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PUBLICATION 152.

ANTHROPOLOGICAL SERIES.

VOL. VII, No. 4.

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ANTIQUITIES FROM BOSCOREALE  
IN FIELD MUSEUM OF  
NATURAL HISTORY.

BY

HERBERT F. DE COU

---

With Preface and Catalogue of Iron Implements

BY

F. B. TARBELL

Professor of Classical Archæology, University of Chicago

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GEORGE A. DORSEY  
Curator of Department



CHICAGO, U. S. A.

January, 1912.



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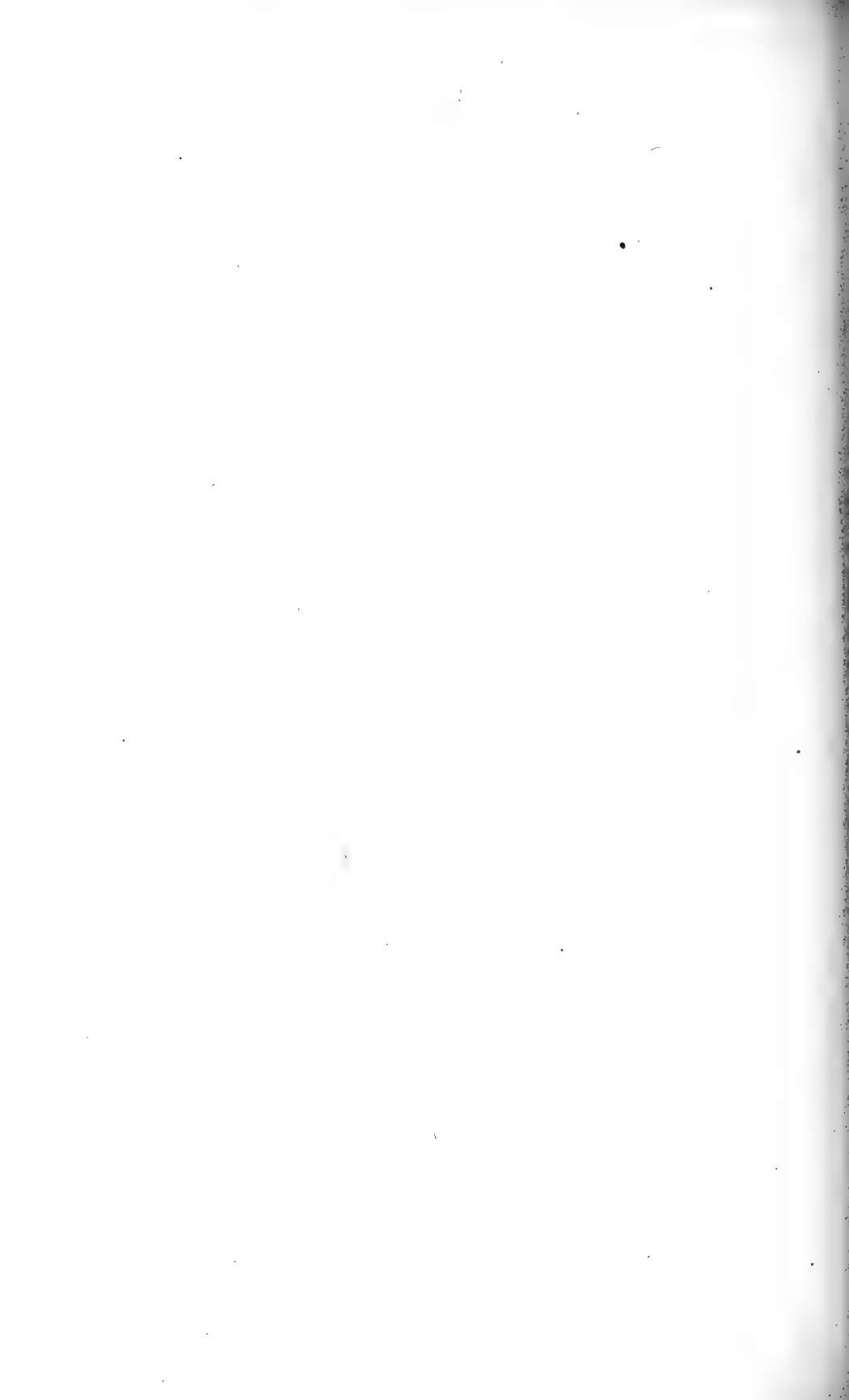
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Curator of Department



CHICAGO, U. S. A.  
January, 1912.



## PREFACE.

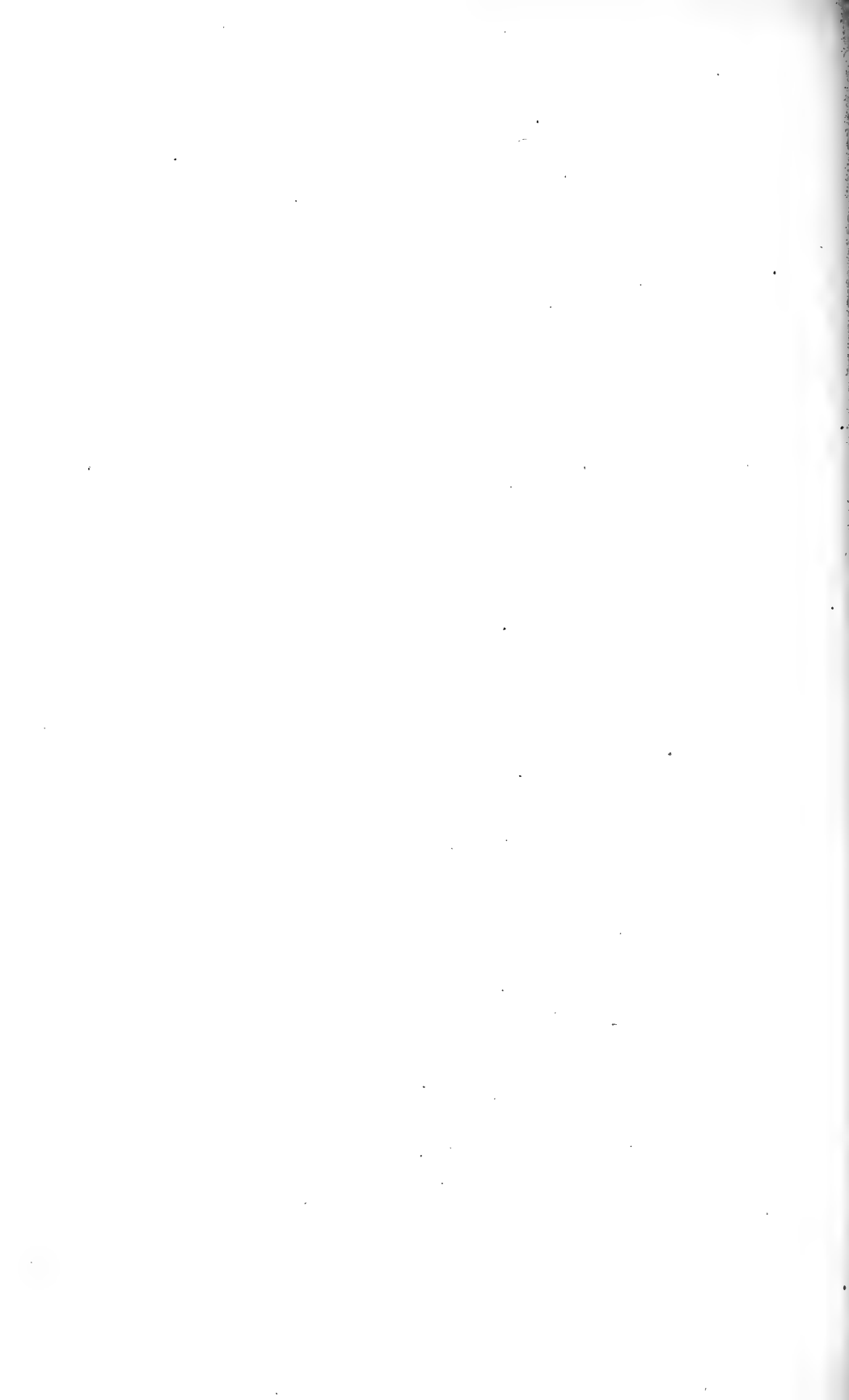
This catalogue, begun in 1908, was completed by the end of the summer of 1909 and was then delivered to the Museum. The author did not live to superintend its publication. He was assassinated by Arabs at Cyrene, in Northern Africa, on March 11, 1911, while engaged in the work of the American excavation on that site.

I have gladly accepted the invitation of the Trustees of the Museum to see the manuscript through the press. The task has been an easy one, for Mr. De Cou was an extraordinarily careful workman. The few slight changes which I have ventured to make in his text affect nothing essential.

Inasmuch as Mr. De Cou did not have his attention called to the iron implements from Boscoreale in the Museum, I have been requested to catalogue these. For this brief addition I am therefore alone responsible.

F. B. TARBELL.

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## INTRODUCTION.

The objects which are described in the following pages<sup>1</sup> were excavated at or near Boscoreale at the foot of Mount Vesuvius.<sup>2</sup> Most of them were found in the villa from which came the celebrated Treasure, part of which is now in the Louvre, some in the excavations of 1894-6, others in 1898. One piece<sup>3</sup> is very probably from a villa in the Piazza del Mercato of the village of Boscoreale, excavated in 1897-8; six pieces, which entered the Museum in 1903,<sup>4</sup> are from another villa<sup>5</sup> in the same neighborhood.

The small but fertile plain of the Sarnus, which lay on the Gulf of Cumae — the modern Bay of Naples — between the Sorrentine peninsula on the south and Vesuvius on the north, and extended back in a north-easterly direction to the foot-hills of the Apennines, was anciently, as now, highly cultivated and thickly peopled. Besides the towns of Nuceria in the south-eastern part of the plain, Stabiae, now Castellammare, in the south-west, and Pompeii in the north-west at the mouth of the river, there were here, as in the entire region about the bay, numerous country-houses and estates belonging to wealthy Romans. Many of these villas, as they were called, were situated on the slopes of the mountains, particularly the Mons Lactarius above Stabiae and Vesuvius opposite.

For over eighteen hundred years habitation in the neighborhood of Vesuvius has been largely dependent on the caprices of that volcano, the outbursts of which have destroyed or devastated time after time the towns at its base. In earlier days, however, this was not the case. The geographer Strabo, who flourished in the reign of Augustus, describes it<sup>6</sup> as covered with beautiful fields, except at the top, which, though level for the most part, looked as if it had at some time been burned by subterraneous fires. The architect Vitruvius, who lived

<sup>1</sup> I am indebted to Professor F. B. Tarbell, who read portions of the manuscript, for many helpful suggestions; to Professor F. W. Kelsey and the Macmillan Company for kindly permitting the reproduction of the plan of the *Villa Rustica* at Boscoreale and furnishing the electrotype; to Assistant Curators Simms, Owen and Nichols of Field Museum of Natural History and Mr. Edward E. Ayer for information courteously given, and to my brother, Louis De Cou, for drawings.

<sup>2</sup> The collection was bought by Mr. Edward E. Ayer, and presented to Field Museum of Natural History by Mr. Ayer, Mr. H. H. Porter, Mr. D. H. Burnham and Mr. Charles Singer.

<sup>3</sup> No. 24658.

<sup>4</sup> Nos. 24668-24673.

<sup>5</sup> [This villa is not included in the list on p. 154. F. B. T.]

<sup>6</sup> V. 4, p. 247.

about the same date, mentions<sup>1</sup> a vague tradition of ancient eruption, but there is no authentic record of any such event.<sup>2</sup>

This long period of repose came to a sudden end the 24th of August of the year 79 A. D. Early in the morning of that day the apparently extinct volcano, after several premonitory shocks of earthquake, sent up an immense cloud, like an umbrella-pine in form, which overshadowed the surrounding country and drove the terrified inhabitants to flight.<sup>3</sup> Only those who left the vicinity immediately were saved, for in the afternoon and the following night and during part of the succeeding day there fell from the cloud a dense shower of pumice-stones (*lapilli*) and fine volcanic ashes which covered the entire plain of the Sarnus, including Pompeii and Stabiae, to a depth of from 10 to 40 feet. At the same time Herculaneum, a small but wealthy seaside resort on the west side of the mountain, was buried beneath torrents of ashes and mud, which subsequently hardened into a solid mass from 70 to 100 feet in thickness.

The ruin which this visitation brought upon these cities was complete and irremediable. Though Pompeii and Stabiae were not so deeply buried as to preclude quite extensive excavation on the part of contemporaries for objects of value, they could not again be inhabited, while the sites more immediately adjacent to the mountain lay so far beneath the newly formed surface of the ground that they were left undisturbed throughout antiquity. They accordingly have preserved for us even more completely than Pompeii the appurtenances of their civilization and the exact conditions in which the catastrophe found them.

The exploration of these buried cities and the recovery of the culture which they represented have been pursued intermittently since the year 1711, and now, after the lapse of nearly two centuries, may be said to be about half completed. A large part of the enormous collections in the museum at Naples, including nearly all of the wall-paintings and bronzes, came from these sites, and though for a long time the excavations have been conducted on a rather small scale, new finds of importance are frequently made.

The most interesting discoveries of recent years have been made near the above mentioned village of Boscoreale, about one and a half miles north of Pompeii. Here a number of sumptuous farm-dwellings (*villæ rusticæ*)<sup>4</sup> were brought to light.

<sup>1</sup> II, vi 2.

<sup>2</sup> Cf. the unrecorded eruption of the Alban Mountain, probably subsequent to the first part of the Iron Age (circa 1000 B. C.), M. S. De Rossi, *Bull. dell' Inst.* 1883, pp. 4 ff., *Bull. di Paleontologia Ital.* I (1875), pp. 186 ff., ix (1883), pp. 79 ff.

<sup>3</sup> For an account of this first recorded eruption we are indebted to two letters of the younger Pliny (VI., xvi, xx), who viewed it from the promontory of Misenum, about fifteen miles distant.

<sup>4</sup> On the type cf. Rostowzew, *Jahrbuch d. kais. deutschen archäolog. Inst.* xix (1904), p. 124, n. 50.

The first, which was also the richest in finds, was discovered in 1876. At that time only a beginning of excavation was made. The work was resumed and completed in 1894-1896 and 1898 by the proprietor, Vincenzo De Prisco. This villa was a rectangular establishment, about 80 x 130 feet in size,<sup>1</sup> consisting of a lower story which contained living rooms and bath and quarters for making and storing wine and olive oil, and a smaller upper story, which was probably devoted mainly to sleeping-rooms. The arrangement of the lower story is exhibited in the Plan, plate CXIX. The entrance on the south, or more accurately the south-west, side led to an open court (A) which was bordered on the north and west by a colonnade, above which were the rooms of the second story. The rooms on the west consist of a kitchen (B), on one side of which is a stable (H), on another the entrance to the bath comprising an *apodyterium* (D) with *latrina* (G), *tepidarium* (E), *caldarium* (F), adjacent to which was the *præfurnium* (C), where the water was heated; furthermore a bakery (O), and a dining-room (N), with vestibule (M), together with some smaller rooms for sleeping (K, L) and storing implements (J). On the north side was the large room of the wine-presses (P),<sup>2</sup> and a group of small rooms probably for the use of the servants (V, W, X). This group, as well as the press-room, opened on the corridor (Q). At the east end were rooms for crushing (Z) and pressing (Y) olives, a large room of uncertain use (S), and a threshing-floor (T), adjoining which was an open cistern (U). The large court on the south side, filled with earthenware casks (*dolia*), was used for the fermentation and storage of wine (R).<sup>3</sup>

The details of the upper story are less clear, but it probably covered the west and north sides of the quadrangle. The dining-room and bath downstairs and most of the upper story appear to have been reserved for the use of the owner; the room over the entrance may have been occupied by the steward, while the remainder of the house was given over to the servants and animals and to the business of the estate.

In this villa were found the bronze table and the bath-tubs now in Field Museum, as well as a large number of vases of bronze, silver, terra-cotta and glass. The most important discovery, however, was made in one of the pits beneath the floor of the room of the wine-presses (plate CXIX, P 3). Here the skeleton of a man was found, with his face against the bottom of the pit. In his hands he clutched a pair of gold bracelets and a gold neck-chain, while about him lay the contents of

<sup>1</sup> According to Pasqui, *Monumenti Antichi . . . dei Lincei* VII, col. 400, the length is m. 39.70 (= 130 ft. 2.9 in), the width m. 25.50 (= 83 ft. 7.9 in.).

<sup>2</sup> The treasure above mentioned was found in the rectangular pit (3) on the south side of this room. Cf. *infra*, p. 152.

<sup>3</sup> For a fuller description of this villa, see Pasqui, *M. A. L.* VII and Mau-Kelsey, *Pompeii* (2d. ed.), ch. xlv, pp. 361 ff.

his purse, upwards of 1000 gold coins, together with 117 pieces of silver-ware which he had carried wrapped up in a cloth or sack. This is the famous Treasure of Boscoreale, the greater part of which was purchased by Baron Edmond de Rothschild<sup>1</sup> and presented to the Museum of the Louvre in Paris.

Another villa of similar plan was discovered in 1895 and excavated in 1897. Several interesting wall-paintings were found in it. From a third villa, found within the village of Boscoreale, came the fresco representing a sacrifice.<sup>2</sup> A fourth villa, discovered in 1900, was decorated with wall-paintings of great interest and importance, now in the Metropolitan Museum in New York. Besides these villas in or near Boscoreale, mention may be made of a villa at the neighboring Boscotrecase, excavated in 1899, and of another at Scafati, near Pompeii, which yielded a number of fine bronze vases, most of which are now in Berlin.<sup>3</sup>

The art represented by the objects found in these villas, particularly the metal vases and utensils and the wall-paintings, is mainly that of Pompeii and Herculaneum in the latest stage of their development, the quarter century immediately preceding the eruption. Like all the ancient art on Italic soil, it is a product of foreign influences combined with native elements, which were themselves in great part of foreign derivation. In Campania the imported ideas came mainly from the Greeks, whose colony of Cumae became politically and artistically paramount as early as the eighth century B.C.<sup>4</sup> Political predominance passed, after a time, to others, Etruscans, Samnites and Romans, in their turn, but the civilization and art of the district, though influenced and at times modified by the nation in power, remained for the most part Hellenic or Hellenistic throughout antiquity. This Hellenism was not, however, left to an unsupported colonial development, but through direct and indirect communications with the mother-country was constantly freshened and renewed. In consequence of this continuous contact the growth and changing tendencies of the art of Greece were reflected in the productions of the colony and its neighbors. This is especially true of the major artistic movements, the influence of which flooded Campania in successive waves. The last of these movements had been that wider Hellenism that came about through the conquests of Alexander, which brought the Greek civilization into contact with the older cultures of Egypt and the East. It was characterized by

<sup>1</sup> The price paid was 500,000 francs, nearly equivalent to \$100,000.

<sup>2</sup> No. 24658.

<sup>3</sup> For a summary of the villas found in and near Boscoreale and in the neighborhood of Pompeii cf. the tabular list, p. 154, in which those mentioned above are Nos. I, II, III, IV, VI and VIII, respectively.

<sup>4</sup> Cf. Von Duhn, *La necropoli di Suessula, Röm. Mitteil.* II (1887), pp. 235 ff; Pellegrini, *Tombe greche arcaiche e tomba greco-sannitica a tholos della necropoli di Cuma, Mon. Ant. Linc.* 1903, pp. 205 ff.; Karo, *Tombe arcaiche di Cuma, Bull. di Paleontologia Italiana*, XXX (1904), pp. 1 ff.

the introduction of new motives of decoration, based on the incrustations and tapestries employed in those lands, by a more literal interpretation of nature, after the manner of Egyptian art, and by the tendency to elaboration of detail, often with small regard to its relation to the whole, together with a certain sentimental individualism, which had developed in the artefacts and the character of the later Greeks.

This art, to which the name Hellenistic has been given, had been for over two centuries dominant in those parts of Italy where Greek influence was felt, particularly in Campania and the south, but also among the somewhat less civilized Romans, as their austere self-sufficiency gradually broke down before the many currents of foreign influence which had turned toward the new world-capital. By the time the Empire was established the number of Greek artists and artificers working in Rome had become so large that that city rivaled the great eastern capitals, Alexandria and Antioch, as a center of Hellenistic art. As the seat of government and fashion it naturally came to set the standards for the rest of Italy, the culture of which even in the former Hellenic districts became relatively somewhat provincial.

Under Roman auspices this art underwent a certain development. While it derived inspiration from the stirring events which brought about a concentration of power such as had perhaps never before been seen, and encouragement from the lavish patronage of the great and wealthy, it was influenced by the taste of the dominant people as well as by the character of their previous art, to emphasize and exaggerate various pre-existing tendencies which ultimately led it far from the paths of the earlier Hellenism. As a result, the art of the first century of the Empire shows in an increasing degree a preference for subjects taken from real and living personages and contemporary history, for an accurate but rather dry method of expression and, at the same time, for bold and striking effects secured by means of the accumulation of detail and impressionistic treatment. This development, which centered in the capital, was followed, as circumstances permitted, by the other Italic cities, and is richly exemplified in the art of Pompeii and Herculaneum.

VILLAS AT OR NEAR BOSCOREALE

No.	Date	Place	Locality	Proprietor	Excavator	Reported	Author	Remarks
I	1876  1894-6	Boscoreale.	Pisanella.....	M. Pulzella and A. A. De Prisco (later V. De Prisco).....	M. Pulzella  V. De Prisco	<i>Notizie degli Scavi</i> , 1876, pp. 196 ff., 1877, pp. 17 ff., 96 ff., 128 ff..... <i>Notiz. Scav.</i> 1895, pp. 109 ff., 207 ff., 235, 1896 pp. 204 ff., 230 ff., 234 ff..... <i>Mem. Ant. Lucin.</i> , VII, col. 397 ff. <i>Roem. Mitteil.</i> , IX and XI.....	A. Pasqui..... A. Mau.....  A. Sogliano..... A. Mau.....	The Treasure was published by A. H. de Villefosse, <i>Mon. et Mém. de la Fond. Piot</i> , V (1890), pp. 7 ff. For earlier bibliog- raphy cf. Pasqui, <i>M. A. L.</i> , VII, col. 475, n. 1.....
II	1897, March 1	Boscoreale.	Giuliana.....	Ippolito Zurlo.....	V. De Prisco	<i>Notiz. Scavi</i> , 1897, pp. 391 ff.....	A. Sogliano.....	Shrine with fresco found 1895, <i>Notiz. Scavi</i> , 1895, p. 174 (Sogliano). This villa is No. III of Pernice, <i>Jahrb.</i> , XV, <i>Abz.</i> , p. 177.
III	1897-8, Oct. 25 to Feb. 5.....	Boscoreale.	Piazza Mercato.	Cirillo, later De Prisco.....	V. De Prisco	<i>Notiz. Scavi</i> , 1898, pp. 419 ff.....	A. Sogliano.....	Field Museum, No. 24658.
IV	1900	Boscoreale.	Grotta Franchini	F. Vona.....	V. De Prisco	<i>La villa pomp. di P. F. Sinisore</i> Rome, 1901.....	F. Barnabei.....	Frescoes in Metropolitan Museum, New York.
V	1901-02, Oct 31 to Jan. 18.....	Boscoreale.	Centonedi al Trone.....	P. Vitiello.....	C. Rossi.....	<i>Notiz. Scavi</i> , 1903, pp. 64 ff.....	R. Paribeni.....	Decoration in First and Second Styles.
VI	1898-99, Dec 28 to Mar. 3.....	Boscotrecase	Setari.....	N. Vitelli.....	V. De Prisco	<i>Notiz. Scavi</i> , 1899, pp. 297 ff.....	A. Sogliano.....	Room N in First Style.
VII		Scatati.....	Muregine.....	Maria Liguori Pasq. Malerba		<i>Notiz. Scavi</i> , 1898, pp. 33 ff. <i>Notiz. Scavi</i> , 1900, pp. 263 ff.....	A. Sogliano..... A. Sogliano.....	
VIII	1899, March to middle of May.....	Scatati.....	Spinelli.....	M. Acanfora.....	V. De Prisco	<i>Notiz. Scavi</i> , 1899, pp. 392 ff.....	A. Sogliano.....	No. II of Pernice, <i>loc. cit.</i>
IX	1897, May 31 to Dec. 18 1899-1900, Oct. to Jan.....	Torre An- nunziata..	Civita.....	Signora Masucci- d'Acquino..... C. Knight.....		<i>Notiz. Scavi</i> , 1897, pp. 337 ff. <i>Notiz. Scavi</i> , 1896, pp. 494 ff..... <i>Notiz. Scavi</i> , 1900, pp. 69 ff.....	A. Sogliano..... A. Sogliano..... A. Sogliano.....	

## FRESCOES.

The mural decorations which are described under the following numbers, though found in or near Boscoreale, are, as has been indicated (p. 149), derived from different villas. Fourteen pieces are said to be from the Villa of the Treasure (No. I), one<sup>1</sup> is very probably from a villa in the Piazza Mercato of the village of Boscoreale (No. III), and three<sup>2</sup> are from another villa in the vicinity.

The frescoes had suffered greatly before entering the Museum, but owing to much patient and skilful mending appear now as in very fair condition.

Greco-Roman decorative wall-painting as exemplified in the Campanian cities has been divided<sup>3</sup> into four classes or styles. The walls of the First Style, which is the earliest in date, imitate veneer of marble of various colors; those of the Second and Fourth Styles are decorated chiefly with architectural motives, which in the former preserve verisimilitude, but in the latter tend to fanciful and impossible constructions. In the Third Style architectural motives, though freely used, form a decorative element which is kept subordinate to the general scheme of the design and does not seem to form an end in itself. Both the Third and the Fourth Styles are derived from the Second, though probably developed in different centers. The walls of the Fourth Style form the latest group in point of time. The frescoes of the Field Museum collection which make use of architectural motives are of the Fourth Style, though one<sup>4</sup> shows marked influence of the Third Style.

With regard to the rooms and walls from which the decorations were taken very little detailed information is accessible. From the official report of the excavation of 1899 it is possible that some of the architectural pieces (No. 24657 or 24651, 24656, 24659) are from the *triclinium* or dining-room (N).<sup>5</sup> This was a room with tripartite horizontal division of the decoration. There was a black dado, above which the main part of the surface had a yellow background. The ground of the uppermost part was white. A general idea of the arrange-

<sup>1</sup> No. 24658.

<sup>2</sup> Nos. 24671-24673.

<sup>3</sup> Mau, *Geschichte d. dec. Wandmalerei in Pompeii*, Berlin, 1882. Mau-Kelsey, *Pompeii* (2d ed.), pp. 457 ff.

<sup>4</sup> No. 24671.

<sup>5</sup> *Notizie degli Scavi*, 1899, p. 15 (Sogliano). But not to be ascribed to this room if the black stripes at the sides are part of the background.

ment of such a decoration may be obtained from a wall of the *Casa della seconda Fontana di Musaico* in Pompeii, illustrated in plate CXXX.<sup>1</sup> In this it will be seen that the architectural prospects at either side of the middle panel of the principal surface correspond to such pieces as No. 24651, the leaf-framed compartments at the sides of the upper part to Nos. 24652, 24655, while the still higher compartments with a goat or deer in the center are analogous to No. 24653. The small, oblong, red-framed compartments at the sides of the right and left panels of the principal surface bear some resemblance to No. 24650, which is shown by the yellow background outside of the frame to be from the central portion of the wall—assuming that it is from the *triclinium*. The same division is said in the above mentioned Report to have contained 'flying monsters,' which may probably be identified with the androsphinxes, Nos. 24646–24649, also with yellow ground. A suggestion for the position of No. 24654 is contained in a Pompeian decorated wall<sup>2</sup> of the Fourth Style, in which a very similar picture is placed at the bottom of the upper division, just beneath a compartment similar to Nos. 24652, 24655. No. 24661 is perhaps from the upper division, or possibly from the ceiling.<sup>3</sup> The large pieces Nos. 24671, 24673 are probably from the central division of the walls from which they were taken.

Owing to the fact that the pieces are encased in permanent frames it has not been possible to make a thorough examination of the plaster underneath the surface or to ascertain just how closely the ancient prescription of three coats of plaster and two or three of stucco<sup>4</sup> was followed. So far as the interior of the pieces could be observed in places where the surface is cracked or detached, the plaster is coarse and gritty except near the surface, where a finer coating of the same color was added to receive the paint. This is the only 'stucco' to be seen. The thickness of the pieces appears to be about three inches,<sup>5</sup> except No. 24673, the only one accurately measured,<sup>6</sup> which is five inches deep from front to back.

The technique employed in the application of the paint is very probably true or 'real' fresco.<sup>7</sup>

<sup>1</sup> After Zahn, *Die schoensten Ornamente, etc.* Vol. ii, plate 95.

<sup>2</sup> Zahn, *Die schoensten Ornamente, etc.* Vol. iii, plate 96.

<sup>3</sup> Cf. Villa of Diomedes, Zahn, *op. cit.* Vol. i, plate 67.

<sup>4</sup> Pliny, *Nat. Hist.* xxxvi, 176. Vitruvius, vii, 3, 6.

<sup>5</sup> Cf. Mau-Kelsey, *Pompeii* (2d ed.), p. 456.

<sup>6</sup> Cf. p. 181.

<sup>7</sup> Cf. Donner in Helbig, *Wandgemälde der v. Vesuv verschütteten Städte Campaniens*, p. i.



## FRESCO. 24657. [PLATE CXX.]

Panel with architectural prospect. The design consists of a strip of wall, which has a dado beneath, and an opening above, through which the spectator sees farther architectural details, and, beyond them, quite out of doors, the corner of a building. The wall is represented as continued above the opening, this part being ornamented with a painted aquatic scene. At either side of the design there is a black stripe, which appears to form part of the background.

The dado is red, with a border at top and sides of green edged with white. At the top there is a cornice, which is painted yellow, with narrow horizontal stripes of red.

The surface of the wall above the dado is represented by two vertical yellow bands, ornamented with horizontal and vertical red lines, which are intended to suggest panelling. Inside the yellow bands a green band on the left, together with an arched lintel, forms the frame of the opening. The lintel joins on the right, or rather passes behind, a vertical dark red band bordering on the yellow surface, but perhaps not quite on the same plane with it. Above the lintel there is a dark green cornice which is represented as projecting into the foreground. This is the only part of the wall which is figured as nearer the spectator than the yellow bands above mentioned.

Within the opening is a short passage-way or vestibule. The ceiling is painted in alternate yellow and red lines, the former probably representing narrow wooden strips. Just beyond the vestibule, on the left, a dark red band separates it from the succeeding interior architecture. This consists of the corner of a light two-storied structure, through which the open air appears as a white background. The greater part of the front is a short passage-way, similar to the preceding. The ceiling is in dark green with light green strips. Above the lintel there is a cornice of light and dark green. From the inner lintel is suspended a wreath attached at the top to a sort of vase or basket. Of the second story front only a small portion shows above the cornice. The left side of the structure has, on the right side of the lower story, a fluted column probably of the Corinthian order, colored light and dark green, as the light was supposed to fall upon it. It supports an entablature consisting of an architrave of not quite correct Corinthian style, a frieze which is divided into eight compartments with a garland in each, and a cornice which forms an angle with that of the front, with which it agrees in color. The open space between entablature and column is contracted by means of a thick wall painted in successive stripes of

blue (next to column), red, yellowish brown and yellow, while in the opening the section of wall which shows is blue. The lower part of this wall, as well as the opening, is shut off by a screen in yellowish and greenish brown. In it there is a tall narrow door indicated by means of white lines. It is represented as closed. Above there are horizontal red lines. Of the second story there appears on this side only a triangular bit of wall, colored green.

From the structure just described there is a view of part of the front of a building, probably a temple, carried out in various shades of green. At the corner of the building there is a Corinthian column without base, supporting an entablature—architrave, frieze with figures indistinctly suggested, and cornice. Above appears the end of the pediment, which is destitute of figures. At the right of the column and beneath the architrave a portion of the front wall of the *pronaos* is visible, and beyond it, in a darker shade of green, a bit of the wall of the *cella*.<sup>1</sup>

The aquatic scene which is painted on the principal wall surface above the opening has a green background representing water, in the center of which are seen tall white plants, while at right and left there is a fish. The picture has a border of dark red trimmed with white and a narrow dark brown stripe just inside the white. The frame of the panel is completed by a yellow band across the top corresponding in length to the cornice above the dado. The ends of this band are treated as in No. 24651 (q. v.).

From the analogy of similar pieces it is very probable that this panel was placed on the left of the principal design.<sup>2</sup>

Height, m. 2.106 (=6 ft. 10.91 in.). Width, m. 0.785 (=2 ft. 6.9 in.).

The panel is substantially complete.

The plaster has many cracks. The paint is faded, and is chipped off in numerous places, mostly small, though the general effect is quite well preserved.

The paint seems to have been applied to a thin coat of stucco or fine plaster. The gable was originally about an inch higher, and the first sketch may be seen under the white where the latter is worn. The vertical red stripe at the left just past the vestibule looks like an afterthought. There are many instances of one color over another, due to contiguity. The shades of the colors are varied to indicate light and shadow, as, for example, in the column, the cornice and the screen.

#### FRESCO. 24651. [PLATE CXXI.]

Panel with architectural design. A narrow strip of wall is painted, as in the preceding number (24657), with dado and top-piece, while the portion between them is conceived as affording a view out into the open

<sup>1</sup> For a somewhat similar view of a gabled structure with wing projecting forward, cf. the House of Argus and Io in Herculaneum, Zahn, *Die schoensten Ornamente, etc.* Vol. ii, plate 83.

<sup>2</sup> Cf. the following three numbers.

through a light and airy, but somewhat complicated, structure. At either side there is a similar black stripe serving as background.

The dado is like that of No. 24657, but there is also a yellow stripe at the bottom with nearly black horizontal lines.

The top-piece, which is decorated with sea-monsters in yellowish white on green ground, is surrounded by a dark red border, which is edged on the inner side with a narrow white stripe and, at least at top and bottom, with a wider reddish brown stripe. The upper border is continued at the ends by short pieces of yellow with the usual red lines, extending across the black at the sides. The darker shade of the under side is indicated by slightly whitening the background.<sup>1</sup> This border with the end-pieces forms the top of the panel, and corresponds in plane to the top of the dado.

