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## THE

## TOPOGRAPHY AND MONUMENTS OF

## Ancient Rome

BY

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ALLYN AND BACON<br>Boston and Clyicago

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## CHRISTIANO HVELSENO

TOPOGRAPHIAE VRBIS ROMAE ANTIQVAE
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## PREFACE.

This book is intended to serve as an introduction to the study of the topography of ancient Rome for students of Roman antiquities and history, and incidentally as a book of reference for those who have any special interest in the monuments which still remain. It contains an outline of the successive stages in the growth of the city, a discussion of the topography of each region and the position of its buildings so far as this is known, and a somewhat detailed description of the more important structures.

To facilitate further study, references of two classes have been added: first, to the sources of information in ancient literature and inscriptions, and second, to the most important material in current periodicals and the standard works on topography. It may seem to many that the existence of so admirable a work as Kiepert and Hülsen's Nomenclator Topographicus Urbis Romae (Berlin, 1896) renders these references unnecessary, but in my opinion convenience justifies their insertion. Moreover, since the publication of the Nomenclator, much valuable material has appeared to which the student should be directed. Continual reference is made to Gilbert's Topographie der Stadt Rom im Altertum, not because I accept his peculiar and frequently erratic views, but because of the full and useful form in which the references to classical literature are usually given. Professor Hülsen has just finished the third part of the first volume of Jordan's Topographie der Stadt Rom im Alterthum, and, through his courtesy in furnishing advance sheets, it has been possible to insert references to the first chapters of this volume.

This handbook makes no claim to exhaustiveness or origi-
nality; it is only a compilation from various sources, which, it is hoped, will form a useful addition to the working library of the student of Roman antiquities. It will be evident at once to those who know the literature of the subject that I have drawn continually upon the labors of others, especially upon Richter, - whose Topographie der Stadt Rom has been practically the basis of the present work, - Lanciani, Hülsen, Jordan, Gilbert, Borsari, Boni, and Ashby. As it is manifestly impossible to indicate in each case the precise amount and kind of indebtedness, I trust that I may be regarded as having discharged my duty by this general acknowledgment of obligation. I desire, however, to express my special gratitude to that master of Roman topography, Professor Christian Hiulsen of the German Archaeological Institute, whose discussions of the subject during the past fifteen years have been definitive in almost every case, and whose generosity in the present instance has been most marked.

As I have not been able to visit Rome since June, 1900, I have been obliged to rely for my knowledge of the excavations carried on in the Forum since that time upon the descriptions published in the Notizie degli Scavi, Bullettino Comunale, Römische Mittheilungen, and Classical Review. It has been my aim to make no definite statements which have not been generally accepted by scholars, except in a very few cases; but the unsolved problems in the field are so numerous that the word probably occurs much more frequently than one could wish. In the citation of so many hundred references, it is inevitable that there should be some errors, and the latest works on topography show how great the danger of this is, but I hope that comparatively few will be found to disfigure these pages. Unfortunately, Richter's latest monograph Die römische Rednerbühne, Beiträge zur römischen Topographie II, Berlin, 1903 - was received after the plates of this book were made, so that his conclusions in regard to the relation
between the Rostra and the hemicycle could not be incorporated in the text.

In explanation of the usage adopted in this book with respect to capitals and small letters, attention is called to the fact that in the Latin names of places and monuments such ordinary words as via, domus, pons, porta, hortus, templum, etc., occur with great frequency, and that it is very undesirable to write them everywhere with capitals. Therefore, in the interest of consistency, these words are written regularly with small letters, and the distinguishing attributive words usually with capitals, as Sacra via, domus Augustana. Certain names, which have become identified in modern usage with one place or building, are written with capitals to distinguish them from others of the same class, as the Forum, the Rostra, the Curia. In view of its prevalence in ordinary use, the expression "Aurelian wall" has been adopted, although, strictly speaking, it is incorrect.

It has also been found convenient in many cases to describe the location of some monument or place in ancient Rome by later or even modern topographical references, in spite of the somewhat violent anachronisms involved.

My thanks are due to Professors Hülsen and Richter, to the C. H. Beck Publishing Company of Munich, and to Messrs. Adam and Charles Black of London, for permission to use illustrative material.

In conclusion I wish to acknowledge my special obligations to the editor-in-chief of this Series, Professor John C. Rolfe of the University of Pennsylvania, and to Professor Grant Showerman of the University of Wisconsin, both of whom have read all the proof and have made many helpful criticisms and suggestions. They are, however, in no way responsible for any errors either of fact or of citation.

S. B. P.

Cleveland, April, 1904.

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## TOPOGRAPHY AND MONUMENTS OF ANCIENT ROME.

## CHAPTER I.

## SOURCES OF INFORMATION.

The chief sources of information about the topography and monuments of ancient Rome, besides the monuments themselves, may be divided into two classes, the ancient and the medieval. The ancient sources are: Greek and Latin literature, inscriptions, the Capitoline Plan of the city, the Regionary Catalogues, and coins and reliefs. The medieval sources are: the Einsiedeln Itinerary, the Mirabilia Romae, and drawings, sketches, and views.

Literary Evidence. - The references in Latin literature are of primary importance in giving information as to the position and history of buildings and monuments of every kind. Such references are found in more or less abundance in the writings of every Latin author, but there are some of especial value, the Fasti of Ovid, the Naturalis Historia of Pliny, the De Architectura of Vitruvius, the De Aquis of Frontinus, the De Lingua Latina of Varro, and the histories of Livy and Tacitus. Among Greek authors, the most useful are Dionysius of Halicarnassus and Dio Cassius.

Inscriptions afford much topographical information both by their content and by their position. Besides the ordinary dedicatory and honorary inscriptions which regularly state the
purpose of the monument, the name of its builder or restorer, and the date, there are others of great importance, - for example, the so-called Capitoline Base, ${ }^{1}$ a pedestal now standing in the palazzo dei Conservatori. This pedestal and the statue which it supported were dedicated to the emperor Hadrian in 136 A.D. by the vicomagistri of five of the city regions, and on the sides of the base are cut the names of the various officials of the vici, together with the names of the vici themselves. The Monumentum Ancyranum, ${ }^{2}$ the bronze tablets placed by Augustus on his mausoleum in Rome, which were reproduced at Ancyra in Asia Minor and also at Apollonia, contains an invaluable list of the buildings which Augustus either erected or restored. The fragments of Roman calendars, ${ }^{3}$ in their announcements of festivals and religious observances, contain much information with regard to the relative position of temples and shrines. Finally, the inscriptions stamped on tiles and bricks ${ }^{4}$ are exceedingly valuable and trustworthy evidence in determining the date of structures in which they are found.

The Capitoline Plan (Forma Urbis Romae). - North of the Sacra via and a short distance east of the forum of Augustus, the emperor Vespasian erected a structure called in the middle ages templum Sacrae Urbis, which seems to have been used as a repository for municipal records and archives, particularly the results of the census and survey of the city, which were made by that emperor in the years 73-75. ${ }^{5}$ The north wall of this temple was covered with marble blocks, on which was engraved a map or plan of the whole city. This plan may have been copied in part from an earlier one made by Agrippa, but was probably based on Vespasian's new data.

[^0]The temple was burned in the fire of Commodus in $191^{1}$ and restored by Severus, and to its north wall was again affixed a similar plan, either entirely new or containing fragments of the earlier one. The temple itself was incorporated with the temple of Romulus, the son of Maxentius, and made over into the church of SS. Cosma e Damiano between the years 526 and 530 . During the years 1559-1565, a large


Fig. 1. Fragments of the Marble Plan.
number of fragments of this plan were found at the foot of the wall of the temple, and came into the possession of the Farnese family. In 1742 they were transferred to the Capitoline Museum, where they were fastened to the walls of the main stairway. ${ }^{2}$ Soon after the discovery of these fragments, drawings were made of ninety-two of the principal pieces, and

[^1]as many of the pieces themselves were lost in the transfer to the Capitoline Museum, restorations made from these drawings were put up in their place. These restorations were marked with a star.

In 1867 a few more fragments were found on the same spot. In 1882 a piece containing a plan of the vicus Tuscus ${ }^{1}$ was found in the Forum; in 1884 another fragment, ${ }^{2}$ also in the Forum ; and in 1888 more than one hundred and eighty pieces, ${ }^{3}$ mostly small and insignificant, were found behind the palazzo Farnese which may have belonged to those discovered in the sixteenth century, but they do not appear on any of the drawings made at that time. In 1891 about twenty-five fragments ${ }^{4}$ were discovered at the foot of the wall of the temple; and the recent excavations in the Forum (1899-1901) have brought to light about four hundred more pieces, ${ }^{5}$ mostly very small. ${ }^{6}$

The wall on which the plan was fastened is still standing, and measures 22 metres in length and 15 in height, so that the surface covered by the plan was something more than 300 square metres. The blocks of marble varied from 0.70 to 1.18 metres in height, and from 1.70 to 2.25 metres in width, their thickness also being unequal. The scale ${ }^{7}$ on which the map is drawn varies even within the limits of the same structure, but seems to have been in general 1 to 250. If this scale had been employed throughout, the whole city could not have been represented on this wall, but some of the parts were considerably compressed. This plan was not set up with the north at the top, as is now the custom, but at the bottom. It seems probable that most of the plan was placed so that the southeast was

[^2]at the top. ${ }^{1}$ This arrangement was not carried out with perfect consistency, and a variation of as much as $45^{\circ}$ must be allowed in some of the fragments. Names of public buildings are given, but not always those of streets and squares. The details of buildings are not accurately given, nor is the proper proportion always preserved. Notwithstanding these defects, however, the plan served its purpose well, and its fragments have been of great assistance in identifying existing ruins. ${ }^{2}$

The Regionary Catalogues. - These are two recensions of the same original document, which was a catalogue of the buildings contained in each of the fourteen regions established by Augustus. The first recension, which bears no name in the manuscripts, is known as the Notitia, and the second is called the Curiosum Urbis Romae Regionum XIV cum Breviariis suis. ${ }^{3}$ The common original was probably compiled between 305 and 315 A.D. and was itself based on a similar document of the first century. The first recension, the Notitia, dates from 334, the Curiosum from about 357 a.d.

These catalogues differ slightly in details of statement, but are arranged in the same way. They fall into three parts: -
(1) An enumeration of the principal buildings and monuments of each region, beginning with the number and name of the region, followed by the verb continet. After the names of the buildings, follow statistics of the number of vici, aediculae, vicomagistri, curatores, insulae, domus, horrea, balnea, lacus, and pistrina, and finally a statement of the number of feet in the region. It is still uncertain whether this number refers to the circumference of the region, or to the sum of the

[^3]street distances within the region, but probably to the former, although the figures are incorrect.

In some regions, as the eighth, the list of buildings is complete, or nearly so; but in others it is quite incomplete, so that there has been much dispute as to whether it was intended to include all the noteworthy structures in the regions, or only those along the boundaries. The former is undoubtedly the true hypothesis, but the catalogue seems to have been made up from a map of the city, and not by a man who was actually exploring each district. Most of the omissions can be explained in this way.
(2) An appendix without special title, beginning with the number of bibliothecae and obelisci, with their size and situation. This is followed by a list of the pontes, montes, campi, fora, basilicae, thermae, aquae, viae, with their number and names.
(3) A second appendix, called Horum Breviarium, which is a concise statement of the number of buildings and monuments in the whole city.

In the case of those classes of buildings the numbers of which are given under each region, the totals in the appendix do not agree with the sum of the numbers in the regions. These discrepancies, however, are probably due to the ordinary errors of manuscript tradition.

Coins and Reliefs. - The frequent representations of buildings on coins ${ }^{1}$ are of value in identifying and dating existing remains. The same thing is true of many reliefs, like that of the Haterii (Fig. 2) ${ }^{2}$ in the Lateran Museum, on which are depicted various structures at the upper end of the Sacra via,

[^4]and the relief representing the Rostra of Domitian, on the arch of Constantine.

The Einsiedeln Itinerary. ${ }^{1}$ As early as the eighth century, the need was felt of something in the nature of a guide-book for pilgrims visiting Rome, which should describe the routes through the city to the principal churches and to the cemeteries outside. A work of this sort is contained in a manuscript (No. 326) preserved in the library of the monastery of Einsiedeln in Switzerland. This manuscript also contains the first known collection of Latin inscriptions, made by the same well-educated monk who, after his return from a visit to Rome, prepared the Itinerary from rough notes taken on the spot, with the aid of a plan of the city. The inscriptions appear to have been copied with care, but the topographical information is full of inaccuracies.

[^5]

The method of the Itinerary is to give the names of the monuments on the right and left of the traveller as he passes along certain streets, which are designated by their terminals. The errors are such as to lead to the couclusion that the writer had before him a map representing the city as elliptical in shape, rather than nearly square.

Such a map, dating from the thirteenth century, is now in existence, ${ }^{1}$ and there is no reason to doubt that others like it were in use much earlier. It is probable also that this Itinerary was based on an earlier one, of the sixth or seventh century. Eleven routes through the city are described, but there is no mention of the temples of heathen divinities, and in the collection of inscriptions there are none containing the names of these divinities.

After the Itinerary is a description ${ }^{2}$ of the wall of Aurelian, giving the number of its towers, bulwarks, posterns, windows, etc., and these numbers correspond in general with the evidence of the ruins themselves. This description seems to have been taken from one written in the fifth century, and appears, with some variations, in a work by William of Malmesbury, entitled De numero portarum et sanctis Romae, of the seventh century, and again in the Mirabilia of the twelfth.

Mirabilia Romae. - This is a description of the city, ${ }^{3}$ compiled about 1150, consisting of three parts:-
I. A classified enumeration of the various monuments, viz., de muro urbis, de portis, de miliaribus, nomina portarum, etc.
II. Five legends: (1) De visione Octaviani imperatoris et responsione Sibillae ; (2) Quare factus est caballus marmoreus ; (3) Quare factus est equus qui dicitur Constantini ; (4) Quare

[^6]factum sit Pantheon; (5) Quare Octavianus vocatus sit Augustus et quare dicatur ecclesia S. Petri ad vincula.
III. A Periegesis, or description of the principal monuments and marvels met with in walking from the Vatican through the city and back to Trastevere.

This third part was written by the unknown compiler of the whole work; while the first was taken from some guidebook like the Einsiedeln Itinerary, and the second was a selection from current legends. The chief purpose of the compiler seems to have been to identify the ancient temples, and was one of the consequences of that desire for a reëstablishment of the old republic which animated so many Romans in the twelfth century. This book had a very considerable vogue, was issued in a second edition a century later, and incorporated in several other works.

The Graphia Aureae Urbis Romae is a somewhat later recension of the same original, in which the legends, omitting the fifth, have been inserted in the third part, and various additions have been made.

Selections ${ }^{1}$ from the Graphia are found in Martin of Troppau's (Martinus Polonus) Chronicon, 1268 ; Fazio degli Uberti's Dittamondo, about 1360; Nicolaus Signorili's De iuribus et excellentiis urbis Romae, 1417-1437; and in a manuscript called the Anonymus Magliabecchianus, ${ }^{2}$ 1410-1415.

Drawings and Views. - Scattered through the libraries of Italy and elsewhere in Europe are many drawings and sketches of the ruins of the ancient buildings of Rome, made by the Italian architects of the fifteenth, sixteenth, and seventeenth centuries. These have been found very useful in identifying or locating monuments which have been nearly or completely destroyed since the time when the drawings were made. The

[^7]same is true of engravings and, in some cases, of paintings of this period.

There are also numerous views ${ }^{1}$ of the whole city or portions thereof, both engraved and painted, beginning with those of Cimabue in the thirteenth century, which have considerable topographical value, in spite of their inaccuracies.

[^8]
## CHAPTER II.

## GENERAL TOPOGRAPHY OF ROME AND THE CAMPAGNA.

The Campagna. - The city of Rome is situated in the middle of an undulating plain, called the Campagna. ${ }^{1}$ It is bounded on the north by the Sabatine mountains, lying north of lake Bracciano and forming the southern limit of the ancient Ciminian forest; on the east by the high range of the Sabine Apennines; on the southeast by the Alban mountains; and on the west by the sea. Directly south of Rome this plain stretches on between the Alban and Volscian mountains and the Mediterranean to Tarracina (Anxur), where the mountains run into the sea. The southern part of this district is covered by the great Pontine Marshes, paludes Pomptinae. The term Campagna is sometimes used to include all of this plain, but it properly belongs only to that portion which lies north of Lanuvium and Ardea.

[^9]The distance from the Sabatine to the Alban mountains is about 60 kilometres; from Rome to the foot of the Apennines is 25 kilometres, and the distance to the seacoast is about the same. This width decreases as one goes south. From Rome to Tarracina, the southern extremity of this plain, is 95 kilometres.

Geological Formation. - This plain is of volcanic origin, and was covered during the tertiary period by the sea. The eruption of submarine volcanoes covered the Pliocene clay and marl with a layer of volcanic products to an average depth of more than 30 metres, and this, being more or less stratified by the action of water, formed what is known as tufa. Volcanic forces then elevated the land very considerably, and the sea receded to its present limits.

The centre of volcanic activity during this first period is thought to have been at the northern extremity of the plain, around lake Bracciano. After the sea had receded, another centre of volcanic disturbance was formed in the Alban hills, and from their craters igneous products were poured forth which formed deposits of conglomerate at various points, especially near Albano, where the rock is called lapis Albanus, and near Gabii, where it is called lapis Gabinus. From this Alban volcano there issued also streams of lava, the course of one of which can be traced almost to the city of Rome. The surface thus formed was cut and eroded in all directions by the action of the river Tiber, flowing through it from the north, and of the many affluents which streamed into it from the surrounding mountains.
The general appearance of the Campagna is that of an undulating plain, abounding in hillocks and crossed in all directions by deep ravines and steep cliffs, the height of which averages about 30 metres. It is estimated that four-fifths of the Campagna consists of hills and one-fifth of valleys.

The erosion of the water has produced two types of elevation, one that of a tongue projecting from a plateau between two streams which flow together at its end, the other that of an entirely isolated hill with steep cliffs on all sides, due to its having been completely surrounded by water courses. These isolated points afforded exceedingly advantageous sites for the fortified hamlets of the earliest settlers.

Whether the volcanoes of this region were active in historical times is still a matter of dispute. Alleged discoveries, beneath volcanic deposits, of material which can be dated as late as the third or fourth century b.c. lack convincing evidence of authenticity; but that the slopes of the hills were inhabited before the total extinction of the volcanoes is proved by the discovery of a necropolis near Albano, entirely covered by a layer of peperino.

It is probable that all the volcanoes of this district were practically extinct before the date assigned by tradition to the founding of the city of Rome. Some of the craters of these extinct volcanoes are now lakes, notably lake Bracciano (lacus Sabatinus) and lake Martignano (lacus Alsietinus) in the north; and lake Albano (lacus Albanus) and lake Nemi (lacus Nemorensis) in the south.

As these lakes are very deep, much of the water which they contain is forced under high pressure through the sides of the crater, and collects in subterranean reservoirs formed between the strata of volcanic deposit. Part of this water is drained off into the Tiber, but much of it, being unable to flow through the impermeable strata, accumulates near the surface of the ground, and can be carried off only by evaporation.

In classical times, a complete system of artificial drainage seems to have been provided to dispose of this accumulated water. Remains of the ancient cuniculi, or drains, have been found in many parts of the Campagna. This system of drainage, and the careful cultivation of the soil, must have rendered the
whole region comparatively healthy, ${ }^{1}$ and accounts for the fact that the Campagna was thickly covered with villas, even in those districts where now the fever is most dangerous. As is now well known, the germs of this fever are disseminated by a mosquito which breeds in marshy districts.

The Tiber. - The chief factor in the process of erosion was the Tiber, the principal river of the peninsula, 393 kilometres in length, which rises near Arezzo (Arretium) in Etruria, and flows southward to Rome, where it turns westward to the sea. In the period following that of greatest volcanic activity, its channel was many times as wide as at present and its volume of water enormous. At its mouth, some 11 kilometres farther inland than at present, the stream appears to have been nearly 2 kilometres wide. Its course is in general parallel to the main range of the Apennines, and its banks are marked by cliffs and hills of the two types described above (p. 13). At the last great bend of the river toward the sea, its eroding force produced that combination of these two formations which conditioned the material development of the city of Rome.

Here the river flowed between the edge of a tableland on the east and a ridge of hills of marine formation on the west. The width of its bed varied greatly, from 2 kilometres at the campus Martius to less than a quarter of that distance between the Aventine and the southern point of the Janiculum. This gradual narrowing of the channel produced a swifter current, and increased the amount of erosion. During the formative period, the river filled the whole space between the tableland on the one side and the hills on the other. As the width of the river grew less, the eroding action of the water which flowed down into it from the higher ground was greatly increased.

Certain of the hills of Rome, therefore, which now appear completely isolated, like the Palatine and Aventine, or nearly

[^10]so, like the Capitoline and Caelian, are so because during this period they were entirely surrounded by the river and exposed to its action on all sides; while the eastern hills, projecting like tongues of land, were not thus surrounded.

The Site of Rome. ${ }^{1}$ - The present topography of the city is in its main features almost the same as when the first settlements were made upon that site.

The Tiber, averaging 90 metres in width, flows through the city from north to south, in five reaches : from the point where the Aurelian wall approached the stream, southeast for about 800 metres to the Tarentum ; then almost due west for 1 kilometre to a short distance beyond the mausoleum of Hadrian (the castle of S. Angelo); then southeast for 2 kilometres to a point opposite the Palatine hill; then southwest for 1.5 kilometres to the Emporium; and finally south again for 1 kilometre to the angle of the Aurelian wall. Where the river approaches most nearly to the Capitoline, it divides and flows round an island about 300 metres in length and 90 metres in greatest breadth.

The great bend to the west inclosed the meadows, nearly 1.5 kilometres wide, to which the name of campus Martius was given, and the smaller bend to the east left space on the right bank of the stream for that part of the city which was known as trans Tiberim (Trastevere). East and south of the campus Martius rise the hills which are the characteristic features of the city.

The central point is marked by the Palatine, an irregular quadrilateral, about twenty-five acres ( 10 hectares) in extent, surrounded by steep cliffs except at its eastern angle, where a

[^11]spur, the Velia, connected it with the Esquiline. The western angle of the hill approaches to within about 300 metres of the river.

South and southwest of the Palatine lies the Aventine, a hill of similar formation, but somewhat larger. North of the Palatine, the Capitoline now appears as an entirely isolated elevation, but until the time of Trajan it was joined to the Quirinal by a low ridge. In the main, however, it corresponds closely with the Palatine and Aventine.

The remaining hills are quite different, and are all spurs of the eastern plateau, projecting out toward the river, and separated from each other by depressions of varying length and breadth. The southernmost of these, mons Caelius, directly east of the Palatine, preserves more of the appearance of an independent hill, being connected with the high land behind it only by a narrow neck. North of the Caelian is the Esquiline, a large hill consisting of two parts, the main southern portion called mons Oppius, and the smaller northern spur, mons Cispius. North of the Esquiline is another small tongue of land, collis Viminalis; and beyond this and almost inclosing it, the collis Quirinalis. This long ridge was originally divided into four parts : the collis Latiaris, the southern elevation above the forum of Trajan; the collis Mucialis, from the via di Magnanapoli to monte Cavallo; the collis Salutaris, from monte Cavallo to the church of S . Andrea; and the collis Quirinalis, from this point east. The first three names passed out of use at an early date, and collis Quirinalis became the proper designation of the whole hill. North of the Quirinal is the collis hortorum, the modern Pincian, which marked the latest stage in the growth of the city, and was never reckoned among the "Seven Hills." The term mons was very rarely applied to the Viminal and Quirinal, which were known as colles.

