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FURTHER STUDIES IN POMPEIAN ARCHAEOLOGY.

ALBERT WILLIAM VAN BUREN.

(PLATES 58—60).

IN the seven years that have elapsed since the publication of my *Studies in the Archaeology of the Forum at Pompeii*¹ repeated visits to that place have given rise to further observations and interpretations, having to do in part with the Forum and in part with the rest of the city. In the interest of the general study of the site, it appears desirable not to wait longer but to publish a group of these contributions at the present time: thus these notes may do their share toward rectifying and amplifying currently accepted ideas, and other scholars will be able to utilise them in a broader connection.

I. — THE BUST OF JUPITER FROM THE CAPITOLIUM.

The time has arrived for a correction of the views hitherto expressed in print as to a well-known work of art, the marble head of Jupiter from the Capitoliium at Pompeii². I believe attention was first called to its technical peculiarities by J. Sieveking, in the text to Brunn-Bruckmann no. 574; but his account is not altogether accurate. The head cannot possibly have fitted the colossal torso published by me in *Memoirs of the Amer. Acad. in Rome*, II, 1918, pl. 23, fig. 2, as the region of the right shoulder is represented in both works. Although the lower left part is modern plaster restoration, the suggestion that we have here the result of modern reworking of part of a statue for purposes of museum exhibition is discredited by the character of the lower surface of the right side, which appears ancient: the surface is left rough, and not smooth as in Trajanic busts. All the side locks and the upper part of some of those above the forehead are of stucco; traces of the metal framework for the stucco are visible. Another remarkable example of this technique of

¹ *Memoirs of the American Academy in Rome*, II, 1918, pp. 67-76.

² MAU-KELSEY, *Pompeii*, 2d. ed., fig. 22 and frontispiece to MAU, *Führer durch Pompeji*, 5te Aufl., 1910.

piecing out marble with stucco, which was frequent in Alexandrian sculpture, though usually the stucco parts have perished in the course of time, and also the general artistic tradition in which these heads belong, have been treated by J. Six¹. The great waving locks of a somewhat similar head, or rather mask, the Otricoli Zeus, were completed, unconvincingly, by modern restorers². In the absence of definite information as to the condition of the Pompeian head when found and the measures that were taken to restore it, the possibility at least may be suggested, — and I believe it to be more than a possibility, — that its noble locks, certainly Greek in feeling, are in fact ancient; if so, this familiar representation of the Father of Gods and Men acquires an additional interest.

II. — MORE FRAGMENTS OF THE GREAT INSCRIPTION OF THE FORUM PAVEMENT.

In my previous article³, attention was called to the scanty remains of a great pavement inscription which once ran from the west to the east side of the Forum. Its dimensions were impressive. The height of the letter Q, still *in situ*, there published, is m. 0.30, and its width, exclusive of the tail, is m. 0.32. The second letter, on a relaid slab⁴, is not L but E, and is preserved for only about its lower half, the stone having been cut off at that point; a bit of the right end protuberance of the middle hasta is visible, as was first observed by Miss A. Frantz of the party from the American Academy in Rome who visited Pompeii in March 1925; the preserved portion measures m. 0.13 in height, and when intact this letter may well have equalled the height of the Q; the width of the bottom bar is m. 0.15⁵. The slab of pavement still *in situ*, with the Q, measures m. 3.12 × m. 0.71.

¹ *Journal of Hellenic Studies*, XLII, 1922, pp. 31-35.

² G. DICKINS, *Hellenistic Sculpture*, p. 24, however, thought that some of the ancient stucco additions to this example were still visible; he added to this general class of head one from Nemi, now in Nottingham Castle (WALLIS, *Catalogue*, no. 832).

I have been unable to convince myself of the correctness of Dickins's observation with regard to the Otricoli Zeus; in its present state it would not be possible to be sure of all details without a thorough cleaning of the surface and practically a microscopic examination; but my own observations are as follows:

The whole back of the head, and the back part of the locks, except at the base, is modern, and of stucco.

As to the locks above the upper, left part of the God's face, which are probably those meant by Dickins, it is not possible to affirm positively that they are not of stucco; I believe however that they are of marble, original, and broken off from the main block; there is a modern patch of marble at the left temple.

Of marble and of one piece with the face is the inner part of the God's right group of curls, for the entire

side of the face.

The rest of the outer portion of the locks, on both sides of the face, is modern and I believe of marble; this includes the extreme left side of the face. All the beard is original, of marble, and of one piece with the face. The upper left eyelid and the tip of the nose are restored in marble, and the neck, bust, drapery, and the lower part of the locks, are also modern marble work. There has apparently also been considerable cleaning of the original surface, and I think some piecing out and smearing with stucco or other preparations on parts of the modern marble as well.

Very noticeable is the difference in spirit between the ancient and the modern portions of the locks of hair.

³ Pages 70 f.

⁴ Page 71, note 3; I am credibly informed that this piece was formerly kept in the storerooms of the excavation, whence it was brought to its present place.

⁵ This is in accordance with the usual practice at the beginning of the Empire, as observed by AEM. HUEBNER, *Exempla Scr. Epigr. Lat.*, p. LX.