In the space between dado and top-piece the front plane of the wall is represented by a vertical yellow band on the right, bearing a narrow red stripe and line, but the edge or frame, so to speak, about the opening is green, both the sides and the slightly arched top. Just above the top a gray cornice, both ends of which are visible, projects forward. Its under side is painted a darker hue to show that it is in shadow.

The space within the opening is occupied by architectural motives in two stories, which do not, however, exactly correspond either structurally or in plane. In the first story there is, on the left, flush with the front, a sort of gallery, the exterior of which is yellow, the interior mostly green. It has a rectangular pilaster on the right, an Ionic architrave, a red frieze the lower half of which is occupied by a yellow leaf pattern, suggesting dentils, and a widely overhanging cornice. On the right, at both front and back, there are acroteria consisting each of a double vegetable scroll, the yellow color of which probably represents gilded bronze. On the right there is a wider building, which is set somewhat farther back. The sides are dark green. The ceiling has grayish strips, with reddish brown interstices, from front to back. A small fragment of a wreath, which was attached to it, still remains. Above the ceiling there is, in front, a gray architrave of Ionic type. This architrave, the top of which is about on a level with the ceiling of the yellow edifice, is surmounted by a rectangular panel which has a dark red border with edging of white on the inside. The interior has on a green ground a rosette in the center with a boucranon at either side, all in yellow. This top-piece is clearly back of the roof of the first building.

In the second story the entire front is occupied by a sort of vestibule. Its left wall is yellow, the corresponding wall on the right does not

<sup>1</sup> Traces of a similar proceeding may be seen in No. 24657.

appear. The ceiling has yellow strips with red interstices. The inner architrave is of a brownish color, with two yellow lines to indicate the subdivisions. Back of this entrance-way appears the corner of a balcony in bluish gray and drab. A heavy pilaster supports the right end of an Ionic architrave coming from the left. This architrave is of triple width; the central portion is covered with ceiling-strips. Above is seen part of a dark violet frieze with greenish leaf-pattern, suggesting dentils, in the lower part. The same order is carried across the front, but it seems less heavy because only a little of the under side can be seen. The frieze is like that just described. Both side and front are open, the external space thus revealed appearing as a white ground.

According to the usual arrangement in this style of decoration, this panel will have been placed at the left of the principal picture on the wall, and a corresponding panel, in this case No. 24656, on the right. There is a very similar panel in the House of the Vettii,<sup>1</sup> belonging to the second period of the so-called Fourth Style, after 63 A. D.<sup>2</sup> The inconsistencies in the design, particularly the lack of correspondence between the two stories, are characteristic of this style, in which architectural motives are freely combined without regard to structural probability.<sup>3</sup>

Height, m. 2.105 (= 6 ft. 10.87 in.). Width, m. 0.62 (= 2 ft. 0.4 in.).

The fresco is considerably damaged. Diagonally across the center there is a wide gap in the plaster, which has been filled in with a modern substitute. The missing portion includes the upper part of the building on the right in the first story except a piece of the architrave and a fragment of the ceiling. There are also numerous small abrasions. The paint is more faded than in No. 24656.

There are many traces of overlapping of colors. In the architectural portion black was applied first, then green or drab, then red, then yellow, indicating that the decorator, after making the frame, worked from the innermost part of the structure forward. In the dado the order was red, black, green, yellow.

### FRESCO. 24656. [PLATE CXXI.]

Panel with architectural design very similar to the preceding, No. 24651, except that the arrangement of the buildings is reversed.

It is incomplete, the missing portions being the second story above the spiral acroteria and part of the yellow cross-band at the bottom of the dado. There are numerous small abrasions, and the colors are

<sup>1</sup> Mau, *Roem. Mitteil.* XI (1896), p. 57 (fig.), p. 49.

<sup>2</sup> *Ibid.* p. 6.

<sup>3</sup> Cf. Mau-Kelsey, *Pompeii* (2d ed.), pp. 463, 467.

Panel with plain opening in the lower story and two elaborate stories above, *Casa di Apollo*, Pompeii (Zahn, *Die schoensten Ornamente*, etc. Vol. II, plate 43). In the *Casa della Caccia*, Pompeii (*ibid.* II, 33) the side-entrances have a door which is left open. It leads on to the top of the wainscoting to which steps lead up from below, thus suggesting a stage. Both are of the Fourth Style. On the possible relation of the decoration of this style to the *scenae frons*, cf. Puchstein, *Jahrb.* XI (1896), *Anz.* pp. 28 ff., XXII (1907), *Anz.* pp. 408 ff.

somewhat faded, but various details appear more clearly than in the panel just described (24651).

The following particulars may be mentioned. The yellow band at the top of the dado has two horizontal red lines in the center and two very close together near the top, a somewhat sketchy representation of a wooden architrave of Ionic type. The broad vertical yellow stripe, representing the exterior wall-surface, appears here on the left side, accompanying the structures which occupy the front of the architectural picture. The lower part of the frieze of the yellow building in the lower story is ornamented with a leaf pattern suggesting dentils, when seen from a little distance. In the oblong panel above the lower left hand building the rosette seems to be a double flower with many petals.<sup>1</sup> The wreath is attached at the top to a sort of holder which probably represents a jar with round bottom and two handles, a device which may be seen still more clearly in No. 24659.

This panel was evidently placed on the right of the principal picture. From the close resemblance which it bears in design, as well as in coloring to No. 24651, it is very probable that they are from the same wall, and that the principal picture stood between them.

Height, m. 1.453 (= 4 ft. 9.2 in.). Width, m. 0.66 (= 2 ft. 1.98 in.).

In the upper part the black and white were applied before the greens, the yellow after them. The red of the border of the rosette-panel was put on after the green of the interior, but before the green of the vertical stripe at the left. The yellow of the narrow building at the right overlies both. Evidently the decorator worked here also from the interior outward toward the spectator. The outer vertical green stripe on the right shows traces of a white line, which came down the center as far as the dado, but was subsequently painted over.

#### FRESCO. 24659. [PLATE CXXI.]

Panel with architectural design similar to the preceding, No. 24656. Incomplete; the preserved portion extends but a short distance above the spiral acroteria, and to about the middle of the dado. The edges on both sides, including the black and yellow vertical enclosing stripes, are missing. There are numerous small abrasions, as well as a larger patch in the lower right corner where the outer surface of the plaster is destroyed. The plaster, as it appears here, is coarse and gritty nearly to the front, where it seems to have been covered by a thin coating of a sort of stucco. The colors are somewhat faded. At present the tints differ considerably from those of the two similar pieces, particularly the greens, which are lighter, and the red of the dado, which is darker.

<sup>1</sup> Four yellow rosettes in panel above door, Roux, *Herculanum et Pompéi*, Vol. i, plate 30 (Fourth Style).

The following are the more noteworthy details. The right interior wall of the yellow building of the first story has a vertical white line near the left edge. At the top of the wide green stripe, which forms the back wall, there is a molding. The right wall of the building on the left is violet colored, except for a dark line near the left edge. The ceiling-strips are bluish gray, the inter-spaces are violet. The interior architrave is greenish drab; the lines which indicate the divisions of the surface are bluish gray. The exterior architrave is greenish gray with division lines of chrome green. The boucrania are slightly and poorly sketched. A well preserved garland is suspended from a sort of jar<sup>1</sup> with U-shaped bent handles, extending upward from the lip, and a horizontal handle, projecting from the side near the lip, under the large upper handle. The vase is of a reddish brown color, but the lip and the two rings just beneath it are painted white to indicate light falling on raised surfaces. The round part of the garland does not form a complete ring, but an end is suspended from each of the upright handles of the vase. The perpendicular part seems to be hung from near the bottom of the vase, but the precise manner of attachment is not clear.

The panel was evidently placed on the right of the principal picture. Owing to the differences in the coloring, noted above, it is improbable that it served as a companion piece to No. 24651. Whether it belonged to another room, or to another wall of the same room, would be difficult to determine.

Height, m. 1.388 (=4 ft. 6.64 in.). Width, m. 0.475 (=1 ft. 6.7 in.).

In the dado the green paint was applied after the red; in the rosette-panel the red was put on after the green, that is, the interior was in both cases painted before the border.

A point in which all four of the frescoes with dado agree is the presence of a narrow black stripe along the upper edge of the upper green border of that part, though here it is partly painted over with green. The stripe may be taken as indicating that the top of the border lying just beneath the projecting yellow (wooden) cornice is in shadow.

#### FRESCO. 24653. [PLATE CXXII.]

Decorative compartment with border and top-piece, detached from a white ground.

The principal design figures a sort of deer in the attitude of ascending a very steep declivity, while the head is turned so that the creature's gaze is directed backwards. Just what animal is represented, is not clear; perhaps the chamois was in the mind of the decorator, although the horns should in that case turn backward. The color basis is a

<sup>1</sup> Similar in shape to the vase of the preceding No. 24656, but with different handles.

dark blue upon which red was laid for the neck and the greater part of the body. Over the red there are a few whitish stripes. The background is white, and there are no indications of landscape.

The frame or border, which encloses the design, is a similar blue to that of the enclosed figure, but darker. It was decorated with from three to five narrow white stripes of the same direction as the respective sides. On the under side the border is enlarged by a wide stripe of reddish white, on which there is a pattern consisting of red horizontal lines and inverted T's of the same color.

At either side of the frame there are narrow uneven strips of white, probably from the background. At a point a little above the center of the stripes, a horizontal red band from the right and another from the left joined, but did not cross, the frame.

Above the enclosure there is a narrow rectangular top-piece surrounded by a dark red border with a line of white about the inner edge. The interior has, on a green ground, designs in white, a bird in the center and at either side, and, in either interval, a plant with large round leaves. The bird in the middle is probably a swan, that at the left may be the same, while the bird at the right is uncertain. Besides the foregoing there are slight and indistinct traces of other plants in white.

For the place which this piece may have occupied on the wall, cf. p. 156. There is also a similar animal figure in the dado of the wall of a house near the Basilica in Pompeii.<sup>1</sup>

Height, m. 0.608 (= 1 ft. 11.93 in.). Width, m. 0.415 (= 1 ft. 4.33 in.).

The panel is in fairly good condition, but it has been broken across, a little above the center, and the colors, especially of the border, are considerably worn and faded.

#### FRESCO. 24652. [PLATE CXXII.]

Decorative compartment with border and top-piece.

The compartment is represented as a room enclosed by a four-sided frame or border. The side-pieces are made up of narrow vertical stripes of dark red, reddish white and green. It is probable that leaves were painted over these stripes, in a lighter shade of green. On the right side there seems to be a rosette. The top has horizontal stripes similar to those of the side-pieces. The bottom is a whitish band, which has three horizontal red lines, besides a very dark red stripe on the upper edge. From the latter depend inverted T's of the same dark shade. On the inside of the frame there is, along either edge, at right and left, a dark green vertical line, from which the ends of dark green leaves project toward the interior.

<sup>1</sup> Zahn, *Die schoensten Ornamente, etc.*, Vol. i, plate 29.

That the space enclosed by the frame is intended to represent the interior of a room, is evident from the ceiling. This is a pattern of bluish tinge applied in three shades. At the top there is a broad dark stripe, the upper part of which is particularly dark. Beneath there is a lighter band, nearly straight across the top, but with pointed ends and convex lower edge. This band is crossed by rays which start from the upper band and have the same color as the lower part of that band. From the shape of the ceiling it is apparent that the room is thought of as circular. The light toned part of the ceiling belongs to the side of the room which is farthest from the spectator.

In the white interior there is a large two-handled vase or basket suspended from the ceiling by means of a bright red cord, which parts near the lower end into two strands, each of which is attached to a handle. After forming a sort of bow here, and a loop at the side of the vase, the cord appears beneath it in the form of two wide straight hanging ends. The vase has a wide rim sloping somewhat downward, and concave sides with raised ornamental bands near the bottom. Besides the two bail-handles there was a U-shaped handle projecting upward from either side near the bottom. The base consists of two discs connected by a slender shaft. Handles and base are of metallic form. From the color, which is a dark green with lighter shades and bits of white to indicate the play of light on the surface, the material of the vase would seem to have been conceived of as bronze.

The top-piece has its own border of very dark red with a pale yellow line about the inner edge. The interior has a brick-red ground with decorations in the same pale yellow as the line. On a base consisting of a horizontal stripe are represented three trees and two horses. The trees are gnarly and leafless according to the earlier conventional manner. The right horse runs to left, but has his head turned to the right. The left horse gallops to left. A curved object projecting upward from the middle of his back is probably his tail misplaced.

Height, m. o. 637 (= 2 ft. 1.07 in.) Width, m. o. 427 (= 1 ft. 4.81 in.)  
Abraded in lower right corner. Considerably worn and faded.

#### FRESCO. 24655. [PLATE CXXIII.]

Decorative compartment very similar to the preceding, No. 24652.

The following are the more noteworthy details. On the sides of the frame there are traces of sprays of leaves in a rusty light green, painted over the red<sup>1</sup> and dark green stripes, which form the basis of

<sup>1</sup> There is no very dark red on these side-frames, but there is an irregular stripe of that color on the upper cross-piece.



those pieces. The inner border of projecting dark green leaf-ends is well preserved. On the left side there appears to have been a narrow white stripe drawn over the left edge of this fringe. The lower cross-piece has six light red stripes and partial stripes, besides the dark red stripe at the top. The dark red pendants have no caps at the lower ends. At the bottom there is a dark green stripe.<sup>1</sup> In the interior, just above the lower cross-piece, there is a whitish stripe.<sup>2</sup> The suspended vase is like that of the other fresco (No. 24652), but the details are more clearly preserved. The lower part has the calyx form, the base is somewhat heavier than in the other picture. The upper handles have recurved ends. The lower handles have the U-form, but, owing to the sketchy treatment, the sides do not appear to be connected. In the interior of the top-piece the base-line is visible, but of the figures only indistinct blotches remain. One of these (on the left side) may have been a horse, the others are small and shapeless.

From the close resemblance existing between this piece and No. 24652 it is very probable that they are corresponding pieces from the same wall.

Height, m. 0.655 (=2 ft. 1.78 in.). Width, m. 0.415 (=1 ft. 4.33 in.).

Lacks upper half of topmost frame-stripe, as well as the upper right corner, which has been filled in with modern plaster. There are numerous small cracks and abrasions, and the paint has faded; but, except for the top-piece, it is rather better preserved than its companion-piece.

#### FRESCO. 24661. [PLATE CXXIV.]

Small decorative compartment with bird.

The light red quadrangular border is probably partly covered by the wooden frame in which it is at present encased. There is an irregular dark stripe near the inner edge, and, on the left side, a white streak.

In the white interior a flying bird with short curved beak, long, badly drawn wings with recurved ends, long tail and outspread toes,<sup>3</sup> swoops downward to right. The chief fault with the drawing is that the upper parts of both wings are attached to a single lower part, which is besides, excessively elongated. The bird is of a brownish color with applied details in light gray.<sup>4</sup>

Height, m. 0.223 (=8.77 in.). Width, m. 0.23 (=9.05 in.).

The border, which was probably originally a thin brick-red, is abraded in divers places.

<sup>1</sup> Owing to poor preservation it is uncertain whether there was such a stripe in the companion-piece.

<sup>2</sup> Something similar may be seen in No. 24652.

<sup>3</sup> On one foot there is a spur.

<sup>4</sup> A somewhat similar bird, but with longer neck, in a fresco of the Fourth Style from Pompeii, Zahn, *Die schönsten Ornamente, etc.* Vol. iii, plate 87.

## FRESCO. 24650. [PLATE CXXV.]

Decorative compartment with representation of vases and palm-branches.

On a yellow background, which shows also at the top and on the left edge, there is painted a border in dark red, with a narrow white edge both inside and outside. In the lower part of the interior there is a dark red horizontal band with trimming of white on the under side. The left end is oblique, the other appears always to have been irregular. This band represents a surface like a board without means of support.

On and back of this basis there are various objects. At the left is a sort of jar with base, wide lip and short neck, painted in dark brown streaked with black and whitish to represent a metal surface played upon by the light. There are two whitish bands in the center, and one in the lower part, which are to be regarded as raised above the adjacent parts. At the beginning of the shoulder there is, on the left, a ring-handle with ornamental attachment, and opposite to it, on the right, a high U-shaped handle curving inward. It also has an ornamental attachment, but of a different character. On the left side of the lower part of the body there is a projecting head like that of a horse, to which nothing on the opposite side corresponds.<sup>1</sup> Against the front of this vase a long palm branch is tilted, the leafy part downwards.<sup>2</sup> On the stem there is a festoon of ribbon. Branch and festoons are in white and brown. Back of the branch a ribbon attached to the left handle is faintly drawn in white.

About in the middle of the basis stands a second vase with flaring sides and high base. It has a bail-handle at the top, and U-shaped handles with projecting ornament on the lower part of the body, one on each side. The vase is of dark color, like that which precedes, with two stripes of white around the center and two around the lower part.<sup>3</sup> Against the back of the vase is tilted a palm branch, the leafy part upwards. A brown and white ribbon is attached to the stem.

The third vase, which stands at some distance to the right, is shaped somewhat like the vase first described, but the shoulder is steeper, and the neck and mouth narrower. The base is not well preserved. At the top there is a bail-handle. At the beginning of the shoulder there are very probable traces of U-shaped handles. The brown left handle, which has a long recurved ornament on the outer side, runs to a pointed

<sup>1</sup> Cf. jar with serpent on one side and human mask on the other side, but lower down, represented in a fresco from Pompeii. Zahn, *Die schoensten Ornamente, etc.* Vol. iii, plate 50.

<sup>2</sup> For other examples of palm branch leaning against vase cf. Roux, *op. cit.* Vol. i, plate 20 (pitcher), iv. 115 (bowl), v. 37 (jar), all representations in fresco.

<sup>3</sup> With this vase cf. the suspended crater, Roux, *op. cit.* Vol. iii, plate 139 (painted panel).

end above the top of the vase. The right handle is white and slightly lower. The vase is drawn only in outline, chiefly white but with some brown lines, especially on the left side, for shading. About the center there is, as in the others, a double white line. Against the front of the vase a palm-branch leans, the leafy part downwards. There seems to have been a festoon about the stem.

Between the second and third vases there is a poorly preserved four sided white object, which does not reach to the basis, and is probably to be regarded as a mat lying farther back in the room (or whatever the space assumed may be). On this mat stands the outline of a table<sup>1</sup> with three straight legs drawn in white with brown shading. Above the table there is a white ring with triangular tail-piece, on which there is brown shading. The object is probably a wreath conceived as hanging on a wall.

At the right end, in the rear of the third vase, there are traces which probably belong to a second table with oblong top. It probably had two legs at each end, but of them only slight vestiges remain. On the extreme right end of the table an object resembling a cup with handle is sketched. In the foreground, at the extreme right, there are lines in brown and white, perhaps intended to suggest a wine-skin.

The palm branches are perhaps for lustration.<sup>2</sup> An unsupported rectangular slab is used as basis in a central panel from the House of Argus and Io in Herculaneum.<sup>3</sup> A possible place for the compartment is suggested by the employment of similarly framed pieces in the middle of the right and left edges of the side panels of a wall in the Casa della Seconda Fontana di Musaico,<sup>4</sup> Pompeii (Fourth Style).

Height, m. 0.215 (=8.46 in.). Width, m. 0.43 (=1 ft. 4.92 in.).

The fresco is in fairly good condition, though it is worn in places and there are numerous small abrasions, particularly in the red paint.

After the yellow, the red was applied, then the brownish black of the vases. The palms were painted after the vases.

### FRESCO. 24654. [PLATE CXXXVI.]

Small decorative compartment containing an interior with a window.

The border, which enclosed the compartment on all sides, is partly hidden by the wooden frame in which the piece is at present preserved. The dark brownish red inner edge may, however, be seen all the way

<sup>1</sup> Similar table, but with brace between the legs, on greave from Pompeii, Nicolini, *Casa dei Gladiatori*, plate v, No. 8.

<sup>2</sup> Cf. Zahn, *Die schoensten Ornamente, etc.* Vol. i, plate 89 (Pompeii). Fourth Style house with rectangular panels in right and left corners of the dado, where a branch represented with one of the vases seems to serve such a purpose.

<sup>3</sup> Zahn, *op. cit.* Vol. ii, plate 66.

<sup>4</sup> Zahn, *op. cit.* Vol. ii, plate 95.

around, while at the top and on the left side there are numerous traces of a wider band of the same color, painted over yellow ochre. The difference in the preservation of the inner and outer parts of the border may possibly be due to the fact that the former was painted over the dark brown of the interior.

Within the border the most clearly defined portion of the composition is the window in the upper right corner. There is a wide and deep white sill. The profile of the thick side-wall on the left is reddish brown in color, with an inner edge of dark brownish red. The entire field of vision disclosed by the window is blue. On the window-sill there is a heap of objects of somewhat uncertain character lying on an elliptical drab mat. The following is an enumeration of them:

- 2 large brown platters with sloping sides.
- 3 yellow objects, probably gourds.
- 1 tall slender brown jug lying on its side.
- 2 brown staves lying crossed on top of the preceding objects. They seem to be made of grapevine, which is untwisted at one end.
- 2 brown objects hanging from near opposite ends of one of the staves, perhaps the bodies or skins of small animals (not hares), perhaps sausages.
- 1 large pine cone.
- 1 grayish object resembling a fungus.
- 2 wreaths, consisting of hoop and straight end, in brownish white. They hang over the edge of the sill.

Several plants with tall slender whitish leaves. Some of them rise above the heap, others hang over the inner edge of the sill.

Beneath the window there is a rather broad ledge or floor which is white in the foreground, brownish red at the left end and light brown at the back, where it is not very clearly distinguished from the front upright wall. On this floor there are several objects. At the left a large whitish and greenish gray bird, perhaps a female pheasant, seems to be sitting on a sort of nest. Next to her on the right there is a corresponding male bird painted in a variety of colors. The head (except the comb), the back of the neck, the lower part of the wing and the under tail feathers are yellow. The comb and breast are reddish brown; most of the tail, as well as a line along the back, is in blue. The central part of the wing is red with light brown spots. In the foreground there are two staves like those in the window-sill, and the spiral end of a third. At the left end of the white part of the floor there is a reddish brown platter, somewhat larger than those described above, tilted against the wall. At the right of the male bird there is an uncertain object in reddish brown, perhaps a vase. In the extreme right corner of the floor there is a reddish brown pitcher with base, handle and long curved beak, lying on its side. The left end-wall of the room is brown like the front

wall and but faintly distinguished from it. At the bottom of the compartment there is a rather broad horizontal brownish drab stripe representing the edge of the thick floor.

A very similar picture occurs at the bottom of the attica in a Pompeian fresco of the Fourth Style.<sup>1</sup> The chief difference is that in the window there are two bowls, and on the floor a goat.<sup>2</sup>

Height, m. 0.37 (=1 ft. 2.56 in.). Width, m. 0.373 (=1 ft. 2.68 in.).

The colors are somewhat faded and in many places are abraded, usually so, however, as not to interfere seriously with the design.

A coat of yellow ochre was first applied to the entire surface. The browns of the interior were next laid on. Then came the white of floor and sill followed by the drab mat preceding the reddish browns, and after them the other colors. The border was put on, or at least finished, after the interior. In the reddish browns there are frequent differences of tone, which are due partly to unequal thickness, and partly to the effort to represent the play of light on some of the surfaces.

#### FRESCO. 24647. [PLATE CXXV.]

Decorative figure of winged male sphinx on yellow background. The monster is represented as flying upward to right. He has the body of a lion, with outspread carelessly drawn legs and long tail, the end of which is curved back. The right wing, which is extended to its full length, has the end recurved. Of the left wing only the upper part appears. It is scantily drawn, and resembles a piece of drapery. About the neck there is a wide collar perhaps meant for a conventional mane. On the head there is a sort of cap with plumes which curve forward and extend from neck to front. The retreating forehead is deeply lined. He has high eyebrows, smooth upper lip and wedge-shaped beard. The face expresses intelligence and energy.

The figure is for the most part of a greenish gray color, which takes on a reddish tinge toward the ends of the wings. There are some lines of black on the right wing, the lower part of the body and the legs. The light is represented as falling on the figure from the right side of the front, and the parts so touched, particularly the forehead, the shoulder, the wing and the back just behind the wing, are flaked with white.<sup>3</sup>

Height, m. 0.32 (=12.59 in.). Width, m. 0.317 (=12.48 in.).

The piece is in good condition, but there are breaks in the upper left corner and at the left end of the under side. There are small cracks in the right side. The yellow of the background is somewhat streaked.

The left, right and upper edges are somewhat incrustated and discolored.

<sup>1</sup> Zahn, *Die schoensten Ornamente, etc.* Vol. iii, plate 96.

<sup>2</sup> Cf. Roux, *Herculanum et Pompéi*, Vol. ii, plate 20, for a somewhat different window picture.

<sup>3</sup> Similar bearded sphinxes, but in crouching position, are represented on two frescoes published by Roux, *op. cit.* Vol. iii, plate 132; cf. *ibid.* ii. 34, and Nicolini, *Descris. Generale*, plate 1.

## FRESCO. 24646. [PLATE CXXV.]

Decorative figure of winged male sphinx on yellow background. The design is very similar to that of the preceding fresco (No. 24647), but is less well preserved. The following details may be mentioned. As at present installed, the figure is somewhat more nearly horizontal than the other, an arrangement which is borne out by the position of the legs. There are some other slight differences, *e.g.* the right front leg is less rigid, the left front leg is raised higher and is more foreshortened, the ends of the wings are less clear in outline, and the lines of the face are less sharply defined. The light comes from the same direction.

Height, m. 0.31 (=12.20 in.). Width, m. 0.311 (=12.24 in.).

The plaster is cracked on the left side, at the top in the upper right corner, and diagonally across the upper left corner through the tip of the right wing. There are abrasions, particularly in the forehead, wings, hind legs and tail. The yellow of the background is much streaked and discolored.

The upper, lower and left edges show incrustation and discoloration, proceeding perhaps from a previous frame. On the lower side the upper edge of this discoloration is marked by a fine black line.

## FRESCO. 24649. [PLATE CXXIV.]

Decorative figure of winged beardless sphinx on yellow background. The composite creature is depicted as flying upward to the left. It has the body of a lion with outspread legs and curved tail, as in the case of the bearded sphinxes, but the inner hind leg is less contracted. The front legs are straight, the right leg being much foreshortened. The left wing, which is fully extended, probably had recurved tip. The right wing rises to the highest part of the design. It is not treated with especial regard to its structure, and resembles rather a piece of drapery. Of the cap scarcely more than the plumed crest now remains, but it seems to be continued in a mane-like collar about the neck. The face forms nearly a right angle, with the nose as apex. The eye is probably indicated, but the details are not clear. The mouth is wide open; there is scarcely any chin.

Except for the lack of beard there is no indication of sex.

The color is chiefly greenish gray. There is a black stripe down the middle of the back and on the tail, as well as on the inside of the right hind leg. The light fell from the left side of the front, and appears particularly on the head, the shoulder and the left front leg.

Height, m. 0.31 (=12.20 in.). Width, m. 0.305 (=12 in.).

The plaster is cracked, more especially on the lower and right sides, and in the

upper left corner through the head of the figure. There are numerous abrasions. The background is a dark yellow, whether originally or through discoloration is uncertain. Possible traces of previous framing appear on the lower and right edges.

#### FRESCO. 24648. [PLATE CXXIV.]

Decorative figure of winged beardless sphinx on yellow background.

The design is very similar to that of the preceding fresco (No. 24649), but is much less well preserved. Noteworthy details are the traces of the crested cap and of the eye, the upper line of which is visible.

There is a black stripe along the back, and on the tail and the left hind leg. The light-flecks have disappeared, excepting one on the back, just behind the wings.

Height, m. 0.31 (= 12.2 in.). Width same.

The plaster is cracked about the under, upper and left sides. The design is much abraded, especially the head, which lacks the lower part of the face, the shoulder, the wings, the left front foot and the end of the tail. The yellow of the background preserves, in part, the original medium light shade, as in No. 24647, but the color has become still lighter in many places. There is probable trace of previous framing on the under side.

#### FRESCO. 24658. [PLATE CXXIII.]

Sacrificial scene and serpent from a domestic shrine, which probably belonged to the villa discovered in 1897 in the Piazza del Mercato of the village of Boscoreale.<sup>1</sup> The upper part of the painted surface is occupied by the scene of sacrifice, which is depicted as taking place out of doors. A little to the right of the center of a heavy base-line there is an altar of a dark red marble containing large and small yellowish spots. The altar has a molded base and a wide cornice. On the upper surface a red fire burns with a whitish smoke. Close to the altar at either side there is a small slender green tree.

At the right of the altar a tall male figure clad in a toga which may possibly be drawn up over his head, extends his right hand over the fire. His left arm is bent at the elbow, the forearm being brought forward with the open hand held near the body. The feet do not show owing to a patch in the plaster. He has a sinewy neck and a sharply retreating chin. Near the short dark brown hair there are traces of a green wreath.

<sup>1</sup> *Notiz. degli Scavi*, 1898, p. 421 (Sogliano): "Al di sotto della nicchietta è dipinto, fra due alberetti, l'altare ardente, sul quale fanno libazioni il *genius familiaris* a dritta, vestito di toga bianca e col capo velato e a sinistra la *iuno*, vestita anche di bianco e col capo del pari velato. Dietro il *genius* stanno un camillo, in parte danneggiato, con la benda nella destra e un'altra figura irrecognoscibile; e dietro la *iuno* un altro camillo avente nella dritta le bende e nella sinistra un piatto con le offerte, e il *fibicen* in atto di suonare la doppia tibia. Al di sotto, il serpente agatodemone." The doubt as to whether the heads of the principal figures are covered and the omission of the plate carried by the *camillus* on the right are slight discrepancies which count for little against the agreement of the other details and the fact that no such fresco is mentioned in the reports of the excavations of the treasure villa.

The flesh parts are light brown; the garment is whitish. There are outlines of relatively darker colors about some of the flesh parts and the toga. Next on the right is a boy, turned slightly to left. He wears a whitish tunic extending as far as the knees. The legs from the knees downward, as well as the feet, are very faint and perhaps not ancient. To the lower right forearm, which hangs obliquely downward, a ribbon is attached. It falls in two streamers with forked ends nearly to the ground. In his left hand, which, together with the left arm, is scarcely visible owing to repairs, the boy holds a dark brown platter up to the level of his chin. On the platter there is a grayish substance of uncertain character. The boy has short dark brown hair, in which there are traces of a green wreath. The drooping eyelids indicate that his gaze is fixed on the platter. The flesh is light brown with a faint pink tinge. At the extreme right there are slight remains of a larger figure, doubtless male, walking to left. The parts which are most easily distinguishable are the right side of the back of the calf of a leg and a foot, all in reddish brown. He seems to have white drapery about the middle.

At the left of the altar stands a figure with wide hips and of stature somewhat inferior to that of the man opposite. It is clad in a whitish upper garment reaching, probably, from the top of the head to the middle of the shin. From there to the feet there seems to be a yellowish undergarment or tunic. The brown feet are turned to the right. It is not certain whether they are shod. The right arm is completely covered by the upper garment; the hand is indistinct. The left arm is bare from above the elbow. On the wrist there is a bit of pink which probably represents a metal bracelet. The hand is extended over the altar. The head, which is partly turned to the left, is crowned with rather plentiful dark brown hair. There are very faint traces of a green wreath. Eyes and nose are now indistinct. The wide mouth is slightly open, showing the teeth. The face is considerably lighter colored than that of the man. Wide brown lines are used to indicate contours as well as the folds of the upper garment. The figure doubtless represents a woman. Close to her on the left is a boy wearing a tunic which reaches about to the knees. The legs below the garment are sketchily drawn and poorly preserved, and the feet are scarcely distinguishable. From the lower right forearm hang ribbons. The left arm supports a large dark brown platter on which there are some objects of uncertain character, chiefly of brownish color. About the boy's dark brown hair there are traces of a green wreath. His face, which is almost in profile, is similar in color to that of the woman. Eye, nose and mouth are still visible. At the left of this figure there follows, after a certain interspace, a youth who is playing the double flutes. He is clad in a single whitish garment



which reaches from the neck to the ankle. The pipes on which he is playing are dark brown in color. The musician's rather long head is covered with scanty brown hair, about which there are traces of a wide green wreath. He has a slanting forehead, thick lips and a retreating chin. Eye, nose and mouth are preserved.

The lower part of the piece contains only a large crested serpent represented as moving to right. His back, which has a scalloped outline, is brownish red. The under side is yellow with dark brown stripes as far as the neck, which with the greater part of the head is brownish red. The crest is, with the exception of two large white spots, of a bright red color. From the mouth which is slightly open, the bright red tongue darts obliquely downward. Above and below the serpent there are in each scallop traces of a large green plant, in shape somewhat like a *fleur-de-lis*.

A similar, but apparently less complete representation of the same subject was found in another villa near Boscoreale.<sup>1</sup> In a picture in the House of the Vettii at Pompeii the *Genius*, holding a patera and the incense-box, stands in the center with a Lar at either side. The altar and the serpent are in the zone beneath.<sup>2</sup> Compare also the shrines in the Pompeian houses, *Regio V, Insula iv, No. 3*, in which the sacrificing figures, corresponding to the usual *Iuno* and *Genius*, have the form of Minerva and Hercules,<sup>3</sup> and *Regio VI, Ins. xv*, in which the *Genius*, who holds a golden cornucopia in his left hand, and with the other pours on an altar from a golden patera, has the features of Nero.<sup>4</sup> With the *camilli* cf. the youth with pitcher and metal basin on the *Ara Pacis*.<sup>5</sup>

Height, m. 0.65 (= 2 ft. 1.59 in.). Width, m. 1.118 (= 3 ft. 8.01 in.).

Restoration of plaster in corners and on right side, especially between main scene and serpent. There are cracks in every part, particularly around the edges. The background is now mostly of a whitish color, streaked and blotched in many places, especially in the upper part, to yellow and brown. The garments are of substantially the same color as the background, but are distinguished from it by their outlines. Nearly all the lower part and most of the right end after the *camillus* form a large corner of somewhat darker color (except where restored), as though smoked.