On the right bank of the Tiber, the ridge of the Janiculum, in its modern sense, runs almost due north and south for 2
kilometres, coming to an abrupt end at the point where the river makes its great bend to the southeast. Here the hill approaches to within 100 metres of the river. The ridge is separated from the plateau behind by a long depression. At the northern end of the Janiculum, the level between the river and the hill stretches out for 1.5 kilometres, and is bounded on the west by the continuation of the high ground behind the Janiculum.

There are now in the city three elevations of artificial origin. One, mons Testaceus (monte Testaccio), southwest of the Aventine and close to the river and ancient warehouses, is composed entirely of fragments of earthen vessels in which grain and stores of various sorts were brought to Rome, and rises to a height of 43 metres above the Tiber. Inasmuch as the first of these warehouses (horrea) dated from the last century of the republic, the accumulation of these fragments probably began as early as that date.

The two other artificial hills or mounds are in the campus Martius, the monte Giordano and the monte Citorio, ${ }^{1}$ respectively 6 and 9 metres in height. Both mounds are formed by the ruins of unknown buildings.

The following table ${ }^{2}$ gives the altitude of the different hills above the level of the Tiber, which is 6.7 metres above the sear level at the Ripetta: -


The highest point within the Aurelian wall is on the Janiculum at the porta Aurelia (porta di S. Pancrazio), 75 metres above the river.

Between the hills are valleys, or rather depressions, which form well-defined topographical units. The most important is that lying between the Palatine, the Esquiline, the Quirinal, and the Capitoline, which became the Forum. North of the Forum is a narrow valley, which runs between the ends of the Oppian and Quirinal and then widens. This valley was called the Subura, and was one of the most thickly settled and disreputable quarters of the city. From it three depressions run eastward and northward between the projecting spurs of the hills.

Through the Subura, with affluents from the slopes on each side, ran a brook, perhaps the Spinon, which crossed the Forum, traversed the low ground between the Forum and the river, and emptied into the latter below the island. This brook was walled in at an early date, and became the famous Cloaca Maxima.

The low district between the Forum, the Palatine and Capitoline, and the river comprised the Velabrum and the cattle and vegetable markets (forum Boarium, forum Holitorium). Whatever may be the correct derivation of the word Velabrum, there is no doubt that when the first settlements were made on the surrounding hills, this region was very marshy and to some extent under water, besides being continually subject to inundations from the Tiber.

After the Forum and the Subura, the most important valley in Rome was that between the Palatine and the Aventine, through which ran a brook called in the middle ages the Marrana, which came down from the head of the depression between the Esquiline and the Caelian, near the church of S. Croce. This valley was called the vallis Murcia, and in late republican and imperial times was completely filled by the Circus Maximus.

Along the southern slope of the Caelian ran another stream, which joined the Marrana at the southern corner of the Palatine.

Still another long valley lies between the Pincian and the Quirinal, and through it ran a stream which emptied into one of the two principal swampy ponds of the campus Martius, ${ }^{1}$ the Caprae palus. Another brook flowed from the western slope of the Quirinal, near the porta Salutaris, westward across the campus Martius. Topographers are not entirely agreed as to which of these last two streams is the Petronia amnis, ${ }^{2}$ which had its source in the Cati fons. The probability is that the southernmost of the two is the original Petronia amnis, and that therefore the Cati fons is to be located on the Quirinal, near the present church of S . Silvestro a monte Cavallo, where there are still numerous springs.

North of the Caprae palus lay the second pond, similar but much smaller, known as the Tarentum. West of the Caelian, and at a higher elevation than the others, was another pool, called the Decenniae.

Geology of the City. - There are three principal formations visible within the circuit of the city itself. The most important is the volcanic tufa rock, already mentioned, which forms the hills on the left bank of the Tiber and the stratum underlying the whole region. The low ground and the depressions between the hills themselves and between the hills and the river are covered to a considerable depth with a quaternary alluvial deposit of sand, clay, and gravel, brought down by the Tiber during the period of its greatest activity and volume. This deposit is found also upon the lower slopes of the hills. On the right bank, on the Janiculum and mons Vaticanus, there is a marine formation belonging to the Older Pliocene period,

[^12]and consisting mainly of a bluish gray marl, much used for making pottery, and of yellow sea sand, of great value for building purposes. In all of these strata, except the tufa, fossils are found in considerable abundance.

Changes in Level. - It is certain, from the evidence of actual excavations and from the testimony of classical literature, that some changes in the altitude of the hills and valleys of the city have taken place since early times. ${ }^{1}$ These changes have resulted from the tremendous building activity of the empire, on the one hand; and on the other, from the falling into decay of most of the ancient city during the middle ages, the dumping of rubbish in certain localities during long periods, and the building activity of the renaissance.

With regard to the changes under the empire, all excavations in Rome show clearly that we have to do, not with structures of one period, but of successive periods, and that it was customary to erect the later building upon the ruins of the earlier. It is not unusual to find the remains of three or even four structures, one above another. The recent excavations in the Forum have shown this in a most striking way. The level of the Comitium, or open area in front of the senate house, in the time of Diocletian, was 4 metres higher than the earliest level of the ground at this point; and in some parts of the Forum the variation is still greater.

When Trajan built his magnificent forum, the ridge connecting the Quirinal and the Capitoline was cut away, and the soil, computed to have amounted to some 800,000 cubic metres, was transported beyond the line of the Servian wall, to the level space between the via Salaria vetus and the via Salaria nova.

With the earth removed by Diocletian in clearing a space for his enormous baths, a mound was formed on the Viminal some

[^13]20 metres high, the highest point within the Aurelian wall, and the construction of the great agger across the Viminal and Esquiline, and its subsequent conversion into part of the gardens of Maecenas, must have brought about considerable changes in level in that region. Such investigation of this question, however, as it has been possible to make, seems to show that it is improbable that the building activity of the empire caused any very great changes in the relative height of hills and valleys, except at some few points; nor is it at all probable that the general contour of the site of the city was radically altered, except in such unusual cases as that of the forum of Trajan.

During the centuries between the fall of the empire and the renaissance, the history of the city is one of steady destruction, and changes in level were due almost entirely to the accumulation of the ruins of ancient structures. These ruins, produced either by natural decay or intentional destruction during this long period, must have raised the level of the soil in some parts of the city very considerably. The renewed building activity just before and during the renaissance caused further changes in two ways, - by the clearing away of existing ruins for new structures, and by the dumping of vast amounts of rubbish in certain localities. Thus Cardinal Farnese, when building the church of the Gesù in the campus Martius, removed great quantities of earth to the Palatine hill. From the tenth to the sixteenth centuries so much rubbish had been emptied into the Forum that its level was raised nearly 10 metres above the pavement of the fourth century.

The excavations which have been carried on in the city show that the depth of the debris, which has accumulated in these different ways, varies from a few inches to nearly 20 metres. The foundations of the new treasury building on the Quirinal had to be sunk through 12 metres of loose soil, and similar conditions have been found in other parts of the city.

## CHAPTER III.

## BUILDING MATERIALS AND METHODS.

Building Materials. - The principal building materials ${ }^{1} \mathrm{em}$ ployed in Rome were the following: -

Tufa (Tofus ruber et niger). This volcanic product, ${ }^{2}$ already mentioned in connection with the formation of the Campagna, is a mechanical conglomerate of scoriae, ashes, and sand, and of varying density. In some districts it presents few signs of stratification, being either loose and friable like earth, or hardened into a solid mass by time and pressure. Elsewhere it shows distinct evidence of having been deposited in water and stratified by its action. The color varies from reddish brown to yellow and sometimes gray. Even the hardest varieties make poor building stone when left exposed to the atmosphere, but are sufficiently durable when covered with stucco or cement. Tufa is characteristic of the first centuries of Rome's existence, being the only stone employed during the earliest period.

Peperino (lapis Albanus). This, ${ }^{3}$ like tufa, is a conglomerate of volcanic ashes and sand, together with fragments of stone, but formed in a somewhat different way, apparently by the action of hot water upon ashes. Thickly scattered through its mass are scoriae in large quantities, which from their resemblance to peppercorns (piper) have given the current name to the stone. It was quarried in the Alban hills, hence its ancient name, lapis Albanus. It is a much harder and better building
stone than tufa, and was very largely employed during the later republic and empire in structures where greater durability and strength were required than could be furnished by tufa.

Sperone (lapis Gabinus). This stone was quarried near Gabii, and is similar in formation to peperino, but it is still harder and more durable, and withstands fire ${ }^{1}$ excellently. It contains many fragments of lava of varying sizes. It was used like peperino, but apparently not so extensively.

Travertine (lapis Tiburtinus). This is the famous limestone ${ }^{2}$ of the Sabine hills, the principal quarries of which were, as the name indicates, near Tibur. It also lies in large beds all along the Anio and some other smaller streams in the vicinity. Travertine " is a pure carbonate of lime, very hard, of a beautiful creamy color which weathers into a rich golden tint. It is a deposit from running water, and is found in a highly stratified state, with frequent cavities and fissures, lined with crystallized carbonate of lime." ${ }^{3}$ Travertine was not introduced into general use in the city until the second century b.c., but after that time it was one of the principal materials employed by the Romans, especially for large and magnificent structures like the Colosseum.

Lava (silex). Four lava streams ${ }^{4}$ had flowed down from the Alban crater, one of which approached within three miles of the city itself, close to the tomb of Caecilia Metella on the via Appia. From these beds the lava was quarried in large blocks for the pavement of streets, while the smaller pieces were mixed with pozzolana and lime to make concrete and rubble-work.

Pozzolana (pulvis Puteolanus). This volcanic sand ${ }^{5}$ derives its name from Puteoli, near Naples, where great beds of it

[^14][^15]exist, although it is also found in large quantities all round Rome. It consists chiefly of silica, magnesia, potash, lime, and alumina, and when mixed with lime in the proportion of about two to one, forms an hydraulic cement of remarkable strength. The concrete made of this cement and fragments of different sorts of stone was one of the most important materials employed by the Romans, as it rendered possible the enormous vault and dome construction which is so conspicuous in the buildings of the empire.

Brick (later, testa, tegula). The Romans made two kinds of brick, ${ }^{1}$ the one dried in the sun (later) and the other dried in a kiln (testa, tegula), the principal material in their manufacture being the clay (creta figulina ${ }^{2}$ ) which was found in abundance in several places in the vicinity, but especially on the slopes of the Vatican. No examples of unburnt brick now exist, but it was used almost exclusively down to the time of Augustus, and was reasonably durable while carefully protected from the action of the atmosphere. Kiln-dried bricks (testa, tegula) exist in vast numbers, having been most extensively used in buildings of every description throughout the empire. They are of different shapes, - square, oblong, round, and triangular, - but the last is the prevailing type, as it suited best the ordinary method of use. Walls and foundations, when not constructed of solid stone, were regularly built of concrete faced with a lining of small stones or bricks, which were tailed into the mass behind. The triangular shape was therefore especially convenient.

Bricks varied in size from 10 centimetres in width to more than a metre. They were frequently stamped with a round or rectangular seal, ${ }^{3}$ which contains some or all of the following indications: the name of the owner or superintendent of the clay-pits or kilns, the actual maker of the brick, the person in charge of the sale of the manufactured product, and the names

[^16]of the consuls for the year or the ruling emperor. By means of these dates, the time of construction or restoration of many Roman buildings has been determined, and it has been possible to arrive at criteria for fixing the period of manufacture of different kinds of bricks.

Marble. The use of marble, ${ }^{1}$ both native and foreign, began in Rome in the first decade of the first century b.c., and spread with great rapidity. Augustus boasted that he had found the city brick and left it marble; $;^{2}$ and under the succeeding emperors the amount of marble of all possible varieties which was brought to Rome surpasses our belief. The number of kinds mounts up into the hundreds, and in spite of centuries of destruction the amount still visible in churches and palaces is almost incredible. With the exception of that quarried at Luna near Carrara, practically all the marble used in Rome was imported. It was rarely used in solid blocks in the construction of an entire wall, but in slabs of varying thickness, with which a wall of other material was lined. These slabs were fastened to the wall with clamps or pins.

Besides marble of every sort, many other stones of a decorative character, such as serpentine, alabaster, fluor-spar, granite, basalt, and porphyry, were imported into Rome from every part of the known world, in enormous quantities.

Methods of Building. ${ }^{3}$ - These may be classified as fol-lows:-

Opus quadratum. ${ }^{4}$ There are no traces of the so-called polygonal masonry in Rome, and the earliest walls were built of rectangular blocks of tufa, laid in regular courses. To this

[^17]form of construction the term opus quadratum was applied, whatever the nature of the stone itself. Where tufa or peperino were used, the blocks were regularly 2 Roman feet in height and in thickness. The length varied, but in the most perfect examples it is usually 4 feet, just twice the height, and the blocks are laid in alternate courses of headers and stretchers, one course running lengthwise and the next being laid endwise (emplecton). Where travertine was the material employed, the blocks were not all cut of the same size, as that would have involved too great a loss.

Mortar or cement was used during the earliest period, but only in a thin bed or skin, not to bind the blocks together, but simply to make a more perfect joint. At the close of the republic and under the empire this use of mortar became infrequent, and the surfaces of the stone were worked so smooth that the joints are barely discernible. This can be seen in the wall of the podium of the temple of Faustina. At that time it was usual to fasten the blocks together with iron clamps or wooden dowels. The native tufa was the stone first and most extensively employed for this sort of construction, but at a comparatively early date the Romans introduced the custom of using peperino at points where greater strength and durability were required.

After the second century b.c. travertine was used for this purpose; and sometimes alone, to form the whole wall, as in the podium of the temple of Vespasian. Some of the walls of the Colosseum and of the forum Pacis are of tufa, travertine, and peperino. In such cases, the harder stones are regularly used for keystones, springers, voussoirs, jambs, and points where the pressure is greatest.

Conorete (structura caementicia). Roman concrete was made of pozzolana and lime, with fragments of stone (ccuementum) scattered through the mass irregularly or in layers. During republican times these fragments were regularly of tufa,
rarely of peperino; but later, broken brick, travertine, bits of marble, and pumice stone were used, the last in making the great vaults where lightness was especially desirable. This concrete is so remarkable for its cohesiveness that when firmly set it is like solid rock. From the beginning of the first century B. ©. it was the principal material used in building walls and foundations, sometimes without, but usually with, a facing of brick or stone. Unfaced concrete was used in foundations and substructures which were not to be seen. It must have been laid in a sort of mould, - cast, in other words, while in a semiffuid state. Planks were arranged so as to form a wooden box of the required size and shape, and in this successive layers of semifluid cement and fragments of stone were placed. When the mass had hardened, the planking was removed. Traces of these wooden supports are plainly visible in many places, - for example, on the massive foundations beneath the Flavian palace on the Palatine.

Far more frequently concrete was faced with stone or brick, and the relative structural value of the two parts varied according to the total thickness of the wall. Construction of this sort is named according to the kind of facing employed, and the terms which properly refer only to the facing itself are applied to the whole structure.

Opus incertum. ${ }^{1}$ The concrete is faced with irregular bits of tufa, 6 to 10 centimetres across, with smooth outer surface and cut in conical or pyramidal shape so as to tail easily into the concrete backing. This was the oldest method of facing, and was in vogue during the first and second centuries b.c. A good example of opus incertum of the second century can be seen in the wall at the foot of the scalae Caci on the Palatine.

Opus reticulatum. ${ }^{2}$ This is similar to opus incertum, except that the small stones are carefully cut with square or lozenge-
shaped ends, and are arranged in rows corner to corner, so as to present a perfectly symmetrical appearance, resembling the meshes of a net. This displaced opus incertum almost entirely, and was used from the beginning of the first century b.c. to


Fig. 3.-Methods of Construction.
the middle of the second century. Examples are very numerous, one of the most accessible being in the house of Germanicus on the Palatine.

Opus testaceum or latericium. This is concrete faced with kiln-dried brick. Therefore, when the term latericium is used, it is to be understood as referring to lateres cocti, equivalent to testae, and not to lateres crudi. There are no examples of facing with sun-dried brick. This method of construction with
brick facing was the one most extensively employed throughout the imperial period.

The bricks ${ }^{1}$ vary in size, the ordinary dimensions being from 0.20 to 0.62 metre in length, and from 2 to 6 centimetres in thickness. They are either square, rectangular, or triangular. In simple facings the triangular shape was regularly employed, but at intervals single courses of large square tiles were introduced, apparently to strengthen the cohesiveness of the mass. In vaults, arches, and corners, square or rectangular bricks were most frequently used.

While it is true that a wall was rarely, if ever, built of solid brick, but always with a concrete filling, the structural value of each part varied widely. For instance, in a wall 60 centimetres thick, the structural importance of the facing would be very slight, while in a wall 30 centimetres thick, a facing of the same dimensions would amount to about half the total volume of the wall, and be an extremely important element. The most perfect opus testaceum belongs to the time of Nero and the first years of the Flavian emperors, and is characterized by the thinness of the cement bed and the thickness of the bricks. After this time the deterioration in the work may be traced by a gradual increase in the thickness of the cement bed and a decrease in that of the bricks. The relative dimensions of the two and the character of the brick itself are now so well known that it is possible to date construction of this sort with a considerable degree of accuracy, even without the direct evidence of the stamps. Perhaps the finest example of brickwork in Rome is to be seen in the arches of Nero's extension of the aqua Claudia (p. 100) on the Caelian.

0 pus mixtum. This modern term is used to describe a method of construction which came into use at the end of the third century, in which the ordinary facing of opus testaceum is
interrupted at intervals by courses of rectangular tufa blocks, about 26 centimetres long and 10 deep. The earliest example of this work in Rome is said to be in the wall of the circus of Maxentius, built about 310 A.D.; but frequent examples have been found in Pompeii. ${ }^{1}$

All these facings were covered with plaster, so that there was no visible indication of the character of the wall behind.

As the tufa or brick had to be laid at the same time as the semifluid concrete backing, it was often necessary, where the wall was of any considerable thickness, to build a wooden casing to prevent the facing from being pushed outward by the pressure of the concrete. This was done in somewhat the same manner as in the case of the massive unfaced foundations, but on a much smaller scale and more easily.

The foundations of temples were usually made of a massive outer wall of opus quadratum, and the inner space was then filled solid with concrete. In such cases the stone wall was in itself strong enough to resist the pressure of the concrete until it had set. In many cases this concrete core was entirely unnecessary, as it had ordinarily nothing but the floor of the cella to support.

The most striking feature of Roman architecture during the imperial period was the use of the vault or dome in such enormous structures as the baths or the Pantheon. The great strength of Roman concrete was the principal reason for the development of this method of covering very large halls, but it is a mistake to eliminate entirely, as has sometimes been done, the importance of the brick relieving arches which form, as it were, the skeleton of the vault. It is manifestly almost impossible to arrive at complete architectural analyses of these vaults while they are still standing, and hence their precise character has been the subject of much dispute. Very

[^18]strong and complicated scaffolding and centring must have been necessary in building the system of brick arches and in supporting the concrete until it had set. After this had taken place, the whole vault was practically a solid mass, and lateral thrust and pressure were reduced to a minimum.

Sun-dried brick (lateres crudi ${ }^{1}$ ). While this material has no present importance, since nothing remains of buildings so constructed, it should not be forgotten that during the republic and even later the ordinary houses in Rome, as well as some public buildings, were built of crude brick and wooden framing. Their unsubstantial character is plainly shown by the reports in classical writers of the great destruction wrought by fire, water, slight earthquake shocks, and natural decay.

Plaster or stucco (tectorium ${ }^{2}$ ). As has been said, concrete walls faced in these various ways were regularly covered with plaster or stucco of varying thickness. Not infrequently walls of opus quadratum were treated in the same way, and in later times even marble surfaces were coated with a marble stucco, in order that pigments might be more easily applied. The finest kind of stucco was called opus albarium, or caementum marmoreum, and was made of lime and powdered white marble, water or milk, and some albuminous substance. When properly applied it produced a surface in no way inferior to that of marble itself. Other kinds of cement were made of inferior materials, one of them, which was much used for lining water channels on account of its hardness, being made of pozzolana and pounded pottery (testae tunsae) and called opus signinum.

[^19]
## CHAPTER IV.

## HISTORY OF THE DEVELOPMENT OF THE CITY.

By comparing the testimony of classical literature with archaeological evidence and physical conditions, it is possible to trace the growth of the city of Rome from its beginning through certain well-defined stages. Though many details of this development are obscure, and though objections are urged against even those conclusions which seem to be established most definitely, in the main a reasonable degree of certainty has been reached.

Six periods are to be distinguished in the topographical history of the city; namely, (1) the Palatine city, (2) the Septimontium or "City of the Seven Hills," (3) the city of the Four Regions, (4) the Servian city, (5) the open city of the Fourteen Regions, and (6) the city of Aurelian. Each of these successive stages of growth was topographically natural and necessary, and left its traces in the political and religious life and practice of the inhabitants.

The Palatine City. - Legend and archaeology agree in assigning to the Palatine ${ }^{1}$ hill the first settlement of that part of the Latin stock which afterward assumed the name of Romans. Physiographically this hill was better adapted for such a settlement than any other in the neighborhood, for its complete isolation made its defence easy, and the nearness of the Tiber gave its settlers all the advantages of river communication with the sea and with the interior. Its area was about 10 hectares

[^20](25 acres), which corresponded closely to that of the other Latin settlements in the Campagna. In shape the hill is an irregular rectangle, but at first it was probably more nearly square. The length of the sides averages about 450 metres.

The first settlers came from the north, and while they were already divided politically into the three tribes of Ramnes, Tities, and Luceres, their settlement, and then the hill itself, was called Palatium. ${ }^{1}$ This substantive form of its name differentiates this hill from all the others on the left bank of the Tiber, except the Capitolium. This latter name, however, was of comparatively late origin, and was applied to the hill after it had really become the capitol of the extended city. The word Palatium is probably connected with the root pa which appears in pasco and Pales, and indicates the character of the early shepherd settlers. In its earliest and narrowest sense, Palatium seems to have been applied to the settlement on the eastern half of the hill, while the western part was called Cermalus, ${ }^{2}$ which would seem to indicate that originally the Palatine community was divided into two hamlets, occupying the two parts of the hill. However this may be, in its historical development the community is to be regarded as a unit, although the name Cermalus was used in the days of Cicero and Livy. ${ }^{3}$ As a part of the Palatine city, although outside its wall, must be reckoned also the ridge or spur stretching out from the middle of the north side of the Palatine toward the Oppian. This was called the Velia, ${ }^{4}$ and always retained its distinctive name, although more frequently referred to in literature as the summa Sacra via. ${ }^{5}$ At some

[^21]time, either in this first period or in the succeeding Septimon. tium, the settlement came to be known as Ruma, Roma, the River-city, and its inhabitants as Romani.

The fortification of such a hill was an easy matter. Where the cliff was at all abrupt, - and it was decidedly so at almost every point, - it was scarped down for about 13 or 14 metres, and there an artificial shelf was cut. On this shelf and resting against the side of the hill, a massive tufa wall of opus quadratum was built, which rose somewhat above the top of the hill, so as to form a sort of breastwork. Remains of this ancient wall ${ }^{1}$ have been found at various points along the west and south sides, extending far enough to indicate that it surrounded the whole hill and not simply the western half.

To the Palatine settlement all Roman and Greek legends of the founding of the city go back, and its subsequent history is a record of its growing supremacy over adjacent communities. On this hill were the casa Romuli, ${ }^{2}$ or hut of the mythical founder; the Lupercal, ${ }^{3}$ or cave of the she-wolf which suckled him; the sacred cornel cherry tree, ${ }^{4}$ which sprang from the lance cast by Romulus from the Aventine to the Cermalus; and the Mundus, or augural centre of the city-templum. All these, although of later origin, bore witness to the antiquity and validity of the legend which assigned the beginning of Rome to this spot. In the primitive Roman conception of a city, two things were essential, the dwelling of the king and a shrine where the sacred fire could be kept. In the Palatine city, the casa Romuli was naturally the representative of the former, and although we are distinctly told that the temple of Vesta was outside of the pomerium of the early city, it is quite

[^22]probable that a primitive Italian. deity, Caca, ${ }^{1}$ the goddess of the hearth and fire, had a shrine near the southwestern corner of the hill, and was displaced by Vesta at a later period.

