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The undersigned, acting as a Committee of the Graduate School, have read the accompanying thesis submitted by Ruth Van Tuyl for the degree of Master of Arts.

They approve it as a thesis meeting the requirements of the Graduate School of the University of Minnesota, and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Arts.

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THE UNIVERSITY OF MINNESOTA

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Report

of

Committee on Examination

This is to certify that we the undersigned, as a committee of the Graduate School, have given Ruth Van Tuyl final oral examination for the degree of Master of Arts . We recommend that the degree of Master of Arts be conferred upon the candidate.

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THE ROMAN HOUSE:
ITS ORIGIN AND DEVELOPMENT.

A Thesis Submitted to the
Faculty of the Graduate School of the
University of Minnesota

by

Ruth Van Tassel

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THE ROMAN HOUSE:
ITS ORIGIN AND DEVELOPMENT.

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CHAPTER I.

THE PREHISTORIC AGES.

The Roman private house, as we know it, with its atrium and peristyle, surrounded by rooms, came into existence only shortly before the time of Cicero.¹ For the origin of this complex structure, we must look to three periods: to the Stone and Bronze Ages; to the early Etruscan civilization; and to the Greek influence. The abodes of the living have always been more subject to change and destruction than those of the dead, which were often more durably built, and pervaded by an air of sanctity respected even by foes. Therefore, the most reliable sources of information for the earlier periods are burial-places, as graves, tombs and funeral-urns. For the last period the grave of a city, Pompeii, is more trustworthy as a guide, than the living city of Rome.

Our only authoritative Latin treatise is the "De Architectura", of Vitruvius, the civil architect employed by Augustus. In the second of the ten books into which he divides the subject, he treats of building materials; in the sixth, of urban and rural architecture. For the purpose of comparison, our study of the Roman house will include the city tenement, the farmhouse, the villa, and the domus, the town-house of a private citizen.

Primitive man in Italy, (as in all other lands in the paleolithic and neolithic ages), made his home in a cave. To make the cave a protection against ferocious beasts, man needed to learn the use of fire. We can imagine primeval man as much frightened

1. Frothingham, Roman Cities in Italy and Dalmatia, p.118.

at the sight of a blazing tree which had been struck by lightning, as was the brute creation. But man could learn from the smouldering stump the mastery of fire which the beast has never learned. Soon the coals which man collected at the door of his cave, protected him from the beast, until rain, to his surprise, put out the fire. Brought within the cave, fire gave warmth -, welcome despite its attendant smoke. Lucretius, in his "De Rerum Natura," after giving an almost identical account of lightning as the source of fire, adds another less probable origin, vis., friction generated by branches rubbing against each other.

One needs not to have read Lamb's "Dissertation on Roast Pig," to imagine how man learned to like cooked food, for Lucretius suggests that the sun, which changes and improves fruit through heat, taught man to cook his food.

"Inde cibum coquere ac flammae mollire vapore sol docuit,
quoniam mitescere multa videbant verberibus radiorum atque
aestu victa per agros." 1.

Then woman proved herself a reasoning animal also, and demonstrated that the heat of the fire is superior to the sun in cooking food. Thus was welded the family bond.

To the genial warmth of fire is probably due the first spark of a social instinct.² Not only would friends gather about the domestic fire, but one might carry a glowing brand to start one for a neighbor, which may have been the first form of social service.

For their life in the open, man soon constructed a

1. Lucretius "De Rerum Natura" V, 1091-1104.
2. Vitruvius "De Architectura" II, 1,1.

hearth to control this new power, and his ingenuity was again stimulated to construct a shelter - a roof, a hut, to keep off the rain. The hearth, ministering to his bodily wants of warmth and savory food, became the center of family life, and the altar at which he thanked heaven for its blessed gift. The first religious order may well have been the one set apart for the preservation of fire, an organization which survived in the Vestal Virgins.

Paleolithic man built no hut, simply appropriating a cave for both dwelling and burial purposes. Indeed, many caves served alternately as habitation and sepulchre as proved by archaeological explorations.¹ Later, neolithic man shows a little progress by, at times, living in huts, built either on the level, or partly sunken into the earth,² and constructed of mud and twigs.³

Italian archaeologists have done interesting research work in the civilization of these early ages e.g. Colini, Amerano, Issel, Chierici and Pigorini in North and Central Italy, and Rosa in South Italy. Omitting a detailed account of their discoveries, we can only present their general conclusions as follows: Ancient Italy, in the late paleolithic and neolithic ages and in the early eneolithic (bronze) age, was inhabited by a race, or races of men, who lived in caves, or rock-shelters, or in huts, built on the level or partly subterranean. Under favorable conditions of weather and peace, these people lived in the open, as under shelves of overhanging rock, or in huts, but located near caves, to which they resorted for shelter or safety. It was almost a necessity

1. Peet, Stone and Bronze Ages in Italy and Sicily, pp. 55, 61-62.
2. " " " " " " " " " " p. 96.
3. Vitruvius, II. 1, 3.

for the two types of dwelling to be side by side, because the caves soon became unsanitary. The huts were, no doubt, frequently burned, or moved, for the same reason. Articles found in the caves, such as arrow-heads, flints, knives, daggers, hatchets, and pottery containing no grain, prove that the people, (including the early Ligurians) were not agriculturists, but hunters and shepherds. It is conjectured that cavemen and hut-dwellers were one and the same people.¹

These huts of prehistoric time were the prototype of those in the iron-age, which we study in the funeral-urns of Latium and Etruria. These hut-shaped funeral-urns with protruding roof-beams illustrate the shape of the huts and give some conception of their roof-construction.² In this more advanced iron age, no doubt there had come innovations in the abodes of the living, but tomb and urn-structure is always conservative and does not show the newer features of contemporary architecture, but rather those of a past age.³ For this reason, in the funeral-urns of the iron age we study the homes of former times.³ We are also aided in reconstructing their original outline by conditions found in the soil, - debris differing in color from the surrounding earth, such as found in Reggio-Emilia.^{4.a} The earliest of these huts were constructed in the paleolithic age, and, altho cave-dwelling still continued into the neolithic age, hut-dwelling was the prevailing type and it extended into the

1. Peet, p. 86-7, 103, 105, 109, 111.

2. " p. 90.

3. Waites, "Form of the Early Etruscan and Roman House," p.115.
Also Rider, "The Greek House," p.4.

4. Peet, p. 89.

a. See 1 on map.

eneolithic period. ¹. Thus the huts are of various periods, and their structure, is well worth noticing, being that of the earliest form of the Italian house.

A cavity, circular or elliptical, was hollowed out in the ground to the depth of one-half to one metre, with a diameter of seven to eight metres. The hole was often funnel-shaped, deepest at the center, with inclined sides; in other cases, cylindrical, with perpendicular sides. The superstructure was of wicker or branch-work covered with skins, or daubed with clay which became sun-dried. The roof rested on strong vertical piles placed just outside the circumference of the hole. These semi-subterranean huts contain evidences of a hearth, "shapeless masses of burnt clay, mixed with charcoal, cinders and burnt bones." ². Wicker huts at Alba, ^a near Cumeo were wholly above ground, with a hearth in the center. ³. They were grouped in villages, probably for mutual protection. ⁴.

These findings of archaeologists of northern and central Italy were similar to those of Rosa in Southern Italy, who found, as a variation, the central hearth to be of sandstone blocks. ⁵. They all agree that the half-sunken type of hut was not invariable. ⁵. These hut-foundations extend from above Ancona ^b. to below Bari, ^c along the Adriatic slope.

Etymologically speaking, the term eneolithic means copper-stone, from the Latin "aeneus," bronze (more strictly it

1. Peet, p. 88.
2. " p. 89-93.
3. " p. 96.
4. " p. 90 & 93
5. " p. 99-102

a. See 2 on map.
b. " 3 " "
c. " 4 " "

means pure copper) and the Greek "lithos," stone. Thus, this period, being a time when both stone and metal were used, seems to have been one of transition from the stone to the true bronze age.¹ Burial places at Remedello,^a Fontanella,^b and Sgurgola ^c. in Central Italy and Etruria establish this fact of transition by their contents, - both stone and copper implements. During the paleolithic and neolithic periods, the dead were buried either in caves or trenches. The latest, the eneolithic, brought in a new type of burial peculiar to itself, the rock-hewn tomb.² Thus, there persisted at this time, three distinct types of burial: the heaping of skeletonized corpses in natural caves, inhumation in trench-graves, and deposition in the new artificial grottoes.³ However, Peet gives no evidence that eneolithic man used the same cave for habitation and tomb, as in the neolithic age.

This brings our study to the living habits of the early eneolithic man. He seems to have been more strictly a hut-dweller, altho the custom of living in caves probably continued.⁴ Remains of a hut-village were found at Remedello. The holes in the earth were circular and about one and thirty-five hundredths meters deep and three meters in circumference, (smaller in both depth and diameter than those of the earlier period.) They occupied only the central part, the hut itself being much larger. The most conspicuous advance, however, is observed in the use of copper utensils.⁵ There are hut-foundations in the Valle della Vibrata ^d.

1. Peet, p. 185.
2. " p. 193.
3. " p. 196.
4. " p. 198
5. " p. 188.

- a. See 5 on map.
- b. " 6 on map.
- c. " 7 on map.
- D. " 8 on map.

and Fondo Nazari ^a which belong later in the eneolithic age.¹ Yet these correspond very closely to those at Remedello. Remains of dwellings continue to be scanty, and our knowledge of the living habits of eneolithic man correspondingly meagre, compared with that of his burial customs..

Somewhat further along in the bronze age, we find a new type of hut-village called a "terramara" or lake-dwelling supported on piles. This hut-village was trapezoidal in form, facing roughly north and south, supported on piles and enclosed by an earthen rampart and a moat supplied with water from a neighboring stream.² Pigorini, quoted by Peet, says we have here the prototype of a Roman camp, the *cardo maximus* being double the width of the *decumanus maximus* - the proportion which was observed in these *terremare*.

The remains of the *terremare* at Castellazzo ^b and Castione dei Marchesi ^c give us most of our information about this type of structure. The *terramara* at Castione dei Marchesi contains evidences of successive layers of dwellings, earlier ones being burned down when refuse had accumulated to the level of the platform on which the hut-village was built.³ All *terremare* are of the same form, varying only in dimension. A new method of burial is proved by the existence of two cremation cemeteries at Castellazzo.

What people were responsible for this entirely new type of dwelling? What was their civilization? Several theories

1. Peet, p. 198.
2. " p. 333.
3. " p. 337

a. See 9 on map.
b. " 10 " "
c. " 11 " "

have been advanced. Brizio believes that they were the same old neolithic Liguri, driven to build hut-villages on piles as a protection against the floods of the Po. The Encyclopedia Britannica gives the same interpretation, and adds that the moat also warded off human enemies. But the terramara at Montata dell' Orto ^a is on a hill, which in itself would be sufficient protection against floods, and it also has a moat. On the other hand, Sergi says these terremare are merely remains of Roman camps, which overzealous archaeologists, in their search for remains of the bronze age, have regarded as terremare.

Pigorini, however, believes that these structures are the work of a new people of Aryan stock, coming from the lake-dwellings of Central Europe at the end of the stone age, bringing with them a tradition of pile-dwellings.¹ These immigrants, whom he calls Italic, naturally reproduced dwellings similar to those of their former home. The terramara just referred to, at Montata dell' Orto, ^a situated on a hill which is surrounded by a moat, supports Pigorini's theory.

That the builders of the terremare were a new people finds a second proof in the change in burial customs. Neolithic man employed inhumation. The cemeteries of the terremare-folk show every evidence of cremation. At Castellazzo ^b there is a cemetery connected with the terramara by a drawbridge and built on piles, in fact "a terramara of the dead," where were found rough ossuaries or vases containing burnt bones.² Since the terremare-

1. Encyclopedia Britannica - "Terramara." a. See 12 on map.
2. Peet, p. 364. b. " 10 " "

folk cremated it is unlikely that they were the same people as the Liguri of neolithic times. Further, the use of a "terramara of the dead" suggests that the terramara of the living was a survival of some earlier form of lake-dwellings, and not a mere hut-village raised on piles to avoid floods.^{1. (*)}

In regard to the civilization of these Italicci we find evidence that they were, like their predecessors, hunters, but that they also had domesticated animals. They further excelled neolithic man as metallurgists, having learned to cast in bronze; and especially as agriculturists, cultivating the bean, vine, two varieties of wheat, and flax. These facts also support Pigorini's theory that a new tribe, the Italicci, entered Italy early in the bronze age.^{2.} They attained their full development in North Italy about the year 1000 B.C. Their type of dwelling, the terramara, seems to indicate more complete tribal aggregation and may be considered a prototype of the insula or tenement-house of imperial Rome.

About 1000 B.C., these Italicci, in their terremare along the Po, were conquered by their southern neighbors, the Etruscans, who, three hundred years later, conquered the Latins who were still in the hut-dwelling age. It was, then, about 700 B.C., that the Etruscans began to superimpose their customs upon those of the primitive Romans. Therefore, the type of dwelling developed by the Etruscan-Italicci became the historic forerunner of the true Roman house, and is the subject of the following chapter.

1. Peet, p. 364.

2. Peet, P. 362-3.

* As stated in the beginning of this study, page 4, tombs are conservative in type, imitating structures of the past, rather than contemporary innovations.

CHAPTER II.
THE ETRUSCAN HOUSE.

The reader will remember that extant funeral urns of Latium and Etruria show the shape assumed by the neolithic huts in the iron age. To them, and to tombs, one must turn for the historical beginnings of the Graeco-Roman house, because only the most scanty traces of prehistoric dwellings remain. Etruria conquered Latium in the seventh century B.C. and superimposed the latest Etruscan development (the quadrangular house), on the older forms which still prevailed in Latium.^{1.}

It is generally understood that the original Etruscan house had but one room, the atrium, which was long accepted as the "Tuscan" style. Many authorities have accepted the explanation that the term atrium is derived from "ater," black, the walls being blackened by the smoke from the hearth-fire. Others say its origin is found in the name of the Etruscan town Atria or Adria.^{2.}

This "Tuscan atrium" is the type which, as the center of a rectangular house, the Etruscans brought to Rome ^{a.} in the seventh century B.C. Its roof sloped inwards from the four walls to a large, central opening, the compluvium. At the edges of the compluvium, gutters conducted the rain water to the corners, where gargoyles directed its flow to a basin in the floor, called the impluvium, directly beneath the compluvium. A cistern under the impluvium drained off the water to the public sewers. This was

1. Frothingham, p. 119.

2. Smith: Dictionary of Classical Antiquities, Vol.1, p.668.

a. See 13 on map.

the fully developed roof which the Etruscans brought to Rome when they conquered the city. But it was not the original Etruscan roof.

