A lamp of the delphiniform type, with a back handle, and with lincar decorations. On the bottom is stamped an inscription. IICII(?). First century B. C.
No. 49. A curious lamp, with a nozzle which is almost a part of the body, and a hole for the wick of the size of a pin. Second contury A. D.
No. 50. A and B. A group of two lamps, which are perhaps the latest in date of any in the case; for they bear the sign $\mathcal{P}$ of the early Christians. Third or fourth conturies $\mathbb{A}$ A. D.

## ROMAN LAMPS NOT ON EXHIBITION.

Most of the following lamps have no interest, but for the signatures on the bottoms of some of them. They are, as a rulc, devoid of decoration, and crude in manufacture; lut there are some excellent ones alss.
No. $51 \mathrm{~A}, \mathrm{~B}, \mathrm{C}$. Thrce lamps, all from the same factory.
51A. This lamp is of red clay, with a small nozzle and back handle, and the centre, where the decoration existed broken. On the bottem is the signature C : OPPI: RES. (C. Oppius Restitutus.)
51 B. A crude delphiniform lamp of buff clay, decorated only with two small fillets. Inscription as in 51A.
51 C . Same as 51 B in shape, with rough incised line decoration. On the bottom, the inscription OPPI. (Oppius.)
No. 52. A lamp of red clay, decorated with a design of a dog, running to left. The bottom is broken, but part of a signature can le made out, with the letters MIE.
No. 53A and B. Two very crude delphiniform lamps, each decorated with a vory rough incised pattern, and with a broad, flat handle at the back. 53A has on the bottom the inscription BIC.AGA. (?) and 53B, C. VIC.AGA, in good clear letters. (C. Vicius Agathus, or C. Vicirius Agathopus.)
No. 54 A and B. Two lamps of identical shape and design with the group 5.3, each having on the bottom in good clear letters the inscription L.FABRIC.MAS. (L. Fabricius Masculus.)

No. 55. A lamp of buff clay, with a small round whute nozzle, undecorated, and on the bottom the inscription FRVCT in crudcly incised letters.
No. 56. A fragmentary lamp of recl clay, with a grooved nozzle, similar to the group 47 A and B , undecorated. On the bottom, in good raised letters, is the inseription L.VPATI.
No. 57A,B,C,D. Four lamps, identical with the groups 53 and 54: their only interest lics in the inscriptions found upon them.
57A. C•I V L•N I C E F (C. Julius Nicepherus.)
57B. O N TE VFI.
57C. N N A E $\cdot \mathrm{L}$ V C I (very clcar) (1. Nacvius Lucius).
57D. F A B T E R TI A.
No. 58. A lamp of buff clay, with a small, plain nozzle, a handle at the back, and, around the edge, a bead deeoration. The centre medallion is broken. (In the bottom is the inscription T V N D (or O) R A.
No. 59. A lamp of red clay, with a lug handle at the side, undecorated, and probably dating in the first eentury A. D. On the bottom is the inseription $\dot{L} V^{\circ}{ }^{\circ}$.
No. 60A and B. Two undeeoratcd lamps of red clay, with back handles (that of No. 60A is broken) and growed nozzles. Each has on the bottom the inscription M Y R O. (Myro.)
No. 61 A and B. Two lamps, both with plain, short nozzles (that of No. 61 A is broken off) and, on the bottom, the inscription FLORENT. No. 61A has, in the contre medallion, the head of an cmperor (?) wreathed, facing left: No. 61 B is very much worn, but the design suggests the struggle of Herakles with the Kerynaean hind.
No. 62A and B. Two lamps, both with heart-shaped nozzles, and on the bottom the inscription $C$ A $E \cdot S A$, can be made out. The whole inscription should probably read $\mathrm{L} \cdot \mathrm{CAE} \cdot \mathrm{SAE}$ (L. Caccilius Saceularis).

62A. In the centre, two bears, on their hind legs; around the outside, a garland of olive leaves. An identical specimen signed by the same potter is in the British Museum (Cat. Lamps, No. 1193).
62B. In the centre, a dolphin; around the outsidc, a garland, like the one in No. 62A. There is an unsigned specimen identical with this in the British Museum (Cat. Lamps, 1195).

No. 63. A lamp of buff clay with a high back handle. The nozzle has been broken off. In the centre is a fine comic mask. On the bottom is an illegible inscription.
No. 64. A lamp, with a volute nozzle, and no handle, of pinkish clay. In the centre is a tragic mask, with an claborate headdress. ()n the bottom, the inscription S $\mathrm{V}^{\top} \mathrm{I}$.
No. 65. A lamp, identical with the groups 53, 5t, and 57, with, on the bottom, the inscription S V C C E(?) S. (S E ?).
No. 66. A lamp of buff clay, with plain nozzle and back handle. The centre has a decoration of two bunches of grapes. On the bottom is the inscription P A S A V G. (Pasenius Auguvinus.)
No. 67. A large lamp of red clay, decorated with a stag running to right. Behind him is a tree. ()n the bottom is the inscription C.C L O•S V C. (C. Clodius Successus.)
No. 68. A lamp of red clay, badly broken, with a spirited decoration of a nude horseman galloping to right.

## MISCELLANEOUS GREEK, ETRUSCAN, AND ROMAN OBJECTS.

## Case XVI.

The objeets here exhibited are impossible properly to classify, as they seem to be of every period, and to fit into no particular eategory. They have been numbered, for convenience, to follow the Roman lamps, as the majority of the objects seem to be Roman. There are, however, two exceptions, namely, the openwork grill, and the terraeotta slab with figures in relief, whieh have been numbered to follow the last Etrusean objects in Case XXXIV, as both these specimens are Etrusean arehitectural fragments.
No. 69. A plaque, shaped like a krater or mixing bowl, with volute handles. This is of late Italie or Roman manufacture. First century B. C.
No. 70. A vase in the form of a flask, with two S-shaped handles, and on either side a gorgon's head in relief. The clay is light in color, and there may have been polyehrome decoration. Roman. First century B. C.
No. 71. A terracotta plaque of a sphinx, of late Greek or Roman manufacture.
No. 72. A terraeotta mask of a bearded man. Hellenistic or Roman. Found near Beyrout, Syria.
No. 73. A pendant of terracotta, in the form of a medallion, with two holes at the top by which to hang it. In the centre is a Medusa head. Probably the work of Greek colonists in Southern Italy, and of the fourth or third centuries B. C. Traces of polychrome decoration exist.
No. 74. A set of four terracotta weights. Their original provenance is unknown, but may well have been Athens, as they all have the typical Attie owl and amphora in relief on them. In no ease ean they antedate the Roman period.
No. 75. A similar weight, with a relief of the infant Herakles strangling the serpents.
No. 76. A similar weight, with a palmette design.
No. 77 . Another terracotta weight, with a small floral pattern.
No. 78. Another weight, with a relief of two heads, facing each other. All of these weights are of the Roman period.

No. 79. A collection of cight fragments of Roman brieks, stamped with various inseriptions, and belonging to various periods.


No. 275. A eolleetion of fragments of an Etrusean openwork grill, found at Orvieto. With this exhibit a photograph has been placed, showing a correct restoration of the original pattern from these fragments, many of which are not on exhibition. The deeoration was originally of double thiekness, and ran along the ridgepole of a temple. Notice the polychrome decoration. Fourth eentury B. C.

Luce and Holland. A. J. A., XXI, 1917, 296-307, Fig. 1. E. D. Van Buren, ibic., XXIII, 1919, Luce, ibid., 1.57-160, 161-2.
No. 276. A slab, possibly a small metope, of terracotta, with a design in relicf of a man in a short gament, of the type called a chiton, earrying a staff in his left hand, and aceompanied by a boy and a lamb. At the right is a tree, around whieh is a serpent. This is perhaps a representation of Jason and the Golden Flceec. The provenance is unknown, but it is either Etruscan, or from Southern Italy, in the neighborhood of Tarentum. Fourth or third centuries B. C.

# ITALIC ANTIQUITIES-PRINCIPALLY ETRUSCAN 

See A. J. A., v, 1901, p. 17 (Frothingham): Furtwängler, Sitzungsberichte der Akademie zu München, 1905, p. 254 ff.

## ETRUSCAN BUCCHERO WARE

## Case XVII.

This is the national pottery of Etruria,-its great contribution to the history of ceramic art. Other peoples have produced ware of this kind, notably Cyprus among classical lands, but none have brought it to the height of perfection to which the Etruscans attained.

The pottery is heary and coarse in shape and design, compared with the delicacy and refinement of the Attic ware. An undercurrent of Greek influence, however, makes itself felt. In the forms of the ocnochoe and the kantharos, the original Greek shape is often exactly copied; white in the others, the suggestion of Greek prototypes often appears.

Chiusi, the ancient Clusium, seems to have been the centre for the manufacture of this pottery, which was spread over the country.

A curious feature of the bucchero ware is that it cannot be dated exactly. We know that its manufacture began in the sixth century B. C., and that it continued to be made in the fourth; but beyond that we know nothing. The same methods were employed, and the same kind of vases made for two centuries. They can be dated only when they are found together with Greek vases, of known date.

In decoration, there are four styles, all existing side by side, all continuing through the two centuries during which this ware was made. There are, first, the undecorated vases. Secondly, there are those with incised designs, a relatively rare class, and commoner in the early period than it is later. The third and fourth classes both employ relief decoration. In one, the design is laid on the moist clay by rolling a cylinder around the side before firing; in the other, the design is made by moulds. The latter is the more common of the two; and, indeed, the most common of all the forms of ornamentation. It is extremely noticeable that these potters
are deliberately striving to imitate metal technique; the forms suggest bronze vessels cast in a mould. Often the illusion is carried further, and chains, either of clay or metal, are made to hang from the hanclles.

No. 1. A ehalice, on a high stem, and without handles, with simple designs in relief. This is a characteristic bucchero form. From Orvicto.
No. 2. A pitcher, undecorated, but showing in its shape the influence of Greek forms. Found at Chiusi.
No. 3. A kantharos, decorated with designs stamped from moulds. From the Coleman Coll.: sale lat. p. 35, No. 153: provenance uncertain.
No. 4. A ehalice, of more graceful form than No. 1, on a high stem, and without handles, having its deeoration applied by means of cylinders. This form attained great popularity with the Etrusean potters, and was brought to perfection by them. Found at Chiusi.
No. 5. A pair of undecorated amphore. The sloping neck and flat handles are in imitation of metal technique. Both from Chiusi.
No. 6. A pair of covered bowls, small and undecorated. Both from Chiusi.
No. 7. An amphora of a characteristic shape. The moulded decoration shows the influence of the Orient, with its band of sphinxes; and it may be said that with the buechero ware the decoration is always orientalizing as long as this pottery lasts. Chiusi, being inland, and removed from the influence of trade with foreign countries, which was strong in such places as Vulci, 'Tarquinii, and Caere, kept to the end the ideas of the Orient, unhindered by Greck influence, except that Greek shapes were often employed. Found at Chianciano, but probably made at Chiusi.
No. 8. In undecorated chalice, on a very high stem. The cup is small, and round, with a flat lip. Found at Chiusi.
No. 9. A pair of undecorated kantharoi. The beautiful shape shows Greck influence. Both from Chiusi.
No. 10. A very graceful oenochx, or pitcher, with a round body, undecorated. Found at Chiusi.

No. 11. A pair of pitchers, decorated with simple incised designs. From Chiusi.
No. 12. A covered jar without handles, possibly a burial urn. Undecorated. Said to have been found in the Alban Hills.
No. 13. A pair of oenochor, or pitchers, with moulded decoration in relief, showing marked oriental influence, perhaps brought in through the Ionian and Corinthian vases. One has a design of antelopes or deer in relief. It is from Chiusi and was formerly in the Coleman Coll. (sale cat. 159; p. 35). The other has lions' and horses' heads, and was found at Orvieto.
No. 14. A large oenochœe, with designs in relief of sphinxes, and other oriental motives. Found at Orvicto.
No. 15. A stand for fruit or other food, of purely Etruscan shape. from Chiusi.
No. 16. A jug of bucchero ware, with a cover, revealing a tendency to imitate metal vases. From Chiusi.
No. 17. A large vase of bucchero ware found south of Chiusi, but probably made at Clusium. It is said to have contained ashes, and was therefore a cinerary urn. The decoration of horsemen, in the usual moulded style, is striking, although the clay lacks the brilliant black finish of the ordinary vases.
No. 18. A large pitcher of heavy clay, with a simple mould decoration. From Chiusi.
No. 19. A rhyton, or drinking horn, in the form of a ran's head. 'This is a copy of similar vases of Greek manufacture. Vases of this or similar shapes were common in the Attic redfigured period, and earlier. Provenance unknown.
No. 20. A vase of cylindrical shape, with a slightly flaring lip, and no handles. In the centre it is girt with a ring in high relief. This shape is quite unusual. Provenance unknown.
No. 21. A pitcher, or ocnochœe, with orientalizing designs in relief of heads in profile, with the Egyptian style of wearing the hair. Found at Orvieto.
No. 22. A tray on a high foot, with a decoration of three heads on the rim. The hair is wom after the Egyptian manner. Found at Chiusi.
No. 23. A pair of amphore, showing the influence of the Orient.

Along the rims of these two vases are medallions of heads treated with headdresses resembling the Egyptian. Found at Chiusi.
No. 24. A typical Etruscan stand for offerings. Found at Chiusi.
No. 25. A pair of trays, with high, vertical handles. These trays originally rested on high stems, and were perhaps used to hold offerings of first fruits, or similar sacrifiees, to the departed, in whose tomb they were found. Provenance unknown.
No. 26. A very curious pitcher. This vase emmbines both ineised and relief decoration, the reliefs being applied by reetangular stamps, the whole of which, including the figures in relief, is left on the vase. Between these raised reetangles, of which there are three in all, there are ineised decorations. The lip of the pitcher also is curious, in that it is in the form of a stramer. Said to have come from the Alban Hills.
No. 27. A tall amphora, with a cover, having normal relief decorations of the type stamped from moulds, combined with incised ornamentation. The vase is imperfeetly fired, and is grey, instead of the usual brilliant black of bucehero ware. Said to come from Chianciano.
No. 28. A strainer for wine. This is a peculiarly well preserved specimen. The top was made to fit over a narrow vessel, like a cup or pitcher. It is perforated with small holes, so small that only the liquid can get through, leaving sediment or other matter on the surface. The liquid then went through the narrow tube into the vessel. It would be easy to refilter the wine by stretehing a small piece of linen across the end of the tube, and thus keep out any matter that might, by any possibility, have gone through the holes at the top. Said to come from Chiusi. Formerly in Coleman Coll; sale eat., p. 36. No. 176.
No. 29. A tall amphora, with the usual orientalizing design in relief, this time taking the form of a frieze of lions. Provenance unknown.
No. 30. A brazier of the kind used among those classes among the Etruseans who could not afford to have them in bronze. Made of heavy coarse elay, hardened by firing to the highest point, it served admirally for the making of a fire
for warmth, or for cooking purposes. With this example were found a number of vascs and other objects of bucchero ware, evidently used for cooking. Two of them have been placed with this brazier; they are a small bowl, and a plaque, often callcd a palette by experts. Found at Chiusi.
No. 31. A pitcher, with the usual orientalizing designs in relief. It has bcen broken and mended. From Chiusi.
No. 32. A largc, cauldronlike pot, with a frieze of cats around it, stamped on from monlds. There are three knob handles. Provenance unknown. Coleman sale cat., p. 37, No. 188, and pl.
No. 33. A small, undeeorated goblet on a low stem. From Chiusi.

PRIMITIVE ITALIC POTTERY, MOSTLY PRE-ETRUSCAN.

## Case XVIII.

These objeets are from Italic and carly Etruscan tombs excavated in Italy for this Museum. Most of the tombs date at least from the seventh century B. C., and sometimes very much earlier; many of the vases and pots exhibited here were made by hand, without the aid of the potter's whect; while others are of the early bucchero ware, before it attained the perfection shown in Case XVII.

Of these early tombs there are two elasses. The earliest seem to be the well tombs (tombe a pozzo, the Italian namc, bcing in general use for this type) and the vases and other objects found in these tombs are said to belong to that period of Italic civilization known as the Villanuova period. A characteristic urn of the Villanuova type is No. 44 E in this casc. The other class of tombs of this early period is that of the treneh tombs (tombe a fossa) which is often synchronous with the well tombs. A third kind, that of the chamber tombs (tombe a eamera) is more properly a genuine Etruscan form.

The pottcry in this casc has, as far as possible, been arranged according to tombs, all vases from the same tomb being placed together. The tomb groups thus formed are given numbers, and the objects are distinguished by letters of the alphabet.

Most of these vases were found at a site called Narce, in Central

Italy; and it should be borne in mind that whereas in the well tombs the remains are regularly cremated, in the trench tombs inhumation is the usual, but not invariable custom.

No. 34. Group of pottery from a very early tomb of the seventh century B. C.
A,A. A pair of large vases, each on a tall, sloping stem, heavy and clumsy in shape. They were probably used for offerings.
B,B. A pair of amphore of a crude shape, hand made.
C. A group of four small vases of early bucchero ware.
D. Another group of two similar vases.

No. 35. A group from a tomb of a little later date. The objects in this toml) group can be approximately dated by the specimen D. Bronze objects found with this pottery will be found under the number 61 in Case XIX.
A. An amphora with a ribbed body, and vertical handles joining the shoulder and the lip, and hand made.
B. A group of two. small, undecorated vases.
C. A vase support of red clay, decorated with designs in white.
D. A small cup of supreme importance, which serves to fix the date of the other objects in this tomb. It is a proto-Corinthian skyphos, or small drinking cup, and we know that such vases date in the seventh century B. C. Thus this little specimen proves the other objects, both of pottery and bronzc, found in this tomb, to be of that period.
E. A group of two trays for offerings.
F. A kantharos of early bucchcro ware.

No. 36. The remains in this trench tomb were those of a little girl. The bronze objects found with these vases will be found under the number 59 in Casc XIX.
A. A group of eight small vases, of which thrce are trays on low stems, thrce are small, crude amphora, resting on these trays, and the other two are one-handled cups.
B. A miniature vase support, with a vase resting upon it, decorated with geometric designs in red on a buff clay. These vasc supports will be fully discussed under Case XXXVII.
C. A group of three small trays. One is of dark clay: the other two (of whieh one has a cover) have geometrie designs in red on buff.
D. A eup on a high stem, in whieh is another onehandled cup, or ladle.
No. 37. A group of pottery of the earliest form of Italie geometrie ware. All are said to have come from the same tomb. This pottery, though it comes from Etruria, eannot be said to be Etruscan, in the sense that bucehero ware is Etruscan, but should be called, for want of a better name, Villanuovian, as that eivilization, represented by the Villanuova urns, of whieh C in this group is an example, seems to be non-Etrusean, and pre-Etrusean, though we do not know definitely who the makers are. The date on the label (eighth century B. C.) is conservative, but fairly aeeurate. The um C is hand made: but the others seem to be made with the aid of the wheel. The deeorations are in red on a buff ground.
A. A bowl with geometrie decorations of animals.
B. A vase in the form of a pail, with a handle at the top.
C. Urn of the typieal Villanuova shape, with elaborate geometric decorations. This probably contained the ashes of the oeeupant of the tomb.
D. Small vase support with a vase in place at the top. The support has a cheekerborard decoration, in the centre, with linear decorations above, and lines and triangles below. The vase has a design of eoneentric eireles.
E. A shallow dish on a low stem, with geometrie designs in red.
F. A vase similar to the one in the support D, with the same design of eoneentrie eircles.
No. 38. A group of two early Italic geometrie cups, one of them on a stem, hand made.
No. 39. A skyphos of Italie geometrie ware.
No. 40. A eup, on a tall, thiek stem, of Italie geometrie ware.
No. 41. An early bueehero gollet, of the seventh eentury B. C.
No. 42. A piteher of Italic geometric ware, broken and mended.
No. 43. A group typical of the carly Etruscan pottery. These large, erude vases occur quite commonly in the prebucehero ware (sometimes ealled impasto). They were
apparently for clrinking, being too large to be used as ladles, as vases of this shape usually were.
No. 44. A group from an carly Etrusean tomb. These vases seem for the most part to be made on the wheel; the presence of a Villanuova urn (E) in this tomb group proves that, if this be Estrusean at all, it must rank as very early in the period.
A. A bowl of coarse reddish clay, fired black, on a high stem. Hand made.
B. An amphora on a high foot, with vertieal handles; the clay is the same as in the preceding specimen, but the vase seems to be wheel made.
C. A small kyathos, or ladle, of early bucehero ware.
D. An Etrusean vase support of the seventh century B. C., of medium large size, and of red ware, without any applied decoration. It contains a large vase of the same ware, also undecorated. Both the support and the vase are wheel made. Vases and supports of this kind, smaller examples of which we have already seen in this ease, are probably not for ashes, but for offerings, or possibly for cooking.
E. An urn of the Villanuova shape, of the same red ware, broken and mended. It may antedate the vase support slightly, and can be considered a late specimen of the Villanuova urn.
F. A coarse, crude, hand made bowl of the same type of clay as A and B.
No. 45. A group of two early bucehero vases; one, a rough amphora, and the other a cup on a low stem.
No. 46. A burial urn, showing the kind of cover used by the preEtruscan peoples. It will be noticed that it is of a different kind of clay from the urn itself. This urn still contains the ashes of the man or woman buried in the tomb of which it was the prineipal object.
No. 47. A group of three small vases, similar to those in the group numbered 45 .
No. 48. A group of six miseellaneous small vases of Italie geometric and impasto ware. It ineludes two trays, a shallow dish, and a piteher of the geometric pottery, and two small impasto vases.

No. 49. Two vase supports, one of geometric ware, and one of red ware. With the geometric example is the vase that went with it originally.
No. 50. A group of nine small vases, principally of the Villanuova period.
No. 51. A fairly large vase support of geometric ware, with the vase belonging to it, which is of buff pottery, with a reddish brown slip, and undecorated.
No. 52. A group of ten small vases, hand made, of the Villanuova period.
No. 53. Two Italic geometric trays, each with a cover. One of these covers is of plain reddish ware.
No. 54. A vase support of red ware with a vase of reddish brown ware.
No. 55. A Villanuova urn of red clay, with a heavy black cover.

## PRIMITIVE ITALIC BRONZE OBJECTS AND JEWELRY.

Case XIX.
These objects come, for the most part, from the tombs, the pottery from which is shown in Case XVIII. They are practically all from Narce in Etruria. Each tomb group is given a number, and the objects are distinguished by letters.

No. 56. Group from an early tomb.
A. Fragments of a bronze bit. To one of these fragments a piece of the horse's jaw bone adheres, with well preserved teeth.
B. A bronze bracelet.
C. 'Two bronze fibulæ, or brooches. Fibulæ are among the commonest of objects found in these early tombs.
D. Two fragments of small bronze chains.

No. 57. These are the bronze objects from the tomb of which the pottery is listed under the number 37 in Case XVIII. That the tomb was of a woman is shown by the nature of these bronze ornaments.
A. A group of three bronze handles for a pail or bucket.
B. A pair of handles for a cup, or other bronze vase.
C. A heavy bronze armlet, with a brooch attached.
D. A series of beautiful ormaments of gilded bronze, the gilding being of heavy gold leaf, showing the skill of these early peoples in the goldsmith's art.
E. A group of fibulæ, or brooches.
F. Three pendants, perhaps used as weights for drapery. This form, of a solid bar, with three little drops hanging from it, is very common.
G. A pottery ladle of the seventh century B. C.
H. Part of a necklace of glass beads.
I. Beads and other objects of amber.
J. Fragments of bronze rings and chains.
K. Pendants, such as liang on weights similar to F.
L. A pair of ornaments, originally gilded, with teeth like those of a comb. They were worn around the neck.
M. A pair of bullæ, one large, one small. Every Etruscan and Italic child had such a thing put around its neck at birth, as these bulle were supposed to contain amulets to avert the evil eye. As the child grew, the bullæ were changed, and larger ones put in their place.
N. A faience image of a dog. This is non-Italic, and was an importation from Egypt or Phoenicia.
O. A similar image of a duck.
P. A bead, on which is a design in intaglio, probably Egyptian.
No. 58. Group from another early tomb. The pottery associated with these objects will be found in Case XVIII, under the numbers 51 and 52 .
A. Thrce fragnents of a bronze girdle.
B. A bronze bulla.
C. A bronze razor, a blunt looking shaving appliance.
D. A fine, long necklace of flat beads.
E. A series of six Egyptian goddesses, which serve to date the objects in this tomb in the seventh century B. C.
F,F. A large assortment of fibule, or brooches.
G. A large, heavy bronze armlet. Within is an arrow head of flint.
H. Miscellaneous objects, including a pair of tweezers, and a bead of blue glass.

No. 59. Bronze objects from the tomb of a little girl, the pottery from which is under No. 36 in Case XVIII.
A. A group of five bronze bracelets.
B. A large collection of small brooches, some of which were gilded.
C. A number of beads and other objects, including one of gold.
No. 60. Bronze objects from a tomb, the pottery from which will be found under the numbers 48 and 49 in Case XVIII.
A. A fragmentary bowl of bronze.
B. Two bronze armlets.
C. Five bronze fibulæ.
D. A weight, like those under No. 57 F.
E. A series of bronze rings and fragments.
F. Three bronze spiral ornaments, perhaps used as weights for drapery.
No. 61. Bronze objects from a tomb of the seventh century B. C. The pottery is to be found in Case XVIII, under the number 35 , and the example D in that group serves, to date the objects found with it.
A. Four bronze bullæ, of varying sizes.
B. A series of ornaments of gold and gilded bronze, very beautifully wrought.
C. A small, nude, female figure, carved in amber.
D. A set of four Egyptian amulets.
E. Two fibulæ, one covered with gold wire.
F. A pair of bronze tweezers, used often in the toilet instead of razors, for pulling out, rather than cutting the beard.
G. Two bronze fibulæ.
H. A set of rings of fine bronze wire.