In ritual, the festival of the Lupercalia, celebrated on the fifteenth of February, continued to keep the beginnings of the city before the minds of the Romans down to the end of the western empire. ${ }^{2}$ At this festival the Luperci, a college of priests whose institution dated back to the earliest times, dressed in goatskins and waving leather thongs, ran round the Palatine along a line said to be that of the ancient pomerium, thus performing the ceremony of purification. The rules of augural procedure required that the site destined for a city should be inaugurated as a tenoplum, ${ }^{3}$ or rectangular area, marked off from the ager publicus, or outside territory under the control of the city-state. Within this templum the auspices could be taken, and the civil authority, in distinction from the military, was supreme. The formal founding of a city is thus described by Varro $:^{4}$ -

Oppida condebant in Latio Etrusco ritu ut multa, id est iunctis bobus tauro et vacca interiore aratro circumagebant sulcum. Hoc faciebant religionis causa die auspicato, ut fossa et muro essent muniti. Terram unde exsculpserant fossam vocabant et introrsus iactam murum : post ea qui fiebat orbis, urbis principium, qui quod erat post murum, postmoerium dictum, eoque auspicia urbana finiuntur.

The furrow represented the moat; and the earth thrown up by the plough, the wall of the city. The line urbis principium, or pomerium, behind (i.e. within) the wall, marked the limit of the inaugurated district within which auspices could be

[^23]taken. It also marked the building limit, and so a space which was necessary for military purposes was left free between the houses and the wall all round the city, and was paralleled in the construction of the Roman camp.

The word pomerium, ${ }^{1}$ which first meant the boundary line itself (certis spatiis interiecti lapides), ${ }^{2}$ was soon transferred to the strip of land between line and wall, and was then used in both senses. ${ }^{3}$ At a later period it seems to have been still further extended in application and to have been incorrectly used of the strip on both sides of the wall. This is plainly the understanding of Livy when he writes: ${ }^{4}$ -

Pomerium, verbi vim solam intuentes, postmoerium interpretantur esse: est autem magis circamoerium, locus, quem in condendis urbibus quondam Etrusci, qua murum ducturi erant, certis circa terminis inaugurato consecrabant, ut neque interiore parte aedificia moenibus continua rentur, quae nunc vulgo etiam coniungunt, et extrinsecus puri aliquid ab humano cultu pateret soli. Hoc spatium, quod neque habitari neque arari fas erat, non magis quod post murum esset, quam quod murus post id, pomerium Romani appellarunt.

In the case of the Palatine city, actually existing remains show that the wall itself was built on the slope of the hill, and therefore the line of the pomerium should have been within its circuit. Tacitus, however, describes most distinctly, in the following passage, ${ }^{5}$ the line which in his day was regarded as that of the original pomerium, marked out by Romulus: -

[^24]Sed initium condendi et quod pomerium Romulus posuerit, noscere haud absurdum reor. Igitur a foro boario, ubi aereum tauri simulacrum aspicimus, quia id genus animalium aratro subditur, sulcus designandi oppidi coeptus, ut magnam Herculis aram amplecteretur; inde certis spatiis interiecti lapides per ima montis Palatini ad aram Consi, mox curias veteres, tum ad sacellum Larum ; forumque Romanum et Capitolium non a Romulo, sed a Tito Tatio additum urbi credidere.

The site of the ara Herculis (p.377) is known to have been within a very short distance of the present church of S. Maria in Cosmedin, northwest of the northwest end of the Circus Maximus. The ara Consi (p. 384) is also known to have stood at the eastern end of the spina of the circus. With almost equal certainty the Curiae veteres ( p .128 ) is to be placed at the northeastern corner of the Palatine, and the sacellum Larum (p. 129) near the northwestern corner. It is plain, therefore, that Tacitus is describing a line which ran outside of the existing Palatine wall, and, at least on the side toward the Circus Maximus, at quite a distance from the base of the cliff. This line cannot have been the original pomerium, which was within the fortifications, and the error of Tacitus was due to the current belief that the course followed by the Luperci was that of the first pomerium. ${ }^{1}$

At three points in the circuit, ${ }^{2}$ the plough was carefully lifted up and carried (portare) for a few feet. These breaks in the furrow marked the position of the three gates (porta) required for every settlement by Etruscan ritual. ${ }^{3}$ Varro says that the principal gate of the Palatine city was the porta Mugonia, or vetus porta Palati, on the north side of the hill, near the site of the temple of Iuppiter Stator. This is shown to have been its real position by the contour of the ground as well as by the remains of the pavement of an ancient road leading up the hill at this point.

1 Platner, The Pomerium and Roma Quadrata, AJP. 1901, 420-425.

- Varro, LL. v. 142 ; Serv. ad Aen. i. 422.
${ }^{3}$ LL. v. 164 ; Dionys. ii. 50 ; Fest. 144 ; Solin. i. 24.

It is clear that cattle would have been driven in and out at this gate, and Varro derives the name from their lowing (mugitus). The second gate was on the south side, where the so-called scalae Caci (p.129) led down from the top of the cliff. The third gate is described by Varro ${ }^{1}$ as follows : -

Alteram Romanulam ab Roma dictam, quae habet gradus in nova via ad Volupiae sacellum ;
and by Festus, ${ }^{2}$ who says, -
Porta Romana instituta est a Romulo infimo clivo Victoriae qui locus gradibus in quadram formatus est.

A gate ${ }^{3}$ at the foot of the clivus Victoriae (p. 136) must have been on the west side of the hill, probably not far from the church of S. Teodoro, and the name, porta Romanula or Romana, meaning the river-gate, is explained by the fact that at that time the swampy pond of the Velabrum extended up to about this point.

The Palatine city was also called Roma quadrata, a name which is explained by Solinus ${ }^{4}$ (from Varro) as follows :-

Dictaque primum est Roma quadrata, quod ad aequilibrium foret posita. Ea incipit a silva quae est in area Apollinis, et ad supercilium scalarum Caci habet terminum, ubi tugurium fuit Faustuli.

The line a silva . . . ad supercilium ${ }^{5}$ was the northeast and southwest diagonal of the templum, and Varro plainly means that the name Roma quadrata was applied to a space which would be inclosed within the existing walls of the Palatine city. Koma quadrata was also used in the sense of Mundus, or the receptacle at the centre of the templum, for Festus ${ }^{6}$ states, on the authority of Ennius: -

[^25]Quadrata Roma in Palatio ante templum Apollinis dicitur, ubi reposita sunt quae solent boni ominis gratia in urbe condenda adhiberi, quia saxo munitus est initio in speciem quadratam.

This Mundus ${ }^{1}$ is supposed to be represented upon a fragment of the Marble Plan, where a small four-sided structure of stone, raised above the ground and approached by steps on two sides, stands in the area Apollinis.

The Palatine city was situated on the hill, but it is highly probable that some inembers of the community actually dwelt outside the walls of the citadel, in the surrounding valleys, before any formal union had been entered into with the communities settled on the hills across the Forum valley, and before the second stage of municipal existence had been reached.

The Septimontium, or City of the Seven Hills. - The direction in which the Palatine city should expand was clearly indicated by political and topographical conditions. There were other small settlements on some of the sur-


Fig. 4. - The Septimontium. rounding hills, and the second period of the city's history was that of union with such hamlets on the adjacent spurs of the Esquiline and the Caelian. Topographical conditions rendered it inevitable that the Forum valley should be the first district outside the walls to fall under the control of the inhabitants of the Palatine, and therefore equally necessary that further expansion should take place up the slopes of the Esquiline.

[^26]The same conditions obtained with respect to the Caelian, but to a somewhat less marked degree.

Aside from the direct testimony of these topographical conditions, evidence as to the extent of this second city is derived from the festival of the Septimontium itself, and the scattered passages in Latin literature which refer to it or to the city. As the Lupercalia preserved in ritual a reminiscence of the first Rome, so the Septimontium preserved one of the succeeding stage. This festival, ${ }^{1}$ which was called in some calendars Agonia or Agonalia, was celebrated on the 11th of December, even during the empire, and consisted in part of a lustral procession round the Palatine and Esquiline hills, thus corresponding to the Lupercalia.
Varro ${ }^{2}$ states that the name Septimontium was given to the city before it was called Rome, but says that the hills were those which the Servian wall afterward inclosed. The real extent of this city is described by Festus ${ }^{3}$ and Paulus Diaconus, ${ }^{4}$ who tell us that the seven montes were the three parts of the Palatine, Palatium, Cermalus, and Velia; the two spurs of the Esquiline, Oppius and Cispius; the northern spur of the Caelian, which was called Sucusa; ${ }^{5}$ and the Fagutal.

Fagūtal is a substantive form from fagutalis, and designated a part of the Esquiline ridge, between the Oppius proper and the extreme western slope, which was known at a later period as the Carinae (Fig. 4). Here was a grove of beech trees, the lucus Fagutalis, ${ }^{6}$ in which was a shrine of Jupiter, worshipped under the name of Iuppiter Fagutalis. Sucusa was confused with Subura, and so appears in our sources. This gave rise to the belief that the Septimontium did not include any portion of the Caelian, and that the valley between the Oppius and

[^27]Cispius, called the Subura, had been in some curious way regarded as a mons. The etymology ${ }^{1}$ and origin of the words Oppius and Oispius is obscure, but they may have been derived from the clans dwelling at these points. They were displaced in ordinary usage by the collective term Esquiliae, which, as its form indicates, was a settlement-name, perhaps equivalent to ex-quiliae. The common adjective esquilinus, in mons esquilinus, would then be analogous to inquilinus, 'an inhabitant,' and it is a plausible hypothesis that the inhabitants of the Palatium, inquilini, applied the term Esquiliae to the settlements on the opposite hills, which afterward became a part of the Septimontium. Sucusa is probably also an ancient Italian settlement-name.

The city formed by the union of these topographical units was undoubtedly surrounded by fortifications; that is, the existing wall of the Palatium was connected with the walls of the newly annexed hamlets. No remains of these connecting walls have been found, and it would be remarkable in the highest degree if they had survived the great changes of centuries in the very centre of the city. An obscure passage in Varro ${ }^{2}$ mentions a murus terreus Carinarum, evidently an embankment of earth on the Carinae, and this has been thought by some ${ }^{3}$ to be the wall of the Septimontium; and on the supposition that it ran along the bank of the Spinon to the Forum valley, the temple of Janus (p. 186), which has been the subject of much discussion, has been explained as the portae belli in this wall. Further evidence that the second period in the city's development was the union of the Palatine and Oppius-Cispius group of settlements, is found in the annual struggle for the October horse, described by Festus, ${ }^{4}$ in which the Sacravienses represent the Palatini, and the Suburanenses their early neighbors and rivals.

[^28]The City of the Four Regions. - Between the Septimontium and the city that, having been inclosed by the Servian wall, became the Rome of the republic, intervened a period of development to which it has been found convenient to give the


Fig. 5. - The City of the Four Regions.
name of the city of the Four Regions, from its most distinctive feature. In consequence of the reforms which tradition ascribes to Servius Tullius, the inhabitants of the city of Rome were divided into four tribes (tribus), which, although purely political divisions so far as our knowledge of them extends,
were doubtless based on the local division into four regions, ${ }^{1}$ belonging to the previous period. This local division remained in force until the time of Augustus.

The expansion of the Septimontium took place in two directions, north and south. On the north the added area comprised the small Viminal hill, next to the Cispius, and the much larger Quirinal immediately beyond, with its projecting spur afterward called the Capitolium. It is to be noted that these two hills were not properly called montes, but colles, the distinguishing adjectives Quirinalis and Viminalis being added afterward, and that the settlers in this district were called collini, not montani. The collis Quirinalis derived its name ${ }^{2}$ from a shrine of the god Quirinus, who appears to have been worshipped there as well as on the Palatine. The settlement on this hill has usually been regarded as largely made up of Sabine elements, but this traditional view has been vigorously combated. ${ }^{3}$ Viminalis is of course derived from vimina, 'osiers,' which grew abundantly in this region.

On the south the rest of the Caelian, comprising the Caelius proper and the Ceroliensis, was added-to the area of the Septimontium. A line of fortification must have surrounded the city of the Four Regions, and its probable course may be traced by the contour of the ground. Beginning at the southwest corner of the Capitoline, it ran northeast along the edge of the cliffs of this hill and of the Quirinal to a point where, bending at a right angle, it ran southeast and south across the Quirinal, the Viminal, and the Esquiline, just where the valleys begin which descend between these hills. At the southeast corner of the Caelian it turned to the southwest round the hill, and thence ran northwest to the Palatine and back to the Capitoline. (Fig. 5.)

[^29]The four regions are described by Varro ${ }^{1}$ as the Suburana, the Esquilina, the Collina, and the Palatina. Regio I, Suburana, comprised the Sucusa, the Ceroliensis, and the Caelius; Regio II, Esquilina, the Oppius and the Cispius; Regio III, Oollina, the Quirinal and the Viminal; Regio IV, Palatina, the Palatium, the Cermalus, and the Velia. These four regions met at a common point, probably near the Velia. The Capitoline, although a part of the city, was not included in any one of the regions, inasmuch as it was from the beginning regarded as the citadel and religious centre of the whole city, and not as a local division or part. ${ }^{2}$ This is implied by the very name, Oapitolium, which was deliberately given to the hill as the Capitol, and was not derived from any existing settlement. The pomerium coincided with the wall, having been extended with each enlargement of the city's area, but after this time it was not extended again until Sulla's dictatorship.
Varro ${ }^{3}$ is the chief authority for this division into regions, and in the same connection he describes the shrines known as the sacraria Argeorum, ${ }^{4}$ and the ceremonial festival connected with them. His incomplete and somewhat obscure account distributes twenty-seven of these sacraria among the four regions, and describes the position of twelve with such minuteness that all but one of them can be located with reasonable certainty. These eleven, and also the conjectural sites of thirteen others, are marked on Fig. 5, making twenty-four in all, or six in each region. There are no means of determining the location of the remaining three. The shrines themselves were called Argei, a principibus qui cum Ercule Argivo venerunt

[^30]Romam, and the word is evidently a Latinization of 'Apreiol. The festival at these shrines took place on March 16th and 17th, and on May 15th. On the latter date, the procession of priests, Vestals, and the city praetor, after visiting all the shrines in order, halted on the pons Sublicius, and twentyseven straw puppets, one for each shrine, were solemnly cast into the Tiber. These puppets were also called Argei, and it is supposed that at the festival in March they were consecrated in the sacraria, to be collected at the ceremony in May.

Whatever the meaning and origin of this festival may have been, it was probably introduced into Rome in the third century b.c., and the topographical details belong to that period. It is this topographical information which gives Varro's description its great importance.

The Servian City. ${ }^{1}$ - Tradition ascribes to Servius Tullius the building of the famous wall which surrounded Rome for five centuries, the remains of which are still to be seen. Without regard to the truth or falsity of this tradition, it is certain that before the end of the regal period, the city of the Four Regions had grown in some directions beyond its original limits, and that its increasingly important position among the Latin towns demanded a system of defence far stronger than that which already existed. The line of this new fortification inclosed an area much greater than was necessary for the population at the time and for many years to come, but was skilfully chosen so as to afford the greatest advantages from a military point of view. The evidence of literature and inscriptions and the remains of the wall itself enable us to trace its line ${ }^{2}$ with certainty at almost every point. It coincided with that of the city of the Four Regions from the southwest corner of the Capitoline along

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the edge of the Quirinal, but extended almost a kilometre farther northeast, to a point near the junction of the tableland behind the Quirinal and the collis hortorum, the present Pincian hill. Thence it ran southeast and south until it again approached the line of the city of the Four Regions on the Oppius. Following closely, or coinciding with, this line round the Caelian, it diverged at the porta Capena, and inclosed the Aventine, passing along its slope to the northern corner, where it bent at right angles and continued in a straight line to the Tiber, here only about 125 metres distant from the hill. From the southwestern corner of the Capitoline, it was also built in a direct line to the river. This left a distance of about 300 metres along the river bank where there was no wall like that which surrounded the rest of the city. Recent excavations have brought to light the remains of stone quays built along the bank, and doubtless provided with a sort of parapet, which would prevent an enemy from making a landing.

The area added to the city was in two sections, that on the northeast tableland, stretching back from the Quirinal and Esquiline to the new wall, ${ }^{1}$ and that on the south, the whole region of the Aventine and the low ground between the Palatine, the Forum, and the Capitoline. A large part of this newly acquired district was covered with woods, and continued to be so until the later days of the republic, as is shown by Varro's ${ }^{2}$ description of the situation of the sacraria Argeorum, which in certain parts of the city, as on the Aventine and the Esquiline, are described as being near this or that grove.

For much the greater part of its course this wall was built along the edge of the cliffs in the manner of the Palatine fortifications, an independent wall being necessary only where low ground or the end of a valley had to be crossed, as between the hills and the river or between the Caelian and the Aventine,

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except for the long stretch across the plateau of the Quirinal and the Esquiline. Here, instead of an ordinary wall, the famous agger ${ }^{1}$ was erected.

Dionysius ${ }^{2}$ states that the length of the Servian wall was the same as that of the wall of Athens, 43 stadia, or $5 \frac{3}{8}$ Roman miles, and this corresponds very closely with the line as it can now be traced. Communication with the opposite bank of the Tiber was secured by the pons Sublicius. This wooden bridge was the only one in existence until 179 в.c., and is usually supposed ${ }^{3}$ to have spanned the river close by the forum Boarium, within the limits of the Servian fortifications.

The Servian city marked a most important departure from the earlier conception of the city, or urbs, in that the line of the pomerium, and therefore the city-templum, was not extended to coincide with the new wall, but remained as it had been during the previous period. The new Esquiline and Aventine regions remained without the sacred precinct. The reason for this condition is unknown; but from the time of Sulla, the political fiction ${ }^{4}$ was developed that no one who had not increased the area of Roman territory by actual conquest ${ }^{5}$ had the right to extend the pomerium of the city.

Latin literature speaks of many gates in the Servian wall, and gives the names of sixteen which are accepted as authentic. Of these, the site of some can be made out with certainty, of the others with more or less probability.

Those the location of which may be regarded as certain, are :

1. Porta Carmentalis, ${ }^{6}$ with two openings, at the southwestern corner of the Capitoline.

[^33]2. Porta Sanqualis, ${ }^{1}$ on the collis Mucialis (p.16), in the via di Magnanapoli.
3. Porta Salutaris, ${ }^{2}$ on the collis Salutaris (p. 16), in the piazza del Quirinale, near the via della Dateria.
4. Porta Quirinalis, ${ }^{3}$ on the Quirinal, close to the line of the via delle Quattro Fontane.
5. Porta Collina, ${ }^{4}$ at the extreme northeastern corner of the wall, over the via Nomentana.
6. Porta Viminalis, ${ }^{5}$ on the Viminal, north of the present railroad station.
7. Porta Esquilina, ${ }^{6}$ over the via Labicana, northwest of the piazza Vittorio Emanuele.
8. Porta Caelemontana, ${ }^{7}$ on the Caelian, near the Lateran.
9. Porta Capena, ${ }^{8}$ over the via Appia.
10. Porta Trigemina, ${ }^{9}$ between the Aventine and the Tiber.

Those the situation of which is highly probable, although not so certain, are:-
11. Porta Naevia, ${ }^{10}$ between S. Saba and the baths of Caracalla,
12. Porta Raudusculana, ${ }^{11}$ at the junction of the viale Aventino and the via di porta S. Paolo,
13. Porta Lavernalis, ${ }^{12}$ in the via del Priorato, - all three on the southern slope of the Aventine.

[^34]14. Porta Flumentana, ${ }^{1}$ between the porta Carmentalis and the river.
Somewhat more doubtful are the sites of the following: -
15. Porta Fontinalis, ${ }^{2}$ at the northeastern extremity of the Capitoline, and belonging originally to the collis Latiaris. A road from the Forum into the campus Martius certainly crossed the ridge at this point, and passed through a gate, but whether it was the porta Fontinalis or not, is uncertain.
16. Porta Querquetulana, ${ }^{3}$ probably on the Caelian, where a road passed out to the vallis Egeriae. ${ }^{4}$
The relation of the district on the right bank of the Tiber to the city proper during the early period, has been much discussed. According to tradition, Ancus Marcius ${ }^{5}$ united the Janiculum to the city by the pons Sublicius and by a wall from this bridge to the top of the hill. We are also told that while the comitia centuriata was meeting in the campus Martius, ${ }^{6}$ flag-signals were interchanged between the Capitol and the Janiculum, where a watch was being kept for the approach of an enemy.

It is probable that shortly before or after the beginnings of the Servian city, it became customary from time to time to station an outpost on the Janiculum, ${ }^{7}$ whenever there was any reason to fear the sudden approach of an enemy, and that

[^35]some time afterward a small fort of some sort was erected, which was connected with the river either by a single wall with a protected passage on its top, or by a double line of walls. (For a later viaduct, see p. 486.) All necessity for such an outpost ended when Rome became mistress of the peninsula, and thenceforth the district trans Tiberim underwent a normal development, first as the pagus Ianiculensis, belonging to the ager Romanus, and afterward as a part of the city itself.

The derivation and meaning of the word Ianiculum are doubtful, but there is much to be said in favor of that explanation according to which the word denotes the "Janus-city," and was applied by the Romans to the ridge in the west, because Janus, the Sun-god, was seen each night to sink behind it, entering his own abode at the close of the day, just as the shepherds themselves entered their own city, the Palatium.

By the time of Sulla, the wall had been destroyed in many places, and houses had been built over and against it. A little later, Dionysius says that it was difficult to trace its course, and Maecenas made the agger into a public park. From these and other indications, we may infer that the wall was kept in reasonably good repair down to the second century b.c., but that from that time on it fell more and more rapidly into decay, so that it could practically be disregarded by Augustus in his reorganization of the city.

Along the river, the spread of the city beyond the line of the walls began at a very early date. The importance of the Tiber for the development of Rome was greatest during the first four centuries of the republic, and more room upon its bank was needed than that included within the wall. The first extension, therefore, of busiuess and population beyond the fortifications was northward from the porta Flumentana and southward from the porta Trigemina. Ships from Ostia began to discharge their cargoes along the bank under the

Aventine, where later stood the Emporium, or market place for foreign goods, and in imperial times the enormous horrea, or warehouses. The forum Boarium, or cattle market, was near the river within the walls; but the forum Holitorium, or vegetable market, was outside the porta Carmentalis; and still further up the river were the Navalia, or shipyards. It is probable that the population in the district between the Palatine, the Capitoline, the Forum, and the Tiber was more dense than anywhere else in the city, except possibly in the Subura, and an early overflow into the campus Martius was natural.

The names of at least three suburban districts north of the Servian wall are known to us, although their respective limits cannot accurately be defined: namely, the campus Flaminius, ${ }^{1}$ where Flaminius built a circus for the plebs in the year 221 в.c., a distinctly plebeian quarter, sometimes called the prata Flaminia; ${ }^{2}$ the region called extra portam Flumentanam; ${ }^{3}$ and that known as the Aemiliana. ${ }^{4}$

As the city underwent an almost complete transformation under Augustus and his successors, and as existing remains with few exceptions date from this later period, it is difficult to form any definite and exact idea of the appearance of the Rome of the republic. Temples and public buildings were built of opus quadratum of tufa, or of concrete faced with opus incertum, extremely simple in style, and with no pretension to beauty. The dwellings of most of the citizens were built of wooden framing, sun-dried bricks (lateres crudi), and wattled work of mud and osiers, unsubstantial in character and unattractive in appearance. These houses furnished excellent material for the frequent conflagrations ${ }^{5}$ which swept through

[^36]the city, and which were at the same time the cause and the result of this worthless style of construction. The constant danger of inundations in the districts along the river was another reason for the persistence of a cheap method of building.