<sup>1</sup> Villa in the locality "Giuliana," *Notiz. degli Scavi*, 1895, pp. 214-15, "nicchietta dei Penati con la relativa rappresentanza lararia, in cui son dipinte le immagini dei Lari, del *Genius Familiaris* sacrificante sull'ara, e del *libicen*, tutti nel noto costume e atteggiamento" (Sogliano).

<sup>2</sup> Mau, *Roem. Mitteil.* XI (1896), p. 29.

<sup>3</sup> *Notiz. degli Scavi*, 1899, p. 340 (Sogliano).

<sup>4</sup> Mau, *Roem. Mitteil.* XIII (1898), p. 53.

<sup>5</sup> Petersen, *Ara Pacis Augustae*, plate III, viii. = Strong, *Roman Sculpture*, plate IX, 2.

## FRESCO. 24671. [PLATE CXXVII.]

Mural decoration of painted plaster, surmounted by a stucco cornice. From the villa in which Nos. 24669, 24670 were found.

The principal design of the painted surface consists of two rectangular compartments, upper and lower, the former on white and yellow ground, the latter on red ground. They are connected by a tall candelabrum in the center. The background which surrounds them is yellow.

The lower compartment is bounded on either side by an Ionic column, the flutings of which are drab, the high parts a lighter shade of the same color. It is uncertain whether they had bases. The capitals are each surmounted by a profiled block like the end of an architrave. The space between the columns is contracted by grayish green vertical bands, edged with white, one at either side. They are connected with the columns at the top by horizontal bands of the same color, except that the edging of the upper side is black, and below the center by similar bands with white edging, two on either side. Above the panels thus formed and extending across the intervening space is a drab band, which is bordered by darker lines beneath and a white line on the upper side. Next follow two bands of violet and drab with a red stripe between them. Opposite the uppermost band there is over either column a rosette poorly preserved.

Just outside the columns there is on either side a vertical grayish green band which is joined at the top by a similar horizontal band. This border which, if continued, would enclose large rectangular panels, has an edging of black on the outside and of white on the inside. Within the panels there is a narrow dark red stripe with white edges, which parallels the outer border.<sup>1</sup> Above the upper border there is at either side a drab band which has a red stripe near each edge and, between the stripes, an indistinct design in dark red. It is followed by a somewhat narrower band of dark red. These bands join those which lie above the lower compartment, and with them form the substratum of the basis of the upper part of the design.

The immediate basis of the upper compartment consists of two elevations of reddish drab color with a dark red stripe on top, together with a grayish green stripe, which extends over them and across the intervening space. The elevations are in the axes of the above mentioned Ionic columns. The bands which enclose the compartment at sides and top are of greenish gray trimmed with white. The interior is divided by a narrow dark red stripe with white upper edge into two

<sup>1</sup> The discontinuation of the left stripe near the bottom and the change of alignment seen in the other are evidently due to the repair and the resetting of plaster.

parts, the lower part, with white ground, having the shape of the gable-end of a building crowned by an anthemion in very light yellow; the upper part, with yellow ground, occupying the remainder of the space. The lower part is decorated with pieces of architecture consisting of a large bluish gray rectangular frame, the top of which supports at the corners the end of an Ionic entablature coming from either side. This entablature forms at the outer ends an angle with a similar section which projects into the foreground. The entablature, which is of drab color excepting the frieze, which is purplish, has two brownish yellow anthemias at each end. Beneath the nearer end of the second section and beneath the angle where the sections meet there is an unfluted Ionic column. The columns which are in the foreground rest on the low elevations previously mentioned. The effect produced by the white ground with its decorations is that of a vista.

Adjoining the upper compartment on either side a broad horizontal band, which is made up of alternate stripes of dark red and light yellow, together with one or more grayish stripes, extends to the edge of the plaster.

In the axis of both compartments rises a candelabrum of conventionalized vegetable form. The shaft is composed of about ten sections interspersed with discs. At the top there is a rayed fan-like concave disc placed vertically. The shaft is yellow with numerous bits of a whitish tint, which serve to indicate where the light falls. The vertical disc has concentric circles of yellow, yellowish white and a dark color.

The cornice, which is mostly reset, consists of an oblique surface between two perpendicular bands. The uppermost band is plain, though it is doubtful if any of the original surface is preserved; the other two are profiled.

This fresco shows the influence of the Third Style in the absence of an architectural scheme in the principal design, the Ionic columns of the lower compartment and the painted bands being purely decorative, while the bits of architecture are confined to the upper compartment and have the character of secondary ornament.<sup>1</sup>

Height, to top of cornice, m. 2.10 (=6 ft. 10.67 in.). Width, m. 1.39 (=4 ft. 6.72 in.). Width of the three bands of the cornice, m. 0.05, 0.067, 0.03, from the lowest upward.

Small pieces of plaster are missing between the upper and lower parts and from the lower compartment, especially near the bottom. The upper compartment is now, owing to faulty restoration, set a little farther back than the lower, except on the right edge. The surface is much cracked, and there are many abrasions.

<sup>1</sup> With the anthemias cf. Roux, *op. cit.*, Vol. i, plates 17 and 76. For the candelabrum see *ibid.*, plate 36, Zahn, *Die schoensien Ornamente*, etc. Vol. i, plate 39, Vol. ii, plate 39, and cf. *Notizie degli Scavi*, 1897, p. 393 (Villa in contrada *Giuliana*): "Nel riquadro centrale della zona media è un candelabro d'oro, sormontato da una palla, lumeggiato con bianco;" 1899, p. 393 (Villa at Scafati = No. viii, List, p. 154): "decorazione a fondo giallo scompartito da pilastri bianchi, ornati di candelabri con fogliami" (Sogliano).

The bottom is much discolored. There seem to be some differences in the grayish green tints, but they are probably all substantially the same. In the lower part the yellow was applied before the grayish green bands and before the columns. The red is prior to the bands of grayish green which cross it, and prior to the *can-delabrum*. In the upper part the yellow and the white were put on before the remainder of the paint.

About one-fourth of the surface of the lowest band of the cornice is lacking, and about four-fifths of the remainder.

### FRESCO. 24672. [PLATE CXXVIII.]

Panel with architectural decoration on black ground. From the villa in which Nos. 24669, 24670 were found.

About the top and left side there is a border, which consists of a white line on the inside followed by dark red and brown lines with traces of white toward the extreme outer edge. No border is now visible on the right side, which is incomplete, nor on the lower edge, which is largely restored.

The design consists of two rectangular pavilions or porches connected by an arch, the whole being surmounted by a garland, which is suspended from the top of the panel and is attached at the ends to either side. The pavilions, which are in the Ionic style, occupy the lower corners. They have whitish and yellow columns, dull red frieze and elaborate yellow and brownish cornice. The architrave is yellow on the outer face, purplish inside and grayish on the under side. Dark yellow beams divide the ceiling into panels, the high parts of which are colored bluish gray, the deep parts brownish red. In the interior of the pavilions there are unsupported animal figures — on the left a winged lion of grayish yellow color, bearing a lotus-flower on his head; on the right an indistinct and clumsy winged figure, probably a bull, only a few bits of which, painted a grayish white, are original, while the remainder, which is of a reddish color, is restored.

The roofs of the pavilions are connected by a broad arched band, the bluish color of which probably indicates metal. On the upper edge there are wide scallops, each of which terminates in a conventionalized yellow flower. From the center of the arch, which is covered by a sort of shield, rises a short ornamented standard supporting a basket or canister. On the front of the roof rises a vegetable scroll, which ends within in a rosette. At the left, a long slender feline animal stands with one fore leg on the scroll, while the other is uplifted. The head is turned sharply back. On the right there is a corresponding animal, perhaps a dog, with head turned partly to the right and pointed upward. Animals and scrolls are of brownish yellow color.

Beneath the arch there is a rectangular box, the front of which has the form of a frame with crossed ends. The outside of the box is colored brownish yellow in front and reddish and bluish at the left end; the inside appears mainly as black with a dark red stripe above. Within the frame are seen two masks. The mask on the left has plentiful bluish gray hair. The round staring eyes and open mouth give to the pale face an expression of terror and suffering. The other mask has yellowish hair. Both masks are beardless. On top of the box stands a tall slender yellowish vase with high vertical handles. Beneath the box there is a sort of bracket ornamented at either side with a ball and disc. It is probably conceived to be of metal.

At the top of the fresco there is a garland consisting of two portions of about equal length. The ends, which are violet-colored strings, are fastened to the sides of the panel and the lower corners of an oblong piece of some red substance, like cloth or leather, the lower edge of which is drawn by the weight into concave shape. At the beginning of the leafy part on each side there is a violet ribbon. On each garland, near the middle, stands a long-legged bird, of grayish color, facing toward the center of the panel.

With these pavilions compare the projecting portico from Boscoreale published by Mau, *Roem. Mitteil.* XVII (1902), p. 186, fig. 1, and a similarly placed portico with broken gable from the *Casa del Labirinto*, Pompeii.<sup>1</sup> For the arch with spiral compare the examples from the *Casa di Sirico*,<sup>2</sup> and the *Casa di Giuseppe II*.<sup>3</sup> With the animals on the roofs cf. Roux, *op. cit.* Vol. I, plate 20. A rectangular frame with two masks, Nicolini, *L'Arte in Pompei*, plate 4.

Height, m. 1.23 (=4 ft. 0.42 in.). Width, m. 1.99 (=6 ft. 6.34 in.).

The fresco is in poor condition. The plaster is much cracked and probably to a considerable extent reset in the upper part, and is in many places reset and replaced in the lower part. In front of the right pavilion a large piece of plaster is scaled to a depth of about one-fourth of an inch. The edges of the upper layer reveal a rather fine grayish plaster to which the black paint seems to have been directly applied.

### FRESCO. 24673. [PLATE CXXIX.]

Mural decoration of painted plaster. From the villa in which Nos. 24669, 24670 were found.

The designs, which consist chiefly of fanciful architectural schemes on a red ground, are bounded at the top by a white line near the upper edge of the plaster, but are probably incomplete on the right side, and

<sup>1</sup> Zahn, *Die schoensten Ornamente, etc.* Vol. ii, plate 70.

<sup>2</sup> Nicolini, *op. cit.* Vol. i, *Casa di Sirico*, plate 2.

<sup>3</sup> Roux, *op. cit.* Vol. i, plates 108, 106.

may have been somewhat curtailed on the left side and on the bottom, where they reach the edges without seeming to be finished.

Two groups of construction, one of which, on the right, occupies about one-fifth of the available space, the other the remainder, are represented as erected in front of a mural surface which is ornamented with two horizontal bands. The lower of these bands, which is a little above the middle of the fresco, is decorated with a repeated pattern, which consists of two griffins facing each other at either side of a conventional shrub and a similar but somewhat smaller shrub, which serves as a connection between groups and is united with the larger shrub by means of the tails of the adjacent griffins and a flowered vine running beneath them. At the top of the band there is a narrow border suggesting dentils. The color of this band was a yellow ochre. The second band, which is at the level of the top of the architecture, has at the bottom a wide stratum from which rise the figures of a repeated pattern consisting of a bunch of conventionalized plants springing from a dark red lyre-shaped base, which is crossed in the center by several vertical yellowish lines or strings, and a winged head, perhaps of a griffin, surmounted by a volute, the intervening space being occupied by two scrolls. Both bands are alike in color.<sup>1</sup>

The structure on the left is a sort of two-story arbor, the ground-plan of the lower part being an oblong with rounded ends. Two tall, whitish, widely separated Corinthian columns are connected by a broad, horizontal, bright yellow band, which joins them at a point just below the capitals, and is ornamented with narrow horizontal stripes of red and brown. The space thus enclosed is ornamented with a three-sided yellow ochre band consisting of alternate longer and shorter panels of which the former contain each a six-legged stem, the latter a figure like two tridents turned in opposite directions. From either corner of the upper side of the band an anthemion projects obliquely forwards. The two streamers which hang from the upper horizontal band are probably not to be regarded as in the same plane with the three-sided band.

To the columns are attached the rounded ends of the oblong enclosure. They consist of a blue wall or curtain with a bright yellow band at the top. On the right side, however, next to the column, a vertical stripe, which was probably yellow originally but is now nearly faded out, was painted over the blue. There is no trace of a corresponding stripe on the left. The top band, which is ornamented with an angular molding above and a broad *cyma reversa* beneath, while between them there are bosses in *repoussé*, is probably conceived to be of metal. At the

<sup>1</sup> Owing to poor preservation now chiefly a thin mud-color.

back it seems to rest on top of the columns but is presumably to be thought of as showing above them from behind. On these ends rest winged figures of a drab color, doubtless griffins.<sup>1</sup> Between the ends rises a band resembling the cornice of a gable, which forms the top of the back part of the enclosure. Its upper border of circumscribed palmettes is colored yellow ochre; the remainder, though much faded, shows at the bottom traces of chrome green, above which is a yellow line.

The upper part of this structure is a ring or hoop supported by four long legs which rest on the cross-piece between the capitals. The two front legs, which are larger than the others, seem to be constructed of vertical rods with openwork between them, and are ornamented on the outer edges with short spurs and a spray of tall leaves which rise from the bottom. The other legs, which are round and about half as large, have Ionic volutes at the top, and, at either side just below the gable-band, a sort of projecting ear or leaf. At the bottom there are low bases underneath all the legs, and, between the front and back legs at either side, an ornamented chrome green plaque, probably conceived to be of bronze. On top of the hoop, above the smaller legs, repose crouching winged figures, which probably represent sphinxes. The color of the upper structure was probably originally for the most part yellow. The front legs show traces of greenish yellow.

Of the horizontal bands which ornament the wall-surface the lower was painted before the legs of the upper structure, and makes no allowance for them; the upper, which is at the right of the hoop, leaves a space for it. From the points where this band and the hoop are nearest together, dark red stripes with edges of white extend upward nearly to the top of the fresco, where a similar slightly arched stripe connects them. The idea suggested is that of a canopy above the upper structure.

The probability that the right side of the fresco is incomplete renders the character of its decoration somewhat uncertain. In the lower part of the field an entablature with greenish white architrave, dark, violet-colored frieze and a wide cornice, which projects at the left end as far as the column at the right of the blue apse, is supported at the left by a slender, greenish white Ionic column, and at the right by a column which is similar except that it is thicker and perhaps lacks flutings. The right end of the entablature turns backward obliquely. On the frieze, there are yellowish ornaments, one of which is a spiral, the others indistinct. Beneath the architrave, at the right of the second column, there is a greenish object, perhaps a curtain or lambrequin. Above this

<sup>1</sup> They may be placed here rather than on the columns intentionally as ornaments of the back part of the structure and not through carelessness in drawing.

colonnade in the drawing, but really back of it, there is a similar entablature. The frieze is ornamented with the figure of a winged lion, crouching, left, and a dolphin with head downward, both in yellow. On top of the cornice there is at the left end a large decorative volute of greenish color, and at the right end a drab colored triangle which looks like the beginning of a similar ornament or of a pediment. The left end of the entablature rests on a slender whitish unfluted Ionic column, which reaches to the bottom of the plaster; under the right end no column appears, but this part of the space between the two entablatures is filled in with greenish gray color, the left edge of which is panelled, an indication that this end of the colonnade was considered as solidly closed. The space between this entablature and the top of the apse is filled with a greenish band or plaque, which is ornamented with horizontal yellow lines in the lower part and with a braid pattern in the upper part, while the top edge is of open work. Color and technique indicate that the band is supposed to be of bronze. At the left end it touches a slender yellow column, but is not supported by it. This column, which has the form of a vegetable stalk with leaves sprouting from the side and a disc near the lower end, extends from the bottom of the plaster contiguously with the apse to the top of the bronze band, where it spreads into a sort of capital, upon which rested a slender Ionic column belonging to the roof of the structure above.<sup>1</sup>

The structure just mentioned which decorates the upper part of the right field is a sort of pavilion, consisting of a roof supported by columns. Of the ridge-pole and eaves only the incised lines, which served as a guide for the painter, together with some mud-colored traces and bits of brownish yellow, remain. The side of the roof is represented by a broad band at the left, having the form of a double curve (inverted *cyma reversa*), and a similar band at the right. On both bands only scanty traces of paint remain. From above the lower front corner of the roof a sort of acroterion projects obliquely upward, and from the front of the ridgepole a sort of anthemion resembling a bunch of grass, projects forward horizontally. At the same end of the ridgepole there is an upright ornament consisting of a sort of bulb or pod bisected vertically by a line which ends above the top in an over-hanging flower with thickened stem. The outside of the bulb is dark red with whitish edges. The interior is the red of the background. The roof is supported by three columns, one of which, beneath the front, has been mentioned above as resting on the top of the vegetable column at the right of the apse; another is a plain slender Ionic column extending from

<sup>1</sup> Of the lower end of this column which passed in front of the top of the apse only faint outlines remain.



the front of the ridgepole to the top of the rear colonnade, behind which it is probably supposed to pass. The third column, which is heavier and perhaps fluted, supports the lower right corner of the roof, and was also probably thought to pass behind the colonnades.

Whether this pavilion is a second story above the colonnades, or is a separate structure situated farther back in the field, may be doubted. The fact that the colonnades would otherwise be uncovered, favors the former view, but the lack of organic connection and the disproportionate height of the upper structure indicate that the latter interpretation is the more probable.

The constructions pictured in this fresco are examples of the fantastic and freely imaginative architectural decoration of Mau's Fourth Pompeian Style. The chief elements of the design, however, are doubtless based on experience.<sup>1</sup>

Height, m. 1.80 (= 5 ft. 10.86 in.). Width, m. 1.975 (= 6 ft. 5.75 in.). Thickness of plaster, ascertained by boring a small hole in the lower right corner, m. 0.127 (= 5 in.).

Plaster to a considerable extent reset. There was a coarse under layer on top of which a finer coating received the paint. Numerous, mostly small, pieces of this outer layer are missing.

The red ground was applied first. In the structure on the left the yellow horizontal band was painted before the columns which it connects; the blue of the ends was put on after the columns, but before the top band and before the vegetable column at the right. In the upper part of the same structure the small legs were probably painted before the circumscribed palmettes; these before the remainder of the band in which they occur.

The paint is much abraded and faded, especially in the upper part, where little remains except thin mud-colored patches which probably were originally yellow.

<sup>1</sup> An example of trellis work analogous to the upper part of the oblong enclosure may be found in the House of Castor and Pollux at Pompeii. Nicolini, *Casa e Monumenti*, Vol. i, *Casa di Castore e Polluce*, Plate 3. Besides the upper hoop there are two side hoops on which figures are perched. A circular pavilion with four stages is represented in a Pompeian fresco published by Nicolini, *op. cit.* Vol. ii, *Descrizione Generale*, Plate 31. For analogies in details of ornament of the lower story, cf. Roux, *Herculaneum et Pompéi*, Vol. I, plates 87 f. and Nicolini, *op. cit. Descriz. Gen.*, plate 12 (circumscribed palmette). Roux, *op. cit.* Vol. I, plate 41 (double trident). With the ornaments of the frieze of the rear colonnade on the right cf. Roux, *op. cit.* Vol. I, plate 17 (griffin and dolphin).

## METAL OBJECTS.

### BRONZE TABLE. 24407. [PLATE CXXXI.]

This table, the finest piece of the collection, was found in Villa I, in the room of the wine-presses<sup>1</sup> (P), along with other articles which indicated that that room had been converted into a sort of living apartment, with the idea that it might be a safe refuge until the outbreak of the mountain had subsided, a hope which was proved fallacious by the presence of the skeletons<sup>2</sup> of two<sup>3</sup> men and a woman. The table had been placed over the wooden cover<sup>4</sup> of the shaft which gave access to the standard of the press-beam. This cover having become decomposed, the table had been bent toward the opening and broken. Its present good condition is due to modern repairs executed before it entered the Museum. On the table were found a patera and two pitchers of bronze.<sup>5</sup>

There is the usual green and blue oxidation. On top are some patches of brown, which seem to be iron rust due to contact with some piece of that metal.

The table was made of five pieces, that is, the top, three legs and the brace, all of which are cast. The component parts were doubtless soldered together, but the joinings, which now appear, are mostly, if not all, modern. There seem to be no traces of rivets.

The top is a round sheet of metal, plain on its upper surface, but with the edges turned down so as to give the appearance of great thickness, and molded in the form of the *cyma recta*. The *cyma* is decorated with a conventionalized leaf-pattern (*Stabornament*) carried out plastically as well as by the usual grooves.

The hollow legs are shorter than those of modern tables, because it was intended to stand beside a couch in accordance with the ancient custom of reclining at meals. They are immovable, unlike those of many tables of that time which could be spread out and folded up. In form they represent the hind legs of lions, except that the backs are plain above the brace. Muscles and sinews are carefully indicated, together with a system of veins which run about the toes and up the foot, and appear also at the back of the leg.

<sup>1</sup> Pasqui, *op. cit.* col. 478.

<sup>2</sup> *Ibid.* coll. 473 f.

<sup>3</sup> Besides the skeleton found in the pit with the Treasure.

<sup>4</sup> *Ibid.* col. 478.

<sup>5</sup> *Ibid.*

The plain flat three-arm brace rests upon short stubs which project from the legs at about two-thirds the height of the table.

Similar tables with, or more often without, the brace, sometimes with claw-feet, sometimes with hoofs, as well as a more conventionalized type, in which only the feet preserve the original animal form, are represented on a number of Roman monuments. To the Romans of the Empire, however, they must have seemed of antique or old-fashioned style. We find substantially the same forms on Hellenistic grave-reliefs from the Greek Orient, and, occasionally, in place of the ordinary rectangular table, on Attic grave-stelae of the fourth century. The elements seem to derive ultimately from Babylonia (tripod) and Egypt (legs of animals) through the medium of Ionia.<sup>1</sup>

Height (average), m. 0.538 (= 1 ft. 9.18 in.). Diameter, m. 0.649 (= 2 ft. 1.55 in.). Height of edge, m. 0.0339 (= 1.33 in.). Thickness of metal, about m. 0.003 (= 0.118 in.), sometimes less, often more.

One leg cracked just below knee, nearly through from front to back. One claw, on same leg, freshly broken off. Feet of both other legs cracked. Brace and top seem to have been resoldered to legs after excavation.

#### BRONZE LANTERN. 24404. [PLATES CXXXII, CXXXIII.]

Among the finds in the room of the olive-press<sup>2</sup> (Y) of Villa I were two lanterns differing in size but not in form, one of which came to Field Museum.

It is in fairly good condition except that the cover is indented and cracked and the lamp loose. It is thickly covered with a green oxidation. No trace of the transparent cylinder remains.

The lantern, as preserved, consists of the frame which contains the lamp, the cover and the handle with the chains for suspension. These parts may be seen clearly in the view given on Plate cxxxii, which shows the lantern distended.

The frame, which rests on three short round legs, consists of a bottom and a top, connected by upright side-pieces. The flat bottom has a rectangular hole in the center for the attachment of the dowel or rivet which held the lamp. About the outer edge there is an upright rim which includes the bottom and is soldered to it. A lower secondary rim is soldered to the bottom just inside the other, the space between them serving to hold the transparent cylinder. To the inside of the uprights thin strips are attached by means of rivets, a small space to receive the vertical edges of the cylinder being left between the two

<sup>1</sup> Cf. Phineus vase and Furtwaengler and Reichhold, *Griech. Vasenmalerei*, I, p. 211.

<sup>2</sup> Pasqui, *op. cit.* col. 499, "si rinvennero entro la buca dell' *arbor*, come se al momento della catastrofe si fossero trovate appese all' *arbor* medesimo, e in seguito col consumarsi di questo fossero cadute nella buca."

pieces. About half way up the sides of the frame are two small eyelets the purpose of which is uncertain. It has been suggested<sup>1</sup> that one was intended to hold the extinguisher, the other a pick. The hollow underside of the top of the frame<sup>2</sup> enclosed the upper edge of the cylinder. The material of which this consisted was probably horn; at least traces of that substance have been found in the Berlin lantern which comes from another villa near Boscoreale,<sup>3</sup> and in a lantern from Pompeii.<sup>4</sup> That bladders were used for the same purpose we know from Martial (xiv, 62).<sup>5</sup>

The dome-like cover, which, when the lantern is closed, rests on the upper ring of the frame, is ornamented with bands of encircling grooves. In it are two pairs of vents, the members of which are placed opposite each other, one pair consisting of triangular holes, the other of two three-quarter circles each, the flat sides facing each other. In the top there is a ring and staple, by means of which the cover could be connected with the handle, while at either side there is also a ring and staple through which pass the braided side-chains connecting handle and frame.

The handle is formed of two separate flat bars, the upper bar having a loop, a conventionalized bird's neck, and a knob at each end, the lower turning downward at the ends, to which are attached by means of rings the above mentioned side-chains. Both bars play freely on a stem, which by means of a short chain and a hook could be connected with the ring in the top of the cover.

As ordinarily carried, the lantern was probably held by the upper bar only. Owing to the free play of the bars on the stem the frame would remain steady even when the hand turned to and fro.<sup>6</sup> When there was no wind the lantern could be hung with the lid raised, in which arrangement more light would be cast, and the smoke could escape more freely. In this case also the lantern would be suspended from the upper bar and would appear in distended form. When the lantern was held by means of both handles there was no play on the stem, the cover was down and might be hooked or unhooked indifferently.

The lamp is composed of a broad band tapering toward the top and ornamented in the lower part with shallow encircling grooves, and a basis, to which it is fastened, consisting of a heavy lead ring encased in bronze and covered across the top with a sheet of bronze which serves

<sup>1</sup> Pernice, *Jahrb.* XV (1900), *Ans.* p. 192. However, neither eyelet seems well adapted to hold the handle of an extinguisher.

<sup>2</sup> The uprights contract at the place of junction with the upper part of the frame, but thicken again above, where they form short stubs with eyelets and ornamental notches.

<sup>3</sup> Cf. Pernice, *loc. cit.*

<sup>4</sup> *Ibid.*

<sup>5</sup> Pasqui, *op. cit.* says (col. 500), though without quoting any authority, that isinglass (*lapis specularis*, Ital. *talco*) was also employed.

<sup>6</sup> So Pernice, *loc. cit.*

as bottom to the lamp, and is ornamented on the under side with four shallow concentric grooves. There was probably a cover which is now missing. Within the lamp is the wick-holder which tapers somewhat toward the top and has the form of a wide open ring or ferrule. Whether it originally belonged to this lamp is uncertain. At any rate it is not in its proper place, for it is stuck into a gummy substance which is probably the residuum of the oil.<sup>1</sup>

At present the lamp is not fastened to the lantern-frame, nor are there any traces on it of means of attachment except two oblong abrasions on opposite sides of the upper part where apparently some sort of brace was soldered in order to hold it fast. On the frame, however, there are no vestiges of other means of attachment than the hole in the bottom previously mentioned. In the lanterns in Berlin and Pompeii, before cited, the dowel or rivet held the lamp by means of a lunated attachment affixed to the under side of the latter. The bottom of the frame in the Berlin lantern appears to have been double, the dowel passing through both, while the upturned edge formed the inner rim. In the lantern of Field Museum the lamp was undoubtedly riveted to the bottom of the frame, but that lamp can hardly have been the lamp which the frame now contains.

Height, to top of staple in center of cover, m. 0.232 (=9.13 in.); distended, m. 0.41 (=1 ft. 4.14 in.). Width (across uprights), m. 0.146 (=5.74 in.). Thickness of bottom, about m. 0.0008. Hole in bottom, m. 0.016 × 0.003. Height of rims, outside, m. 0.014 (=0.55 in.); inside, m. 0.008, and less. Width of uprights, m. 0.021 (at bottom) to m. 0.005 (upper extension). Height of lamp, m. 0.028 (upper part) + 0.011 (base) = 0.039 (=1.53 in.). Diameter of lamp at top, m. 0.047 × 0.0427. Height of wick-holder, m. 0.026. Diameter at top, m. 0.012.

One of the chains has a modern repair of iron wire.

## BRONZE BATH-TUBS. 24356, 24357.

[PLATES CXXXIV, CXXXV.]

Two large oblong bath-tubs of bronze. These tubs were found, one against the other, in the entrance-court (A) of the first villa,<sup>2</sup> where they appear to have been temporarily stored. Where they originally belonged is uncertain. They could not have been taken from the bath-rooms, as the *frigidarium* had a stationary basin, and the other two rooms are too small; indeed the larger of the tubs would not pass through the doors.<sup>3</sup> They may have served for occasional use<sup>4</sup> in some other

<sup>1</sup> When a particle of this substance was burned it gave forth an aromatic odor, like that of incense, indicating that the oil had been perfumed. Consequently the slur of Juvenal. *At hic qui pallidus adfertur misero tibi caulis olebit lanternam* (v. 86 ff.), would not in the case of this lamp have been justified.

<sup>2</sup> Pasqui, *op. cit.* col. 424.

<sup>3</sup> Pasqui, *op. cit.* col. 522.

<sup>4</sup> In which case the *speciali conducture di acqua*, the absence of which in the bath-rooms is noted by Pasqui, *l. c.*, would not have been necessary.

part of the house, or, as has been suggested,<sup>1</sup> they may have been taken from some other villa.

The tubs are in a very good state of preservation, except for some cracks which were rudely repaired before they entered the Museum. They are covered with an oxidation of various shades of green and iridescent blue.

The body of each tub consists of five pieces of metal, that is, two sides, two end-pieces and the bottom.<sup>2</sup> The sides and the end-pieces are brazed together. Traces of the seams may be seen under the oxidation, near the ends of the side pieces. The side and end pieces are turned over at the top, and hammered so as to form flat rims, the outer edges of which are turned under in a sort of roll. Through this roll passes a heavy iron wire. The lower edge of side and end pieces is turned under at right angles, thus forming a ledge upon which the bottom rests,<sup>3</sup> protected from contact with the floor. Four handles, two on each side, are riveted to the larger of the tubs (No. 24357).

The shape is similar to that of modern tubs. The sides slant but slightly outward. The ends have a more gradual slope, the greater inclination from the perpendicular being in the tub with the handles. The rims, which are wider at the ends than at the sides, are both beveled at the inner edge, that of the smaller tub (No. 24356) at the outer edge as well.

The larger tub could be emptied by means of a small hole in one end, near the bottom.

The smaller tub is entirely destitute of ornament; the other is plain except for the handles. These consist each of two pieces, which are cast separately, namely, the attachment and the ring or handle proper. The former is a rounded plate with ears, through which pass rivets, at either side above. The plate serves as a background for a lion's mask, from the top of which rises a flat projection, which forms a sort of elbow, the other end of which is riveted to the side of the tub. The front of this elbow is represented as covered with hair parted vertically in the middle, a somewhat loosely carried out suggestion of a piece of a lion's skin. The mask has the mouth open with teeth visible and tongue protruding. The eyeballs and lower lids are indicated. The pupil is shown by a small indentation. Around the face is a fringe of mane. The ring, which is large enough to slip over the mask, but not over the plate, is channeled, except on the inside.

The lions' masks, while excellent in design and technique, are

<sup>1</sup> Pasqui, *l. c.*

<sup>2</sup> Pasqui, *op. cit.* col. 424, errs in saying that the tubs are made "*in un solo pezzo*."

<sup>3</sup> It may seem strange that the bottoms were not fastened in the same way as the sides and ends, and it is possible that they are an ancient repair, but it is more likely that they are the original construction, and that the folded edge was employed in order to secure greater sustaining power.

somewhat less spirited than a ring-holding mask from Nemi,<sup>1</sup> which is otherwise rather similar, and lack the charm of style which exists in the typically not very different lions' heads in the gymnasium at Priene,<sup>2</sup> belonging to the second century B. C.

Although bathing had been practiced by the Greeks from Homeric times, and by the Romans of the republican period, only a few bathing-vessels have survived from antiquity. In the Naples Museum there are two bronze tubs<sup>3</sup> from Pompeii. There is a marble tub<sup>4</sup> with fluted sides and ornamental lion-mask handles in the Louvre.

24356. Length (top), outside, m. 1.951 (= 6 ft. 4.8 in.); inside, m. 1.71 (= 5 ft. 7.3 in.). Length (bottom), inside, m. 1.53 (= 4 ft.  $\frac{1}{4}$  in.). Width (top), outside, m. 0.863 (= 2 ft. 10 in.); inside, m. 0.704 (= 2 ft.  $3\frac{3}{4}$  in.). Width (bottom), inside, m. 0.565 (= 1 ft.  $10\frac{1}{4}$  in.). Depth, ends, m. 0.538 (= 1 ft.  $9\frac{3}{8}$  in.), 0.544 (= 1 ft.  $9\frac{7}{8}$  in.), center, m. 0.523 (= 1 ft.  $8\frac{3}{4}$  in.). Width of roll (average), m. 0.0193 (= .759 in.). Width of ledge, on which bottom rests, about m. 0.01 (= 0.39 in.). Thickness of metal, about m. 0.002 (= 0.078 in.). At one end of one side, crack, mended with two iron strips riveted under rim, the copper rivet-heads showing on top (modern repair).

24357. Length (top), outside, m. 2.143 (= 7 ft.  $3\frac{1}{8}$  in.); inside, m. 1.88 (= 6 ft. 2 in.). Length of bottom, inside, m. 1.465 (= 4 ft.  $9\frac{11}{16}$  in.). Width (top), outside, m. 0.866 (= 2 ft. 10.09 in.); inside, m. 0.713 (= 2 ft. 4.07 in.). Width (bottom), inside, m. 0.5795 (= 1 ft. 10.8 in.). Depth, ends, m. 0.52 (= 1 ft.  $8\frac{1}{2}$  in.), 0.503 (= 1 ft.  $7\frac{11}{16}$  in.), center, m. 0.496 (= 1 ft.  $7\frac{9}{16}$  in.). Width of roll (average), m. 0.0196 (= .77 in.). Width of ledge, about m. 0.0132 (= 0.519 in.). Thickness of metal, about 0.003 (= .118 in.), but, at edges of hole, m. 0.004 (= .157 in.). Diameter of hole, m. 0.024 (= 0.944 in.)  $\times$  0.022 (= 0.866 in.). Diameter of a ring, m. 0.195 (=  $7\frac{11}{16}$  in.)  $\times$  m. 0.155 (=  $6\frac{1}{8}$  in.). Thickness of rings, about m. 0.0226 (= 0.889 in.). On one side, under rim, two iron strips riveted; near turn at one end, two others, and a copper strip which is also probably modern.