No. 62. Bronze objects from the same tomb as the collection of pottery in Case XVIII, under the number 34. Seventh century B. C.
A. A bronze handle of fine workmanship and design. In the ages in which this has been buried underground it has taken on a beautiful incrustation, known as patina. In the majority of cases, such a patina is green. Here, however, it will be noticed that it is a beautiful and unusual blue, which adds to the rarity of the object.
B. A eollection of fibula of bronze.
C. A bronze razor, with a fine patina.
D. Spiral sheathing of bronze, for a staff.

E,E. A large series of spiral rings of fine bronze wire.
$\mathrm{F}, \mathrm{F}$. Two small bronze bracelets.
G,G. A series of four rods of bronze.
H. Two bronze nails, used perhaps as studs in a shield, or other pieee of armor.
I. Three amber beads.

## PRIMITIVE ITALIC BRONZE ARMOR ANI UTENSILS.

## Case XX.

The objeets contained in this case are armor and large implements of bronze, from various tombs. Each of the objeets in this ease has its own number.

No. 63. A pair of drinking eups of impasto ware, of a graeeful shape.
Each is on a low stem, and has one high handle. They are therefore something like the Greek kyathoi, or ladles. They were originally deeorated with studs of bronze set like a belt around the widest part of the body. Although the shape is graceful, the exeeution is crude.
No. 64. A bronze helmet, found at Narce in Etruria, said to be the finest speeimen of its kind in existenee. It was made in the seventh century B. C., if not earlier. In the museum at Corneto, the modern town on the site of the aneient Tarquinii, there is a helmet like this; but it is not so fine a specimen. There is an interesting example in the Metropolitan Museum in New York.

Frothingham, Roman Cities in Italy and Dalmatia, p. 109, and pl. XIV; S. B. L(uce), Museum Journal, XI, 1920, pp. 68-71, Fig. 43.
No. 66. A drinking eup of impasto ware, undeeorated, and in shape something like the two under the number 63 .
No. 67. A bronze piteher, with a good patina.
No. 68. A bronze bueket, from the same tomb with the handle No. 62 A. in Case XIX, and with the group 34 in Case XVIII. Exeellent workmanship of the seventh century B. C.

No. 70. A two handled high cup of bronze, on a foot, rather crudely executed.
No. 71. A stand of bronze for an urn. This is a bronze example of the pottery vase supports, such as Nos. 49, 51, and 54 in Case XVIII. The person who was buried in the tomb where it was found must have been of considerable importance in his day. Similar bronze supports found in the Regulini-Galassi tomb at Caere (the modern Cervetri) are preserved in the Etruscan Museum of the Vatican.

## PRIMITIVE ITALIC AND ETRUSCAN BRONZE OBJECTS AND JEWELRY.

## Case XXI.

The objects in this case are very similar to those in Case XIX. The specimens are divided into tomb-groups, all the things that were found together being placed together. Each tomb group is given a number, and each object, or series of objects, in the group, is distinguished by a letter. All of these specimens come from Narce, and the pottery found with them is, for the most part, in Case XXII.

No. 72. Bronze objects and pottery found in the same tomb with the helmet in Case XX.

Frothingham, 1. c., pl. XIV ; S. B. L(uce), Muscum Journal, XI, 1920, pp. 68-71.
A. Fragment from a drinking cup, with a handle on the rim, made in a crude design of a man holding two horses.
B. A canteen, or water flask, of coarse pottery. The side is grooved for the cord to fit, by which it was suspended from the shoulder.
C. A bronze cover for a vase.
D. A pair of bronze bits.
E. A set of four large fibule of bronze.
F. Two bronze razors.
G. A heavy and massive bronze bracelet.
H. A bulla, or locket that was worn fastened by a cord around the neck. Within were amulets to avert the evil eye. This is a typical form, and much more characteristic than those that are shown in Case XIX.
I. A set of six bosses for harness.
J. A large series of ornaments for harness and horse trappings.
No. 73. A group of bronze objects and jewelry from a tomb in Narce. The pottery found here may be seen in Case XXII, under the number 80 . This tomb group is of about the middle of the seventh century B. C., or even later.
A. Two large bronze fibule.
B. Bronze implement, perhaps a form of chisel.
C. Three bronze pins.
D. Miscellaneous bronze objects, mostly fibulæ.
E. A fine bronze armlet.
F. A set of six bronze pendants, in the form of dogs.
G. A long necklace of flat beads.
H. A long pin, perhaps for the hair, with a ball in the middle.
I. A collection of fragmentary rings of silver wire.
J. Ornaments of gold leaf of the Etruscan period from the late seventh to sixth century. Very delicate and beautiful in workmanship.
K. Two small bronze human figures, one male, and one female.
L. A collection of glass and pottery beads.

No. 74. Bronze objects from an early tomb. The pottery group in No. 82, in Case XXII.
A. Fragments of a large bronze bowl.
B. Bronze cover for a vase.

C,D. A large number of fragments of a bronze chair, with a wooden core in the legs.
E. A fragmentary bronze cup.
F. A series of bronze rings and bracelets of different sizes.
G. A bronze ferule.
H. A group of small clay objects, including six reels, in shape like our spools, and a spindle whorl.
No. 75. Bronze objects from the tomb of a woman. The pottery is under the number 81 in Case XXII.
A. A scries of small bronze spirals, and other ornaments.
B. A collection of bronze pins.
C. A group of bronze pendants.
D. Eight pottery reels, and a spindle whorl.

## ITALIC AND EARLY ETRUSCAN POTTERY. VII-VI CENTURIES B. C.

## Case XXII.

This pottery is, as a rule, somewhat later than that shown in Case XVIII, and is also from tombs at Narce. The ineised ware resembling bueehero is characteristic of this period.

Like the eontents of Case XVIII, these vases are divided into groups aecording to the tombs in which they were found. Often these tomb groups belong with some of the groups of bronze objects in Case XXI.

No. 76. Group of vases from a tomb of the seventh century B. C.
A. Four vases of early black ware, resembling bueehero. Most of them have incised decoration.
B. Undecorated pitcher, of coarse pinkish ware, with long, tapering neck.
C. A group of five vases, resembling those under A.
D. Two small trays of buff ware, with bands of a brownish, lustrous varnish.
E. Three bowls of coarse ware, without handles.
F. Flat plate of red ware. The decoration is in white on a brilliant red slip.
G. A small urn, of brown elay.
H. Two small pitchers, of South Italian or possibly Greek manufacture. Here we have a red elay, to which a blaek varnish is applied, in the Attic manner. If these are importations, they would tend to date this tomb group in the sixth eentury B. C.
I. Two erude Italic amphore.

No. 77. The pottery found in this tomb is so numerous that it has, for eonvenience, been given three numbers, 77, 78, and 79. This is surely early Etruscan. The tomb in whieh it was found was a ehamber tomb (tomba a eamera), the latest form of all. Aceompanying this pottery is a drawing of a cross seetion of the tomb, showing how these objeets were found. No bronze objects have been reeorded as associated with this pottery. From the presenee of numerous Greek vases (Corinthian and Italo-Corinthian), whieh are to be
found among the specimens, we can date this very large tomb group as in the end of the seventh century B. C.

No. 77. The larger and more important vases in the group.
A. A coarse burial urn, of reddlish ware, undecorated.
B. A tray of buff clay, with concentric circles of red and black.
C. An amphora, with rude incised designs (rosettes, lines, and a horse as the principal decoration) and handles of an ambitious character.
D. A dish of this same black ware, with incised decoration.
E. A pitcher with a high lip, and incised triangular designs on the shoulder.
F. A pitcher of a more normal shape, and smaller, with similar incised decorations on the shoulder.
G. A pitcher with the same ornamentation as $F$, but smaller.
H. A pitcher having incised ornament on the neck, as well as on the shoulder.
I. A pitcher, with incised triangles on the shoulder. It has been broken and mended.
No. 78. Continuation of the pottery from the same tomb. Under this number are a few Greek and Italo-Greek vases, which serve to date the rest of the contents of this tomb.
A. A ground plan, and a drawing of a cross section, of the tomb in which all this pottery was found. This gives an extremely good idea of an early chamber tomb.
B. An Italo-Corinthian alabastron, of the late seventh century B. C.
C. An Italo-Corinthian oenocho of the same period.
D. A Corinthian vase of the early sixth century B. C., imported into Etruria.
E. Two early bucchero vases; a kyathos, and an amphora with incised decoration.
F. A group of Italic imitations of the so called protoCorinthian vases of the late seventh or early sixth centuries B. C. The little black vase in this group is Etruscan, and an imitation, in bucchero, of the shape most common in the proto-Corinthian technique - the small oil flask, or lekythos.
G. An Italo-Corinthian skyphos.
H. A bowl on a high foot, of Italic geometric ware; the designs are in red on a buff ground.
I. A plate of bucchero ware, undecorated.
J. A shallow bucchero cup, on a low stem, undecorated, with a cover which has elaborate incised decorations.
No. 79. Continuation of the pottery from this same tomb; the objects are distinguished by letters, which continue those of 78.
K,K. Two bucchero plates, undecorated.
L,L. A pair of Italo-Corinthian oenochoæ.
M,M. A round, undecorated bucchero cup, on a stem, with a cover decorated with incised ornaments.
N. A kantharos of rough impasto ware, with incised decoration.
O,O. A pair of amphoree, with ornamentations of pink and black on a buff ground, of identical shape.
P. A pair of bucchero cups, one undecorated, the other a fine chalice with incised designs.
No. 80. A collection of vases from a similar chamber tomb. The bronze objects under the number 73 in Case XXI seem to have been found together with these vases.
A. A small, early bucchero amphora, of characteristic globular shape, with an incised decoration of spirals.
B. A kantharos of this carly ware, with a decoration of knobs and stamped triangles.
C. An amphora of the same shape as A, but somewhat larger, and with the same decoration.
D. A tall jar of a rare technique, known as local Italian. It was found at Narce in the tomb with these other vases. The shape bears a strong rescmblance to that of the Villanuova urns, refined, and made on the wheel. The designs scom Italic rather than Etruscan. It is probably, thercfore, an importation from Southern Italy.
E. A skyphos of carly bucchero ware, showing the influence of the Corinthian potters, as far as shape is concerned. It has an incised design of a bird.
F. An amphora, of the same shape as A and C, but very much larger. It has the usual device of spirals, surmounted ly a bird.

No. 81. Vases from the tomb of a woman at Narce. For bronzes, etc., in this tomb, see Case XXI, No. 75.
A. A small vase support, perforated with holes, broken, and mended. The elay is reddish.
B,B. A pair of large cups or trays, on high, cylindrical feet.
C. A Villanuova urn of reddish clay, undecorated.
D. Three trays of reddish ware.
E. Two small, onehandled bucchero cups.
F. Three small, crude kantharoi without stems. One has ribbed decoration.
G. Five kyathoi, or onehandled eups and ladles of the same ware.
H. Two bucchero bowls.
I. An urn, of undecorated brown clay, without handles.

No. 82. A small group of vases from a late Villanuova tomb. For bronze objects, see Case XXI, No. 74.
A. A late form of Villanuova cinerary urn, with a lid of geometric ware characteristic of the period. In the urn are the bones of the deceased.
B. A similar urn, somewhat smaller, and without a cover.
C. A tray of impasto ware, of a brown color.
D. A bucchero bowl.
E. Two bucchero onehandled cups.

## ETRUSCAN AND ITALIC VASES FROAI VARIOUS SITES.

## Case NXIII.

The pottery in this case brings the series down well into the sixth century B. C.; in other words, most of it is of a later (and better) period than that in Cases XVIII and XXII. Narce, as usual, plays a prominent part in the number of objeets eontributed; but it is not, as in the contents of other cases, the exelusive place of provenance.

In the numbering of these vases the same system of tomb groups is observed but with slight modifications. It is possible, though not certain, that the specimens numbered $83-94$ are from one tomb. In any case, it seems letter to give each of these objects its own number, as many of them are of real merit. In every other case, however, where objects are known to be from the same tomb, the system of
tomb groups has been adhered to. Bronze objects from the tumbs will be found in Cases XXIV and XXVI, with a few of major importance in Case XXV.

No. 83. Six small undecorated bucchero bowls without handles.
No. 84. A small twohandled pot of early bucchero ware, with incised designs.
No. 85. A drinking cup, or kyathos, on a high foot. The one handle is very high. The shape is very graceful, and proves it to belong in the sixth century B. C., if not later.
No. S6. A pair of undecorated bucchero jugs, of the same period.
No. 87. An Attic lekythos, of the early blackfigured technique, which seems to have been found with these vases, and which dates in the sixth century B. C. The painting represents two men running a race, with a trainer at each end.
No. 88. A bowl of eoarse pinkish ware, resembling those in No. 76 E.
No. 89. Two shallow bucchero bowls, undecorated.
No. 90. An Italn-Corinthian perfume vase, or alabastron.
No. 91. A bucchero chaliee on a low foot, with linear decoration.
No. 92. A small Italic cup of buff clay.
No. 93. A pair of bucchero oenochox.
No. 94. An urn, still containing the bones of the deceased. It has a decoration of grooves, made by winding a eord around the vase when it was still moist, and then removing it, when it left its mark on the surface.
No. 95. Croup of pottery from an early Italie tomb excavated at Bisenzio (the ancient Bizentium) in Central Italy for this Museum. This tomb, though deficient in pottery, is important for the exeellent eollection of bronze objects it contained, which will be found in Case XXIV, under the number 111 .
A. Two small onehandled pots of impasto ware.
B. A rough amphora of the same ware.
C. A kyathos, on a foot, belonging to the same period.
D. A very primitive vase with a cover, of an earlier period than the other examples.
No. 96. A large group of pottery from a tomb excavated at Vulci, on the western eoast of Central Italy, for this museum. Here we see an absence of the characteristie impasto and bucehero wares, and find instead either regular Greek geo-

## MEDITERRANEAN SECTION

metric types, or local and Italic pottery under strong Greek influence.

For bronze objects from this tomb, see No. 112 in Case XXIV. These specimens belong in the seventh century B. C.
A. An Italic geometric skyphos.
B. A dish of the same ware.
C. A large, ribbed jar, wheel made, of impasto ware, with two side handles.
D. A dish of undecorated pinkish clay.
E. A stand, on three feet, of buff ware, undecorated.
F. A small aryballosshaped vase of Italic geometric ware.
G. A small cup of the same ware, on a stem.
H. An Italic, or possibly early Greek jug, made under late geometric influence, or even Corinthian.
I. A little pitcher, of Italic geometric ware, decorated with lines and concentric circles.
J. A skyphos of late geometric, or early Italo-Corinthian ware.
K. A small, onehandled cup, of Italic geometric ware.

No. 97. A small jug of bucchero ware, with incised decorations.
No. 98. An Etruscan water bottle, made in imitation of metal technique. and with the sides grooved, to receive the cord by which it was carried. This is of bucchero ware, and probably should be placed in the sixth century B. C.
No. 99. An oenochœ, in shape resembling No. 77 E, with very crude incised designs.
No. 100. A bucchero chalice, with supports in low relief, resembling a vessel of cast bronze.
No. 101. A group of pottery said to have been found at Todi in Umloria. It is quite unique, and for this reason it is hard to assign any definite date to these objects, but they probably belong in the period from the second century B. C. to the first century A. D. They are what is known as ex-rotos, the meaning of which is as follows.

When a man or woman died, offerings were made at the grave. Favorite objects belonging to the deceased were buried with the body, which is the reason why all the most beautiful vases, bronzes, and the like, have been found in trimbs. The offerings consisted of first fruits of
the fiekds，and sometimes flesh．These objeets shown are elay representations of these first fruits，and inelude eakes and a fish．They were found on the tray on which they rest ；the piteher was for drink offerings．
No．102．A erude pot of eoarse red elay．On its side is seratehed an Etrusean inscription $V H$ Vヨト・ $\cdot 7 \cdot 2 \exists A$ ）．As the Etrusean language has not as yet been deeiphered，we are ignorant of its meaning．Bates，Transactions，Dept． of Archreology，L＇．of Pa．，I，1905，p．167，No．9，Fig．9， pl．XXII， 2.
No．103．A large，ribbed kantharos of bucehero ware．
No．104．A large Etrusean tray of red ware，from Veii，which was one of the most important of the cities of ancient Etruria，and which was only subdued by the Romans after many wars， and with great difficulty and loss of life．Today Veii is a desolate heap of ruins：but the Italian Government， before the outhreak of the European War，had eommenced exeavations of great interest there．which were yielding very profitable results．These exeavations were not interrupted by the war：the results，which are just beginning to be made known，are ameng the most impor－ tant in the history of Classical Arehxology．The edge of this tray is clecorated with a frieze stamped in relief by the eylinder process already deseriberl．It was used for offerings，and belongs in the sixth or fifth centuries B．C．
No．105．An amphora，with upright handles，and linear and geometric designs in błack，on a buff grouncł．In shape it resembles No． 79 O，（）．
No．106．A pair of buechero eups，with high handles，in the form of a man holding two horses，and with pottery ehains deseend－ ing from the handles，in imitation of metal technique．
No．107．An Italie pot of eoarse buff clay，with geometrie designs in red．
No．108．An urn of the Villanuova shape，of the same ware．
It is possible，though not eertain，that the rases 105－108 are from the same tomb．
No．109．Group of vases from an early Italie tomb，of the eighth or seventh centuries B．C $\because$ exeavated at Vulei for this Museum．The bronzes from this tembare in Case XXIV ， under the number 113 ．
A. A Villanuova urn of red clay.
B. An urn of Italic geometric ware, with a cover.
C. An urn of coarse black warc, with a cover, on which are incised designs.
D. A pair of early bucchero kyathoi.

E,E. A pair of shallow dishes, with high handles, that may have served as covers to urns.
F. A vase similar to the preceding, but smaller, and of fincr clay.
(i. A pair of small amphore, with designs in white on a black ground.
H. A high cup of bucchero, with one handle, and incised decoration.
No. 110. Group of pottery from a very early tomb at Narce. The bronze objects found with these vases are in Case XXVl, No. 152.
A. A Villanuova urn, of black clay.
B. Cover to the above, of a lighter clay
C. An urn, on a foot, of red ware, much damaged.
D. Two onchandled cups, of impasto ware.
E. A bowl of coarse ware, like No. SS.
F. A kantharos of impasto warc.
G. Two kyathoi, or onchandled cups, of the same period.

ETRUSCAN AND ITALIC BRONZE OBJECTS AND ORNAMENTS.

## CASE XXIV.

These objects are similar to those on view in Cases XIX and XXI. The same system of numbering is here employed.

No. 111. Bronze oljects from a tomb at Biscnzio, the ancient Bizentium, or Tisentum. For pottery, see Case XXIII, No. 95.
A. Cover of a bronze wase, with ribbed decoration.
B. An enormous bronze fibula, the pin sheathed with a green stone, and fastened to a massive bracelet. With it is part of another large fibula.
C. Fragments of gold ornaments.
D. A pair of bronze voase handles.
E. A small bronze ornament in the form of a wheel.
F. A necklace of glass and crystal beads.
G. A long bronze chain, to which fibulæ are attached.
H. Fragments of silver rings.
I. An excellently preserved razor.
J. An amber ring, in fragments.
K. A bronze distaff.
L. Two bronze fibule, with flat guards for the pins.
M. Three bronze fibule.
N. A fine bronze spearhead.

No. 112. Bronze objects from a toml in Vulci. For pottery, see Case XXIII, No. 96.
A. A bronze nail bent into a hook.
B. A spiral ring of bronze.
C. Four sheathings of glass, for the pins of fibulæ.
D. A group of large bronze spiral ornaments, perhaps used as weights for drapery.
E. A collection of fibule.
F. A collection of glass beads.
G. Miscellaneous bronze and silver rings and ornaments.
H. Amber beads.
I. A small string of beads.
J. Spiral ornaments, like those under I), but smaller.

No. 113. Group of bronze objects from a toml) at Vulci, of a somewhat earlier date than the one last described. For pottery, see Case XXIII, No. 109.
A. Four bronze or iron bracelets.
B. A group of fibule of varying sizes.

C,C. Spindle whorls and reels of clay.
D. Spiral ornaments, like No. 112 D.
E. Another group of smaller spiral ornaments.
F. Fragments of a sword blade of iron.

No. 114. A collection of objects of bronze, silver, gold, etc., from an early tomb at Narce. The pottery from this tomb will be found in Case XXIX, under the number 158.
A. Fragments of silver rings.
B. A large collection of bronze fibulee.
C. Bronze weights for drapery, like those in Case XIX, No. 57 F .
1). Small gold ornaments.
E. A group of silver brooches and fragments of rings and the like, showing that the tomb where they were found was that of a person of wealth and distinction.
F. A necklace of glass beads.
G. Seven bracelets of bronze.
H. A razor.
I. Spindle whorls of pottery.
J. Fragments of rings, of gilded bronze and silver.
K. A fragment of a sword blade of iron.

No. 115. Bronze objects from an early tomb at Vulci. The pottery from this tomb is in Case XXIX, under the number 157.
A. A bronze hook set in a bone handle. The purpose for which it was used is uncertain.
B. Three fibute.
C. Spiral ornaments.
D. A bronze ring.

## ETRUSCAN AND ROMAN BRONZE VASES AND STATUETTES.

## Case XXY.

The Etruscans excelled in the casting of bronze, and their statuettes are in many respects equal to those of Greek manufacture. Their large bronze vases show great excellence of manufacture as well; but in this they were surpassed by the Romans.

No. 116. An Etruscan phiale, or bowl, perhaps of the sixth century B. C.

No. 117. An Etruscan pitcher, of the fifth or fourth centuries B. C.
No. 118. A bronze bowl without a handle.
No. 119. A bronze pitcher of late Etruscan or Roman times, in excellent preservation. Found at Chiusi.
Coleman sale cat., p. 25, No. 14, and pl.
No. 120. A bronze pitcher, in shape somewhat like the preceding, but taller and of the Roman period.
Coleman sale cat., p. 24, No. 2, and pl.
No. 121. Bronze drinking cup with one high handle, from Bisenzio, belonging with the tomb groups 95 and 111.
No. 122. An Italic situla, or pail, of bronze, from the same tomb.

No. 123. A small eista, or toilet box, of bronze, belonging in the fourth or third centuries B. C.
No. 124. A tripod of bronze, from the same tomb as group 151, in Case XXVI, and probably from the same one with the vases $105-108$, in Case XXIII.
No. 125. A group of bronze throwing spears and girdles from the tomb of a warrior, of the sixth century B. C., or even earlier. The pottery that was found in this tomb is in Case XXIX, under the number 156.

The statuettes which fill the remainder of this ease are almost impossible to date eorreetly, as objeets of this type continued to be made during a very long period. It will, therefore, not be expedient to try to date the specimens aceurately, but to say that they extend through a period beginning in perhaps the seventh century B. C., and lasting into the third.

No. 126. Crude statuette, apparently of a woman, with a mirror, originally gilded.
No. 127. Statuette of a female figure in a short chiton.
No. 128. Bronze statuette of a soldier wearing a helmet. The helmet is like the large one in the West Rorm (Case VIII, No. 3), known today as a jockey eap, and the soldier is probably Etrusean.

Mentioned, S. B. L(uce), Museum Journal, XI, 1920, p. 75.

No. 129. A statuette of Hereules, with his lion's skin and elub. This hero of Greek origin appealed strongly to the Etruscans, and was made one of their minor deities. The Greck name Heraktes was changed ly them to Erele, from which the Romans derived the name Hereules.
No. 130. Another statue of Hereules, but very much smaller.
No. 131. A very erude image of a man, with outstretehed arms.
No. 132. A statuette of a draped male figure, bearded.
No. 133. Statuette of Hereules. His right hand originally held a chub, and he is holding the lion's skin in his left, as a shield.
No. 134. A statuette of a warrior; a fine example of Etrusean sixth century work. It is east solid, and looks as if it had been hammered out, rather than east in a mould. The shield and spear were made separately, and fastened into the hands. It is typieal of the period.

## MEDITERRANEAN SECTION

No. 135. A bronze head from a statuette, perhaps of a woman.
No. 136. A large group of votive bronze figurines of men, women, horses and dogs. These erne from tombs, and their significance is uncertain. Some of them are fuite goocl. especially the horse, with a halter round his neek, and the nude wan with the spear in his right hand; but most are cruldely made, and seem to conform to certain eonrentional types. It has been thought that they are to be classed as rotive idols of the Lares and Penates of the deceased: hut this, though possible, is not probable. They are, in all probability, votive offerings, and have no real significance, in that they are not supposed to be representations of any real person, human or divine; nevertheless, they are of extreme interest.
No. 137. A large statuette of a youth with one arm broken off. In spite of its imperfection, it is one of the most noteworthy specimens in the Museum's collection. Very interesting is the headdress, a sort of close fitting cap, covering the back of the neck, and encling in a curve between the shoulders. The moselling of the body, though arehaie, is strong and virite; the arm and hand are out of proportion with the rest of the body, which is a normal feature of early loronze work everywhere.
No. 138. Statuette of a priest, draped in a himation, and holding a libation bow in his right hand. On his head he wears a headdress with points, like those of a star.
No. 139. A statuette of Hereules, of better workmanship than the precerling examples of statuettes of this hero. It is of a later period.
No. 140. A statuette of a priest, perhaps of the Roman period. He wears a veil on his head, and his body is draped in a toga. In his hand is a bowl for libations.
No. 141. A statuette of a priestess (?) with a curious headdress.
No. 142. Brenze statucte of a boy, of Greek workmanship. Both forearnas, and both legs below the knees are gone. This little bronze is of exeellent workmanship, and belongs in the third eentury B. C.
No. 143. A crude image of a recumbent panther, perhaps from the cover of a cista.
No. 144. A Roman bronze statuette of a priest, with a libation bowl
in his right hand, and a box in his left. His left foot is raised.
No. 145. A Roman statuette of Mercury, with his winged cap and caduceus.
No. 146. A Roman grotesque bronze statuette, probably of a comic actor, and dating in the period between 100 B . C. and $100 \mathrm{~A} . \mathrm{D}$.
No. 147. A Graeco-Roman statuette of Zeus, or Jupiter, nudc, but with a cloak thrown back over his shoulders, bearded, and with a crown on his head, with the thunderbolt in his right hand, and his left hand raised. This charming little bronze dates in the first century B. C.
No. 148. A tall green glazed jar. There is a duplicate of this vase in the Museo Papa Giulio at Rome. The two were found at Cervetri, which is on the site of the Etruscan city of Caere. In this vase Egyptian influence is strong, both in the subjects shown, the clay and the glaze, and the presence of hieroglyphics, which, however, are without meaning. It is probably of Phœenician manufacture; for the Phonicians, as we know from many sources, imitated Egyptian metal objects in a very similar way. They were the great traders of antiquity, and their commerce extended over the known world. They had no national art, being a purely commercial people, and they made cheap imitations of Egyptian articles, as being the most in demand, which they undoubtedly sold as genuine things, and at reduced rates. The most natural theory is that this vasc is just such an object.