With these two letters however our material for a knowledge of the great inscription is not exhausted. The cutting for another of its letters can be observed on one of the slabs of worn limestone pavement now stored in a house near the south-east corner of the Forum, Reg. VIII, Ins. iii, No. 31. The letter is a V; its bottom is broken off, but when intact it must have measured not far from m. 0.30 in height; its width is m. 0.32, dimensions which correspond exactly with those of the Q, and at least approximately with those of the E. The cutting for the V is on a slab m. 0.25 thick and m. 0.81 wide, which has been broken starting from the lower part of the letter, but now measures m. 1.25 in height; what appears to be a chipped corner of the top of the slab is preserved; the distance from this to the top of the V is almost exactly one meter; whereas the distance from the bottom of the slab still *in situ* to the foot of the Q is likewise almost exactly one meter. The agreement in dimensions seems conclusive for assigning all three of these letters to the same monumental inscription.

My friend the Ingegnere L. Iacono, whose keen observation of things Pompeian is well known, kindly informs me that he has discovered still another letter of the same inscription. It is to be seen in the extreme right intercolumniation (as one enters) of the front of the Capitolium, in a broken slab which was used in a restoration which the Ingegnere Iacono considers ancient. There is preserved the upper part of an F or E; I cannot say if it is the other half of the second letter, described above.

III. — THE ORIGINAL PORTA MARINA AND THE ADJACENT PORTION OF THE CITY WALL.

The manuals recognise quite correctly that the present form of the Porta Marina is due, first to the rebuilding of the gate proper in the second century B. C., and then to the addition of the inner rooms and the long arched passage probably in the early years of Sulla's colony; the remains of private structures immediately outside the gate naturally date from the last period before the eruption.

I believe however that it has escaped observation up to the present time that the gate as rebuilt incorporated most of the essential elements of the original structure of Sarno travertine, resembling the Porta di Stabia and the early period of the Porta del Vesuvio; these are still in place, embedded in the Sullan masonry; the photographs (Pl. 58, Figs. 1 and 2)¹ will serve better than a description. Though some of these blocks may have been relaid, they presumably occupy about the same position which they had from the beginning. Almost all the front part, to right (South) of the entrance, is constructed of Sarno travertine and is original: this includes the niche; the *aedicula* within the niche still

¹ The rod in the photographs is three meters in length. These pictures are due to the exceptional skill

and enthusiasm of Signor Cavaliere Giuseppe Giordano, Direttore dei Telefoni, Torre Annunziata.

retains its stucco and therefore its structural character cannot be determined. Probably the corresponding part to the left (North) is original. This gate was excavated in the years 1862 and 1863, and its appearance in the years immediately succeeding is given, roughly to be sure, in the figure on page 315 of G. FIORELLI, *Descrizione di Pompei*, (Naples, 1875). Here we see the ancient coating of stucco still in place; and this furnishes us with the explanation why the identification of these venerable remains of the Samnite or possibly the Etruscan period should have been so long deferred: here as in so many other parts of Pompeii, the disintegration and falling of the stucco facing has revealed the structure of the wall beneath.

Further remains of the Sarno travertine blocks of this early wall, some of them, if I am not mistaken, still in position, and still partly concealed by their stucco facing which seems to have been applied in the Roman period, are to be seen for a stretch of m. 1.60 beginning at a point m. 0.88 north of the exterior of the gate structure, *i. e.* of the side passage for foot-passengers (Plate 58, Fig. 3). Against them abuts the back wall of the shallow room which flanks the left side of the road; the lower part of this wall itself is constructed in *opus reticulatum*, but from a height of eight feet above ground it consists of Sarno travertine blocks similar to those in the old wall, but relaid, to serve as a retaining wall for the material behind; they were doubtless found in the vicinity and used for their present purpose in connection with the modern systematizing of the excavations.

When M. Della Corte¹ discussed the fortifications of the west and south-west slopes of the city, he failed to observe the elements above described, or to recall Nissen's account² of those portions of the wall which in his day (before 1877) he had been able to trace between the Porta d'Ercolano and the Scuola Archeologica. Della Corte's theory, that this general stretch of the hill was protected by a terrace wall rather than by free-standing fortifications, is probable in itself; but precisely how the actual works of defence at the original Porta Marina were disposed, we still lack the evidence for determining, though future excavations may remedy this deficiency in our knowledge.

IV. — THE PORTA D'ERCOLANO AND THE ETRUSCAN TOWN-PLAN.

This leads to a consideration of the theory developed by A. Sogliano³, that there was originally no entrance at the Porta d'Ercolano, and none in fact at that point — if I understand his meaning — earlier than the present structure. The latter supposition at least is not tenable in view of the evidence afforded partly by the alignment of certain tombs outside the gate, and still more by the manner in which the well-built stone structure of the wall is interrupted: the original gate lay a few feet further to the west than the present

¹ *Rendiconti dei Lincei, Classe Scienze Mor., Stor. e Fil.*, Ser. V, vol. XXII, 1913, pp. 275-279.

² *Pomp. Studien*, pp. 458, 466.