A marked change in the character of the houses of the rich began, apparently, about the year 100 B.c., and we are told of the magnificence of many of the palaces of wealthy Romans, erected on the Palatine after that date (p. 132).

Comparatively little was done, however, in the way of restoring existing temples and public buildings, or erecting new ones of any remarkable character, the Tabularium (78 в.с.) and the theatre of Pompey ( 55 b.c.) being almost the sole exceptions, so that we may accept without doubt the statements of Cicero and Augustus, as describing justly the appearance of the chief city of the world at the end of the republic. ${ }^{1}$

That temples in large numbers had been erected during the republic is known from the statement ${ }^{2}$ of Augustus that he had restored eighty-two at his own expense ; but there is no reason to suppose that many of them were architecturally successful or beautiful. The spoils of Sicily and Greece, gathered by Roman generals during two centuries of conquest, which had been placed in the temples and public buildings, must have served in general to emphasize the artistic poverty of their surroundings.

More inportant than the buildings themselves was the general plan of the Servian city, for this was followed in its main lines in the succeeding periods. To speak of a "plan" is somewhat misleading, for the city of Rome was not laid out according to

[^37]any plan whatsoever. We are told ${ }^{1}$ that after its burning by the Gauls the city was rebuilt without regard to previous boundaries, in an absolutely haphazard fashion. Although considerable doubt attends this alleged burning by the Gauls, ${ }^{2}$ it is evident that the lines of the city were dependent upon the contour of the ground and the conditions of settlement, and not at all upon conscious purpose. The first settlements were on the hills, - the Palatine, the Esquiline, the Quirinal, and the Caelian, - and consisted of peasants' huts grouped together with no idea of symmetry. When these settlements were united into one city, the valleys between the hills were made use of for meeting-places, markets, public games, and similar purposes. Paths were trodden along these valleys to the various points on the hills, along the paths buildings were erected, and they afterward became the main streets of the city. First in time and importance was the Sacra via, between the Palatine and the Esquiline, which, beginning near the present site of the Colosseum, crossed the ridge of the Velia near the arch of Titus, and passed through the Forum valley to the foot of the Capitoline (p. 277). From this point it was called the clivus Oapitolinus, and ascended the Capitoline to the depression between the Capitol and the Arx, where it divided and continued to each summit.

Probably the second street to receive a name was the Nova via (so called to distinguish it from the Sacra via), which extended from the northeast corner of the Palatine, along its north and west sides, to the Velabrum. This coincides with part of the line which Tacitus describes as having been that of the Palatine pomerium (p. 37).

These were the only two streets within the Servian city which were called viae, this term being elsewhere applied only to the great roads which ran from Rome to the various parts

[^38]${ }^{2}$ Thouret, JJ. iv. Suppl. Bd. 164 ff.
of Italy, and at a later period to a few streets in the campus Martius ${ }^{1}$ and on the Aventine. ${ }^{2}$
In the city of the Four Regions, the main streets, besides the two already mentioned, must have been the Subura, and its extension the clivus Suburanus, and the two leading from the end of the Sacra via in the Colosseum valley along the north and west sides of the Caelian. In the Servian city this list of principal streets was increased by those which ran from the Subura up the slopes of the Quirinal and Viminal to the gates in the Esquiline wall and agger, the vicus portae Collinae, which ran across the Quirinal, and three which led out from the Forum, - the vicus Tusous southwest along the north side of the Palatine, the vicus Iugarius round the southwest slope of the Capitoline to the porta Carmentalis, and that which connected the northeast corner of the Forum with the campus Martius, across the ridge between the Capitoline and the Quirinal.

These streets, with such open spaces as the Forum, the forum Boarium, and the forum Holitorium, formed the framework, so to speak, of the city of the republic, and from them branched off a constantly increasing number of less important crossstreets and alleys. The average width of these streets was about 4 metres, although the broadest were 2 or 3 metres wider. Down to the beginning of the third century b.c. it is probable that the Sacra via and the Nova via were the only streets which were paved, but after that date ${ }^{3}$ there was great inprovement in this respect, although records of paving are for the most part still later.

The regular name for a city street was vicus; that of a sidestreet or alley, pergula ${ }^{4}$ or semita if open at both ends, and angiportus if a cul-de-sac. But vicus was also regularly used to include a main street, the side streets and alleys opening into

[^39]it, and the houses standing upon them, so that the term was equivalent to ward or quarter. The names of about one hundred ${ }^{1}$ of these wici have been handed down, but their situation is not always certain.
By the laws of the Twelve Tables each house must be surrounded by a narrow passage, to guard against the danger of fire. Hence such a dwelling was called an insula, ${ }^{2}$ and there was a considerable number of these insulae in each vicus. Toward the eud of the republic this regulation was disregarded, and a distinction arose between domus and insuld, the former term being applied to the separate mansions of the rich Romans, while the latter was restricted to the tenements in which the bulk of the population lived. Later, another transfer of meaning took place, in consequence of which insula was the name given to an apartment of one or more rooms, of which one building might contain many. It is in this sense that the word is used in the Notitia.
During the republic the population was most dense in the Subura and Velabrum. The Palatine became the residence quarter of the rich, while the Aventine was distinctly plebeian.

Attention has already been called to the overflow of population beyond the porta Carmentalis and the porta Flumentana, but it should be borne in mind that the campus Martius and the campus Flaminius were in no sense within the city until the time of Augustus. They formed part of the public domain, and we have no record of any sale to private individuals before Sulla. ${ }^{3}$ Shrines to various divinities had been erected in this district from very early times, but almost no buildings of distinction before Pompey's magnificent structures.

Within the six centuries of the existence of the Servian

[^40]city, certain periods in its development stand out as especially marked. The last years of the kings witnessed the building of the wall itself and the beginning of the Cloaca Maxima, and these great works, as later restored and enlarged, were the most characteristic of the period.

The censorship of Appius Claudius Caecus, in 312 в.c., marked a second stage, for the building of the via Appia from the porta Capena south, and of the aqua Appia, the first Roman aqueduct, by which water was brought across the Aventine down to the porta Trigemina, must have contributed greatly to the development of the districts affected.

The third notable epoch was the first forty years of the second century b.c., when the results of the Punic and Macedonian wars were making themselves felt in attempts to adorn the city with the spoils of Greece, and to improve the condition of streets and sewers by systematic paving and rebuilding. At this time also the erection of basilicas in and round the Forum marked a new departure in Roman architecture; and the erection of a second bridge, the pons Aemilius, in 179 b.c., stimulated the growth of intercourse with the opposite bank of the Tiber.

The dictatorship of Sulla marks the last epoch in the republican city, for, besides the actual construction and restoration effected at that time, new ideas of architectural beauty and municipal symmetry were becoming current, to be formulated by Caesar and carried out by Augustus and his successors.

The last century of the republic also witnessed that change in building materials, - from crude to kiln-dried brick, from tufa to travertine, - and the introduction of marble and granite from the East, which in the years to come revolutionized the appearance of the city.

Urbs Regionum XIV, or The Open City of the Fourteen Regions. - The plans of Augustus for administrative reform included every part of the Roman world, especially the city
itself, which had far outgrown its previous limits, and had no longer need of walls of any sort. He therefore reorganized it in the year 8 b.c. ${ }^{1}$ on an entirely different basis, dividing the whole city into fourteen regiones, or wards, which were still further subdivided into vici. ${ }^{2}$ The number of viei in the different regions varied somewhat.
Two objects were attained by this new arrangement. In the first place, the police and fire service was organized on a scale commensurate with its importance; and secondly, the cult of the emperor was introduced in a manner cleverly devised to impress the minds of the mass of the population. The Lares compitales had long been worshipped at shrines set up at the compita throughout the city, and to these two deities a third was now added, the Genius Augusti. ${ }^{3}$

A new set of magistrates, chosen from the common citizens, was instituted, who were called magistri vicorum, ${ }^{4}$ originally four from each vicus, but afterward forty-eight in each region, regardless of the number of vici, and two curatores. These magistrates seem to have had to do mainly with the religious ceremonies of the regions, the regular municipal administration being in the hands of the higher officials.
From the Regionary Catalogue ${ }^{5}$ it is possible to determine with sufficient exactness, in most cases, the limits of these regions in the fourth century; but it is somewhat more difficult to do this for the Augustan division, inasmuch as it is certain that the outer boundaries at least had been extended at some points during the intervening three hundred years. The only sources of information with regard to the original regions

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are certain passages in literature ${ }^{1}$ and a few inscribed terminal stones of the pomerium (pp. 68-69) and of the customs-boundary which have been found.

The number of the regions, fourteen, was twice the traditional number of the hills of the Servian city, i.e. the Palatine, Capitoline, Aventine, Caelian, Esquiline, Viminal, and Quirinal. These regions were originally known only by number, and the names found in the Regionary Catalogue became current at various later periods, doubtless as a result of popular usage. Thus the name, templum Pacis, applied to region IV, could not have antedated the erection of this temple by Vespasian in 75 A.D. ${ }^{2}$

It has usually been supposed ${ }^{3}$ that the Servian wall formed a general boundary for these regions, II, III, IV, VI, VIII, X, XI being entirely within, and I, V, VII, IX, XIV entirely without its circuit; while XII and XIII were perhaps always exceptions, including territory on both sides of the wall. It seems probable, however, that this was also true of regions I, II, and VI, at least in the fourth century, but the determination of the exact limits in these cases is very difficult, if not impossible. ${ }^{4}$

It has been further assumed that the Aurelian wall was built on the outer boundary of the regions, but it has been shown that this was not always the case. ${ }^{5}$ Hulsen's sketch (Fig. 7) indicates the probable outer limit of the city in the time of Pliny. ${ }^{6}$ In the year 73 A.D. Vespasian had a new survey of the city made, maps drawn, and the famous Marble Plan (p. 2) placed on the wall of the templum Sacrae Urbis. This survey

[^42]and plan were perhaps based on similar work of Agrippa's, ${ }^{1}$ but as Claudius had meanwhile extended the pomerium (p.68), it is possible that either he or Vespasian also extended the boundaries of some of the regions, but not to any great extent. Augustus inclosed the fourteen regions with a customs-barrier, which was enlarged somewhat by Vespasian.

Hülsen has shown ${ }^{2}$ also that the thirty-seven singulae portae ${ }^{3}$ mentioned by Pliny were not gates in the Servian wall, as was once the general opinion, but gates in this customs-barrier, which was marked by stone cippi. Four of these inscribed ${ }^{4}$ cippi (Fig. 7) have been found in situ, but they belong to the time of Commodus. Three of them were close to the Aurelian wall.
This number, thirty-seven, is large enough to provide for a gate where each of the thirteen principal viae - the Flaminia, Salaria, Nomentana, Gabina, Tiburtina, Labicana, Asinaria, Latina, Appia, Ostiensis, Portuensis, Aurelia, and Triumphalis - passed out of the city, and for an average of two others between these, separated from each other by about 500 metres.

The fourteen regions established by Augustus, with their later names, were the following:-
I. Porta Capena, so called from the gate in the Servian wall whence the via Appia issued. It was an irregularly shaped

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Terminal Stonge of the Customsbarrier.
A. CIL, vi, 1016 c.
B. CIL, vi. 1016 b.
C. CIL. vi. $1016 a$.
D. EE. iv. 787.

Fig. 7. - Map showing Terminal Stones of the Pomerium and Customs-Barrier.
district, beginning at the east corner of the Palatine, bounded on the west by that hill, and running south to some distance beyond the porta Capena between two almost parallel lines, not more than 150 metres apart on the average. Beyond the Aventine it widened considerably and extended to the bank of the Almo, a stream some distance beyond the line of the Aurelian wall. It is probable that regions I, II, III, IV, and X all met at one point near the Meta Sudans.
II. Caelemontium. This region ${ }^{1}$ included the greater part of the Caelian, and extended east to the Aurelian wall.
III. Isis et Serapis, so called because of the temples to these two Egyptian deities, erected within its boundaries. It included the Colosseum valley and the part of the Oppius within the Servian wall.
IV. Templum Pacis, including the Sacra via from its beginning to the atrium Vestae, the Subura, and the Cispius within the Servian wall.
V. Esquiliae, the eastern district of the city, lying outside of the Servian wall and north of the via Asinaria. In the time of Augustus the campus Viminalis, and probably all the district between the via Tiburtina and the via Salaria, lay outside the city, ${ }^{2}$ and none of it was included in region $V$ until after the time of Vespasian. The boundary of this region was at a short distance beyond the Aurelian wall on the south, but in the fourth century coincided with it from a point south of the via Labicana to the south side of the castra Praetoria.
VI. Alta Semita, so called from a street which crossed the Quirinal, on the line of the modern via Quirinale. This region ${ }^{3}$ included the Quirinal from the imperial fora to the Servian wall between the porta Viminalis and the porta Collina, and extended west far enough to take in the horti Sallustiani, and north even beyond the Aurelian wall. In the fourth

[^44]century, after the castra Praetoria had been made a part of the city, the boundary of this region coincided with the Aurelian wall from the porta Salaria south round the castra.
VII. Via Lata, so called from the name given to the southern end of the via Flaminia, between which and the western boundary of VI this region lay.
VIII. Forum Romanum vel Magnum. This region included the Forum, the imperial fora, the Capitoline and the district south of it, extending to a line drawn north of the forum Boarium, through the Velabrum and back to the Forum.
IX. Oircus Flaminius, all the territory between the via Flaminia, the Servian wall, and the Tiber.
X. Palatium, the Palatine, within the lines described by Tacitus ${ }^{1}$ (p.37) as those of the first pomerium.
XI. Circus Maximus, another very irregular region, comprising the Circus Maximus and all that part of the city between the limits of VIII and X and the Tiber.
XII. Piscina Publica, so called from a large artificial pool for washing and similar purposes, near the site of the baths of Caracalla. This region included the eastern part of the Aventine, and the districts south of the via Appia as far as the Aurelian wall.
XIII. Aventinus. This region extended from the boundaries of XI and XII to the river, including the larger half of the Aventine.
XIV. Trans Tiberim (Trastevere). This was the name given to all that part of the city on the right bank of the Tiber, but whether its limits corresponded with the line of the Aurelian wall is entirely uncertain. ${ }^{2}$ The insula Tiberina (p. 84) was also included in this region.

Augustus organized the fire and police service on the basis of this new division into regions. During the republic, similar

[^45]services had been performed by a corps of publici, or slaves of the municipality, under the command of the tresviri nocturni. ${ }^{1}$ The new body consisted of seven cohortes vigilum, ${ }^{2}$ numbering seven thousand men, under the command of a praefectus vigilum, who was subordinate to the praefectus urbi. These guards were garrisoned in seven barracks, called stationes, ${ }^{3}$ and fourteen smaller posts, excubitoria.

From actual remains and inscriptions ${ }^{4}$ found in situ, the location of five of these barracks has been determined, namely, statio 1 in region VII, 2 in V, 3 in VI, 4 in XII, and 5 in II. According to the Notitia, statio 6 was in region VIII, and 7 in XIV.

All these inscriptions are later than the time of Augustus, and the location of some of these barracks may have been changed during the interval. This was certainly true of No. 2, which could not have been so far out at first. All the barracks which can be definitely located, except this No. 2, were close to the Servian wall, and so arranged that each cohort had charge of two adjacent regions. The natural combinations were $I$ and II, III and V, IV and VI, VII and IX, VIII and X, XI and XIV, ${ }^{5}$ XII and XIII.

The City of Aurelian. - The last stage in the development of the city was marked by its being inclosed again within walls. For nearly six hundred years there had been practically no fear of foreign invasion, but in the latter half of the third century the northern barbarians became so threatening that the open capital of the world was converted into a fortified city.

The wall was begun by the emperor Aurelian (270-275 A.D.), and finished by his successor Probus (276-288). ${ }^{6}$ It must have

[^46]been very imperfectly constructed or else strangely neglected, for it had to be extensively restored in the reign of Honorius, under the supervision of Flavius Macrobius Longinianus, prefect of the city in the year 403. This is known from three famous inscriptions ${ }^{1}$ which are built into the wall over the porta Tiburtina, the porta Praenestina, and the porta Portuensis. Serious breaches were also made by the Goths under Totila in the sixth century, ${ }^{2}$ and repaired by Belisarius. This wall, commonly known as the Aurelian wall, is the fortification of the modern city, except on the right bank of the river. Its usefulness is entirely past, and as a result of many centuries of injury and decay, it presents the appearance of a ruin.

In consequence of the invasion of the Saracens in 845 A.D., Pope Leo IV built a wall which inclosed the Vatican, St. Peter's, and the Borgo, and extended to the river. This section of the city was then known by the name of civitas Leonina, or the city of Leo. In 1642 Urban VIII began the construction of another wall which extended from the Castle of St. Angelo round the Leonine City, and along the western slope of the Janiculum to the Tiber, opposite the Aventine. This wall is still kept in repair for military purposes.

The length of the wall as restored by Honorius, according to Lanciani's ${ }^{3}$ latest measurements, was 18,837 metres, and there is no doubt that this restoration was made on exactly the line of the original structure of Aurelian and Probus. Its course probably coincided in general with the customs-barrier (p. 60), being determined primarily by the necessity of inclosing the territory actually covered by the city at the time; and if this had been the only consideration, the line of the wall would have coincided with the outer boundary of the regions. On the other hand, military and engineering considerations made

[^47]it necessary to take advantage of the topography of the ground, and to make use of such structures already existing as could become a part of the fortifications. This is clearly seen at many points, but especially where the line does not coincide with the limits of the regions. This difference, however, seems on the whole to have been comparatively slight.

Appended to the Einsiedeln Itinerary is a description of the wall, evidently made by the official in charge of the restoration of Honorius, which gives the naines of the gates, and the number of the turres, propugnacula, posternae, fenestrae, etc., throughout its whole extent. ${ }^{1}$

Beginning on the north at the bank of the Tiber, the wall extended east beyond the limits of regions IX and VII, in order to make use of the enormously strong retaining wall already built round the Pincian hill, then occupied by the horti Aciliorum; and from this point, in the same general direction, to the northwest corner of the castra Praetoria. These barracks were already inclosed by strong fortifications. which became a part of the new wall. From the castra Praetoria the wall ran southeast to the point where the via Labicana and the via Praenestina divided, which was the meeting-place of seven aqueducts. For several hundred yards the magnificent Claudian aqueduct formed the wall, it being necessary only to close the open arches. Turning sharply to the southwest it followed, with many changes in direction, the slopes of the Caelian and the Aventine to the extreme southwest point of the latter hill, where it crossed the via Ostiensis. Thence the line ran directly to the Tiber and north along its bank to the Emporium, in order to inclose the enormous storehouses of region XII. On the right bank, the course of the wall seems to have been determined solely by military considerations, as it was built in two almost straight lines

[^48]from the fortified top of the Janiculum to the nearest points on the river, and probably did not include all of region XIV. The southernmost of these two lines ran to the river opposite the Emporium. The circuit was completed by continuing the wall along the left bank, from the porta Flaminia to a point opposite the end of the northern line from the Janiculum, and the passage of the river itself seems to have been barred by chains stretched across the stream between the opposite ends of the wall. There were at this time several bridges across the river, but the exact method of uniting them with the wall so as to form a part of the system of fortification is unknown.

It frequently happened that tombs stood directly in the way of the wall, especially where it crossed the roads leading out from the city. In such cases the tombs were not destroyed, but carefully built into the masonry of the wall (pp. 399, 484).

The description in the Einsiedeln Itinerary gives the names of fourteen gates, as follows : Flaminia, Salaria, Pinciana, Nomentana, Tiburtina, Praenestina-Labicana, Asinaria, Latina, Metrovia, Appia, Ostiensis, Portuensis, Aurelia, and Cornelia. ${ }^{1}$

Extensions of the Pomerium. - The pomerium ${ }^{2}$ of the city of the Four Regions probably coincided with the line of its fortifications (p.44), but this condition soon ceased to exist, for the Aventine was within the wall of Servius, although outside the pomerium. For unknown reasons no further extension of the pomerium was made until the time of Sulla, who based his action on the following principle, then appearing for the first time, - habebat autem ius proferendi pomerii qui populum Romanum agro de hostibus capto aurerat. ${ }^{3}$ In Sulla's time this

[^49]referred to territory in Italy, ${ }^{1}$ but later ${ }^{2}$ the idea was expanded to cover the ager barbaricus. Nothing definite is known with regard to the line of Sulla's pomerium, except that it did not include the Aventine. Elsewhere it probably coincided in general with the Servian wall.
Roman writers ${ }^{3}$ speak of extensions of the pomerium by Caesar, Augustus, Claudius, Nero, Trajan, and Aurelian, but more or less doubt has been cast upon this testimony in the case of all except Claudius. Such action on his part has been proved by unimpeachable literary testimony, and also by the discovery of four of the terminal stones, cippi, which he set up, and the inscriptions recording the fact. ${ }^{4}$ Claudius finally included the Aventine within the city.

The pomerium was again extended by Vespasian, in connection with his new survey of the city, and of the terminal stones set up in the years 73-75 A.d. three have been found, although there is no reference to this action in extant literature.

Under Hadrian the line of the pomerium was again marked out, and two of the stones have been discovered, but they record only a restoration and not an extension.
The four stones of Claudius's pomerium are (Fig. 7):-
(a) CIL. vi. 1231a, found in the campus Martius near S. Lucia della Chiavica.
(b) CIL. vi. 31537 c, found just outside of the porta Salaria.
(c) CIL. vi. 1231b, 31537 b , found near the porta Metrovia, inside the Aurelian wall, not far from its original site. According to Ficoroni, this stone when found still bore the number XV.

[^50](d) CIL. vi. 31537 a , found in situ southeast of monte Testaccio, with the number VIII.

Of Vespasian's pomerium, three terminal stones have been found: -
(e) CIL. vi. 31538 b , found outside the porta Pinciana, with the number XXXI.
(f) CIL. vi. 1232, 31538, found near the porta Ostiensis, just inside the Aurelian wall, and 60 metres from $d$, with the number XLVII.
(g) NS. 1900, 15-17; BC. 1899, 270-279; found under the church of S. Cecilia in Trastevere, without numbering, and probably not exactly in its original position.

Finally, two stones of Hadrian's restoration have been found, both in situ:-
(h) CIL. vi. 1233a, under the house No. 18 in the piazza Sforza, with the number V.
(i) CIL. vi. 1233 b , near S. Stefano del Cacco.

It is probable that even in the cases where the stones were not found precisely in situ, they had not been removed to any considerable distance.

A comparison of the positions of these terminal stones shows (1) that north of the Pincian the pomerium of Vespasian, and therefore that of Claudius, lay beyond the line of the Aurelian wall; (2) that near the porta Metrovia pomerium and wall probably coincided; (3) that the monte Testaccio was still outside the pomerium ; and (4) that as late as the time of Hadrian a large part of the campus Martius had not been included within the pomerium. Compare the position of the stones $a, h, i$.

We are told that in Vespasian's time the porticus Octaviae was also outside the pomerium, and it is probable that the campus Martius proper (p. 321) was never within it, for this
district must always have been regarded as the real meetingplace for the army of Rome, and outside of the civil jurisdiction. The one stone ( $g$ ) found in region XIV furnishes no data sufficient to warrant any inference as to the line of the pomerium on the right bank of the river. The inscription on one stone ( $h$ ) gives 480 Roman feet as the distance between it and the next; that on another, 337 feet; and some of the stones are marked with numbers ; but all attempts to combine these figures so as to derive any information as to the rest of the pomerium line have proved abortive.