Furtwängler, Sitzungsberichter der Akademie zu München, 1905, p. 254, No. 3.

ETRUSCAN AND ITALIC OBJECTS OF MINOR ART.

## Case XXVI.

This case contains bronze objects from tombs cxcavated at various sites in Etruria for this Museum. The tomb group system is employed in this case, and the groups and objects are numbered as in the other cases where tomb groups are shown.

No. 149. Bronze objects from a tomb uncovered at Narce, and dating in the eighth century B. C. Numerous vases were found in this tomb, which are in Case XXIX, under the number 155.
A. A clasp of bronze wire.
B. Two bronze rings, too large to be finger rings, and too small to be bracelets.
C. Two fibulæ.
D. A series of spiral ornaments.
E. Amber beads, and other objects of amber.
F. A fragment of iron, around which bronze wire has been wrapped. Perhaps this was a sword hilt.
G. Miscellaneous bronze fragments.

No. 150. Bronze objects from a tomb in Ascoli Piceno, the ancient Asculum. No pottery is associated with these things. The principal find in this tomb was a fine Corinthian helmet, to be seen in the West Room, Case VIII, No. 1. See S. B. L(uce), Museum Journal, XI, 1920, pp. 72-74.
A, A, A, A. Four bronze torques, or spring necklaces, within each of which is a spiral bracelet of bronze.
B,B. Two groups of bronze rings, numbering eighteen in all.
C.C. Two groups of bronze bracelets.
D. A large seven pronged hook, labeled a bronze flesh hook for burnt offerings. This is as close as we can get to a satisfactory explanation of the purpose of these implements. They were also used in cooking to take boiled meat out of the cauldron.
$\mathrm{E}, \mathrm{E}$. Two bronze objects in the form of the foreparts and heads of bulls, set back to back. The horns of the modern cattle on the Roman Campagna, and in Etruria, have the same sweep.
F. A series of fibulæ, or brooches, of unusual size and strength.
G. Two clay spindle whorls, and a few glass beads.
H. A series of six pendants, in the form of spear heads.
I. A necklace of glass beads.
J. A set of nine bronze pendants.
K. A group of six bulte. Their small size points to their probably being worn by ehildren, or perhaps women.
L. A large collection of small bronze bars, with a loop at eaeh end.
M. A large fibula, the areh of whieh is sheathed in a large lump of amber.
N. An ornament of bronze, in a very damaged condition.
O. Niseellaneous bronze objects.
P. A bronze spear head.

No. 151. Bronze objeets from a tomb at Narce. The vases in Case XXIII, under the numbers $105-108$ seem to belong with these speeimens.
A. Three bracelets.
B. Two bullæ.
C. A bronze razor, in good preservation.
D. A long ehain of bronze, like No. 111 G.
E. Five elay spindle whorls.
F. A group of bronze rings and spirals.
G. A fan of Etruscan make, that has been broken. The blade, which was riveted to the handle, was beaten out very thin, and is flexible, so that a good breeze could be made by it.
H. Two bronze hairpins.
I. A set of six bronze pendants.
J. A bronze ferule, and fragments of three others.
K. Three pendants like those in Case XIX. No. 57 F; Case XIX, No. 60 D: and Case XXIV, No. 114 C.
L. A curiously ornamented bronze fibula.
M. Three large bronze fibule, two of which are sheathed in glass.
N. Miseellaneous bronze ornaments, and amber beads.
O. A large eollection of bronze fibulæ.

No. 152. Objeets from a tomb exeavated at Naree. For pottery, see Case XXIII, No. 110.
A. Two spirals of bronze.
B. A large group of bronze spiral ornaments, probably used as weights for drapery. Others of the same kind will be found in this ease, under No. 149 D, and also in the following places: Case XIX, No. 60 F ; and Case XXIV, Nos. 112 D.J; 113 D; and 115 C.
C. A bronze bracelet.
D. A small bulla.
E. Two rings.
F. Niscellaneous ornaments.

No. 153. Bronze objects from a tomb at Narce. The pottery in Case XXIII, numbered 83-94, probably belongs with this tomb group.
A. Two large bronze handles.
B. A series of bronze bracelets.
C. A bronze hook.
D. A ring.
E. A flat bronze dise with a hole in the centre.
F. A lump of metal.

Cases XXVII and XXVIII will be discussed separately under the heading, "Grcek and Italic Terracotta Figurines."

EARLY ETRUSCAN AND ITALIC POTTERY. Case XXIX.

The vases here shown are principally from tombs in Vulci and Narce, with isolated specimens from other sites, notably Chiusi, the ancient Clusium. In most cases the tomb group system of numbering is employed.

This pottery is early-indeed, it averages carlier than any other Etruscan case exccpt possibly Case XY'II - and this is shown by the crude and often unpleasing forms of the vases, the larger part of which are hand made. The hut urn (No. 161) is the most important object in the case.

No. 154. Group of vases from a tomb at Vulci, dating in the eighth century B. C. No bronze objects are assuciated with this tomb group, but sec No. 162 in this case.
A. A smail urn of red ware on a foot, undecorated.
B. A onehandled vasc of a shape often used as a cover to an urn.
C. The same, but smaller.
D. A large pot of impasto ware, with one handle.
E. A pot of red ware, without handles, undecorated.
F. Group of three small impasto vases, and a larger vase of the shape of the urn cover.
G. Group of two impasto vases, one of them a small and rather graceful kyathos.
H. An urn cover of impasto ware, within which are two small one handled pots of the same type.
I. A collection of seven clay reels.

No. 155. Group of vases from a tomb at Narce, about a century later, or in the early seventh century B. C. For bronze objects from this tomb, see Case XXVI, No. 149. See also No. 163 in this case.
A. A small twohandled pot of impasto ware, with incised decoration.
B. A onehandled cup, of early bucchero ware, undecorated.
C. A small kantharos of early buccnero ware, or late impasto, with ribbed decoration. One handle has been broken off.
D. A chalice of the same ware.
E. A small amphora of early bucchero ware, with incised designs.
F. A small kantharos of the same, undecorated.
G. A cup like B, with the handle broken off.
H. A small bowl of the same ware, without handles, and undecorated.
I. Two trays of Italic geometric ware, with designs in red on buff clay.
J. A small vase support of the same ware.
K. A vase in the form of a bucket, of the same technique.

No. 156. Pottery from a tomb in Vulci. That this tomb was of a man, and a warrior, is proven by the girdles and spears shown in Case XXV, under the number 125, which were found with these vases. The date of these objects is early in the seventh century B. C., and most of the pottery is very rude and coarse.
A. Urn of greyish ware, undecorated, and without a cover.
B. Urn on a foot, of red ware, undecorated, and with two handles.
C. Vase of the same shape as B, of black ware.
D. An Italic geometric skyphos.
E. A small impasto kyathos.
F. A shallow dish of buff clay, decorated with circular designs in brown.
G. A low, broad amphora of impasto ware, with two handles, within which is another pot of the same ware.
H. Part of a cup of red ware, broken.
I. A small amphora of impasto ware, with twisted handles.
J. A bowl en a foot, of buff ware, undecorated.
K. A small cup of impasto ware, without handles and undecorated.
L. A stand for a vase, broken.
M. An Italic geometric skyphos.

No. 157. Pottery from a tomb in Vulci. For bronze objects found with these vases, see Case XXIV, No. 115. Eighth century B. C.
A. Urn on foot, of Italic geometric ware, with designs of red on buff.
B. Two undccorated skyphoi of buff ware.
C. Group of three impasto vases.
D. A Villanuova urn; although said to come from this tomb, the rest of the pottery secms of a much later perind. This vase seems to show the earlicst type of this form of burial jar.
E. Cover to this urn, of black ware, with incised decoration.
F. A onehandled pot of impasto ware, with ribbed decoration.
G. A small amphora of impasto ware.
H. Two small onehandled impasto pots.
I. A fine kyathos of early bucchero ware.
J. Group of two small impasto pots.
$K$. Three small vases of the same ware.
No. 158. Pottery from an early tomb at Narce. With these objects was found the large and rery remarkable collection of bronze ornaments in Case XXIV, under the number 114. This was a double tomb, as is proved by the presence of two cinerary urns, each containing bones. We also know the two persons to have been a man and his wife, from the character of the bronze objects found with the urns, which include such masculine things as a razor, and a
fragment of a sword blade, and such feminine things as a necklace of glass beads, a number of spindle whorls, and a series of silver fibulx.
A. A large cinerary urn, of red ware, of the late Villanuova form, with a cover of the same ware. It still contains fragments of the bones of the deceased.
B. A smaller urn of black ware, of a more graceful shape, also with a cover of the same ware, and also containing bones. This was probably the cinerary urn of the woman, while the larger urn contained the remains of her husband.
C. Two small stands of impasto ware.
D. A bowl of the same kind of pottery.
E. A onehandled eup of the same, with incised decoration.

No. 159. A pair of late Villanuova urns from Chiusi, one of brown, and one of red ware. Each urn has a cover, and each still contains the bones of the dcccased. They belong in the end of the cighth or the beginning of the seventh century B. C.

No. 160. A pair of urns from Chinsi, of slightly later date. Each contains the boncs of the deceased. They have no handles, and only one of them has a cover. They are made of eoarsc blaek clay.
No. 161. An urn, in the form of a hut, found at Albano. The ashes of the dead were put in through the door, which was then made fast by a wooden bolt, that passed through rings on each side of the door and on the door itself. It was in urns of this kind that the inhabitants of Latium deposited the ashes of their dead, building for them a house of clay, that the spirit of the departed might have a fitting residence in the next world. And, in making the house, they imitated the kind of dwellings in which they themselves lived. If Romulus and Remus ever existed, they doubtless knew no better residence than a cabin like the kind represented by this hut urn.

Hut urn burial, then, is a Latin, rather than an Etruscan form, and is of great antiquity, flourishing side by side with the Villanuova period, in the ninth to seventh centuries B. C. The potter's whecl is unknown at this time.

No. 162. A and B. A pair of Villanuova urns, founct in the same tomb at Vulei as the tomb group 154. A is of black ware, $B$ of red. The eovers, especially that of $B$, should be noticed.
No. 163. A vase support of red ware found at Naree with the tomb group 155, and belonging in the late seventh or early sixth centuries B. C. Resting on top of the support is a vase of the same ware, with ribbed decoration.
No. 164. A vase carricr, and urn, of black ware, from Cività Castellana, the ancient Falerii. On the vase are erude ineised designs of horses.
No. 165. A. A Villanuova urn of black ware, with incised decoration, from Bisenzio, and perhaps belonging with the tomb groups 95 in Case XXIII, and 111 in Case XXIV. It is equipped with a cover, which also has rude incised decorations.
B. A Villanuova urn, said to come from Cervetri, the aneient Caere, and decorated with ineised designs.
No. 166. A bucketshaped cincrary urn of red ware, found at Chiusi, the ancient Clusium, and containing an almost perfect human skull, found with it.

Case XXX contains Etruscan architectural ornaments, which will be included with Case XXXIV under this heading. The Etrusean and Italic cases that still remain are introduced in the following order: Cases XXXI, XXXII, XXXIII, XXXVII, XXX, and XXXIV.

## ETRUSCAN BRONZE MIRRORS, AND OTHER ORNAMENTS.

 Case NXXI.The objects shown in this case are not connected with any of the tomb groups previnusly described, but are isolated specimens from various parts of Etruria. The mirrors are especially important. One side was highly polished, while on the other there was usually an engraved (lesign. scmetimes of considerable artistic merit. These mirrors are made with a tang. which fitted into a handle of wood. Another kind of mirror is that which fitted into a case, decorated with designs in high relicf. There are two of these cases exhibited
here. The other ornaments in this case do not differ from those whieh we have scen in previous eases, execpt that some of them are of greater merit.

No. 167. An Etrusean bronze mirror with an engraved scene representing the purifieation of Orestes at Delphi. To that saered plaee, to the oracle of Apollo, Orestes fled after he had murdered his mother, Clytemnestra, in revenge for the slaying of Agamemnon. Pursued by the avenging Furies, who were set upon him by his mother's ghost, he hastened to seek the protection of Apollo, by whom he was purified of his crime. This mirror shows the aet of purification.

Bates, A. J. A., XV, 1911, 72, 459-464.
No. 168. A bronze mirror, illustrating the skill in engraving shown by the Etruscan designers. It shows Herakles, a satyr, and an Eros, and in the eourse of ages has taken on a beautiful patina.

Bates, A. J. A., XVIII, 1914, p. 75; ibid., XX, 1916, 391-396.
No. 169. A bronze mirror, from Vulei, formerly in the Robert H. Coleman Colleetion. The sulbjeet of this engraving has been thought to be an interview between Diana and Endymion.

Colcman sale eat., p. 30, No. 97.
No. 170. A small bronze mirror without any deeoration.
No. 171. A small bronze mirror, with a design of two male figures rudely seratehed on its surface.
No. 172. Three bronze weights.
No. 173. A bronze mirror ease, found at Chiusi, with designs in high relief. On the outside is a monad, with a thyrsos, dancing. The back of this cover was the mirror proper. Insidc, is an Eros warming his hands at a fire. This mirror ease is probably of Hellenistic workmanship, of the third century $\mathrm{B} . \mathrm{C}$.
No. 174. A bronze mirror ease, with a graeeful group in high relief of a man and a woman with a child in her arms. This is also probably of Greek manufacture, of the third ecntury B. C. The prorenance is unknown.

No. 175. A bowl with a remarkable cover, probably intended for
offerings to the dead. It is Etrusean, and the date is hard to determine; but it possibly belongs in the fifth century B . C.
No. 176. A large eollection of bronze bracelets.
No. 177. A very large and representative eolleetion of bronze fibulæ, or brooches, including one of enormous size.
No. 178. A small bronze statuette of a dog.
No. 179. A erude image of a draped figure, with outstretched arms.
No. 180. A handle for the site of a bronze vase.
No. 181. A eollcetion of four vase handles.
No. 182. A handle base, from a bronze piteher, in the form of a bearded head.
No. 183. Part of the handle of a bronze vase, in the form of an ox head.
No. 184. A handle base, from a bronze piteher, in the form of a female head.
No. 185. A handle base, showing the eyes and nose of a human head.
No. 186. A group of leaden sling stones.
No. 187. The handle of a piteher, complete.
No. 188. A small image of a duck, in bronze.
No. 189. A group of three bucket handles.
No. 190. A pair of feet for a cista, or toilet case, in the form of claws.
No. 191. A pair of feet for a cista, in the form of griffins' claws with wings.
No. 192. A pair of hingeshaped bronze ornaments, of unknown provenance.
No. 19.3. A bronze ornament, in the form of a sheath, with two daggers.
No. 194. A pair of Egyptian bronze ushabtis, found at Chiusi in Etruria.
No. 195. A bronze ferule.
No. 196. A pair of bronze rings for ropes, said to have been found at Narce.
No. 197. Two bronze nails.
No. 198. Two pairs of bronze buckles from Etruria.
No. 199. A bronze bell.
No. 200. A large bronze bulla.
No. 201. A pair of feet from a bronze vase. Found at Chiusi.
No. 202. Seven fragments of an Etrusean bronze ehair.

## ETRUSCAN SEPULCHRAL FURNITURE, AND OTHER BRONZE OBJECTS.

## Case XXXII.

This case contains some of the most interesting and remarkable things in the Mediterrancan Section. There is nothing like the bronze chair and table in any other museum in America, or indeed outside of Italy itself, in all probability. The other things, while not so unusual, are of great interest and beauty.

No. 203. A bronze vase, which has taken on a rich patina of the usual green, mingled with an exquisite shade of pale blue. This vase, the form of which is very graceful, is Etruscan or Italic. It was found at Narce, and is dated somewhere between 900 and 500 B . C.
No. 204. A small candelabrum which seems also to have come from Narce. Its three feet are in the form of hippocamps, or seahorses, which support a pedestal, on which stands a nude statuctte of Aphrodite, with a mirror in her left hand. This supports the tall stem of the candelabrum, half way up which a dog is seen climbing after a dove which is perched near the top. This top is in the form of a round basin with a square rim, on each corner of which is another dove. This interesting object probably belongs in the fifth or fourth centuries B. C., with the presumption strongly favoring the later date.
No. 205. A bronze chair, found at Chiusi, the ancient Clusium. The legs are hollow. This chair is said to have come from the tomb of a child. On the chair was put the urn (No. 208) containing the ashes of the deceased, and in front of it was a table with offerings (No. 207).
No. 206. A focolare of bronze. This is a kind of brazier, and is considered by most authorities to be a sacrificial tray for sacred fire. It is of early date, being at least in the sixth century B. C., and, like the chair, comes from Chiusi, but not from the same tomb. With it were found the four small bronze vases that are in it at present.
No. 207. A table, of bronze, from the same sepulchre as the chair just described. It had been placed in antiquity in front of the chair, and covered with offerings of food for the
use of the deceased. When found, some of these offerings were still on it.
No. 208. A large bronze urn from the same tomb as the chair and table. This urn originally rested on the chair, and contained the ashes of the deceased. The date assigned to this very remarkable collection of sepulchral furniture is about the fifth century B. C., or somewhat earlier.

## BRONZE ANI) IVORY U'TENSILS FROM ETRURIA.

## Case XXXIII.

These objects are from various sites in the land of the Etruscans, and some of them clate in the Roman period. As they are isolated specimens, the tomb group system cannot here be employed.

No. 209. A pair of flesh hooks, similar to the example $D$ in the tomb group 150, in Case XXVI.
No. 210. A bronze ring. From the fragment of an Attic blackfigured hydria, or water jar, that is shown inside it, one would suppose that it was some sort of a musical instrument, as it is represented on the vase fragment in connection with a lyre. Experiments have proved, however, that it cannot be a musical instrument, as it gives out no sound. It has been recently suggested that rings of this sort were attached to a pole which ran along the room where the oil from the olives was pressed out, and were held by the workmen to keep them from losing their balance; hut this theory has disadrantages, and the purpose of these rings is still uncertain.

McDaniel, A. J. A., XXII, 1918, pp. 295-303.
No. 211. A group of three bronze hooklike objects. These are strigils, or scrapers, and were used in the bath. and by athletes after exercising, to scrape the perspiration and dirt from their bodies. A famous statue in the Vatican. known to be a copy of a work of the fourth century (B. C.) sculptor Lysippus, is of an athlete scraping himself with one of these implements.
No. 212. Another strigil, but of clay, with a piece of iron stuck to the handle.

No. 213. Four bronze razors.
No. 214. A brenze object, the use of which is unknown. Objects of this sort have sometimes been considered to be bow pullers, but this is not likely. It has been recently suggested that they are amulets, which were attached to the harness of horses.
D. G. Brinton, Bulletin of Free Museum of Science and Art, I, 1897, pp. 10-15, Figs. 4, 5, and pp. 70-71. McDaniel, A. J. A., XXII, 1918, pp. 25-43 and Fig. 4.
No. 215. Two bronze rings with spiked exteriors.
No. 216. A bronze spoon.
No. 217. A brenze strainer.
No. 218. A small brenze ladle.
No. 219. A group of bronze needles and probes, possibly used in surgical operations.
No. 220. A group of ivory instruments. Most of them are styli, used by the ancients for writing.
No. 221. A group of four bronze articles, resembling each other, and shaped somewhat like horseshoes, but toothed, and with a large hole in the centre. With them are to be seen a number of horses' teeth, and some bone fragments, found in the same tomb, together with some iron. Iron is also found in the large central holes in three of the four bronze objects. They were found at Corneto-Tarquinia. It has been shown conclusively that these objects belong in pairs, and that they are the cheek pieces of a pair of bits.
A. J. A., VI, 1902, 5.3-54. Bates, ibid., 398-403. pl. XIV. Hal!, A. J. A., XIX, 1915, p. 77. E. H. H(all), Museum Journal, V, 1914, pp. 21.3-217 and Figs. 102-104.
No. 222. A lronze bit of the Etruscan or Roman periocl, showing the difference bet ween it and No. 221.
E. H. H(all), Muscum Journal. V, 1914, pp. 216-17. Fig. 107
No. 223. Two bronze pins.
No. 224. Two fragments of an ivory coml.
No. 225. A collection of seven small bronze arrow heads.
No. 226. Five miniature pitchers of bronze.
No. 227. A piece of bucchero pottery with an Etruscan inscription on each side of it. The inscription read AIAMZIJYZXYJIFYAYA $\oplus$ and $V X A$.

Bates, Transactions, Dept. of Archacology, L'niversity of Pennsylvania, 1, 1905, pp. 16768, No. 10, Figs. 10, 11, and pl. XXII, 1.
No. 228. A fragment of wood with a Latin inseription of the emperor Antoninus Pius, and, on the other side the words, "Vota saera."
No. 229. A bronze stamp of the Roman period, with a Latin inseription.
No. 230. Three bronze spits.
No. 231. A bronze artiele, possibly a key.
No. 232. Two fine bronze spearheads.
No. 233. A bronze rod, possibly a ruler, surmounted by a male bust.
No. 234. A pair of Etruscan andirons. The knobs at the ends were the feet on whieh they rested. L'pon them were plaeed the logs after the manner of modern andirons.

## ARCHAIC ETRUSCAN VASES AND VASE SUPPORTS, CHIEFLY FROM NARCE.

## Case XXXVI.

This is a series of carly Etrusean vases and earriers. Stands like these are shown also in Cases XVIII. XXII, and XXIX, while one of bronze is exhibited in Case XX . It is not known definitely for what purpose these vases and supports were intended, but they are pretty surely not burial urns. Stands of this kind were first found at Cervetri (the ancient Cacre), in a tomb called the Crotta Campana. George Dennis, in his Cities and Cemeteries of Etruria ealls them fumigators or ineense-burners, but he is surely wrong. The imitation of metal teehnique in these supports is obvious. It is elear that, although they may not have been urns for the ashes of the departed, they were nevertheless funeral objeets, being always found in tombs, and they had some speeial signifieance among Etrusean sepulehral furniture. It is also true that they seem to be of a eertain period only, and that they disi ppear after that period. This epoch ean be roughly dated as between 650 and 600 B . C., although some may be found in tumbs slightly intedating this period.

No. 235. A tall vase support from Naree, holding a vase of ribbed deeoration. The pottery is of red ware. A eurious feature of the support is that the top is held up by human
figures at the sides. The other decoration consists of rosettes and chevrons cut in the sides of the stand.
No. 236. Vase and support of plain red ribbed ware, found at Narce.
No. 237. Urn of a very rare form, which seems to be peculiar to the city of Chiusi. This specimen, which, unfortunately, is much broken, was obtained by the Museum from the Robert H. Coleman Collection, in 1897. It is called a canopus and on the cover is a crude erect figure, perhaps a likeness of the deceased. Both the lid and the shoulder of the urn are surrounded by small draped figures, alternating with dragon heads, and hung on small pegs of terracotta. It seems to date in the seventh century B. C.

Coleman sale cat., 243 , and frontispiece.
No. 238. A small vasc support, holding an open vasc. Both are decorated with geometric designs of white on a red ground. The support has human figures holding up the top.
No. 239. This is the most important of these vases and supports. Like the others, it was found at Narce. Standing nearly a metre high, and elaborately ornamented with perforations and knobs, it must be considered one of the most important specimens of its class outside of Italy.
No. 240. A small vase support of creamy clay, with geometric designs in red, holding a small vase of plain red ware.
No. 241. A canopus from Chiusi, in better condition than the one previously described (No. 237). The dccoration is practically the same, and it is a finer specimen in every way.
No. 242. A tall vase support of cream colored ware, with geometric designs in red. It holds a plain urn of red ware.
No. 243. A tall vase support of red ware, decorated with perforations and knobs similar to No. 239. It contains an urn of red ribbed warc.

## AN ETRUSCAN SARCOPHAGUS.

No. 244. This is a burial urn of a local stone of Etruria, called tufa, a soft and easily worked matcrial. Its heary, ugly construction, and characteristic Villanuova lid, betray its early date, which may well be in the ninth or eighth
century B. C. It is practically unique of its kind in Ameriea, or, for that matter, in any museum outside of Italy. Its place of diseovery is not surely known, but may well have been Naree.

## ETRUSCAN ARCHITECTURAL TERRACOTTA ORNAMENTS.

## Case XXX.

This ease and Case XXXIV are devoted to a series of arehiteetural ornaments from Etrusean temples, prineipally from Cervetri (the ancient Cacre), Corneto-Tarquinia (the aneient Tarquinii) and Orvieto. They are chiefly antefixes, although the eolleetion also includes revetments, and fragments from other parts of buildings. Scholars have often endeavored to identify the heads in these antefixes with those of the varicus Etruseen divinities; and sometimes it seems probable that they were supposed to be portraits of gods and goddesses; but in the ease of these in this collection, it would appear more natural to consider them purely deeorative.