#### BRONZE CASSEROLE. 24410. [PLATES CXXXVI-CXXXVIII.]

Shallow casserole found in Villa I on the floor of the corridor, near the large cupboard. The preservation is excellent, but there is a thick coating of green and blue oxide. It is cast in two pieces, handle and bowl, which are riveted together. After the casting, the bottom of the bowl was ornamented with concentric circles finely turned on a lathe.

The bowl rests on a substantial base-ring. The full round curve of the sides secures large capacity in proportion to the width and

<sup>1</sup> *Notiz. degli Scavi*, 1895, p. 369, fig. 1.

<sup>2</sup> *Priene*, p. 271, fig. 278.

<sup>3</sup> Migliozi and Monaco, *Nuova Guida Generale del Museo Nazionale*, p. 133, Nos. 73003, 73007. One of them is probably that mentioned by Héron de Villefosse *Mon. et Mém. Fond. Piot*, v, p. 20, n. 3, who cites the illustration in Nicolini, *Casa e Monumenti*, II, *Descrizione Generale*, plate 62. It is rounded at one end, and flat and also lower at the other.

<sup>4</sup> Villefosse, *l. c.* quoting Clarac, pl. 255, No. 637 (= Reinach, *Rép.* i, p. 125).

depth. In the inside the center is occupied by a broad low boss surrounded by a molding, which has the effect of a collar. The wide lip is flat on the bottom, and molded on top, the surface being broken into two parts, a broad wave inside and a narrow plain roll on the outer edge. The bowl is ornamented with fine raised encircling lines, two between boss and collar and two on the upper side of the lip, and with fine grooves, one on either side of the lower outer corner of the lip. There probably are also on the inner edge of the lip two fine raised lines, and there are possible traces of one or two raised bands on the inside of the bowl. There are also doubtful traces of a leaf-pattern on the upper inner edge of the lip.

The handle, which has four ribs on each side and a molded collar next to the lip, is attached to the under side of the bowl by means of a thin extension cut so as to form two portions, which converge toward each other. This attachment-piece is held to the bowl by means of four rivets, and is decorated on either side with a stamped pattern of scrolls and arabesques.<sup>1</sup> The outer end of the handle has the form of a ram's head. The treatment is decorative and conventional, as may be seen in the elongated shape and pointed ears, but the modelling of the bony structure of the horn and of the end of the nose is more careful than might have been expected on a common household utensil.

A casserole, which in form and decoration is substantially identical, was found in another villa near Boscoreale, and is now in Berlin.<sup>2</sup> Another is in the museum at Cairo.<sup>3</sup>

The exact use for which these objects were intended is not certain. It has been suggested by Pernice<sup>4</sup> that they were employed for such kinds of food as were served in the dish in which they were cooked.<sup>5</sup> However, as they were probably held in the hand of the person eating from them, they can scarcely have been used for any cooking that would have heated the handle, and it would seem that they are to be regarded chiefly as hand-plates.

Length, m. 0.135 (handle)+0.234 (diameter of bowl)=0.369 (=14.52 in.). Height, m. 0.056 (=2.2 in.). Diameter of base-ring, m. 0.113. Diameter of boss, m. 0.054. Length of handle on under side, m. 0.185 (=7.28 in.).

<sup>1</sup> For a similar pattern cf. Roux, *op. cit.* Vol. vii, plate 69.

<sup>2</sup> Pernice, *op. cit.* p. 191, fig. 20.

<sup>3</sup> Published in *Jahrbuch*, XVIII (1903), *Anz.* pp. 145 ff., p. 148, fig. 3, by F. von Bissing, who remarks that that museum possesses no pieces which on external evidence must be dated in Hellenistic times.

<sup>4</sup> *Op. cit.* pp. 191 f.

<sup>5</sup> The Naples casserole, No. 73455, can not have been used for liquid food. See Professor Tarbell's *Catalogue of Bronzes, etc., in Field Museum*, p. 134, No. 211. This counts also against Lessing's theory (*Jahrb.* XIII (1898), *Anz.* p. 35) that these objects were used to contain food or sauce which was poured by the servants onto the plates of the guests.



## BRONZE AMPHORA. 24408. [PLATE CXXXIX.]

This small amphora was found along with some rough terra-cotta vases in a wooden chest just inside the entrance to Villa I.<sup>1</sup> It is poorly preserved, especially the bottom, the edges of which have been nearly eaten out, so that it is held by only a small strip. The vase is covered with thick, mostly dark blue oxide. Body and handles are cast separately.

The rather full body rests on a plain flat bottom, and passes by a continuous curve to the short neck and flaring lip. Vertical handles with leaf shaped lower attachment are soldered to the side and neck, the top of the handle being lower than the lip.

The outside of the vase is unornamented except for a fine encircling groove near the top. Inside the lip there are three encircling rings with a groove at either side and also a single groove.

In shape this vase lies midway between the two common types of Roman bronze amphorae which have, the one<sup>2</sup> a wide rounded body and short neck, the other<sup>3</sup> a slender, almost angular body with a rather long tapering undefined neck, and differs from both in the wide flaring lip and the lack of a base. It is very similar to an amphora represented as on the stylobate of a small building in a fresco of the *Casa della Caccia*, Pompeii.<sup>4</sup>

Height, m. 0.198 (=7.79 in.). Diameter, m. 0.121 (=4.78 in.) $\times$ 0.118 (=4.64 in.). Diameter of bottom, m. 0.055 (=2.16 in.); of top, m. 0.074 (=2.91 in.). Height of handles, m. 0.111 (=4.37 in.). Thickness of side, m. 0.001+. Distance of outside groove from top, m. 0.005.

About in the center of the bottom, dent (diameter m. 0.002) purposely made.

## BRONZE PITCHER. 24406. [PLATES CXL, CXLI.]

Pitcher, probably one of two which were found in Villa I, near the oil-vat<sup>5</sup> (Room Y). It is in good condition except that the handle is cracked through near the lower attachment. There is a thick coating of mostly dark green oxide. Body and handle are cast separately.

The contour of the body has the form of two rounded obtuse angles, one convex, the other concave, joined together, the greatest diameter being below the center. The bottom is slightly concave but without

<sup>1</sup> Pasqui, *op. cit.* coll. 409 f.

<sup>2</sup> Roux, *Herculanum et Pompéi*, Vol. vii, plate 79; Schreiber, *Die alexandrinische Toreutik*, p. 364, fig. 103.

<sup>3</sup> Roux, *op. cit. ibid.*; Schreiber, *op. cit.* p. 366, fig. 104.

<sup>4</sup> Zahn, *Die schoensten Ornamente, etc.*, Vol. ii, plate 60.

<sup>5</sup> Pasqui, *op. cit.* col. 499, fig. 68. The top of the handle, the part which served as thumb-rest, is less pointed than in the pitcher there illustrated, but the cut is so small and poor that much weight should not be attached to the slight difference.

base-ring. The mouth is almond-shaped with spout at the apex. The body is unornamented.

The handle terminates below in an acanthus palmette,<sup>1</sup> and separates above into a thumb-rest and arms which rest on the top of the lip. These arms, which are rounded but imitate no natural form, end in a triple disc-ring. The thumb-rest, which has a narrow band on the upper side and a heavy groove on the under side, both longitudinal, has a knob at the upper end. At the other end it appears as though secured by a wide band which is ornamented with beading in the center and a groove near each outer edge. The motive is ultimately of Egyptian origin.<sup>2</sup> The back of the handle has in the center a heavy longitudinal groove, with a lighter groove at either side. This ornament parts toward the lower end, and terminates at either side in the volutes which form the top of the lower attachment.

A pitcher with a similar but somewhat more globular body is painted in yellow on a blue background in a medallion in the *Casa del Centauro*,<sup>3</sup> Pompeii. Another example with globular body with less pointed spout is afforded by a diminutive bronze pitcher from the Athenian Acropolis, probably a votive substitute.<sup>4</sup>

Handles with thumb-rest are numerous among the Roman bronze vases.<sup>5</sup> The thumb-rest is, however, much earlier.<sup>6</sup> The arms, which rest on the back part of the top of the vase, are probably a simplification of a naturalistic form, such as the front legs of an animal or the arms of a human figure, a type which is at least as old as the fifth century B. C.,<sup>7</sup> and is probably older, for the simplified form occurs on vases of about that period found in Italy, *e. g.* a bronze pitcher with long spout in Karlsruhe.<sup>8</sup>

Height (extreme), m. 0.134 (=5.27 in.); of body of vase, m. 0.089 (=3.5 in.). Diameter, m. 0.073 (=2.87 in.). Diameter of bottom, m. 0.045 (=1.77 in.); of top m. 0.037 × 0.05. Thickness of metal, about m. 0.002. Height of handle, m. 0.118 (=4.64 in.).

<sup>1</sup> For a similar palmette cf. the bronze handle in the Louvre, Reinach, *Répertoire de la statuaire*, Vol. ii, p. 744, No. 5.

<sup>2</sup> Cf. Prisse d'Avannes, *Histoire de l'art égyptien*, Vol. i, painted columns from Karnak.

<sup>3</sup> Zahn, *op. cit.* Vol. ii, plate 59.

<sup>4</sup> De Ridder, *Cat. des bronzes de l'Acropole d'Athènes*, No. 163, fig. 27.

<sup>5</sup> For an example with knob, see Roux, *op. cit.* Vol. vii, plate 76.

<sup>6</sup> Cf. *Olympia*, iv, plate 55, No. 927, said by Furtwaengler to resemble the ear of an animal.

<sup>7</sup> Cf. de Ridder, *op. cit.*, No. 176.

<sup>8</sup> Schumacher, *Beschreibung d. Samml. antiker Bronzen*, plate x, No. 22, p. 109, No. 580a. cf. No. 582 (x, 23).

## BRONZE PITCHER. 24405. [PLATES CXLII-CXLIV.]

Pitcher, perhaps the other member of the pair (cf. 24406) found near the oil-vat.<sup>1</sup> It is in good condition, though covered with thick, mostly dark blue oxide. The body of the vase and the handle with its attachments are cast separately.

The body of the vase consists of a nearly globular lower part resting on a low base, the interior of which is turned, and a plainly differentiated neck, the top of which, forming the lip, flares very slightly. There is a rather sharply defined spout.

The vase is ornamented with a slight groove at the top of the base-ring and about four fine encircling lines on the lower part of the neck. The base of the neck is raised slightly above the surface of the shoulder.

As in No. 24406, the handle separates above into a thumb-rest, the base of which is bound by an ornamental band, and arms which rest on the top of the vase. The thumb-rest has the form of a leaf with recurved end, and is decorated on the upper surface with two longitudinal lines. The arms, which imitate no natural form, are rounded on top and taper to beveled ends.<sup>2</sup> On the front of the handle, just beneath the thumb-rest and facing the mouth of the vase there is a lotus-flower pointing downwards.

The lower attachment of the handle, which has the form of a plaque with three convex sides, is fastened to the vase by means of four nails or rivets, two above in ear-like projections at either corner, and two in the lower part, one on each side, and terminates beneath in a simple palmette with a volute<sup>3</sup> at either side.

The plaque serves as the background for the relief of an infant's face with full round cheeks and broad hollow nose. The eyes slant slightly upward and outward, the right eye a trifle more than the left. The eyebrows and the upper eyelids are represented plastically; pupil and iris are indicated by indentations. The hair is arranged in rows of naturalistic curls, as in a figure supposed to be Ganymede on a bronze *umbo* from Carnuntum.<sup>4</sup> In the hair there is a diadem with leaf-pattern ornament, which may be compared with the wreath in the hair of a similar mask on a ewer published by Schreiber,<sup>5</sup> and with the lower band of the headdress of the figure on the *umbo* above

<sup>1</sup> Pasqui, *op. cit.* col. 499. The pitchers found on top of the table (24407) were similar to this, but neither was identical, if Pasqui's statement (col. 478) that their handles were ornamented each with a mask of a bacchante is correct.

<sup>2</sup> Cf. 24406.

<sup>3</sup> Cf. Schreiber, *Alexand. Toreutik*, p. 377.

<sup>4</sup> Muensterberg, *Oest. Jahreshefte*, vi, plate 4.

<sup>5</sup> *Alexand. Toreutik*, p. 379, No. 161 a. "Kindermaske mit Blätterkranz im Haar."

mentioned. Its presence is in accordance with the Attic custom as exemplified in various Attic grave-stelae.<sup>1</sup> This band serves also as a transitional motive between the mask and the back of the handle, as may be seen more clearly in the handle of a bronze vase in Karlsruhe.<sup>2</sup>

The ornamentation of the back of the handle divides at the lower end above the attachment into three spreading leaf ends.<sup>3</sup> At the top there is a spray of three berries and two groups of three leaves each, probably of the laurel, pointing downward.<sup>4</sup>

Immediately beneath the laurel-spray there is a bird with long beak pointed upward<sup>5</sup> obliquely to the right, high pointed wing and long legs. It is the bird of the silver cup, No. 13 of the Boscoreale treasure,<sup>6</sup> and is probably to be regarded as a heron,<sup>7</sup> or a stork.

Height (extreme), m. 0.167 (=6.57 in.); height of body of vase, m. 0.128 (=5.04 in.); height of neck, m. 0.035 (=1.37 in.). Diameter, m. 0.109 (=4.29 in.); diameter of base, m. 0.057 (=2.24 in.); diameter of neck in center, m. 0.0515 (=2.02 in.). Thickness (average of neck), about m. 0.0035. Height of handle above body of vase, m. 0.042 (=1.65 in.).

#### BRONZE PITCHER. 24409. [PLATES CXLV-CXLVII.]

Pitcher or ewer<sup>8</sup> found in a bedroom (*cubiculum* L) of Villa I, lying on the floor.<sup>9</sup> It is in poor condition. One side is not quite complete, having been restored from fragments. The sides are corroded through, and the entire vase is heavily oxidized in dark green and blue. Handle and vase were cast separately.

The rather full body, with the greatest diameter at about half the height, passes to shoulder and wide neck by a continuous concave curve. There is a low base, the underside of which is ornamented with concentric circles turned on a lathe. The wide horizontal lip is ornamented near the outer edge with a narrow band which has a groove at either side, and near the inner edge with a single groove. On the inside of the mouth near the top there is a slight encircling ridge or seam.

<sup>1</sup> E. g., Conze, *Die attischen Grabreliefs*, ii, plate 161.

<sup>2</sup> Schumacher, *Beschreibung d. Samml. antiker Bronzen*, No. 611, plate xi. 11.

<sup>3</sup> Cf. Schreiber, *Alexand. Toreutik*, pp. 376 ff.

<sup>4</sup> Similar motive but different plant, Schreiber, *op. cit.* p. 345, (fig. 84 β). Cf. *ibid.* p. 371, No. 145 β. "Lorbeerzweig mit Früchten," and the silver vase from Hildesheim, Pernice and Winter, *Hildesheimer Silberfund*, plate 9.

<sup>5</sup> Cf. the bronze figurine in Cologne, Reinach, *Rép. de la stat.* Vol. iii. p. 224, No. 4.

<sup>6</sup> Villefosse, *op. cit.*

<sup>7</sup> Zahn, in *Priene*, p. 417, note.

<sup>8</sup> "Grande vaso da mescolare con collo a tronco di cono e con ansa fusa nella cui estremità inferiore sono rappresentati a basso rilievo due galli combattenti." Pasqui, *op. cit.* col. 433, b.; fig. 25 (col. 432).

<sup>9</sup> "Poco distante dall'angolo destro della porta," Pasqui, *ibid.*

The upper part of the handle has at either side a volute and a long-beaked bird's head which is attached to the outer vertical edge of the lip, and, in the center, a thumb-rest consisting of a leaf with recurved end terminating in a small knob. The leaf is, as it were, held in place by an ornamented transverse band.

The use of birds' heads, as a transitional motive between handle and mouth, occurs very frequently in metal vases of the Roman period, and occasionally in other materials.<sup>1</sup> The examples which were known up to the year 1894 may be found collected in Schreiber's *Alexandrinische Toreutik*. The list there given does not include any specimens from Greece or the eastern part of the Roman Empire, with the exception of two pieces in the Egyptian Museum of the Vatican,<sup>2</sup> nor any from definitely ascertained pre-Roman strata. A number of examples in bronze and terra-cotta have since been found in Priene<sup>3</sup> and Pergamon,<sup>4</sup> but there does not appear to be sufficient external evidence to establish for them a date prior to the end of the Attalid kingdom. However, it has been shown by Schreiber in the above mentioned work that, whatever the date of the actual vases with the motive in question may be, the majority of the types of shape and decoration are Greek of the Hellenistic period, that the most important center of manufacture was probably Alexandria, and that it is reasonable to attribute to the art of that city, which was strongly influenced by the naturalistic tendency of Egyptian decoration, the formation of this inorganic and un-Hellenic method of attachment.<sup>5</sup>

The handle widens at its lower end, forming a sort of plaque for attachment with two convex sides meeting beneath in a simple palmette between volutes. On this plaque is a relief of two game-cocks confronting each other, as if about to fight. They stand on a ledge which juts out sharply from the background. The treatment of the relief is freely naturalistic, as in a figurine from the Athenian Acropolis,<sup>6</sup> while the group is similar to that on a *nestoris* from South Italy,<sup>7</sup> and a bronze handle of advanced archaic style in the Forman collection.<sup>8</sup>

Just above the heads of the fowls are two objects which look like feathers crossing each other, but are perhaps rather to be regarded

<sup>1</sup> Cf. Schreiber, *Alexand. Toreutik*, p. 382; *Jahrb.* xix, *Ans.* p. 56, No. 47, fig. 12.

<sup>2</sup> P. 438.

<sup>3</sup> *Priene*, pp. 282 (fig. 295), 386 (fig. 490).

<sup>4</sup> Conze, *Abhandl. Berl. Akad.* 1902, p. 10, n. 1.

<sup>5</sup> Cf. von Bissing, *Jahrb.* XVIII (1903), *Ans.* p. 146.

<sup>6</sup> De Ridder, *Cat. des bronzes de l'Acropole*, No. 539, fig. 176 (= Reinach, *Rép. de la stat.* Vol. ii, p. 775, No. 5).

<sup>7</sup> Mayer, *Roem. Mitteil.* XII (1897), p. 227, fig. 14, p. 210.

<sup>8</sup> Reinach, *op. cit.* Vol. iii, p. 225, No. 2. Cf. also Richardson, *Am. Jour. of Archaeol.* II (1898), pp. 199 f., plate vi.

as palm-branches, which are used so freely as a decorative motive in Pompeian frescoes that no special allusion need be sought in order to account for their presence here. There was an approximately similar representation of a single palm-branch on the handle of a silver casserole found near Zürich.<sup>1</sup>

The back of the handle, which has fine beading down each edge, ends in appearance, though not in reality, in a volute at either side with a recurved leaf between them, a repetition on a smaller scale of the terminal motives at the top. Volutes and leaf form the upper boundary of the attachment-plaque.

The space between the transverse band at the top and the recurved leaf at the bottom is occupied by three designs in relief, namely, a mask with a garland above and a basket beneath. The mask, which faces to left, has the deep set eyes and strong masculine though beardless profile of a Hellenistic portrait. The head is represented as wearing a sort of cap with puffed sides, beneath which the hair falls in curls at the back.<sup>2</sup> The central portion of the garland hangs in a half-circle from two points just beneath the transverse band, while the long ends reach nearly down to the mask.<sup>3</sup> About in the center of the space enclosed by garland and mask there is a bit of incrustation which may conceal some small object. Beneath the mask the shallow wicker basket has, along the top, a row of dots, perhaps representing fruit,<sup>4</sup> perhaps merely ornamental,<sup>5</sup> and, at either side, a dependent streamer terminating in a ball,<sup>6</sup> probably originally inlaid with silver, which has disappeared. Above the basket there were two smaller balls.

Vases of this style are numerous represented in the Naples Museum, as may be seen from the list given by Schreiber,<sup>7</sup> and are found occasionally outside of Campania. There is an example from Boscoreale in Berlin.<sup>8</sup> From the same site comes a vase of similar shape, but without thumb-rest or ornament.<sup>9</sup> A terra-cotta vase with no thumb-rest, but with a transverse band on the handle, was found at Priene.<sup>10</sup> According to Schreiber,<sup>11</sup> vases and handles of the same

<sup>1</sup> Schreiber, *op. cit.* p. 319, No. 9, a, fig. 61.

<sup>2</sup> Cf. Schreiber, *op. cit.* p. 349, No. 86, a) (portrait bust), p. 357, No. 107, β) (mask with cap).

<sup>3</sup> For similar position and arrangement, cf. Schreiber, *op. cit.* p. 345, fig. 86, β); cf. also *ibid.* p. 467.

<sup>4</sup> Cf. Reinach, *Rép. de la stat.* i, p. 34, plate 155.

<sup>5</sup> Cf. Zahn, *Die schoensten Ornamente, etc.* Vol. ii, plate 70.

<sup>6</sup> Cf. Schreiber, *Alexand. Toreutik*, p. 351, No. 93 β).

<sup>7</sup> *Alexand. Toreutik*, pp. 344 ff.

<sup>8</sup> *Jahrbuch, xv, Ans.* pp. 194 ff., fig. 24 (Pernice).

<sup>9</sup> *Ibid.* p. 194.

<sup>10</sup> *Priene*, pp. 421 f., No. 58.

<sup>11</sup> *Alexand. Toreutik*, p. 433.

shape, but without the ornamentation, are found in Egyptian green-glazed ware of the Ptolemaic period.

It is uncertain for what use these large pitchers were intended. Pasqui<sup>1</sup> calls them "*vasi da mescere*"; Pernice<sup>2</sup> thinks they may have served to hold water. It is evident from their shape and size that they were designed to hold a considerable quantity of a liquid, which did not need to be poured in a small stream. That this liquid was water to drink or, more likely, to mix with the wine, or even a reserve supply of wine, is not improbable.

Total height, m. 0.316 (=12.44 in.). Height of vase without handle, m. 0.289 (=11.37 in.). Height of base, m. 0.007. Diameter, m. 0.192 (=7.55 in.). Diameter of bottom, m. 0.098 (=3.85 in.). Diameter of top, outside, m. 0.13 (=5.11 in.); inside, m. 0.093 (=3.66 in.). Thickness of sides, less than m. 0.001. Height of handle, m. 0.201 (=7.91 in.). Width of lower attachment, m. 0.06 (=2.36 in.).

Bottom cracked nearly all the way around. The handle seems to have become detached and to have been replaced.

### BRONZE PITCHER OR EWER. 24403.

[PLATES CXLVIII, CXLIX.]

Large bronze vessel with one handle found in Villa I, in the room of the wine-press (P), where it lay in a heap of other vases of various kinds.<sup>3</sup> It is in poor condition, being much broken, patched and cracked. The vase is corroded through as well as heavily oxidized in green and dark blue. The handle was cast separately.

The lower part of the vase is rounded. It has a long conical shoulder and a short round mouth-piece, which has the form of a section of an inverted cone. The bottom is flat, the lip, narrow. The body of the vase is unornamented except for a series of grooves and raised lines on the inside of the mouth.<sup>4</sup>

The upper attachment of the handle is formed of large birds' heads, which are joined to the outer edge of the lip, and, with the beaks, extend about half way around the lip. The mouth is indicated by a groove, the plumage by wavy lines. Eyes and ears were inlaid with silver which has now mostly disappeared. There are no volutes preceding the birds' heads. Instead of the thumb-rest, which, on vases like the preceding (24409), is sometimes the figure of an actual thumb, there is here a conventionalized long straight thumb, which rises between the birds' heads, and projects horizontally part way across the mouth of the vase. The thumb-nail is of silver.

<sup>1</sup> *L. c.*

<sup>2</sup> *L. c.* p. 195.

<sup>3</sup> Pasqui, *op. cit.* col. 482.

<sup>4</sup> *L. c.* just inside lip, depression, in which, fine raised line, followed by convex surface, after which raised line with groove at either side, all of which encircle the mouth.

The lower attachment looks like an inverted pear supported by a diamond-shaped body with two arms which have the form of birds' heads.<sup>1</sup> The lower end of the pear-shaped plaque is engraved<sup>2</sup> so as to represent a conventional lotus, which has a cross-band beneath the flower, inlaid in silver. The plaque is ornamented with oblique striations about the edge, while in the center there is a silver wreath of leaves and flowers tied with a ribbon, treated in the impressionistic manner. The birds' heads have the eyes and ears of silver. On the body from which these heads spring there is an engraved palmette-like ornament similar in appearance to that which springs from the center of the lotus flower above. At the side-angles, however, there is something like an eye indicated in the engraving. Now, if we view the attachment from the other direction, this body and the birds' heads become the head and legs of a lizard or salamander, particularly the variety of the latter called newt. It seems not unlikely that there is here an intentional mixture of motives.<sup>3</sup>

The use of the birds' heads to support the attachment-plaque is regular in this type of vases.<sup>4</sup> The ornament appears in a reduced form in a specimen from Boscoreale, now in Berlin.<sup>5</sup> A leaf is used for the attachment in another example from Boscoreale.<sup>6</sup>

On the back of the handle there is an ornament in relief consisting of a vertical stalk with ribs at either side projecting upward obliquely. This design appears to be regular here in this type of vase.<sup>7</sup> At the lower end, next to the lower attachment, there is a band with vertical flutes and a ruffle at either edge. The effect is like that of a strip of cloth or paper tied to the stem. There is a somewhat similar transition motive on the above mentioned fantastic bronze handle in the Naples Museum.<sup>8</sup>

The purpose which these vessels served is not quite certain. From the finding place of this example, and from the fact that another one<sup>9</sup> was found in a bedroom it might be inferred that they were intended to hold wine or, more likely, the water that was to be mixed with it. The use of the long projecting thumb might afford a clue, if it were

<sup>1</sup> An old motive in a new form. Cf. an Italic bronze handle in the British Museum, Hoernes, *Urgeschichte der Kunst in Europa*, p. 416, plate ix, No. 2, and a gold ornament in the Treasure from Aegina, Evans, *Journal of Hellenic Studies*, xiii, pp. 197 ff., fig. 2a (p. 197).

<sup>2</sup> In the model before casting.

<sup>3</sup> For an example of fanciful mixture of motives, cf. the bronze handle, Roux, *op. cit.* Vol. vii, plate 98 (= *Museo Borbonico*, Vol. ix, plate 30).

<sup>4</sup> Cf. Schreiber, *Alexand. Toreutik*, p. 369, and the example in Field Museum, No. 158 of Tarbell's *Catalogue of Bronzes*.

<sup>5</sup> Pernice, *Jahrbuch xv, Ans.* p. 189, fig. 16.

<sup>6</sup> Pasqui, *op. cit.* col. 432, fig. 24.

<sup>7</sup> Cf. Schreiber, *Alexand. Toreutik*, p. 369.

<sup>8</sup> Roux, *op. cit.* Vol. vii, plate 98 (= *Mus. Bor.* ix. 30).

<sup>9</sup> Pasqui, *op. cit.* col. 432, fig. 24.



itself more certainly understood. Pernice thinks<sup>1</sup> that a dipper was suspended from the thumb. In this piece, however, the thumb is not well adapted for that purpose, being slightly rounded on top; in others it is, according to Schreiber,<sup>2</sup> bent sharply inward. It seems more likely, inasmuch as the vase when full must have been heavy, that the handle is intended for two hands: while one hand held the upright part, the other grasped the thumb in order the better to manage the flow of the stream.

Height (extreme), m. 0.327 (=12.87 in.). Height of vase without handle, m. 0.306 (=12.04 in.). Diameter, m. 0.317 (=12.47 in.); of bottom, m. 0.168 (=6.61 in.); of neck, m. 0.134×0.145 (axis of handle); of top (outside), average, m. 0.187 (=7.36 in.); of orifice, m. 0.122×0.135 (axis of handle). Thickness of sides, about m. 0.001+. Thickness of lip, m. 0.004–0.005, except in one or two patches (0.0025–0.004), which are from another vase. Height of handle, m. 0.266 (=10.47 in.). Width of lower attachment (pear-shaped plaque), m. 0.076.

Stem of handle cracked through at commencement of upper part.

#### SILVER PITCHER. 24668. [PLATES CL-CLIII.]

This pitcher or jar of silver, as well as the terra-cotta bowls (Nos. 24669, 24670) and three of the frescoes (Nos. 24671, 24672, 24673), was found in a villa not far away from Villa I.<sup>3</sup>

It is poorly preserved. The mouth is put together from four pieces, one of which seems to be from another vase, the body from five or more. The sides are corroded through in at least three places, and all the fragments are oxidized throughout. The vase is cast, the handle separately.

The body of the vase, which is nearly globular and is ornamented with shallow wavy grooves<sup>4</sup> running up and down, rests upon a low base-ring. The bottom is flat, but there is in the center a slight circular depression, which is itself slightly indented in the middle. There is a short neck, which is not sharply defined, and a flaring lip. On the inner edge of the lip there appears to be an encircling bead-ornament; on the outer edge there is a leaf-pattern, and between the two there are two fine raised encircling lines. The outer under side of the lip is also ornamented, but here there are slight differences in the pieces of which the lip is at present composed.<sup>5</sup>

<sup>1</sup> *Jahrbuch*, xv, *Ans.*, p. 189.

<sup>2</sup> *Alexand. Toreutik*, p. 369.

<sup>3</sup> This group of objects entered the Museum in October, 1903.

<sup>4</sup> As in the silver pitcher, Schreiber, *Alexand. Toreutik*, p. 333, No. 49, which would seem to be similar in shape. Cf. *ibid.*, pp. 453 f., n. 75, and the inside of the Ara Pacis. A silver rhyton from Tuche-Karamus, Egypt, belonging to the Ptolemaic period, has straight horizontal grooves. *Jahrb.* xxi, *Ans.*, p. 138, fig. 8.

<sup>5</sup> 1. *e. i.* oblique wavy hatching. 2. narrow leaf-pattern with band of dots beneath. 3. uncertain. 4. (handle-piece) covered with mending material.

The handle terminates above in a conventionalized lotus, of which the side-petals have the form of volutes, while the middle petal is a thick recurved leaf which serves as a thumb-rest. The upper side of the volutes is ornamented with a rosette consisting of a large central dot surrounded by eight smaller dots.<sup>1</sup> The spaces between volutes and lip are filled in by means of a bird's head with long beak. At the base of the lotus there is a single horizontal row of beading, which serves to separate the upper part of the handle from the ornaments on the back.

The lower attachment of the handle is a plaque of ovate outline, ornamented with a relief-mask of Medusa. Her features are coldly beautiful, with large staring eyes. The iris is indicated by an engraved circle, the pupil by a tiny indentation. From the crown of the head rise wings, while beneath them long snaky tresses extend to both sides. A portion of heavy serpent body is conspicuous above the forehead at either side, an exaggeration of an effect which may be seen already in the Medusa Rondanini.<sup>2</sup>

The back of the handle appears to part just above the top of the plaque to form the spreading side-petals of a lotus flower. The space between the petals is filled with an elongated heart-shaped ornament, for which there is an analogy on an Attic grave stelè published by Conze,<sup>3</sup> and on the early Ionic capital from Neandria.<sup>4</sup>

The principal decoration of the back of the handle is in the upper part just beneath the transverse band. Here there is a narrow ledge on which stands, at the left, a round altar with flame,<sup>5</sup> and near by, at the right, an object which has fluted sides and conical top, and is represented as about a third again as high as the altar. Like the altar, it has a molded base and cornice. The oxidation which covers the roof is perforated so that the latter resembles a pyramid of balls. On the whole the object looks rather like a building as, for example, a small round temple or shrine, but the lack of door or window is a difficulty. On the handle of a pitcher from Bazzano there is a small shrine with similar roof.<sup>6</sup>

In the free space between the above mentioned ledge and the top of the lower attachment there is a thyrsus with a large ribbon tied to the shaft.<sup>7</sup>

<sup>1</sup> Cf. silver Centaur vase from Pompeii, Zahn, *Die schoensten Ornamente, etc.*, Vol. iii, plate 28.

<sup>2</sup> Friederichs-Wolters, *Gipsabgüsse antiker Bildwerke*, No. 1597. Cf. Roscher, *Lexikon d. Myth.* I, 2, p. 1723. For a closer analogy cf. Reinach, *Ant. du Bosph. cimmérien*, plate 75, No. 7 (terra-cotta mask).

<sup>3</sup> *Die attischen Grabreliefs*, Vol. i, No. 453, plate 107.

<sup>4</sup> Perrot and Chipiez, *Histoire de l'art*, Vol. vii, p. 621, fig. 275.

<sup>5</sup> Cf. Schreiber, *Alexand. Toreutik*, p. 321, No. 13, β).

<sup>6</sup> "Aedicula mit kuppelartigem Dach," Schreiber, *Alexand. Toreutik*, p. 356, No. 105, α; cf. p. 453.

<sup>7</sup> Cf. the thyrsus on a silver cup from Hildesheim, Pernice and Winter, *Hildesheimer Silberfund*, plate 14, No. 1, and on the handle of a silver casserole, Schreiber, *Alexand. Toreutik*, p. 315, No. 1, β). A thyrsus represented in a mosaic of the *Casa del Fauno*, Pompeii, has a green shaft with red ribbon, and a yellow cone with green leaves (Nicolini, *Casa e Monumenti*, Vol. i).

Height (extreme), m. 0.134 (=5.27 in.). Height of vase without handle, m. 0.122 (=4.8 in.). Diameter, m. 0.129 (=5.07 in.). Diameter of bottom, m. 0.077 (=3.03 in.). Width of depression on under side of bottom, m. 0.019. Diameter of top (outside), m. 0.096 (=3.77 in.); inside, m. 0.08 (=3.14 in.). Diameter of neck (outside), m. 0.081×0.077. Thickness of walls, uncertain, perhaps m. 0.002–0.003. Height of handle, 0.094 (=3.7 in.). Lower attachment, m. 0.047 (height)×0.036 (width).