Rome during the Empire. - The appearance which the city of Rome presented in the fourth century was the result achieved by systematic effort on the part of nearly all the emperors from Augustus to Constantine, ably seconded by their wealthy courtiers. Only a detailed study of the methods employed in construction and of the ruins now visible, as well as of the gradual destruction of the city which was going on for twelve centuries, and a comparison of the wealth of decorative material still displayed in Roman churches and palaces, can suffice to give any adequate idea of the magnificence of Rome at the period of its highest development.

As has been remarked (p. 57), the substitution of travertine for tufa, the introduction of the newly worked Luna marble, and the importation of all kinds of marble, granite, and decorative stone from the East, added to the countless spoils of Greek and Sicilian cities which had been flowing to Rome ever since the days of Marcellus, had already begun to affect the architecture and appearance of the city in the half-century before Caesar's dictatorship. Not until Caesar, however, do we hear of any definite plans for the embellishment of the capital. Of these plans we get some hints in the literature ${ }^{1}$

[^51]of the period. They included the removal of the squalid quarter north of the Forum, the cutting away of the ridge connecting the Capitoline and the Quirinal, and the utilization of part of the campus Martius for distinctively municipal purposes. Caesar himself made a beginning by building the forum Iulium directly adjoining the Forum proper, but his scheme was not completely carried out until a century and a half later. Caesar had also thought of diverting the Tiber from its course at a point near the pons Mulvius, and carrying it in a new channel to the west of the Vatican and Janiculum, thus joining the two parts of the city and eliminating all danger of inundation; but this great work was never actually undertaken.

Whether Augustus only carried out the plans of his adoptive father or supplemented them with his own, it is to him that the chief glory of transforming Rome must be assigned. Following his example, able coadjutors like Maecenas and Marcus Agrippa took part in the same work, and to Agrippa especially no small share of the credit for its accomplishment is due. The activity of the Augustan period was most strikingly displayed in the Forum, in the forum of Augustus, in the district north of the Servian wall near the Tiber, where the theatre of Marcellus and the porticus Octaviae were erected, and on the Palatine, where Augustus built the famous temple of Apollo and the domus Augustana, which, with its successive additions, became from that time the residence of the emperors.

Maecenas reclaimed the gruesome region on the Esquiline along the Servian wall, and made it a public park; while Agrippa erected the first public baths and the original Pantheon in the campus Martius, and spanned the Tiber with a new bridge, the pons Agrippae.
No better résumé of what was accomplished can be given than that which Augustus himself caused to be inscribed in
bronze on his own mausoleum in the campus Martius (p. 363) : ${ }^{1}$

Curiam et continens ei chalcidicum, templumque Apollinis in Palatio cum porticibus, aedem divi Iuli, lupercal, porticum ad circum Flaminium, quam sum appellari passus ex nomine eius qui priorem eodem in solo fecerat Octaviam, pulvinar ad circum maximum, aedes in Capitolio Iovis feretri et Iovis tonantis, aedem Quirini, aedes Minervae et Iunonis reginae et Iovis Libertatis in Aventino, aedem Larum in summa sacra via, aedem deum Penatium in Velia, aedem Iuventatis, aedem Matris Magnae in Palatio feci. Capitolium et Pompeium theatrum utrumque opus impensa grandi refeci sine ulla inscriptione nominis mei. Rivos aquarum compluribus locis vetustate labentes refeci, et aquam quae Marcia appellatur duplicavi fonte novo in rivum eius inmisso. Forum Iulium et basilicam, quae fuit inter aedem Castoris et aedem Saturni, coepta profligataque opera a patre meo perfeci et eandem basilicam consumptam incendio ampliato eius solo sub titulo nominis filiorum meorum incohavi et, si vivus non perfecissem, perfici ab heredibus iussi. Duo et octoginta templa deum in urbe consul sextum ex decreto senatus refeci, nullo praetermisso quod eo tempore refici debebat. Consul septimum viam Flaminiam ab urbe Ariminum feci et pontes omnes praeter Mulvium et Minucium. In privato solo Martis Ultoris templum forumque Augustum ex manibiis feci. Theatrum ad aedem Apollinis in solo magna ex parte a privatis empto feci, quod sub nomine M. Marcelli generi mei esset.

Augustus introduced the systematic use of travertine, either alone, as in the theatre of Marcellus, or in combination with other materials, as in 'Tiberius' restoration of the temple of Castor; and also the practice of covering concrete and brick masonry with marble slabs, which produced such remarkable results.

During the lifetime of Augustus, Tiberius had actively engaged in the work of restoring and building; but after he became emperor, his natural disposition toward economy prevented the continuance of this policy, almost the only buildings the erection of which can be assigned to him being the domus Tiberi-

[^52]ana on the Palatine, the temple of the deified Augustus, and a triumphal arch in the Forum.

Caligula added to the imperial palace on the Palatine, and connected it with the temples of Castor and Iuppiter Capitolinus, but the freaks of this madman left few permanent traces in the city. His successor Claudius is remembered for having brought to a successful completion the two largest aqueducts of Rome, the Anio vetus and the Claudia, and for the enlargement and restoration of the Circus Maximus, one of the most wonderful monuments of Rome.

In the principate of Nero occurred the greatest fire in the history of the city, which lasted, according to Tacitus, ${ }^{1}$ nine days, destroyed three regions entirely and seven others partially, and left only four uninjured. This report is probably greatly exaggerated, ${ }^{2}$ although the district between the Palatine, the Esquiline, and the Caelian was burned over so far as to offer Nero a pretext for taking possession of it and building there his famous domus Aurea. This park and palace occupied an area 1.5 kilometres square, extending from the Palatine to the gardens of Maecenas on the Esquiline, and changing completely the appearance of this quarter of the city.

The domus Aurea was destroyed by the Flavian emperors, and its site restored to the use of the public, notably by the erection of the Colosseum and the baths of Titus. To the Flavians Rome owed the arch of Titus on the summa Sacra via, the palace on the Palatine and the Stadium, the completion of the temple of Clandius on the Caelian, the forum Pacis, the third of the imperial fora, the templum Sacrae Urbis, and the temple of Vespasian in the Forum, besides a vast amount of restoration which was carried out principally by Domitian.

[^53]The forum Transitorium, the fourth of the imperial fora, was begun by Domitian and finished during the short reign of Nerva, but it remained for Trajan to complete the series with his own forum, by far the largest and most magnificent of all. Space was obtained for the construction of this forum by cutting away the ridge which joined the Capitoline and the Quirinal. This united the old Forum and the campus Martius, and successfully completed Caesar's plan outlined one hundred and fifty years before.

The reign of Hadrian was preëminently a period of restoration and rebuilding; yet this emperor, with the help of his Greek architects, erected at least three remarkable structures : the double temple of Venus and Roma on the summa Sacra via; the Pantheon in its present proportions; and his own mausoleum on the right bank of the Tiber, the present castle of S. Angelo, with the bridge, pons Aelius, which connected it with the left bank of the river.

The double temple of Venus and Roma, the largest in the city, not only marked a new departure in temple-building, but necessitated a change in the general topography of the immediate neighborhood; the Pantheon still remains the most wonderful creation of Roman architectural genius, and almost as strong terms might be used in describing the mausoleum. Hadrian also enlarged very considerably the palace on the Palatine.

Under the Antonines less was done, the principal new structures being the column and temple of Marcus Aurelius, and the temple of Faustina in the Forum. Severus and Caracalla displayed great energy in repairing the ravages of time and of the terrible fire of Commodus in the year 191 A.d., and during their reigns almost as much was done in the way of restoration as by Hadrian. Severus built the most striking part of the Palatine palace, the so-ealled Septizonium, a seven-zoned structure at the south angle of the palace, and the first build-
ing of the city visible to one approaching by the via Appia. The decadent taste of the period is shown by the arch of Severus, which destroyed the symmetry of the western part of the Forum.

Just south of the Aventine, Caracalla built his famous baths, which were exceeded in size only by those afterward erected by Diocletian on the Viminal. These thermae formed one of the most striking features of the city, there being no less than eleven in the time of Constantine, enormous in extent and imposing in appearance.

During the hundred years from Caracalla to Maxentius, with the exception of the baths of Alexander and Diocletian, and the temple on the Quirinal, which has often been called Aurelian's temple of the Sun, no remarkable works were added to those already in existence. The Heroon of Romulus, the son of Maxentius, in the Forum, and the arch and basilica of Constantine were the last great triumphs of Roman architecture, and with them the development of imperial Rome may be said to have ceased.

The result of Caesar's plans and the initiative of Augustus had been the creation of the most magnificent city which the world has ever seen; for it must be remembered that these countless marvellous buildings of all descriptions, as well as the streets and squares, were completely filled with treasures of art which for five centuries had been flowing in a steady stream from all parts of the world to enrich its capital.

## CHAPTER V.

## THE TIBER AND ITS BRIDGES.

The Tiber. - The Tiber flows through Rome in a channel which in classical times varied in width from 60 to 100 metres. So great is the amount of sand and mud which the river has always carried down, - according to recent calculations $4,000,000$ cubic metres annually, - that the seashore at its mouth has steadily advanced, and the site of the original town of Ostia is now 6600 metres inland. The continual formation of bars at the mouth of the river and the consequent obstruction of navigation, as well as the increase in the danger of inundation as far up as Rome, made it necessary for the Roman engineers to spend much labor on the harbor at Ostia in dredging the old channels and in cutting new ones. Inscriptions ${ }^{1}$ of Claudius and Trajan record measures of this sort. At Rome, the result of this alluvial deposit has been to raise the bed of the river 1 metre since the fall of the empire.

The inundations of the Tiber have always been a source of great danger to large sections of the city, not only near the river, where the water actually overflows, but as far away as the Pantheon, where the water sets back through underground channels. One hundred and thirty-two of these inundations ${ }^{2}$ have been recorded since the traditional one when Romulus and Remus were exposed to the flood, one hundred and six of them since the Christian era. The highest was that of 1598 , when the river rose 19.56 metres above its ordinary level. To

[^54][^55]guard in some measure against the dangers of inundation, especially the cutting away of the banks, the Romans began to build protecting walls at various points, ${ }^{1}$ at least as early as the second century b.c., and it is probable that the opus quadratum which surrounds the mouth of the Cloaca Maxima is older still.

Toward the end of the republic, the general oversight of the river and its banks was intrusted to certain curatores appointed by the senate, and in the year 15 A.D. they were organized into a standing board, the curatores alvei Tiberis et riparum (later, et cloacarum urbis). ${ }^{2}$ To this board was intrusted the dredging of the channel, the building and repairing of the river walls, and the determination of the width of the strip of land on each side of the stream which technically formed the ripae. This strip was marked off by a line of terminal stones, at irregular intervals, which formed the boundary between public and private domain. The width of these ripue is unknown, but judging from the position of those terminal stones which have been found, they must have extended in length from the pons Mulvius to the church of S . Paolo fuori le mura, 3 kilometres below the city. Inscribed cippi ${ }^{3}$ have been found dating from 54 в.с. to the reign of Hadrian.

Remains of walls of tufa, travertine, and brick have been found at various points along the river, which date from the earlier empire, but there is no definite reference in literature or inscriptions to such embankments before the third century. ${ }^{4}$ The present government has been engaged for twenty years in building a magnificent embankment along both sides of the river for the whole extent of its course through the city, and this great undertaking has now been practically completed.

[^56]The channel provided for the river is 100 metres in width, except where it divides in flowing round the island, and the old line of the banks has been very materially altered by this process of straightening.

While this work was in progress near the pons Aelius, the embankments of the empire were discovered, and it was found that the bed was not made of equal width to the full depth of the stream, but that its section was triple, thus providing a suitable channel for the river at all stages of low or high water. ${ }^{1}$

Bridges. - The development of the relations between the left and the right banks of the Tiber is illustrated by the history ${ }^{2}$ of the successive bridges from the earliest times down to the fifth century. The importance of the bridge to the earliest settlers is shown by the fact that after the expulsion of the kings, the college of pontifices (pons-facere, ' bridge-builders') became the chief authority in matters of state religion.

The bridges over the Tiber were constructed in the following chronological order.
(1) Pons Sublicius. Tradition agrees ${ }^{3}$ in ascribing to Ancus Marcius the erection of the first bridge. It was called the pons Sublicius, from sublica, ${ }^{4}$ a pile, and was constructed wholly of wood without metal of any sort whatsoever. ${ }^{5}$. This bridge was invested with a sacred character, so that its preservation became a matter of religion, and after having been rebuilt many times, it was still in existence in the fifth century. Its antiquity is vouched for by its method of construction, which

[^57]belongs to the period before the inhabitants of Latium had developed the working of metal far enough for use in bridgebuilding; and we shall probably not be far out of the way in assigning its first erection to the second period of the city, the Septimontium, when the construction of the Nova via points to a connection between the old Sacra via and the bridge across the Tiber. ${ }^{1}$

The earliest form of this bridge was doubtless very simple, perhaps a series of floats which could easily be disconnected at the approach of an enemy, those having this business in charge being called pontifices for this reason.

The position of the pons Sublicius is uncertain. ${ }^{2}$ The early settlers of Rome might have taken advantage of the island as a natural means of connection between the banks of the river, and might have preferred to build two short bridges from it to either side, rather than a long one below or above. The first reference to bridges to and from the island occurs in Livy's ${ }^{3}$ history of the year 192 b.c., where they are called duos pontes, ${ }^{4}$ and later the island itself was spoken of as inter duos pontes. It is certain that a bridge was built from the left bank to the island as early as the year 291 b.c., when the worship of Aesculapius was established there, and by no means improbable that it was built long before that date. As these early bridges were probably of wood, some have maintained that the first pons Sublicius consisted of the two which crossed at the island. From the island as an extreme northern point, the pons Sublicius has been placed in various positions, as far down as

[^58]the Aventine below the porta Trigemina. The strongest evidence seems to indicate a point between the porta Trigemina and the ruined ponte Rotto, and very probably close to the latter.
(2) Pons Mulvius, the modern ponte Molle. This was the next in order of time after the pons Sublicius and the islandbridges, and carried the great via Flaminia across the Tiber, 3 kilometres north of the city. As this road was built in 220 в.c., the bridge must be at least as old, and may very probably be older, but the first reference to it is in the year 207 b.c. ${ }^{1}$ Who Mulvius was is unknown. Twice ${ }^{2}$ Aemilius Scaurus, censor in 110 в.с., is spoken of as its builder, and it needed no restoration ${ }^{3}$ by Augustus. Of the six arches of the present structure, - restored for the last time in 1808 , - four are ancient, but whether they belong to the bridge of 110 в.с. is uncertain. The material of the bridge is peperino, with travertine facing.
(3) Pons Aemilius, perhaps the ruined ponte Rotto. Much uncertainty ${ }^{4}$ attaches to the history and identification of this bridge. The evidence is very scanty, ${ }^{5}$ but seems to indicate that this was the name given to the first stone bridge within the limits of the city, which was begun in 179 and finished in 142 b.c. It crossed the river from the formm Boarium, just above the pons Sublicius, and was known in the fourth and fifth centuries as the pons Lapideus and pons Lepidi ${ }^{6}$; in the middle ages as the pons Senatorum ${ }^{7}$ and pons Sanctae Mariae. In 1598 part of the bridge was carried away by a flood, and not being repaired, it was thenceforth called the ponte Rotto. One arch only now stands in mid-stream. By some this is thought to be the bridge which was restored by the emperor Probus, and which is called pons Probi in the Notitia.

[^59](4) Pons Fabricius, the modern ponte dei Quattro Capi. This stone bridge ${ }^{1}$ still joins the left bank of the river with the island. Inscriptions over the arches state that the bridge was built by L. Fabricius, curator viarum, in 62 b.c., and restored by M . Lollius and Q . Lepidus in 21 b.c. This structure is the one now standing, no further restorations of importance having been necessary. It is built of tufa and peperino with travertine facing, and has two semicircular arches, with a smaller one in the pier between. The present parapet is modern, but the original was divided into panels by pilasters supporting four-headed hermae, and connected by a metal balustrade. The two hermae at the east end of the bridge are original, and from them the modern name is derived. During the middle ages the bridge was known as the pons Iudaeorum, as it crossed the river directly from the Ghetto.
(5) Pons Cestius, the modern ponte di S. Bartolomeo. This bridge leads from the island to the right bank of the river. It is first mentioned in the Notitia, but its identification with the bridge restored by Symmachus in 370 A.D., and thenceforth known as pons Gratiani, ${ }^{2}$ is certain. Its original construction dates from the same period as the pons Fabricius, probably between 72 and 44 b.c., when the Cestii were in close relation with the leading statesmen of Rome. Further restoration was made in the eleventh century and recently in 1886-1889.3 Of the three arches of the present structure, the central one is ancient, and dates from the restoration under Gratian.
(6) Pons Agrippae. Our knowledge of the existence of this bridge rests upon the inscription ${ }^{4}$ on a stone cippus discovered in 1877, and upon the discovery, a dozen years later, of the

[^60]remains of sunken piers, ${ }^{1} 100$ metres above the ponte Sisto. There is no other information in regard to the building, purpose, or history of this bridge, but its existence seems to be an assured fact.
(7) Pons Neronianus. In the Mirabilia mention is made of the pons Neronianus, which is further described, in a later edition of this Mirabilia, ${ }^{2}$ as pons ruptus ad $S$. Spiritum in Sassia. The remains of its piers are about 100 metres below the ponte S. Angelo, and can still be seen at low water. As this bridge ${ }^{3}$ is not mentioned in the Notitia, it must have been destroyed before the time of Constantine. It connected the campus Martius with the Vatican meadows where were the gardens of Agrippina and the circus of Nero, in which that emperor was especially fond of indulging in all manner of sports and orgies, and it was probably built between 60 and 64 A.D., to facilitate communication between this district and the city. The later pons Aelius rendered Nero's bridge unnecessary.
(8) Pons Aelius, the modern ponte S. Angelo. This bridge was built by Hadrian ${ }^{4}$ in connection with his great mausoleum, and finished in 134 a.d. It was afterward called pons Hadriani and pons Sancti Petri. ${ }^{5}$ As originally built, ${ }^{6}$ it consisted of three main arches in the centre, with three smaller ones on the left and two on the right, making eight in all. From the central part, over the three main arches, the bridge sloped in each direction to the banks, at a greater angle on the left than on the right. The material is peperino with travertine facings. With the exception of the balustrade, which was

[^61]mostly a restoration of the middle ages, the ancient structure of Hadrian was preserved until 1892, although two of the arches at the left end had been covered up by the embankment and were not visible.

The building of the new embankment has rendered it necessary to rebuild completely the ends of the bridge, so that only the three central arches of the original structure remain.
(9) Pons Aurelius, the modern ponte Sisto. In the list of bridges in the Notitia, we find the pons Aurelius. This name does not occur in the guide-books of the middle ages, but in its place a pons Antonini, ${ }^{1}$ or pons Ianicularis, ${ }^{2}$ which was partially destroyed in 772 and called pons ruptus until 1475, when it was rebuilt in its present shape by Sixtus V, and known thenceforth as the ponte Sisto.

In 1878, immediately below the first arch of the ponte Sisto, were found ${ }^{3}$ fragments of an earlier bridge and also of a triumphal arch which stood at its entrance. On some of these fragments is an inscription which records the rebuilding of arch and bridge by the emperor Valentinian in the years $365-366$ A.D. ${ }^{4}$ The identification of this bridge of Valentinian with the pons Antonini and the pons Aurelius is now regarded as certain; and while nothing is known as to the time when it was first erected, the fact that it bore the names of Aurelius and Antoninus makes it certain that it was built by one of the emperors who belonged to both these families. It is usually attributed to Caracalla, who thus brought the buildings erected by Severus in Trastevere ${ }^{5}$ into closer connection with the campus Martius. It may, however, with equal probability be assigned to Marcus Aurelius.
(10) Pons Probi. In the Notitia the list of bridges then existing in Rome reads thus: pontes octo, Aelius Aemilius Aurelius

[^62]Mulvius Sublicius Falricius Cestius Probi. The identification of this last is still very doubtful. The name occurs only once elsewhere, in an enarratio fabricarum urbis Romae, taken from the Curiosum and inserted in the calendar published by Polemius Silvius in the year 448 A.D. In the Mirabilia we find mention of the pons Theodosii, ${ }^{1}$ - also called pons Marmoreus and pons in ripa Romaea, - and to this bridge there are numerous references in the letters of Symmachus, ${ }^{2}$ from which it appears that, although begun in 381 , it was not finished until 387 A.D. It was the last of the bridges of the city, and the farthest down-stream, as it crossed the river under the Aventine near the Marmorata. It was partially destroyed in the eleventh century, and completely in 1484. The bases of the piers still exist beneath the level of the river. The identification of this pons Theodosii with the pons Probi depends upon the answer given to the question whether or not Theodosius erected an absolutely new structure where none had previously existed. Decisive evidence is lacking, ${ }^{3}$ and scholars are quite equally divided. If the pons Probi is not the pons Theodosii, then the former name must have belonged to one of the other bridges, probably the pons Aemilius, which may have been restored by Probus.

Insula Tiberina. - The island ${ }^{4}$ in the Tiber seems to be the extremity of the ridge of which the Capitoline is a part. Owing perhaps to the harder character of its tufa, the river did not cut it away entirely, but divided and flowed on either side. The island thus formed is 269 metres long and its greatest width is 67 metres. According to tradition, ${ }^{5}$ its for-

[^63]mation was due to the great quantity of grain which was cut from the estates of the Tarquins in the campus Martius after the expulsion of the kings, and thrown into the river just above this point. Whether the first bridge, built by the Romans, crossed the island or not (p. 79), there is no allusion to any connection between it and the city until 291 b.c., and it formed no integral part of the city until some time after that date. In the reorganization of Augustus, it was included in region XIV.


Fig. 8.-The Insula Tiberina.

1. S. Bartolomeo.
2. S. Giovanni.
3. Morgue.
4. Mosaic of Inppiter Iurarius.
5. Modern Mole.

In the year 292 b.c., in consequence of a pestilence in Rome, an embassy was sent to Epidaurus ${ }^{1}$ to bring back the statue of the god Aesculapius. The embassy returned the next year, bringing, not the statue, but a serpent from Epidaurus, which abandoned the ship and swam to the island. A temple to

Aesculapius ${ }^{1}$ was at once erected and the whole island consecrated as its temenos. It became therefore sacra, and did not pass into private possession. The island was also known as insula Aesculapii, ${ }^{2}$ insula serpentis Epidauri, ${ }^{3}$ and inter duos pontes. ${ }^{4}$ The temple was restored, ${ }^{5}$ probably about the time when the pons Fabricius was built, and its site is now occupied by the church of S . Bartolomeo. Some of the columns of the nave belonged probably to the temple or to the neighboring porticus.

Two other temples were afterward erected within the original temenos of Aesculapius. (1) The temple of Faunus, which was vowed in 196 and dedicated in 194 B.c. ${ }^{6}$ It was built with money received in fines, and is described as prostyle in form. ${ }^{7}$ (2) The temple of Iuppiter, which was vowed by L. Furius Purpureo in 200 B.c. and dedicated January 1, $194 .{ }^{8}$ It is probable that the cult here celebrated was that of Iuppiter Veiovis, ${ }^{9}$ and that this temple stood in some relation to that of Iuppiter Veiovis on the Capitoline.

Besides these three temples, there was a shrine to the rivergod Tiberinus, ${ }^{10}$ to whom a sacrifice was offered on December 8, and an altar to Semo Sancus ${ }^{11}$ or Deus Fidius, which gave rise to the belief among the early Christians that Simon Magus was worshipped here.