³ Naples, *Atti, Nuova Ser.*, VI, 1918, i, pp. 158 f.

one. Besides, the presence of an extensive Samnite necropolis in the region to both right and left of the highway as one goes from the Porta d'Ercolano toward the country¹, creates a strong presumption in the same sense.

While we do not possess the elements for appraising the date of the original gate at this point, still the above-mentioned evidence for the presence of a gate here in pre-Roman times tends seriously to weaken the force of Sogliano's theory² as to the Etruscan street-plan of the city: namely, that the *cardo* was the Strada Stabiana, and the two *decumani* the Strada Nolana (for which he assumes a gate at the west end as well as the present one at the east) and the Strada dell'Abbondanza. When writing his article, the distinguished Pompeianist did not have access to my proposal³ to recognise in the Strada Consolare, the Strada degli Augustali, and the southern part of the Strada Stabiana, the line of a trade-route antedating the Etruscan town-plan; I once more recommend this suggestion to the consideration of scholars, in the belief that it offers the solution of several difficulties and sheds some light on early conditions at this site. My suggestion that the Via di Mercurio was the Etruscan *cardo* had of course been advanced before, as the idea is fairly obvious; Sogliano⁴ appears to have rejected it because the north end of this street abuts against a tower, and not a gate, in the city wall; and he might have added that there is no gate at its southern end either; but it should be remembered that both the tower to the north and the house to the south date from a period far later than that with which we are here concerned; the builders of the tower would have chosen the position as commanding this broad thoroughfare. If there was originally a gate at each end of this *cardo*, topographical considerations would have made it ceremonial or decorative rather than utilitarian in character; the tendency would have been for it to fall into neglect and eventually to be blocked up; the difficulty in imagining this is certainly no greater than that involved in Sogliano's supposition as to the western end of the Strada di Nola⁵.

V. — THE APSE ARCH OF THE « OFFICES OF THE DUOVIRI ».

The easternmost of the three public buildings at the south end of the Forum is now conspicuous for the high arch, in large part preserved⁶, which separates its apse from its

¹ FR. VON DUHN, *Italische Gräberkunde*, I, 621-623, with references to earlier accounts. Three groups have been found.

² *L. c.*, pp. 157-159.

³ *Class. Journ.*, XV, 1919-1920, pp. 170 ff., 404 f.

⁴ *L. c.*, p. 157.

⁵ NISSEN, *Pomp. Studien*, p. 466, states that he saw at a point between the Scuola Archeologica and the Porta d'Ercolano, a stretch of wall ca. 12 m. long consisting of Sarno travertine blocks; eleven courses with clay mortar were visible. In this was a gate, which later was blocked

up with lava rubble; it might also have been broken through, when these houses were built (*Das zweite Stück, ca. 12 M. lang, besteht ausschliesslich aus Kalksteinquadern: 11 Schichten sichtbar mit Lehmörtel. In demselben befand sich eine Pforte, die später mit Lavabruchstein zugesetzt ward; sie kann übrigens auch gebrochen sein, als diese Häuser erbaut wurden*). Until this stretch is re-excavated and freshly examined, it seems hazardous to attempt to deal with it. Possibly the «gate» was a postern near a tower.

⁶ MAZOIS, III, pl. 38, shows that the top part was

main part in a manner suggestive of the basilica type of Christian church. This when intact must have been one of the most impressive examples of brick arching to be seen at Pompeii. Repeated and careful ocular observation from the ground, at intervals of six months or a year, has convinced me that it showed a normal form of semicircular arch, consisting of two concentric half-circles of tiles, the outer set of which however was not solid but merely faced the two surfaces of the wall. The inner series of tiles has been uniformly removed or destroyed, probably by the survivors of the catastrophe, who discovered that there lay here ready to their hand a quantity of large pieces of tile suitable for use in their own building operations. The photograph (Pl. 59, Fig. 1) shows that this operation has exposed the concrete body of the concavity of the arch, as distinguished from its facing of tiles; if we allow one foot or more for the tiles that were once in position, the result will be the original circle which took up the lines of the wall-ends on which the arch rests. The circle of tiles which is seen at present consists of the original second circle, which reinforced the circle now lost, but on the surfaces only of the walls; below the springing of the arch, the facing-tiles of the walls were hacked away to an amount of fifteen courses on the east wall and fourteen courses on the west wall.

The result has been to give the impression to the spectator that the curve of the arch was continued for more than 180°, that is to say, that we have here a "horse-shoe arch"; and in fact this has been called the earliest known example of the type to be found in Italy¹. That this was not however the intention of the makers appears to be established by the observations summarised above.

VI. — THE FOUR SMALL NICHES IN THE CHALCIDICUM OF THE BUILDING OF EUMACHIA.

The peculiar plan of this structure is shown in the handbooks²; there is a symmetrical arrangement of the large curved niche and the two small rectangular ones on each side of the great door. Our Plate, 59, Fig. 2, shows the portion of the wall to the north of the door. The small niches measure m. 1.15 in width, and their depth to the back wall is about m. 0.50. The peculiarity of their plan — a shallow base behind, and a tripartite arrangement in front — is probably due to the necessity of affixing the bronze inscriptions in the position now occupied by the cast of the *elogium* of Romulus, as shown in the picture, while at the same time a statue was to be placed upon the base.