## GLASS

### GLASS PITCHER. 24582. [PLATE CLIV.]

Small pitcher of thin, pale yellow glass, found in Villa I, in one of the rooms supposed to have been occupied by the servants.<sup>1</sup>

It is in good condition except for a hole<sup>2</sup> obliquely beneath the handle. One side of the mouth is bent in.

The body, which is nearly globular in form, rests upon a plain slightly concave bottom without base-ring, and, on the upper side, passes easily into the rather long round neck, which is straight to near the top, where it becomes flaring. The mouth is trefoil with molded lip, which is rolled inward at the upper edge.

The handle is flat, with a shallow vertical groove on the inside and a deep groove on the outside. It was made separately, and, when in a soft state, bent into a fold at the top to form a thumb-rest. A long narrow string of glass, remaining after the attachment with the top, was turned back over the thumb-rest, which is thus, in part, of four thicknesses, and down the back of the handle near to its lower end.

Though the chief center of the glass industry throughout antiquity was Egypt, from which country it was, before the end of the Roman republic, imported in large quantities into Italy,<sup>3</sup> there were also factories in Italy, particularly in Campania, where the sands between Cumæ and Liternum were found to be useful in the production of clear, transparent glass,<sup>4</sup> and by the first century A. D. it had come into common domestic use and had become very cheap.<sup>5</sup> Of such household ware this pitcher is a specimen.

It is not certain just what purpose such pitchers served, but at the present time small glass pitchers of similar shape are in common use in Italy as containers of oil or vinegar for the table.

Height, m. 0.135 (= 5.31 in.). Height of body, m. 0.125 (= 4.92 in.). Diameter, m. 0.089 (= 3.5 in.). Diameter of bottom, about m. 0.037 (= 1.45 in.). Diameter of neck (smallest), m. 0.0315 (= 1.24 in.). Height of handle, m. 0.074 (= 2.91 in.). Width of handle (least), m. 0.011 (= 0.43 in.). Thickness of glass, about  $\frac{1}{4}$  mm. below break, and about  $\frac{1}{3}$  mm. above (estimated).

<sup>1</sup> Pasqui, *M. A. L.* vii, col. 496: "presso l'angolo a sinistra della parete di fondo a piè del letto posava un oinochoe di vetro chiaro con corpo a bulla e collo cilindrico" (fig. 67).

<sup>2</sup> M. 0.037 × 0.018. Piece lost.

<sup>3</sup> Cf. Cicero, *pro Rab. Post.* 14.

<sup>4</sup> Pliny, *Hist. Nat.* xxxvi. 26 (66). Deville, *Hist. de l'art de la verrerie dans l'antiquité*, p. 18.

<sup>5</sup> Strabo, xvi, p. 758.

## BLUE GLASS PITCHER. 24581. [PLATE CLV.]

This pitcher, which resembles the vases of the form called 'askos,' appears to have been found in Villa I, in a cupboard which was in a room of the second story (*Camera d*).<sup>1</sup>

The vase is in fairly good condition, but there is a small hole<sup>2</sup> in front, and the iridescent dark blue surface has flaked off in many places, leaving a whitish surface.<sup>3</sup> Vase and handle are cast separately. Owing to the thinness of the glass the vase is extremely light.

The body, which vaguely recalls the form of some animal, *e.g.* a duck or a snail, is somewhat convex on the under side, except in front, where there is a shallow concavity, and is high and rounded on top. The wide neck which is almost at right angles to the back, and in front forms with the body a slender S-shaped curve, tapers slightly toward the top, but becomes somewhat flaring near the trefoil mouth. The lip is rounded, with a redundant edge of glass folded down on the inside.

The handle, though made of a single piece of ductile glass, is folded so as to look like a straight strip fastened to an upright at either end. The long string of glass remaining after the formation of the front of the handle is brought back over the top nearly to the rear end. The portion of the handle which serves as grip has a wide deep groove on the upper side and a small shallow groove underneath.

A glass pitcher of similar shape, but with base, fluted sides, round mouth and arched handle, was found at Pompeii.<sup>4</sup> This form is substantially the same as that of a black-figured askos from Licodia Eubea,<sup>5</sup> and of a still older vase in black monochrome ware from Sybaris.<sup>6</sup> They are perhaps derived from imitations of the shape of a duck.<sup>7</sup> Another form with similar body, but with longer neck and straight handle set at a higher angle, is also found in Pompeian glass ware.<sup>8</sup> This form with long neck is also of frequent occurrence in bronzes from Roman sites, particularly in pitchers with high curved handles,

<sup>1</sup> Pasqui, *M. A. L.* vii, col. 516: "quindi nell' fondo dell' armadio era posato un vaso di vetro turchino, in forma di askos con bocca rotonda e con ansa ad arco, che lo attraversava superiormente in tutta la sua lunghezza." Unless a different vase is here referred to, the description of mouth and handle is not quite accurate.

<sup>2</sup> M. 0.015X0.014. The piece is missing. The adjoining piece (m. 0.011X0.014), which is also broken out, is now inside the vase.

<sup>3</sup> It is perhaps more accurate to say that a portion of surface becomes white and then flakes off, leaving the blue underneath exposed, whereupon the same process is repeated. This gradual disintegration is constantly going on.

<sup>4</sup> Nicolini, *Casa e Monumenti*, I. *Casa di M. Lucrezio*, p. 21, plate 1, No. 15.

<sup>5</sup> *Roem. Mitteil.* xiii, p. 331, fig. 41.

<sup>6</sup> Mayer, *Jahrb.* xxii (1907), p. 207, fig. 2.

<sup>7</sup> Mayer, *l. c.* p. 209.

<sup>8</sup> Nicolini, *op. cit.* II. *Descrizione Generale*, plate 43; *L'Arte in Pompei*, plate 26 (blue glass).

thumb-rest and ornamentation of Roman-Hellenistic style.<sup>1</sup> It is probably derived from the wine-skin,<sup>2</sup> which it strikingly resembles.<sup>3</sup>

The purpose which these vases served is not certain, but that the bronze vases above mentioned were used as wine-pitchers is a probable conjecture.<sup>4</sup>

Height, m. 0.113 (=4.44 in.). Length, m. 0.146 (5.74 in.). Width, m. 0.105 (=4.13 in.). Mouth, m. 0.043 (width) × 0.0475. Length of handle (extreme), m. 0.082; over top, m. 0.069. Width of handle (least), m. 0.0095. Thickness of glass at break, less than  $\frac{1}{2}$  mm. (estimated).

<sup>1</sup> Examples among the reproductions in Field Museum, Nos. 24044, 24048, 24054, 24056, 24060. Cf. Roux, *op. cit.* Vol. vii, plate 76.

<sup>2</sup> Pernice, *Jahrb.* xv, *Anz.* p. 185.

<sup>3</sup> Cf. the specimen with bronze statuette of Silenus, Roux, *op. cit.* Vol. vi, plate 65.

<sup>4</sup> Pernice, *l. c.* Cf. also Mayer (*l. c.* p. 209), who thinks that the early askoi were attached to a cord and used to draw water.

## TERRA-COTTA.

### BOWL OF TERRA SIGILLATA. 24669. [PLATES CLVI-CLVIII.]

This bowl of red terra-cotta and the similar bowl, No. 24670, were found in the villa from which came the silver pitcher, No. 24668, and the frescoes, Nos. 24671-24673.

Except for a few places where the glaze has been slightly abraded, it is in perfect condition and as though new.

The bowl, which rests on a small low base-ring, is shaped something like a shallow calyx with convex bottom, straight sides sloping slightly outward to within a short distance of the top, where they become sharply convex.

From the concentric rings of the bottom to the triple band of hatching at the top, almost the entire surface is covered with decoration arranged in bands or zones, the widest of which covers the convexity of the bottom, while the next in width is on the side. The lower zone consists of eight panels, in which four subjects are treated, two identical panels placed on opposite sides of the vase being given to each. They are separated by straight twisted stalks, which terminate in rosettes. In four of the panels there are medallions, which are ornamented with reliefs representing a winged Cupid. There are two types, one a nude figure moving to right, though the head is in full face, with right arm outstretched, the other with scarf over left shoulder, moving to left, and holding some indistinct object in his outstretched arm. In the corners outside the medallions there is a U-shaped stem ending in a leaf. Two panels, slightly shorter than those with the medallions, are divided by a horizontal zigzag line terminating in rosettes into two unequal portions. In the narrower upper part a running dog and a crouching hare face a tree or shrub. The center of the lower part is occupied by three rows of slightly overlapping arrow-points<sup>1</sup> arranged in the form of a truncated cone, which might be completed, if the shrub of the upper portion should be added. The corners which remain at the ends are filled with parallel zigzag lines. The two remaining panels, which are slightly smaller than the others, are occupied each by a bunch of flower-stalks fastened together at the center and arranged so as to fill four triangles, which are formed by diagonal zigzag lines.

<sup>1</sup> So Déchelette, *La céramique de la Gaule romaine*, Vol. i, p. 70 ('pointes de flèches imbriquées'). They look rather like leaves or small shrubs.

The upper of the two principal zones is decorated with a conventionalized vegetable spray, from either side of which spring spirals terminating within in a four-leaved rosette. The field between the spirals contains alternately a similar rosette and a branch, which also springs from the main stem and bears at the end two knobs representing berries or fruit.

A little to the right of the center of the portion of the zone shown in the photograph (Plate CLVII) two of the upper scrolls are separated by a sharp angle rather than by the usual broad curve above the lower scroll. This somewhat awkward arrangement was necessitated by the fact that the circumference contained the design a fraction more than a whole number of times.

Excepting the rosettes, which are made with a punch, this band, as is evident from slight inequalities, is traced by hand. Cf Déchelette, *op. cit.* Vol. i, p. 70.

Between these zones there is a plain convex molding with a row of beading at either side. Above them there is a narrow angular molding, which is ornamented on each surface with oblique hatching. The wider convex part of the bowl which follows is also covered with similar hatching. The rounded lip is undecorated.

On the inside, just beneath the lip, there is a convex surface corresponding to the hatched convex band on the outside. In the center of the bottom there is the impression of a stamp, consisting of a small indented circle, within which in raised letters is the name of the maker VITALIS. The stamp is encircled by a broad band consisting of minute indentations, which appear to have been caused by roughness of the surface on which the bowl was supported during the process of firing. Beyond there are three pairs of fine encircling grooves imperfectly executed.

Though the name of the potter Vitalis has been found on other vases of Italian provenance, it has been shown by the excavations and researches of comparatively recent years that the place of fabrication of his wares was in the south of France, at Graufenesque (Dept. of Aveyron), the ancient Condatomagus. From the extensive remains of potteries which have been found there it is evident that the industry was most flourishing in the first century A. D., and from the considerable number of Gallic stamps found in Italy it is plain that this ware was then competing for the Italian market.

In Italy the red-glaze molded vases had been manufactured for over two centuries, particularly at Arretium (the modern Arezzo) whence the name 'Arretine,' which has been applied to all similar fabrics, though now it is usual to limit its use to the vases of Arretium, while the ware in general is called *terra sigillata*.

The vases of Italian fabric differed from the Gallo-Roman chiefly in that the color was a less deep red and that there was a preference



for figures, whereas other forms of decoration were preferred north of the Alps.<sup>1</sup>

Where the ware was first made has not yet been definitely determined, but the chief centers of production before the establishment of the potteries at Arezzo were in Asia Minor and southern Russia.<sup>2</sup>

Height, m. 0.085 (=3.34 in.). Diameter, m. 0.199 (=7.83 in.). Thickness at top, m. 0.005 (=0.19 in.). Height of base, m. 0.005. Diameter of base, m. 0.06. Diameter of stamp, m. 0.02.

Form. Substantially the same with Dragendorff, *Bonner Jahrb.* nos. 96/97, Plate II, No. 29.

Inscription. Copy and photograph (Plate CLVIII). Length, m. 0.019. Height of letters (average), about m. 0.003. In an oblong shallow impression the ends of which are formed by the depressed encircling ring of the stamp. Height of impression, m. 0.004. The letters are in relief.

Upper part of space between first and second letters, not impressed, hence only lower part and right side of I is distinct. T has left side of cross-bar flattened. A has no cross-bar. Last four letters, plainer than the others. There is a tendency

to emphasize the ends of the letters.

**VETALIS**

*C. I. L.* XV. 5765a, XIII, iii. 1. 10010, 2062. Déchelette, *op. cit.* Vol. I, pp. 57, 110; Dragendorff, *Bonner Jahrb.*, No. 99, pp. 161 ff.; Lehner, *Die Einzelfunde von Novaesium*, *ibid.* nos. 111/112, p. 347.

## BOWL OF TERRA SIGILLATA. 24670. [PLATES CLIX-CLXI].

Bowl of red terra-cotta from the same villa as the preceding vase, No. 24669.

It is in perfect condition and as though new.

This bowl, though larger than the other, resembles it closely in shape, and is generally similar in decoration. It has a larger basering, the concentric rings on the bottom are somewhat different, and the lower of the two wide ornamental zones is narrower.

This same zone is divided into fourteen panels, of which seven are wider than the others, arranged alternately. The narrower panels are enclosed between two upright twisted stalks, at the lower end of which there is a rosette from which a volute projects into the adjoining panel. The interior is divided by twisted diagonal stalks into four triangles, which are occupied by the ends of a bundle of twisted stalks held together at the center. The motive is like that seen in the corresponding zone of the other bowl (No. 24669), but is simpler. The decoration of the wide panels consists of a segment of a circle



<sup>1</sup> Cf. Déchelette, *op. cit.* Vol. i, p. 66.

<sup>2</sup> Dragendorff, *Die Reste d. terra sigillata Industrie in Griechenland, Kleinasien, Südrussland u. Aegypten*, *Bonner Jahrb.* No. 101, pp. 140 ff.

opening upward. Its lower border is formed of a row of arrow-heads, while the interior is filled with a branch which begins as a plain stem in the upper right corner, but soon parts into four branches, of which the outer two terminate in a flower, the others in a leaf and some kind of fruit. From the fact that the decoration of the side panels is not always at quite the same distance from the smaller panels, it is probable that the pattern was impressed with stamps rather than with a roller. The lower edge of the design is marked by a narrow plain band imperfectly carried out. On the upper side there is a row of beading, which serves as a border.

The somewhat narrower zone which encircles the side consists of alternating short and long panels. In each of the former there is a many-leaved rosette; in the latter, two oblong conventionalized lotus flowers placed horizontally end to end with a ragged palmette at either side of the connecting stem.<sup>1</sup> The zone is bordered above and below by single rows of beading.

Between the wide ornamented zones there is a narrow plain convex band. Above the upper zone there are three bands, the first of which is narrow and flat, the second broad and convex, the third, which is just at the beginning of the lip, depressed and very narrow. All are ornamented with slightly oblique fine lines.

In the interior there is, near the top, a narrow raised ring and, beneath it, a convex surface. Otherwise the inside is plain except for the stamp, which consists of a rather large impressed ring occupying the middle of the bottom and containing, about in the center, an inscription in very small letters. The first few letters are obscure, owing to the fact that this part of the inscription was impressed twice. It seems to read OF  VR II, of (*ficina*)  urii, 'Establishment of —urius'.

The partial illegibility of the inscription makes the attribution of the vase uncertain. However, the shape, the glaze and the system of decoration render extremely probable the supposition that it also is an example of the ware of Graufenesque,<sup>2</sup> although the final letters —VR II do not occur in the lists of Dragendorff<sup>3</sup> and Déchelette.<sup>4</sup>

As compared with the vase of Vitalis the details of ornament are somewhat less neatly executed.

Height, m. 0.095 (=3.74 in.). Diameter, m. 0.215 (=8.46 in.). Thickness at lip, m. 0.004 (=0.15 in.). Height of base, m. 0.008. Diameter of base, m. 0.075. Diameter of circle of stamp, m. 0.035.

<sup>1</sup> Owing to lack of space one panel contains only a single lotus, but has two double palmettes with a rosette between them.

<sup>2</sup> Cf. on No. 24669.

<sup>3</sup> *Bonner Jahrb.* nos. 96/97, 99.

<sup>4</sup> *Op. cit.*

Form. Substantially the same with Dragendorff, *Bonner Jahrb.*, nos. 96/97, Plate II, No. 29.

Inscription. Copy and photographic enlargement (Plate CLXI). Length, m. 0.014. Height of letters, about m. 0.002. In a deep oblong impression, the length of which is m. 0.0175, the width, m. 0.003. The second impression of the first part was a little above and to the left of the first impression. The lower part of the second impression is deep, but the surface rises gradually toward the top and toward the right. The letters are in relief.

The first letter is fairly clear in the second impression, and the lower part is also visible in the first impression. Next at the right an upright hasta I is clear. The side bars which make it an F are but faintly visible. The last four letters VR II are plain. Between F and V there are faint or doubtful traces of one or two letters. A partial line close to the left hasta of V, and parallel to it, seems to be joined near the top by a downward stroke to left. The  $\Lambda (=A)$ , which would thus be formed, is, however, very doubtful, as the left hasta, when magnified, does not look like an intentional line. It seems more likely that the right hasta is a second impression of the left side of V. Close to the F, on the right, there is a very faint S, which seems to be a letter, especially as there is a scarcely visible parallel to it at its right, which would be the first impression. The inscription would then read (1) OFSAVR II, or, if the S be illusory, (2) OFAVR II (cf. *AR II C. I. L. XIII*, iii. 1. 10009, No. 41 a<sup>2</sup> from Graufenesque, Déchelette, *op. cit.* Vol. I, p. 82, or (3) OFSVR II (cf. *C. I. L. XIII*, iii. 1. 10010, No. 3053, OF.SVR II, from Tongern). The last is preferable, but it seems somewhat strange that the S should be crowded so far to the left.

## STONE

### HAND-MILL. 31726, 1, 2. [PLATE CLXII.]

Small stone mill found in Villa I.<sup>1</sup>

The mill is well preserved except that the handle is broken out and the cross-bar of the upper part defective, these parts being of iron. The stone is a gray lava, probably from Mount Vesuvius.<sup>2</sup>

In the construction two pieces of this material, forming the upper and lower mill-stones, were employed. The lower stone, which is somewhat wider than the other, has on its upper side the form of a low cone, in the top of which there is a shallow depression<sup>3</sup> where the standard which supported the upper stone turned to and fro. The upper stone, which has a round hole in the center, is concave on both sides. The lower concavity, which extends quite to the edge, fits over the conical top of the lower stone, and forms with it the grinding surfaces; the upper concavity serves as a hopper. The hole in the middle was crossed by an iron bar, the center of which, now missing, must have held the shaft that played in the above mentioned depression. The manipulation of the mill was facilitated by means of a handle which was inserted into a rectangular hole in the side of the upper stone. The substances ground fell out over the sides of the lower stone.

This is the ordinary Roman hand-mill, examples of which occur as early as the middle of the second century B. C.<sup>4</sup> It is an improvement of a type still found in the Levant, consisting of two flat stones of which the upper has a hole in the center, and is provided with a handle at the side.<sup>5</sup>

Height, m. 0.09 (lower part)+0.135 (upper part) = 0.225 (= 8.85 in.). Diameter of bottom, about m. 0.38 (= 14.96 in.). Diameter of top, m. 0.34 (= 13.38 in.). Diameter of hole in center of upper stone, m. 0.095. Height of edges of same hole, m. 0.025. Iron bar which crossed it, m. 0.027 × 0.015; length of stub remaining, m. 0.03. Hole for handle, m. 0.068 × 0.045.

Lead was employed to hold the inserted iron parts in place.

<sup>1</sup> A similar, but not identical mill was found in Room X. Pasqui, *l. c.* col. 491, col. 535, No. 139.

<sup>2</sup> Cf. Pasqui, *l. c.* and Mau, *Roem. Mitteil.* IV (1889), p. 296.

<sup>3</sup> Diameter, m. 0.06.

<sup>4</sup> Two specimens from the Roman camp before Numantia, Schulten, *Jahrb.* xxii, *Ans.* p. 477.

<sup>5</sup> Bluemner, *Tech. u. Term.* Vol. i, p. 26, quoting Tournefort, *Voyage du Levant*, i, p. 402.

## MILL. 31699, 1, 2. [PLATE CLXII.]

Found in Villa I, in the excavations of 1898.<sup>1</sup>

It is well preserved, except that such portions as were of wood or iron are missing. There was also a basis of masonry, which is not now with the mill. The stone is a gray lava.

As at present installed, the mill consists of three pieces, two of which are of stone, the third of lead, but it is necessary to supply in imagination the missing parts, in order that the manner of operation may be intelligible. The lower stone, called from its resemblance to the conical tops of the goals in the race-course, the *meta*, was sunk to the height indicated by the discoloration, in the solid basis above mentioned. The top has the form of a cone truncated near the apex. Here there is a vertical hole with rectangular sides, in which an upright post was formerly inserted. About the edges of the opening, on top of the *meta*, there is lead, which was run for the purpose of holding the post in position. The upper stone, somewhat like an hour-glass in shape, is hollowed out within in a manner corresponding to its exterior form. The interior of the lower half forms the upper grinding surface, the upper part served as a hopper — whence the name *catillus*, applied to the entire stone. On the outside, where the diameter is smallest, there are, on opposite sides, rectangular projections or shoulders, with a rectangular hole in the face, and a round hole extending horizontally through both sides. The former hole received the stout wooden bars, by means of which the stone was turned, while the round hole held the pin, which passed through and fastened the end of the bar. A raised band about the center suggests that the two parts of the *catillus* may at some time have been separate pieces.

As the heavy upper stone would have been turned with difficulty, had it rested directly on the *meta*, the operation was effected by means of a frame, which held it suspended from a vertical pin fastened into the top of the upright post above mentioned. In a relief in the Vatican<sup>2</sup> this frame is represented as consisting of a thick rectangular wooden bar, extending across the top of the *catillus*, and attached to the handles by means of curved pieces of similar material and size extending down the sides.<sup>3</sup> In the mill in Field Museum, however, the cross-bar at the top and the side-pieces would seem to have been made of iron, probably a single piece, as the sockets in the edges above the shoulders are too small to hold a wooden frame of sufficient strength.

<sup>1</sup> *Notizie degli Scavi*, 1899, p. 16.

<sup>2</sup> Cited by Bluemner, *Tech. u. Term.* I, p. 44 and Mau-Kelsey, *Pompeii* (2d ed.), p. 390, fig. 222.

<sup>3</sup> Cf. restored section, Mau-Kelsey, *op. cit.* p. 389, fig. 221.

Of course the iron cross-bar will have had a hole in the center, corresponding to the pin in the top of the upright, about which the entire *catillus* revolved.

On the side of the upper stone, beneath one of the shoulders, are the letters PAA, that is PMA, perhaps the mark of the maker.

The third piece of the mill, the large leaden ring in the bottom of the case, served to catch the flour as it fell from between the stones, and stood originally at the level indicated by the change in the color of the lower stone, forming the top of the basis of masonry, in which that stone was imbedded.

The mills of this form are very plentiful in Pompeii,<sup>1</sup> and probably represent the ordinary Roman type.

The motive power was supplied by slaves or by quadrupeds. Mills in which the shaft of the *catillus* was connected with water power are also known to have been in use among the Romans.<sup>2</sup>

Height, m. 1.07 (=42.12 in.). Height of lower stone, about m. 0.74 (=29.13 in.). Height of upper stone, m. 0.548 (=21.57 in.). Diameter of top (outside), m. 0.49 (=19.29 in.); (inside), m. 0.423 (=16.65 in.). Rectangular hole in top of lower stone: depth, m. 0.133 (=5.25 in.); sides, m. 0.078×0.075. Height of narrow part of interior of *catillus*, m. 0.13; diameter, about m. 0.095. Rectangular hole in shoulder: depth, m. 0.11; height, m. 0.085; width, m. 0.075 (and m. 0.10, 0.08, 0.073 respectively). Round holes, diameter, about m. 0.05. Lead ring: width, m. 0.155 (=6.10 in.)—0.27 (=10.62 in.); thickness, m. 0.003—0.005 (estimated).

There is no indication that the interior of the *catillus* contained a feed-plate, such as is mentioned by Bluemner, *Tech. u. Term.* I, p. 27, fig. 4.

Inscription. See plate CLXII. Cf. *C. I. L.* X, 8057, 10. Height of letters, m. 0.14. Depth, m. 0.005. They were originally painted red, of which color abundant traces remain.

<sup>1</sup> Mau-Kelsey, *op. cit.* p. 388. Cf. the illustration, *ibid.* p. 386, fig. 218; Molesworth, *Pompei*, p. 75. Vitruvius, x, 5.

## IRON.

These implements come from the villa numbered IV in the list given above on page 154. Of their wooden handles traces remain in several instances. The iron is much rusted and is covered with accretions of small pumice-stones.

Similar implements were found in Villa I.<sup>1</sup> Still others exist in the Museum of Naples.

### THREE HOES. 26150, 26151, 26152. [PLATE CLXIII.]

The shape is the usual Roman one.

Length of blade  $7\frac{1}{4}$  in. Breadth at top  $7\frac{1}{4}$ - $7\frac{1}{2}$  in.

### HOE. 26153. [PLATE CLXIII.]

Length of blade  $6\frac{1}{2}$  in. Breadth at top 6 in.

### POINTED HOE. 26154. [PLATE CLXIV.]

Length of blade  $5\frac{1}{2}$  in. Breadth at top 4 in.

### TWO LARGE HOES. 26155. [PLATE CLXV.]

Rusted together.

Length of blade of each ca. 11 in. Breadth at top ca. 14 in.

### MATTOCK. 26156. [PLATE CLXV.]

One end of the head is shaped like an adze, the other like a hatchet. Outside length 13 in.

### HATCHET. 26157. [PLATE CLXVI.]

The edge is not parallel with the handle, but is inclined towards it. Length  $7\frac{1}{2}$  in.

### PICK. 26158. [PLATE CLXVI.]

Outside length 8 in.

### RAKE. 26159. [PLATE CLXVI.]

There are six prongs.

Breadth  $12\frac{1}{2}$  in.

<sup>1</sup> Monumenti Antichi, 1897, cols. 436-440.

FORK. 26160. [PLATE CLXVI.]

There are two broad flat tines.  
Length 12 in.

FORK. 26161. [PLATE CLXIV.]

There are two slender round tines.  
Length  $17\frac{1}{2}$  in.

BILL. 26162. [PLATE CLXIV.]

This looks like a pruning instrument.  
Length 9 in.

SPUD. 26163. [PLATE CLXIV.]

Length  $23\frac{1}{2}$  in. Breadth at top 4 in.

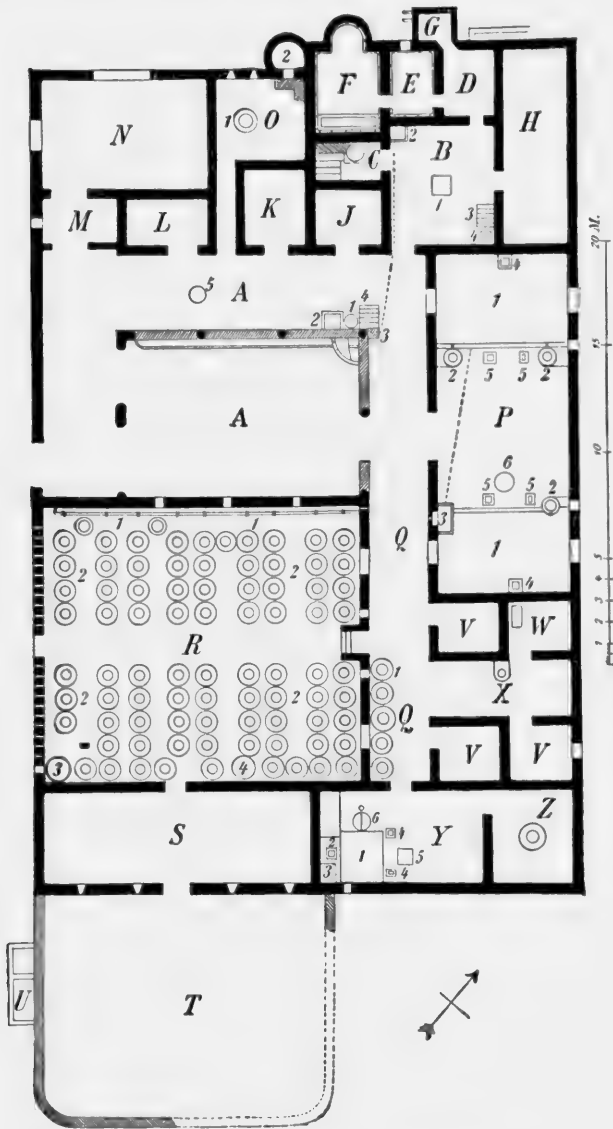
SICKLE. 26164. [PLATE CLXV.]

There is wood adhering to the inner edge. This may perhaps indicate that these tools, or some of them, were kept in a wooden box.  
Diameter of blade 20 in.







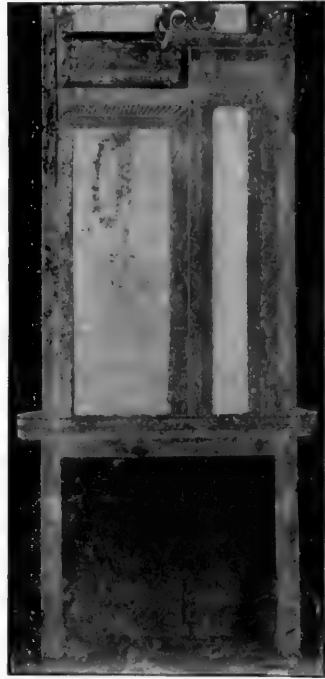


PLAN OF VILLA RUSTICA AT BOSCOREALE.  
From Mau-Kelsey, *Pompeii*.