Archaeologists long accepted the Tuscan atrium as the primitive Etruscan house, Mau claiming that it was the native Italic hut.¹ But urns and tombs have been recently studied which prove that the Tuscan atrium was quite a late development of the primitive Italic hut.² Cabin-urns show the exteriors, and chambers of rock-hewn tombs the interiors of these earliest forms.³

Italic circular or oval hut-urns have been found in different places in Etruria, ^a in Alba Longa, ^b on the Esquiline at Rome, and at Marino, ^c near Caput Aquae Ferentinae.⁴ They represent one-room huts with a central hearth, made of hides and poles; or wattled and thatched; supported by a central pole, or by forked or curved sticks joined to the wall.⁵ This seems to have been the favorite type for tombs down to the fall of the city 476 A.D. The "hut of Romulus" on the Palatine which was preserved by constant renewals during Roman times, and the temple of Vesta in the Forum maintain this ancient shape.⁶ There still stands in Rome, the round temple on the Tiber,⁷ a beautiful monument to the primitive hut. This temple was probably once crowned by a dome, but the ugly, peaked, round roof which now rests on the building, illustrates the type with which a study of the problem of the

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| 1. Mau, Pompeii, p. 251. | a. See 14 on map. |
| 2. Frothingham, p. 121 ff. | b. " 15 " " |
| 3. " p. 120. | c. " 16 " " |
| 4. Blümmer: Römische Privat-Altertümer, IV, 2, II von Handbuch der klassischen Altertumswissenschaft herausgegeben von Iwan Müller, p.9. | |
| 5. Frothingham, p. 119. | |
| 6. Blümmer, p. 7 & 8. | |
| 7. Amelung & Holtzinger - Museums & Ruins of Ancient Rome, Vol. II, p. 120 and 123-4. | |

Roman roof must begin. (Figure 1.)

The form of the roof is an important matter in these hut-urns, because the different types of these early atria took their names from the roof construction. Vitruvius says the very earliest type of hut, that of mud and twigs described above, offered little protection against rain, so the roof was peaked in a pyramidal fashion and projected over the edge to carry off the water.

The purpose of these Italic huts with their peaked roofs was to protect the precious fire from its enemy, rain - , that fire which primitive man had learned to value because of its blessings - , comfort, cooked food, and barrier to wild beasts. But he had not learned to protect himself against its attendant discomfort, smoke, which, for that matter, man has scarcely yet accomplished. The large entrance-door, when open, served for outgo of smoke as well as for intake of light and air. To prevent suffocation when the door was closed, a dormer-window above the door provided fresh air and let out the smoke.¹ (Fig. 1.)

Funeral urns also show that houses were assuming a quadrangular shape (Fig. 2.) There soon appeared an almost square house consisting of one room, surrounded by a covered loggia.² (Fig. 2b) Frothingham adds they were built "of wood, roofed with shingles, or tiles, or flat terraces - , later they developed into houses of crude bricks roofed with tiles." This style of roof, for a circular, oval or rectangular dwelling, Vitruvius calls testudinate,

1. Blummer, p.8.

2. Frothingham, p. 121.

i. e., completely covered.¹ But, we must remember that these urns were receptacles for ashes of the dead, which scarcely would be safe if the urn were left uncovered. Therefore, Miss Waites believes that its cover has been lost. She compares the Chiusi urn with (Figure 3) another, of a little later date, but very similar in form, which has its cover in place. Since urns imitated dwellings, this cover should be considered a copy of an integral part of a house, as well as serving the more utilitarian purpose of protecting the contents of the urn. The confusion, which Miss Waites clears up, arose from the error of interpreting the hole in the top of the Chiusi^a urn (Fig. 2), as depicting the displuviate roof, a type which prevailed later, having a hole for light and air, but no basin in the floor to catch the small quantity of rain which would fall through the tiny roof-hole. The roof, slanting outwards, carried most of the rainfall to the outside area.

Another hut-urn (Fig.4) shows that a new type of roof had come into use, having a ridge-pole, and slanting in two directions, hence covering the atrium pectinatum,² which is shown by the interior of chamber-tombs at Vulci^b (Fig.5 a & b). The ceiling is formed by inclined beams rising from the two opposite walls toward the center where they are joined by a horizontal slab³ (Fig.5) There was still no roof-opening, as the interior of the Vulci tomb shows. (Fig.5) A small, round opening in the facade at each end admitted light and air, and drew out smoke. Perhaps the little dormer-window of the circular hut had been elongated forming a

1. Waites, p. 120-121.
2. " p. 117
3. " p. 117

a. See 17 on map.
b. " 18 " "

ridge-pole and suggesting a second window at the other end.

The roof (Fig.4) extended over the edge all round shedding the rain-water off on to the street. The resultant discomfort to passersby caused a law in the course of time to be included in the Twelve Tables requiring a space of two and a half feet between houses, called the *ambitus*.¹ This provision still prevails in all civilized countries, an example of the basis of modern law in the Roman code.

As further proof that tombs were built in imitation of dwellings, Miss Waites cites false doors.² and sham armour.³ Therefore, these false doors to the tombs as imitations of real ones in the houses, help in the interpretation of another feature of the tombs. She describes two apparent examples of a main hall with a center roof-hole.⁴ This center roof-hole has been erroneously considered a copy of a *compluvium*, but which Miss Waites interprets otherwise. The ceiling slopes from the roof-center, which is an inverted funnel-shape, extending up twenty feet. It is her belief that this hole served only as an entrance to the tomb, it having no other entrance. Many authorities have believed this tomb to be an example of the *displuviate atrium* and that the builders by putting this hole in the roof had imitated an actually existent part of a house. A Tarquin tomb has a gable-roof with a similar roof-hole which is clearly an entrance, as proved by niches for the hands and feet. This supports her theory that the hole was merely a means of entrance, not a *compluvium*. Miss Waites further

1. Blümmer, p. 11.

2. In Grotto della Camere finte at Corneto (19 on map)

3. In Regulini-Galassi tomb.

4. In La Mercareccia at Corneto.

adds that if the builders were imitating a compluvium, they would also have imitated an impluvium.

The problem of lighting a one-room hut was by no means a simple one. The hearth generally occupied the center, therefore there could be no overhead hole for light, because rain would put out the fire. A tomb at Marzobotto ^a shows a small window over the door for light.¹ With the increase in wealth and the demand for more private family-life, additional rooms were needed, which were grouped about the atrium. The tomb at Vulci (Fig.5) shows an atrium with a central hearth and a low shuttered window above the door for smoke-exit and whatever light the room could thus get. This same tomb has other chambers almost detached and hence dark, because removed from this one apparent source of light. (Fig.6) The owners seem to have solved the difficulty of obtaining more light by building an open court around these rooms. Frothingham calls attention to a single-room house receiving light from a loggia. (Fig.3b) Hence, the idea was not a new one. The atrium of these tombs has no central roof-opening, being lighted by the surrounding rooms which are themselves lighted by roof-openings that serve also as entrances. A larger tomb, that of the Volumnii, has an atrium lighted by other rooms bearing names used in later Roman houses, e.g. alae, tablinum and side-chambers.²

Thus, from the above, (according to Waites and Frothingham) we are to consider the original Etruscan house as consisting of one room with its central hearth. An open court surrounded it, on which the street door opened. Somewhat later, this

1. Waites, p. 123.
2. " p. 130.

a. See 21 on map.

exterior court disappeared, the door of the main room opened directly on the street and other rooms were grouped around the atrium. The back of the house opened on what remained of the court and was simply a light well. This back part was the original of the tablinum,¹ probably of boards.

Usually the inner room received light from the others, because it had no roof opening till the hearth was removed from the center to the side or a corner.² A kitchen was probably one of the first additions to the primitive house and the hearth was transferred to it. With that removed, the atrium could receive light from its own ceiling, and thus became displuviate ("rain away", Fig.7) which is simply the pyramidal testudinate with the pyramid truncated and a hole cut in it.³ The water falling on the roof is still carried to the outside, the roof sloping down to the gutters around the outer edge and there is still the ambitus around each house. The small amount of water falling directly thru the small rain-hole, was an endurable discomfort.

Rapid increase of population and crowded conditions, in course of time made it necessary to prohibit this space, the ambitus, and a change in roof-construction was the result. The slant of the displuviate roof was reversed to slope inward to the compluvium ("rain-together") in the center (Fig.8). Two heavy girders crossed the breadth of the atrium, and crossbeams were laid on these at right angles, leaving the square compluvium. Gutters along the edges conducted the rain-water to gargoyles

1. Waites, p. 131.
2. " p. 132.
3. " p. 120

which poured the water into an impluvium ("raining-into") in the floor below. From here it was caught by cisterns and drained off to the public sewers.

This was the Tuscan atrium which was brought to Rome by the Etruscans when they conquered the city and which became the most popular type for a small atrium, and was characteristic of both cottage and palace.¹ The testudinate and displuviate, predecessors of the Tuscan, were very rare after living conditions became more complicated, as in Rome and Pompeii.

In conclusion then, the earliest Etruscan atrium, the covered or testudinate type, offered effectual protection to the fire on the central hearth, but there was insufficient provision for light, air and egress of smoke through the small openings in the facade. The removal of the hearth from the center to a corner, permitted a hole in the roof for light. Then arose the problem of disposing of rain-water. So long as the roof continued to slope outwards, draining the water to the ambitus, the amount of water through a small rain-hole, being slight, did comparatively little damage. But when crowded conditions forced out the ambitus, each house had to dispose of its own drainage, a problem which was infinitely greater. The slant of the roof was reversed so that all water falling on the insloping roof of the house was collected by gutters along the edge to gargoyles which poured the water to the impluvium in the floor. The result is the Tuscan atrium, the latest development of the chief room in the Etruscan house.

1. Mau, p. 251.

The poorest classes, even after society at large had become wealthy, continued to use the one-roomed Tuscan atrium for all family purposes. The same was pretty generally true in the country on the small farms. Wealthy citizens added rooms for various purposes around the atrium, which we shall describe in detail in the next chapter under the study of Pompeian architecture.

Nature, as manifested in the environs of Rome, played an even more important part than is her custom, in the development of civilization. The earliest building material, (here as elsewhere), was mud and twigs, or brushwood.¹ Later, better structures needed foundations, for which volcanic stone (tufa, travertine and peperino) was quarried in both Etruria and Latium.

In the regal period, house-walls were built of this volcanic stone, rough or carefully hewn, and laid in mortar. During the Republic, the clay deposits of what is now the Vatican district, furnished Nature's next contribution to Rome's building instinct. Thereafter, government kilns² made Roman brick and tile famous, and provided the chief material used in Rome until Augustus made his famous boast. Although the provinces had begun the use of marble in Sulla's time, it had not yet been employed for private dwellings except as adornment in Rome.

For the earliest pointed roofs of Etruscan huts, (Fig. 1) Nature had suggested layers of straw and sedge held fast by ribs brought together at the peak and twisted like horns.³ Shingle-

1. Vitruvius, II. 1, 2.
2. Blümmer, p. 10.
3. " p. 8.

roofs followed and prevailed until after the war with Pyrrhus,^{1.} by which time the Roman tile had been developed.

Volcanic activity of the past helped not only to build Rome, but, eruptions continuing two or three centuries ^{2.} after the founding of the city, had a beneficial effect on natural malarial conditions, against which the primitive Romans would have been helpless. It is believed that the powerful fumes attending these disturbances purified the air, giving mosquitoes less chance to propagate and spread.^{3.} These sulphurous emanations destroyed germs, known to modern science and suspected by Varro, who in "De Re Rustica," says that in marshy districts "prosper insects so infinitesimal in size, no human eye can detect their presence," ^{4.} and that entering the human system by inhalation generate "difficult cases."

But volcanic activity ceased in the second century B.C.^{5.} and, malaria, or "Roman fever", began its insidious attack on the physical and moral energies of the people. Now, Nature, though unpropitious, proved a stimulus to the highly developed Roman with his resourceful, practical, inventive genius, under circumstances which would have overwhelmed him in his primitive state. ^{6.} Great engineering feats brought in a new era. Sanitation on a large scale commenced and a rational system of sewers was added to the Cloaca Maxima, which had hitherto been regarded as sufficient. Stagnant

1. Blümmer, p. 10.
2. Lanciani; "Wanderings in the Roman Campagna" p. 3.
3. " , p. 3.
4. Quoted by Lanciani, p. 6.
5. Lanciani, p. 5.
6. " p. 6.

lakes were drained. Mountain spring-water was brought to the city through three hundred and thirty-nine miles of aqueducts. Cremation succeeded inhumation, and extensive columbaria took the place of cemeteries. These, with organized medical help, produced astonishing results. Pliny wrote that Laurentum was thus made more delightful in summer than in winter. These were not merely great public works, for the thorough-going Romans carried their sanitary requirements to private dwellings, even those erected for city laborers and farmhands. The imperial city now sat on Livy's "healthy hills" ¹ and the Campagna was like a great park studded with villages, farms, cottages and villas. ²

1. Lanciani, p. 2.
2. " p. 7.

CHAPTER III.
THE HOUSE AT POMPEII

At this point two questions arise: first, why seek elsewhere than in Rome for source material on the Roman house?, second; why go to Pompeii? Rome's continuous history of twenty-five centuries involves not only war's destruction, but also those more insidious and gradual changes which successive civilizations made upon the structures of earlier periods, using them wantonly as foundations, quarries and lime-kilns. The result is that ruins are better preserved elsewhere. On the other hand, Pompeii's short history of about six centuries shows successive Samnite, Greek and Roman influences blended. Moreover, the city was hermetically sealed by the catastrophe of 79 A.D., the buildings thus preserved being of known date. Finally, they closely resemble conditions in medieval and modern Italy.¹

The city of Pompeii was founded about the sixth century B.C. by Oscan tribes, who were soon conquered by the Samnites, who, in turn, early came under Greek influence - as proven by a sixth-century Doric temple still standing. The Samnites built the walls of the city in the fifth century, and by the second century, Pompeii was a prosperous Italian seaport town under the Hellenism of that age. The style of architecture was simple and elegant. The building material being tufa, architects call this the Tufa

1. Smith, p. 679.

Period. Characteristic public buildings were two temples, a basilica, a theater, a Greek palaestra and Roman baths. At the close of the Social and Civil Wars in 80 B.C. the city became a Roman colony which it remained during the succeeding century and a half, i.e., until its destruction. Representative public buildings of this Roman period were a temple to Fortuna Augusta, the Concordia Augusta (a cloth exchange), a market built in 50 A.D. containing a chapel to Claudius, municipal offices, and a temple to Vespasian, unfinished in 79 A.D. In the year 63 A.D. a violent earthquake had destroyed much of Pompeii. Therefore, at the time of the eruption, it was largely a new and hastily built city which the lava and ashes preserved.¹

Excavated Pompeii presents the homogeneous aspect of a newly-made town with two prevailing types of houses: first, the National-Roman house with atrium and adjacent rooms and a garden at the rear; and second, the Graeco-Roman house which added to the first, a peristyle and its surrounding rooms.