As a result of the legend that the serpent had been brought by ship from Epidaurus, the island itself was made to resemble a ship. A stone platform was built round it, and upon this

[^64]a wall was erected which in shape exactly reproduced the sides of a Roman ship. ${ }^{1}$ Before the great changes in the riverbed caused by the building of the new embankments, a considerable portion of the travertine stern could still be seen at the east end of the island, and even now a fragment of the wall may be seen under the staircase leading down from the morgue. An obelisk, fragments of which are in the museum at Naples, is thought to have represented the mast. We have no information as to the time when this curious idea was carried out, but the remains of the walls point to the same period as that of the construction of the pons Fabricius, and it is quite possible that the erection of the two stone bridges was part of the same plan as the building of the ship.

Suetonius ${ }^{2}$ says that sick slaves were brought to the temple of Aesculapius and left there to be cured, and in general it appears that there was some attempt to reproduce the effect of the great sanitarium at Epidaurus.

The Emporium. - The first traffic with the seacoast in which Rome engaged was in salt, which was brought by boat from Ostia to the Salinae, ${ }^{3}$ or salt warehouses just outside the porta Trigemina, and thence by the via Salaria ${ }^{4}$ into the interior.

In time other commodities, as wood, wine, corn, and oil, began to be imported by ship, and the Salinae formed the nucleus from which was developed the harbor and warehouse system of Rome. After the city became a metropolis and goods of all descriptions were imported from all parts of the world, the business of this region increased most remarkably. Comparatively few of the ships that brought wares from over sea sailed up to the city, their cargoes being transferred at Ostia.

The character of the river banks is such that something in the way of wharves or landing-places must have been provided

[^65]at an early date; but the first record of anything of this sort is in the year 199 b.c., ${ }^{1}$ when the aedileship of M. Aemilius Lepidus and L. Aemilius Paulus was signalized by the building of the porticus Aemilia beyond the porta Trigemina, emporio ad Tiberim adiecto.

The term Emporium, ${ }^{2}$ mentioned here for the first time, was applied to the bank itself and to the ground stretching back from it for some little distance, which was used as a landingplace, storehouse, and market. In the year 174 b.c. this open Emporium, ${ }^{3}$ which extended down the river from the southwest corner of the Aventine, was paved, inclosed with barriers, and provided with flights of steps leading down to the water's edge. These steps rendered a river wall necessary, which was extended as the demands of commerce increased, until the whole bank, for 1 kilometre down-stream from the porta Trigemina, had been converted into one long quay.

The name portus, ${ }^{4}$ in its widest meaning, was applied to the entire harbor, but it was also applied, with limiting adjectives, to different sections of the quay, which were assigned to different kinds of goods, as portus vinarius ${ }^{5}$ and portus lignarius. Some of these sections seem to have been under the control of private individuals, and to have been called by their names, as the portus Licinii, etc. ${ }^{6}$ It is, however, not entirely certain that all these sections of quay were in this region.

Excavations ${ }^{7}$ carried on along the river since 1868 have brought to light fragments of the wall and quay and of the steps and paved inclines which led down to the water to facilitate unloading, and a few of the stone corbels, sometimes in the shape of lions' heads, which projected out from the quay and

[^66]were pierced with holes for mooring-rings. Part of the masonry of this quay is of opus quadratum and belongs to the last century of the republic, but the greater portion is of brickwork ${ }^{1}$ and dates from the time of Hadrian.

Under the empire, one of the chief articles of import was marble, and a long stretch of quay, beneath the Aventine and above the Emporium proper, was devoted to its reception. This part was called the Marmorata, a name still preserved in the via della Marmorata. There was also an officina marmoraria, ${ }^{2}$ where the stone was worked.

In the years of $1868-1870$, more than six hundred blocks ${ }^{3}$ of unused marble were found scattered over the Marmorata and the Emporium, some of which are still to be seen. Many of them had Greek inscriptions. Besides the Marmorata, another wharf, built for the landing of marbles, was discovered in 1891, about 150 metres above the ponte S. Angelo. ${ }^{4}$ This was not a quay, but a stone platform, 26 metres long and 14 wide, projecting into the river at an angle of $40^{\circ}$. The convenience of having a landing place for marble and granite in the upper part of the city is obvious. Outside the porta Trigemina was a column or statue of S. Minucius Augurinus, ${ }^{5}$ praefectus annonae in 439 в.c., erected by popular subscription.

Navalia. - The Navalia, or docks for ships of war, ${ }^{6}$ were beyond the porta Flumentana in the campus Martius, opposite the prata Quinctia (p. 486), just west of the modern palazzo Farnese. We do not know when they were first constructed, but it was prior to 338 в.c., for in that year the ships captured

[^67]at Antium ${ }^{1}$ were moored at these docks. The mooring of captured ships here continued to be the custom for two centuries at least, as those taken from the Macedonians were also brought here in $167 .{ }^{2}$ In the middle of the second century B.C. the docks were burned, and rebuilt by the Greek architect Hermodorus. ${ }^{3}$ References to them after this date are infrequent, but in the sixth century Procopius ${ }^{4}$ speaks of them as ${ }_{\epsilon}{ }^{2} \nu \mu \epsilon ́ \sigma \eta \eta \hat{\eta} \pi o ́ \lambda \epsilon \epsilon$, which probably means that they were within the line of the fortifications of Aurelian. The Navalia included an arsenal, which seems to have become a sort of museum, and other buildings for various purposes, and must have covered a considerable area. Whether ships were actually built at these docks, ${ }^{5}$ is a disputed point. In any case, their importance must have declined very rapidly after the second Punic war, as it would no longer have been necessary for Roman ships to sail up the river. In 147 b.c. the Carthaginian hostages were detained ${ }^{6}$ in the Navalia.

A porta Navalis, mentioned by Festus, ${ }^{7}$ has been thought by some to be the gate into the inclosure, but without good reason. In 179 b.c. the censor Fulvius built a porticus extra portam Trigeminam et aliam post navalia et ad fanum Herculis, ${ }^{8}$ and on fragment 61 of the Marble Plan is the inscription NAVALEMFER . . . This evidence, together with the passage in Procopius already cited, and a bronze of Antoninus Pius, ${ }^{9}$ have been used in an attempt ${ }^{10}$ to prove the existence of other docks, Navale inferius, just north of the porta Trigemina, but no general agreement has been reached.

[^68]
## CHAPTER VI.

## AQUEDUCTS AND SEWERS.

Rome's Water Supply. - Before the building of the first aqueduct in 312 b.c., the Romans depended for their water supply upon the Tiber and upon wells, springs, and rain water caught and stored in cisterns. ${ }^{1}$ The soil was so rich in springs and underground streams that wells could be sunk successfully at any point, and the average depth necessary was only about 5 metres. ${ }^{2}$ Such wells (putei) were common from the earliest period, and the recent excavations in the Forum (p. 255) have brought to light upward of thirty, some of which date from the republic. It is therefore improbable that the water of the Tiber itself was ever used very extensively for drinking purposes, although certain of the popes of the sixteenth century have left a record of their preference for this substantial beverage. ${ }^{3}$ The word fons was employed by the Romans to denote, not only natural springs, but also artificial fountains. The Notitia states that in the fourth century there were in the city twelve hundred and twelve public fountains, of which the great majority must have been of the artificial kind. These fountains were ordinarily in the form of basins (lacus), large and sinall, or of spouting jets (salientes).

The most famous natural springs were the following: fons Oamenarum, ${ }^{4}$ the spring of the Muses, which, together with a

[^69]sacred grove and shrine, was in the vallis Egeriae (p. 411) outside the porta Capena, northeast of the via Appia. This valley is marked by the via della Mola and the brook Marrana, and the fountain itself is usually identified with a spring near the villa Fonseca. Considerable changes have taken place in this region, and there are several springs near by, so that a positive identification seems rather hazardous. Fons Apollinis, ${ }^{1}$ the position of which is unknown, but which has been identified with a spring now flowing in the villa Mattei on the Caelian, not far from the fons Camenarum, and also with one near the west end of the Circus Maximus. Fons Iuturnae, perhaps the most celebrated of all Roman springs, which was discovered in the year 1900 just behind the temple of Castor. Its site and the ruins of the lacus are described on page 208. Aqua Mercurii, ${ }^{2}$ a spring which is thought to be one of those now flowing in the gardens of the villa Mattei. Its waters were conducted in an artificial channel through the valley of the Circus Maximus to the Cloaca Maxima.

Among the other springs mentioned in literature, which seem to have had a special claim to celebrity, are the Lautolae (p. 187) or hot springs ad Ianum geminum, still a puzzle to topographers, and the fons Luperoalis, ${ }^{3}$ the earliest of all, which gushed forth from the Lupercal (p.127) on the slope of the Cermalus. The porta Fontinalis in the Servian wall was named from a spring which may be that now visible in the cortile di S. Felice in the via della Dateria, sometimes called the aqua Fontinalis. Beneath the Carcer on the slope of the Capitoline is a spring, which perhaps supplied the Arx in the earliest days of the city, and from which the lower part of the Carcer, the Tullianum, is generally supposed to have derived its name (tullius ='a spring'?). This derivation has lately been disputed (p. 242).

[^70]Rain water was caught in the compluvia of the houses, but there was probably less necessity for its use in Rome than in most cities. Many large cisterns (piscinae) have been found in different parts of the city; but it is usually difficult to tell whether they were intended only for rain water, or were reservoirs fed by small pipes from a spring or aqueduct. A series of underground cisterns has been found on the Pincian, ${ }^{1}$ which were made for the villa of the Acilii Glabriones and consist of galleries cut in the tufa rock and intersecting each other at right angles (p. 460). All other cisterns, so far discovered, are constructed in a similar manner.

Aqueducts. - Springs and cisterns must have proved inadequate to supply the rapidly growing city, for in 312 в.c. the first of that long series of aqueducts was constructed which has justly been regarded as among the most remarkable and distinctive features of ancient Rome. ${ }^{2}$ Our knowledge of their history and general administration is chiefly due to the fortunate preservation of a treatise on the subject, the De Aquis Urbis Romae, by Sextus Julius Frontinus, who was appointed curator aquarum in 97 A.D. and signalized his tenure of office by a complete reform of the system. This work of Frontinus is amply illustrated by the many remains of arches, channels (specus), distributing reservoirs (castella aquae), and pipes of all sizes, which have been preserved.

The first of these aqueducts, the Appia, ${ }^{3}$ was built in 312 в.c. by the censors Appius Claudius Caecus and C. Plautius Vernox. It was fed by springs situated east of Rome, 780 passus ( 1153 metres) to the left of the via Collatina, between

[^71]the sixth and seventh milestones, near the Anio, which may still be seen at the bottom of a quarry at a farmhouse called La Rustica. The channel (specus) was subterranean, and entered the city more than 15 metres below the surface, near the temple of Spes vetus, ad Spem veterem (p. 441), just inside the porta Praenestina (Maggiore). Thence it ran along the south slope of the Caelian, across the depression on the Aventine, to a point approximately halfway between S. Saba and S. Prisca; then, making a sharp turn to the northwest, it crossed the Aventine and ended at the Salinae, just outside the porta Trigemina. The total length of the channel was 11,190 passus ( 16.47 kilometres), entirely underground except for a distance of 60 passus ( 89 metres), where it was carried on arches across the via Appia, outside the porta Capena. Remains of this specus have been discovered at various points on the Aventine along the via di S. Paolo, especially in the old quarries near S. Saba. Augustus increased the amount of water brought to the city by this aqueduct by building a branch, the aqua Appia Augusta, from some springs a little more than 1 kilometre north of the sixth milestone on the via Praenestina. This joined the old Appia ad Spem veterem. The specus of this branch was entirely subterranean, and 6360 passus ( 9.18 kilometres) in length.

The Anio vetus ${ }^{1}$ was begun in 272 B.c. by the censor M'. Curius Dentatus, and finished in 275 by M. Fulvius Flaccus, who with Dentatus had been created duumvir aquis perducendis. The original cost was paid out of spoils taken from Pyrrhus. Its source was the river Anio, 1 kilometre above the monastery of S. Cosimato near Mandela, 17 kilometres above Tivoli. Its course can be traced from the source to Gallicano, but from there to Rome it is uncertain.

[^72]This aqueduct entered the city ad Spem veterem, at about the present ground level, struck the Servian wall and followed it to the porta Esquilina. For part of this distance it was built in the agger, and during the modern building operations around the railroad statiou it was often exposed to view. The specus was subterranean, except for a distance of 221 passus (327 metres) outside the porta Praenestina, where it was carried above ground. Its total length was 43,000 passus ( $63.6 \pm$ kilometres). ${ }^{1}$ At the second milestone outside the city, a branch, built by Augustus and called the specus Octavianus, led off from the Anio vetus and ran towards the via Latina and the horti Asiniani, probably near the porta Metrovia.

The Marcia ${ }^{2}$ was begun in 144 b.c. by the praetor Q. Marcius Rex, who had been ordered by the senate to repair the two existing aqueducts, Appia and Anio, and to build a third, as the supply of water was insufficient. The completion of the Marcia required five years, and the water was successfully brought to the top of the Capitoline in 140 b.c.

This was the first of the high-level aqueducts, its source being about 275 metres above Rome in the Sabine mountains. This source was two or three - perhaps those known as the second and third Serena - of a series of eight springs which extend along the north side of the Anio, between Arsoli and Agosta, at the base of monte della Prugna and near the thirtysixth milestone of the via Valeria. The water of all these springs is remarkably clear and cold, and the water of the aqua Marcia was the best brought into Rome in antiquity, ${ }^{3}$ as it also is at the present time.

The course of the Marcia can be traced from its source to Gallicano, as it winds down the hills, following the Anio to

[^73]Tivoli, and then bending to the south, crossing the valleys on bridges and passing through the hills in tunnels. This part of its course is practically the same as that of the Anio vetus, the Claudia and the Anio novus. At one point a single bridge, the ponte Lupo, carries all four. From Gallicano the Marcia ran underground to the sixth milestone on the via Latina, and thence to the porta Praenestina on arches which continued to the porta Tiburtina (porta S. Lorenzo), and to the distributing station on the Viminal.
The later aqueducts, Julia and Tepula, ran on these same arches as far as the porta Tiburtina, above the specus of the Marcia, and the stretch between this gate and the porta Praenestina was afterward incorporated into the Aurelian wall. Where these arches began at Roma Vecchia, their ruins are still visible.

Within the city the Marcia was carried in pipes from the Viminal to the Capitoline, and above ground to the Caelian. During the reign of Nero, a branch called the rivus Herculaneus ${ }^{1}$ was built, which ran underground from the main aqueduct, a little south of the porta Tiburtina, across the Caelian to the porta Capena. ${ }^{2}$ In the villa Wolkonsky some remains of an aqueduct have been found, consisting of tufa blocks pierced with a circular channel, which probably belonged to this branch. ${ }^{3}$ This was extended by Trajan to the Aventine. In 212 A.D. Caracalla built another branch, the aqua Antoniniana, ${ }^{4}$ nearly 7 kilometres long, from a point near the porta Furba ( 3 kilometres from the porta S. Giovanni), to carry water to his baths. This crossed the via Appia on the so-called arch of Drusus (p. 413), and near by are ruins of other arches. In 284 A.d. Diocletian restored the Marcia; and afterward

[^74]the name Iovia ${ }^{1}$ was applied either to the whole aqueduct, or to the branch Antoniniana.

Augustus increased the volume of water of the Marcia by building a short branch ${ }^{2}$ from its head to another spring about 1200 metres farther from Rome. This additional supply was for use in time of drought, and could be turned into the Claudia instead of the Marcia, if necessary. The total length of the Marcia was 91.3 kilometres. Its specus was underground from its source to the point where it emerged at Roma Vecchia, except at a few places where it was carried across valleys on arches.
The Tepula ${ }^{3}$ was built in 125 b.c. by the censors Cu. Servilius Caepio and L. Cassius Longinus. It was fed by volcanic springs in the Alban hills between Frascati and Rocca di Papa, 2000 passus ( 2960 metres) west of the tenth milestone on the via Latina. These springs are now called the Sorgenti dell' Acqua Preziosa. Their temperature is about $63^{\circ}$ Fahrenheit, hence the name Tepula. Until the building of the Julia, the Tepula flowed in its own channel, but its course is wholly unknown.
The Julia ${ }^{4}$ was built in 33 в.c. by Marcus Agrippa. Its source was 2000 passus ( 2960 metres) west of the twelfth milestone on the via Latina, 3 kilometres farther up the Alban hills toward Rocca di Papa than that of the Tepula. The springs are now called Il Fontanile degli Squarciarelli di Grotta Ferrata. About 16 kilometres from the city, Agrippa caused the waters of the Tepula and Julia to unite in the proportion of one to three, and they flowed in one specus for nearly 7 kilometres. The resultant temperature of the mix-

[^75]ture was about $53^{\circ}$. At the sixth milestone this aqueduct was again divided into two channels, - one having three times the capacity of the other, - and so brought to the city. The point of division was close to the Marcia where it emerged from its subterranean specus, and all three aqueducts were conducted thence to the city on the same arches. The line may be easily traced, for the piers of the original arches now serve as foundations for the acqua Felice, which was constructed in the sixteenth century. The length of the channel of the Tepula is estimated at 17.745 kilometres; that of the Julia is stated to have been $1 \tilde{5}, 426$ passus ( 22.83 kilometres).

From the porta Tiburtina, the Marcia and Tepula were carried to the main distributing station on the site of the present treasury building, with a branch leading off to another station near the porta Viminalis. The Julia branched off near the porta Tiburtina and was carried to the Esquiline, where in the piazza Vittorio Emanuele can still be seen the remains of the castellum built by Alexander Severus (p. 442). Some of the piers of this branch are still standing in the piazza Guglielmo Pepe, and the foundations of others have been found during excavations in the neighborhood. Most of those now standing measure 2.90 by 2.95 metres at the base.

The Virgo ${ }^{1}$ was built by Agrippa to supply his baths in the campus Martius, and was finished June 9,19 b.c. Its source was several springs near the eighth milestone on the via Collatina, and near the present railroad station of Salone. It is said that the name Virgo was given to this aqueduct because its source was pointed out to the soldiers by a girl. As the springs were in a swampy region, their waters were first collected in a stone basin, part of which is still in existence. The course of the aqueduct was toward the porta Praenestina, like so many of

[^76]the others ; but about 1 kilometre from this gate, it bent sharply and ran north for some distance, entering the city under the villa Medici on the Pincian. The first piscina was just east of the piazza di Spagna. Thence it was conducted to the baths of Agrippa. The Virgo was restored by Claudius in 52 A.D. and is now in use, having been rebuilt by Pius V in 1570. At various points in the city portions of the original structure still remain, ${ }^{1}$ as in the garden of the palazzo Castellani, at No. 12 via Nazzareno (p. 458), and in the court of the palazzo Sciarra. The length of the Virgo was 14,105 passus ( 20.88 kilometres), of which 12,865 passus ( 19 kilometres) were underground. Of the part above ground, not quite half was on masonry substructures, and 700 passus ( 1036 metres) on arches, for the most part within the city limits.

The Alsietina, ${ }^{2}$ or Augusta, was built by Augustus about 10 A.D., to supply his naumachia (p. 491) on the right bank of the Tiber. Its source was the lacus Alsietinus, the modern lake Martignano, 33 kilometres from Rome. The water was worthless for drinking purposes, and was only so used in time of drought. No remains of this aqueduct have been found, with the possible exception of one inscription. ${ }^{3}$ Its length was 22,172 passus ( 32.8 kilometres).

The Claudia ${ }^{4}$ was begun in 38 A.D. by Caligula, and finished in 52 by Claudius. This was the most magnificent of all Roman aqueducts, although not as long as the Anio vetus or the Marcia. Its sources were three of the springs in the valley of the Anio, near those of the Marcia, and its course was down this valley to Tivoli, and round monte Ripoli to a point near Gallicano, following closely the line of the Anio vetus. Thence

[^77]it skirted the hills to a point below Frascati, and crossed the Campagna to the distributing station ad Spem veterem. Domitian shortened the course by cutting a tunnel, 5 kilometres long, through monte Affliano. From the springs to the point (Le Capannelle) about 12 kilometres from Rome where the specus finally emerged, the channel was subterranean, except at various points in the mountains where it was carried across deep valleys on arches. Where this subterranean specus ended, - intra septimum miliarium, - a small reservoir was erected, and from here the Claudia ran above ground for 1 kilometre on substructures, and for about 10 kilometres on the most magnificent arches to be found near Rome. They have an average span of 5.5 metres and a thickness at the crown of nearly 1 metre. The piers are about 2.4 metres thick in elevation, and the height of the whole structure is more than 27 metres. The original construction of this aqueduct must have been very faulty, for after ten years it fell into disuse and was afterward restored by Vespasian, ${ }^{1}$ and ten years later by Titus. For 300 metres southeast from the porta Praenestina, these arches were made a part of the Aurelian wall.

From the castellum, 250 metres northwest of the porta Praenestina, the water of this aqueduct was distributed throughout the city in pipes. Nero built a branch specus from the angle near the porta Praenestina to the great buildings of Clandius on the Caelian. This branch was over 2 kilometres long, and was carried on arches, - the arcus Caelemontani or Neroniani, ${ }^{2}$ - some of which are still standing and are the finest specimens of Roman brickwork now visible in the city. These arches have a span of 7.75 metres, and the piers are 2.39 by 2.10 metres in thickness and 16 metres high. Domitian carried the water of the Claudia from the Caelian to the Palatine by means of a lead siphon 30 centimetres in diameter. This

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Severus replaced by a line of arches across the intervening valley, 43 metres high in the centre and 430 metres long, the ruins of which are still visible. The length of the Claudia was 46,406 passus ( 68.7 kilometres), ${ }^{1}$ of which 53.6 kilometres were underground. Some ruins of the castellum of the Claudia and Anio novus have been found near the three arches of the railroad tracks.


Fig. 10.-The Junction of Seven Aqueducts at the Porta Praenestina.

The Anio norus ${ }^{2}$ was built at the same time as the Claudia. Its source was the river Anio at Subiaco, near the fortysecond milestone on the via Sublacensis, but this water was frequently muddy and unfit to drink. A piscina limaria, or basin in which the mud might be deposited, was therefore

[^80]built at the beginning of the aqueduct; and four miles below this point, a small auxiliary stream, the rivus Herculaneus (cf. p. 96), was admitted into the main specus. Trajan improved the quality of the water more effectively by drawing it from one of the three lakes above Subiaco, which Nero had constructed by building a dam across the Anio, close by his famous villa.

The Anio novus paralleled the Claudia throughout its course to Le Capannelle, where both emerged from the ground. From here the Anio novus was carried on the Claudian arches above the specus of the Claudia to the castellum, where the water of the two was mixed before being distributed. The length of its specus was 58,700 passus ( 86.8 kilometres), 49,300 passus ( 72.9 kilometres) being underground.

The Traiana ${ }^{1}$ was built by Trajan in 109 A.D., to supply region XIV, trans Tiberim, with drinking water, as the Alsietina was unfit for that purpose. Its sources were several springs lying to the north and west of the lacus Sabatinus, the modern lake Bracciano, in the district between Oriolo Bassano and the lake. The water was collected at a point near Vicarello, where the aqueduct proper began. Its length from this point to Rome was 57.7 kilometres. The specus was wholly subterranean, and terminated on the Janiculum in a castellum, which is represented on coins ${ }^{2}$ of Trajan. During the later empire it supplied motive power for mills ${ }^{3}$ which were built on the slope of the hill. This aqueduct was injured in 537 A.D. by the Gothic general, Vitiges, restored by Belisarius, and afterward by several of the popes. In 1611 Paul V restored it again, increased its volume by admitting the water of lake Bracciano itself, and built the famous Fontana Paolina on the site of the original castellum. It is now called the acqua Paola.