There are clear traces that the back walls of the niches were veneered with slabs of marble; hence we cannot think of reliefs in this position. Holes for nails which recur at

already destroyed at the time of excavation; it doubtless protruded above ground in the period immediately following the eruption.

¹ E. T. DEWALD, in *Amer. Journal of Archaeology*, XXVI, 1922, pp. 321 f.

² E. g., MAU, *Pompeji*, 2d. ed., 1908, p. 106, fig. 51.

uniform positions over the brick surface, as well as traces of mortar and the characteristic marble wedges for attachment, show that the whole front surface of the wall was veneered with marble; at the bases in the niches, the bronze inscriptions would have been attached to this marble surface.

As is known, the excavators found these four small niches empty, but two bronze inscriptions testify to two personages who were here commemorated¹. The second niche from the left (of the spectator) contained a statue of Romulus, for the inscription consisting of the *elogium* of that hero was discovered where it had fallen near that niche²; since the inscription of Aeneas was found in many fragments, scattered about in the Chalcidicum³, there is no evidence as to which niche the corresponding statue once occupied.

The traditional statement in archaeological publications, therefore, that Aeneas and Romulus, and probably Julius Caesar and Augustus, were represented in that order from left to right, rests on no evidence except in the case of Romulus: the position of the statue of Aeneas is not fixed, and the presence of statues of Caesar and Augustus is purely hypothetical. In fact, the inclusion of these two latter personages is highly improbable, for, in the first place, no fragments of inscriptions in their honor have been found in the vicinity, and beside, the archetypes of the class of *elogia* to which the inscriptions of Aeneas and Romulus belong, namely those erected by Augustus in Rome, in the precinct of the temple of Mars Ultor⁴, did not include Caesar and Augustus⁵, so far as we know, nor is there reason for supposing that these rulers were later inserted in the series, the purpose of which was to commemorate the worthies of olden days and in particular the earlier representatives of the Julian house.

Another arrangement seems appropriate and not improbable, namely (in order from left to right): (1) Roma, who required no inscription for identification; (2) Romulus, whom the relative inscription commemorates as the founder of Rome; (3) Aeneas, who, as his inscription states, led the Trojan survivors to Italy; and (4) Italia, a second personification for the identification of which no inscription was needed. This disposition would be quite in the spirit of the Ara Pacis Augustae, if the signification of that monument was correctly developed by me in *Journal of Roman Studies*, III, 1913, pp. 134-141: there Roma and

¹ C. I. L., X, 808, 809.

² G. FIORELLI, *Descrizione di Pompei*, p. 258.

³ L. c.; see also AVELLINO, in *Bull. Nap.*, III, 1845, p. 35.

⁴ C. I. L., I, ed. 2, pp. 183-197.

⁵ There are extant two *elogia* of Caesar the grandfather and Octavius the father respectively of Augustus (C. I. L., I, ed. 2, p. 199, nos. XXVIII, XXIX); but they do not belong in the same group with the others, as is shown by their provenance and the style in which

the second one is composed; of the first only a fragment has been transmitted.

It is to be hoped that the government excavations now in progress about the temple of Mars Ultor will result in additions to our repertory of *elogia*. If the report is true that an *elogium* of Julius Caesar's father has already been discovered, this would bring the official series down to what in the Augustan age was a comparatively recent past but still beyond the memory of all but the very oldest among the living.

Italia, at the east end of the monument, are balanced by Mars with the wolf and twins, and Aeneas, respectively, at the west end.

A special appropriateness would have been discovered by the Romans in the presence of Romulus and Aeneas in the entrance hall of this edifice: the two qualities in the Augustan house which are commemorated in the building inscription (*C. I. L.*, X, 810, 811) are *concordia* and *pietas*, qualities which our literary sources of the Augustan age associate respectively with the institutions of the founder of the city¹ and the character of the Trojan wanderer². In fact, we may go further and suggest that the two large semicircular niches contained statues of Concordia and Pietas respectively.

VII. — MARKS OF THE SULLAN BOMBARDMENT.

The amount of attention which various features in Pompeii have excited, both among tourists and in the world of scholarship, is not always proportionate to their intrinsic significance. For some reason, a matter which the successive groups of scholars who have visited the site under my guidance have felt to be one of the most impressive memorials of the place's history has remained practically unnoticed³: namely, the numerous marks to be seen on the exterior of the town wall and apparently due to the operations of the troops of the Sullan party who, as appears from *OROSIUS* V, xviii, 22, laid siege to Pompeii in the year 89 B. C.

The marks in question fall into three classes, large, intermediate and small, the diameter of the large ones being in general about m. 0.14; of the intermediate ones, m. 0.04 to 0.08; and of the small ones, m. 0.01 to 0.02. Some at least of these are due, in my opinion, to the impact respectively of balls from ballistae and shot from slings: the impact from these missiles would have pulverised a certain area of the surface of the stones of the wall, which area may well have varied somewhat with the force of impact⁴.