The peristyle, ("peri," around, plus "stylos," pillar) an open court surrounded by ornamental columns, was the distinctive feature of the Greek house, and was adorned with flower-beds, statues, and shrubs. The National-Roman house persisted until the beginning of the Empire, but the Graeco-Roman gradually assumed the predominance.²

In either type, all details are suitable to a southern climate: one-story; rooms grouping themselves around a central

1. Jones: Companion to Roman History, pp.24 ff.
2. Durum: Handbuch der Architektur, II. Teil. II. Baukunst der Etrusker und Römer, p. 482.

court, or courts, open to the sky; few windows, usually opening on the courts.¹ In the second place, all details are essentially alike, modified only by the size and shape of the lot, the personal tastes and means of the individual owners. Lastly, shops bordering on the adjacent street or streets are an integral part of the house, though unconnected with it, except one or two used for the sale of merchandise or farm produce belonging to the owner. The rental of the remaining shops further augmented his income.

One entered the National-Roman house (Fig.9) through a vestibule (a word of uncertain etymology)², originally an entrance-court. Its character varied in different periods and houses. In a small house, there was no vestibule, the door being a few steps back from the street. But a man of high social position needed a gathering-place for his clients, hence his vestibule would be a splendid open court,³ (a front yard) adorned with porticoes, trees, shrubs, and works of art, or if covered,⁴ the roof was supported by ornamental marble columns.⁴

With increased narrowness of streets and close proximity of houses, the vestibule was brought inside the door, becoming similar to the closed one of the modern times. Thence its function (reception of clients) was soon transferred to the

1. Durum, p. 499.

2. Century Dictionary: vestibulum, variously explained; attempt to trace back to Sanskrit "ves" from "vas" (dwell). Cf. Was. Or cf. vestry, a place to put on outer garments. Skeat - Etymological Dictionary of the English Language: literally - that which forms part of the abode, perhaps from "ues-ti", (a dwelling) with suffix "bulum". Cf. Sanskrit "vasta", "vastu" (a house). Old High German - "wist", an abode, from "wes", to dwell, (Walde-Lateinisches Etymologische Wörterbuch).

3. Blümmer, p. 13-14.

4. Smith, p. 668 and Mau, p. 248.

atrium itself.¹ Whether there were vestibule or not, some form of greeting (as "Have!" or "Salve!") or a phrase of good omen (as "Nihil intret mali") was expressed in mosaic on the floor or wall.²

In the following lines, Vergil both locates and describes the vestibule:

"Vestibulum ante ipsum primoque in limine Pyrrhus exsultat." ³

"Palmaque vestibulum aut ingens oleaster inumbret." ⁴

The wooden door, usually a folding one of two or more valves, was studded with iron nails and fastened with ponderous bolts and bars,⁵ for times were rough and a firm barricade against marauders was a necessity. These street-doors opened inwards on both private and public buildings.⁶ One historical exception to the above rule is recorded. To P. Valerius, later known to history as Poplicola,⁷ or Publicola ("The people-lover"), the colleague of Brutus in the consulship, in the first year of the Republic, was decreed the privilege of having the door of his house

1. Mau, p. 283.

2. Smith, p. 668.

3. Vergil, The Aeneid, II, 469; "Pyrrhus is triumphant in front of the vestibule itself and even on the threshold."

4. Vergil, Georgic IV, 20; "Let the palm or a huge wild olive-tree shade the vestibule."

5. Blümmer, p. 21-2.

6. " p. 20 (in note 11 beginning on p. 19) quotes Dionysius of Halicarnassus, Greek historian, 70-7 B.C., V 39,4. "Entrance doors of public and private buildings in Rome, opened inwards to the outer part of the building." (in Greek)

7. Smith: Dictionary of Greek and Roman Biography and Mythology: Article Poplicola, Vol. III, p. 303, of 1870 London edition.

open back into the street.¹ Doors were very heavy, and classical writers often complain about their creaking;

"Fit strepitus tectis vocemque per ampla volutant atria." ².

On passing the front door, one entered an entrance-hall, the ostium (from "os", mouth) also sometimes called fauces (throat). A cell at one side was for the porter who according to some authorities was chained to his post. Also there might be a dog and a kennel or merely a mosaic of a dog with the inscription, "Cave Canem." ³. Sometimes there hung here a cage with a magpie or parrot trained to greet visitors.⁴ If there were no vestibule, the salutation in mosaic might be a feature of the ostium.

Raising a curtain, the visitor entered the chief central court of the house, the spacious atrium. In the early days it was the center of the family-life. So long as the atrium remained testudinate, the hearth, for cooking and for sacrifice to the Lares, Penates and Genius, stood in the center. Here the mistress spun and wove;

"deditam lanae inter lucubrantes ancillas in medio aedium sedentem"⁵

Even after other rooms were added, the atrium remained in medio

1. Blümmer, p. 19-20, note 11, quotes Plutarch's Poplicola, 20, (of his house on the Palatine), "The doors of all other houses opened inward to the enclosure, but of that one house, they made the outer door to lead outward." Blümmer also quotes Pliny XXXIII, 112 (of the house of Poplicola and his brother) "By decree, it was that the doors of their house should open outward and be pushed against the populace." Blümmer comments that there may have been other exceptions.
2. Aen. I, 725, "A din is made in the houses and they [the doors] roll their voices through the ample atria."
3. Smith, p. 668.
4. Blümmer, p. 19.
5. Livy I, 57, 9: "(Lucretia) seated in the atrium at her loom working by night among her maids."

aedium.

There was a recess at the rear of the atrium, usually raised somewhat, where stood the bed of the master of the house, the lectus genialis (the bed of the father) or lectus adversus, because it faced one entering the front door.¹ The arca, or master's strong-box, stood against the wall near his bed.

Houses were first enlarged by grouping rooms around the atrium, thus shutting off sources of light. This made at least a small hole in the roof a necessity, making it (the roof) the displuviate type. (Fig.7) Then they were obliged to remove the hearth to a side or a corner of the room. When the atrium became Tuscan (Fig.8) (i.e. small hole replaced by the compluvium), the hearth and the master's bed were removed to side rooms. Although the atrium thus surrendered its more domestic uses, reminders of ancient usage were often kept in it, as images of ancestors, a table, instruments of spinning and weaving, and a couch which stood at the rear of the atrium (or in the tablinum) and was still called lectus adversus or even lectus genialis.²

"Lectus Genialis in aula est." ³.

By this time the atrium had become a reception-room for clients crowding in from the restricted vestibule, and for celebrations of a large or semi-public character. With the increase in wealth, the owner spared no expense in its embellishment.

Of the five varieties of atria described by Vitruvius, the Tuscan, tetra-style and Corinthian, lend themselves to adorn-

1. Mau, p. 257.

2. " " " "

3. Horace, Epistle I. 1, 87. "The lectus genialis is in the atrium."

ment. Examples of these are abundant - the last two being Greek modifications of the Tuscan. The tetrastyle had four columns, one at each corner of the impluvium to support the roof, while the Corinthian had several more columns. This arrangement naturally permitted a large compluvium and a spacious atrium.^{1.} It also demanded less strong roof-beams, the expense thus saved being lavished on the decorative columns.^{2.}

Beautiful frescoes and paintings adorned the walls; the floors were elaborate mosaics; statues were grouped artistically between the columns; brilliant lamps hung from the high ceiling. The entire appearance gave an effect of spaciousness very similar to that of the nave of a church.^{3.} The unit of measurement for the room was a square, of which the hypotenuse was used for the length, and the side for the width.^{4.} Light entered thru the compluvium, which could be covered by a curtain if the sun were too bright.

Like modern Italians, the Romans were passionately fond of flowers and every house-owner had a garden at the rear, if he could afford it. A veranda of boards (tabulae) with a sloping-roof frequently was attached to the rear of the house, and opened on this garden. Varro, quoted by Mau, describes the use of this veranda. "In the olden time, people used to take their meals in the winter by the hearth; in summer they ate out of doors, country-folk in the court, city-people in the tabulinum,

1. Mau, p. 252.

2. Blümmer, p. 32.

3. Mau, p. 248.

4. Vit. VI, 3, 3.

which we understand to have been a summer-house, built of boards." Tablinum is a contraction of tabulinum, whose derivation from tabula is evident.

At the beginning of Pompeian times, we have said there was a small recess for the bed at the rear of the atrium. This recess was open toward the atrium and closed behind by a wall, against which stood this wooden veranda or summer-house used as a dining-room, and called a tablinum. On the removal of the bed to a side-chamber, the bed-recess and veranda were united to form a bright, airy room which could be used as a summer dining-room, or master's reception-room, and became the tablinum of the later development.¹

This is in harmony with Miss Waites' theory that the tablinum was a part of the court which originally surrounded the atrium for the purpose of light. That is, the tablinum developed from that part of the court which faced the garden.

Also derived from the word tabula is the writing-tablet of wax spread on a small board on which the master kept his business accounts. These account-books were appropriately kept in the tablinum, the master's office, together with family records, just as the state archives were preserved in the tabularia of the capitol.² In the floors of several tablina in Pompeii, have been found standards on which rested the arca, the strong-box containing valuables and family archives.

The tablinum, according to Vitruvius, should be half

1. Mau, p. 257.
2. Jones, p. 160.

the size of the atrium, if that were 30-40 feet wide. It should be two-thirds the width of a smaller atrium, indicating that its size did not vary in proportion to that of the atrium. Its height, at the entrance, should be nine-eighths of its width. Its height inside should be four-thirds of its width. Hence, a tablinum sixteen feet wide would have an opening eighteen feet high and be twenty feet high inside. The floor was often a step higher than the atrium. Its adornment with statuary, pilasters and a brilliant curtain across the entrance made this one of the most attractive rooms in the house.

As private rooms were added around the atrium, the corners on each side to the right and left of the tablinum were left as square open alcoves called alae, or wings, always with a window, and probably they originally aided in lighting the atrium. Thus the atrium, tablinum and alae formed an interior in the form of a cross, afterwards adapted in Christian churches. The atrium suggested the nave, the alae the transept and the tablinum the chancel. Not infrequently, early Christians held services in Roman homes:

"Salute Prisca and Aquilla --- and the church that is in their house." 1.

Some variations in the location and number of the alae occur. There may be only one, or, if two, they may occupy the middle of the sides of the atrium. In one house, having both Tuscan and tetrastyle atria, the alae of the latter were in the

1. Romans 16: 3-5.

middle of the sides, one forming a passage to the other atrium.^{1.} The alae should be a third the size of an atrium 30-40 feet wide, and a fifth the size of one 80-100 feet in width,^{2.} i.e. 10-13 feet or 16-20 feet square.

The same authority says images of ancestors stood here; Mau thinks the alae had served as wardrobes, indicated by traces of woodwork. They were often used as dining-rooms. The invariable window is a survival of olden times when the alae served to give light to the atrium.

The tablinum and alae together, if at corners, served as a prolongation of the atrium.^{3.} Hence, the Roman conception of an atrium was that of a cavaedium ("a hollow in the house"), used as a place for the archives, the arca, busts of ancestors and household gods, though the latter might be in any part of the house. In the atrium, the husband and wife were on equal footing: "Ubi tu Gaius, ibi ego Gaia." ^{4.}

A second story appeared as early as the sixth century B.C. as shown by a passage from Livy: "Cum clamor impetusque multitudinis vix sustineri posset, ex superiore parte aedium per fenestras in Novam Viam versas" *populum Tanaquil adloquitur.*" ^{5.}

1. House of the Faun, so-called on account of a statue of a dancing satyr found in it, Mau, p.289.
2. Vitruvius VI. 3,4.
3. Smith, p. 670.
4. Gusmann; Pompeii, p. 266, "Where you are Gaius (master), there am I Gaia." (mistress)
5. Livy I, 41. "When the noise and press of the crowd became unendurable, Tanaquil spoke to the people from the upper part of the house from windows looking on New Street."

Probably these upper rooms were bedrooms for women and slaves, which would naturally be in a more private section of the house. According to Vitruvius, the testudinate roof permitted a complete second story, which was impossible on the introduction of the compluvium. Thereafter, upper rooms were often at different levels, reached by different stairways and unconnected. The compluvium and impluvium made the atrium too cool to sit in, hence a dining-room (cenaculum) was a prominent feature of the second floor,¹ and its name cenaculum became synonymous with the entire upper floor.² In order that these upper rooms should not darken with their shadow the atrium depending on the compluvium for light, the ceilings of the rooms surrounding the atrium were lowered. Upper rooms were usually later additions,³ but in one case,⁴ the second story forms part of the architect's original plan, making the house one of the most attractive in the city.⁴ It is the home of Glaucus in the "Last Days of Pompeii."

A kitchen, or *culina*, probably had been added by the time the atrium became the Tuscan type. There was no definite place for it; it might be annexed at the partial expense of the garden at the rear. One of the rooms near the *tablinum* in our plan (Fig.9) may have been the kitchen. In another case, it occupies the front of the house with no connection with the dining-

1. Mau, p. 268.

2. Gusmann, p. 278.

3. Mau, p. 268.

4. The House of the Tragic Poet, so-called from a misinterpretation of a painting, Mau, 308-9.

room near it on the first floor.¹ Mau² and Durm² show the restoration of a house in Pompeii in which both a kitchen and a diningroom were in the second story.

The hearth was an oblong block of masonry with a place for the fire on top, a hollow underneath for fuel, and a small window above for smoke-exit. In the early days when the hearth was in the atrium, sacrifices were made there to the household gods, - the Lares, Penates and the Genius. Now, in the kitchen were both the hearth and a shrine decorated with (usually) two serpents, one (bearded) representing the 'Genius' of the paterfamilias and the other the 'Juno' of his wife.³ All this is reminiscent of the time when meals were cooked and served in the atrium.

An oven, too small for bread, was often near the hearth. Bread was ordinarily baked at public bakeries, though one house has a large oven off its kitchen.⁴ The kitchen was generally dark, small and unsanitary,⁵ its drain serving also the water-closet (latrina), which was a niche in, or near, the kitchen, sometimes under a nearby stairway - any corner unreached by air and sunlight. No such care was taken here with the plumbing as was done in the bathrooms.

The bath, its completeness and decoration in accord with the wealth and taste of the owner, was connected with the

1. House of Sallust, so called from an election notice about one Gaius Sallustius, Mau, p.278.
2. Mau, p.274, Durm, p.492.
3. Jones, p. 271.
4. House of Sallust.
5. Mau, p. 260.

kitchen, which supplied it with heat through pipes, or warm air passing along hollow floors and walls. The bath was a suite of rooms, consisting of tepidarium (warm room) and caldarium (hot room) and sometimes a frigidarium (cold room) and apodyterium (dressing-room).¹ A basin for the cold bath might be in the hot room or the dressing room. Naturally, only the homes of the very wealthy had such elaborate baths. Two houses show the close relationship between kitchen, toilet and bath.²

Store-rooms are indicated by shelf-supports in the walls of certain rooms, but cellars, as we understand the term, were rare, the term cellarium being applied to chambers holding a year's provisions. Those for perishable food were known as cella promptuaria; those for meat, carnaria.³ All such rooms were near the kitchen.