In this ease will be found the carliest of the series of antefixes, and some of the very late pieces.

The series of archaic antefixes from Cervetri are published by Luce. A. J. A.. XXII, 1918, p. 65, and XXIV, 1920, pp. 27-36. Sce also Furtıängler, Sitzungsberichte der Akademic zu München, 1905. p 255. No. 5

No. $245 \mathrm{~A}, \mathrm{~B}$. Two of the earliest antefixes, dating probably in the seventh or early sisth century B. C. They end in female heads, in which the influence of Egypt is very strong. They come from Cervetri.

Height, $245 \mathrm{~A}, 12.8 \mathrm{~cm} . ; 245 \mathrm{~B}, 15 \mathrm{~cm}$.: width, $245 \mathrm{~A}, 10.5 \mathrm{~cm} .: 245 \mathrm{~B}, 13.6 \mathrm{~cm}$. Coarse reddish clay. Luce, loc. cit.. pp. 29. 30, Figs. 1, 2.
No. 246. An antefix, ending in a female head, from Cervetri, of a little later pericd. Early sixth century B. C.

Luce, lce. cit., pp. 31-32, Fig. 4. Height, 15.5 cm. ; width, 11.2 cm . Clay, red.
No. 247. An antefix from Cervetri, of the sixth century B. C. Note the method of treatment of the hair.

Luce, loc. cit., pp. 32-33, Figs. 5, 6. Height. 18 cm.: width, 16.1 cm . Clay red, buff slip, traces of black for hair.
No. 248A. Archaic Etruscan antefix (sixth century B. C.) in the form of a female head wearing a diackem and carrings. Note the use of color in rendering the hair and features.

Luce, loc. cit., pp. 33-35, Figs. 7, 8. Height, 24.2 cm.; width. 14.6 cm .

No. 248B. Archaic head, similar to 248A, and of the same period, showing more plainly the free use of colors in these architectural members. Both of these specimens are from Cervetri.

Luce, loc. cit., pp. 33-35. Height, 26.9 cm .: wichth, 16.2 cm .

No. 249. An antefix, in the form of the head of a bearded satyr, from Corneto. Around the head is a small shell or canopy, with a floral decoration. It originally was colored with details in red, white, and black; but only the slightest traces of color exist today. The clay is coarse, and huff in color, no slip being, employerl. The style of the antefix is archaistic, and should date in the third century B. C.. if not later.

No. 250. Fragment of an antefix. of unknown provenance, in the form of a female hearl and neck. This antefix is archaic in type, and belongs in the sixth century B. C. 'The hair is dressed in long corkscrew curls along the sides, and in a bang in front, rendered by short, deep incisions. The color of the clay is buff, with a thin slip of the same color. At the neck is a band of red. Height. $21.2 \mathrm{~cm} .:$ width. 15.5 cm .

No. 251. Fragmentary shell antefix from Cervetri, of the type in Case XXXIV, No. 261 and 261 B . Preserved height. 26.5 cm .: width, 25.9 cm .

No. $252 \mathrm{~A}, \mathrm{~B}, \mathrm{C}$. Three fragmentary shell antefixes from Corneto, all made in the same mould, and in the same mould also with the more complete specimens 264A and $264 B$ in Case XXXIV. These are of a later period than the ones already discussed, belonging in the fourth century B. C.
No. 252 D. A hearl from an Etruscan shell antefix said to have been
found at Cometo, very similar to the three just deseribed, but differing in a few minor details.
No. $25.3 \mathrm{~A}, \mathrm{~B}, \mathrm{C}$. Three fragmentary shell antefixes from Corneto, of the same period and from the same temple as 252 A , B. and C', but with male heads instead of female. These heads are idlealizet, and are human, not the heads of satyrs, as is usually the ease in the shell antefixes.
No. 254 . A slab of a small revetment from Tarentum, representing a warrior with his horse, a common subject on the late South Italian vases. It belongs in the third eentury B. C... or even later. Height, 24.5 cm . width, 19.8 cm .

No. 25.5. An antefix, said to have come from Cervetri, but apparently not of Etruscan workmanship. It belongs probably in the second, or even the first century B. C. It is unquestionably of Roman teehnique, and was one of a series, all of which had the same design. Mars is seated at the right, and leans against Venus, who is at the left. The specimen may be made of parts of two antefixes, as some of the fragments of which it is composed seem to be of different elay from the others. There is much restoration, which is probably correct.

Height. 36.6 cm . : width, 23.3 cm .
No. 256. An antefix of late date, showing the device of a trophy on a rostrum. The provenance is unknown, but it is of Roman work. about the first century B. C.

Height, $22.1 \mathrm{~cm} . ;$ width, 17.7 cm.
No. 257. An Etrusean water spout, in the form of a lion's head, of unknown provenance. There are no traces of color.
No. 258. A large Etruscan terracotta statuette, of a seated woman. The head has been broken off and mended. She is wrapped in heavy draperies, whieh were originally decorated in colors. In her right hand she holds a eup. This interesting specimen is about 50 cm . high, and the width from shoulder to shoulder is 24.8 cm .
No. 259. Etruscan torso of a boy in terracotta. The head has been mueh restored, and does not belong with the body. Sone of the flesh paint is still prescred; for the Etruseans, like the Minoans, used red for the flesh of men, and white for that of women. The museles of the breast are fully developerl, as is usual in the archaie sculpture of all
peoplcs. As in real life, he wears a bulla around his neck. This object is of the archaic period in Etruria, about the sixth century B. C.

Height without head, 23.7 cm . width from shoulder to shoulder, 23.4 cm .
No. 260. A large piece of late Etruscan or Roman sculpture in terracotta, in the form of a man's head of nearly life sizc, the right arm raised over it. The features bear a resemblance to one of the early Emperors, and it may well belong in the early Imperial period, in which case it can be dated between the end of the first contury B. C., and the beginning of the second century A. D. It is said to have been found at Corncto, and may be a pediment, or tympanum. sculpture.

## Case XXXIV.

This case is given over for the most part to antefixes and revetments, coming from Cervetri, Corneto, and Orvicto. In many respects the objects here exhibitcd constitute the cream of the collection of architectural terracottas, and cannot be equaled in any other American museum, and by only a few Europcan muscums outside of Italy itself.

The revetments herc cxhibited have been described and published by Luce and Holland, A. J. A., XXII, 1918, pp. 319-339, pls. VIII, IX. Sec also E. D. Van Burean, ibicl.. XXIII. 1919, pp. 157160 , and Luce, ibid., pp. 161, 162. The large antefixes 261 A and B and 262A and B arc published by Luce, A. J. A., XXIV, 1920, pp. 252-369, Figs. 6-10.

No. 261 A. An Etruscan shell antefix, from Ccrvetri, with a woman's head in the centre. This head is erowned with a diadem, and in the cars are large earrings in the form of bunches of grapes. A similar earring will be found in the West room, Alcove D) Case VI, No. 5. Around the head is a shell, or canopy, ornamented with a design of patmettes and lotuses. The antefix has been monded from a number of fragments, and parts have been restored. Red, whitc, black, and yellow are employed for details.

Height 46.8 cm .: wilth, (estimatect) 49.6 cm . Luce. lec. eit.. p. 362, Figs. 7 and 9.

No. 261 B. A shell antefix, made in the same mould as No. 261 A, but with a somewhat different scheme of polychrom decoration. A unique specimen, in splendid preservation and also from Cervetri.

Height, 47.8 cm .; width 49 cm. Luee, loc. cit., p. 368, Fig. 10.
No. 262 A,B. A pair of antefixes similar to No. 261 A and B, but adding blue to the colors employed. The heads, instead of being female, are grotesque heads of satyrs, bearded, and crowned with ivy leaves. They are also from Cervetri, and were probably from the same temple as the others. They belong in the fourth century B. C.

Height of $262 \mathrm{~A}, 47.7 \mathrm{~cm}$.; width. 46.7 cm .; height of $262 \mathrm{~B}, 47.2 \mathrm{~cm}$.; width, 49.3 em .262 A is published by Luee, loc. cit., p. 358, Fig. 6.
No. 263. A smaller shell antefix from Cervetri, with the head of a woman in the centre, and on the canopy a tendril decoration. This is to be placed in the third eentury B. C.
No. 264 A,B. A pair of shell antefixes from Corneto-Tarquinia, of a later period. These antefixes were made in the same mould as the three examples 252 A-C, and were from the same temple. They belong in the third or second century B. C.

No. 265. A slab of revetment from Cervetri, belonging probably to the same building as the antefixes in this case. It has an claborate and mannered design of palmettes and lotus flowers. Although it has been broken in many places, it has nevertheless been skilfully mended. It is pierced with seven holes, through which went the nails or bolts that held it to the back of the temple. The painted deeoration is very well preserved. It is dated in the third century B . C .

Length, $48.2 \mathrm{~cm} . ;$ height, 65.2 cm . Luce ancl Holland, loc. cit., pp. 329-332, Fig. 6, No. 2.
No. 266. A gargoyle in the form of a lion's head, said to have come from the Temple of Fortune at Praeneste. The morlern town of Palestrina now occupies the site of this temple. which was said to be the greatest in all Italy, and which seems to have been built in terraees. Although not strictly in Etruria, Pracneste was in many respects an

Etrusern eity, and this temple may have had many features of the Etrusean temple design.

Museum Journal, I, 1910, p. 1 (eover design).
No. 267. A mould, probably for a gargoyle like 266. A east taken from this mold is exhibited with it. The method of manufaeture was to make the two halves separately, and join them together while they were still moist and adhesive. The result is that moulds were made for only half of an arehiteetural member.
Nos. 268 to 274 are fragments of revetments, mostly from Orvieto, of the fourth eentury B. C., and later.
No. 268. Two fragments from an early revetment, with designs of palmettes and lotuses. Polyehrome decoration is most suecessfully employed.

Luee and Holland, loe. eit., p. 323, No. 4, and Fig. 3. No. 1.

No. 269. Three fragments from a revetment of a somewhat later date, showing a erowning piece of tongue pattern, separated from a palmette lotus design by a barber's pole ornament.

Luee and Holland, loe. eit., p. 323, No. 3 and P1. VIII, No. 3.
No. 270. Two fragments, probably from the same revetment, showing a design of palmettes, and a guilloehe.

Luce and Holland, loe. eit., p. 325, No. 6, and Fig. 3, No. 3.
No. 271. Two fragments of revetment that probably belong together, consisting of a palmette lotus design and a guilloehe on one picce, and a tongue pattern on the other.

Luce and Holland, loe. eit., pp. 321 -322, No. 2, and Pl. Vill, No. 2.
No. 272. Two fragments of a slab of an carly period, showing tongue pattern, palmette lotus, and iry leaf designs in brilliant polyehromy. These two pieces fit each other.

Luee and Holland, loe. cit., p. 321, No. 1, and P'l. VIII, No. 1.
No. 273. A pieee of revetment, unpainted, with a design of palmettes. made up of two fragments, whieh join together perfeetly:

Luee and Holland, loe. eit., pp. 32.3-25, No. 5, and Fig. 3. No. 2.

No. 274. A fragment of revetment, showing a palmette. Red and blaek are used for decoration. This revetment probably is of the same design as No. 270.

Luce and Holland, loe. eit., p. 325, No. 6, and Fig. 3. No. 3.

No. 277. A small arehiteetural fragment from Southern Italy, with a design of a Medusa head in relief.

The other revetments in the Museum's eollection published by Luce and Holland (loe. eit., Nos. 7-10, and 12-20, and Pl. IX, Fig. 6, No. 1, and Fig. 8) and a pair of arehaie antefixes from Cervetri, published by Luce, A. J. A., XXIV, 1920, p. 30, Fig. 3, have been retired owing to lack of space.

## GREEK AND ITALIC TERRACOTTA FIGURINES.

## Cases XXVII and XXVIII.

These cases are given over to the exhibition of Greek and Italic terracotta figurines. Most of them were made by Greek colonists in Tarentum in Southern Italy. These Tarentine terracottas frequently rival in beauty those which come from Greece itself; of which Tanagra in Boeotia is the principal finding place. Indeed, many people speak of all figurines as Tanagras, so famous has been the beauty of the terracotta statuettes from that place. Others of great beauty have been found in Asia Minor, in the Necropolis of Myrina, near Smyrna.

The Tarentine terracottas are closer to those from Tanagra than are the Myrina figurines; but the best period is probably somewhat later, being from the end of the fourth through the third century B. C.

Other specimens in these cases come from Etruria. These Etruscan terracottas are of considerably coarser manufacture than those from Greek lands (in which, of course, Tarentum must be included) and some of them seem to be architectural members.

In numbering these specimens, it has been considered best to have the numbers follow those of Case V , in the West Room, Alcove D. In that case is a series of terracottas numbered from 1 to 23. The specimens in Case XXVII, accordingly, will begin with the number 24 .

## Case XXVII.

No. 24. Archaic statuette of a priestess, standing, with a torch in her right hand. She is heavily draped and wears a veil. The provenance of this figurine is unknown; but it appears to be Etruscan, and it certainly cannot be of later date than the fifth century B. C.
No. 25. Fragment of a terracotta relief with the head and shoulders of Herakles in profile. The provenance is unknown, but it seems to be Etruscan, and to belong in the fifth century B. C.

No. 26. Etruscan head of a woman, from Cervetri, the ancient Caere. She wears an elaborate diadem, a necklace, to which a bulla is attached, and a pair of enormous earrings. There is no trace of polychromy, except that the whole
head seems to have been covered with a white slip. In style, this head is like those in the antefixes $261 \mathrm{~A}, 261 \mathrm{~B}$, and 263, in Case XXXIV, which also come from Cervetri.
No. 27. Head of a bearded male figure, probably Roman, and of about the first century B. C.
No. 28. Tarentine terracotta figurine of a woman. She wears a chiton and himation in the Greek fashion, and in pose is very like the famous Tanagra figurines. She is, however, of rather greater height than the figurines from Greece proper, and the workmanship is not quite so exquisite. It is, howerer, certain that in this specimen we have an example of the technique of Tarentum of the end of the fourth century B. C
No. 29. Another draped female statuette from Tarentum, of the same period. On this specimen can be seen marked traces of polychrome decoration, much more of which is preserved than in No. 28.
No. 30. Terracotta head of a girl, of great beauty, said to have come from Greece. It shows no trace of polychromy, and is a work of the fourth century B. C.
No. 31. Terracotta head of a woman. The provenance is unknown; but it is probably Tarentine, and may be said to be of the end of the fourth century B. C.
No. 32. Terracotta male head, grotesque. This form of caricature is common in the Hellenistic period of Greek art. Tarentine modellers of figurines seem to have delighted in these caricatures. This specimen is Tarentine, and belongs in the third century B. C.
No. 33. A small plaster reproduction of a terracotta head in the British Museum. It is of a warrior, wearing a helmet, and bearded. The painting, on the cast, reproduces accurately the polychromy of the original.

British Museum, Cat. Terracottas, p. 40, No. A232, and Fig. 8. Found at Dali, Cyprus. Gracco-Phoenician period, about fifth century B. C.
No. 34. Archaic terracotta statuette of a woman, seated, holding a baby at her breast. The provenance is, unfortunately, unknown; but it seems to have been found in Etruria, and to be a Greek importation. It should be placed in the fifth century B. C.

CASE KXVIII.
No. 35. Head of a faun. On his head is a garland of grapes and vineleaves, and a horn seems to be protruding from the right side of his forehead. Marked traces of polychromy exist, showing that his face was painted red. This head is Etruscan, and was found at Corneto-Tarquinia, the ancient Tarquinii.
No. 36. An Etruscan gargoyle, or water spout, in the form of the head of a winged lion of uncertain provenance. The Etruscans were in the habit of using terracotta for their architectural ornaments, often to the exclusion of stone, on account of its greater cheapness. Details are rendered in red, white, and black. Cases XXX and XXXIV in this room are devoted to the exhibition of Etruscan architectural terracottas.
No. 37. A chubby little Hellenistic figurine of Eros, or Cupid; a very delightful little work of art dating probably in the third century B. C., but perhaps even as much as a century later. Unfortunately, as in the case of so many of these figurines, the provenance is not known; but it is probably Tarentine, though it may come from Greece itself. There is brilliant polychrome decoration.
No. 38. Head of a woman, probably from Tarentum, and of the third century B. C.
No. 39. Archaic statuette of a woman, with a patera in her right hand. At her feet is an animal; above her right shoulder, a youthful male figure, nude, perhaps an Eros: on the other side is a palm tree. The woman wears a veil. This is either a statuette of Aphrcdite, or of a priestess of that groddess, as it would appear from the presence of the Eros.

This figurine is probably Etruscan, and of the early fifth century B. C.: if not Etruscan, it is from Southern Italy.
No. 40. Head of a youth, wearing a cap, or helmet, of the shape known as a pilos. This figurine is Tarentine of the end of the fourth century B. C.
No. 41. Head of a woman, of uncertain provenance. It seems, however, to belong in the fifth century B. C., and to be Etruscan. It is, perhaps, an architectural ornament.

No. 42. A charming head of a boy, of uncertain provenance. The naturalism portrayed in this fine fragment would put it at a late date, perhaps as late as the end of the third century B. C. The head, following the usual custom, is painted red. This is probably of late Etruscan or early Roman workmanship.
No. 4.3. Etruscan or Roman terracotta statuette of two women, side by side. It has been much restored, and was made originally in the second century B. C.
No. 44. Statuette of a seated female divinity, with a child in her arms. Over her head is a canopy. Traces of a chalky white slip remain. This belongs in the fifth or fourth centuries B. C.
No. 45. Head of a youth, wearing a pilos. This head is similar to No. 40, but is somewhat larger. It, too, is Tarentine, and of the same period.
No. 46. A very archaic statuctte of a male figure, wearing a diadem. and holding a tablet (?) to his breast. The back is hollow. Traces of polychromy remain. This object must be at least of the sixth century B. C., and is cither Greek or Etruscan, probably the latter. The provenance is unknown.
No. 47. A Greek jointed doll, whose arms and legs are fastened to the body by thread, and which were made to swing freely. The doll is a nude female figure, and holds a shallow cup in her right hand. of a type called by the Greeks a phiale. The head may not belong with the rest of the body; but the original head was of exactly the same type. This doll was found near Athens, and was purchased there by Miss Alice M1. Freeman, who presented it to the Nuseum in 1917. Its importance lies in the fact that not many of these dolls are extant. It was made in the fourth century B. C. S. B. L(uce), Muscum Journal, VIII. 1917, pp. 186-87. Fig. 71.

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## GREEK AND ROMAN SCULPTURE.

## West Room.

No. 1. Head of the youthful Dionysos, about one third life size. His right arm comes up over his head, which is crowned with ivy. This exquisite little piece is a copy of a well recognized type of statue of the god.

Accession No. MS4027. A. J. A., XVI, 1912, p. 101, No. 4 (Bates). For an example of this type of head of Dionysos, found at the American excavations at Old Corinth, Greece, see Richardson, A. J. A., VIII, 190t, pp. 288-96, No. 4, and Pl. XIII.
No. 2. Fragment of a halfdraped female torso, found near the Lake of Nemi, about one quarter life size. Although the hand is crudely executed, the rest of the piece, especially the nude upper body, is fairly well modeled.

Accession No. MS3474.
No. 14. Roman marble head found in Sardinia; an extremely realistic portrait of a lady of middle age, and of good birth and breeding. The head gives an impression of refinement and dignity. From the dressing of the hair, which is characteristic of the time of Marcus Aurelius, or a little earlier. it is possible to give a fairly close date to this piece of sculpture; namely, the end of the first, or first quarter of the second century A. D. The head is life size.

Accession No. MS4919. E. H. H(all), Museum Journal, V, 1914, pp. 28-30, Fig. 16. A. J. A., XVIII, 1914, p. 416.

No. 16. A Roman marble head of a woman, wearing a veil over the back of her head. This head was acquired in Florence, but its actual place of origin is not known. It probably belongs at the leginning of the first century A. D. This head is life size.

Accession No. MS4032.
No. 17. Statuette of a draped woman, found near the Lake of Nemi. This statuette, and all other objects of sculpture to be described from this site, were probably from the sanctuary of Diana, but for this there is no definite evi-
dence. As in the other cases, the head and arms were fastened to the rest of the statue by dowels. This marble is of a different quality from that used in the nude figures, so that it is possible that in this example, as in No. 29, these parts were made of another, and a superior material. The transparent nature of the drapery is well rendered, and the pose, though slightly affected, is, nevertheless, very graceful. Beside the dowel holes for the attachment of the nude parts of the body, there is another on the left shoulder, the purpose of which is not clear.

Accession No. MS3478. E. H. H(all), Museum Journal, V, 1914, pp. 117-21, and Fig. 67.
No. 18. A relief of the so called Neo-Attic school. There are, as has been pointed out, replicas of this relief in Dresden, Petrograd and Berlin, as well as this specimen; and, on the analogy of the Dresden relief, a cast of which is on exhibition in the Metropolitan Museum in New York, it is possible to add to this list another relief in Berlin and one in the Villa Albani in Rome. The relief represents a wcman, standing to right before a tripod. She is adorning it with a fillet. Her head, and the top of the tripod are missing. At the right a second figure stood facing her. Only the lower part remains, but, on the analogy of the Dresden relief, we know that it is the figure of a man. The drapery is treated in a very mannered and archaistic style.

Accession No. MS4918. E. H. H(all), Museum Journal, V, 1914, pp. 26-28, Fig. 15. A. J. A., XVIII, 1914, p. 416.

No. 19. Nude statuette of a woman or groddess. This was found at Cesarea in Asia Minor, and was acquired in 1895. The missing parts are the head and right leg below the middle of the thigh, which were originally chiseled out of the same block of marble as the body; and the arms, which were fastened by dowels. Although unquestionably of the Roman period, the modeling is skilful and tender.

Accession No. MS214. Height, 60.7 cm .
No. 20. Roman relief, found at Puteoli, the modern Pozzuoli. On the back is an inscription, which has been crased, so that it is now almost illegible. Enough can be read to show that
this relief was part of a monument of some kind erected by the people of Puteoli (the word PV'TEOLANA can be made out on a line by itself, the fourth line from the bottom) in honor of some emperor (on the first line the words IMP. CAESARI can be distinguished) whose name is erased beyond recovery. The relicf is divided in front into two parts of almost equal size by a high vertical moulding, the part of the right being about 61.5 cm . wide, while the one at the left is about 49.5 cm . in width.

The section to the right is decorated with a high relief of a Roman soldier, facing the front. He is draped in a tunic, which is caught up so as to leave his legs bare below the knees. Over this is a cloak. His feet, which are lost, were originally clad in sandals. The top of the right sandal is preserved. He wears a sword belt, and, on his right side, a richly decorated scabbard. In his right hand he carried a spear, which is lost. The left arm and leg of this figure are missing, and seem probably to have been on another block adjoining this one. In fact, Sieveking has recently shown that a relief from Pozzuoli, in Berlin, completes this figure, and proves that the orignal monument turned a corner at this point, as the Berlin relief has a figure of another Roman soldier at right angles to the rest of the figure in Philadelphia.

The pancl at the left is decorated with two Roman soldiers marching to left. They are in much lower relief than the figure at the right, and of the one in front, only half is preserved, showing that another block fitted to the monument at this point. Indeed, this is further proven by the presence of anathyrosis at the end. These soldiers are clad in much the same way as the figure at the right, except that the one in the background carries over his shoulder a very claborately decorated shield, or scutum, that afforded protection to his whole torso, from shoulder to thigh.

This relief may probably be dated in the second century A. D., somewhere about the time of the Emperor Trajan.

Accession No. MS4916. Height, 1.63 m . Gabrici, Notizie degli Scavi, 1909, p. 212. A. J. A., XIV, 1910,
p. 391. Bates, A. J. A., XVI, 1912, p. 101, No. 6 (identifies figure on right as portrait of Augustus, on insuffieient grounds). Reinaeh, Répertoire de Reliefs Grecs et Romains, Vol. II, 1912, p. 208, No. 2. E. H. H(all), Museum Journal, IV, 1913, pp. 142-46, Figs. 125, 126. A. J. A., XVIII, 1914, p. 526, Fig. 2. Sieveking, Sitzungsberichte der Akademie Zı1 München, 1919, pp. $1-8$ and plate. (6. Abhandlung; 21 Juni, 1919.)

No. 21. Head of Athena, of Pentelic marble, said to have been aequired in Cairo. This head is a little over life size, and is probably of Hellenistie workmanship of the second eentury B. C. It is a good example of its period, with the hair in broad, bold waves, showing a marked striving for effeet. On the head is a helmet, only the lower part of which is preserved, but which was probably of the so called Corinthian typc.

Accession No. MS4026. Furtwängler, Sitzıngsberichte der Akademic zu München, 1905, p. 260, No. 26 (identifies it ineorreetly as head either of Mars or Alexander, but probably Ares). Bates, A. J. A., XVI, 1912, p. 101, No. 1 (correctly identifies the head as that of an Athena).
No. 22. Head of the so called Menander type, about one third over life size. This is a Hellenistic work of the third Century B. C., and is a good speeimen of the Greek idealized portrait head. There are two other heads of this Menander type in America, both preserved in the Muscum of Fine Arts in Boston. These portraits of Menander, if indeed they are to be eonsidered i s likenesses of him, have aequired additional interest in late years through the discovery in 1905 of large fragments of four of his comedies, an event of the greatest importance in the history of Cireek literature.