These marks are found in large numbers along a stretch of the walls extending some 100 feet to the west of the Porta di Vesuvio (Plate 60, fig. 1), terminating at a portion which was rebuilt in rubble in antiquity; and also for some 25 feet to the east of the Porta

¹ *LIVY*, I, xiii, 8, *Inde non modo commune sed concors etiam regnum duobus regibus fuit*; *DIONYS. HAL.*, II, xi. 2: οὕτω δὲ ἄρα βέβαιος ἦν ἡ Ῥωμαίων δμόνοια τὴν ἀρχὴν ἐκ τῶν ὑπὸ Ῥωμύλου κατασκευασθέντων λαβοῦσα ἐθῶν, ὥστε κτλ.

² *VERGIL*, *Aen.*, *passim*.

³ I recollect having seen a casual reference to it in an official publication; and I have been told that it is also mentioned in a popular guide; but I have been unable to verify either reference for the present purpose.

⁴ My good friend Dr. M. Della Corte of the Administration of the Excavations at Pompeii has been so kind as to contribute the following observations: the holes are curving, show no signs of chiselling or tool work, and are found on different parts of the face of the stones so that they are not to be interpreted as cramps or dowel holes. In his opinion they were caused by some instrument of percussion, probably an *aries* with a metallic head.

d'Ercolano; the space between these two points was partly restored in antiquity, and is partly concealed by volcanic ejecta etc., and one cannot say if it also contains similar marks; but it is clear from the lie of the land that an attacking party would concentrate its efforts on the vicinity of the Porta di Vesuvio, as being the highest point in the whole circuit of wall and the spot where the aqueduct entered the city; while the circumstance that the Porta d'Ercolano was dominated by the ground outside and to the right of the gate would have encouraged an assault at that point as well.

VIII. — PARALLELS TO VARRO'S AVIARY.

The learned Varro's account of the aviary which he built for his villa at Casinum is sufficiently precise to admit of a reconstruction on paper¹ which I believe to be coherent and attractive; it would be interesting to see the results of a more material reconstruction, which might afford considerable pleasure to some bird-lover with a historical bent of mind. When occupied with this matter, I noticed one instance, namely the well-known painting from the « Villa of Julia Felix »², where some of Varro's motives could be paralleled from an approximately contemporary Pompeian monument; and since that time I have maintained a receptive attitude toward further parallels, which have not been lacking.

The Villa of Diomed affords a splendid instance of several of the elements of Varro's aviary: a large rectangular area, surrounded by porticoes, in the axis of which there is a pool and a pergula adapted for banquets: in this case the dining room was not on an island in the pool, but adjoining the latter.

In the large house with garden recently excavated on the S. side of the Strada dell'Abbondanza is a combination of waterworks and pools with triclinium.

VI. i. 7 (*Casa delle Vestali*), in the furthest peristyle, near the city wall, is first a narrow tank, and then a square, deep pool with a square island in the middle, the floor of which, except for a strip about the edges, is depressed as if to contain running water.

The house VI. ix. 6 (*Casa di Castore e Polluce*) has in its Southern part a peristyle within which is a large rectangular pool, in the center of which is the base for some structure; and also a smaller rectangular tank³.

Again, the fascination exercised on the Romans by the sight of little birds fluttering about and alighting on the brackets projecting from columns, one of the features of Varro's aviary, is suggested by several Pompeian paintings which are reproduced in the monumental publication, *Le Case ed i Monumenti di Pompei Disegnati e Descritti*. These are entirely in the Third Style, with the exception of the first to be enumerated, which belongs to the

¹ A. W. VAN BUREN and R. M. KENNEDY in *Journ. of Rom. Stud.*, IX, 1919, 59-66.

² A. MAU, *Gesch. d. Dec. Wandmalerei in Pompeii*,

p. 178, pl. VII b.

³ Plate 60, Fig. 2 (ALINARI, No. 11349), looking West.

Second Style: this then is contemporary with Varro while the others are somewhat later in period. Some of these are frankly fantastic in conception and execution, but their starting-point was surely in the realm of reality.

Vol. IV, *Nuovi Scavi*, Tav. XVI, from the Casa delle Nozze d'Argento, is close to architectural reality and shows, not birds, but at least a motive of bosses on columns which might have suggested Varro's brackets.

Vol. III, Casa di (L. Cecilio) Giocondo, Tav. II, has slightly fantastic volutes which spring from columns: on them however we find not birds but slender, graceful little dogs!

Vol. IV, *Nuovi Scavi*, Tav. XV, a house of Reg. IX, Ins. vii, has metal candelabra with birds alighting on their cup-like ledges.

More fantastic in treatment of both volutes and birds is Vol. I, *Descr. Gen.*, Tav. XLVI, and the left panel of Tav. LIII.

In the central panel of Tav. LXV and the central panel of Tav. LXXXVII, we see ornate arrangements of foliage, doubtless with a basis of box: here the birds are alighting on the volutes, and in the second painting the same purpose is served by some of the leaves as well: here the wall-painter has reproduced some manifestations of the topiary's art where its achievements were closest to nature itself.

IX. — ORIENTATION.

It is generally agreed that the town-plan of Pompeii as we now have it is due to Etruscan engineers of the fifth century B. C. I am not aware that an attempt has been made to explain why these engineers did not give their city a proper north and south orientation, but drew their *cardo*¹ in such a manner that the observer standing at the east side of the forum and looking up the Strada di Mercurio finds his line of vision turned a good third of the distance from the North toward the West; while the direction of the streets in the quarter lying to the east of the Strada Stabiana is turned still more toward the West of North.