Bedrooms and dining-rooms will be discussed in the section on the peristyle, although both may occur around the atrium.⁴

The peristyle, the distinctive feature of the Greek house,⁵ became characteristic of the Roman house near the end of the second century B.C. The union of the two made the Graeco-Roman house with the complete separation of public and private

1. Mau, p. 261.
2. Houses of Faun, and of Silver Wedding, the latter sonamed for a special excavation in honor of this wedding of the King and Queen of Italy.
3. Blümmer, p. 50-51.
4. Mau, p. 261.
5. "The type of house with two courts seems to have been adopted by the Greeks & Romans at about same time."
Rider, "Greek House" p. 263.

apartments, an idea entirely new to Roman custom. The public apartments were around the atrium; the domestic, around the peristyle.¹ In the plan, (Fig.10) room (A) is the peristyle, located in line with the atrium (B). Since the garden at the rear of the Roman house often had a colonnade facing it, the transformation of this area into the Greek peristyle with its garden, columns and adjacent rooms was natural and easy. The colonnade might be on two, three or four sides. If the columns were higher on the north, the peristyle was known as Rhodian.² Two storied columns indicate upper rooms.³ The peristyle was longer, broader and more open than the atrium, very similar to the Spanish patio both in appearance and use. Flowers, planted often in geometrical designs, and graceful columns, made it by far the pleasantest part of the house. Here the family-life showed an increasing tendency to center. One peristyle is in complete restoration today, even to the replanting of the flower-beds, using the holes traceable in the soil where the roots had been. The effect is very charming.⁴

Members of the family entered the peristyle through the tablinum. Slaves used a passage at the right called the andron.⁵ In one house, three doorways take the place of the tablinum itself and of the androns, the center one wide and high, the side ones of ordinary size.⁶

1. Cagnat & Chapot: "Manuel de Rom. Ant." p. 277.

2. House of Silver Wedding, Mau, p.260.

3. Mau, p. 254.

4. House of A. Vettius Restitutus and A. Vettius Conviva, two freedmen, relationship unknown, Jones, p. 163.

5. Blümmer, p. 41.

6. Mau, pp. 258 and 322. Note both illustration and plan.

The family-apartments around the peristyle were bedrooms and dining-rooms, (triclinia). The Roman slept in a cubiculum, from "cubo", to recline. Cubicula were of two kinds;¹ one for the daily siesta (cubicula diurna); the other (cubicula dormitoria) for the night's rest. The siesta was originally taken on couches (same term, cubicula diurna) in the atrium. Later, small withdrawing rooms, enclosing these couches, joined the atrium. The beds for night use were in other rooms (cubicula dormitoria). The master's chamber was sometimes a suite, having an anteroom, a procoeton, where slept his slave, the valet, also a small dressing-room for women.

Rooms around the atrium were narrow, with high ceilings. Those around the peristyle were lower and larger, with broad openings toward the peristyle, and sometimes also connected directly with a dining-room by a door, or indirectly through a niche-like widening of the corridor. (Fig.11)

A bedroom is recognized by several signs. The place for the bed is sometimes indicated by a plain space in the pattern of the mosaic floor, or by the painted wall-panel, or by an alcove with a vaulted ceiling.²

1. Blümmer, p. 44.

2. Blümmer & Smith apply to this alcove the Greek name Zothea (Zo, live and these, receptacle). The Century Dictionary, and first meanings in Latin and Greek dictionaries, define it as a small room used for rest by day, as opposed to a sleeping room or dormitorium. Pliny in describing his life at his villa, uses the term in reference to both his siesta and his night's rest. Strictly, it appears to have been a cubiculum diurnum, but was loosely applied to cubiculum dormitorium. The meaning: "a niche for a statue," is given as a secondary definition in Latin and Greek lexicons; as first in Century Dictionary.

The garden of the peristyle needed sunshine. Therefore the ceilings of rooms surrounding it were lower than those of the atrium-rooms. If a second story were added, the peristyle-rooms were lowered even more, and the upper rooms were built as low as possible. Second story rooms sometimes jutted out over the street, which let more sunshine into the court, but darkened the street.^{1.}

Dining-rooms were an important feature of the house and often included an anteroom for libations (Fig.12). The oriental custom of reclining on couches at meals gradually prevailing, dining-rooms began to be called triclinia.^{2.} There were three couches about a small, round, oval, or square table, leaving the fourth side open for service. Each couch accomodated one to three persons. Thus, the ideal number for a dinner-party was a minimum of three or a maximum of nine -, the number of the Graces and of the Muses respectively.^{3.} Greeks reclined on the left arm, with the feet stretched toward the right. The "highest place" was at number 1 (Fig.12) so that the person reclining next (at 2) would have his head opposite the breast of the one occupying the "highest place." This was the position of John at the Last Supper who was said to be "lying on Jesus' breast."^{4.} This arrangement was inconvenient, because an occupant of an inner couch could not leave without disturbing those above and below him.^{5.} Where the couches have disappeared, their position is traceable by the floor mosaic and wall-paintings.^{6.}

1. Mau, p. 273.

2. " p. 262.

3. Smith, p. 887 - rule of Varro.

4. John 13:25 - Mau, p. 263.

5. Mau, p. 265.

6. " p. 264.

Triclinia first appear at the right or left of the tablinum, thus destroying the cross-shape of the exterior of the house. According to Vitruvius, the length of a triclinium should be twice its width; and the height, half the sum of the length plus the width. But in Pompeii the triclinia are about twelve by twenty feet. Some houses show a little anteroom with an altar for libations (Fig.12).

One triclinium was insufficient for the fastidious Roman. The wealthiest had separate dining-rooms for each season, sometimes more than one of each. According to Vitruvius, the winter triclinium should be pleasantly open to the southern sun, or be windowless and lighted by lamps. The summer triclinium Vitruvius placed on the cool and shady north side of the house. Spring and autumn triclinia he located on the east in preference to the west, because the morning sun would be grateful, but the late afternoon sun even in these seasons might be too warm. The house of Sallust having both peristyle and garden, had a summer triclinium in the garden, which must have been a charming place under its vine-covered lattice supported by pillars, all near a playing fountain.¹

Two important rooms for social purposes, oecus and exedra invariably opened on the peristyle. The oecus² was a banquet hall, the architecture of which is described by its columns -, the tetrastyle having four, just as when applied to the atrium. The ceiling over the large central part was very high in the Egyptian and Corinthian styles (Fig.13) and was supported by a row of short

1. Mau, p. 285.

2. Vit. VI, 3,9.

upper columns surmounting the architrave of the main columns. On the architrave there also rested the lower part of the ceiling extending to the walls of the room and having a promenade above, in the open air. On this promenade there opened from the oecus a row of windows like those in the clerestory of a cathedral. The main columns extended around the banquet-hall near the wall, and, with the lower ceiling, outlined a corridor through which guests passed to their places. The Cyclic style¹ was always located on the north side of the house and had the added feature of windows on the right and left, like folding-doors affording a view of the garden.* The other three types of oeci faced south.²

Small retiring rooms adjoining the banquet-halls bear frequent witness to excess in which gluttonous and wanton Romans indulged - the vomitoria and the venerea.³ Students rejoice to exclude from this company such illustrious Romans as Vergil, Cicero and Pliny.

The exedrae had various uses: for conversation, reading, music, a lecture, a recital of some new piece of literature, entertainment by dancers, or for banquets. Oeci and exedrae are so similar in form that it is often difficult to distinguish between them. They are prominent features of many of the finest houses in Pompeii.⁴

The residences of the wealthiest citizens frequently included art-galleries, libraries, basilicas and gymnasia. Paintings usually adorned the walls. If separate rooms were provided

1. Named for island of Cyzicum in the Propontus.

* See note 2, page 37.

2. Blümmer, p. 54.

3. Gusmann, p. 281.

4. The Centenary, excavated in 1879; The Vettii, the Faun; Silver Wedding.

for art-galleries, they faced north to prevent colors from fading. Libraries faced east as a protection against dampness and moths.^{1.} Basilicas were added because law-suits were frequently held in private houses.

Variations from the typical Graeco-Roman house are frequently seen in the presence of two atria and two peristyles;^{2.} two atria and one peristyle;^{3.} a peristyle between two atria (one Tuscan, the other Corinthian), with a garden and colonnade behind the Corinthian atrium.^{4.} The House of the Citharist was formed by the union of two adjoining houses -, one, built in the third century B.C. contributed an atrium, facing west, and two peristyles; the other, built in the first century B.C. added an atrium, facing north, with one peristyle. In this house, the better rooms are on the peristyles, and those on the atria are for slaves or domestic purposes.^{5.} In most cases, where there are more than one atrium or peristyle, the second suite is more retired and purely domestic.

Shops, with or without connection with the house proper, were an important feature of it and were a valuable source of income to the owner, who rented them to small tradesmen. Those connected with the house, the owner used as a place of sale for produce from his farm.^{6.} A counter of masonry with a place for a fire and for vessels for hot dishes was a common feature of eating-shops. (See Fig.14)

1. Vit. VI, 4, 1.
2. House of the Faun.
3. House of Vettii.
4. House of Castor & Pollux, Mau, p.350.
5. Mau, p. 346-7.
6. Blümmer, p. 59.

The shops of earlier periods were sixteen to nineteen feet high, although open upper galleries (pergulae), with balustrades, divided the height.¹ When the city became a Roman colony, the shops were lower, and closed rooms (also called pergulae) were built above. One who started life in unfavorable circumstances was said to be "natus in pergula."² Shops often had one or two backrooms, either for storage or private apartments. Stairs to the pergulae had their own exit to the street, so that the rented section was absolutely independent of the owner's residence although attached to it. Inscriptions and reliefs (e.g. Fig.15 the sign of a butcher) recommended the wares.³

Excavations in Pompeii have uncovered all classes of residences. Of course the homes of the poorer citizens have only the most necessary rooms e.g. (Fig.15) a small house having no shop; or, (Fig.14), one consisting of a shop and a livingroom without an atrium. On the other hand, a larger house (as Fig.16; note also the displuviate atrium) may have no shop, as is the case also in two 4. of the more imposing residences. Again a fine residence⁵ has only two shops both connected with the house and probably the master's place of business. But it is the general rule that all the front of a house, except the space reserved for the front door, is occupied by shops which extend on the side if the house borders more than one street.⁶

1. Mau, p. 270.

2. "born in a room over a shop." Mau, p. 270.

3. Blümmer, p. 61.

4. Houses of the Silver Wedding & Epidius Rufus.

5. House of the Tragic Poet.

6. Houses of Pansa and of the Faun.

Windows, inconspicuous though they were, show an interesting development. It is a far cry from the tiny, high dormer in the hut (Fig.1) to the wide and low windows of the splendid oecus and exedra. The first improvement was narrow spaces under the eaves (Figs.3b and 3a). These let in light and air from an encircling court over which extended the house roof supported by a row of stakes - the prototype of the endless colonnades in which the later Roman delighted. In the development of the town house, the windows were few, small and usually in the second story except in the alae. His house was his castle as was the medieval Italian palace. In one case,¹ the windows were six feet six inches above the pavement, three by two feet in size, and slid into a wooden frame at the side. At times there was lattice or network as protection against reptiles. Glass has been found in a few cases, In the tepidarium of the public baths a bronze lattice was discovered with panes of glass still in position. A transparent substance, as talc, was the common substitute for glass in private houses.² The open spaces necessary in the villa-rustica, finally developed aristocratic relatives in the broad, low, openings of the oeci and exedrae of the villa pseudo-urbana, which were sometimes as large as ten by twenty-three feet,³ although the taste for high windows is still gratified in the clerestory of the finest oeci. (Fig.13)

Variation in size and number of rooms and in decoration mark the social position of the owner, a condition which carries out a rule of Vitruvius. A man of unimportant social position had no need for a large atrium and might dispense with one altogether.

1. House of the Tragic Poet.

2. Smith, p. 668.

3. Mau, p. 275.

Officials and speakers would need ample atria, peristyles, libraries, art-galleries and basilicas. Those with farm products needed shops and storerooms.

Although Roman character seems not to have been influenced by the religious rites which were observed, shrines to household gods and to images of ancestors were universal. Sometimes they occupied a little chapel (sacellum or lararium) in the atrium, the alae, or elsewhere in the house. Sometimes statues of the Olympian gods, Jupiter, Vesta, Mercury, Hercules, Also Fortuna, and Venus Pompeiana were included among the objects of worship.¹ Livy occasionally refers to these chapels and Juvenal and Martial often satirize their use.

Wealthy freedmen (as the Vettii) often exposed themselves to the ridicule of satirists by setting up images of great Romans in imitation of patrician ancestor-worship.

"Differat hoc patrios optat vincere census
atriaque immodicis imaginibus artat." 1.

Juvenal, on the other hand, urges Romans to be worthy of their ancestors:

"Stemmata quid faciunt? quid prodest,
Pontice, longo sanguine censeris?

Tota licet veteres exornent undique oerae atria
Nobilitas sola est atque unica virtus. (Cont.)

1. Cognat & Chapot, p. 285.
2. "Let him defer this who wishes to surpass his ancestral wealth and crowds his atria with inappropriate images."
Martial Ep. II. 90,6.