Accession No. MS4028. Fintwängler, Sitzingsberichte der Akademie zu München, 1905, p. 261, No. 36 (denies the aecuracy of ealling this class of heads portraits of Menander). Bates, A. J. A., NV'l, 1912, p. 101, No. 5. E. H. H(all), Matsemm Journal, V. 1914, pp. 122-24, Fig. 68.

No. 26. A statue of a fatm, found near the lake of Nemi. When fonma, it was broken into meny small pieees. which, how-
ever, join perfectly. This may be considered a Roman copy of a Greck original of the fourth century B. C.

Accession No. MS3452. Height, 1.3 m . Furtwängler, Sitzungsberichte der Akademie zu München, 1905, p. 261, No. 32. Bates, Muscum Journal, I, 1910, pp. 30-33, Fig. 18. A. J. A., XV, 1911, p. 231.
No. 27. Nude statuette of a boy. This picee of seulpture also came from the neighborhood of the Lake of Nemi, and is one of the best of the objects from that place in the possession of the Museum. When originally aequired, it had been fitted with a head that did not belong to it, and was set up with the weight on the right leg, whereas it should have been on the left. It originally was a statuctte of an Eros, as is prowen by the dowel holes for wings that are on the shoulders. From the attitude, and from similar cxamples in European museums, it is certain that he was engaged in stringing a bow, perhaps the bow of Herakles. This statuette was made in the first century B. C., and is a Roman copy of a Hellenistic original of perhaps two centuries carlier.

Accession No. MS3456. Height, 58 cm . FurtWängler, Sitzungsberichte der Akademie zu München, 1905, p. 260, No. 27. Bates, Museum Journal, I, 1910, pp. 30-33, Fig. 17. A. J. A., XTT, 1911, p. 231. E. H. H(all), Museum Journal, V'. 1914, pp. 117-211, Fig. 66.
No. 28. Male head, a little over life size, found at Cossarea in Asia Minor, and acquired by the Museum in 1895. It is a head of the late Roman period, and is, in all probability, the portrait of an emperor, although the identification is still uncertain. The head is bearded, and crowned with a curicus form of crown. In many ways this head is one of the most interesting specimens in the Mediterrancan Scetion.

Accession No. MS215.
No. 29. A statue of gray marble, representing a female figure rushing forward, after the type of the Vietory of Samothrace. In its original state the head, arms and feet were fastened to the body by dowels, and were probably of a white marble. The work is Greek in style, but whether it is an original Greek statuette of the Hellenistic period or a

Roman eopy has not been satisfactorily determined. Acquired in Rome.

Accession No. MS4029. Height, 59 cm . Furtwängler, Sitzungsberichte der Akademie zu München, 1905. p. 261, No. 34 (ealls it perhaps Diana as Moon Goddess). Bates, A. J. A., XVI, 1912, p. 101, No. 3 (ealls it perhaps an Iris). E. H. H(all), Muscum Journal, V, 1914, pp. 115-16, Fig. 65 (ealls it a Roman copy of a fifth century original, perhaps of a Nereid).
No. 30. A small Roman portrait head of a boy, about life size, or a little under. This represents the best period of Roman portraiture, the age of Augustus. It is one of the finest examples of its kind in Ameriea.

Accession No. MS4030. Furtwăngler, Sitzungsberiehte der Akademie zu Münehen, 1905, p. 261, No. 35.
No. 31. Statuette of a woman wearing an Ionic chiton, or gown, with short sleeves, and above this a robe of heary material, ealled a himation. With her right hand she holds up one end of this garment, which then passes aeross her back, and is gathered up over her left shoulder. The folds over the shoulder are broken away, and the left arm is missing, as is the head. The drapery at the bottom, and the right arm at and above the elbow, have, for some reason, been eut away, probably beeause this little statue was meant to be seen in high relief.

Accession No. MS4025. Height, 43 cm .
No. 32. Statuette of a youth, found near the Lake of Nemi. He wears a short chiton, deseending only to the knees, and high boots. The left leg below the knee and the entire body above the middle of the torso are missing, and the presence of dowel holes proves that the upper body was made in a separate piece and attached to the preserved part. The head was also, in all probability, earved separately, and attached by a dowel to the upper body.

Accession No. MS3453. Height, as preserved, 53.5 em .
No. 33. Torso of an Eros from the Lake of Nemi. The modeling, by its delieaey and warmth. proves it to be of the GraecoRoman period of the first century B. C. The torso is nude. The arms, legs below the knees, and head were made separately, and fitted on with dowels, the holes for which
can still be seen. There are also holes in the shoulders, for the attachment of wings.

Accession No. MS.3473. Height, 42.8 cm . Furt wängler, Sitzungslıeriehte der Akademic zu Münehen, 1905. p. 260 , No. 28.

No. 34. Relief from a Roman sarcophagus. The elumsy, inartistic workmanship points to a late period for this relief, which prohably belongs to the second century of our era, or even, perhaps, as late as thee third. It represents the triumph of Dionysos. He is seen at the left, riding in a chariot drawn by a centaur, and preceded and surrounded by nymphs, satyrs, and cupids; while at his feet are various wild animals, such as licns and panthers.

Accession No. MS4017. Height, 68.1 em.; length, 1.756 m . Bates, A. J. A., XVI, 1912, p. 101, No. 7.

No. 35. A seated statue of Dionysos, or perhaps of Herakles. He is nude, and sits on a rock, on which is spread the skin of a panther. Beside him sits a lion, whose head he is stroking. It was acquired in Rome, and its history is well known; it is reported, indeed, to have passed into the possession of its former owners in Rome in 1622. At one time in its existence the statue was used for a fountain, as is proven by the fact that passages have been bored through the mouth of the lion from the nape of the neek, and from front to back straight through the torso of the, god. The nostrils and left cheek of the lion, and the head, thumb and forefinger of left hand, big toe of right foot and two portions of the right leg have been restored, perhaps as early as the Renaissance.

Accession No. MS5483. Height, 1.37 m . E. H. H(all), Museum Journal, IV, 1913, pp. 164-67, Fig. 142.
No. 36. A vase of white marble, with two designs in relicf of two griffins killing a doe. It bears the inseription CHIO D. D. It was found, like so many of the other seulptures in the collection, near the Lake of Nemi. The shape is execedingly graceful, and the marble of great purity of color.

Accession No. MS.3446.
Nos. 37, 38, 39, and 40. Four marble urns, all alike, and inferior in execution to No. 36. They are each decorated with three griffins' heads rising from the shoulder and a scallop
pattern from eentre to foot. They were also found near the Lake of Nemi. All bear the same inseription that appears on No. 36, CHIO D. D. This inscription has been interpreted in several ways; but in any ease it is elear that one of the two D's signifies either DONUM or DEDIT. In other words, these urns are offerings. By the Lake of Nemi, as is well known, was a famous sanetuary of Diana. It is, therefore, possible that the other D may stand for DIANAE, and that the inseription means "Chio's gift to Diana." [CHIO D(IANAE), D(ONUM) or $\mathrm{D}(\mathrm{EDIT})$.] This reading is, however, not aceeptable, for two reasons; first, because there is no eause for supposing that these objects were actually found in the sanetuary of Diana, or even in the temple enclosure: seeond, beeause the Romans would probably not take sueh liberties with the name of a goddess as to abbreviate it to one letter, but would write it out in full. It is therefore more probable to read this inseription as CHIO D(ONUM) D(EDIT), "Chio gave as a gift."

Aceession Nos. MS3448, MS3449, MS3450, MS3451. Notizie degli Seavi, 1895, pp. 424ff. Furt wängler, Sitzungsberiehte der Akademie zu München, 1905, p. 260, No. 25. These referenees are for No. 36 as well.
Nos. 41 and 42. Casts of two of the famous arehaie statues of ladies, that are now the most interesting objeets in the Museum of the Aeropolis at Athens. As they were all found on the Acropolis, they are sometimes called the Aeropolis maidens, but usually they are ealled the korai (ancient Greek for maidens or girls) or often the tanten. They were votive statues set up in the preeinet of Athena in the sixth century B. C., and owe their preservation to the faet that they were used as building material for the walls of the Aeropolis, after the battle of Salamis, when the Athenians returned to their city. These reproductions are eleverly colored, in almost exact imitation of the originals, and show how the Greeks painted their seulptures. The idea of cold uneolored marble was foreign to their eoneeption. Even the temples were eolored.

Aceession Nos. MS4024 and MS5.350. The originals of these easts are those published in Perrot and Chipiez,

Hist. de l'Art dans l'Antiquité, Vol. VIII, p. 577, Fig. 289, and p. 592, Fig. 297.
No. 45. Fragment of statue of heroie size, said to have been found near Rome. The head, left forearm, right arm, right leg below the knee, and left foot are missing. The torso is mude, with a eloak flung over the left shoulder. The left forearm leant against a roughly seulptured tree stump, which is half coneealed by the folds of the eloak. The missing parts were fastened to the torso by dowels, and were always separate pieees of marble. A Roman enpy of a good Greek original of perhaps the fourth eentury B. C.

Aceession No. NS4018. Estimated height of eomplete statue, about seven feet, or 2.1 .32 m . Emerson, 'Transaetions, Dept. of Arehæology, University of Pennsylvania, Vol. I, part III, 1905, pp. 169-175, Pls. XXIII, XXIV. A. J. A., IX, 1905, p. 375.

No. 47. Torso of a boy, in Pentelie marble, said to have been found near Athens, and of good Greek workmanship. The torso is nude. It ean be assigned on grounds of teehnique to the period ineluded between the end of the fourth and the beginning of the third eenturies B. C., and attributed to a sculptor under the strong influenee of Lysippus. The head was, in all probability, earved out of the same bloek of marble as the body, and was removed in the Roman period to give plaee to a Roman portrait head. Both arms, and both legs below the knees are missing. The modeling recalls that of the so ealled praying boy in Berlin.

Aceession No. MS5t61. Height as preserved, 55 em . S. B. L(uce), Museum Journal, VII, 1916, pp. 87-92, Fig. 110. A. J. A., XXI, 1917, p. 104, Fig. 7.

No. 48. A relief, used as a revetment in a Roman building, and said to have been found in the ruins of the Villa of Marius at Tivoli. On it are masks of a satyr and a mænad, each facing the eentre. Between them is a thyrsus.

Aecession No. MS3459. Height, 31 cm. ; length, 42.9 em. Compare Bulletino della Commissione Areheologica Communale di Roma, 1902, pp. 20, 21. Furtwängler, Sitzungsberiehte der Akademic zu Münehen, 1905, p. 261, No. 37. S. Reinaeh, Gazette des Beaux Arts, 1912, 1, p. 73 (ineorreetly plaees this relief in the Metropolitan

Museum in New York). Reinach, Répertoire de Reliefs Grecs et Romains, Vol. II, 1912, p. 208, No. 2.
No. 49. An Attic grave stele of Pentelic marble. The upper part, which was originally provided with a gable, and doubtless had the names of the figures inscribed on the lintel, is lost. The stele is that of a woman, who sits at the right facing the left, in a chair built on very graceful lines. Her feet, which are clad in sandals, rest on a small footstool. She wears an Ionic chiton, and a himation. In front of her stands a man, probably her husband, whose right hand she clasps in hers. His head is lost. He is draped in a himation which passes over his left shoulder, leaving his chest and right arm bare. Between the two figures is a third, in very low relief, of a woman, perhaps to be regarded as the daughter of the couple. The man's left hand rests on her shoulder, and her right hand appears against his left shoulder. This stele is obviously Attic, and is said to have been found near Athens. It was made in the fourth century B. C.

Accession No. MS4020. Height, $1.16 \mathrm{~m} . ;$ width, 58.4 cm . Reinach, Répertoire de Reliefs Grecs et Romains, Vol. II, 1912, p. 208, No. 5. E. F. R(ambo), Museum Journal, X, 1919, pp. 149-55, Fig. 59.
No. 50. A colossal bearded mask of a river god, found at Teano. This interesting piece is made of a soft porous stone, like tufa, but somewhat harder, and is about four times natural size. On the cheeks are evidences of corrosion from water.

Accession No. MS4917. Height from end of beard to tip of crown, 71 cm .; maximum width of face, 57 cm . Gabrici, Notizie degli Scavi, 1908, pp. 399-416, and especially p. 405, and p. 407, Fig. 6. A. J. A., XIV, 1910, p. 128.

## East Room.

No. 53. A fine Attic grave stele of Pentelic marble, in good preservation. At the left is the seated figure of a woman, facing the right. She sits in a stiff chair, with her feet on a footstool. She wears an Ionic chiton, with the ends brought together by a series of brooches, to form elbow sleeves.

Over this she wears a heavy himation，thrown shawl fashion aeross her shoulders，and lying across her lap．On her feet are sandals．Her hair is short and eurly，and done in a eoiffure of rather studied simplieity．Her figure is that of a woman of middle age，a faet which points to a rather late date．In front of her stands a bearded man， clad in a himation，whieh is wound over the left shoulder， leaving the right shoulder and arm bare．The eouple clasp hands．Between them stands a third man，also bearded， and represented as somewhat older than the other man． He wears his himation over both shoulders，falling in straight folds down the front，and leaving the centre of the breast nude．With his hands he holds up his drapery． Over the group is the conventional roof，found on all these stelæ，but here it is represented as scen from the side， whereas it is usually shown as seen from the front．On the lintel over the heads of the figures are very faintly inseribed their names；by which we learn that the man in the eentre is the father of the man at the right．The name of the woman was either Krinuia or Krinuria，the daughter of Astratios or Stratios；the inscription is so faint that the readings are in doubt．The husband＇s name was Nauklaies，the son of Naukles，and below this are the letters Nau ．．eus，whieh is without doubt a part of the name of the deme，or distriet of Attiea，in which he lived．The name of the figure in the middle was Naukles，whieh corresponds with the name of the husband＇s father，as given in the inseription，proving that this man is the husband＇s father．He was the son of Nauklaies， and below this is the initial letter N ．for the deme；the rest of the inscription，giving the full name of the deme is illegible．The inscriptions，therefore，read：

## KPINYIA AETPATIOT ©TRATHP NAYKへH乏

NATKへAlore（？）
$N$ ．

$$
\begin{aligned}
& \text { VAYKAAIHE } \\
& \text { VAYKAEIOYE } \\
& \text { NAY..ETE }
\end{aligned}
$$

Owing to the realism shown in the portrayal of the woman, and the very high relief in whieh the figures are earved, it is safe to date this stele in the neighborhood of 350 B. C.

Aceession No. MS5470. Height, 1.55 m .; width, 90 cm. S. B. L(uce), Museum Journal, VIII, 1917, pp. 10-14, Fig. 1. A. J. A., XXI, 1917, p. 352, Fig. 3. E. F. R(ambo), Museum Journal, X, 1919, p. 151.
No. 54. Fragment of an Attic grave stele of Pentelie marble. Under a gable are the heads of a man and a woman; the man's head is in very high relief, that of the woman in much lower relief. Neither of these figures represents the deceased, whose figure is lost; but, as in Nos. 49 and 53, she was a woman, seated in a chair. From an inseription on the lintel, over the place where her head had been, we
 band's hand, as in the other speeimens. The third figure, that of a woman whose head is preserved, bears the name Philippa (ФLAITlH), as is shown by the inseription over her head. What relationship, if any, she bore to the deceased, it is difficult to determine; but it has been suggested that she was the daughter of the couple. This stele is of the same period as No. 53. The Pentelic marble has preserved its whiteness in a very remarkable manner.

Accession No. MS4019. Original width, ca. 73 cm . Bates, A. J. A., XVI, 1912, p. 101, No. 2. E. F. R(ambo), Museum Journal, X, 1919, pp. 149-55, Fig. 57.
No. 55. A Greek grave stele of a much later period, said to have been found at Athens. It is said, in publishing it, that it eannot be later than the Hellenistie period, because, under the sumptuary law of Demetrios of Phateron in 315 B. C.., the setting up of such steke was forbidden. But it really is undoubtedly of Roman times, as is shown by the forms of the letters in which the inscription is eut, and the technique of the figures, which shows the deeadent artistic sense of the Roman age.

In this case, the stele was set up over the grave of a man. He is represented lying on a couch, at the right of the relief, feasting. In his right hand is a patera. He is dressed in a chiton with short sleeves, over which a hima-
tion is so draped as to eover his left arm and legs. In front of him is a three legged table, on whieh food has been placed. Sitting on a stool at the foot of the eouch is the wife of the deecasect, wearing a long ehiton, and a himation which she has put. like a veil, ower her hatr. It the extreme right and left are two dimumitive attendents, the one at the right (male) wearing a short chiton, the one at the left (female) wearing a Doric chiton, and carrying a tall vase.

This seene is represented under a low areh, over which there is an arehitrave, on wheh is carved the inseription. Above the arehitrave a gathle has been earved in low relief, with acroteria at the apex and at each end. The inseripreads as follows.

## MENEMANE $\operatorname{\Delta l\Phi l}$ IOथ

XPHETE XAIPE
" Wrorthy Menemachus, son of Diphilos, farewell."
The forms of the letters of this inseription, as well as the late technique of the figures, betray its late date, the letters being finished with apices. This stele would therefore seem to lelong in the first century $A$. D.

Accession No. A1S4023. Height, 70.3 cmı; maximum width, 46.5 cm . E. F. R(ambo), Museum Journal, X, 1919. pp. 149-5.5, Fig. 58.

## ROMAN MOSAICS,

West Room.
These mosaies are numbered conseeutively with the examples of Greek and Roman seulpture just deseribed. They are all of the Roman period, and in date range from the first eentury B. C. to late Roman Imperial or Early Christian times. The majority of them, however, belong at about the seeond century A. D.

No. 43. Fragment of a Roman mosaie of the style known as Opus Alexandrinum, so ealled because it is supposed to have originated at Alexandria. Others believe that it received that name beeause this teehnique is said to have been invented by the emperor Alexander Severus: this, however, is surely ineorreet. This fragment is an excellent example of this teehnique, with alternate squares of red and green porphyry, forming a speeies of marqueterie in stone. In the green squares small pieces of white stone have been inserted, to form designs in the form of small crosses. This would throw the mosaic into the Early Christian period, so ealled, or about the end of the third or beginning of the fourth centuries of the Christian era.

Aecession No. MS4014. S. B. L(uce), Museum Journal, VII, 1916, pp. 25, 26. A. J. A., XX, 1916, p. 497.
No. 44. A Roman mosaie of Opus Vermiculatum, the eommonest of the Roman mosaie teehniques. It has a eharming design of a duek. Glass is here employed, in combination with eolored stone, to render the neek and bill of the bird. This mosaie has mueh in eommon with mosaies found in the so called House of the Faun at Pompeii, which is dated in the second eentury B. C., suggesting that the first century B. C. is a conservative date for this fragment.

Aecession No. MS4013. S. B. L(uee), Museum Journal, VII, 1916, p. 24. A. J. A., XX, 1916, p. 497.
No. 46. A Roman mosaie of Opus Vermiculatum, of mueh later date. The design is of two griffins facing a large calyx krater. Of the griffin at the left, only the head and fore parts remain. At the right of the fragment is a palmette design. The naturalism which we see with so mueh
pleasure in the duck of No. $4+$ is replaced here by a stiff, heraldic conventionalism, pointing to a date of perhaps the second eentury A. D.

Accession No. MS4016. S. B. L(uce), Museum Journal, VII, 1916, p. 25, Fig. 14. A. J. A., XX, 1916, p. 497.

## Vestibule Leading into Charles Custis Harrison Hall.

No. 51. A fine example of the best period of Roman mosaic art. This pavement is said to have been found in the ruins of Roman Carthage; but there is reason to doubt this provenance. In the centre of the pavement is a design of two men, sailing to the right in an open boat. Each one is paddling with an oar, which he uses much in the way that one handles a canoe paddle. Above and below this design is a simple design of squares and reetangles, and a guilloche. At the left runs the inscription, twice repeated, V I NCLVSVS. There is reason to believe that much of this inseription has been restored. Probably all that is original in the inseriptions are the letters I N C L V S V S of the inseription at the bottom, and V I of the upper inseription. The inscription as restored has no meaning.

The design of the two men in the boat is original, and is of the best period, of the first century A. D., or a little fater.

Accession No. MS4012. Dimensions, as shown, 1.794 by 1.286 m . This pavement bears a great resemblance to, and may well be a part of, the pavement published by Georges Doublet, in the Comptes Rendus de l'Aeadémie des Inseriptions et Belles-Lettres, 1892, p. 318-329; where the mosaie is spoken of as "provenant de Sousse." This mosaic has been lost for a long time, and it is believed that this pavement is part of it. In that ease the inseription should be restored H I C ] I N C L V S V S V I [T A MPERDIT. This mosaic is mentioned by Héron de Villefosse, Revue de l'Afrique Française, V, 1887, pp. 384 and 394, and by Vietor Guérin, Voyage Archéologique dans la Régence, I, p. 109 ff, and II, p. 321. The inseription is in C. I. L., VIII, 10510. Sehoff, The

Periplus of Hanno, p. 29. S. B. L(uce), Museum Journal, VII, 1916, pp. 20-22, Fig. 12. A. J. A., XX, 1916, p. 497. No. 52. A Roman mosaic pavement, said to have been found at Carthage, showing great excellence of technical skill, but with a decorative, rather than an artistic design, a sure proof that it is to be regarded as of a later date than No. 51. The design is of a conventional nature, with various stereotyped patterns combined together, forming a design much like that of a rug, so that it is probable that these pavements often were inspired by rug patterns. In the blending of colors, and the treatment of light and shade, much taste and ability is shown. This should be dated in the second century A. D.

Accession No. MS4015. Dimensions, 3.435 by 2.51 m. S. B. L(uce), Museum Journal, VII, 1916, pp. 23-24. and Fig. 13. A. J. A., XX, 1916, p. 497.

## GREEK, ETRUSCAN AND ROMAN SCULPTURE AT PRESENT NOT ON EXHIBITION.

Nos. 3, 4, 5, 6 and 7 are Etruscan sarcophagi, which are at present in storage. on account of laek of room in which to exhibit them. Three of these sarcophagi are of men, the other two of women. They are made of nenfro, and on the lid, in each case, is the reclining portrait of the occupant. The men rechine at full length; the women sit up, leaning on their left elbows as they reeline. Many of these sarcophagi bear Etruscan inscriptions. They all date in the fifth century B. C.

Furtwängler, Sitzungsberichte der Akademie zu München, 1905 , p. 255 , No. 6.
No. 3. Sareophagus of a man. He is life size or a little over, and reclines on a couch, with his head resting on a pillow, and a rest at the other end for his feet, of which the right foot appears. He is draped in a himation, and wears a heavy neeklace arouncl his neek. His right arm and breast are bare. On his head is a wreath. Found at Coività Musarna near Viterbo.

Accession No. MS3488. Height, $1.088 \mathrm{~m} . ;$ length, 1.932 m . : width, 58.5 cm .

No. 4. Sareophegus of a man, similar to No. 3, but larger. The right hand is broken off. The drapery and pose are identical with the previous specimen. Found at Cività Musarna.

Accessinn No. MS3492. Height, $1.157 \mathrm{~m} . ;$ length. 2.124 m .: width, 63.5 cm .

No. 5. Sarcophagus of a man. He is draped as in the two preceding examples, but wears no necklace. In his hand is a patera, with a boss in the eenter. He is much over life size. Traces of color remain, in the form of red bands, at the lower end of the sarcophagus, and the painted inseription
 IIIXXVJICA. on the pillow: On the front edge of the lid is carved the same inseription Flll $\times \times \sqrt{ } 9 \cdot A \cdot 9 J \cdot 2 \exists 13+\exists J 0$ the letters of wheh are filled in with red paint. Found at Cività Musarna.

Accession No．MS3489．Height， 1.70 m. ；length， 2.176 cm ．；width， 62 cm ．Torp and Herbig，Sitzungs－ berichte der Akademie zu München，1904，p． 506 （inscrip－ tion）．Notizie degli Scavi，1903，p． 119 （inscription）． Bates，Transactions，Dept．of Archæology，University of Pennsylvania，Vol．I，Part III，1905，p．166，Nos． 3 and 4 （inscriptions）．
No．6．Sarcophagus of a woman．She rests on her couch，leaning on her left elbow，so that the upper part of her body is more erect than in the case of the men．She wears a chiton and himation，which are rendered with heavy lifeless folds． Her right arm is bare．Her right foot，clad in a sandal， sticks out at the end of the lid，from among the draperies． She wears her himation veil fashion over the back of her head，concealing her hair．Along the front edge of the lid is cut the inscription，nearly entirely effaced，
 found at Cività Musarna．

Accession No．MS3490．Height， 1.324 m．；length， 2.123 m ．；width， 62 cm ．A photograph of this sarcophagus is published in Art and Archæology，VI，1917，p． 161 （to illustrate a poem by Harvey M．Watts）．For inscription， see Bates，Transactions Dept．of Archæology，Univcrsity of Pennsylvania，Vol．I，Part III，1905，p．166，No． 5.
No．7．Sarcophagus of a woman，from Cività Musarna．This is similar to No．6，but not so large nor so carefully done． The left cheek is disfigured by having a holc cut in it． The drapery and posc is the same as in No．6．On one end of the sarcophagus is cut clearly and dceply，in letters from two to five centimetres high，the following inscription：

## ヨルハス） <br> vaooav：OはAV

Accession No．MS3491．Height， 1.32 m. ；length， 1.99 m ．；width， 66 cm ．Batcs，Transactions Dept．of Archæology，University of Pennsylvania，Vol．I，Part III， 1905，pp．165－66，No．2，and Pl．XX（for inscription）．
No．8．Head of a woman in tufa，found at Toscanclla，in a ton：b， identified from the objects found in it as the tomb of a woman．It is therefore possible that this head is intended
to be a portrait of the deceased. It is of typical Etruscan workmanship, and, from the evidence afforded by the objects found with it, can be put in the fourth century B. C. The woman wears a veil over her head, which also goes over her shoulders. Under that she wears a chiton. This head is somewhat over life size, and very well preserved.