The direction of the Strada Stabiana itself was probably determined by the existence of a depression at this part of the hill, furnishing a natural line of connection between the highest and the lowest points of the circuit. But I believe there was another reason for laying out the eastern streets parallel to this one, as well as for the alignment of the *cardo* and the series of streets which belong to the western system.

The interesting discussion which Vitruvius devotes (I, vi, 1-3) to the question of adjusting the town-plan to the prevalent winds serves to indicate the care which the ancients

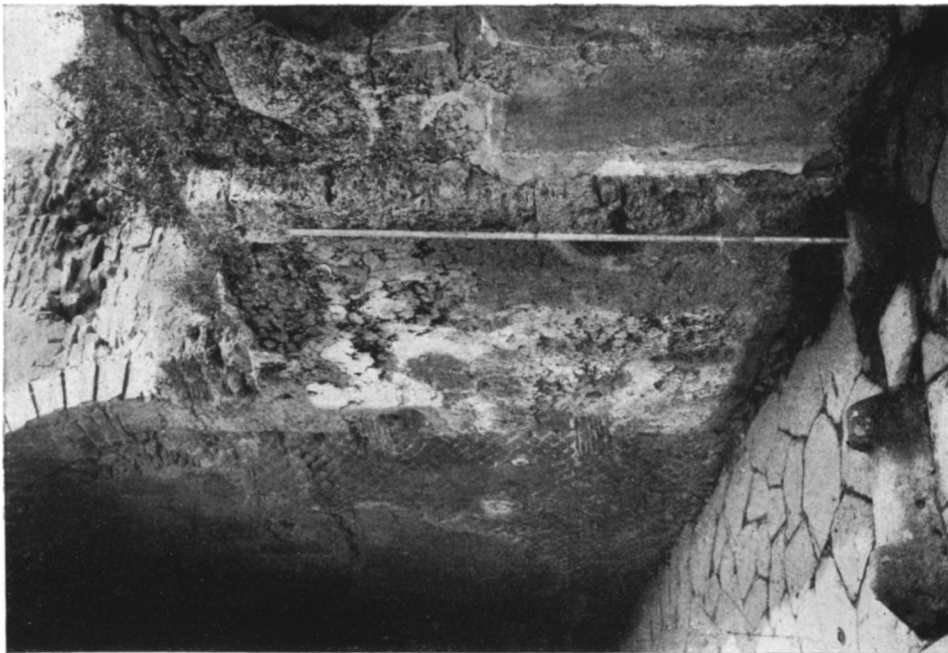
¹ See above, p. 107.

devoted to this matter, and will help us to conjecture the considerations which were of weight with the Pompeian engineers. At the inland end of the streets in question could be seen the summit of Vesuvius, and at the opposite extremity lay the sea. Thus these streets offered free circulation to the alternating currents of sea-breeze and mountain air which in so large a degree during the warmer months of the year contributed to the exceptionally salubrious quality of the site. In Winter, moreover, the edge of the cruel north-east wind, the *tramontana*, would be taken off by the fact that these streets were perceptibly turned away from its course.

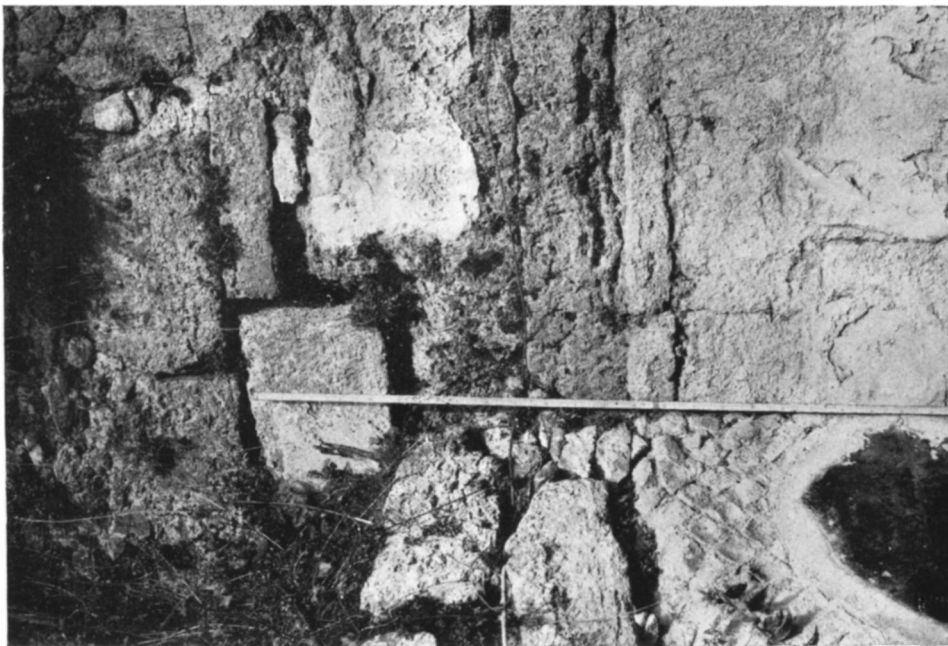
It remains to express sincere appreciation of the unfailing courtesy, both official and personal, which has greatly facilitated these attempts to elucidate the antiquities of Pompeii.