- 1 Reggio-Emilia
- 2 Alba
- 3 Ancona
- 4 Bari
- 5 Remedello
- 6 Fontanella
- 7 Sargola
- 8 Valle della Vibrata
- 9 Fondo Nazari
- 10 Castellazzo
- 11 Castione dei Marchesi
- 12 Montate dell'Orto
- 13 Roma
- 14 Etruria - - - - -
- 15 Alba Longa
- 16 Marino
- 17 Chiusi
- 18 Vulci
- 19 Corneto
- 20 Latium - - - - -
- 21 Marzobotto
- 22 LITERAUM
- 23 Apennum
- 24 Formiae
- 25 Tusculum
- 26 Astura
- 27 Cumae
- 28 Laurentum
- 29 Naples
- 30 Vesuvius
- 31 Pompeii
- 32 Herculaneum
- 33 Stabiae
- 34 Puzoseta

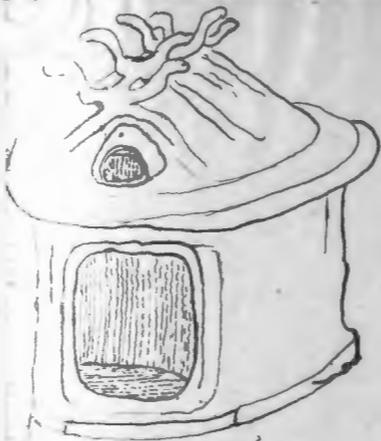


Fig. 1 House 8th Century B.C.
after Durm Figs 43-4

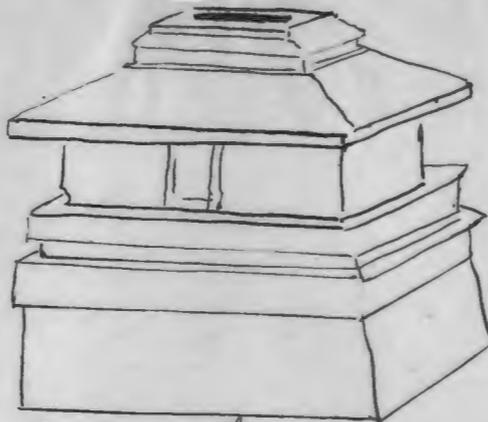


Fig. 2 House 6th Century B.C.
The Chinese Urn
after Durm Fig. 43

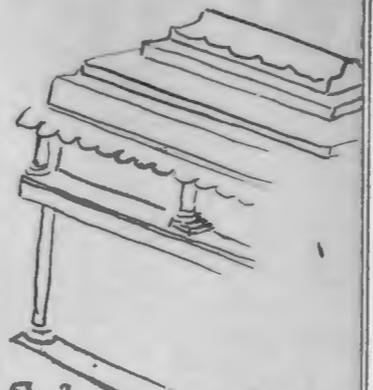


Fig. 3a
House 4th and 3rd Century B.C.
The Cecina Urn
after Durm Fig. 45

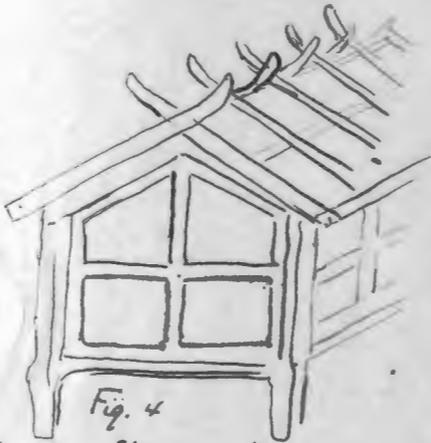


Fig. 4
Urn from Etruscan Museum
in Rome.
House with Pectinate Roof
after Durm Fig. 46

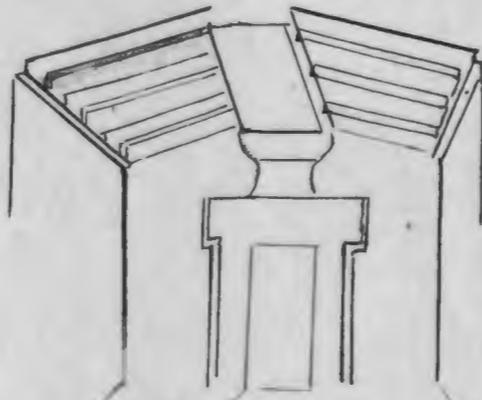


Fig. 5a The Vulci Tomb
Interior Pectinate Roof
after Durm Fig. 46

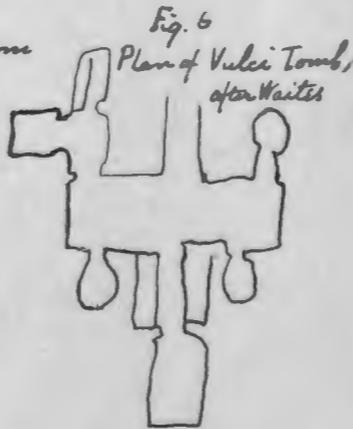


Fig. 6
Plan of Vulci Tomb,
after Waites

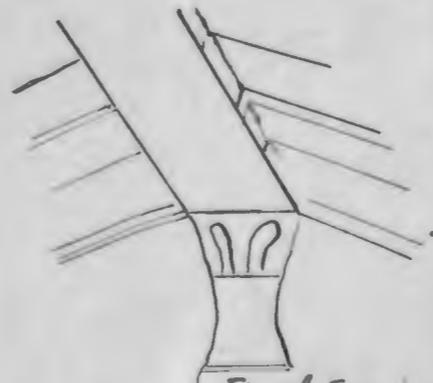


Fig. 5b Exterior
Pectinate Roof
after Durm Fig. 46

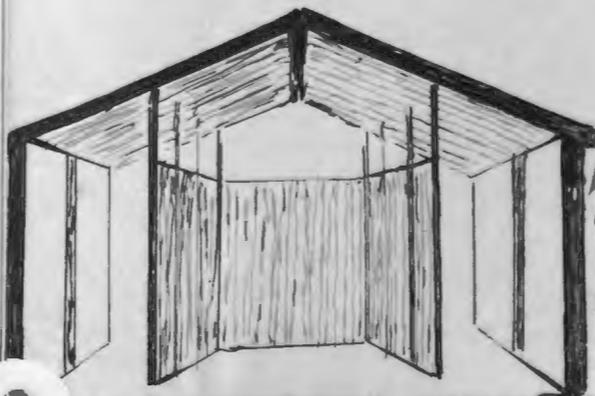


Fig. 3b
Covered Court
to light enclosed
House
Suggested by Waites and
Frothingham

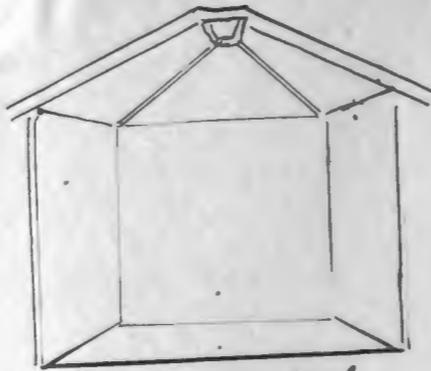


Fig. 7 Dipluviated Roof
Dipluviated atrium (no impluvium)
(compiled)

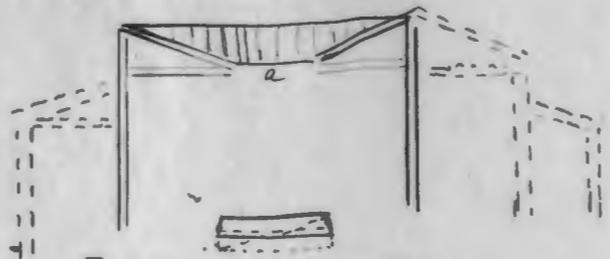


Fig. 8 Section Tuscan Atrium
a. compluvium
b. impluvium
after Mars Fig. 129

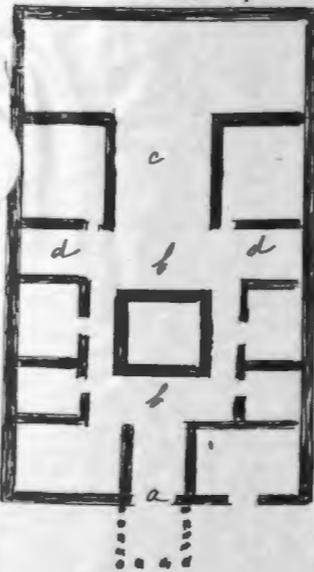


Fig. 9 National Roman House
after Duran p. 482
a. vestibule and oecum
b. atrium
c. tablinum
d. d. alas

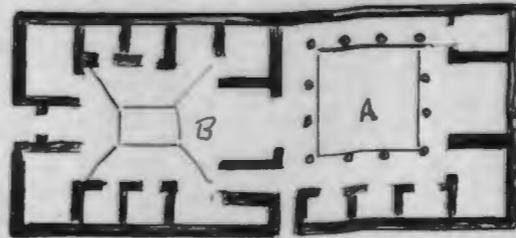


Fig. 10 Gracco Roman House
A peristyle
B atrium

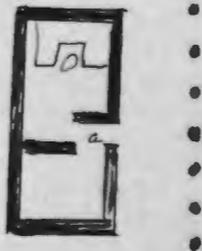


Fig. 11 Trichlinium
and bedroom
a. niche



Fig. 12 Trichlinium
a. upper couch lectus summus
b. middle " " medius
c. lower " " imus
d. table mensa
E. altar in anteroom
after Mars Fig 123-4



Fig. 13 Egyptian or Corinthian Oecus
after Durm Fig 559 p. 493

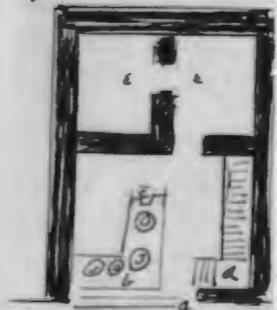


Fig. 14 Typical Shop
a. entrance
b. counter
c. place for fire
d. stairway to upper floor
e. back rooms

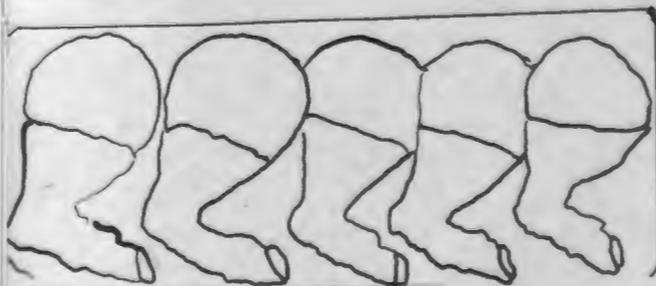


Fig. 15 Sign of butcher shop
after Blumner Fig 22 p. 61

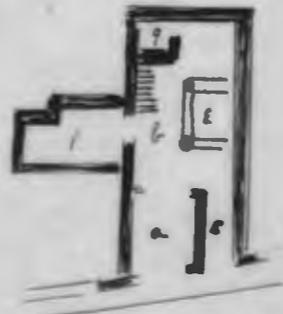
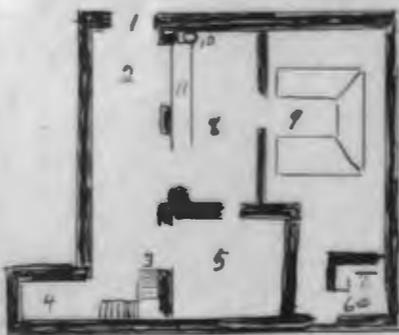


Fig. 16 Little House with Shop
a. shop
b. atrium
c. entrance
e. impluvium
f. kitchen
after Blumner p. 59 fig 20



- 1 door
- 2 oecium
- 3 stairs
- 4 room for slave
- 5 winter triclinium
- 6 entrance
- 7 shrine
- 8 atrium
- 9 summer triclinium
- 10 cistern
- 11 drain in the disphoric atrium

Fig. 17 Small House with no Shop
after Cornish

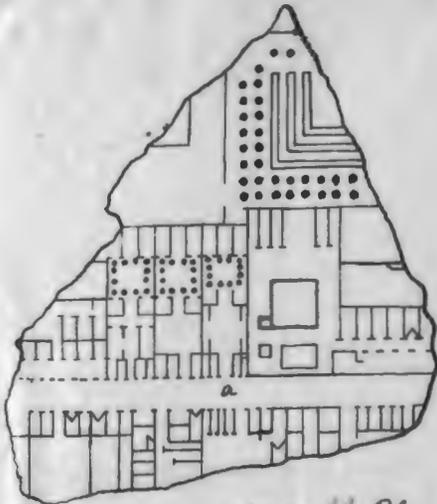


Fig. 18 Fragment of Marble Plan of Rome showing district of private residences after Jones p. 37 fig. 8a

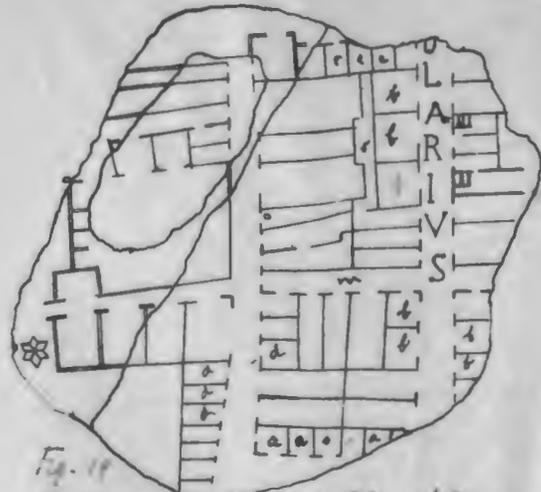


Fig. 19 Fragment of Marble Plan of Rome showing tenement district (in blue) after Durm p. 87

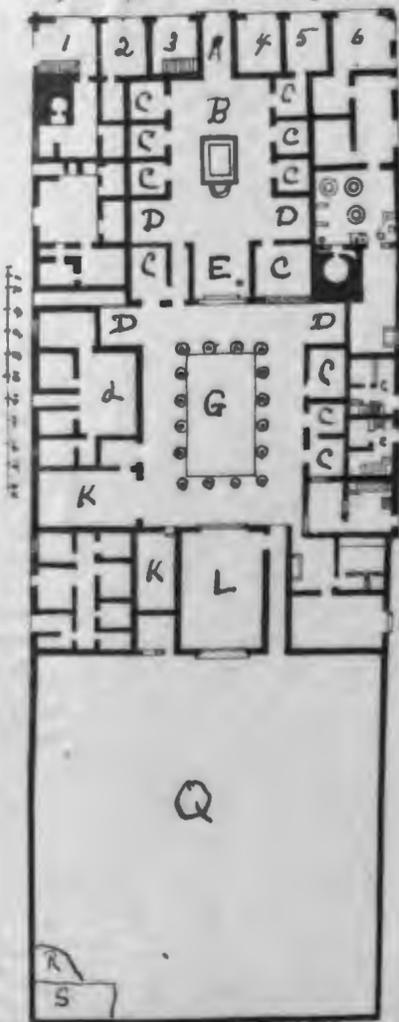
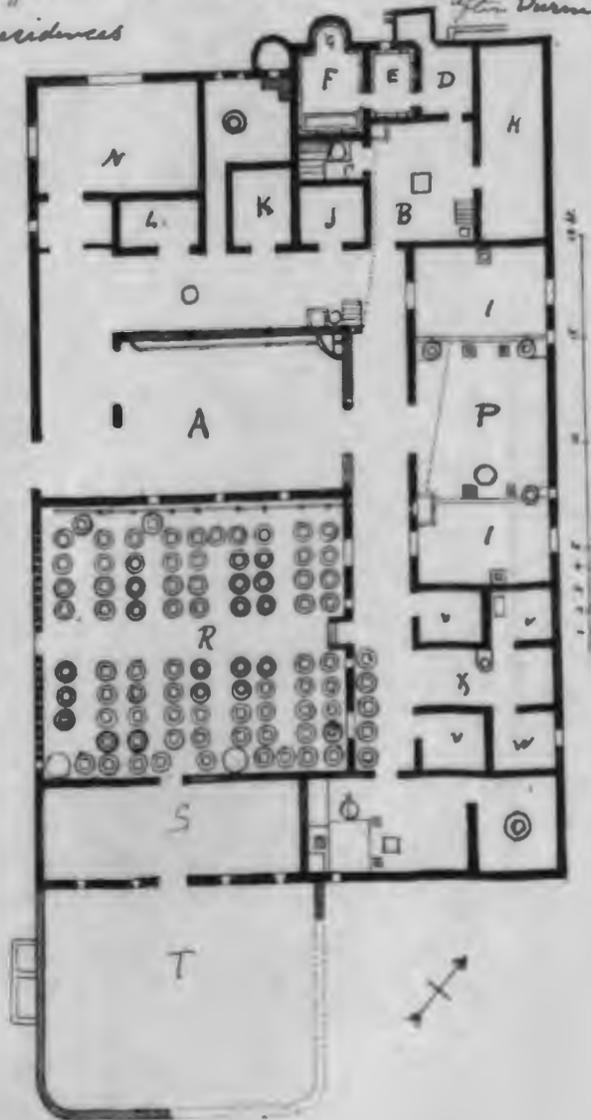