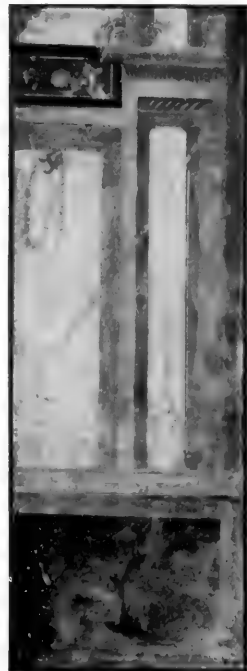




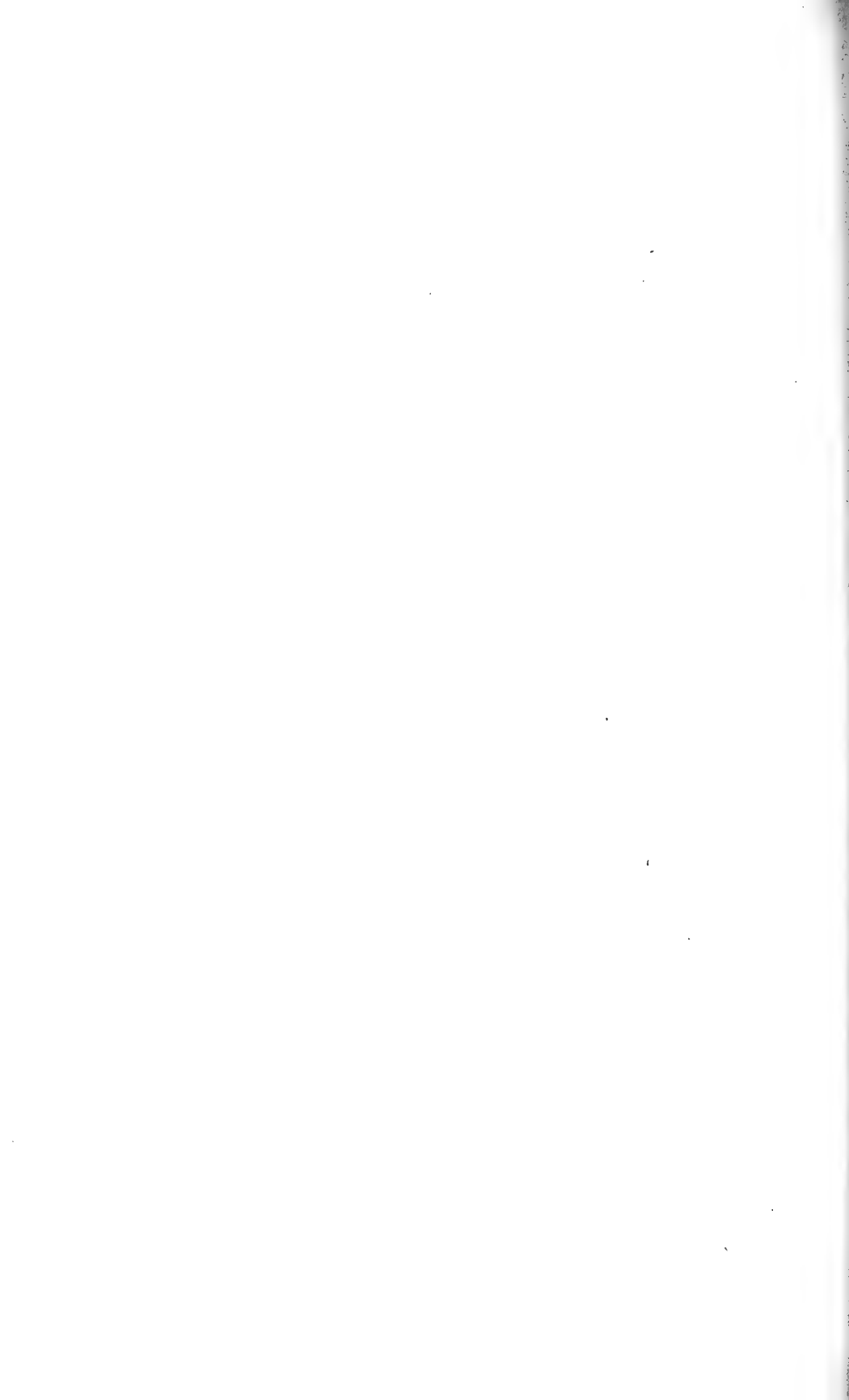
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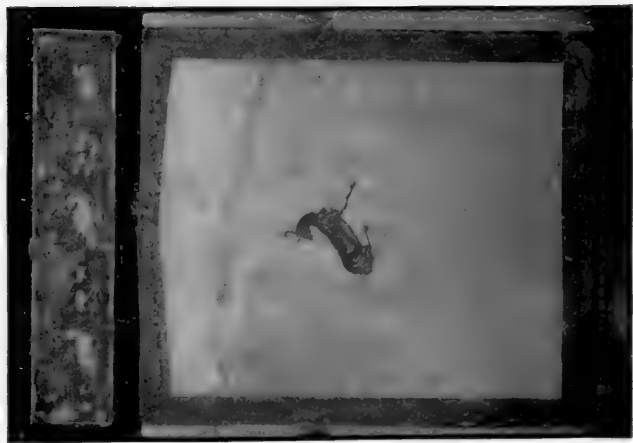


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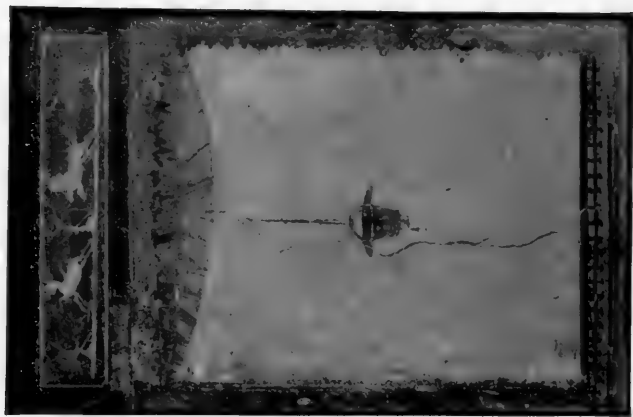


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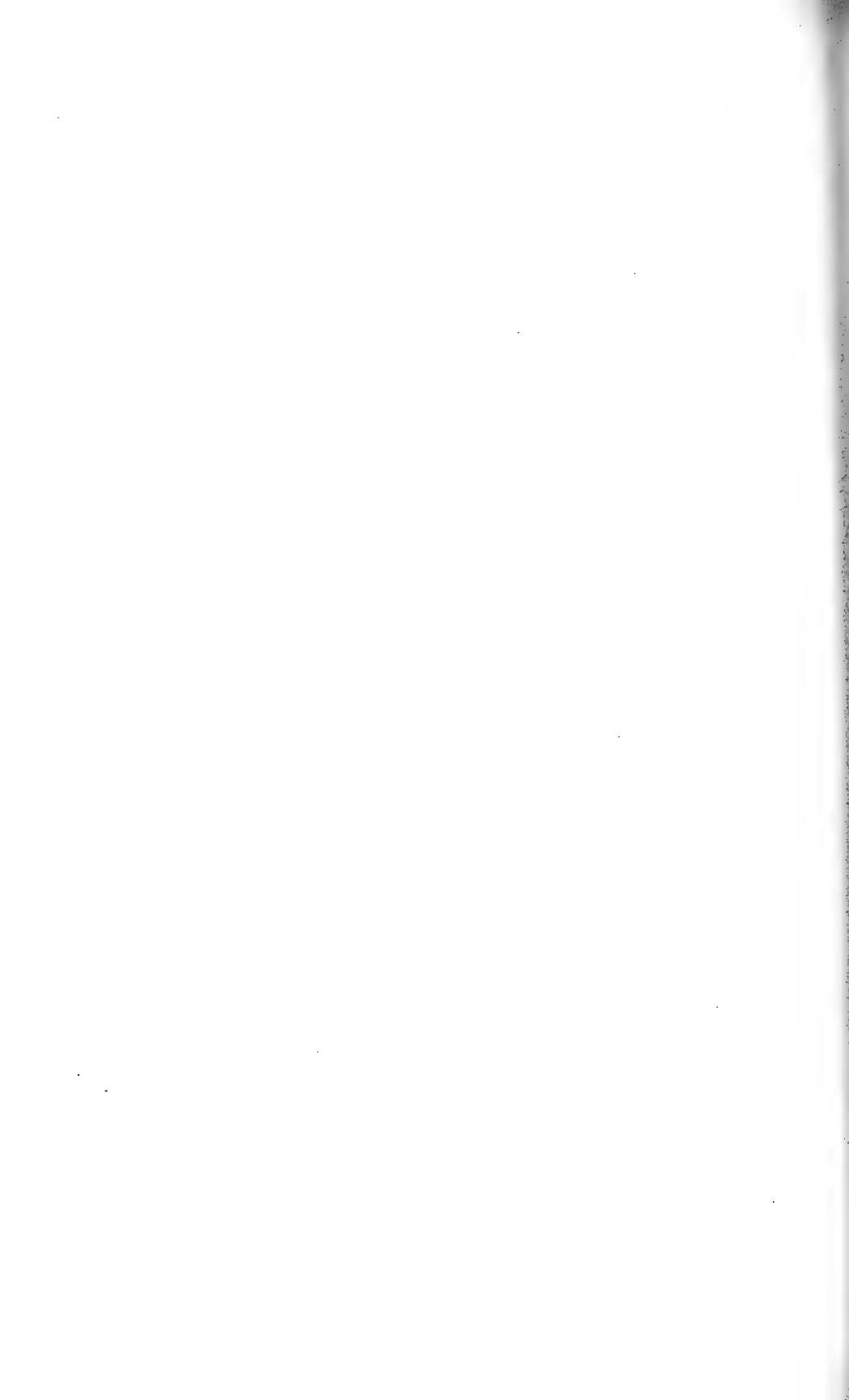




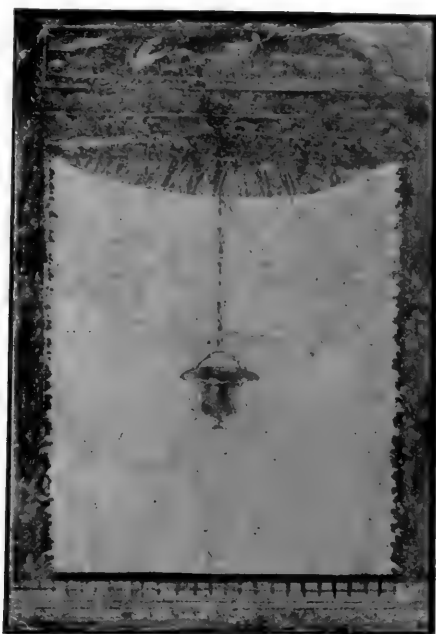
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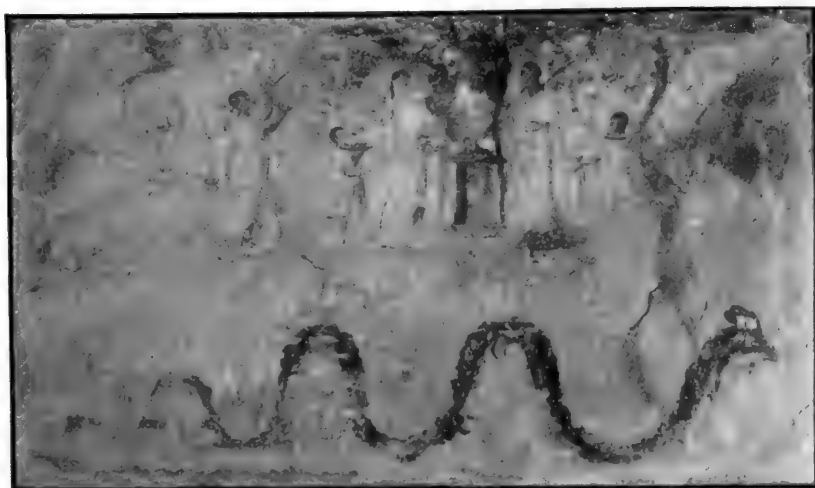
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24658

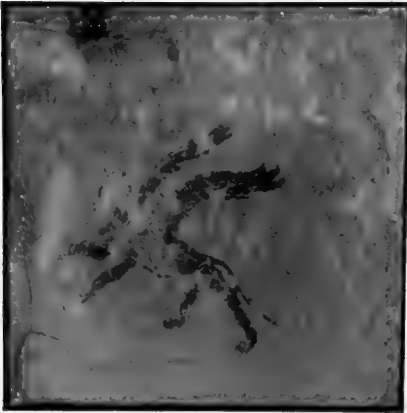




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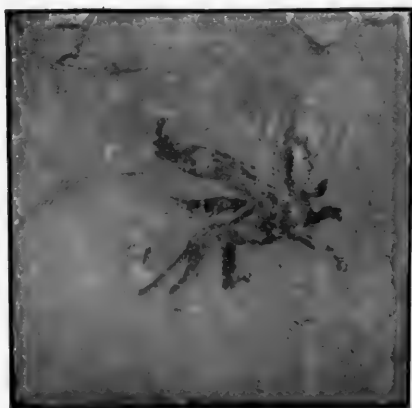




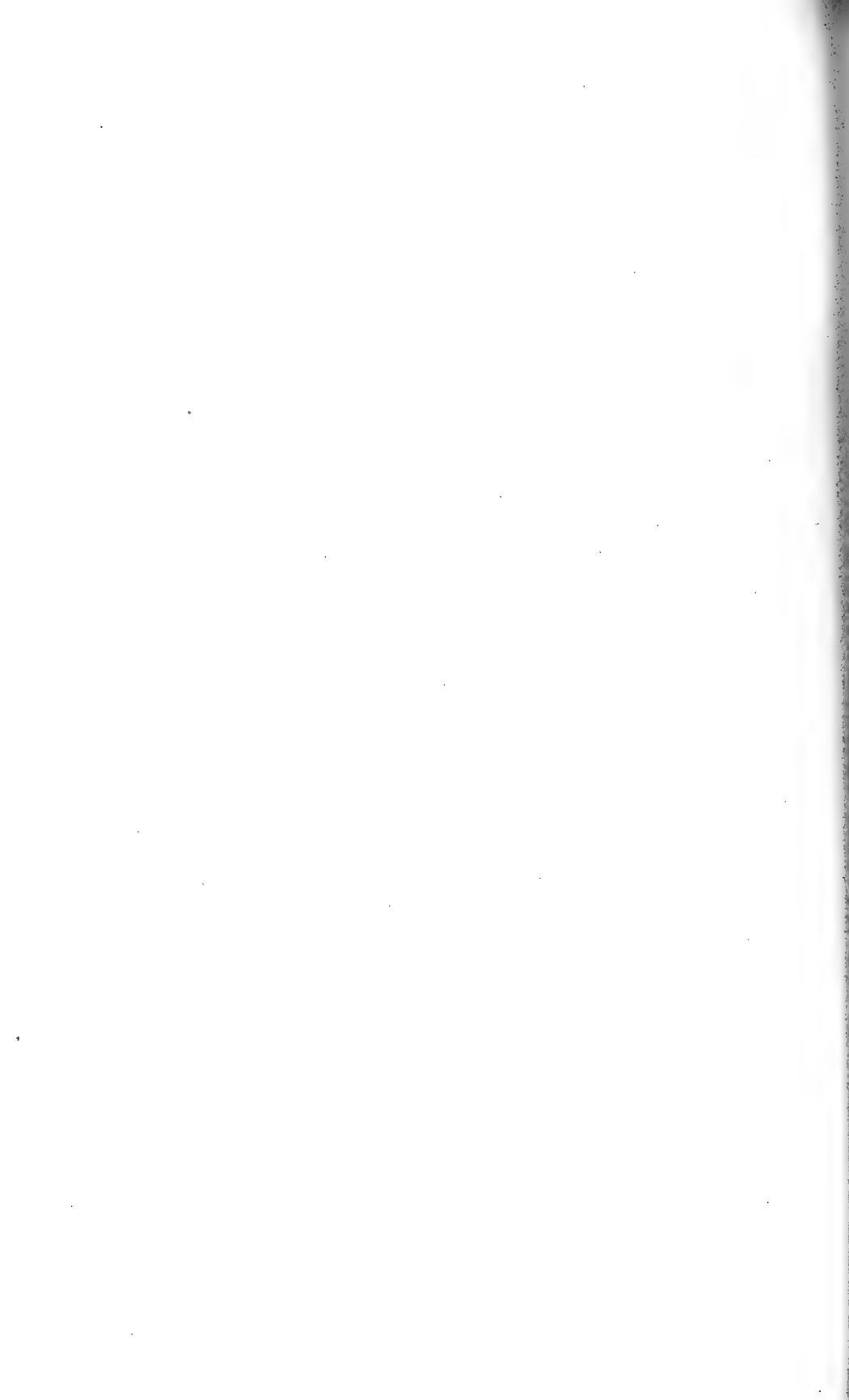
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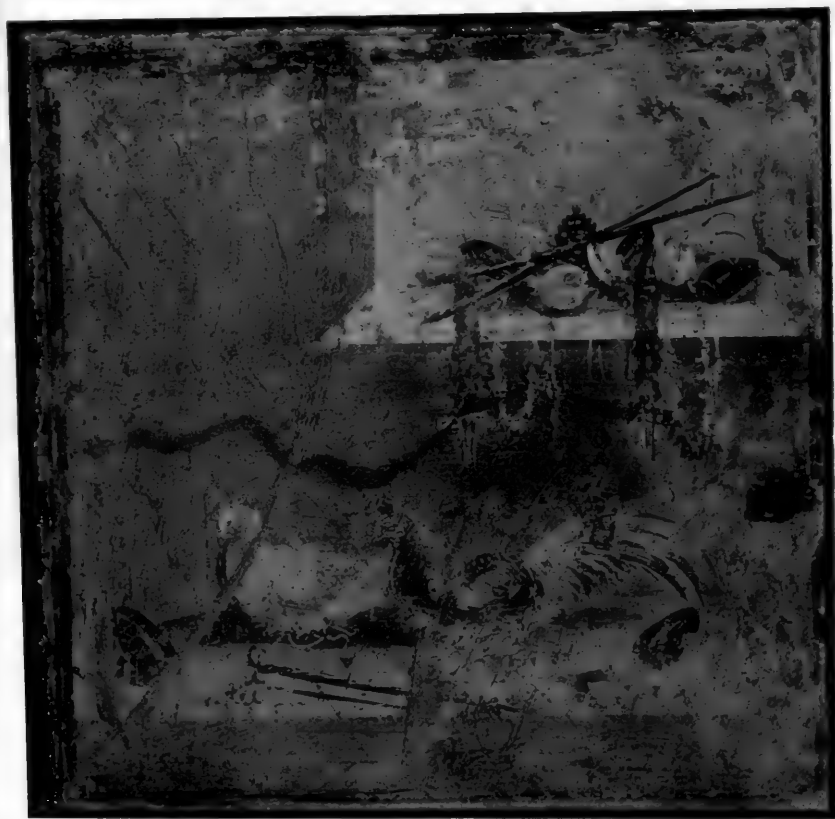


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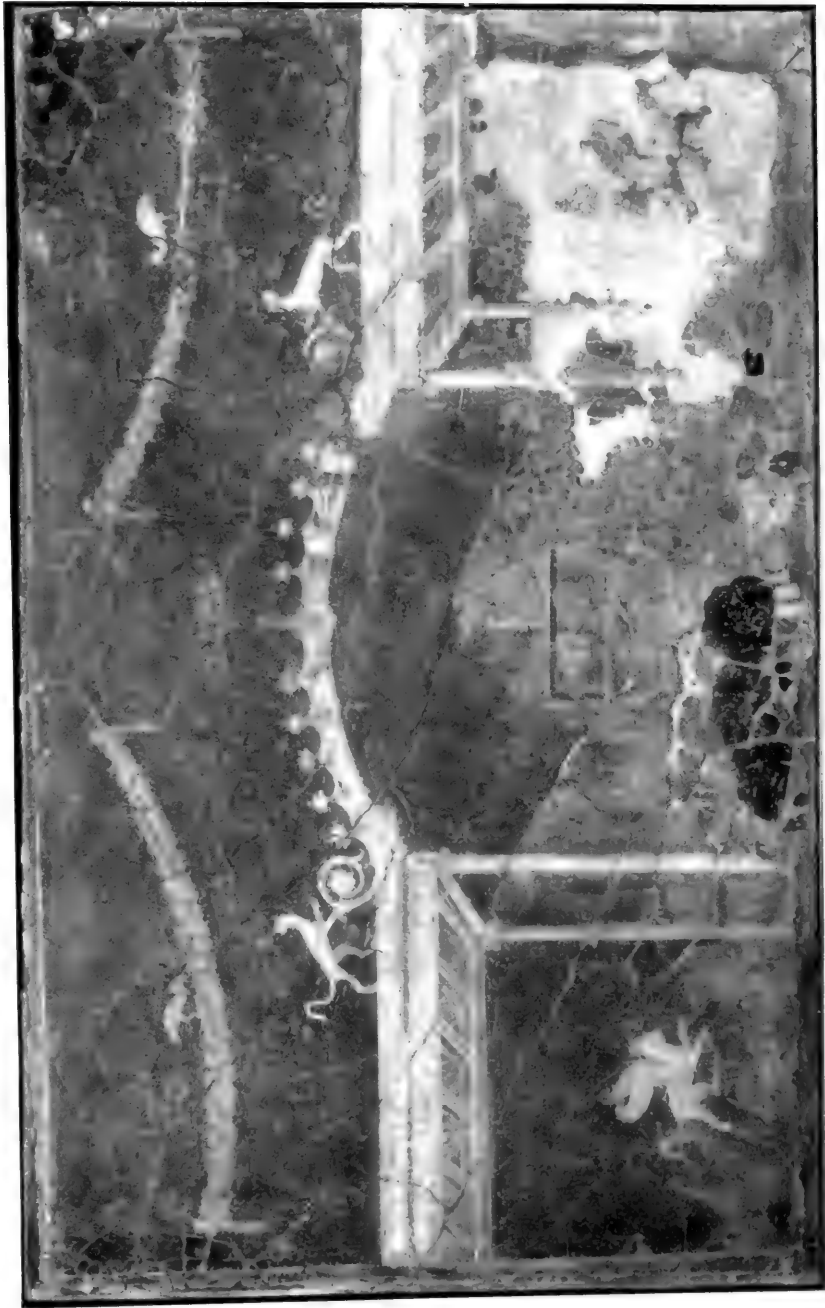




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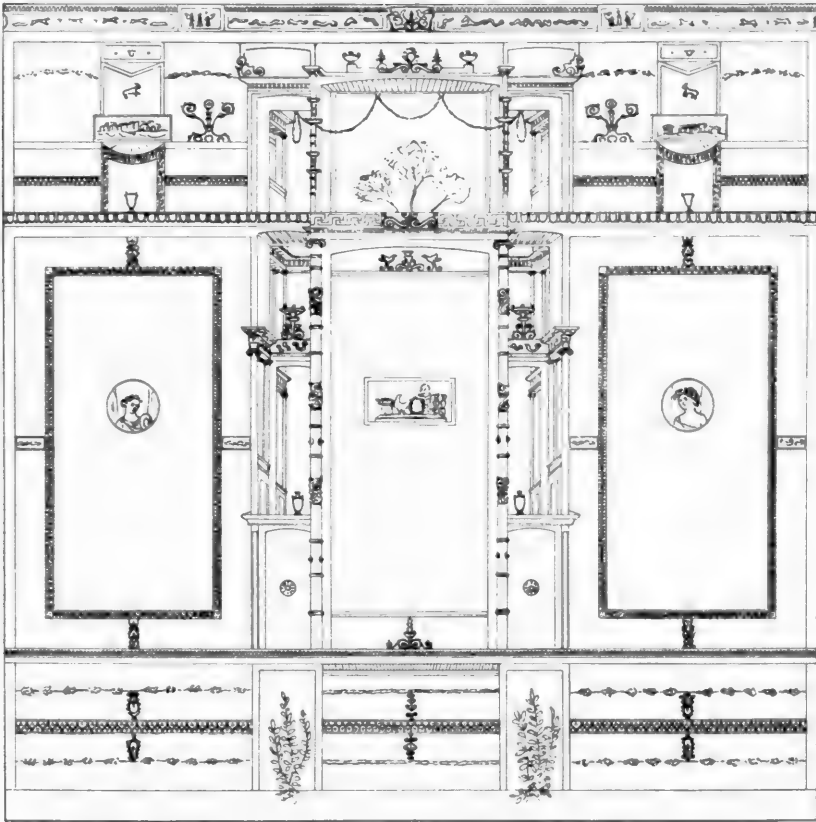
24672





24673





MURAL DECORATION FROM THE *Casa della seconda Fontana di Musaico*, POMPEII.  
From Zahn, *Die schoensten Ornamente*, etc. II 95

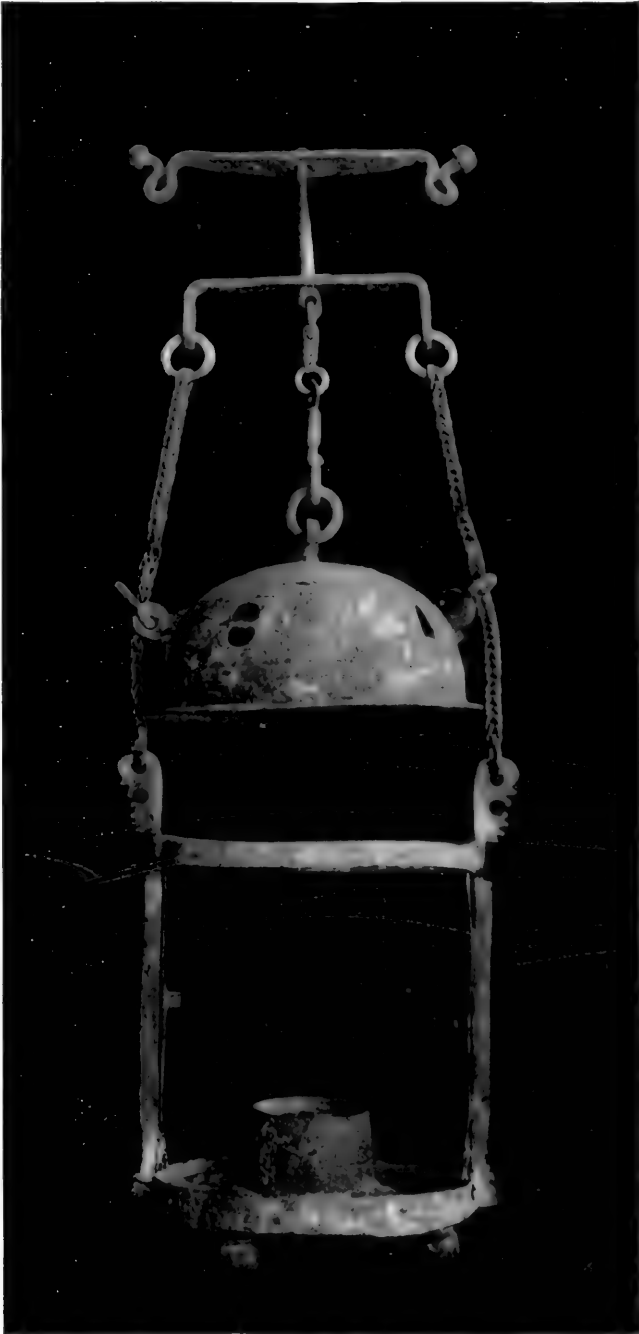






24407















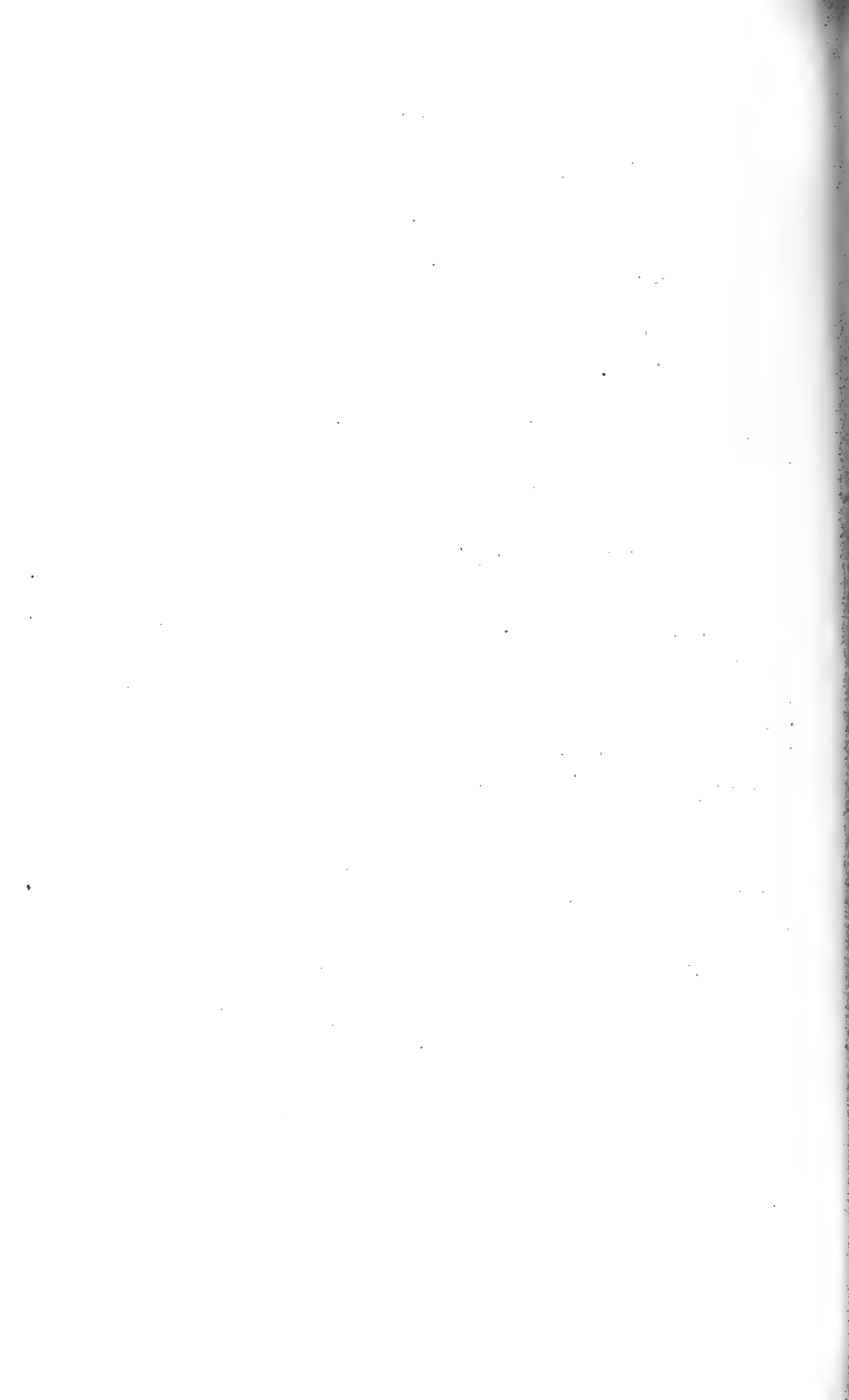




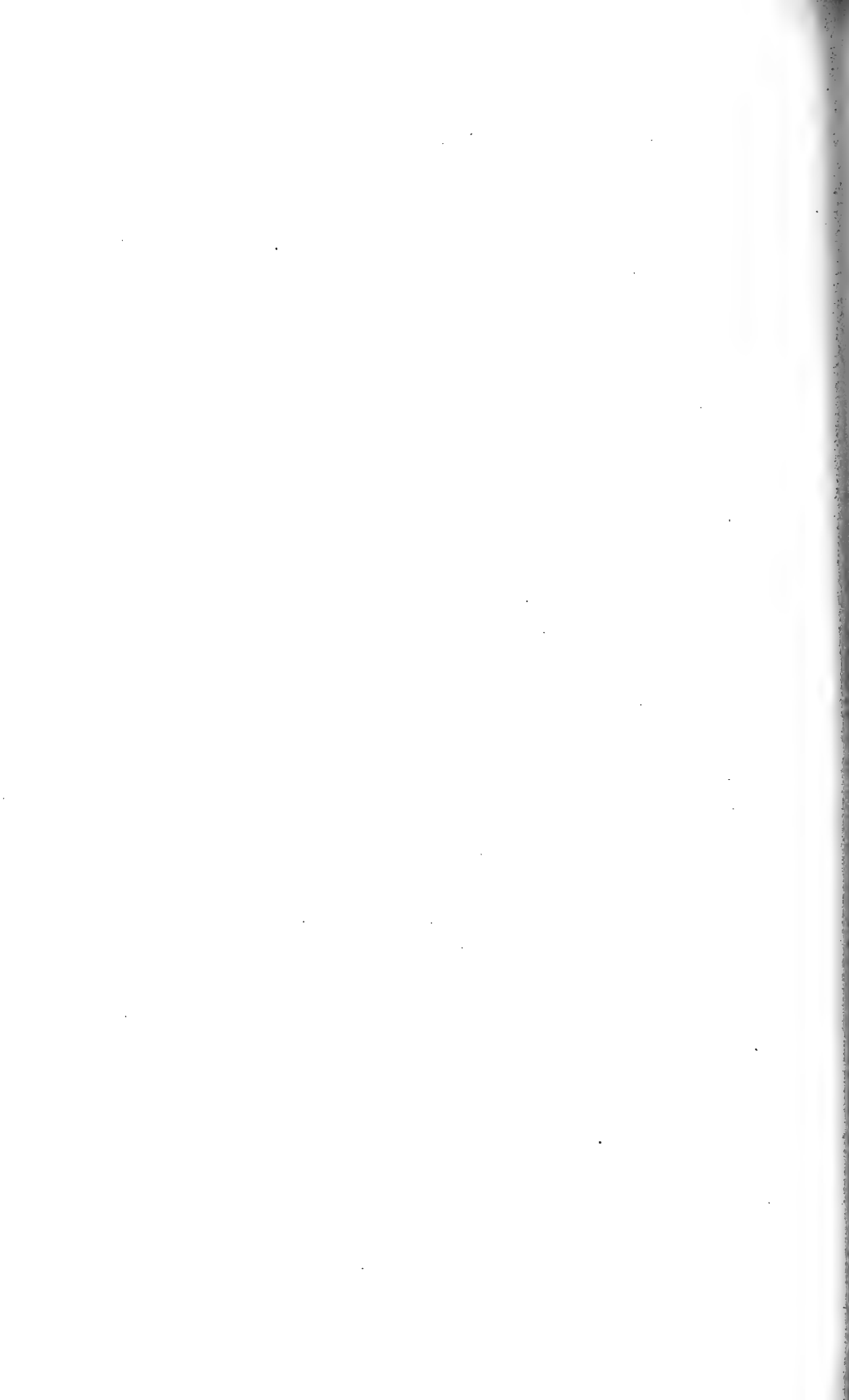




24410









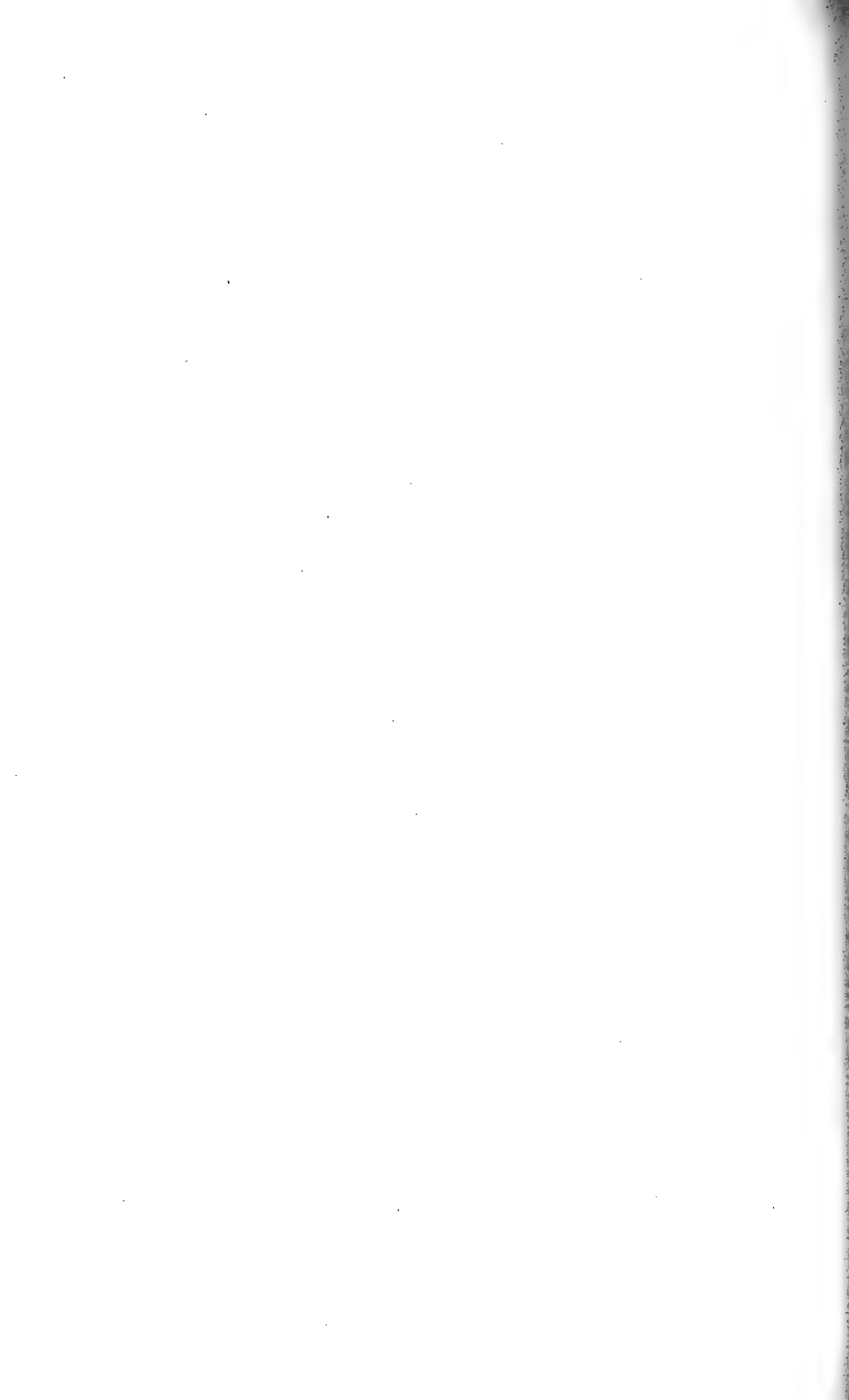
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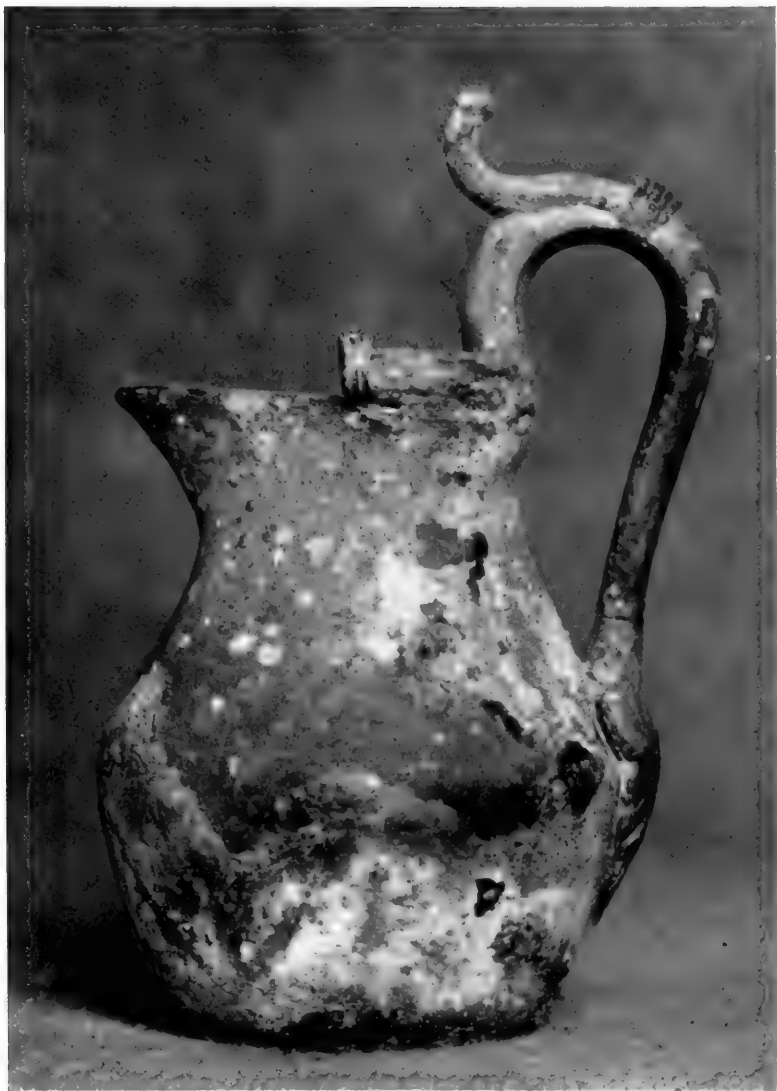