Accession No. MS1428. Height, 42 cm .
No. 9. Etruscan urn of marble, in form resembling the sarcophagi. Said to have come from Volterra, but this is most uncertain. On the lid is the reclining figure of a man, draped in a chiton and himation, and wearing a heavy necklace. He wears a cap on his head, fastened beneath the chin by straps. On the fourth finger of his left hand is a signet ring, and in his right hand is a patera with a boss in the centre. On the lower edge of the lid runs the following inscription:

## 

On the front of the urn is a relief which has been interpreted to represent the murder of Aegisthus. He sits on an altar in the centre, nude. From the left Orestes attacks him with a sword. His chlamys flies in the air over his shoulders, leaving the body nude. He also wears a petasos on his head. At the extreme left is a draped female figure, Electra, with a sword in her right hand. At the right of the altar, two men are fighting, probably Pylades and one of the attendants of Aegisthus. Fourth century B. C.

Accession No. MS2458. Height, with lid, 73.5 cm .; length, 62 cm .; width, 31 cm . Fabretti, Corpus Inscriptionum Italicarum, 694. Pauli, Corpus Inscriptionum Etruscarum, I, 1192. Bates, Transactions Dept. of Archæology, University of Pennsylvania, I, Part III, 1905, pp. 166-67, No. 6. (Fabretti claims that this urn comes from Chiusi, not Volterra.)
No. 10. Etruscan urn of terracotta, similar to No. 9. On the lid reclines a man, dressed in a himation, leaving his body nude. In his right hand he holds a patera, with a boss in the centre. On the urn is a scene of two warriors in combat. On either side of the central group is a female figure (a
genius?) with a torch. The provenance is unknown. Fourth century B. C.

Accession No. MS354. Height, with lid, 56.2 cm .; length, 48 cm . width, 24.4 cm .
No. 11. Etruscan urn of terracotta. On the lid reclines a woman, closely draped in a himation. Traces remain of polychrome decoration. On the urn is a scene of two warriors fighting over the body of a third, while from the right, a fourth warrior rushes to join in the fray. The provenance is unknown. Fourth century B. C.

Accession No. MS2157. Height, with lid, $37 \mathrm{~cm} .:$ length, 36.4 cm . ; width, 19.5 cm .
No. 12. Etruscan urn of terracotta. On the lid reclines a woman, closely draped in a himation. The lid is broken at one corner. The front of the urn has a design of combat, exactly the same as in No. 11. The provenance of this urn is manown, but it is obvious that it came from the same place as No. 11, and is of the same period.

Accession No. MS2158. Height, with lid, 32.8 cm . length, $33.8 \mathrm{~cm} . ;$ width, 19.9 cm .
No. 13. Etruscan urn of terracotta. The lid which goes with this urn does not belong to it. Both parts are said to come from Montepulciano. The lid bears on it the reclining figure of a woman, very crudely executed. On the lid was scratched before firing, the inscription $L A R C N \wedge E V E$.

The urn is painted white, and has no decoration, except the design of a couch in relief, with a candelabrum at each end, and, painted in red, the inscription

## HITAJVA」AИIJJIV

Accession No. MS2159. Height of urn, $17.5 \mathrm{~cm} . ;$ of licl, 9 cmı.; length of urn, 26.5 cm ; width, 13.7 cm . Corpus Inscriptionum Etruscarum 1,705 (inscription on urn), 1,925 (inscription on lid). Fabretti, Supplement to Corpus Inscriptionum Italicarum, 1,161 (inseription on lid). Bates, 'Transactions, Dept. of Archæology, U'niversity of Pennsylvania, I, Part III, 1905, p. 167, Nos. 7 and 8 , and Pl. NXI .
No. 15. Small male head of marble, about one half life size. The
face is bearded, and the hair is rery thick, and erowned with a wreath of ivy leaves. It has been suggesterl that the head is of Herakles, but the grarland suggests the mature bearded Dionysos. This is a Roman copy of a late Greek original. Its provenance is unknown.

Acecssion No. MiS40.31. Height, ca. 20 cm.
No. 23. Head of a woman, from the lake of Nemi, a work of the Graeco-Roman period, about the first century B. C. This head is about one third life size. The hair is parted in the midelle, and done in a koot at the back, while ringlets fall along the neek.

Accession No. MS3467. Height, 22.4 cm.
No. 24. Head of a woman, about three times life size, from the Lake of Nemi. The back of the head is lost, and was made of a separate piece of marble, fastened to the front by a clowel, the hole for which can be seen at the back. The wrorkmanship is mechanical and poor. The head looks like a copy of a fourth century Greek original, and, on the analogy of the other specimens from this site, is to be dated in the neighborhood of the first century B. C.

Accession No. MS3483. Height, 47.7 cm .
No. 25. Bust of a man of middle age. He wears a long pointed beard, and long hair. This bust is about twice life size, and is probably a Roman copy of a Hellenistic original. Found at the Lake of Nemi.

Accession No. MS3475. Height, ca. 50 cm .
No. 56. Head of a man, bearded, with elose eropped hair, said to have been founcl at Rumeli Hissar, on the European shore of the Bosporus. near Constantinople. This head is of a pinkish stone, of a rather coarse texture, and is of life size, or a little over. It belongs in the late Roman period, and has been thought to be the head of a gladiator. ( ) n top of the head is a dowel, still in situ, the purpose of which is not elear. It may be that the head formed part of a clesign in very high relief, or was part of a sculpture that was inserted in a miehe, or se mething of the lind, and was held in place loth at the top and bottom lyy dowels.

Aecession No. MS216. Height, approximately 31 cm .
No. 57. Narble head of a woman, probably a Roman copy of a

Hellenistic original, of life size. The hair is dressed much as in the Aphrodite of Melos, suggesting that this, too, is the head of an Aphrodite. There is a diadem in the hair. Provenance unknown.

Accession No. MS4033.
No. 58. Head of a woman, said to have been found in the Plain of Troy, of about three times life size. This is, in spite of its alleged provenance, a Roman copy of a Greek original, and is mechanical and poor in workmanship. The body is said to have been found at the same time as the head, but, as the whole statue could not be removed from the site by the peasants who found it, the head was cut off, and the torso was buried again. The torso is said later to have been sold to the Berlin Museum.

Accession No. MS213. Height, ca. 40 cm .
No. 59. A marble amphora, with no decoration, found near the Lake of Nemi. The handles have been restored. On the vasc is the inscription CHIO:D:D. It was found at the same time and in the same placc with the vases listed under the numbers 36-40.

Accession No. MS3447. Height, 73 cm . Notizie degli Scavi, 1895, p. 429, No. 8. Furtwängler, Sitzungsberichte der Akademic zu München, 1905, p. 260, No. 25.
No. 60. Fragment of a relief, said to have been found near the Lake of Nemi. At the left, a male figure, nude, with a petasos on his head, and a sword in his right hand, faces the right, attacking a crocodile, beside which is another nude male figure, of whom only the upper part appears. The rest of the relief space is filled with a decorative design of a large vine and at the right, a bunch of grapes.

Accession No. MS3460. Length, 57 cm .; height, 12 cm .
No. 61. Torso of a woman, about onc quarter lifc size, found near the Lake of Nemi. This torso is draped in a garment resembling a chiton, which is held up below the breasts by a girdle of heavy drapery tied in a knot in front. The draperies extend to the knecs, where dowel holes exist for fastening the legs to the torso. Likewisc, at the shoulder, there is another clean break with a dowel holc, for attaching the neck and head, with its claborate headdress. At
the sides are breaks for the arms. This torso is probably to be regarded as part of a statuette of Diana. It is of Graeco-Roman workmanship, of the first century B. C.

Accession No. MS3479. Height, 38 cm . Furtwängler, Sitzungsberichte der Akademie zu München, 1905, p. 261, No. 33.
No. 62. Torso of a boy, from the vicinity of the Lake of Nemi, of about one half life size. The left leg has been mended. The torso is nude; the left leg is bent, and rests on a rock. The right arm is lost below the elbow, the lost part having been of a separate piece of stone and attached by a dowel. The left arm was fastened to the torso at the shoulder. The head was originally carved from the same block of marble as the torso, but has broken off. This torso is of delicate modeling, showing a boy of immature years. It also should be cated at about the first century B. C.

Accession No. MS3465. Height, 99 cm . Furtwängler. Sitzungsberichte der Akademie zu München, 1905, p. 261, No. 29.
No. 63. Torso of a boy, found near the Lake of Nemi, of about one half life size. It is mucle. The right and left feet are gone, and both arms. These parts were fastened to the torso with dowels. The head, which is also lost, was carved from the same block of marble. The right arm was raised above the head, the left hung at the side. The figure leans against a tree trunk, rudely carved. In this case, as well as in No. 62, a very young boy is represented, the modeling being quite soft and tender. It is of the same period as No. 62.

Accession No. MS.3466. Height, 90.5 cm . Furtwängler, Sitzungsberichte der Akademie zu München, 1905, p. 261, No. 31.
No. 64. Torso of a boy, found near the Lake of Nemi, about one fourth life size. This statuctte was originally all carved from a single block of marble, the missing parts having broken off. They are the head, arms and right foot. The torso is mude: the left leg is crossed orer the right. The marble bears traces of corrosion.

Accession No. MS3481. Height, 60 cm . Furtwangler, Sitzungsberichte der Akademic zu München,
1905. p. 261, No. 30 (erroneously says that there is a support of a tree trunk for this torso).
No. 65. Another torso of a boy, from the neighborhood of the Lake of Nemi, of about one third life size. The upper part of the body is missing, the extant part beginning just below the breast, and extending to the feet. The lost part was made of a separate piece of marble, and attached by a dowel. The right leg has been mended; the left leg was bent and probably erossed behind the right. The left foot and lower part of the left leg are missing. The weight of the body is plaeed on the right foot. The modeling of this torso is espeeially pleasing, being of a youth of immature years, with the museles and other details rendered in a very tender and almost effeminate manner. The figure leans against a stump, on whieh the drapery of the figure has been thrown. This is an example of workmanship of the Graceo-Roman period, of the first century B. C.

Aceession No. MS3457. Height, as preserved, 6.3 .5 em.

No. 66. A torso of Aphrodite, somewhat over the normal life size. It is of a eoarse white marble, and was found in exeavations at Teano, at the same time with the eolossal mask of a river god, No. 50. This torso is nude, and of the Capitoline type, the right hand held over the bosom, the left hand held further down. The head, right hand and forearm, left hand and part of the left forearm, and both feet are missing. The feet and base of the statue were earved from a different bloek of stone; the legs are finished in knobs, which fitted into soekets in this base. Below the breasts, and between them, is a break, showing that the right forearm was earved away from the body at this point, while on the left breast are two smaller breaks, showing the position of the right hand. A similar small projeetion appears on the right thigh, showing the position of the left hand as it was originally earved. Besides the arms and hands, the head was also earved from the same block of marble, but it has been broken off. At the right, as in the Capitoline Venus, is a support in the form of a vitse, showing that the goddess is represented as at her bath. Orer the vase is east her drapery, treated
in heavy, unskilful, folls. The modeling, though fairly convineing, is not sueeessful. The goddess is represented as too mature, and the details are rendered in a rather coarse manner. This specimen is, therefore, an umimportant repliea of a very eommon type of Aphroclite statue.

Aceession No. MS5671. Height, 1.425 m . Gabriei, Notizie degli Seavi, 1908, pp. 399-416, and esp. p. 409, and 1. 411, Fig. 10. A. J. A., XIV, 1910, p. 128.
No. 67. A statuette of a hermaphrodite, the upper part of his body draped, the lower part exposed. He is seated on a rock, and is less than one fifth life size. Said to have been found in Smyrna. The head, left hand, and feet are missing.

Height, ea. 35 cm . Reinach, Répertoire de la Statuaire, Vol. II, Part II, p. 791, No. 8.

## REPRODUCTIONS OF FRESCOES.

These frescoes, the originals of which were found at Knossos in Crete, Triryns in Greece, and the site called Phylakopi in the island of Melos, are at present in the Museums of Candia and Athens. They were painted in the period between 1500 and 1200 B . C.; the best ones are the earliest in date.

No. 1. A fresco representing two slaves, each carrying an enormous pitcher, filled either with water or with wine. This was found at the palace of Knossos, and dates at about $1500 \mathrm{~B} . \mathrm{C}$. The original is in Candia.
No. 2. This is perhaps the most interesting of all the frescoes here reproduced, as it gives us a hint of the origin of that most famous of Greek myths,- the story of Theseus and the Minotaur. It shows two girls and a youth vaulting over a maddened bull. The flesh of the girls is shown in white, that of the youth in red. The bull is charging to the left, while the boy is turning somersaults over his back. Behind the bull stands a girl, with outstretched arms, to catch the boy as he finishes, while in front of the animal, a second girl is trying to catch him by the horns. This fresco also was found at Knossos, and is in the Museum in Candia.
No. 3. A fresco of a slave, bearing in his arms an enormous filler of the shape of the boxer vase in Alcove C, Case IV, No. 15. This fresco stood at the side entrance to the palace of Knossos, and like the others, was painted about $1500 \mathrm{~B} . \mathrm{C}$. This is usually called the cup bearer fresco. It also is in the Museum of Candia.
No. 4. 'This fresco, from the Qucen's apartments at Knossos, is one of the best known of them all. The design of dolphins is very well rendered. The same date can be assigned to this as to the others. It also is in Candia.
No. 5. This fresco is to be thought of as the portrait of a chieftain or prince of the period. Unlike most of the wall paintings from Knossos, it is modeled in low relief, and then painted. It was found at Knossos, and is in Candia.
No. 6. Profile head of a bull. In this specimen, the same technique of low relief is employed that we have already found in No. 5. It is in Candia.

No. 7. 'This is one of the most interesting of any of these prehistoric wall paintings. It is called a miniature fresco as it represents figures in miniature size. It shows very well the morlern character of the life of these early peoples, who are shown attending some spectacle. This fresco came from Knossos; the original is in the Museum of Candia.

This reproduction is illustrated by Holland, A. J. A.. XXI, 1917, p. 119, Fig. 1.
No. 8. '1his freseo, though carelessly drawn, is interesting, as it shows one form of costume worn by the girls of this period. Here the bodice is looped up behind in a knot, while across the bosom is an open-work pattern of red and blue, beneath which is shown the white color of the flesh. From Knossos; the original is in Candia.
No. 9. Fragment of a fresco from 'Tiryns, showing two spearmen. 'This piece should be studied in connection with the fragments from the boar hunt freseo to be described a little later. It dates about 1300 B . C. Original in National Museum, Athens.
Nos. 10, 11, and 12. Decorative frescoes from Tiryns. These pietures are patterns rather than illustrations. The effect, however, which they produce is very pleasing. The originals are in the National Museum at Athens.
No. 13. This fresco, which comes from Tiryns, is one of the most important that has come to us from that site. It portrays a lady carrying a casket of jewels. In this picture, better than anywhere, save the Snake Goddess statuettes (Alcove ( , Case III), we can see what the costume of the women in those prehistoric times really looked like. It is interesting to know that an ivory casket, in every respect the counterpart of that in this picture, was found in a beehive tomb at Menidi, just outside of Athens, and is now in the National Museum in the Greck eapital. 'The original of this freseo is also in Athens.
Nos. $14,15,16$, and 17 . These are fragments from the same fresco, which originally represented a boar hunt. It also came from Tiryns. In No. 14, we see two people in a chariot starting out for the hunt; No. 15 gives us a spearman like the two in No. 9; No. 16 shows another huntsman, with
a greyhound in lcash, and a horse; and, finally, in No. 17, we have the killing of the boar, who runs his head against the spcars of the hunters, while the hounds pin him to the earth from behind. These frescoes are of a distinctly later date than those of Knossos, as will be seen from the great difference in the costumes worn. It has been suggested that this boar hunt may have a semireligious significance, and that from such sports, the legend of the Calydonian boar lunt may be taken. The originals of these reproductions are also in Athens.
No. 18. This is a small, but exquisitely beautiful fragment of a fresco of flying fish at play, swimming in and out among the seaweed. This picture, though probably the work of a Cretan artist, was found at the ancient city of Phylakopi, on the Island of Melos, and the original is in the National Museum at Athens.

The reproductions of frescoes from Crete are described, and the more important ones publishcd, by E. H. H(all) Museum Journal, V, 1914, pp. 155-162, and Figs. 8t-86; and the frescoes from Tiryns are described and published by E. H. H(all), ibid., 231-235, and Figs. 117-120. Sec also Robinson, Art and Archæology, V, 1917, pp. 221234, and Holland, A. J. A., XXI, 1917, p. 119, Fig. 1.

# REPRODUCTIONS OF CRETAN AND MYCENAEAN METAL WORK. 

E. H. H (all) Museum Journal, V, 1914, pp. 145-152, Figs. 7381. See also Robinson, Art and Archæology, $\mathrm{V}^{2}, 1917$, pp. 221-234. In Alcove C:

No. 1. Rhyton, or drinking cup, in the form of a bull's head. The original of this was found in the Little Palace at Knossos, and is in the Museum in Candia. Only half of the vase was found; the rest was restored. It is of steatite, with horns of gold, and is a most remarkable piece of modeling, and one of which any sculptor might well be proud.
E. H. H(all) loc. cit., p. 164, Fig. 88.

No. 2. Copy of a gold rhyton in the form of the head of a lion, found at Mycenæ and now in the National Museum in Athens. This dates in the Third Late Minoan period, from 1,300 to $1100 \mathrm{~B} . \mathrm{C}$.
No. 3. Copy of another gold rhyton from Mycenae, and now in Athens, in the form of a bull's head. 'This dates in the same epoch as No. 2. The double axe is wrongly restored.

REPROIUCTIONS OF SHORDS AND DAGGERS FROM МYCENA AND OTHER SITES.
E. H. H (all), loc. cit., Figs. $73-76$.

Case I.
These swords and daggers, with the exception of the one numbered 13, are copies of originals found at Mycenæ by the celebrated Dr. Schliemann, and which arc now in the National Museum in Athens. They were made in an age of culture lasting between 1400 and 1000 B . C. It should be noticed that the swords are rery long, much longer than those used in Classical times. They wore intended for thrusting; for the bronze blarle could not be tempercal to take a cutting edge. The daggers are of the same period as the swords, and are of a good length for such weapons. Especial care is taken to beautify the swords, and particularly the daggers, 1)y rich hilts of
gold, ivory, and semi-precious stones, and by ornamenting the blades of the swords by means of embossing them, and those of the daggers by elaborate and beautiful inlay work in silver and gold. The author of one of the most recent books on the archeology of these early peoples, in speaking of this marvellous art, says with truth, "These craftsmen could not only carve, they could paint in metal!" H. R. Hall, Ægean, Arehaology, p. 57.)

No. 1. A sword with a hilt of gold, decorated with a wickerwork design, and the eentre of the blade ribbed.
No. 2. A sword with a hilt of gold and ebony, and an embossed design of running wild asses on the blade.
No. 3. A sword with a hilt of wood, topped with a pommel of poreelain (in the original it was probably alabaster), and on the blade a design of spirals and patterns modeled after the shields in use in that period.
No. 4. A sword with a plain blade, and a hilt of gold, with an engraved design of spirals and scrolls.
No. 5. A sword with a plain blade, and a hilt of ivory and gold. The pommel, which is of gold, has a fine relief design of lions.
No. 6. A sword with a blade partly engraved with a deviee of scrolls and spirals, and a hilt of gold and ivory, with a pommel of porcelain.
No. 7. A sword with a blade decorated with raised lines rumning down the centre, and a hilt of gold, engraved with scrolls and spirals.
No. 8. A short sword, or long dagger, with a hilt of gold, elaborately ornamented, and griffins in gold inlaid on the blade. This specimen reproduees exactly the exact condition in which the originals were found, while the other reproduetions show how the originals looked when they were new.
No. 9. A dagger with a raised design of lilies on the gold hilt, and lilies inlaid in the blade.
No. 10. A dagger with a hilt of gold, ornamented with an engraved deeoration of rumning spirals, and on the blade a beautiful design, inlaid in gold and silver, of eats chasing dueks through a thicket of papyrus.
No. 11. A dagger with a hilt of gold, with a pommel ornamented
with fighting lions in relief, and on the blacke, rumning lions inset in gold.
No. 12. A dagger with a hilt exactly like No. 11, and, on one side of the blade, a beautiful inlaid picture of a lion hunt in silver and gold, and, on the other, a lion attacking a herd of deer.
No. 13. This specimen is of especial interest, because the original is in this country. It was found in the famous Dictican Cave, the legendary birthplace of \%eus, and is now in the possession of a private collector in Boston. The engraved design is most interesting, not only because such work is most unusual in the art of the periocl in which it was made, but also on account of the nature of the subjects of the designs themselves. They are on one side a boar hunt, and on the other a bull fight, and are new in Cretan art of the period. The original belongs probably in the Third Middle or First Late Minoan period, 2000 1500 B. C.
E. H. H(all) Museum Journal, V, 1914, pp. 169-172. Fig. 91.

## REPRODL゙CTIONS OF METAL WORK, PRINCIPAl」V FROM MYCENF.

E. H. H(all), loc. cit., Fiǧ. 77-81.

## Case II.

This case is devoted to reproductions of gold ornaments and gold and silver drinking cups, found principally at Mycene. These are, for the most part, of the First Late Minoan period, between 1700 and $1500 \mathrm{~B} . \mathrm{C}$., and the originals are now in the National Museum in Athens.

No. 1. 'Two masks, found at Mycente in Schliemann's excavations, used to cover the faces of the persons in whose tombs they were found. They may belong in the First Late Minoan period. from 1700 to 1.500 B . C. though they are probably later.
No. 2. A large diadem, the original of which also came from Mycenæ, and which is of the same period as the masks.
No. 3. A collection of plaques and other ornaments of the kind
that werc probably worn as deeorations of the drapery, though it is now eonsidered by some experts that they were ornaments of the wooden eoffins in which the bodies were placed. The originals are all of gold, beaten very thin, with very interesting and beautiful designs engraved upon them. These plaques are eharaeteristie of Myeenæ, and are rarely found elsewhere.
No. 4. The goblet, of whieh this is a reproduetion, is famous in the archæology of Myeenæ. It is one of the objeets fcund by Sehliemann, and is usually called the cup of Nestor. Sehliemann, in diseovering the tombs at Myeenre, thought that he had aetually found the graves at Agamemnon, Clytemmestra, and other great eharacters of the Homerie Age. When this eup was 1 rought to light, he ealled to mind a passage in the Iliad (XI. 632-635), in which a eup belonging to Nestor is described. That eup differs from this only in being larger, and having four handles, instead of two, and two doves on each handle, instead of one. But Sehliemann, in first publishing this cup, tries to prove that this eup is of the same shape and design as the cup of Nestor in the Iliad; and one is tompted to think that he aetually belicved that he had found the very eup of Nestor himself. Although, of course, this is not the ease, nevertheless the name has stuck to the objeet. which will always be thought of as the eup of Nestor.
No. 5. A reproduetion of a gold vase with a lid, found at Mycenæ. The only ornamentation is a beaded decoration around the base of the neek. The lid is kept attaehed to the vase by the high wire handle.
No. 6. A reproduetion of a gold cup from Myeene, with a eharming repoussé design of three running lions. This cup is on a high, slender stem, and has onc handle. The shape is charactcristic of the Myecnaean Age.
No. 7. A reproduction of a small gold mug from Mycence, with a design of dolphins, in two rows, separaterk from each other by a raised band of three lines. The treatment of the dolphins is very maturalistie.
No. 8. This eup is also from Myeenc. It is remarkable for the excellent spiral deviec that runs around it in two bands.-
a device that is typical of this period, and is the prineipal contribution of the Minoan eulture to decorative art.
No. 9. A rcproduetion of a tall, deep golden goblet from Mycenæ. It has one handle, and is undecorated.
No. 10. A reproduction of a magnificent golden goblet, on a high stcm, and dccorated with a band of rosettes. The original of this goblet was found at Mycenæ, and in publishing it Schliemann said, "This is one of the most splendid jewels of the Myccnæan treasure."
No. 11. A reproduction of a small golden mug from Mycenæ, with a decoration of a continuous row of pointed arches at the top, and around the middle and at the bottom raised herring bonc patterns going around the cup. There is one handle.
No. 12. The original of this cup is of silver, and in the course of years has taken on a certain amount of oxidation, which is very cleverly reproduced in the copy. The shape of this cup is, as a glance at the other spccimens in the case will show, quite characteristic of the period. The design of gold inlay is simple and beautiful, and the vase ranks as one of the most important of those found at Mycenre.
No. 13. The original of this beautiful goblet is also from Mycenæ. and is of the same period as the others in this case. As will be seen, the handles end in the form of dogs' heads. The shape of this pieee is most graceful and beautiful. Four of these goblets, all cxactly alike, were found in the same tomb.
No. 14. A reproduction of a fragment of a filler, the shape of which, as has been proved by recent discoveries, is the samc as that of the boxer vase, Case IV, No. 15. The original of this fragment is of silver, and is one of the most important objects found at Myeence. The relief represents the sicge of a city. The besiegers are lost; the warriors represent the defenders of the town, while inside the walls are the women.
No. 15. This shallow eup is another copy of one found at Mycenæ: the heads in profile are inlaid in the silver body, and treated in a simple and most effective manner. In fact, the eharm of many of these Mycenzan objects consists in
their restraint and simplicity. This cup was found in excavations made subsequent to those of Schliemann.
No. 16. Reproduction of a large gold mug, found by Schliemann at Mycenæ, with a device of plants, running from bottom to top around the vase.
No. 17. The two cups, which are listed under this number, are a pair, the originals of which were found in a tomb at Vaphio, not far from Sparta. They were undoubtedly made in Crete, and certainly represent the acme of the goldsmith's art in the First Late Minoan period. The designs, in bold relief, are splendidly conceived and executed. One is of bulls in the wild state, being trapped and killing the trappers: in the other we see bulls in the domesticated condition, under the mastery of men. The two cups were obviously meant to go together as a pair.