Fig. 20 House of Vanea Pompeii Combined national Roman Houses, Shops and Insula. after Mau p. 300 fig. 11



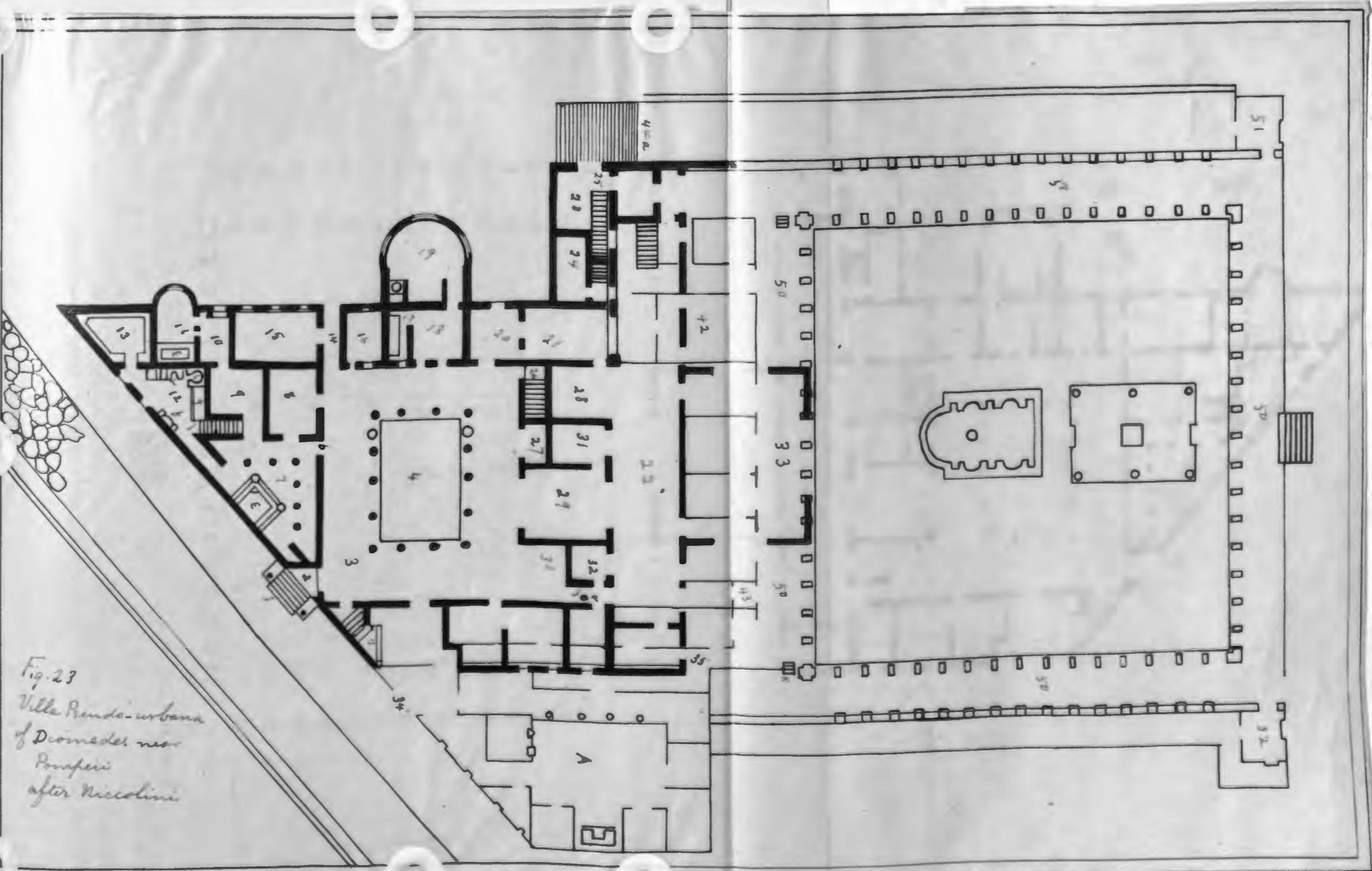
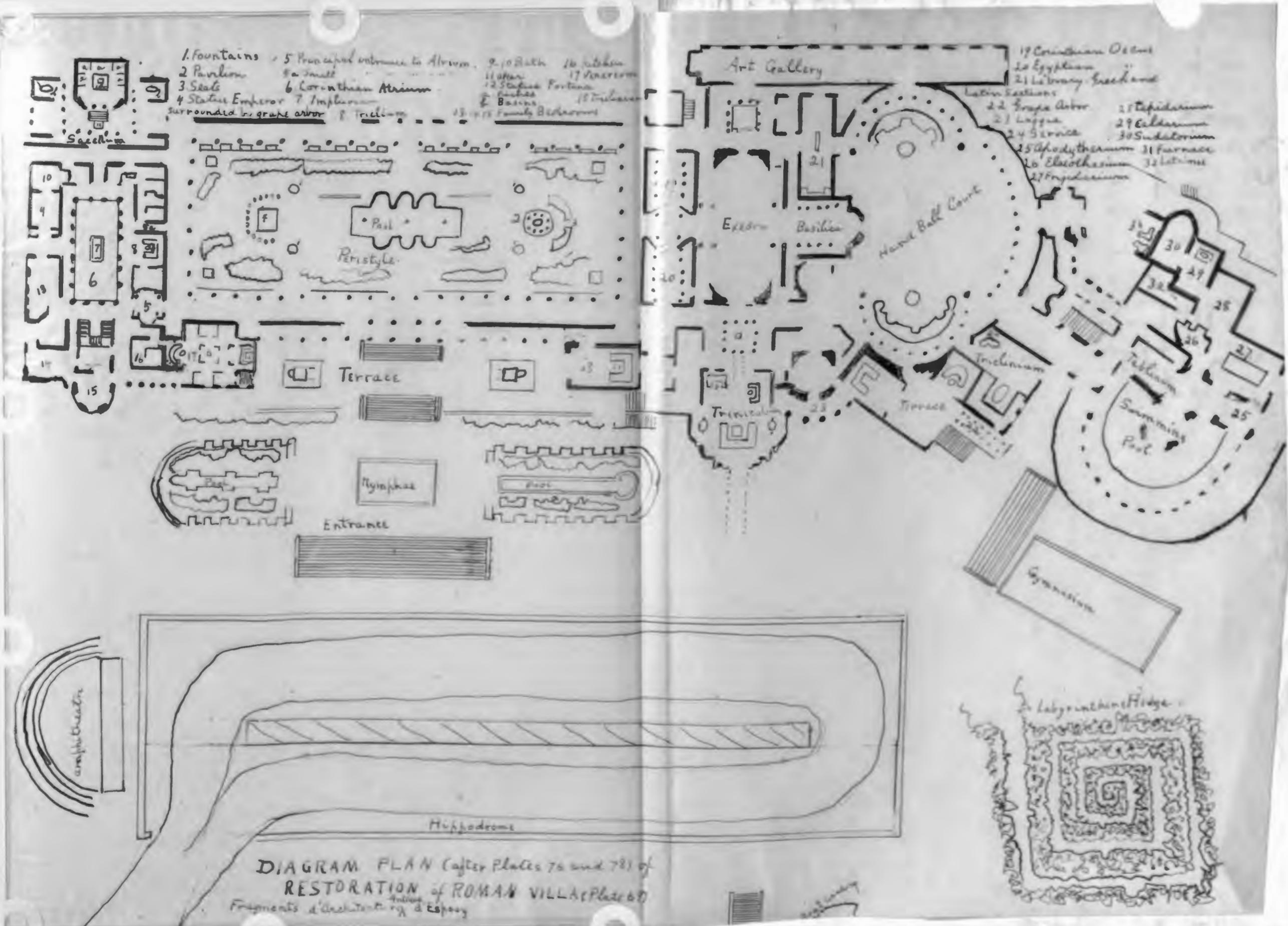


Fig. 23
Villa Pseudo-urbana
of Diomedes near
Pompeii
after Niccolini



- 1. Fountains
- 2. Pavilion
- 3. Seats
- 4. Statue Emperor surrounded by grade arbor
- 5. Principal entrance to Atrium
- 6. Corinthian Atrium
- 7. Impluvium
- 8. Triclinium
- 9. Bath
- 10. Kitchen
- 11. Office
- 12. Statue Fortuna
- 13. Basins
- 14. Family Bedrooms
- 15. Venusium
- 16. Venusium
- 17. Venusium
- 18. Venusium

- 19. Corinthian Octave
- 20. Egyptian
- 21. Library - Fresh and
- Latin Sections
- 22. Exedra
- 23. Loggia
- 24. Service
- 25. Aphodytherium
- 26. Elaiothesium
- 27. Frigidarium
- 28. Tepidarium
- 29. Caldarium
- 30. Sudatorium
- 31. Furnace
- 32. Latrine

DIAGRAM PLAN (after Plates 76 and 78) of RESTORATION of ROMAN VILLA (Plate 60)
 Fragments d'Architecture d'Espoy

"Paulus vel Cossus vel Drusus, movibus esto
hos ante effigies maiorum pone tuorum
praecedant haec illi te consule virgas."¹.

Livy would be democratic in recognition of character and achievement, and would permit plebeians not only to adorn their houses with symbols of civil and military honors, but even of priestly office.

"Quorum domos spoliis hostium adfixis, insignes inter alias feceritis, pontificalia atque auguralia insignia edicere?"².

Not only has the advance of civilization been traced in the development of the national Roman house, but the position and character of the individual owner has been interpreted in its appointments.

1. "What good are pedigrees? What is the advantage, Ponticus, to be rated as belonging to an ancient line?" Juvenal VIII, 1-2.

"Although ancient waxen images may adorn whole atria, nobility lies in character alone. Paulus, Cossus and Drusus, be good before you esteem images of your ancestors; let character precede those ancestors while you are consul." Juv. VIII, 19-23.
2. "Whose homes you have distinguished among others with spoils of enemies hung before them. May you not also add priestly and sacrificial insignia." Livy X, 7.

CHAPTER IV
THE INSULA OR TENEMENT.

"Longum est, si velit ad Pirum venire, et
Scalis habito tribus, sed altis." 1.

A marble plan of Rome was found in the seventeenth century on the eastern wall of the Church of Saints Cosmo e Damiano in the Forum, originally the Templum Sacrae Urbis. A fragment of this plan,² reproduced at Figure 18, shows the street (a) bordered with shops which are parts of symmetrical structures - true Roman residences, with atria well-lighted by compluvia, and garden-peristyles. Another fragment, (Fig.19) is in striking contrast.³ Four streets enclose a tenement-block or insula, this being the ground-floor plan, above which rose several stories. The usual shops (a's, b's, c's and d's) face the four streets. Instead of merely bordering a well-lighted interior, these shops reach back to back, filling the whole area, there being little, if any, provision for light and air. The apparent alley at (m) and the possible light-well at (n) were inadequate and no doubt ill-kept, and the general irregularity of the partitions compares unfavorably with the symmetry characteristic of the other fragment. The five or six stories built above these shops were rented to families and

1. Martial I, 117,7: "It is a long way if you wish to come to Pirus street, and I live up three very high flights of stairs."
2. Jones, p. 39.
3. Durm, p. 484. See also Canini, L'Architettura Antica, Sezione III Architettura Romana, Four double plates at beginning of book 1830-40.

to solitary lodgers. It is in such places that the poor of the great city lived. In brief, insulae were slums. As better types of structures would naturally avoid close proximity to these tenements, it usually happened that a whole block would be devoted to these undesirable quarters, so that they were set apart by the streets like an island (insula).

That they had made their unwelcome appearance before the fifth century B.C. is proven by the reforms of the Lex Icilia¹. which prescribed that each family living in Aventine Hill insulae should occupy a full story in absolute ownership -, comparable to several modern duplexes piled one above another. The population was so dense and the value of land so high, even at that early date, that one and-two-story domus could not accommodate the numbers, and extra stories became the rule. After the sack of the city by the Gauls in 390 B.C., Rome was rebuilt in a haphazard manner with narrow streets and an increasing number of tenements, much wood being used in their construction.²

At the beginning of the Augustan age there were more than 44,000 of these insulae (houses for rent) to 1,780 domus or homes of the well-to-do and rich.³ They had been built by speculators who took more interest in the income derived from them than in the tenants. They were erected upon insecure foundations and were of flimsy wooden construction in the upper stories, hence were menaced by the triple danger of flood, fire and collapse.

1. Smith, p. 665.

2. Friedländer, p.3. "Sittengeschichte Roms" Vol.I.

3. Smith, p. 665. Jones p. 166, explains that this figure is too large if it means so many full city blocks, and too small if single lodgings. It probably means groups of tenements owned by one proprietor.

The apartments were small and bare, also poorly lighted and ventilated. There were no chimneys, and the facades were blackened by smoke escaping through isolated openings.¹ Old cracks in the walls were simply plastered over instead of being thoroughly repaired. Usually one landlord owned one or more blocks of tenements and appointed an insularius to take charge of them and collect the rents.² The stairways to the street were wooden, dark, small and inconvenient. Sometimes little balconies called *maeniana* projected over the streets for widening the rooms, but they cut off light and air from the streets and lower stories, therefore were prohibited or restricted by imperial edicts.³

As shown by the quotation from *Martial* at the beginning of this chapter, we have no express mention of the height being more than four stories, *Juvenal* comments on the fact that the poor lived on the "fourth floor where the doves laid their eggs."⁴ But the buildings must have been higher, at least some of them, for *Augustus* restricted them to 70 feet. Conditions generally were so bad that, besides establishing a maximum height, he required buildings to be built on stone piers with concrete or brick walls.⁵

These high buildings were out of all proportion to Rome's narrow streets, for *Augustus* fixed no corresponding width of street, as is the case in modern cities.⁶ *Friedländer*, writing in 1888, before the day of sky-scrapers, says that in both Berlin

1. *Durm*, p. 484.