[^81]The Alexandrina ${ }^{1}$ was built in 226 A.D. by Alexander Severus, to supply his baths in the campus Martius. The springs which fed this aqueduct, and which partially supply the modern acqua Felice, are situated east of monte Falcone on the via Praenestina, between Gabii and lake Regillus, and about 20 kilometres from Rome. The total length of the channel was 22 kilometres. In 1585 Sixtus $V$ built the acqua Felice in the same region and along nearly the same line. There are many remains of the original Alexandrina up to a point 3 kilometres from the city, but from there its course cannot be traced accurately. It is probable, however, that a piscina, the ruins of which have been found in what was formerly the vigna Conti, between the porta Maggiore and S. Croce in Gerusalemme, belonged to this aqueduct. According to measurements ${ }^{2}$ taken in the seventeenth century, more than a third ( 9.7 kilometres) of its channel was above ground. Its ruins are to be seen in the valley of the acqua Bollicante on the via Praenestina.

Of the other aqueducts ${ }^{3}$ mentioned in the Regionary Catalogue - Annia, Attica, Herculea, Caerulea, Augustea, Ciminia, Aurelia, Damnata, and Severiana - nothing certain is known, but they were probably branches, mostly outside the city, or else these names were corruptions of earlier forms, as Herculea for rivus Herculaneus. Two others, Dotraciana and Drusia, ${ }^{4}$ are mentioned elsewhere, and two, the Pinciana ${ }^{5}$ and Conclusa, ${ }^{6}$ occur in an inscription.

The estimates which are usually given of the amount of water supplied to Rome by these aqueducts have been very

[^82]| Appia | Date | Source | Destination | $\begin{gathered} \text { Altitude } \\ \text { of } \\ \text { Spring } \end{gathered}$ | $\begin{gathered} \text { Altitude } \\ \text { At } \\ \text { Rome } \end{gathered}$ | Length of Channel |  |  | Size of Specus |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | Cnderground | Above ground | Total |  |
|  | $\begin{aligned} & 13.0 . \\ & 312 \end{aligned}$ | Latomie della Rustica, Via Latina | Porta Trigemina | $\begin{gathered} 30 \mathrm{~m} . \\ \text { (about) } \end{gathered}$ | $\begin{array}{r} 20 \mathrm{~m} . \\ \text { (about) } \end{array}$ | $\begin{aligned} & 11130 \mathrm{p} . \\ & 15.6 \mathrm{~km} . \end{aligned}$ | $\begin{aligned} & 60 \mathrm{p} \\ & 89 \mathrm{~m} \end{aligned}$ | $11190 \mathrm{p} .$ | $\begin{gathered} 1.5 \times .75 \mathrm{~m} .{ }^{1} \\ \text { (about) } \end{gathered}$ |
| Anio vetus | 272-219 | The Anio above Vicovaro | Porta Esquilina, Porta Capena | 280 m . | 48 m . | $\begin{gathered} 42779 \mathrm{p} . \\ 63.3 \mathrm{~km} . \end{gathered}$ | $221 \mathrm{p},$ $327 \mathrm{~m} .$ | $\begin{aligned} & 43000 \mathrm{p} . \\ & 63.64 \mathrm{~km} . \end{aligned}$ | $\underset{\text { (about) }}{2.4 \times 1.1 \mathrm{~m}, 1}$ |
| Marcia | 144-140 | Springs north of the Anio near Agosta | Capitol, Viminal, Baths of Caracalla | 318 m . | 58.63 m . | $\begin{gathered} 54247.5 \mathrm{p} . \\ 80.3 \mathrm{~km} . \end{gathered}$ | $\begin{gathered} 7463 \mathrm{p} . \\ 11 \mathrm{~km} . \end{gathered}$ | 61719.5 p. 91.3 km . | $\begin{gathered} 1.74 \times 2.53 \mathrm{~m} .{ }^{1} \\ .9 \times 1.74 \mathrm{~m} . \end{gathered}$ |
| Tepula | 125 | Alban Hills | Quirinal | 151 m . | 60.63 m . | 7.38 km . | 10.36 km . | 17.745 km . | $1 \times .9 \mathrm{~m} .1$ |
| Julia | 33 | Alban Hills | Esquiline and Viminal | 350 m . | 63.73 m . | $\begin{aligned} & 8426.5 \mathrm{p} . \\ & 12.47 \mathrm{~km} . \end{aligned}$ | $\begin{gathered} 7000 \mathrm{p} . \\ 10.36 \mathrm{~km} . \end{gathered}$ | $\begin{aligned} & 15426.5 \mathrm{p} . \\ & 22.83 \mathrm{~km} . \end{aligned}$ | $1.4 \times .7 \mathrm{m.1}$ |
| Virgo | 19 | Salone on the via Collatina | Baths of Agrippa, Campus Martius | 24 m. | 20 m. | $\begin{aligned} & 12865 \mathrm{p} . \\ & 19 \mathrm{~km} . \end{aligned}$ | $\begin{aligned} & 1240 \mathrm{p} . \\ & 1.84 \mathrm{~km} . \end{aligned}$ | $\begin{aligned} & 14105 \mathrm{p} . \\ & 20.88 \mathrm{~km} . \end{aligned}$ | $2 \times .49 \mathrm{~m} .{ }^{1}$ |
| Alsietina | $10(?)$ A.2. | Lake Martignano | Trastevere | 209 m. | 16.50 m . | $\begin{gathered} 21814 \mathrm{p} . \\ 32.3 \mathrm{~km} . \end{gathered}$ | $\begin{aligned} & 358 \mathrm{p} . \\ & 530 \mathrm{~m} . \end{aligned}$ | 22172 p. <br> 32.8 km . | $1.78 \times 2.67 \mathrm{~m} .{ }^{2}$ |
| Claudia | $38-52$ | Springs north of the Anio | Spes vetus, Caelian and Palatine | 320 m. | 67.40 m . | $\begin{aligned} & 36230 \mathrm{p} . \\ & 56.6 \mathrm{~km} . \end{aligned}$ | $10176 \text { p. }$ <br> 15.1 km . | $\begin{aligned} & 46406 \mathrm{p} . \\ & 68.7 \mathrm{~km} . \end{aligned}$ | $1 \times 2 \mathrm{~m},{ }^{1}$ (below intake) |
| Anio novus | $38-52$ | The Anio at Subiaco | Spes vetus | $\begin{aligned} & 400 \mathrm{~m} . \\ & \text { (about) } \end{aligned}$ | 70.40 m . | $\begin{aligned} & 49300 \mathrm{p} . \\ & 72.9 \mathrm{~km} . \end{aligned}$ | $\begin{aligned} & 9400 \mathrm{p} . \\ & 13.9 \mathrm{~km} . \end{aligned}$ | $\begin{aligned} & 58700 \mathrm{p} . \\ & 86.8 \mathrm{~km} . \end{aligned}$ | $1 \times 2.74 \mathrm{~m} .1$ |
| Traiana | 109 | Springs at Trevignano. | Janiculum | $\begin{aligned} & 300 \mathrm{~m} . \\ & \text { (about) } \end{aligned}$ | 71.16 m . | 57.7 km . |  | 57.7 km . | $2.32 \times 1.3 \mathrm{~m} .^{2}$ |
| Alexandrina | 226 | Monte Falcone on via Praenestina | Baths of Alexander | 65 m . | 43 m . | 12.3 km . | 9.7 km . | 22 km . | $1.71 \times .73 \mathrm{~m} .^{2}$ |

[^83]greatly exaggerated. ${ }^{1}$ They are based upon statements of Frontinus, but these involve many unknown factors, and there is no way of determining the value of his unit, the quinaria, with anything like exactness.

The Sewers. - The sewerage system ${ }^{2}$ of Rome conformed to the natural lines of drainage, and fell therefore into three divisions. The northern division comprised the campus Martius, the Pincian, and the north and west slopes of the Quirinal and the Capitoline. The principal stream of this section, the Petronia amnis (p. 19), and other less important watercourses came down from the hills and emptied into the swamps of the campus. The central division comprised the south and east slopes of the Capitoline and Quirinal, the Viminal, the north and west slopes of the Palatine, the Forum, and the Velabrum, - a section drained by the Spinon (p. 18) which came down through the Subura. The third division comprised the southern part of the city, drained mainly by the streams on either side of the Caelian, which united at the east end of the vallis Murcia. In each of these divisions there was one principal collecting sewer, into which others emptied.

There is no doubt that the earliest attempts at artificial drainage date from the regal period. The first part of the city to be drained was the Forum valley, and later, as the city grew in that direction, the Subura and the slopes of the Quirinal, the Viminal, and the Esquiline. The system was developed with considerable rapidity, and the statement made by Livy, that after the invasion of the Gauls the city was rebuilt so as not to interfere with the existing sewers, is probably true. After the censorship of Appius Claudius and the building of

[^84]the first aqueduct, renewed activity was displayed in the construction of sewers, and almost none of the existing remains are of earlier date.

The rapid growth in population during the first two centuries of the empire, the construction of the great baths and new aqueducts, together with the countless small baths and public fountains, and such enormous buildings as the Colosseum and Circus Maximus, necessitated a corresponding increase in the provision for drainage. The system became so elaborate that the city was called urbs pensilis subterque navigata. ${ }^{1}$ Remains ${ }^{2}$ of this great system have been found everywhere throughout the city. In some cases the old channels have been worked into the modern sewers, and in a few cases the old sewers themselves are in actual use. It is out of the question here to do more than speak briefly of the matter.

The earliest Roman sewer consisted undoubtedly of a natural watercourse, the channel of which was widened and deepened. Later the banks were walled up and the bed of the stream paved, and then the channel was sometimes covered. At a still later period, many sewers were built which did not follow a stream. The dates of the successive steps in construction varied in the case of different sewers. The earliest remains show that the roof was not vaulted, but consisted of flat stones placed on walls which gradually approached each other as they rose. The vaulted roof was probably not used before the fourth century b.c. Existing remains of Roman sewers exhibit two distinct types of construction, those of the republican period being built of opus quadratum of tufa or peperino, with or without a vaulted roof, and those of the imperial period being built of concrete lined with tiles, and with a gable roof formed of large tiles.

[^85]Various remains of republican sewers have been found in the campus Martius, all of which appear to have emptied into the main collecting sewer, ${ }^{1}$ which has been discovered between the piazzetta Mattei and the Tiber. This is a distance of about 450 metres, and the course of the sewer is a little west of south. The construction points to the same time as that of the circus Flaminius, where this sewer is formed by the union of smaller branches. It is highly probable, therefore, that when the city had extended to this point, a large part of the drainage from the district to the north and east which had flowed into the palus Caprae ( $\mathrm{p}, 19$ ) and thence into the Tiber was provided for by the construction of this system of sewers. The collecting sewer empties into the river opposite the west end of the island, but its mouth was destroyed at the beginning of the last century. Beneath the piazzetta Mattei it is built of peperino with a vaulted roof, and is 3.21 metres high, 1.40 in width, and 9.27 below the street level. Other remains of republican sewers have been found in the Corso near S. Carlo and in the via del Seminario. Remains of the sewers built by Agrippa and restored by Hadrian have been discovered round the Torre Argentina and the Pantheon, those of the Antonines in the piazza di Pietra, and some of a later date round the baths of Diocletian.

The main sewer of the south section of the city began in the valley of the Colosseum, being the continuation of the Nodinus, and, passing through the valley between the Palatine and the Caelian, united with the brook Marrana (p. 18). This brook, which had flowed in an irregular course through the Circus Maximus, was converted into a straight sewer, which turned sharply to the left at the west end of the circus and emptied into the Tiber about 50 metres below the Cloaca Maxima. Its channel ${ }^{2}$ has been found at various points,

[^86]especially at the west end of the circus at the corner of the via della Salara and the via della Greca, in the piazza and via di S. Gregorio, and under the arch of Constantine. In the via della Greca the specus of the sewer is 10.50 metres below the present level. It is built of tufa and vaulted, is 3.40 metres in height, and into it open two smaller sewers, one 1.10 metres and the other 0.86 metre in height, dating from the third century b.c. At a depth of 2.89 metres beneath the modern pavement of the via di S . Gregorio is the pavement of an ancient street of the later empire (p. 302), and about 5 metres below this is a much earlier street. Just beneath the pavement of this lower street is the top of the channel of this sewer, which near the arch of Constantine is 1.80 metres high and 1.40 wide, with a vaulted tufa roof (Fig. 68).

The Cloaca Maxima. - According to tradition, ${ }^{1}$ this sewer was constructed by Tarquinius Superbus to drain the Forum. Beginning in the Argiletum, where it collected the waters of the Esquiline, the Viminal, and the Quirinal, it flowed through the Forum and the Velabrum to the Tiber. The upper part was the line of a natural watercourse, probably the Spinon, and it is undoubtedly true that the first regulation of its flow, and perhaps the protection of its banks by walls, dated from the regal period. Of the existing sewer, however, the oldest part is not earlier than the third century в.c., while some of it consists of restorations of imperial times. Its earlier form, therefore, is only a matter of conjecture.

The Cloaca Maxima ${ }^{2}$ proper appears to have begun at a point near the northwest corner of the forum of Augustus, in the via di Torre dei Conti. Its extreme crookedness

[^87]
is explained principally by the fact that it represents the natural course of the stream ; but at some points, its line seems to have been changed during the empire, on account of the erection of buildings. This apparent condition is sometimes very perplexing. For instance, the bend in the cloaca in the via della Croce Bianca seems to have been necessitated by the erection of the temple of Minerva (p. 267), not earlier than 90 A.D., and yet this portion of the work seems to be earlier than the part nearer the Forum. This whole section, from the beginning to the Forum, is about 200 metres long, and exhibits two forms of construction. From the beginning to the via Alessandrina, it is built entirely of blocks of peperino, laid without mortar, vaulted, and paved with pentagonal blocks of lava, - the characteristic style of the republican cloaca. Between the via Alessandrina and the Forum, the side walls of the sewer are of peperino, but the roof is of brick-faced concrete. The specus is here 4.20 metres high and 3.20 wide. Eight smaller sewers empty into this section of the Cloaca Maxima, and near its beginning the main sewer from the Quirinal flowed into it from the north.

Between the Forum ${ }^{1}$ and the river, the best view of the sewer can be had near the church of S. Giorgio in Velabro. The larger part of this section belongs to the republican period, with restorations of later times. The mouth of the sewer, 4.50 metres wide and 3.30 high, is close to the round temple (p. 380) in the forum Boarium.
${ }^{1}$ For a description of the Cloaca Maxima within the limits of the Forum, see pp. 253-254.

## CHAPTER VII.

WALLS, GATES, AND ROADS.

The Wall of Romulus. - The first wall of Rome, the so-called wall of Romulus or wall of the Kings, seems to have surrounded the whole Palatine, and not simply the Palatium proper.

It has been generally assumed that the ruins of opus quadratum which have been found at various points on the south and west sides of the hill belong to this earliest of Roman walls, but it has recently ${ }^{1}$ been maintained that these ruins do not antedate the fourth century b.c. The method of construction is that ordinarily employed in central Italy at the earliest period. At about two-thirds of the distance from base to summit, an artificial shelf was cut into the slope, and the cliff above scarped off. On this ledge, and backing against the cliff, the wall was erected, usually projecting high enough above the summit to form a breastwork. Where the cliff was quite vertical, nothing more than a breastwork was needed. The material of the wall is a friable brown tufa, quarried on the spot, and cut into blocks about two Roman feet in height and width. The length varies from 1 to 1.5 metres, the width is 61 centimetres, and the average height about 60 centimetres. No mortar or cement was used in the construction of this wall, but the edges of the blocks were very carefully worked. The blocks were laid in alternate courses of headers and stretchers, a method known to the Romans as emplecton.

The largest and best preserved fragment of this wall is at

[^88]the west angle of the hill, above the Velabrum, where six courses are visible; but very little remains elsewhere, as the slopes of the Palatine were built over in later times with enormous substructures supporting the imperial palaces above and with rows of barracks and storerooms, while the wall itself was either destroyed or covered up.

Gates. - As Etruscan ritual required, three gates (p. 37) gave access to the Palatine city, the porta Mugonia or Cattlegate, which stood near the arch of Titus, but of which it is impossible to indicate the exact site; the porta Romanula (p. 38), or River-gate, on the west side of the hill, where the clivus Victoriae began its ascent to the Nova via; and a third, unknown by name, at the top of the scalae Caci. This last was not in the line of the wall, but above and behind it. As each side of the stairway was protected by a wall, an attack upon the gate was doubly dangerous. In a similar way, the porta Romanula was below the line of the main wall, at the lower end of a walled passage.

The Wall of Servius. - During the last sixty years, considerable portions of this great fortification (p. 47) have been discovered, and then destroyed. Especially was this the case during the vast improvements carried on in the eastern quarter of the city, when almost the whole line of the agger was uncovered. Of the wall of this agger, the largest portions still standing are in the yard of the freight station and in the piazza Fanti. Of the rest of the wall, the most extensive remains are on the Aventine.

The careful description of the agger given by Dionysius, ${ }^{1}$ compared with the existing ruins, enables us to reconstruct the ancient fortification with considerable accuracy. It was built in three ways, according to the character of the ground trav-
ersed. Where the wall followed the slopes of the hills, - as it did for most of the distance except between the porta Collina and the porta Esquilina and along the bank of the Tiber, -


Fig. 12. - The Wall of Servius, with Late Additions.
the method of construction was similar to that of the Palatine wall, just described. It is illustrated in the ruins ${ }^{1}$ in the via di porta S. Paolo on the Aventine, although much of the

[^89]upper part of this piece belongs to a comparatively late restoration. The blocks of tufa measure, in general, 1.5 by .59 by .62 metres, and the thickness of the wall itself varies from 2 to 3.5 metres. Along the river, the fortification was an embankment of peperino, divided into two parts by a landingstep about 3 metres wide and 3 metres above low-water mark. Its total height was about 8 metres. Many fragments of this quay have been found during the construction of the modern embankment.

On the eastern side of the city, between the porta Collina and the porta Esquilina, where the line of the wall crossed the plateau, a very different style of construction was adopted. This was a combination of trench, embankment, and wall, and was called an agger. A very large part of this agger was discovered ${ }^{1}$ in the years $1876-1879$, and destroyed during the building of the railroad station and the laying out of the new quarters on the Esquiline and the Viminal. The description of Dionysius was borne out by the results of these excavations. A trench was dug, 30 Roman feet deep and 100 wide, and the earth, thrown up on the inside, formed an embankment of corresponding magnitude, the agger proper. A supporting wall of opus quadratum was then built from the bottom of the trench to the top of this agger, and a second but lower wall on the inside.

A paved road ran round the city, just within this inner wall, and also one on the outer edge of the trench. The average thickness of the main wall was about 3.7 metres, that of the wall and the agger together about 15 metres, and the total length about 1300 metres. The inner wall was not an integral part of the original fortification, and the same thing may probably be said of the main wall also, for the masonry which has been excavated bears unmistakable signs ${ }^{2}$ of a period much

[^90]later than that of the kings. This method of fortification, on a much smaller scale, may also have been employed at some other points in the circuit of the wall; but the evidence is not altogether conclusive. The only gate ${ }^{1}$ which has been preserved (perhaps the porta Fontinalis, p. 50) may now be seen under the palazzo Antonelli in the via Nazionale, and consists of a single archway, 1.9 metres wide.

The Wall of Aurelian. - This wall, ${ }^{2}$ after having been largely rebuilt by Honorius and having been restored many times during the intervening centuries, is still the wall of the modern city, although at present no attempt is made to keep it in repair. It was built on a strip of land 19 metres wide, and was so placed that the part inside was 5 metres wide and that outside 10 , thus providing space for two roads round a large part of the circumference of the city. Aurelian incorporated into this line of fortification certain structures already existing, like the supporting wall of the horti Aciliorum around the Pincian, the castra Praetoria, the arches of the Julia, Marcia, Tepula, Claudia, and Anio novus aqueducts, and the amphitheatrum Castrense, and was thereby spared the labor and expense of constructing anew about one-third of the entire circuit.

These existing structures were rendered serviceable ${ }^{3}$ by the addition of battlements, loopholes, and similar members, while the new wall itself was of two sorts, the quay wall and the wall with an inner gallery. Of the original quay wall nothing remains; but Procopius says that it was low and difficult to defend.

All the new wall on the east side of the Tiber was built of brick-faced concrete, 3.50 to 4 metres in thickness. The height varied from 8 to nearly 16 metres, according to the configuration of the ground. Where the wall was built on a slope, the

[^91]height outside was often much greater than that inside. At a height of from 2.5 to 3 metres above ground, inside, a gallery or passage for the soldiers ran through the entire length of the wall, which opened inward by a series of high arches, six between each pair of towers. The thick curtain wall between


Fig. 13. - The Wall of Aurelian, near the Sessorium.
this passage and the outside was pierced with narrow slits, through which missiles could be thrown. The top of the wall was protected by battlements, propugnacula, of which nothing remains. At intervals of about 29 to 30 metres square towers were built, which projected about 4 metres from the outer face of the wall and rose to a considerable height above the battle-
ments. In these towers were rooms, 3.20 metres in breadth, the lowest of which was usually on the same level as the gallery, of which it formed, in each case, a part. The outer walls of these rooms were pierced by loopholes. The upper rooms, on the level of the top of the wall, contained five embrasures,


Fig. 14. - The Wall of Aurelian, near the Porta Pinctana.
three in front and one on each side, thus commanding the wall between each tower and the next.
A survey of this wall, the so-called Descriptio Murorum (p. 8), made in 403 A.D. after the restoration by Honorius, gives the number of these towers as three hundred and eighty-one, of which only one, the sixth to the left of the porta Salaria, is
still wholly intact. The massive Bastione del Sangallo, a short distance west of the porta S. Sebastiano, was built about the middle of the sixteenth century, when 400 metres of the Aurelian wall were removed to make room for it.

Gates. - The gates ${ }^{1}$ in the Aurelian wall, beginning at the north, were the Flaminia, Pinciana, Salaria, Nomentana, an unnamed gate just south of the castra Praetoria, the Tiburtina, Praenestina, Asinaria, Metrovia, Latina, Appia, Ardeatina, Ostiensis, Portuensis, Aurelia, and Septimiana. Of these original gates the following have been destroyed at various dates: the Flaminia ${ }^{2}$ in 1561, replaced by the modern porta del Popolo; the Salaria in 1871, replaced by the present gate of the same name; the Ardeatina ${ }^{3}$ in 1539 , to inake way for the Bastione del Sangallo; the Portuensis ${ }^{4}$ in 1643 , when the city limits were moved 500 metres farther north; the Aurelia in 1643, replaced by the present porta S. Pancrazio; and the Septimiana ${ }^{5}$ in 1498, when the present porta Septimiana was built. There was probably a gate at or near the point where the Marrana flowed under the wall, and an archway in the angle of the wall at this place is usually identified with the porta Metrovia.

The porta Nomentana was closed in 1562 ; the gate just south of the castra Praetoria some time before the ninth century; the Asinaria about 1574 ; and the Latina in 1808.

The Nornentana and Asinaria are very much alike in construction, both consisting of a central arch, flanked by semicircular towers, and dating from the restoration by Honorius. Only one of the towers of the Nomentana remains standing. The porta Latina is also of the same form, but the central arch is of peperino and the towers stand upon octagonal bases. Over the archway is a row of five windows, and the keystone is orna-

[^92]mented with the monogram of Christ. The gate dates from Honorius, but was added to somewhat in Byzantine times.