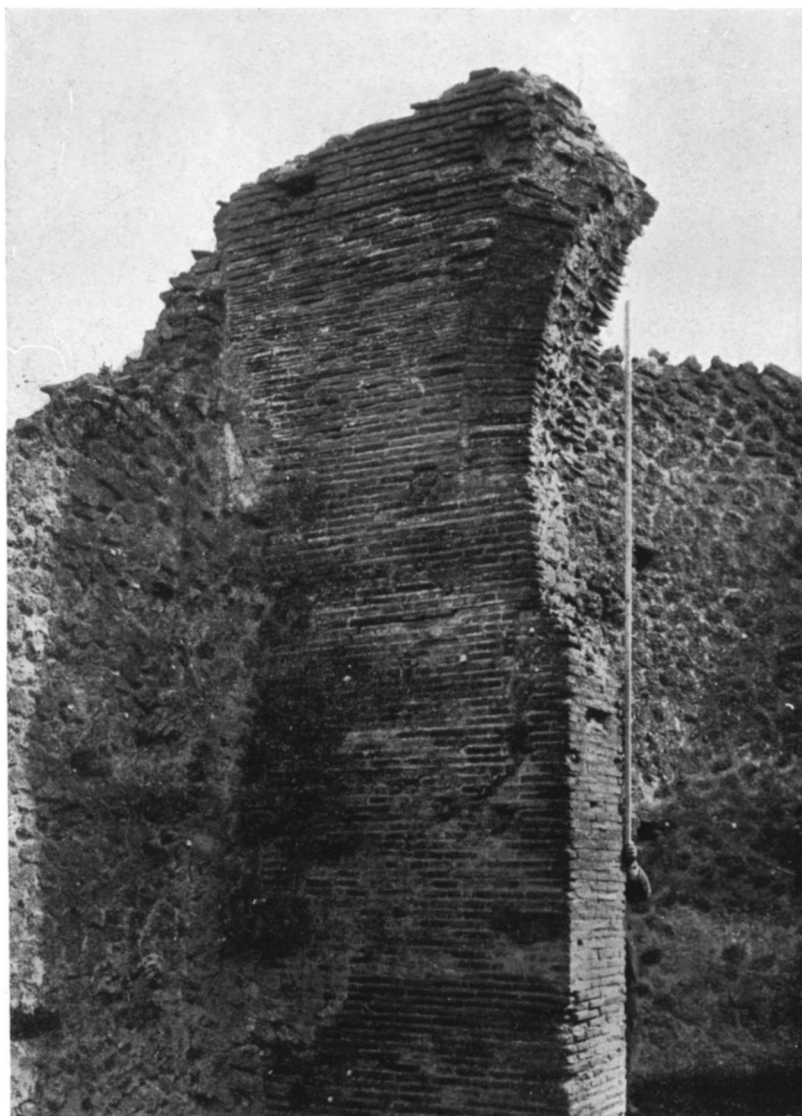
¹
The North side of the Entrance, Porta Marina, Pompeii.



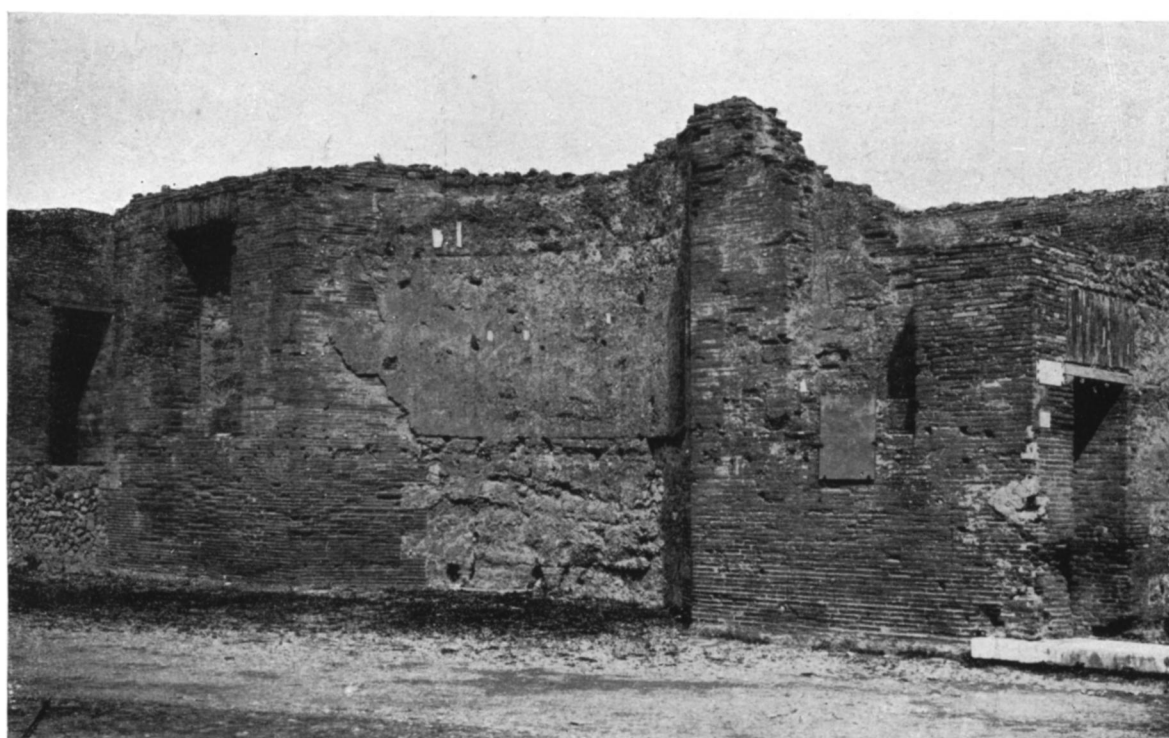
²
The South side of the same.