## REPRODUCTIONS OF CRETAN ANTIQUITIES.

E. H. H (al1) Museum Journal, V. 1914, pp. 152-155, 162-168, Figs. 82-83, 87-90. See also Robinson, Art and Archrology, V, 1917. pp. 221-2.34.

## Alcove C.

## Case III.

Contents of the so called Shrine of the Snake Goddess at Knossos, where they were evidently offerings. The originals are in the Museum at Candia, Crete. The attention of the public has often been called to the modern looking costumes of the Snake Goddess (No. 1 in the case) and her attendant (No. 2), and to the votive dresses hung up at the shrine (No. 4). The flying fishes (No. 5) are also worthy of study. One of the most curious of these objects is the cross (No. 6), in the shape of the modern Greek cross, which suggests that in these early days, the cross had some religious significance. The plaques of a cow (No. 7) and a goat (No. 8) suckling their young are also of great interest. The originals date from the seventeenth century B. C., or, in the chronology adopted by the archeologists, in the Third Middle Minoan period.

## Alcove C.

Case IV.
No. 9. Reproduction of a gollet of alabaster found at Mycenæ, and preserved in the National Museum at Athens. Made at about 1100 B . C.
No. 10. Reproduction of a stone lamp, found at Isopata, and preserved in the Muscum at Candia, Crete. This object dates in the First Late Minoan period or between 1700 and 1500 B . C.
No. 11. Copy of a double stone vase, that is, a vase with a cover equal to it in size, which could be used as a bowl itself, found at Mycence, and now in the National Museum at Athens. It is, like No. 9, a product of the Third Late Minoan period, and dates at about 1100 B . C.
No. 12. Copy of a fragment of fresco from Knossos. This shows very clearly the condition in which the bulk of the Cretan
frescoes were found. The original is in Candia, in the Museum. It belongs to the so called palace style, or the Second Late Minoan period, dating about 1500 B. C.
No. 13. A famous vase, found by the University Muscum in its excavations at Gournia. This vase, with its most naturalistic design of an oetopus, is of the form usually called a stirrup jar. It was made in the First Late Minoan period (1700-1500 B. C.), and has often been published. The original is in the Museum in Candia.
No. 14. This is often called the chieftain vase, and represents a ruler or commander giving instructions to his subordinates, who arc represented by an officer and three soldiers. The soldiers have enormous shields, and the officer is distinguished by having no shield, but wearing a helmet and crest and carrying a sword. The original is in Candia, and is of steatitc, as is the case with Nos. 15 and 16.
No. 15. Known usually as the boxcr vase. This is a tall funnelshaped vase, known as a filler, and about eightecn inches high. There arc four bands of deeoration, devoted to scenes of bull leaping and boxing. The original is in Candia.
No. 16. This vase, known usually as the harvester vase, is perhaps the most remarkable of the steatite specimens. Not only that, but it is probably the most important of the reproductions in the ease. In its original state, only the centre part was preserved, and the top and bottom are restorations. This restoration was effeeted with approximate aecuraey, as ean be seen by looking at the vase No. 17, the original of which came from Gournia, and whieh formed the model for the restoration. The tripod in which it rests, is, of coursc, a modern addition.

On the body is represented a proeession of singing men, led by a man in a great capote, while the others wear only a loin eloth. They carry flails on their shoulders, and mareh in a kind of military order. All are singing to the aceompaniment of a sistrum, which one of them is playing. The effect of perspective is most cleverly obtained, and is superior to anything that was done in Egypt at the same time. These three steatite vases were found at Hagia Triada, and are usually assigned to the

Third Middle Minoan period (1900-1700 B. C.) The original is in Candia.
No. 17. Vase of the same shape as the harvester vase. The original was found at Gournia, and is in Candia. This, and other vases like it, served as the models for the correct restoration of the lost parts of the harvester vase. The decorative patterns, and the treatment of the design prove that the original of this vase is of the First Late Minoan period, 1700-1500 B. C.
No. 18. Cast of another steatite vase. The remarkable thing about this vase is that the original was of inlaid stone, and therefore had a design of a different material from the rest of the vase. It came from Knossos, and, like the rest of these Cretan things, is now in the Muscum in Candia. This seems to belong in the Middle Minoan period, betwcen 2000 and 1700 B. C.
No. 19. Vase in the shape of a pitcher with a hole at the bottom, showing that it was used for a filler. It was found by the expedition of the British School at Athens, at a site now called Palaikastro, and the original is in the Museum at Candia. This vase owes its fame to the fact that it was one of the first of this shape to be discovered; but since that time the American expeditions to Gournia, Pseira, and other sites have yielded many such vases. First Late Minoan period, 1700-1500 B. C.
No. 20. This is another copy of a stone lamp, found on the mainland of Greece. The original is of alabaster. It dates from the First Late Minoan period, 1700-1500 B. C., and the original is in the National Museum in Athens.

## On Brackets in Alcove C.

Nos. 4 and 5. Two reproductions of lamp stands from Knossos, which belong in the first or second Late Minoan period, between 1700 and 1400 B . C. The originals of these stands are in the Museum in Candia.

# OBJECTS OF TERRACOTTA AND BRONZE. 

Alcove D.
Case V.
No. 1. Rhyton, or drinking horn, of terracotta, cnding in the head, shoulders, and fore legs of a horse. This is of South Italian manufacture, probably coming from the Greek colony of Tarentum. It can hardly antedate the fourth century B. C. and may even be a century later.

No. 2. Charming figurine of a scated woman. This is in the style of the Tanagra figurincs, and is perhaps as early as the fourth century B. C.
Nos. 3, 4 and 5. Architectural ornaments, probably from Tarentum. They arc antcfixes, and two of them have the traces of the attached roof tile on the back.
No. 6. Archaic terracotta statuette of a standing woman. This is probably Etruscan, of the fifth century B. C.
No. 7. Etruscan statuette of a seated woman, in fragmentary condition, and of the same date as No. 6.
No. S. Pig, of terracotta. The provenance of this object is unknown, but it is probably Greck, of the early fifth century.
No. 9. Figurinc of a draped woman. Probably Greck, of the fourth century B. C.
No. 10. Grotesque figurinc of a man. Hellenistic in datc, probably of the second century B. C.
Nos. 11 and 12. Etruscan bronze statuettes, archaic, of the sixth century B. C. No. 12 is an especially interesting example in perfcet preservation.
No. 13. Bronze statuette, Etruscan or Roman, of Dionysos, bearded and crowned, with a wine cup in his left hand.
Nos. 14 and 15. Two heads of women, in terracotta. South Italian, third century B. C.
No. 16. Head of a garlanded and bearded Silenus. Finc example of Hcllenistic work, of the same period as the two heads just mentioncd.
No. 17. Etruscan terracotta head of a woman, perhaps to be dated in the fourth century B. C.
No. 18. Head of a vcilcd woman. South Italian, third century B. C.

No. 19. Head and upper body of a woman with diadem on her head. This is probably Italic, of the fifth century $\mathrm{B} . \mathrm{C}$.
No. 20. Head of a bearded man, perhaps a divinity. Same period as the last specimen.
No. 21. Head of a woman. South Italian, of the fourth or third century B. C. Traces of polyehrome decoration.
No. 22. Head and upper body of a mude, youthful figure, fourth or third century B. C., and probably also from Southern Italy.
No. 23. Beautiful head of a woman, of undoubted Greek workmanship, made in the fourth or third century B. C.
No. 48. A Tanagra figurine representing a woman playing on pipes. Fourth century B. C. S. B. L(uce), Museum Journal, X. 1919, pp. 20-25, Fig. 8. A. J. A., XXIV, 1920, p. 104. From Athens. Formerly in collection of Rufus B. Richardson, late Director of the American School of Classical Studies at Athen.

## GREEK, ETRUSCAN, AND ROMAN JEWELRY AND GEMS.

Case VI.

Of the ancient peoples who inhabited the Mediterranean Basin in the fifth century B. C., the Etruscans were the most famous for their jewelry and goldsmith work. The Greeks, of course, were no mean rivals; but the Etruscan work is more remarkable for its technical skill, and for the minuteness and painstaking quality of the work, involving processes which cannot be reproduced today. They therefore can be callcd the great goldsmiths of antiquity, a title which their contemporaries were quite willing to accord them. It was the attempt to copy these processes, and to unravel the secrets of the Etruscan technique in gold, that induced the celebrated Roman jeweler, Augusto Castellani, to bccome an archæologist, and a collector, not only of Etruscan goldsmiths' work, but of all antiquities.

No. 1. Fragments of three Etruscan gold rings of the spiral pattern. Sixth or fifth centuries B. C.
No. 2. An archaic Greek gold plaque, terminating at the top in three rosettcs, and with a repoussé design of a winged Artemis, and two animals. Seventh century B. C.
No. 3. An Etruscan gold bulla, or case for amulets, worn around the neck, with a design on the front of two nude youths, and, on the back, palmettes. Sixth century B. C.
No. 4. A circular plaque of very thin gold, with a repousse design of a youth's profile. Etruscan, fifth century B. C.
No. 5. A gold earring, like those worn by the figures in the antefixæ 251, 261, and 26.3 in the East room, and the terracotta No. 26 in the same room. Etruscan, fifth century B. C.

Luce, A. J. A., XXIV, 1920, p. 363, Fig. 8.
No. 6. Two golden ducks, one an earring, the other a small ornament. Greek, fifth century B. C.
No. 7. Group of seven square ornaments, with remarkable raiscd decoration, of Etruscan workmanship. Fifth century B. C.

No. 8. A gold ring, as a setting for a pendant stone now missing.

It has two inscriptions engraved on the ontside. Greek, of the third or second centuries B. C.
No. 9. Two Etruscan criled gold rings. Sixth century B. C.
No. 10. Greck or Etruscan gold bead, found at Cervetri in Etruria, in the form of a knol). Fifth century B. C.
Vo. 11. A circular Greck or Etruscan earring. Fifth century B. C.
No. 12. Two Etruscan rings, one with an intaglio, one with a device of claspect hands.
No. 13. An Etruscan coiled gold ring, with a fine granulated pattern. Sixth century B. C.
No. 14. This ring is especially worthy of notice. Instead of the seal that is customary in Roman rings of the period in which this was made, it has a nude figure of a child for an ornament, and inside, the Latin inscription, EXCIDIO SERVATA MEO, "preserved loy my destruction." The meaning of this ring is uncertain. Whether the ring is that of a child, or of an adult, is the problem.

Bates, A. J. A., XVI, 1912, p. 102.
No. 1.5. A series of three cylindrical gold ornaments. These show the extraordinary technical skill of the Etruscan workers in gold, whon could do minute and exacting work with painstaking accuracy: Fifth century B. C.
No. 16. A pair of very beautiful Greek carrings, of the fifth century B. C.

No. 17. A seal ring, probably Roman, with a bezel of red paste, with an intaglio of Athena. This was made in the period between the first century $B$. C. and the first century $A$. D.
No. 18. An carly Etruscan ring, with a pivoted agate bezel in which is an archaic intaglio of a runner. Sixth century B. C.
No. 19. Three Etruscan gold pendants, in the form of leads, found at Cervetri, and of the fifth century B. C.
No. 20. A Hellenistic or Graeco-Roman earring, found in Egypt, and lent to the Muscum by Dr. Robert H. Lamborn. Third or second centuries B. C.
No. 21. A small silver fibula, or brooch, found at Cervetri. Etruscan sixth century B. C.
No. 22. A fine gold fibula, or brooch, with a long guard, ornamented with a beautiful granulated floral pattern. Etruscan, fifth century B. C.
No. 23. Two very remarkable Etruscan gold discs, with rosettes of
leaves in the centre, and a decoration of raised balls of gold along the outside. Found at Cervetri. Fifth century B. C.

No. 24. A thin band of gold, with a floral design in repousse work. At one end is a tassellike decoration of gold and green glass beads. Greek, fifth century B. C.
No. 25. Two fragments of pendants in the form of rings. Etruscan. sixth century B. C.
No. 26. A pair of Etruscan gold earrings, with a repoussé floral decoration. They are hollow, and one is much dented. Sixth century B. C.
No. 27. A collection of four Greek or Gracco-Roman earrings, from different sites, of a period between $500 \mathrm{~B} . \mathrm{C}$. and 100 A . D.
No. 28. Ten beads from an Etruscan gold necklace, of the fifth century B. C., found at Orvieto.
No. 29. An Etruscan necklace, made up of twenty three cylindrical beads of fine gold, flattened. Sixth century B. C.
No. 30. An Etruscan necklace of twenty-one gold beads, with a central urnshaped pendant bead of gold and green glass. Sixth or fifth centuries B. C.
No. 31. A gold necklace of Greek or Etruscan workmanship, found at Cervetri, consisting of forty-two cylindrical beads, from every other one of which a pomegranate of gold is suspended, decorated with granular ornamentation, making twenty ponegranates in all. The necklace is strung on a fine gold chain. Late sixth or early fifth century B. C.
No. 32. An Etruscan necklace of great beauty, composed of heads of gold and blue paste, with eighteen golden pendants, on which are charming granular patterns. Fifth century B. C. The beads have been restrung in modern times.

No. 3.3. An Etruscan necklace, composed of numerous beads of gold, glass, and amber. Nost of the amber beads are in the form of pendants. In the centre is an Egyptian scarab, of blue faience, with hieroglyphics, in a heavy gold setting. Sixth century B. C. The beads have been restrung in modern times.
No. 34. A wonderful necklace of gold, of Etruscan workmanship, composed of a double row of cylindrical horizontal beads, with many pendants of gold, of various shapes. The
stringing is new, but the necklace itself is of the sixth or fifth centuries B. C.
Nos. 35-42 are examples drawn from the Maxwell Somerville collection of gems. Most of these gems belong to the Roman Imperial period, though a few are Greek or Etrusean; and some are fiankly modern.
No. 35. A group of twelve intaglios, seven of which are set in rings, the other five as seals.
No. 36. Another group of twelve intaglios, three of which are set in rings.
No. 37. A group of twelve gems, including one cameo, two of which are set in rings.
No. 38. Another group of twelve gems, ineluding one camen. Three of them are set in rings.
No. 39. Twelve gems, all set in rings, one of whieh is a eameo.
No. 40. Twelve intaglios, all set in rings. One seems to be in its original setting, the rest seem to have been set in modern times. 'This is true of nearly all the gems in the collection.
No. 41. Twelve more gems, all set in rings, one of them a eameo.
No. 42. Twelve more intaglios, all set in rings.

# ROMAN NECKLACES FROM PALESTINE 200 B. C. TO 500 A. D. 

## Case VII.

This ease contains twenty seven neeklaces of glass and semiprecious stones, all from the Holy Land. Of these necklaces the greater number are either entirely of carnelian, or of earnelian mingled with other stones. Nos. 1, 3, 9, 13, and 27 are plain earnelian neeklaces; and Nos. 17 and 20 are also of carnelian, but the beads are decorated with patterns appliquéed in a very hard white enamel, which shows the skill of the ancients in the art of enameling. Carnelian is combined with rock erystal in No. 11, and with agate in No. 28; while in Nos. 6 and 21, we find earnelian, agate, and onyx combined. Finally, in Nos. 12 and 26, the beads are of carnclian, crystal, onyx, and agate. Nos. 5 and 7 are of quartz erystal, and No. 18 is amethyst.

The rest of the neeklaces in this case are of glass beads of different types. Some are opaque, some transparent; some, though made of glass, look more like elay. Others are made to look like stone.

The above collection of neeklaces has been deseribed, and the most important specimens published, by E. H. H(all), Muscum Journal, IV, 1913, pp. 1.32-133, and Fig. 119. See also A. J. A., XVIII, 1914, p. 416.

## ANCIENT BRONZE HELMETS.

Case Vili.

S. B. L(uce) Museum Journal, pp. 68-76, Figs. 44-49.

Nos. 1 and 2. Greek helmets, of the so called Corinthian style. They show the peculiarity of this type of helmet, in completely covering the face and neck. This form of helmet persisted throughout the whole Classical period; we see it on the vase paintings for two centuries. These specimens are not later than the fifth century B. C., and may be earlier. No. 1 is from Ascoli Piceno: objects found with it will be found in the East room, Case XXVI, No. 150. The provenance of No. 2 is unknown.

Luce, loc. cit., Figs. 44-46.
No. 3. Italic hemnet, popularly known as a jockey cap. One of the cheek pieces is modern. In the centre of the front of the helmet is a small round hole, perhaps a rivet hole for the attachment of a crest or decoration. The top of the helmet originally ended in a knob, but is now broken and looks as if it had been staved in by a blow from a mace or some heary weapon, which doubtless caused the death of the wearer. This helmet was probably made about 400 B. C., and the origin of the shape is doubtless Etruscan. Luce, loc. cit., Fig. 47.
Nos. 4 and 5. Italic Helmets, of the type not found in Greece. Helmets of this shape have been found in tombs as early as the end of the seventh century B. C. These are, however, of Italic or Roman origin, and probably belong in the third century B. C., as helmets very like them have been found on the battlefield of Cannæ, which was fought in 216 B. C. They never had cheek pieces, and very rarely had crests. It is probable, however, that No. 5 was provided originally with a broad, low crest of horsehair or similar material.

Luce, loc. cit., Figs. 48-49.

## ETRUSCAN BRONZE VASES AND UTENSILS.

## Case X.

The objects in this case belong in the long period between the sixth and first centuries B. C., and are either Etruscan or Roman. They have been carefully selected for their artistic excellence, or the beauty of their patina.

No. 1. A cylindrical cup, with a high handle, and of a graceful shape. Cups of this kind are not uneommon in tombs of the sixth or fifth centuries B. C. From Etruria.
No. 2. Foot of an Etruscan cista, in the form of a griffin's foot, surmounted by a sphinx. Fifth or fourth centuries B. C.
No. 3. A handle of a bronze piteher, foimd at Toscanella. Fifth century B. C.
No. 4. A vase handle of Etruscan fifth century work, in the form of an acrobat, with his weight on his hands. Found at Chiusi.
No. 5. Bronze handle of a piteher or other vase, with a beautiful patina. Fifth or fourth centuries B. C.
No. 6. A bronze vase handle, from Chiusi, of the fourth century B. C.

No. 7. A fine bronze handle for a pail or bucket, with an excellent patina, from Chiusi. Fourth century B. C.
No. 8. A pair of vase handles, ending in rams' heads. They differ slightly from each other, showing that they are not from the same vase. On the bottom of one, is a plaque with a spread eagle in relief; while on the bottom of the other is a plaque with a relief of Herakles at an altar. Fine patina. Fourth century B. C.
No. 9. A pair of vase handles of unusual interest. They take the form of birds' heads, with open beaks. Their importance lies in the fact that the bronze is painted. They are Etruscan, and early in date, of about the sixth century B. C.
No.10. Handle of a pitcher of unknown provenance, but very gracefuł in form. Etruscan, fifth century B. C.
No. 11. A tall foot, from a eista, or other rase, decorated with a design of acanthus leaves. Fine patina. Provenance unknown. Etruscan, fourth century B. C.

No. 12. An Etruscan ladle, the bottom of which is gone. The handle ends in the head of a serpent, holding a bird in his mouth. The provenance is uncertain, but is probably Narce, and the ladle probably belongs in the sixth century B. C.
No. 13. A bronze ladle, found at Toscanella. Fifth century B. C.

No. 14. An Etruscan bowl, or patera, used for drinking or for libations. Much corroded, and in poor condition. The sides are ribbed. Found at Narce. Eighth or seventh centuries B. C.

No. 15. An Etruscan patera, found at Narce. Somewhat corroded. The rim is bent outward, and beaded. Seventh or sixth centuries B. C.
No. 16. An Etruscan patera, from Narce. This is a large, shallow bowl, with a good patina. Same period as No. 15.
No. 17. A deep bronze bowl, with a smooth green patina, much of of the surface of which is covered with a charred deposit. Found at Narce, and of the same period.
No. 18. An Etruscan bowl, much corroded, with ribbed sides. Found at Narce, and belonging in the seventh century B. C.
No. 19. An Etruscan cista, or toilet box, of the fifth or fourth centuries B. C. This very small example is unfortunately in poor preservation. The handle of the lid, in the form of a distorted boy, is characteristic of these toilet chests. Found at Chiusi.
No. 20. A small jug, with the handle lost. Fine patina. Etruscan, of the sixth century B . C .
No. 21. A small bronze object, perhaps a handle, with a hook in the form of a dog's head, and a flat part, like a pair of wings, on which is incised ornamentation. Probably Etruscan, of the sixth century B. C.
No. 22. A pair of vase handles, of gilded bronze, from a hydria, or water jar, with the pieces for attachment in the form of palmettes. These are probably of a relatively late period, about the fourth century B. C. From Chiusi.
No. 23. Lid of a vase, with the handle in the form of two horses, tail to tail. On either side are holes to attach the lid to to the vase. Etruscan, of the sixth century B. C.
No. 24. Foot of a cista, or other large Etruscan vase, in the
form of a griffin's claw, surmounted by a resting satyr, in relief. Fifth century B. C.
No. 25. A handsome bucket handle, with elaborate decorations and on each attachment piece a plaque with a head of Herakles, between two palmettes. Etruscan, fifth or fourth centuries B. C.

No. 26. A handle consisting of a ring with a leaf motif attached. Fine, smooth, light green patina. Etruscan, fifth century B. C.
No. 27. A fine bronze handle for a hydria, with an attachment plate ornamented with scrolls and palmette petals. From Cortona. Fifth or fourth centuries B. C.
No. 28. A handle, from the lid of an Etruscan cista, in the form of a nude woman, with her back bent into an arch, and her weight supported on her hands and feet. Sixth century B. C.
No. 29. A fine bronze lamp, with a beautiful engraved decoration of bunches of grapes, spirals, and ivy leaves. At each side are two perforated protuberances for suspension. On the rim is an egg and dart pattern. Fourth century B. C., or later.
No. 30. An Etruscan bronze pitcher, with its hanclle gone, and with a trefoil lip. Such a specimen is impossible to date, except on the evidence of objects found with it, as vases of this shape are common in every period. As there is no record of any objects found with this example, it cannot be correctly dated.

## THE JOHN THOMPSON MORRIS COLLECTION OF ANCIENT GLASS.

Case XIV.
Most of the glass shown in this case is of the period between the first century B. C., and the first century A. D. When no dates are given, it may be said to belong in this period.

No. 1. Two tall, handsome pitehers, with long neeks.
No. 2. Two small pitehers of Jewish glass, usually dated in the fourth eentury A. D.
No. 3. A tall vase, on a foot, of graceful shape and delicate eoloration.
No. 4. Two glass bottles of Roman or Syrian manufaeture.
No. 5. A fine glass urn, used for the ashes of the dead. It dates in the seeond or third centuries of our era, as do the other vases with it (No. 4). Glass had by this time largely taken the plaee of pottcry for sueh purposes. In the more remote antiquity of the great age of Athens, glass was a rarity. Glass vessels were mentioned in the Athenian treasure lists of the fourth eentury B. C., as among the most valuable objeets owned by the eity.
No. 6. Two pitchers, something the shape of the modern ease bottle.
No. 7. A bottle, of late date, with a large body and small neek.
No. 8. A group of eleven small vases of various shapes, all mulberry colored.
No. 9. A group of nine perfume flasks of various shapes and sizes.
No. 10. A group of six drinking-cups, of various shapes and sizes.
No. 11. A perfume flask in the form of a date, made in the period between the first century B. C. and the first eentury A. D.
No. 12. One small jar with no handle, and with good irideseenee.
No. 13. A tall flask, with a narrow mouth and base. Silvery eoloration.
No. 14. A plain bottle with a lip, and tapering neek.
No. 15. A group of four vases with heavy threads of the same eolor, forming a handlelike decoration.
No. 16. A bottle of exquisite shape and irideseenee. First eentury A. D., or later.

No. 17. Two bowls of opaque glass, one white, one red. These two bowls are of Sidonian manufacture, and were probably made in the first century B. C. With them is another of translucent green glass, of the same shape, from Egypt.
No. 18. A small vase of much the same type as those numbered 15, of translucent glass, from Egypt.
No. 19. Two pitchers, with their bodies pressed in at regular intervals.
No. 20. A pitcher of dark glass, with green iridescence.
No. 21. A small bottle, with a wide, flattened body, and iridescence of great delicacy and beauty.
No. 22. A group of five vases of various shapes, of clear, translucent glass. These vases were found in Egypt, and belong late in the Roman period, perhaps in the fourth or fifth centuries of our era. The lack of iridescence is doubtless due to the dryness of the Egyptian climate.
No. 23. Two vases of yellow translucent glass, from Egypt.
No. 24. A vase with a long spout, probably a filler, for a lamp or other vase, of greenish translucent glass, from Egypt.
No. 25. A small, pointed bottle of dark brown translucent glass, from Egypt.
No. 26. A small cup of yellow glass, with a relief design of rosettes, from Luxor in Egypt. Probably of the late Roman or Byzantine period.
No. 27. A vase in the shape of a bird, of white translucent glass, from Egypt.
No. 28. A small perfume flask of greenish glass.
No. 29. A small perfume bottle, of dark translucent glass.
No. 30. An amphora with a foot, and handles of blue glass.
No. 31. A globular bottle of dark glass.
No. 32. A small bottle with a round body, and interesting coloration.
No. 33. 'Two vases with wide necks and bodies.
No. 34. A flat bottle of clouded olive green glass.
No. 35. A vase of light green glass, probably of Jewish make. Fourth century A. D.
No. 36. A small bottle, ornamented with threads of glass applied plastically. This class of vases is hard to date, but should probably be thought of as in the period between the first century B. C., and the first century A. D.