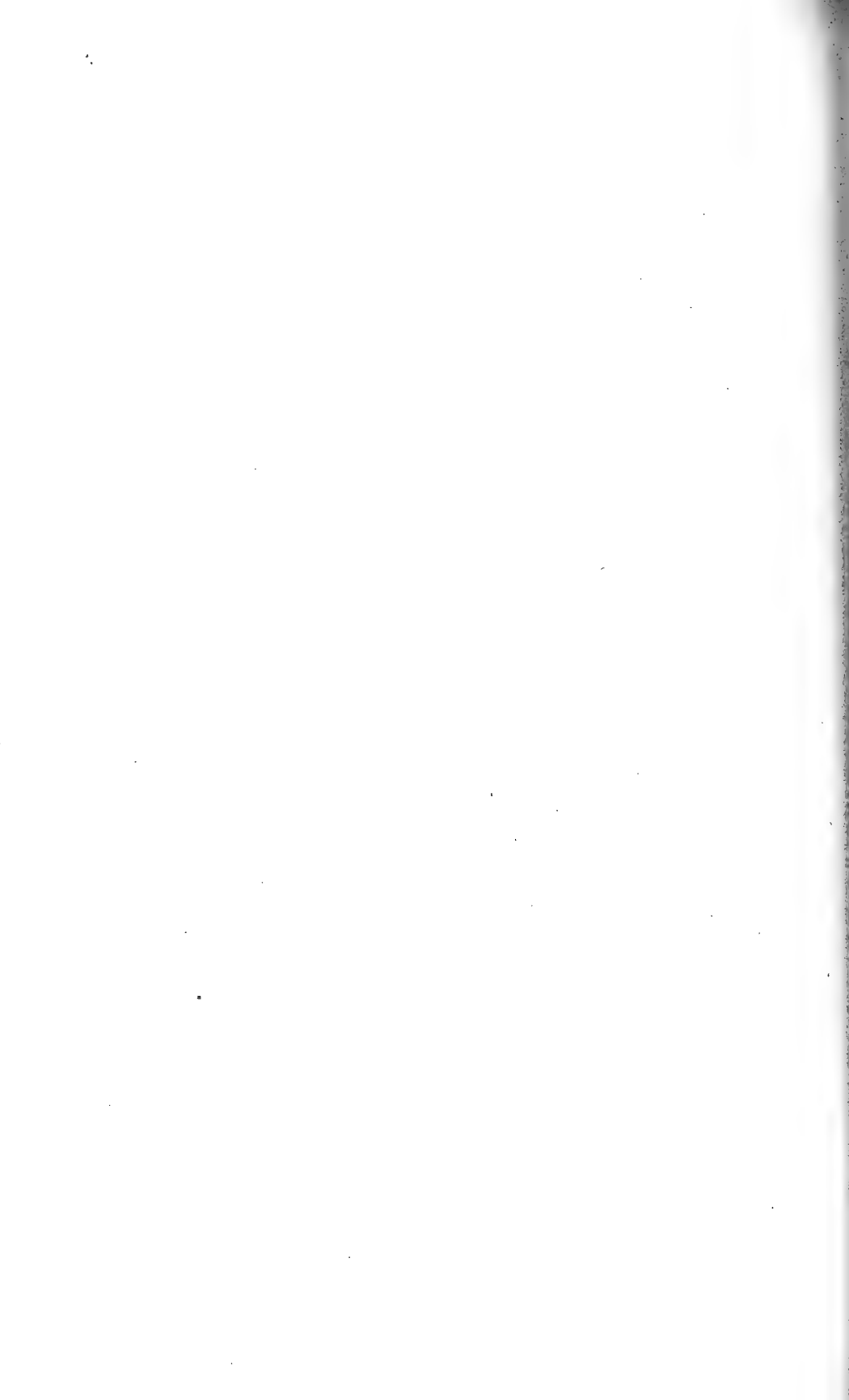


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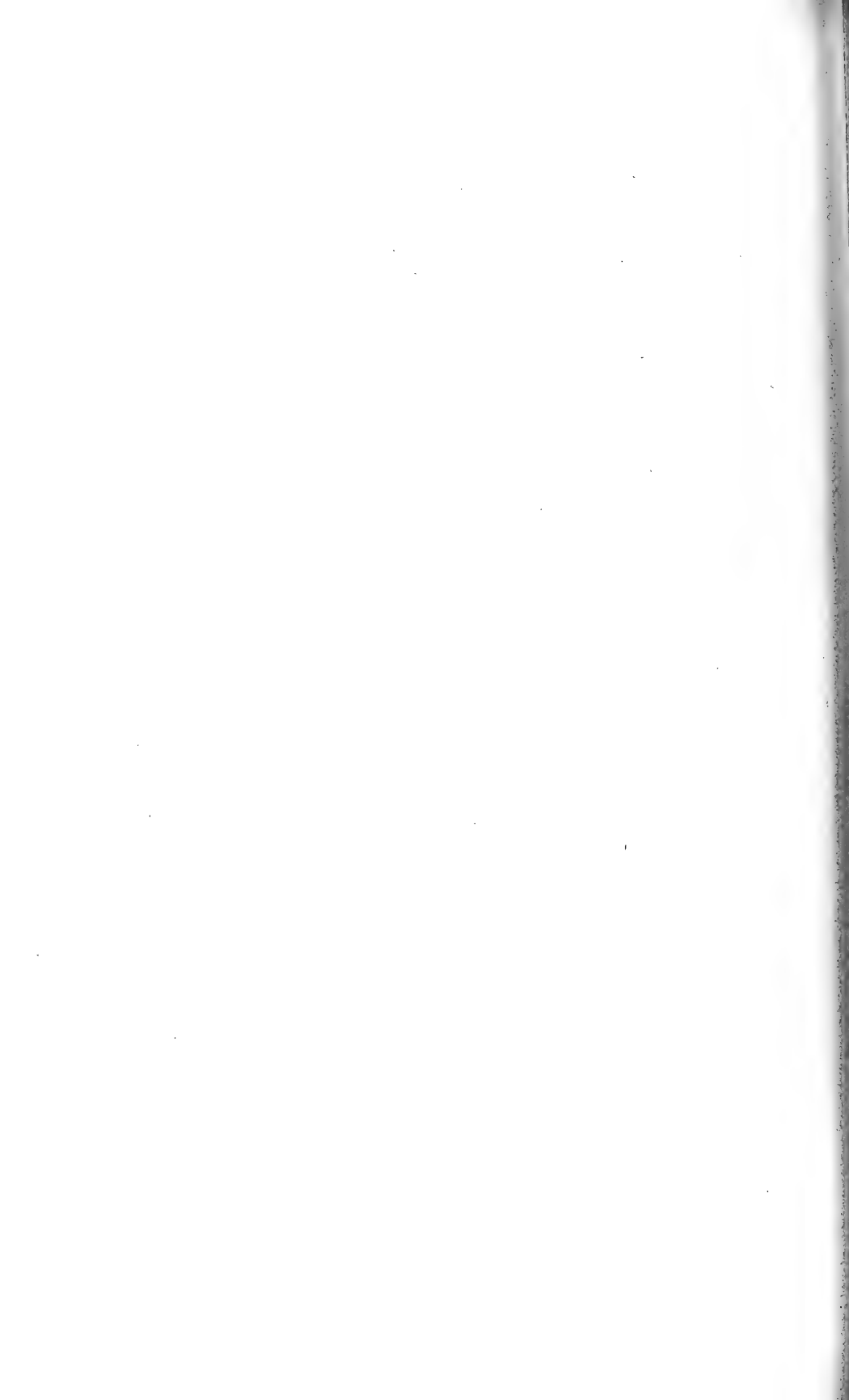


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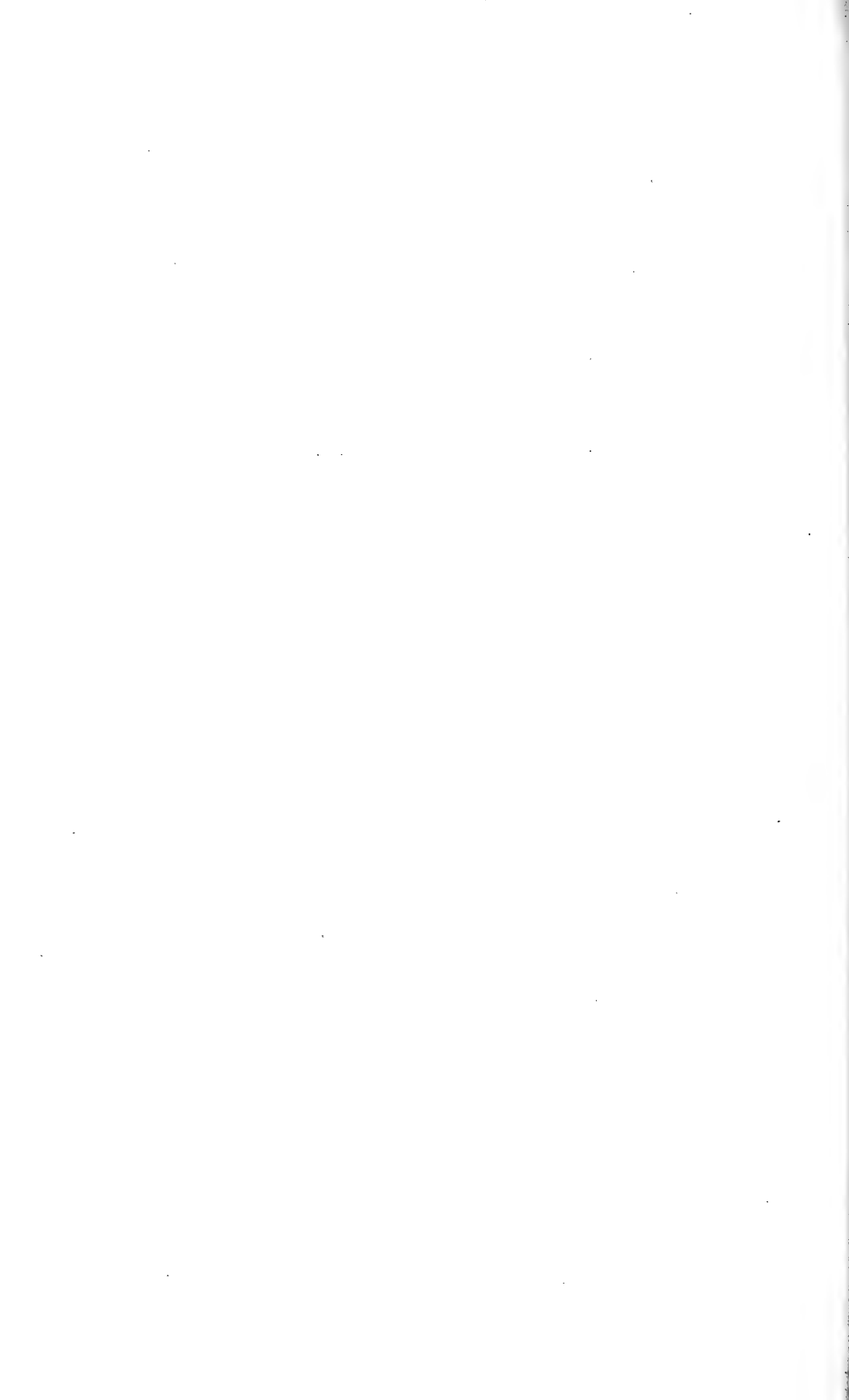


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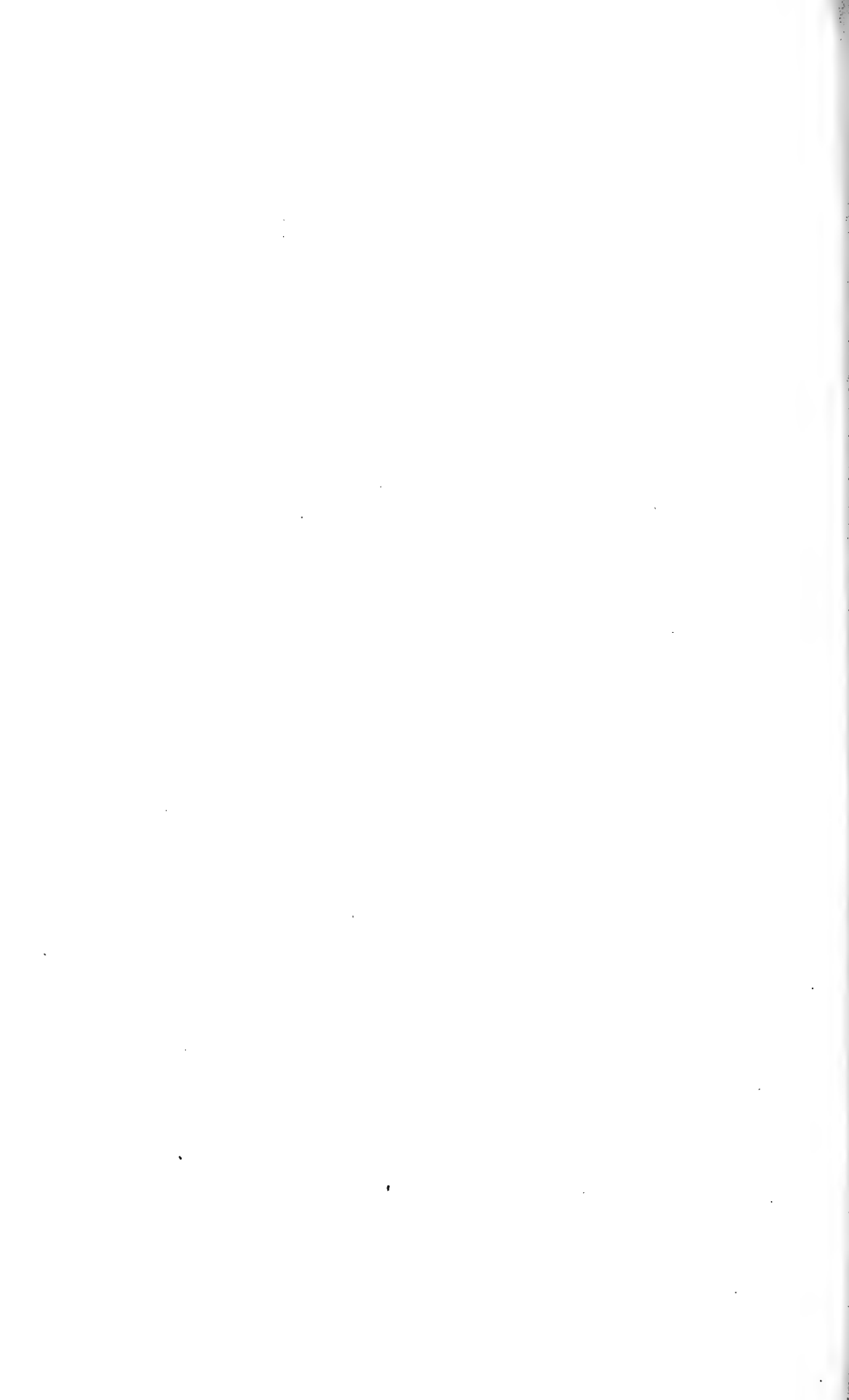
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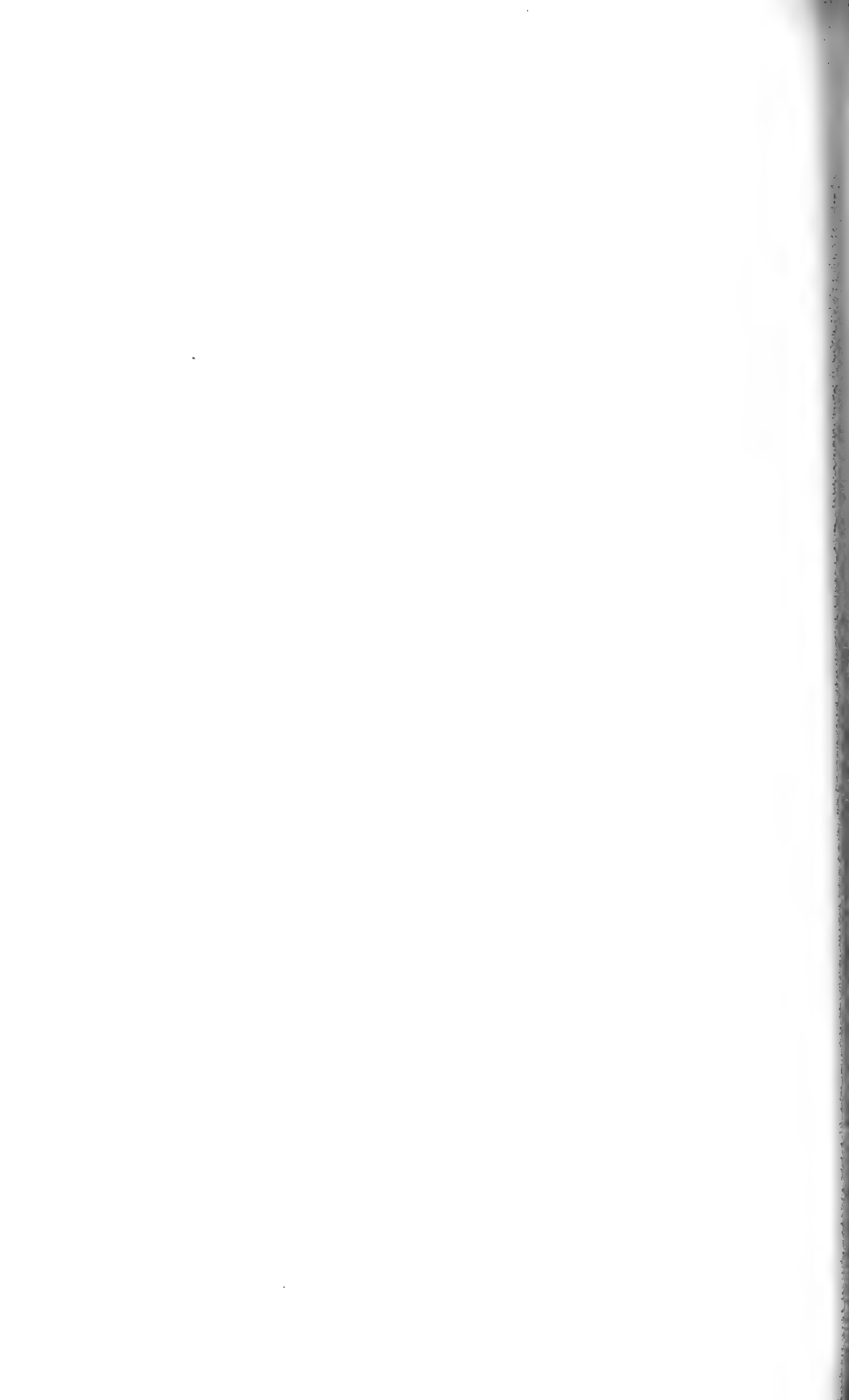


24409





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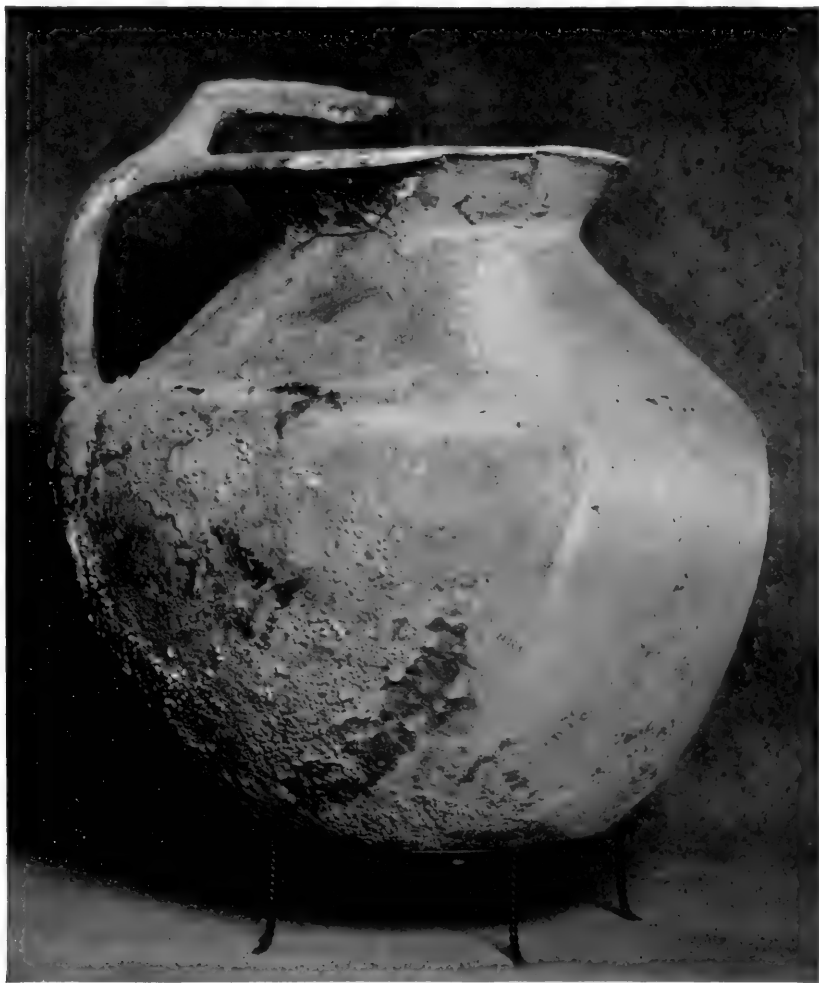






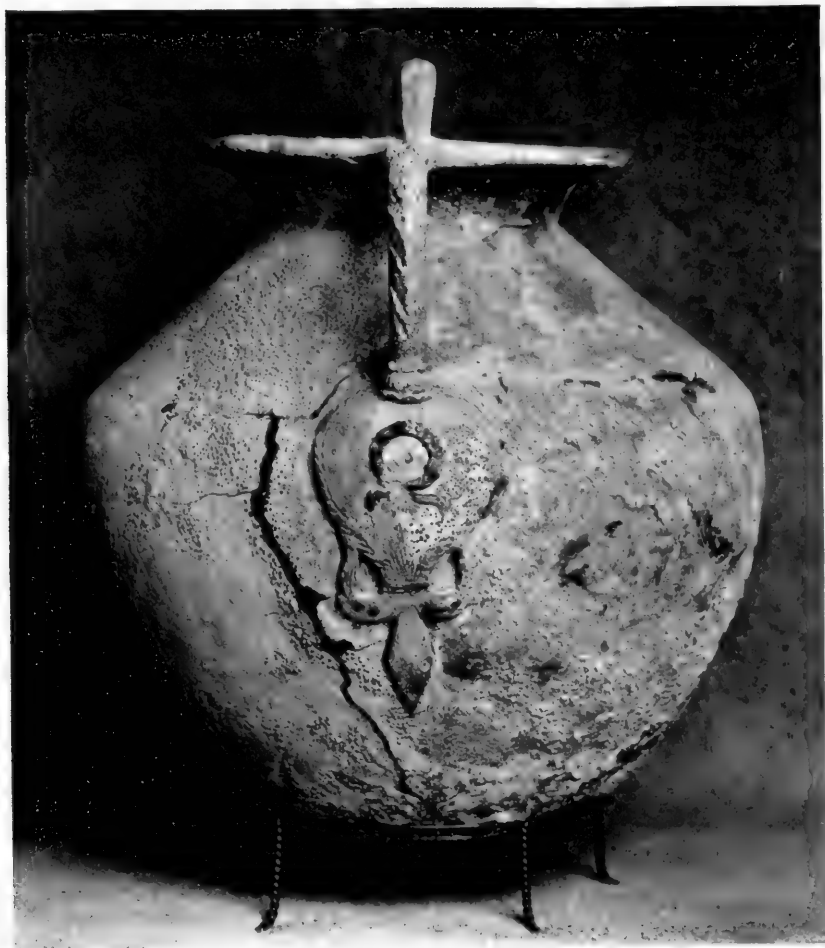
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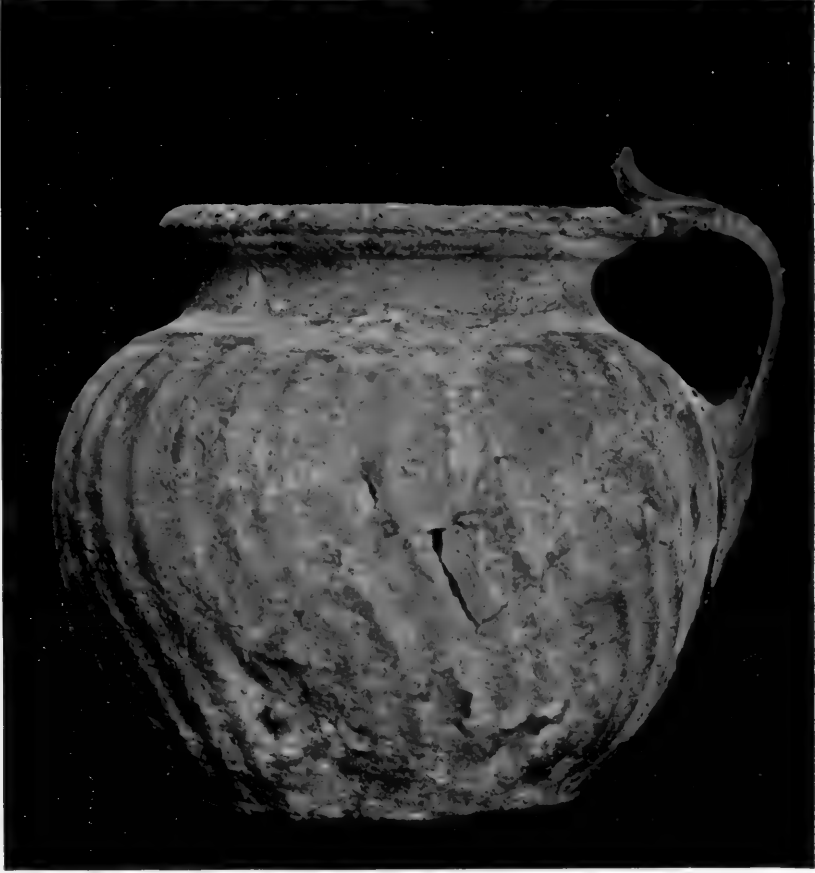
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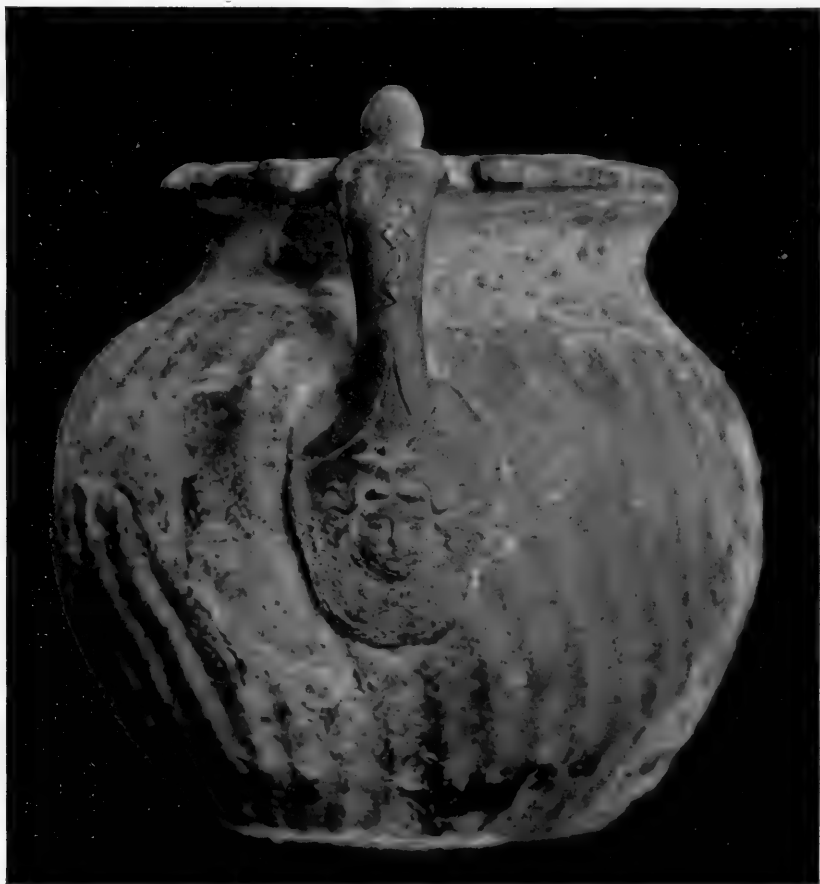




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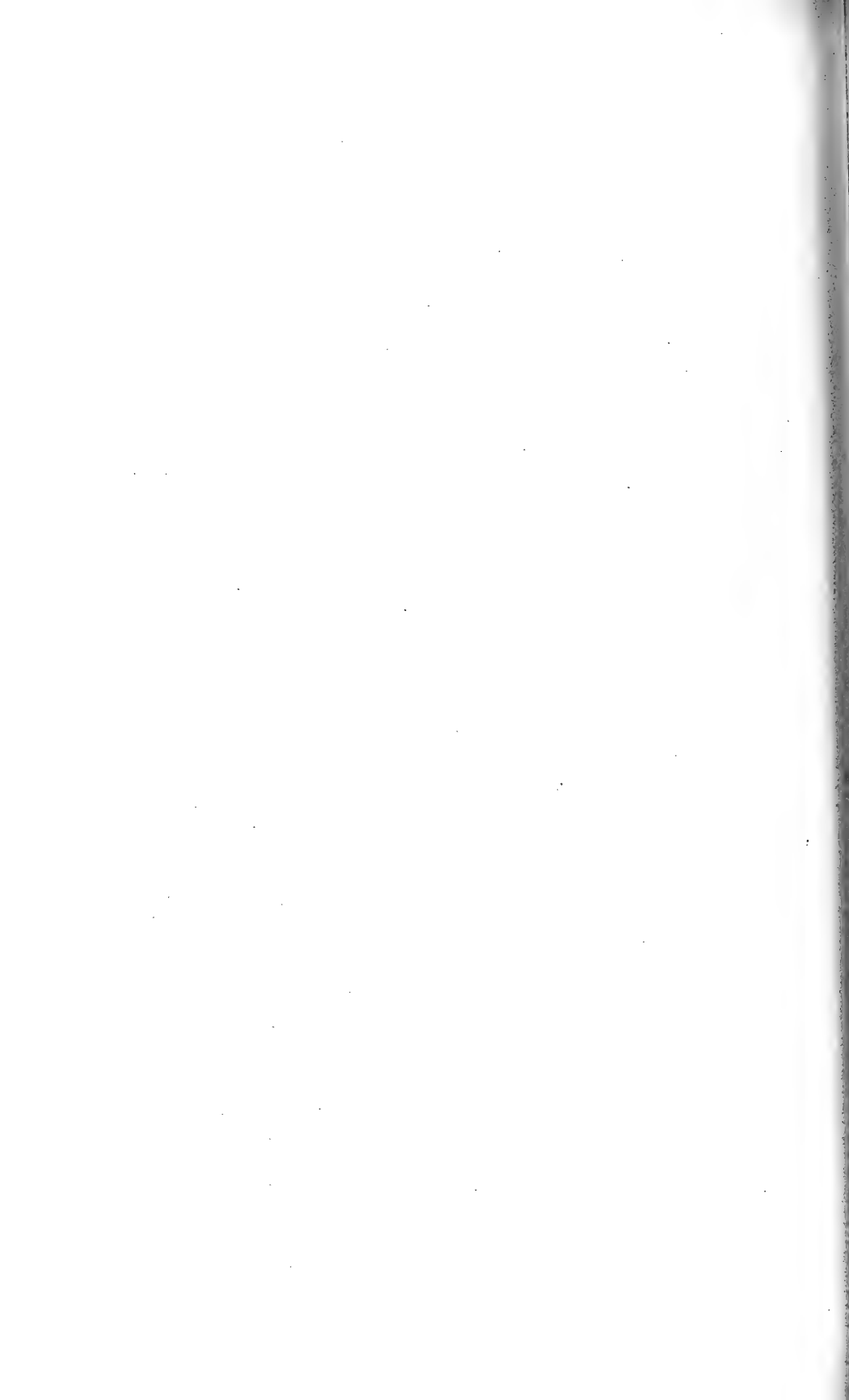