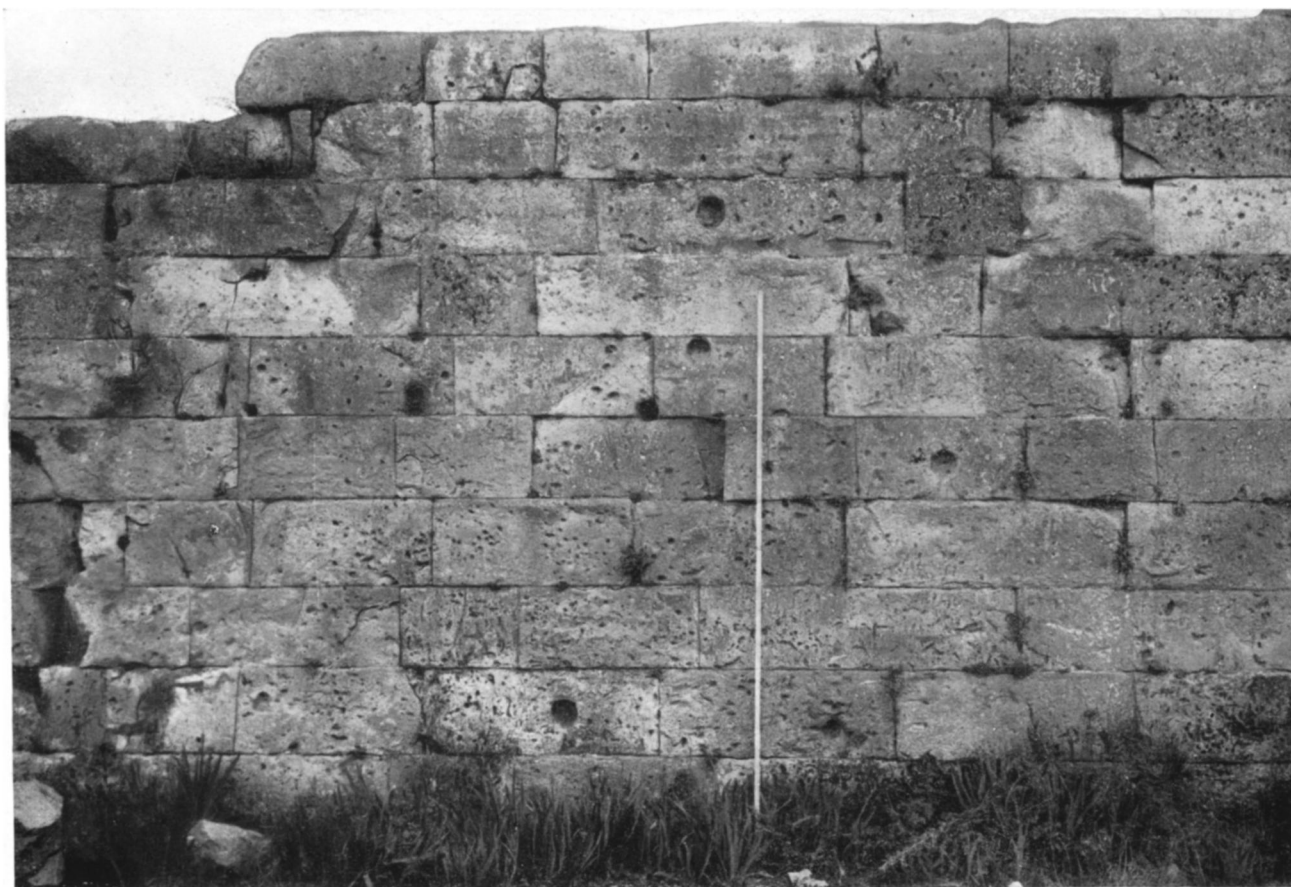
³
A Portion of the Early City Wall North of the Porta Marina.



1. Detail of the Apse of the "Offices" of the Duoviri ,, , Pompeii.



2. Northern part of the Chalcidicum of the Building of Eumachia, Pompeii.



1. Marks of the Sullan Bombardment, Pompeii.



2. Peristyle of the Casa di Castore e Polluce, Pompeii.

(Phot. Alinari).