2. *Smith*, p. 665.

3. *Blümmer*, p. 57.

4. *Juvenal*, III, 199 ff.

5. *Smith*, p. 666.

6. *Friedländer*, p. 8-9; *Jones*, p. 35: says buildings were 5 or 6 stories high and streets 12-15 feet wide.

and Paris, no new building could be higher than the width of the street. In the older sections of Paris, its narrowest street, 25.4 feet, has a house 38.8 feet high. But in imperial Rome, streets ranged from 12 to 21.19 feet wide. For example, Vicus Tuscas was 14.5 feet and Vicus Jugarius 17.9 feet. The streets known as Alta Semita, Via Nova and Via Lata are described as being wider.* All statements of measurement should be modified by a probable, though slight, variation in the unit of measurement. Friedländer estimates that seventy and sixty-foot Roman buildings would be respectively about sixty-six and fifty-six Prussian feet. According to Pliny, Rome had higher buildings and narrower streets than any contemporary city.¹ Strabo excepted Tyre, which, being on an island, was restricted in its land.² Neither could Rome compare with Alexandria and Antioch with their straight streets a mile in length.³

Only fifty years after Augustus, bad conditions again prevailed, and revised building laws were necessary. If Nero burned Rome to rebuild it, he did the city one good turn. In this conflagration which raged over a week, thousands of insulae were burned, and many wrecked to check the spread of the fire. Only four of the fourteen wards were untouched. Those most thoroughly gutted were the eleventh (near Circus Maximus), the tenth (the Palatine) and the southern slope of the Esquiline in the third.

1. Friedländer, p. 7.

2. Strabo, quoted by Friedländer, p. 9.

3. Friedländer, p. 9.

* See note 6, page 46.

Nero used the greater part of the third region for his Golden House. In the other sections, he forbade the rebuilding of towering tenements, limiting their height to sixty feet. To insure stability, he required firm foundations and the lower stories to be constructed of Gabinian and Alban stone-, a conglomerate of ashes, gravel etc. known as peperino.¹ He ordered inner courtyards for light and air, and laid out broad streets. Colonnades were built at his personal expense, as a means of escape from burning buildings and for assistance in fighting fire.

Scarcely another half century had passed before conditions were as bad as ever. Shoddy building prevailed and exorbitant rates were paid for the meanest lodging, with its attendant dangers of fire, flood and collapse.² "The old evils of over-crowding and jerry-building must have crept in again, if we can trust the third satire of Juvenal."³ Though statements of satirists must be taken with a grain of salt, he had certainly some foundation for saying:

"Nos urbem colimus tenui tibi cine fultam
magna parte sui." ⁴

Another quotation from the same satire portrays more graphically the dangers to which one who lived in them was exposed, and also compares the lot of a poor man and a rich man who lose their homes

1. Jones, p. 36-7; p.55.

2. Smith, p. 665.

3. Jones, p. 38.

4. Juv. III, 193: "We live in a city, largely supported on slender props."

by fire.

"Nam sic labentibus obstat vilâcus, et
veteris rimae cum texit hiatum se-
curos pendente iubet dormire ruina.
Vivendum est illic ubi nulla incendia,
nulli nocte metus. Iam poscit aquam,
iam frivola transfert Ucalegon,
tabulata tibi iam tertia fumant:
tu nescis; nam si gradibus trepidatur
ab imis, ultimus ardebit quem tegula
sola tuetur a pluvia, molles ubi reddunt
ova columbae." (The poor man's house).

"ardet adhuc, et iam accurrit qui mar-
mora donet.

Conferat inpensas; hic nuda et candida
signa,

hic aliquid praeclarum Euphranoris
et Polycliti,

haec Asianorum vetera ornamenta deorum
hic libros dabit et forulos mediamque

Minervam,

hic medium argenti meliora ac plura reponit
Persicus orborum lautissimus et merito iam

"suspectus, tamquam ipse suas in-
cenderit aedes." 1.

In Martial's time, Nero's protecting colonnades had been so universally appropriated by sidewalk merchants that he exclaims: "Rome has become a great shop. One cannot see the thresholds. Little tradesmen, barbers, and so forth, push praetors aside to wander in the mud."² In fact, the high buildings, narrow streets and little tiny shops made plebeian Rome similar to the slums of modern Naples. Since Martial considered his lodgings on the fourth floor, very high, it is possible imperial restrictions were beginning to bear some fruit.

Under the conditions described, one is not surprised that Juvenal advised against living in Rome. "A simple home with its little garden in a country-town, is not so expensive as the Roman lodging."³ Also "The poor ought long ago to have gone to the small towns where no one fears that his house will collapse."⁴

At first then, the archeologist may not expect to find at Pompeii an insula for study. But the house of Pansa is

1. Juvenal III, 195-222: we may translate it freely thus: "The steward prevents the insula from falling, plasters over old cracks and bids you sleep under threatening ruin. It burns, the poor man calls for water, which no one brings. He goes for water as a third wooden story burns, and on his return the top one is afire. He loses all. Now, a rich man's house burns, his friends bring marbles, statues, books, building material, plate. He is richer and better off than before, and there is a just suspicion he has burned his house on purpose." (The under-lined words refer to the height of the buildings.)
2. Friedländer, p. 10.
3. Juv. III, 230-1.
4. " " 126, ff.

now regarded as combining the features of private residence, tabernae and insula.¹

Like the insulae in the plan of Rome (Fig.19), the Pompeian ruin of the house of Pansa shows only the first story, but an upper story is indicated by a two-storied portico, although no stairway can be located. This second story must have been well-lighted and ventilated by the open spaces above the compluvium, peristyle, and large garden, making this a model tenement.

Following the diagram, (Fig.20), we observe first the typical Graeco-Roman private residence. It is the home of one of the principal citizens of Pompeii, who shared similar living conditions with his tenants. From a tiny vestibule (of the late, restricted type i.e. within the house), the ostium (entrance-hall A) paved with mosaic, leads to a Tuscan atrium (B) with compluvium and impluvium. The tablinum (E), on the opposite side of the atrium with alae (D and D) completes the form of the cross. Eight rooms (C's) open on the atrium, two of which, evidently bedrooms, flank the tablinum, which (as does its andron), leads to the peristyle (G). Here are two recesses (D and D) at the immediate right and left, like the alae of the atrium. Three chambers (C), border the peristyle on the left, but at the right is one of the apartments for rent (d), unconnected with the peristyle. An oecus (L) is pleasantly located between the peristyle and the large rear garden (Q). Two triclinia (K,K,) meeting at right angles, separate the residence from another rented apartment which occupies the house-corner. The corresponding corner contains the kitchen (N,N,) and the servants' hall (H) with an outside entrance. Across the rear of the

1. Smith, p. 681.

house and facing the garden, is a two-storied portico. Water is supplied from the reservoir (R) to the tank (S).

Six shops extend across the front, one of which, (5) connecting with the atrium through an anteroom is undoubtedly Pansa's office. The two corner shops (1 and 6) are bakeries, as shown by their mills and ovens. The one adjoining Pansa's office has large living and display-rooms besides its bakery. Probably, more living apartments and lodgings were above all the shops. Just beyond the large bakery are two small, undesirable flats (C and C). Beyond these, and next to the kitchen, is an attractive suite of three rooms, opening both on the street and the peristyle and probably occupied by relatives.¹ The three flats on the opposite side of the house had each two street-doors, one for the shop and the other for the living-rooms. All these rented apartments were probably duplicated on a second floor.²

The following advertisement of an insula for rent was found on a house-wall across the street from that of Pansa.

"Insula Arriana

Polliana Cn. Allei Nigidi Mai

Locantur ex K. (alendis) Julis primis tabernae

cum pergulis suis et cenacula

equestris et domus, conductor

convenuto primum, Cn. Allei

Nigidi Mai Ser (vum)." 3.

1. Mau, p. 350.

2. Cornish, p. 249.

3. Mau, p. 489. "To rent, from July 1, shops with upper floors, fine upper chambers, and a house, in block Arrius Pollio, owned by Cn. Alleis Nigidius Maius; prospective lessees apply to his slave."

May we not regard the house of Pansa as that of a public-spirited citizen, working out a problem in good houseing? While some of the flats undoubtedly commanded higher rents than others, all were benefited by the sunshine and space afforded by the compluvium, peristyle and garden. The whole structure must have been substantial to correspond with the following description: "Architectural effect has been carefully studied in the design of Pansa's house, a vista nearly three hundred feet in length being obtained from the outer door to the garden-wall, varied by a pleasing play of light and shade, and displaying a gradually increasing degree of spaciousness and architectural richness as we advance. All these points must have been productive of the most pleasing effect when complete, and of more beauty than has been attained in almost any modern building of like dimensions." 1.

1. Fergusson's History of Architecture, Vol.I, p. 370, quoted by Smith p. 682.

CHAPTER V.

THE VILLAS.

The great number of villas throughout the entire Italian peninsula and the provinces, shows that the Roman, however urban he became in the course of history, was essentially a farmer in his tastes, and retreated to the country on the slightest pretext. Information for the first centuries is scanty, but, according to Cato, farming and stock-raising occupied man's attention in the earlier republic, and plain, simple villas served his purpose.¹ Cincinnatus at his plow is a familiar example of this class. The splendor of the villas of the late republic aroused the indignation of the stern old Stoic, Cato. The first historical character, known to have retired from active city-life to a quiet country-retreat, is Scipio Africanus in his Litemum^a-villa, as mentioned by Seneca, contrasting its simplicity with the sumptuous villas of the empire.²

The villas of these patriots, Cincinnatus, and Scipio Africanus, illustrate the two purposes to which the two types of country-residences were adapted. These are, the farmstead (villa rustica) and the country-house of the wealthy citizen of Rome (villa pseudo-urbana). This latter type is described by Vitruvius as having its chief rooms in the reverse order of those in the town-house, entering directly into a peristyle, behind which might

1. Blümmer p. 68.

2. Durm p. 67; Jones, p. 174.

a. See 22 on map.

be one or more atria.^{1.}

I. THE VILLA RUSTICA.

The site of a villa rustica was selected for fertility, water-supply and healthfulness.^{2.} Excavations show variation in arrangement due to climate, topography and products, whether wine and oil, or stock and grain.

There are three general plans: first, two courts, the front one for family purposes, the rear one for animals;^{3.} second, an outer court for domestic purposes and an inner one for the stock;^{4.} third, both living and farm-buildings surround one court, as Vitruvius suggests. Each court is provided with a cistern and also an open pond, one near the animal-sheds, for ducks and geese and watering-trough; the other near the family apartments, for steeping flax.^{5.}

In the arrangement of the living apartments, the office of the superintendent was near the entrance, affording a general oversight of the premises. Bedrooms for the family were adjacent to this office, additional ones, if necessary, being in an upper story.

Family-life centered in the kitchen, a large, cheery room, used for cooking, eating, and resting, pleasantly located with a southern exposure.^{6.} Near it was the bath just as in the city-house and for the same reason. The kitchen also afforded

1. Vitruvius VI. 5,3. Other contemporary Roman authorities, Varro, Columella and Palladius imitate, supplement and borrow from each other.

Mau, p. 355; Jones p. 170-1.

2. Blümmer, p. 69.

3. " p. 70.

4. Becker's "Gallus" p 67-8.

5. Blümmer, p. 70.

6. Vit. VI. 6,1.

warmth to the animal-court. Stalls for oxen were nearest, because they are not afraid of fire and heat does not roughen their coats.¹ The standard size for ox-stalls was seven by ten to fifteen feet for each pair.²

Horse-stalls were opposite the kitchen and so located that the animals did not face the fire, but were near enough to share the warmth. Those for sheep and goats faced north or north-east and were somewhat elevated above the ground. Poultry, in great variety (peacocks, pheasants, pigeons and doves as well as chickens), were housed in coops, also near the kitchen, but facing the east, whither the prevailing winds carried the kitchen-smoke. If coops could not be thus favorably located, Vitruvius said they should be provided with hearths, so essential was smoke to their well-being.³

A villa rustica, of course, might include rooms for wine and oil presses, which again should be near the kitchen. A room containing one press should be 16x40 feet; if two presses, 24x40 feet. That for oil was much smaller. The wine should ferment in a shed on the north, since sun weakens wine.⁴ Other authorities claim that wine should be open to wind, rain and sun.⁵ The oil-press should be on the south, because frost stiffens oil, while heat keeps it thin.⁶ Columella, says oil-rooms should face south, because smoke and soot spoil the taste of the oil, and it must be kept thin by natural heat.⁷

1. Cagnat & Chapot, p. 301.

2. Vit. VI. 6,2.

3. Blümmer, p.72.

4. Vit. VI. 6,2.

5. Jones, p.5.

6. Vit.VI. 6,3.

7. Blümmer, p. 72.

The threshing-floor¹ for grain should be an open place outside the court with a nubelarium (covered coach-house) near, to which grain could be brought, in case of a sudden shower, also to dry before being placed in the granary. Storage for grain and hay should be apart from the farmhouse as a better protection against fire, and face north or northeast as a safeguard against pests.² Many windows were necessary to light all these apartments, an interesting point in comparison with the city-house.

II. THE VILLA RUSTICA AT BOSCO REALE.

The eruption which buried Pompeii,^a Herculaneum,^b and Stabia^c also covered the intervening farms, one of which, at Bosco Reale, two miles from Pompeii, was excavated by Vincenzo de Brisco in 1893-4. It is famous for the discovery, April sixth, 1895, of one hundred eight pieces of silver plate and a sack of a thousand coins in the cistern of the wine-press, together with three skeletons, one in the cistern itself and two in the press-room. One of these was evidently Maxima,³ the mistress of the villa; the others, servants who were helping her save the treasure.

To the archaeologist, the villa itself, in its excellent state of preservation, is no less interesting. It belongs to the third type, having only one court, the farm being devoted apparently to the vine and the olive. The villa (Fig.21) occupies a space 80x125 feet, all under one roof.⁴ It faces southwest and is entered by a driveway into the open court, (A), having a colonnade on three sides at the left of the entrance.

1. Blümmer, p. 74.
2. Vit.V. 6,5; Blümmer p.73 and note.
3. The name engraved on the plate, Jones, p. 172 and 432.
4. Mau, p. 354.

- a. See 31 on map.
- b. " 32 " "
- c. " 33 " "

The western corner of the house is a well-lighted triclinium (N) with remains of three couches. Between the dining-room and the kitchen (B) are the steward's room (L), a bakery (O), bedroom (K), toolroom (J) - remains of a sickle and other tools being found in it.