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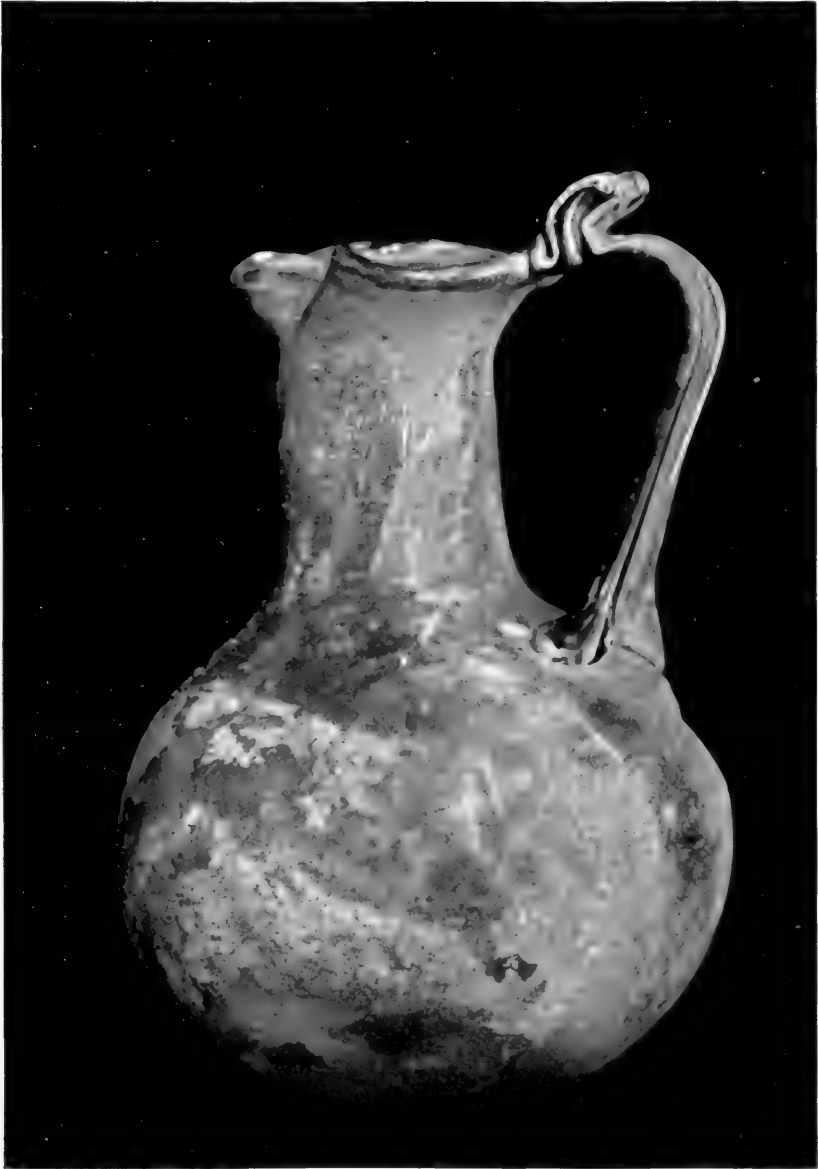






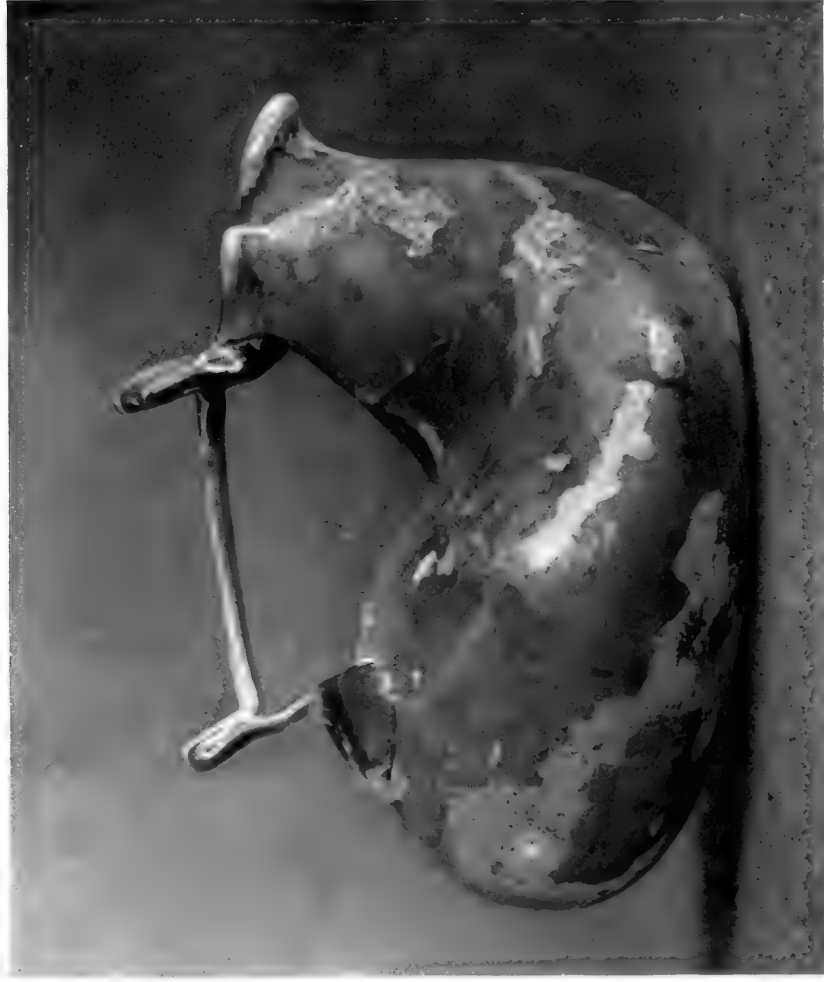


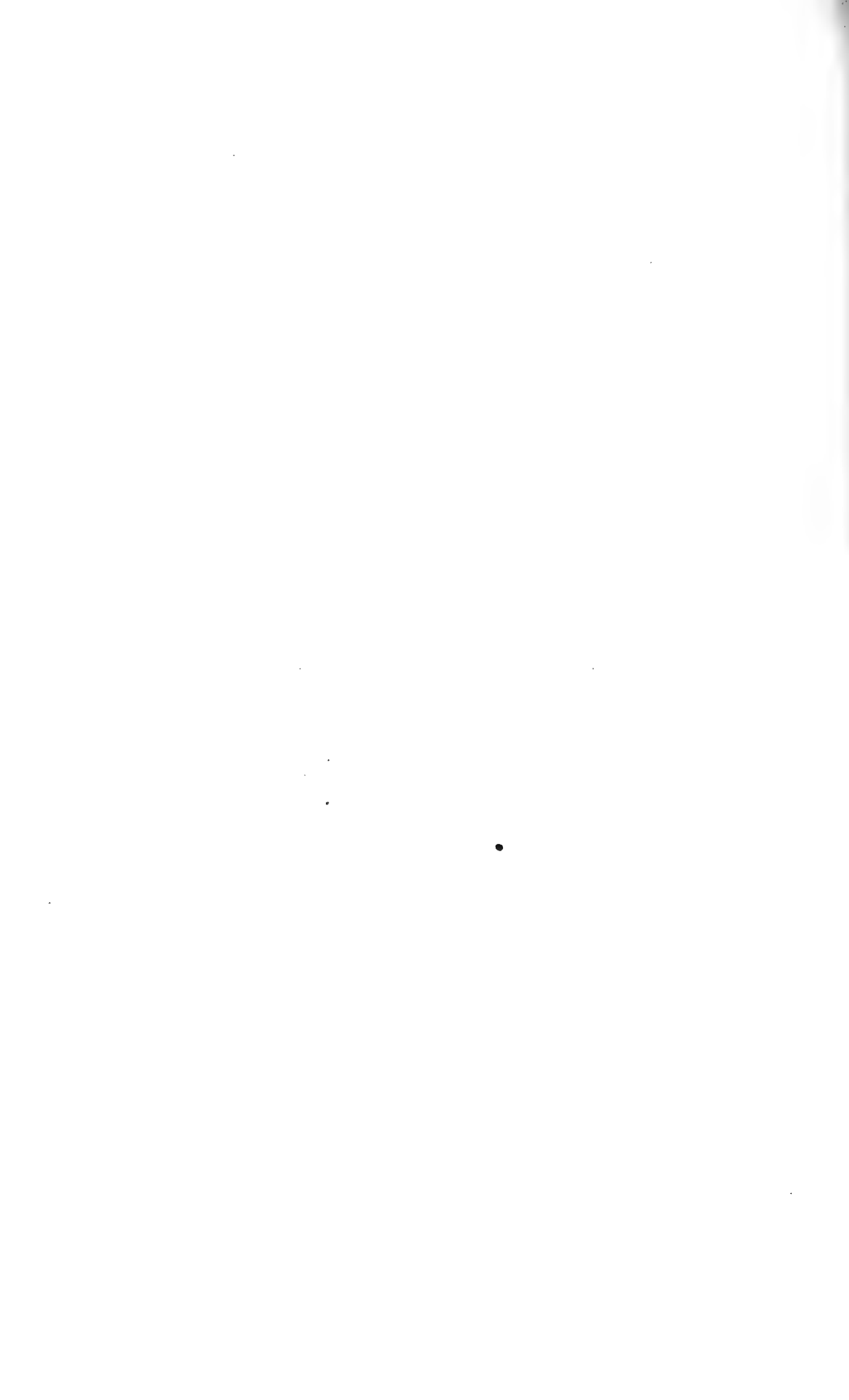














24669

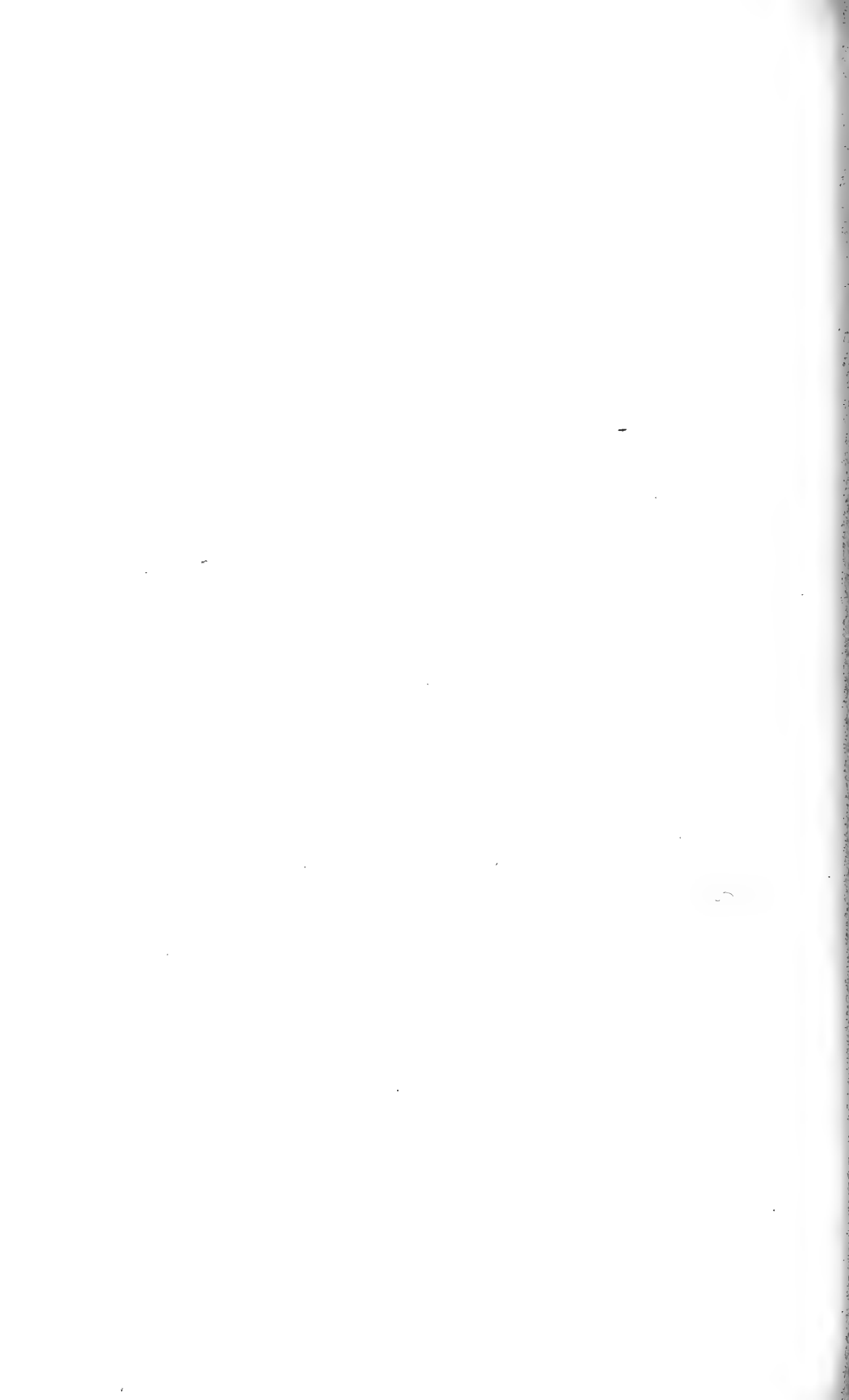








24669







24670



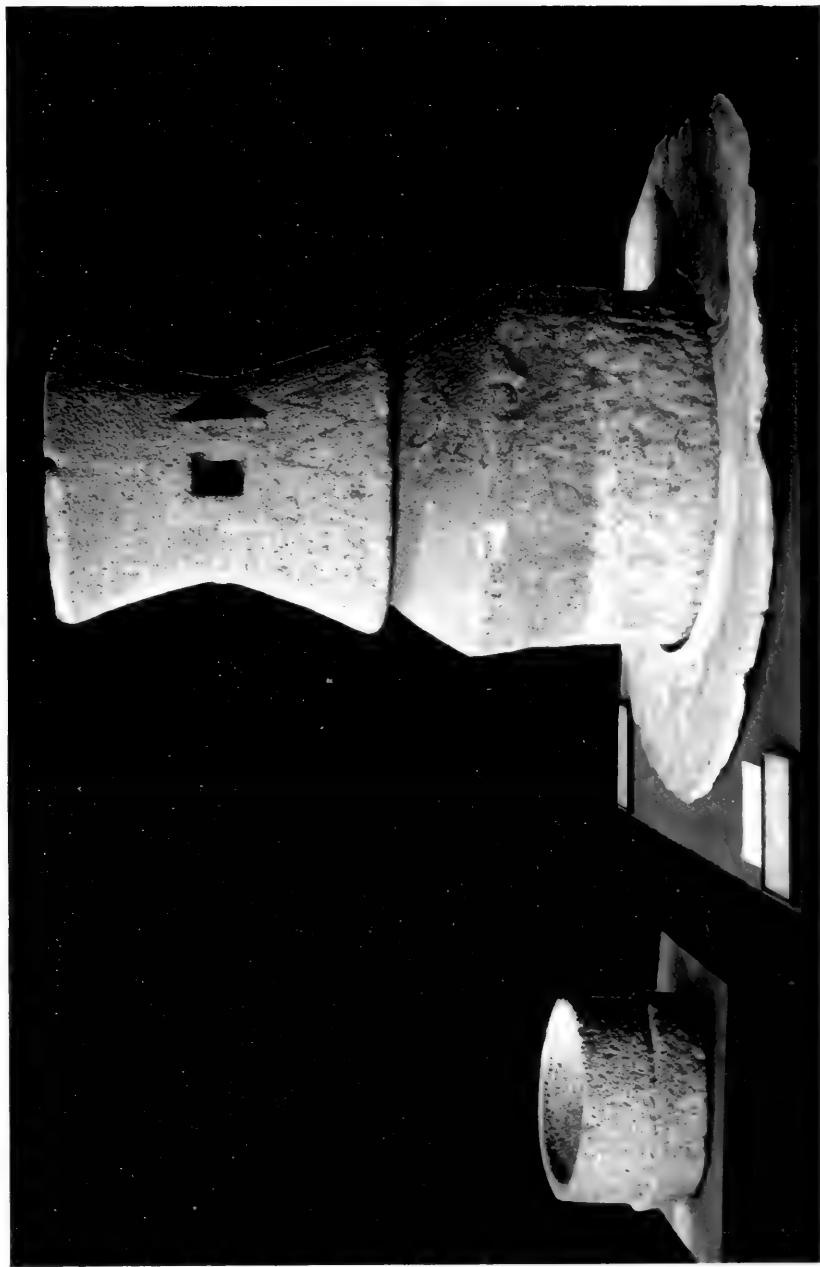






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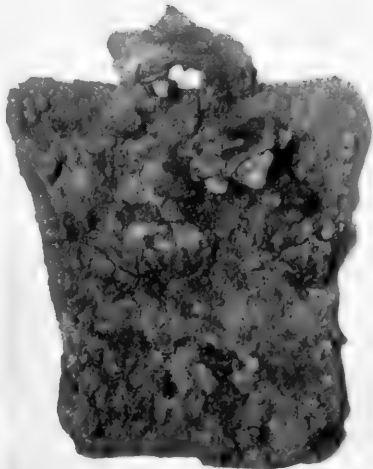
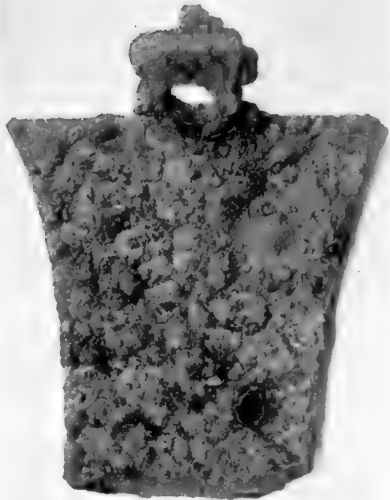
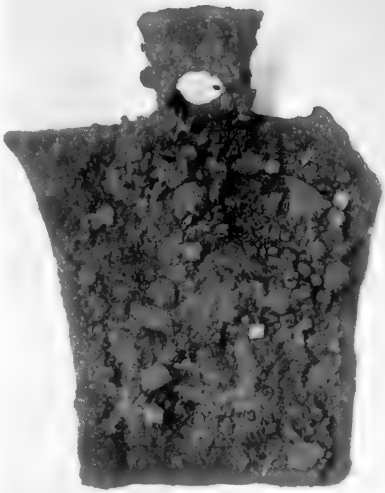


31726

31699



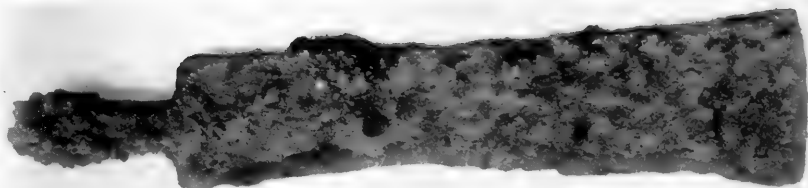




26150  
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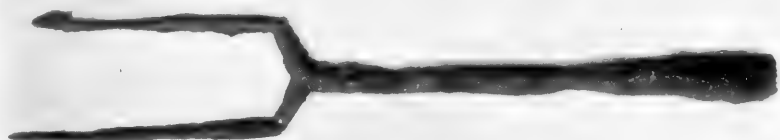




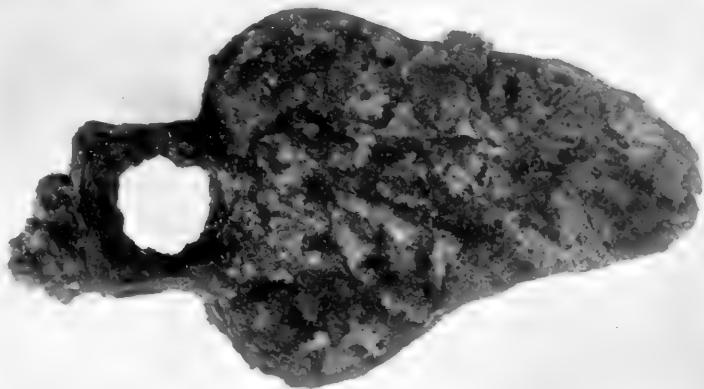
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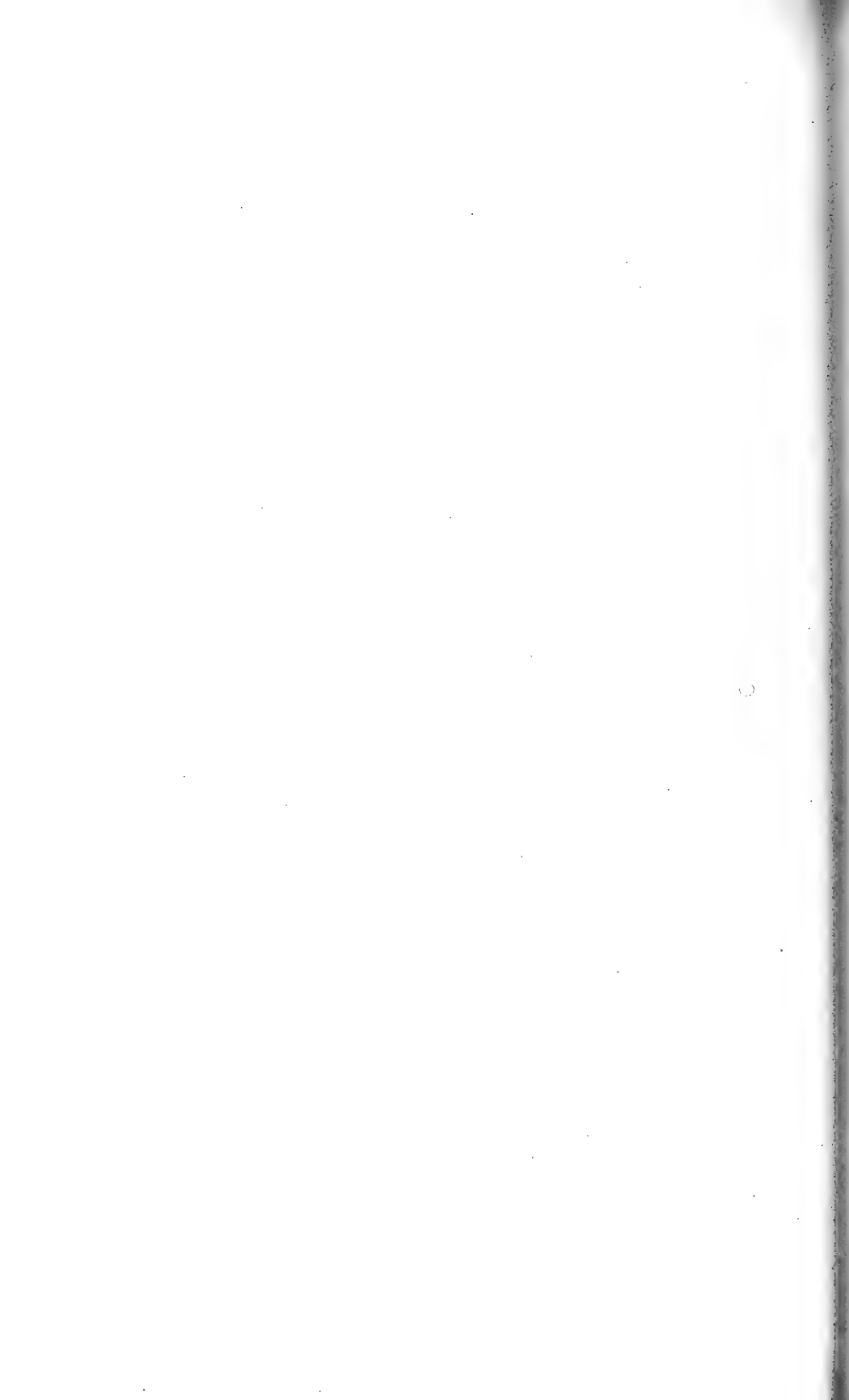
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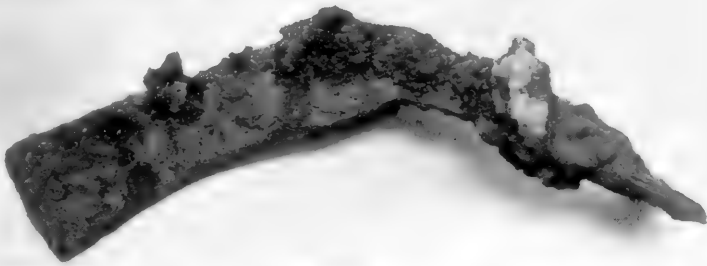
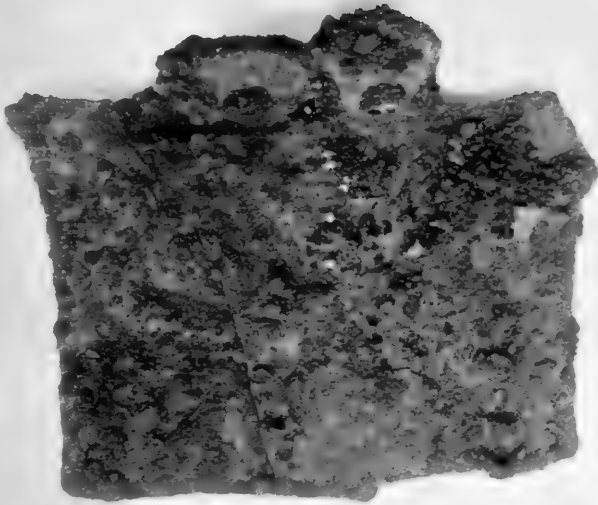


26161



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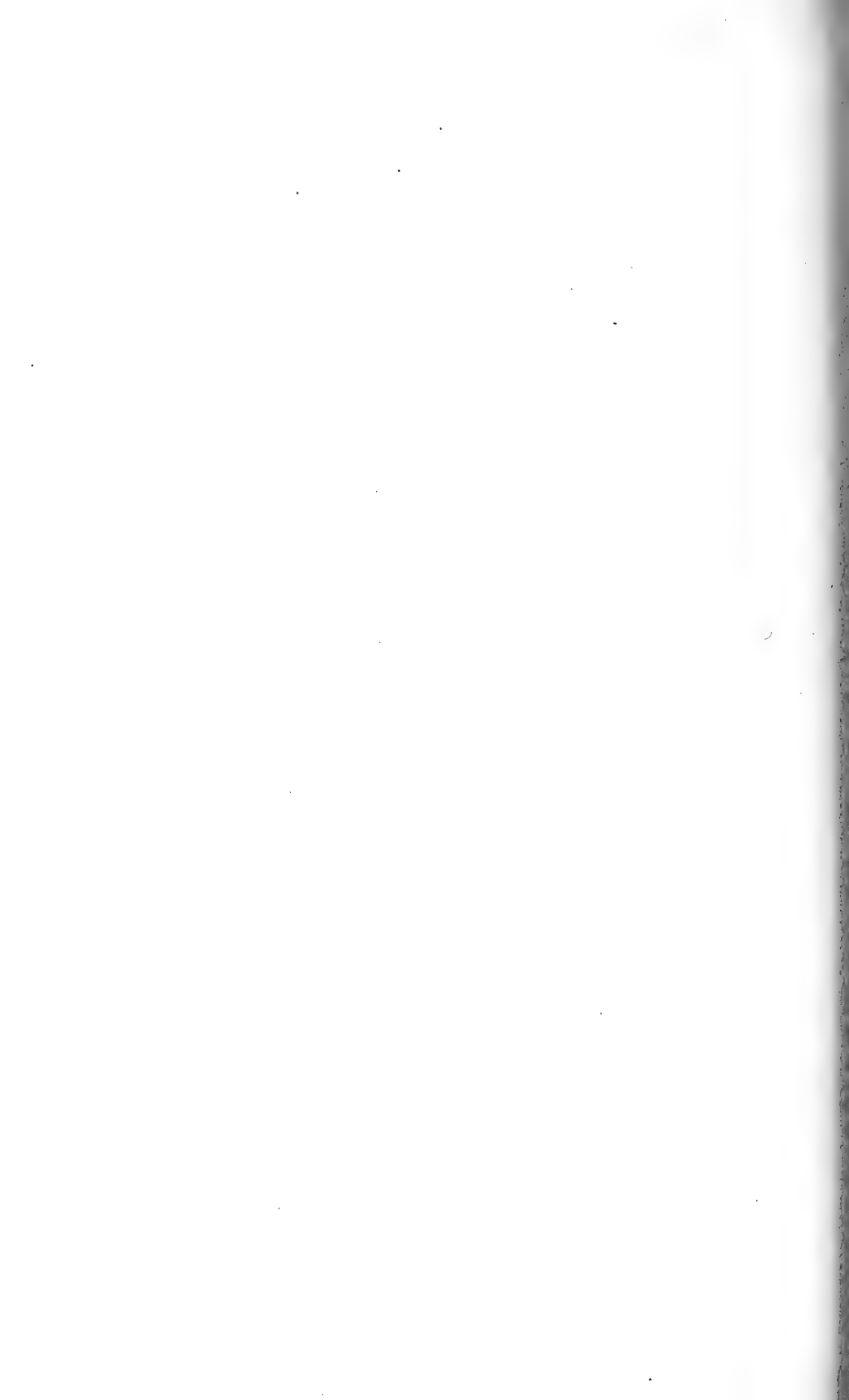




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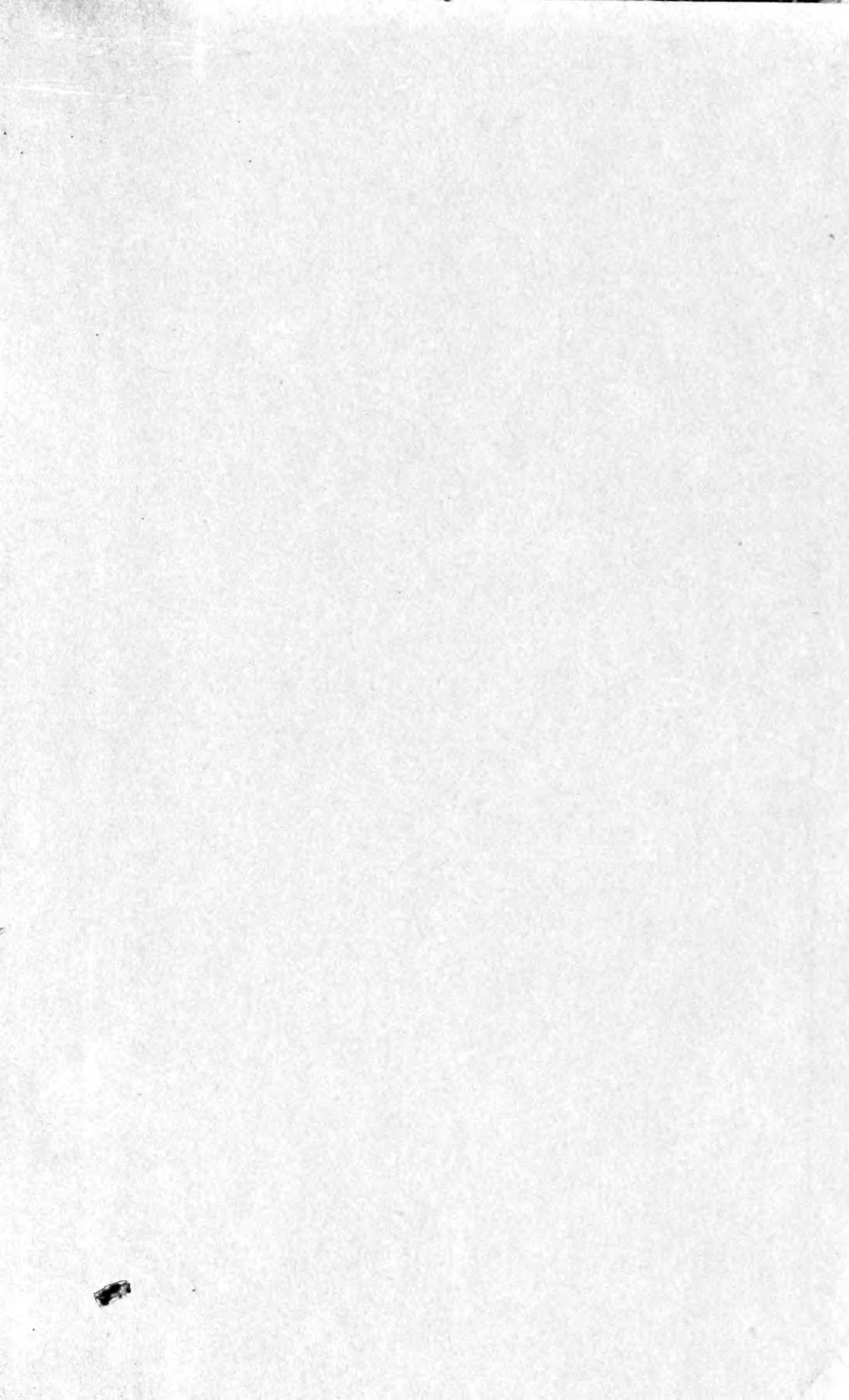












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