No. 37. 'Two vases of blue mosaic glass, of relatively late date. One is a small flask, the other a cup.
No. 38. Two primitives. These two vases are the oldest in the collection and represent an early stage in the history of glass making. One is a small pitcher, the other an alabastron or perfume flask. They were made on a core before the invention of the blowpipe. Vases of this class are found in Egypt in deposits of the XVII and XIX Dynasties (beginning about B. C. 1500) and continue until the fourth century B. C. These specimens, which were obtained in Egypt, probably belong in the fifth century B. C.

No. 39. A perfume flask, obtained in Egypt, and damaged in antiquity by fire. It is of dark green glass.
No. 40. A longnecked amphora of green glass, with handles of a somewhat darker color.
No. 41. An amphora with a pointed foot, and of a rare and beautiful shape. It was bought in Athens, and is probably of the second or first centuries B . C. . or possibly as late as the first century A. D.
No. 42. A small perfume flask, with a foot.
No. 43. A round bottle, of green glass, with a dark incrustation.
No. 44. A perfume bottle with a long neck and flattened body, with a brilliant silver iridescence.
No. 50. Group of four balsamaria, popularly known as tear jars. As these vases are usually found in tombs, the theory arose that they were used by mourners, who filled them with their tears, sealed them, and put them in the tomb with the deceased. The fact seems to be, however, that they were used for rare and valuable perfumes. They belong in the Roman period.
No. 46. Two amphoræ of light glass, one with a pointed foot.
No. 47. A tall perfume flask of green glass.
No. 48. Two small pitchers, ornamented with threads of glass of another color, applied plastically. They belong in the first or second centuries of our era.
No. 49. Two small vases, one an amphora, the other a pitcher, with handles of glass of another color.
No. 50. Two pitchers of light glass with white coloration.

No. 51. A small perfume flask, on a foot, with handles of threads of glass.
No. 52. Two small bottles, with fine coloration.
No. 53. A long, twisted rod of glass, used for stirring, with a loop handle.
No. 54. Three toy vases. The purpose of these little glass jars is not clear, nor can their exact date be well determined, although they are probably late. They may have been toys for children.
No. 55. A collection of four small perfume bottles.
No. 56. Two glass bowls, one with fine blue iridescence.
No. 57. Fragment of a ball of solid millefiori glass.
No. 58. Three fragments of glass vases, with beautiful iridescence.
No. 59. Two fine large bowls of light glass, found in Egypt.
No. 60. A solid glass pendant, with beautiful iridescence.
No. 61. A moulded glass plaque, showing a head of Medusa, full front.
No. 62. A collection of bracelets and other small objects of glass. Some of these are of early date, when glass was still rare and costly.
No. 63. A small tray of green glass.
No. 64. A fine basin of light glass, on a foot.
No. 65. Two necklaces of glass beads.
No. 66. Three small bowls, or cups, of light colored glass, with fairly good iridescence.

## Case XI.

The contents of this case are confined to the best examples from the above collection, chosen for the beauty of their iridescence. These vases for the most part, and unless otherwise stated, are of the usual period of activity: from the first century B. C., to the first century A. D.

No. 67. A small pitcher, with exquisite blue iridescence.
No. 68. A small perfume flask, with fine blue iridescence.
No. 69. A bowl of dark glass, with brown and mauve coloration.
No. 70. A bottle of light glass, with a very small mouth, and good iridescence.
No. 71. A perfume jar, with brilliant iridescence.
No. 72. A bottle of dark glass with fine coloration.

No. 73. A bottle with dark coloration, and spots of brilliant iridescence.
No. 74. A pitcher of dark glass, with flashes of purple iridescence.
No. 75. A small bottle of exquisite shape. Golden iridesecnec.
No. 76. A bottle of dark glass, that has received a beautiful blue color.
No. 77. A small bottle, with green iridescence.
No. 78. A small perfume flask, of dark glass, with very bright spots of coloration.
No. 79. A vase of the same shape as No. 78, with spots of red iridescence.
No. 80. An amphora of dark glass and unusual shape, with four handles.

No. 81. A clrinking cup of light glass, with blue iridescence.
Nos. 82, 83, and 84. Three pitchers of Jewish glass. These three vases arc late, dating in the fourth century $A$. D. They are decorated with designs, some of them indicating the Temple door. No. 82 is perhaps the most remarkable vase in the whole collcetion. It is a hexagonal pitcher of dark glass, flecked with dots of iridescence of all colors. This form of coloration is most unusual. No. 83, though smaller, has similar coloration, while No. 84 has brilliant bluish green iridescence.
No. 85. A small glass jar, with golden iridescence.
No. 86. A pitcher, dating in the first century A. D. Vivid green iridescence.
No. 87. A flask of the same period, with unusual iridescence.
No. 88. A bottle of light glass, with a stopper of solid dark glass.
No. 89. A jar, with remarkably uniform iridescence of a green color all over the vase.
No. 90. Vasc of the same shape as No. 87, with more delicate colors.
No. 91. A small flat bottle, with excellent green iridescence.
No. 92. A bottle with a very unusual mauve coloration.
No. 93. A bottle of the same shape as No. 76, with lovely light green coloration.
No. 94. A flask of the same shape as Nos. 87 and 90, with green iridescence.
No. 95. A small bottlc, with silvery iridescence.
No. 96. Amphora of orange glass, of unusual shape.
No. 97. A small toy flask, of dark glass, with fine iridescence.

No. 98. A bowl of green glass with spiral dccoration.
No. 99. A small perfume flask with white coloration.
No. 100. A small jar with golden iridescence.
No. 101. A balsamarium with flashes of red and blue coloration.
No. 102. A small flask, with iridescence of green and silver.
No. 103. A pitcher with blue and silver iridescence.
No. 104. Fragment of the mouth of a large balsamarium, with tints of green, gold and violet.
No. 105. A flask with solid green coloration.
No. 106. An angular bottle with a handle, something like a modern case bottle. On one sidc there arc beautiful opalescent colors.
This collection has been described, and the best examples published, by E. F. R(ambo). Museum Journal, X, 1919, pp. 156-165, and Figs. 60-70. Also A. J. A., XXIV, 1920, p. 104.

## Case Xili.

The Roman glass in this and the following six cases comprises the collection in the possession of the Museum beforc the acquisition of the Morris Collection; most of these pieces come from the Holy Land. The best examples were published, by E. H. H (all), Nuseum Journal. IV. 19B, pp. 119-141, Figs. 94-118, 120-124. See also A. J. A., XVIII, 1914, p. 416.

No. 1. An amphora, with a long neck, and two curious handles on the shoulders.
No. 2. Two small vases with groored decoration, of the first century A. D.
No. 3. A fairly tall pointed amphora, like No. 41 in the Morris Collection, in excellent preservation.
No. 4. A bowl with a row of knobs around the middle.
No. 5. A vase of translucent glass, shaped like No. 3 in the Morris Collection, but smallcr.
No. 6. A group of threc ewers, of graceful shape.
No. 7. A group of six glass bottles, ornamented with threads of glass, imitating actual threads of scaling.
No. 8. A group of seven moulded vases, the boodies of which are in the form of female heads. Two of them have handles
made of a glass of a different color, all the rest save one have no handles.
No. 9. A large collection of fifteen vases of various shapes and sizes, of a beautiful cobalt bluc. Some are of blown glass, some made in a mould. These are the most beautiful specimens in the case. They probably date in the first century B. C.
No. 10. A group of eight Sidonian bottles. Antiquity credited the Phoenicians, the great traders of the ancient world, with the invention of glass; but the truth is that the Egyptians knew about it before the Phoenicians appear in history. These little bottles, however, have been found in large numbers in the neighborhood of the great Phoenician city of Sidon, hence their name. They are made in two moulds, half of a vase in cach mould, and joined while the glass was still soft. They are found in deposits of the Hellenistic period of Greek civilization, dating from the end of the fourth to the first centurics B. C. They are frequently, as with some of these specimens, made of opaque glass.
No. 11. Two Jewish pitchers, of the fourth century A. D.
No. 12. Two small phials, of the first century A. D., with beautiful green iridescence, of a shape like No. 68 in the Morris Collection.
No. 1.3. Two largemouthed jars, without handles, of red glass, with finc streaky iridescence.
No. 14. A small pointed amphora, with dark coloration and a little green iridescence.
No. 15. A flat amphora, of winecolored glass, with handles of white. This vase has taken on a very beautiful coloration, and dates in all probability in the second century of our era.
No. 16. A group of small glass imitations of scarabs and intaglios, of the first century B. C.
No. 17. A large bowl, with blue iridescence, which is one of the finest specimens in the case.
No. 18. A vase of the shape called an aryballos, with a small mouth and two handles. Green iridescence.
No. 19. A vase of the shape of No. 16 in the Morris Collection, but smaller.
No. 20. A bottle, with a long neck and a moulded body.
No. 21. A small, round bowl, with fair iridescence.

No. 22. A cylindrical pitcher, probably made in a mould, in shape something like No. 6 in the Morris Collection.
No. 23. A globular little amphora, with three handles, and iridescence of a delicate lilac color.
No. 24. A drinking cup, of a form very common in Roman glass.
No. 25. A small glass vase of egg cup shape, on a slender stem, with very delicate and beautiful iridescence.
No. 26. Two toy vases.
No. 27. A small perfume flask, on a base, shaped like those under the numbers 51, 78, and 79 in the Morris Collection.
No. 28. A small bottle with pinkish iridescence.
No. 29. A drinking cup of yellow glass.
No. 30. Two slender pitchers on bases, with delicate iridescence.
No. 31. A globular amphora of red glass, with handles of a different color. This specimen probably belongs in the first century of our era.
No. 32. A small pitcher of red glass, made in a mould, of the same period.
No. 33. A small moulded amphora of pinkish glass, with a ribbed body. Lilac iridescence.
No. 34. A small flask of yellow glass, turned to a deep golden color.
No. 35. Two bowls of yellow glass, ornamented with threads of glass of the same color, applied plastically:
No. 36. A fine amphora of red glass, with white handles, and threads of glass around the mouth.
No. 37. A small pitcher of dark glass, with beautiful iridescence, probably made in the first century of our era.
No. 38. A slender pitcher of yellow glass.
No. 39. Two bowls of red glass.
No. 40. Two pitchers, one of Jewish glass, of the fourth century A. D., the other probably of the same period, and perhaps also of Jewish manufacture.
No. 41. Two moulded vases of dark glass.
No. 22. A flat amphora of yellow glass, with a long neck.
No. +3. A small bottle of red glass, with threads of glass at the sides, ending in loop handles, at the junction of the neek and loody:
No. 4+. A ribleed bowl of yellow glass, badly broken.
No. 45. A small, round bottle, with beautifnl silvery iridescence.

No. 46. A small eup, or bowl, with horizontal stripes of green glass, and a lug handle.
No. 47. An amphora with handles like No. 1, and a globular body.
No. 48. A fine large bowl, on a foot, decorated with threads of glass of a different color in relief. With it is a smaller bowl of the same shape and teehnique.
No. 49. Two small bottles decorated with threads of glass in relief applied plastically, and in shape like No. 36 in the Morris Collection.
No. 50. Two funnelshaped eups, one deeorated with dark spots.
No. 51. Two bottles of yellow glass, shaped alike, and ornamented with a winding decoration of glass threads. One is somewhat larger than the other.
No. 52. Two amphorx of light green glass, ornamented with threads of dark green glass in relief.
No. 53. Two tall bottles with very small mouths, with threads of glass around the neeks in imitation of sealing.
No. 54. A small round amphora of white glass. with handles and relief decoration of dark green glass.
No. 55. A jar, with heavy threads of glass of the same colour forming a handlelike decoration.
No. 56. A bottle of the same shape as No. 43, but larger, and of white glass.
No. 57. A cup, decorated at the top with threads of glass in relief.
No. 58. A balsamarium, single, with a ring at the top for a handle, of late date.
No. 59. A large glass jar, ornamented with threads of glass in relief. The threads and handles are of a darker glass than the vase proper. This vase, whieh is one of the finest in the case, is probably of the first or second centuries A . D. With it is another vase of the same shape and teehnique, but smaller, and still translucent as it was the day it was made.
No. 60. A bottle, with a design in threads of red glass, of late date.
No. 61. A small pitcher, of the same technique as Nos. 57-59.
No. 62. A small bottle of white glass, with threads around the neek.
No. 63. A large bottle of light green glass, with a relief design of threads of dark green glass.

No. 64. Two small pitchers, on feet. In both, glass of two colors was originally used; but one is entirely covered with white coloration at present.
No. 65. Group of two pitchers of light glass.

## Case XII.

The specimens in this casc are the most beautiful in the Museum's collection, and have been selected not only for the brilliance, but also for the unusual color of the iridescence in several of the specimens. All should be examined with especial care. Most of these vases were made in the first century A. D.

No. 66. Small bottle, with beautiful green and red iridescence.
No. 67. A large bottle like the two under the number 4 in the Morris Collection, with fine iridescence.
No. 68. A drinking cup, on a foot, of a common shape, and good coloration.
No. 69. A small bottle, with unusual streaky coloration.
No. 70. Vase, shaped like No. 105 in the Morris collection, with bcautiful green iridescence with lights of blue and red.
No. 71. An amphora with a long neck, and handles on the shoulders, with fine streaky blue and green iridescence with touches of red.
No. 72. A small bottle, covered with a solid coat of brown, but with spots of green and blue iridescence.
No. 73. A small bottle with a ribbed body, and also covcred with brown, but with pink and green tints of coloration.
No. 74. A cup on a stem, with finc silvery iridescence.
No. 75. A large goblet, with green and red coloration. This is one of the finest pieccs in the collection.
No. 76. A small pitcher of moulded glass, with a kind of honeycomb decoration. Faint but beautiful iridescence.
No. 77. A mouldcd flask of the same period (first century A. D.), with a globular body, long neck, and good coloration.
No. 78. A hexagonal mouldcd bottle, of the same period. This fine specimen has romarkable mauve and violet coloring, as well as the more usual grecn.
No. 79. A globular bottle, with a long neck, and olive grecn and lilac coloration.
No. 80. A small round bottle, with a ribbed body, covered with a
heavy incrustation of black, and with fine golden iridescence underneath.
No. 81. A bottle of a little larger size, and similar shape, with the same incrustation, and, underneath, coppery iridescence.
No. 82. An antphora, of a pure, classical shape, with delicate and beautiful coloration.
No. 83. A bottle of small size and shaped something like No. 71 in the Morris Collection, with good tints of color.
No. 84. A small bottle with a long neck and round body. Green iridescence.
No. 85. A medium sized bottle of dark glass, made in a mould. This is one of the finest specimens in the collection.
No. 86. A tall bottle of an unusual, but very graceful, shape, with delicate tints of iridescence.
No. 87. A flask with a long, thin neck. Fine iridescence of a golden color.
No. 88. A small bottle with fine green iridescence.
No. 89. A bottle of the same shape, with coppery iridescence.
No. 90. A dish of mosaic glass. Unlike the majority of the specimens here exhibited, it is not from the Holy Land. It was found at Chiusi in Etruria, and was acquired by the Museum in 1897. It dates in the Roman period. Its technique is very remarkable, being made on the wheel, like a vase of clay. The scheme of decoration shows great technical knowledge.

See E. H. H (al1), loc. cit., pp. 137-139, Fig. 124.
No. 91. A small moulded bottle, akin to the Sidonian bottles, of dark glass, which has taken on a beautiful violet coloration. This little bottle was probably made in the first century B. C.
No. 92. A very small bowl of light green glass, with delicate iridescence.
No. 93. A small, flat amphora, with delicate mauve tints. Made, in all probability, in the first century of our era.
No. 94. A bowl, shaped like No. 81, but larger, covered with brown incrustation, underneath which is a streaky iridescence.
No. 95. A curious bottle, with spines projecting from it, and covered with golden iridescence. It was probably made in the first century of our era, and looks like a glass imitation of a chestnut burr.

No. 96. A bottle made of threads of glass, of various colors worked together. Same period.
No. 97. A globular aryballos, or perfume flask, with two handles. Fine green iridescence.
No. 98. A bowl with a ribbed body, incrusted with black, and with iridescence of pink, green, and gold.

## Case IX.

This ease is devoted to the exhibition of fragments of different kinds of opaque glass, including millefiori, mosaic, and onyx glass, and glass searabs and eameos. The objects date in the first and second centuries A. D.

No. 99. Group of fragments of bowls of opaque glass of plain colors. No. 100. Fragments of millefiori glass bowls. This is the name given by the Venctians to this kind of glass, which they prized highly. These bowls were manufactured by the combination of threads of glass of various colors in such ways that by cutting eross sections through them a varicty of patterns might be produced. The combination was effected by heating.
No. 101. Fragments of onyx glass. There are three or four purple millefiori pieces ineluded. These bowls were made in imitation of stone vases of different reined marbles, of agate, onyx, and other valuable materials.
No. 102. Fragments of filigree glass bowls: white and yellow threads, edged with blue.
No. 103. Fragments of bowls of mosaic glass, with inlay of ribbons of glass of various colors. In some of these fragments, we see a combination of the filigree and mosaic technique.
No. 104. Pieces of millefiori glass bowls. Some of these are, like the onyx glass vases, in imitation of rare marbles, like porphyry, or serpentine.
No. 105. Bits of glass from mosaies, often showing pieees still fitting together. The workmanship of these fragments is very fine, and shows great technical skill.
No. 106. Scarabs and buttonlike objects of glass.
No. 107. Fragments of glass revetments or veneers, in imitation of marble. These were much used in interiors of houses in Roman times.

No. 108. A few glass cameos, dating from the first century B. C. to the first century A. D. Two of these are especially fine.

## Case XV.

The contents of this case consist for the most part of vases such as have already been scen in Cascs XII and XIII. Some of these vases are of great beauty and importance. The collection of glass bracelets, and other small objects, exhibited on the bottom shelf of this case, should be particularly noticed.

No. 109. Two amphore of a flat type, with circular bodies, and graccful handles. Each has delicate and beautiful iridesecnce.
No. 110. Two drinking cups, in shape somewhat like a modern tumbler. Onc of them has good tints of green, blue, and lilac. No. 68 is of the same shape.
No. 111. Two pitchers with cylindrical bodies, shaped like No. 22, with dclicate tints of iridescence.
No. 112. A small bowl, made in a mould, and dccorated with a stamped design of circles.
No. 113. Two large bowls on feet, both with good coloration, and onc almost translucent.
No. 114. A large bottle of a late period, perhaps the second century A. D.

No. 115. A small cup with a relief design of rays at the foot.
No. 116. Two small bottles with wide mouths. Good coloration.
No. 117. Two small narrow bottles, or vials, one with exquisite iridescence. The shape is that of No. 27.
No. 118. Two small vases with globular bodics, narrow necks, and flaring mouths.
No. 119. Two very small moulded bottles, one square, one hexagonal, each with one handle.
No. 120. Two small perfume flasks.
No. 121. Two small bowls, in shape somewhat like those under the number 2.
No. 122. A small drinking cup, on a foot, of light glass.
No. 123. Two small amphore, one of light glass, one of dark; the former has fine iridescence.
No. 124. A fine bottle, of a shape somewhat like the Greek vase called an aryballos, being squat and shortnecked. It
has a bcautiful silvery coloration. It probably dates in the first century A. D.
No. 125. A small bottle of dark glass, in shape like No. 83.
No. 126. Two pitchers of light glass, with dark glass handles, and rings around the neck of the same color.
No. 127. A vase of the same shape and tcchnique as No. 55.
No. 128. A balsamarium, erroneously called a tear jar, but single, whereas most of these vases are double.
No. 129. Two small groups of toy vases, some with fine coloration.
No. 130. Two small bottles of beautiful shape and fine iridescence.
No. 131. A small, flat moulded bottle of dark bluc glass.
No. 132. A bottlc of white glass, as transparent as the day it was made in the first or second centuries A. D., shaped like Nos. 83 and 125.
No. 133. A small vase of light green glass, on a stem.
No. 134. Two vases moulded in the form of dates. For a similar specimen, see No. 11 in the Morris Collection. These bottles were uscd for pcrfumes, and are not uncommon. They were evidently meant, from their small size, to hold some rare scent that was too expensive to be sold in large quantities. It may be that this perfume was made in some way from dates, and that would account for the shape of these bottles. They seem to belong in the first century A. D.
No. 135. A moulded grcen glass bowl, practically translucent. First century B. C.
No. 136. A large double cone of solid green glass, possibly used as a stopper for a bottlc. For a similar double cone uscd in this manner, see No. $S 8$ in the Morris Collection.
No. 137. A graceful bowl with a high handle, of green translucent glass.
No. 138. A balsamarium, of green glass, doublc, and on a flat foot. In one of the halves is a bronze rod.
No. 1.39. Another balsamarium, with a high handle. Originally of light grecn glass, with the handlc of dark green, the whole has taken on a grey blue coloration.
No. 140. A handsome amphora of thin white glass, with handles of dark biue glass.
No. 141. This number applics to an assortment of small glass objects, such as bracclcts, beads, buttonlike objects, toy rascs,
small vases of various shapes, and several balsamaria. Many of these things are of great beauty, especially the bracelets, some of which have brilliant coloration.

## Case XVI.

The vases in this case bring to its end the collection of Roman Glass. 'These vases are many of them of great beaty and interest. The collection of primitives (Nos. 142, 143, 144, and 145) should be especially noticed. These are the earliest speeimens in the collection. Vases of this sort first appear in Egypt in deposits of the XVIII and XIX Dynasties (ea. B. C. 1500) and continue in use until the invention of the blowing tube in Hellenistic times. The vases are modeled over a core; the decoration was obtained by laying threads of variously colored glass over the surface of a vase when it was still hot. Two other primitives are brought together under the number 38 in the Morris Collection.

No. 142. Two primitive amphoræ, one with herring bone decoration On dark green glass, the other with white designs on blaek.
No. 143. Two small pitehers, primitives, of dark blue glass, with decorations of yellow and light blue threads. The larger of the $t w o$ is the earlier.
No. 144. Two primitive alabastra, one with a handle, and one without, decorated with herring bone patterns. These are exceptionally fine specimens.
No. 145. A small primitive amphora, broken, of dark blue glass, with decorations of light blue and yellow. This is the carliest specimen in the group of primitives, and may date in the seventh or the sixth century B. C., while the others are from one to two centuries later.
No. 146. A group of two vases, with their bodies moulded in the form of a cluster of grapes, a very common form in the first century A. D.
No. 147. A drinking eup, with the sides pressed in.
No. 148. A square case bottle, with a handle, of the shape of No. 106 in the Morris Colleetion, and made in a mould.
No. 149. A pitcher of light glass, with the lip slightly broken. Delieate irideseence.
No. 150. A small bottle with ribbed sides, light green eoloration.

No. 151. A bottle with a wide, flattened body, and a long straight neek. Light glass with dark eoloration.
No. 152. A pitcher of yellow glass, with a pointed foot, and a handle of dark green glass. On the lip are beautiful tints of irideseenee.
No. 153. A small amphora with white coloration.
No. 154. Two bottles with exquisite coloration, shaped like Nos. 83 and 132.
No. 155. A bottle of dark glass, shaped like those under the number 117.

No. 156. A little pitcher with beautiful iridescence, and to be dated in the first century A. D.
No. 157. A small cup with good iridescence, of the same period.
No. 158. Two small bowls, one with silvery and one with eoppery iridescence.
No. 159. A small bottle, shaped something like those under the number 2 , but more graceful.
No. 160. A small bottle with a round body, and a long. straight neek. Good coloration.
No. 161. A pitcher of very thin light yellow glass, with a handle of dark green, and a line of the same color around the lip. There is also a base ring of the same eolor. This vase is translucent, and has no iridescence, but is a noteworthy specimen of the technique of using glass of two eolors in one vase.
No. 162. A bottle, in shape like those under the number 130.
No. 163. An amphora, in shape something like No. 1, but smaller. It is covered with a thin, ereamoolored incrustation. underneath which is a delicate, light green iridescenee.
No. 164. A piteher, of the same technique as No. 161, the colors being white and blue.
No. 165. A finc, large goblet of light glass. The aetion of the soil has given this vase a ereany eoat, through which appear lights of iridescence.
No. 166. A balsamarium of dark glass, with a high handle.
No. 167. A fairly large bottle, with flaring mouth, and on the body raised threads going vertically at wide intervals from the base to the neek. This piece probably dates in the second century A. D.

No. 168. A balsamarium, with a high handle, of a very good shape, and a soft, rieh iridescence.
No. 169. A bowl of translucent green glass, with a slight elouding of white inerustation.
No. 170. A finc piteher, on a foot, with a globular body, and a ring around the neek. Mostly covered with a ereameolored inerustation, there are fine tints of green and silver iridesecnee.
No. 171. An amphora of yellow glass, with handles of blue, and threads around the neek of the same eolor.
No. 172. A pitcher, of a slender and graceful shape. Made of yellowish green glass, with a handle of copper bluc, and a line below the lip of the same color.
No. 173. A batsamarium, of translueent white glass, with a handle of dark glass. This is a very important speeimen, on aceount of the very daborate compound handle, very different from those that have already been treated.
No. 17t. Two bottles, in shape and design like the group numbered 7 .
No. 175. Two water hottles, of good size, and extraordinarily light in weight for their size. They seem to belong in the seeond century A. D.
No. 176. A large flat bow. This beautiful vase has exquisite tints of iridesconce when seen at the proper light and angle.
No. 177. A balsamarium, of green translucent glass, with a very daborate double handle of the same color. This handle is like that of N ). 17.3. 1hut is even more elaborate.
No. 178. An amphora, with handles and base ring of dark glass, the vase itself being of yellow glass. The neek, and particularly the lip, have taken on a most beautiful series of tints of iridescenee, of purple and green.
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