The northern corner is occupied by the kitchen (B), bathrooms (C-D-E-F-G), and a stable (H). The kitchen communicates on the south with the open court and heated the bath-suite and furnished some warmth to the stable beyond. The bath-suite consists of (C), the furnace, (F) the caldarium, (E) tepidarium, (D) apodyterium, and (G) latrina. Other and more comfortable family-apartments occupied a second story over this section, reached by a stairway from the kitchen.¹

The rest of the ground-floor was given over to the business of manufacturing wine and oil. The wine-press room (P) contains two presses (1) and (1). The above-named treasure was found in the cistern (3). The wine was conveyed by a trough to the room (R) across the passage, where it was fermented in the open air. This room has about 80 vats, each of 250 gallons capacity, providing thus for a vintage of 20,000 gallons. Large windows open to the southwest, contrary to the provisions of Vitruvius.² The olive-presses occupy the southeastern corner, thus partially following Vitruvius' instructions. Between the rooms for olive-and wine-presses are the slave dormitories, (v-v-v-w-x), with corresponding rooms in the second story.

The open threshing-floor is at (T), and (S) is possibly

1. Jones, p. 172.

2. Cagnat & Chapot, p. 305.

the nubelarium as indicated by remains of bean-straw, while parts of a wagon show that is also served as a coach-house. Such a well-developed farm of vineyards and olive-groves is a worthy example of the basis of Roman prosperity.

III. THE VILLA PSEUDO-URBANA.

The same instinct, that made the Italian, from pre-historic times, lay a votive offering at a medicinal spring, or worship a dryad in a tree, led the Roman of later periods, weary with city-life and cares, turn to the country for refreshment of body and soul.^{1.}

Among famous villas, none are more interesting than the seven or eight associated with Cicero. He was always fond of the simple villa at Arpinum,^a his birthplace, which he inherited from his father.^{2.} His villa at Formiae^b on the Appian Way, more than half way to Naples, was in a fashionable neighborhood. Here in March, 49 B.C., Caesar influenced him to join his party, and here, December 43 B.C., he was murdered. Much of his literary work was done at his Tusculum^c villa, which he purchased as a retreat from the gay life of Formiae. Here he had access to the library of Lucullus. It was to this one of Cicero's villas that his brother-in-law, Atticus, was commissioned to send many statues. It was this villa which the ruffians of Clodius sacked, in retaliation for Cicero's charges of bribery, during the exile of its fearless owner, and which was later restored at public expense

1. Lanciani, pp. 48-50, 60, 146.

2. "De Legibus" II, 1, quoted by Jones, p. 174.

a. See 23 on map.
b. " 24 " map.
c. " 25 " "

with an appropriation of \$25000. It was his favorite residence until the death of Tullia, when that at Astura^a seemed to offer the solace he sought. He was known to have had a villa near Pompeii and another on the more fashionable northern shore of the bay of Naples. He wrote¹ the "De Republica" at his Cumæan^b villa near the Lucrine Lake.

Notwithstanding the prominent place which their country-homes filled in the lives of wealthy and famous Romans, the traces of these villas are so obliterated that students must depend upon contemporary literature, notably Pliny's Letters, illustrated by Pompeian wall-paintings.² These estates were marvels of charm and luxury, placing the emphasis on splendor, pleasure and pomp rather than on agriculture.³ This type of residence appeared late in the republic. The increase of wealth, the demands of luxury, and extravagant tastes led to the purchase of small farms and their transformation into large private parks.⁴

Owners vied with each other in the selection of sites famous for healthfulness, for beauty of scenery, and especially for wide outlook, as well as in the splendor, size and adornment of the house itself. Favorite localities were the Italian lakes and mountains, the Campagna, and the blue bay of Naples where sea-villas were built on firm foundations far out over the water.⁵ The wealthy had many villas in different localities adapted to the seasons.

1. Jones, p. 174-5.
2. " p. 176.
3. Durm, p. 503.
4. Cagnat & Chapot; p. 309.
5. Blümmer, p. 78.

- a. See 26 on map.
- b. " 27 " "

The Roman adhered rather closely to type in his town-house, but his villa, or villas, revealed all the idiosyncrasies of his nature. He took advantage of the topography of his location to catch a charming bit of mountain or sea-view, and secured unique architectural effects by adapting the structure to irregularities in the site. The whole plan of the villa was more extensive and free than that of the city-house. The number, size, order and arrangement of the rooms depended upon the location as well as upon the means and tastes of the owner.¹ Vitruvius disposes of this type of villa with merely a passing reference, observing that the peristyle precedes the atrium, which is in turn surrounded by porticoes, gymnasia and corridors, - an arrangement which Pliny follows at Laurentum.^{2.a.}³ Many bewildering features of the house and grounds lent fascination to the establishment. The approach was through extensive grounds, natural and artificial gardens, bright with blooming plants and grotesque with trees cut in fantastic shapes. They were adorned with graceful porticoes, broad terraces and with corridors for shade and for shelter from rain, and long, alluring foot-paths. Artificial grottoes or seats invited to conversation or reading, while statues of nymphs seemed to play among cascades and fountains. These gardens, fountains, islands, and fishponds, made the problem of water-supply very acute. If near a public aqueduct, leaden pipes bearing the owner's name brought water to reservoirs on the estate; otherwise, the villas

1. Blümmer, p, 78

2. Blümmer, p, 78

3. d'Espouy, H., Fragmenti a'Architecturi Antiqua vol.II. Ideal Reconstruction of a Villa, plate 69. Ground Plan Plates 76-78.

a. See 28 on map.

were dependent on wells and cisterns.^{1.}

The architectural value of the house lay in the facade, and in the interior plan and decoration. Second-story rooms were especially prized according to Blümmer (p.81) for dining-rooms and bedrooms; according to Durm, (p.503) a second story was desirable only when the villa was on a hillside. Unusual effects were so prized that architects sometimes improved the site by artificial irregularities.

The interior (Fig.22) was equally unique in its arrangement of salons, halls, splendid dining-rooms with charming view, for large and for small parties, for winter and for summer. For more intimate and personal uses there were quiet libraries and study-rooms; also reading-rooms with wide outlook over sea or mountain. The varying moods of the owner were further satisfied by art galleries, and by breezy towers with wide view.^{2.}

Becker, in his "Gallus" has made use of Pliny's description of his villas at Laurentum and Tusculum, combining them into a charming estate consisting of both villa rustica and villa pseudo-urbana (including Pliny's famous Cyzicene oecus), the two establishments being divided by a little stream, the Sava.

IV. THE VILLA PSEUDO-URBANA OF DIOMEDES.^{3.}

For a detailed description of one of these elaborate villas, we again turn to the vicinity of Pompeii, where is found the villa of Diomedes, (Fig.23) named for the tomb of Diomedes across the street. It is located just outside the Herculaneum gate,

1. Cagnat & Chapot, p. 314.

2. Cagnat & Chapot, p. 311.

3. (1862) Nicolini: *Le Case ed i Monumenti di Pompei*, vol.2 pp.1-4 with 7 plates. (1782) *Voyage Pittoresque de Naples et de Sicile*; premier volume, tome second, chapitre dixieme, p. 125 ff. *Maison de Campagne de Pompei*. Seven illus. including restoration.

and, is, like all Pompeian remains, well-preserved. It is a modest villa in comparison with the palatial estates of other sections, which, however, are so obliterated that they cannot be well-traced.

The owner here chose an irregular lot to secure striking architectural effects. It borders on the street of Tombs, running northwest to southeast. The lot extends due west, being about 342 feet long on the south line, and about 268 feet on the north, with its greatest width about 228 feet. (Fig.24)

The topography of the lot determined the characteristic features of house and garden. The front of the house is level with the street, the lot sloping westward toward the sea. A formal garden (about 135x150 feet) occupies the western slope and the house practically fills the rest of the lot except for some garden space on the south side. It had stood over a hundred years at the time of the eruption, thus preceding Vitruvius' time, and has a peristyle, but no atrium.

A short flight of steps (1) in Fig.23, from the sidewalk leads to the front door or vestibule (2) through which one enters the peristyle (3) at its northeast corner. At its southeast corner is a passage (14) to a door opening on the south garden. Fourteen columns enclose a flower garden about 20x25 feet in size, having an impluvium (4) about seven feet square in the center. A stairway (5) at the right of the street door, with a shrine to Minerva beside it, leads to basement workrooms.

The rooms on the south side of the peristyle consist of a bedroom (16), a fine, large master's suite (17-19) and a wardrobe (20). The suite consists of an anteroom (18) having a

tiny apartment (17) for the valet and a large semicircular bedroom (19) with alcove (a) and lavatory (b), with cosmetics in situ. Three large, sunny windows open on the garden in three directions, east, south and west. Pliny describes such a suite in his own villa at Praeneste.^a On the north side of the peristyle is a suite of two small bedrooms. (45-46)

The extreme southeast triangle of the building (the space between the street-door and the south garden-door (14), is the kitchen- bathroom-storeroom section, (6-15). A passage (6) leads from the peristyle to a triangular court (7) having an area of 300 square feet, open to the sky, and enclosing a six-foot plunge (e) located against the outer wall to which is attached a canopy covering the plunge, supported in front by two pillars. A row of columns along the two inner sides of the court form a portico, at the northern end of which is a hearth (d) for the preparation of the hot food which refreshed the luxurious Roman after his bath. A wardrobe (8) opens on both peristyle and court(7). At (9) begins the bath proper (the frigidarium), followed by the tepidarium (10) and the caldarium (11), with a tub (e). The extreme southeast angle of this section is occupied by the hot-water reservoir (13). The kitchen (12) is entered from the court (7) and abuts against the house-wall. In the kitchen, besides the hearth(f) is an oven (g) and a furnace (h) with a latrina (i) in the corner between them. The south garden may have been, in part, a kitchen-garden, as (15) seems to have been a storeroom. A stairway (j) in

a. See 34 on map.

the kitchen leads to an upper floor. Also a short stairway (26) on the west side of the peristyle leads to upper rooms.

The tablinum (29) is west of the peristyle with the andron (30a) at the right leading out of a sort of ala (30), while (27) is the cell of the atriensis, or slave in charge of the atrium, or peristyle. Beyond the tablinum is a spacious corridor (22), thirteen by eighty-seven feet, well-lighted by doors in the west wall, along the entire length of which it extends, except that space occupied by the two corner rooms (47-48). Opening on this corridor from the tablinum side are several other rooms: a triclinium (21), oeci (28,31,32), cabinettes (23-24), near the stairway (25) leading to pleasant lower rooms (42-43) on the level of the garden - an arrangement made possible by the westward slope of the site.

The large corridor (22) on the main floor, opens upon a terrace (50), thirty feet wide along the entire west front of the house. The central part of this terrace was later enclosed, forming a beautiful exedra (33) whose large south, west and north windows commanded a wide view of vineyards and the sea. The terrace (50) continues in a twelve-foot open promenade (50) all around the garden - about four hundred feet. The support of this terrace and promenade is a crypto-portico completely bordering the garden.

In the center of the grounds is a fishpond beyond which is a garden house whose six marble columns probably supported a trellis which shaded couches and table, making a summer triclinium. At the corners of the sea-wall are two more airy garden rooms (51-2). As is evident, the crowning feature of the garden is the magnificent

colonnade surrounding it, formed by a double row of over a hundred four-cornered columns - which is the crypto-portico supporting the open promenade on three sides. On the east side, the wide terrace and exedra are over both the colonnade and the basement rooms(42-3) of which (42) is a summer dining room. There is a fountain at (43).

A wine cellar extends beneath the north and south edges of the garden, lighted by small windows opening on the crypto-portico. A stairway at (44a) leads to the south wine cellar, also steps at (l). On the opposite side, steps (k) lead to the north wine cellar. Here were found beside amphorae buried in the sand, the bodies of seventeen or eighteen victims of the eruption, including women and children who had taken refuge there. Two more bodies were found near the west gate as if trying to escape to the sea. They carried treasure and a key (Fig.25) which may indicate that these were the master and a slave.

North of the front entrance (2), and entered by an independent street door (34) are workrooms occupying a lower level and communicating directly with basement store-rooms (36-7), and a long passage (35) which leads to the wine cellars and garden. In this domestic section, (A) is an open court surrounded by a portico (on the left) and a kitchen, bakery and other service rooms on the other sides. The stairway at (5) leads up to the peristyle.¹

The view from the sea, of this villa, gleaming white in its charming setting of green trees and blooming plants;

1. Authorities for this description:
Blümmer, pp.81-2; Gusmann, pp. 295-8; Niccolini, pp.1-4.

its imposing colonnade surmounted by the promenade, terrace and exedra; all contrasting with blue bay and sky, must have been most inviting.

The Roman house is a concrete expression of the home, and it is a well-known Roman tenet that the family is the basis of the state. When primeval man first raised a roof to shelter his precious fire and gathered his family about it, he had all the elements of a home. The fire on the altar was the symbol of family affection. Successive improvements in the house marked advance toward civilization. The primitive villa rustica provided for the care of stock and storage of food, and was adapted to the greater responsibilities of advancing civilization and symbolized the fuller, broader life of the family.

As the Roman assembled in villages, he built his home with consideration for his neighbors. An orderly family life expressed itself in uniformity and symmetry of interiors. Such Romans developed into fit citizens of a republic. Such homes as these, in country and city, produced the founders of the Republic, as Brutus and the Gracchi.

Changes in the country-products from grain, to vineyards and olive-orchards are shown by Ferrero to have had political significance. In the chapter on "Wine in Roman History" he says:¹ "Vineyards were one of the foundations of the imperial authority in Italy. The Empire would not have been founded, if, in the last century of the Republic, all Italy had not been covered with vineyards and olive-orchards, and longed for peace and order.

1. Characters and Events in Roman History, p. 188 ff.

In the time of Hannibal, cattle could be driven in advance of the invader, and burned grainfields meant loss only until the next harvest. But olive-orchards and vineyards with their slow growth caused the farmers to hold them more at heart than the great republican traditions, and they placed the image of the emperor among their Lares."

In the city, a menace to social order was expressed in the institution of the insulae as a substitute for home. It fostered a popular discontent and a proletariat that was a source of danger to society and government.

At the other extreme of the social order were the idle, pleasure-seeking rich, destroying the vineyards and olive-orchards of the small farmer in order to construct the villa pseudo-urbana, basking in its sunshine while shirking the responsibilities of citizenship.

"Soon the royal piles will leave few acres to the plow
Fishponds, larger than the Lucrine Lake will be seen
The useless plane-tree will soon supplant the elm,
And violets and the myrtle and all that delights the sense
Will scatter their fragrance over the olives -
Once productive for their former owner.

Then the laurel-tree with its thick branches
Will shut out the warm rays of the sun.

Not such is the advice of Romulus and of the
unshaven Cato

Together with the precepts and example of our ancestors."¹.

Thus, with a poet's vision, prophesied Horace, though he heard not the oracle: "The Barbarian will supplant the Roman."

1. Horace Carmina II. 15.

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