Four of the ancient gates are still in use, the Tiburtina, Praenestina, Appia, and Ostiensis, and one postern (posterula), the modern porta Pinciana. The Tiburtina, the modern porta S. Lorenzo, spans the via Tiburtina. Its central arch is built of travertine, and over it is a row of six windows. The arch was flanked by two square towers, but one of them was removed by Pius IX in 1869. The towers and arch are the work of Honorius, ${ }^{1}$ but the foundations of the towers belong to the time of Aurelian. Just inside this gate is a second arch, carrying the specus of the three aqueducts, Marcia, Tepula; and Julia, which entered the city here. This arch, built by Augustus, ${ }^{2}$ is much injured; and even in the fourth century the contour of the ground had been so changed at this point that the bases of the towers of the gate of Aurelian are almost on a level with the spring of the arch of the aqueducts.

The porta Praenestina, the modern porta Maggiore, is a double arch of the aqueducts Anio novus and Claudia (p. 101), built by Claudius over the via Praenestina and the via Labicana, and afterward incorporated in the wall of Aurelian. It is 32 metres wide and 24 high , and built of travertine, with two principal archways, each 14 metres high and 6.35 wide, and three small gateways between and on each side of the larger. The piers on each side of the arches have niches with engaged Corinthian columns and an entablature. On the attic, which has three compartments, are three inscriptions, ${ }^{3}$ one by Claudius, and the other two commemorating restorations by Vespasian and Titus. The via Praenestina passed through the north gateway, and the via Labicana through the south. This latter was walled up by Honorius, and a tower erected on each side of the other passage. These towers stood until 1838, and

[^93]beneath one of them the tomb of Eurysaces (p. 452) was found.

The porta Appia, the modern porta S. Sebastiano, consists of an arch of marble, built of blocks taken from some other edifice, perhaps the temple of Mars (p. 411). On each side of the arch are semicircular towers standing on double square bases,


Fig. 15. - Porta Praenestina (Maggiore).
the lower one of which is of marble. In the towers are three rows of windows, and over the arch two rows of five windows each. On the keystone is the monogram of Christ, with Greek inscriptions. Above the towers and arch are crenelated battlements.

The porta Ostiensis, the modern porta S. Paolo, as built originally by Aurelian, was double; ${ }^{1}$ that is, there were two
passages, one on each side of the pyramid of Cestius (p.399), through which passages the two roads - that from the porta Trigemina and the vicus Piscinae Publicae - passed before uniting. Honorius closed up the gate on the west of the pyramid, and remodelled the other, making it double by erecting outside the existing passage the present arch of travertine, with five windows above and a semicircular tower on each side. The whole gate is surmounted by crenelated battlements.

The porta Pinciana, originally not a porta, but a posterula, ${ }^{1}$ enlarged and rebuilt at a later date, perhaps by Honorius, consists of an arch of travertine, flanked by two semicircular towers, of which the bases only are of travertine. The threshold of the gate is formed of slabs of travertine, taken from some earlier building, on one of which is a fragmentary inscription.

Roads. - As early as the fourth century b.c., the Romans began to carry out their policy of connecting the different parts of Italy with the capital by means of a system of great roads, or viae. Some of these lines of communication had already existed for a long time, as, for instance, the early road into the Sabine territory, by which the salt trade was carried on, which afterwards became the via Salaria; but the actual building of stone highways began in the censorship of Appius Claudius. These roads were regarded as beginning at the gates in the Servian wall, and gates in the Aurelian wall were afterwards built where the roads crossed its line.

The ordinary pavement of these roads consisted of polygonal blocks of lava, of which a stream had flowed down from the Alban hills to within 5 kilometres of the city. These blocks were usually set on a foundation composed of three strata: first, a layer of broken stone (statumen) ${ }^{2}$; second, a layer of smaller stones mixed with lime in the proportion of three to

[^94][^95]one (rudus) ; and third, a layer of cement (mucleus). Where the bed rock was close to the surface of the ground, the statumen was dispensed with, and on marshy soil it was replaced with piles.

The width of these roads varied from 3 to 5 metres, and sometimes, as in the via Appia, there were paved sidewalks on each side of the road itself. This pavement is practically indestructible, and therefore, except where it has been intentionally removed or built over, it exists to a greater or less extent along all the roads, so that their line can usually be determined. In general, the ancient level in Rome and the immediate vicinity was lower than the present, and the old pavement is buried beneath modern streets or buildings.

The principal roads ${ }^{1}$ leading out of Rome at the time when the Aurelian wall was built, were the following:-
(1) The via Flaminia, leading to Ariminum, was built by C. Flaminius, ${ }^{2}$ consul in 223 b.c. It began at the porta Fontinalis and ran north by east through the porta Flaminia. The first part of this road, from the Capitol to the porticus Agrippae, was called the via Lata, and corresponded with the modern Corso. The ancient pavement has been found both within and without the wall.
(2) The via Salaria led into the territory of the Sabines, and derived its name from the salt trade. The earliest road, the via Salaria vetus, began at the porta Sanqualis and crossed the line of the Aurelian wall at the porta Pinciana, but it seems to have lost its importance and to have been displaced in ordinary use by the via Salaria nova, which began at the porta Collina and, passing through the porta Salaria, joined the old road northeast of the city. The line of the Salaria vetus is marked by the modern via di porta Pinciana, and that of the Salaria nova by the present via di porta Salaria, the pavement of both having been found within and without the city.
(3) The via Nomentana extended to Nomentum in the Sabine territory. It began at the porta Collina, and bending a little to the south of the present via Venti Settembre, passed through the Aurelian wall by the porta Nomentana, and crossed the line of the modern via Nomentana about 450 metres beyond the porta Pia. The ancient pavement exists both inside and outside of this gate.
(4) The via Tiburtina, earlier called the via Gabina, began at the porta Esquilina and ran through the porta Tiburtina to Tibur. Outside the wall, its course corresponds closely with the modern via di S. Lorenzo, but inside the city it has been entirely built over.
(5) The via Praenestina also began at the porta Esquilina, and ran southeast to Praeneste, passing through the porta Praenestina. ${ }^{1}$ Within the city its pavement has been found to coincide closely with the line of the via di Principe Umberto and via di porta Maggiore, and it also exists outside of the city.
(6) The via Labicana, extending to the town of Labicum, branched off to the south from the via Praenestina just inside the porta Praenestina, and its course is easily traced by the pavement.
(7) The via Asinaria began at the porta Caelemontana and ran southeast through the porta Asinaria. It appears to have coincided for a short distance outside the wall with the modern via Appia nuova. About a quarter of a mile from the porta Asinaria, the pavement of an ancient road branches off to the north. This may have been the via Tusculana.
(8) The via Latina branched off to the east from the via Appia, about half a mile south of the porta Capena, and joined it again at Casilinum. It passed through the Aurelian wall by the porta Latina, its course within the wall coinciding

[^96]with the via di porta Latina, where the ancient pavement still exists.
(9) The via Appia ${ }^{1}$ was built in 312 b.c. by the censor Appius Claudius. This was the oldest and most famous of Roman roads, connecting the capital with Capua and southern Italy. It passed through the Servian wall by the porta Capena, and through the wall of Aurelian by the porta Appia. Between these gates the old road is a little to the north of the via di porta $S$. Sebastiano, but its course is distinctly marked. Outside the city the road is still in use, and the ancient pavement exists, though in a fragmentary condition, for many miles, especially heyond the tomb of Caecilia Metella.
(10) The via Ardeatina, ${ }^{2}$ extending to Ardea, branched off to the south from the vicus Piscinae Publicae, crossed the Aventine between S. Balbina and S. Saba, and passed through the porta Naevia of the Servian wall and the porta Ardeatina.
(11) The via Ostiensis was the great highway from Rome to the seacoast at Ostia. It is a matter of dispute just where the road began to bear this name. The road which passed through the porta Trigemina skirted the west and south slopes of the Aventine, and united with the vicus Piscinae Publicae, which crossed the Aventine just beyond the pyramid of Cestius. This condition of things lasted until the time of Honorius, who caused the two roads to unite within the wall of Aurelian and to pass out through one gate, the porta Ostiensis. Whether or not the whole stretch of road from the porta Trigemina was called via Ostiensis is uncertain. The ancient pavement exists along the line of the modern via della Marmorata, and outside the gate in the via di S. Paolo.
(12) The via Portuensis ran down the right bank of the Tiber to Portus Augusti. This road began at the pons Aemilius and

[^97]extended southwest through the porta Portuensis. Its ancient pavement exists within the city, in the via di S. Cecilia and via di S. Michele, and also south of the wall, but here it does not correspond with any modern road.
(13) The via Aurelia led west and north to the coast towns of Etruria. The original Aurelia, built as early as the second century b.c., began at the pons Aemilius, ascended the Janiculum, and crossed the line of the later Aurelian wall at the porta Aurelia. Its pavement has been found within the city, but it does not correspond with any modern street. Outside the gate it follows quite closely the strada Tiradiavoli. In the second or third century, the via Aurelia nova was built, but its course is very uncertain. It is supposed to have begun either at the pons Aurelius and to have united with the Aurelia vetus just inside the porta Aurelia, or else to have begun near the west end of the pons Aelius and to have joined the Aurelia vetus at some distance northwest of the city.
(14) The via Cornelia ran directly west from the pons Aelius, and its pavement exists beneath the piazza and church of St . Peter's.
(15) The via Triumphalis began at the pons Neronianus, and ran northwest, crossing the via Cornelia. After the destruction of the pons Neronianus, this road really began at the via Cornelia. Its pavement has been found between the Borgo and the piazza del Risorgimento, but does not correspond with any modern street.
(16) At the porta Tiburtina an ancient road branched off to the south, called the via Collatina, which coincided for a short distance with the modern vicolo Malabarba. It ran east to Collatia, and was of little importance except for local traffic. It is not mentioned in the Regionary Catalogue among the twenty-eight viae. Of these, besides those already described, the via Ianieulensis is unknown, and the rest were branch roads at greater or less distances from the city.

## CHAPTER VIII.

## THE PALATINE HILL.

The Palatine Hill (p. 32) is an irregular quadrilateral in shape, and about 2 kilometres in circuit. Its highest point is 43 metres above the Tiber level. A depression, crossing the hill in a northeast to southwest direction, which was filled up or vaulted over during the first century of the empire, divided it into two parts, the Cermalus on the west and the Palatium proper on the south; but the latter name was gradually extended to the whole hill. The spur which projected from the northeast side of the Palatine toward the Esquiline was called the Velia. A considerable part of this hill has not been excavated, and the excavations already made have not been exhaustively carried out. ${ }^{1}$ Certain identification of existing ruins is therefore often impossible, and in general it may be said that the topography of the Palatine is in a very unsatisfactory state.

The Regal Period. - According to the well-known tradition ${ }^{2}$ the basket containing Romulus and Remus was washed ashore at the base of the slope of the Cermalus, at the spot where there grew a fig tree, the ficus Ruminalis, which was afterward miraculously removed to the Comitium. The twins were suckled by a she-wolf, which had her lair in a grotto, or cave, beneath the fig tree. ${ }^{3}$ This den was called the Luperoal, and

[^98]from it issued the famous fons Lupercalis (p. 92). This cave became a sanctuary of some sort, and was at least provided with a monumental entrance, for its restoration is recorded in the Monumentum Ancyranum, ${ }^{1}$ and it is mentioned in the Notitia. A shepherd, Faustulus, carried the children to his hut, tugurium Faustuli, ${ }^{2}$ on the top of the hill. In later years Romulus lived in a house called the casa Romuli, ${ }^{3}$ which may be regarded as identical with the tugurium Faustuli, and was on the southwest corner of the Cermalus, at the top of the scalae Caci. This hut of straw is described as having been preserved in its original form down to imperial times, and hence it is rather difficult to identify it with any of the ancient tufa buildings on this part of the hill, which are described on the next page. Varro ${ }^{4}$ speaks, however, of an aedes Romuli, which evidently stood in some relation to the casa, and it has been conjectured that the casa may have been inside the aedes. ${ }^{5}$ Where Romulus took the famous auspices, the spot was marked by a stone platform, the Auguratorium, and a cornel cherry tree ${ }^{6}$ sprang from the lance which the founder of the city hurled across the valley from the Aventine. This king is also said to have built the ouria Saliorum, ${ }^{7}$ or assembling place of the Salii, where the sacred trumpet, the lituus, of Romulus was kept.

The Curiae veteres, ${ }^{8}$ mentioned by Tacitus as one point in the Palatine pomerium (p. 37), was the earliest sanctuary of the curies. It became too small, and a second structure, the Curiae novae, ${ }^{9}$ was built, probably in the immediate neighborhood, but

[^99]

seven curies refused to move from the old place of assembly. This Curiae veteres was at the northeast corner of the Palatine, and probably at its foot, very near the line of the Sacra via and the later arch of Constantine.

The fourth point mentioned by Tacitus, in the line of the pomerium, was the sacellum Larum, which, in spite of certain objections, is probably identical with the ara Larum Praestitum, ${ }^{1}$ and stood at the northwest corner of the hill, behind the temple of Vesta, where the Nova via bends sharply to the southwest. This shrine had fallen into ruins in Ovid's ${ }^{2}$ day, but may have been restored afterward. .

These monuments were carefully preserved during the republican period and even longer, but their exact location is now only a matter of conjecture. Portions, however, of structures which may date from the time of the kings still exist at a few points on the hill.
(1) Remains, commonly regarded as belonging to the wall of the kings, which lie on the west side near the church of S . Teodoro, built into the substructures of the domus Tiberiana, and on the south side near the gardener's house and near the Paedagogium. The construction of this wall has been described above (p. 112). Near that part of these ruins which is at the southwest corner of the hill is an ancient cistern, dating from the earliest period of the city, but it is not the Lupercal, as it has commonly been called.
(2) The scalae Caci ${ }^{3}$ and remains of tufa structures lying close beside it on the southwest corner of the hill. Tradition ${ }^{4}$ connected this corner with the story of the robber Cacus, whose cave was at the base of the cliff, and who was himself killed by Hercules. ${ }^{5}$ In reality, Cacus was an ancient Italic fire-god,

[^100]

Fig. 17.-Early Remains at the Southwest Corner of the Palatine.
he and his sister Caca being worshipped as deities of the hearth. This worship of Caca ${ }^{1}$ was afterward displaced by that of Vesta, which explains the absence from the Palatine city of any shrine of the latter goddess. The scalae Caci (B, Fig. 17), a stairway cut in the native tufa and walled up with opus quadratum on each side, date from the earliest period, but were restored by Caligula. This stairway did not extend straight down to the valley, but only to a cross-street which ran round the southwest corner of the hill, and thence into the vicus Tuscus. This street was arched over by the substructures of the imperial palace. ${ }^{2}$ The stairway is easily traced, and part can still be used. The travertine threshold of the gate at the top belongs to Caligula's restoration. Around the top of the stairway are masses of tufa walls which cannot be identified with any certainty, and which were very largely constructed, in the third and second centuries b.c., out of the material of the ancient fortifications. Perhaps the only portions which certainly belong to the earliest period are the west wall (D, Fig. 17) of the scalae, the remains of what may have been a gateway (A), and the cistern (Z). This well, 2.8 metres in diameter, is probably one of the very oldest struetures in the eity. Its top is formed of overlapping rings of stone, and through its centre a late wail has been built, evidently part of the substructure of the palace above. North of A are the remains of the foundation of a temple, which may have been the aedes Romuli (p. 128). Elsewhere (E, F, G, H, U, Y, etc.) ancient material has been used in later buildings.

The Republican Period. - The growth of the city, and the incorporation of the hills on the east, removed the political and commercial centre to the Forum valley and diminished greatly the importance of the Palatine. During the republic it be-

[^101]came the chief residence quarter of the wealthy, especially the northeast and northwest sides, which overlooked the Forum and the Velabrum. Access to this part of the hill was given by the clivus Victoriae and the clivus Palatinus (p.163) and by a flight of steps at the north corner, leading up from the Forum behind the temple of Castor. ${ }^{1}$ It is quite possible that this stairway was the scalae Anulariae mentioned by Suetonius. ${ }^{2}$

Mention is made in extant Roman literature of at least fifteen houses on this hill, built and inhabited by famous citizens of the last century of the republic, among them M. Fulvius, ${ }^{3}$ consul in 125 b.c.; Q. Lutatius Catulus, ${ }^{4}$ consul in 102; M. Livius Drusus, ${ }^{5}$ whose house passed into the hands of M. Licinius Crassus, and was afterward bought by Cicero; Quintus Cicero; ${ }^{6}$ Clodius; ${ }^{7}$ M. Aemilius Scaurus; ${ }^{8}$ and Q. Hortensius. ${ }^{9}$ The remains of one, the domus Liviae or domus Germanici, were brought to light by the excavations of $1869 .^{10}$ This house belonged to Livia, the mother of the emperor Tiberius, or to her first husband, Tiberius Claudius Nero, and is the only well-preserved example of a Roman private dwelling of this period. Its preservation was due partly to its association with Germanicus, and partly to the fact that it was very soon incorporated into the imperial residence, while retaining its original form and modest exterior.

It stands on one side of the depression which crossed the Palatine, and its first, or ground, floor is on a much lower level than the adjoining palaces of Tiberius and Domitian, the latter

[^102]of which was built on very lofty foundations. A stairway of travertine leads from the upper level to the passage from which one enters the atrium of the house. This passage


Fig. 18. - Plan of the Domus Liviae.
is connected with a long cryptoporticus which runs to the palace of Caligula. From the upper story another cryptoporticus leads to the Flavian palace and to the chambers under the so-called temple of Iuppiter Victor (p. 139).

The material out of which this house is constructed is concrete, faced with opus reticulatum. The inner walls were covered with stucco and painted. The main hall, or atrium, 13 by 10 metres, was partially roofed over, and from it, on the side opposite the entrance, open three rooms, each about 7 metres deep. The central room, 1 metre wider than the other two, is called the tablinum, or reception room, and was evidently the most richly decorated. South of the atrium is the triclinium, or dining room, 8 by 4 metres, with a mosaic floor.

When this house was first excavated, the wall-paintings were remarkably fresh, but they have faded rapidly since that time. They belong to the second, or republican, style of Pompeian wall-paintings, ${ }^{1}$ and consist of architectural details, columns, architraves, etc., variously enriched, and panels on which are pictures representing scones from Greek mythology, as Galatea and Polyphemus, and Io and Argus. Back of the triclinium is a row of small bathrooms and household offices. On one side of the atrium, a narrow staircase leads to the upper floor, which was wholly occupied by sinall chambers, evidently intended for sleeping purposes. This part of the house seems to have been restored at various times, especially under Severus and Caracalla.

Beneath the Flavian palace, the walls of another substantial house of this period still exist, having been made use of, wherever it was possible, in the foundations of the palace. Complete excavations would doubtless show that this was the fate of many such houses on this hill. According to the Regionary Catalogue, there were eighty-eight domus and twenty-six hundred and forty insulae in region X in the fourth century, although the domus Augustana and the temples occupied so large a portion of the hill, and to provide room for so many dwellings is a most perplexing problem. They were probably crowded

[^103]very closely together on the lower slopes and at the base of the hill.

The development of the Palatine as a residence quarter was accompanied by the erection of temples, the earliest of which date from the beginning of the third century b.c. According to tradition, Romulus vowed a temple to Iuppiter Stator ${ }^{1}$ at the critical moment in the battle between the Romans and the Sabines, when the former had been driven across the Forum valley to the porta Mugonia; but this temple was never built. In 294 в.c. the consul M. Atilius Regulus made a similar vow under similar circumstances in a battle with the Samnites, and erected the temple immediately afterward. It stood on the summa Sacra via, outside the porta Mugonia and probably just east of the later arch of Titus. The most recent excavations seem to show that the massive foundations on which the mediaeval turris Cartularia was built, belong to this temple. The temple is represented on the relief of the Haterii (Fig. 2) as hexastyle. ${ }^{2}$ Near it was a statue, either of Cloelia or Valeria. ${ }^{3}$

In 295 b.c., at the battle of Sentinum, the dictator Q. Fabius Maximus Rullianus vowed a temple to Iuppiter Victor, ${ }^{4}$ which was completed within the next two years, but nothing further is known of it, except that the day of dedication was April 13. A number of inscriptions ${ }^{5}$ have been found, which show that on this hill there was also a temple dedicated to Iuppiter Propugnator, and this has sometimes been identified with that of Iuppiter Victor, but without good reason.

The temple of Victoria ${ }^{6}$ was said to be older than the city of Romulus itself, but it was really built by L. Postumius

[^104]Megellus in 294 B.c. Almost nothing is known of its subsequent history, except that the stone which represented the Magna Mater was deposited here during the years 204-191, ${ }^{1}$ while the temple of the Magna Mater was being completed. There is no record of any restoration, and its site is a matter of dispute. The ascent to the Palatine on the west side was by the clivus Victoriae, ${ }^{2}$ which evidently took its name from this temple. This clivus ${ }^{3}$ probably began at the porta Romanula, near the present church of S . Teodoro. The modern path leads from the entrance at this point directly toward the hill, and then turns toward the left and skirting the cliff ascends to the north corner of the hill, where it turns abruptly to the right and passes under the substructures of Caligula's palace (p. 157). This is the line of an ancient road, of which the pavement is still in existence, and which is usually identified with the clivus Victoriae. There is no sufficient reason for doubting that this is the line of the clivus as it existed after the erection of this part of the palace; but this building must have materially altered the previous conditions and the earlier line of the road.

At the point marked $m$ on the Palatine plan (Fig. 16), some fragments of inscriptions ${ }^{4}$ were found in the early part of the eighteenth century, which belong to a Victoria and to some building of Augustus. On the supposition that these fragments were found in situ, the temple of Victoria was placed here on the side hill, ${ }^{5}$ near the beginning of the clivus. According to this view, the clivus took its name from a temple at its lower end, rather than from one to which it led, as was usually the case. (Cf. clivus Capitolinus, clivus Salutis, etc.)

[^105]Another temple on this hill, and one of the most famous in the city, was that of the Magna Mater, or Cybele. ${ }^{1}$ In 204 b.c. a Roman embassy brought to Rome from the sanctuary of Cybele at Pessinus the pointed black stone which represented the goddess, and this temple, erected in her honor, was dedicated in 191 by the praetor M. Junius Brutus. It was twice burned, and restored by Metellus in 111 b.c. and by Augustus in 3 A.D., and was standing unharmed in the fourth century. ${ }^{2}$ The stone needle itself was removed by Elagabalus to the lararium of the Flavian palace, where it was probably seen by Bianchini in 1725 . Inscriptions ${ }^{3}$ relating to the Magna Mater, a portion of a colossal female figure - undoubtedly the goddess - seated on a throne, and a fragment of a base with the paws of lions, the regular attendants of Cybele, have been found near the podium of the temple marked C on the plan of the Palatine.

Other temples ${ }^{4}$ built during this period were the aedicula Victoriae Virginis, ${ }^{5}$ erected by M. Porcius Cato in 193 b.c. near the temple of Victoria; a temple to Iuno Sospita, ${ }^{6}$ of which nothing further is known; a third, to Luna Noctiluca; ${ }^{7}$ a fourth, to Fides, ${ }^{8}$ the erection of which is assigned to Roma, the daughter of Ascanius, but which is otherwise unknown; and a fifth, erected to Fortuna Huiusce Diei ${ }^{9}$ by L. Æmilius Paulus in 168, and known to have been on the Palatine, because of the vicus Huiusce Diei in the inscription on the Capitoline Base. No trace of these structures remains, nor of the altars

[^106]or shrines to Dea Febris, ${ }^{1}$ Dea Viriplaca, ${ }^{2}$ and Venus, ${ }^{3}$ which are mentioned as having stood on this hill.
On the northwest slope of the hill, toward the Velabrum, is an altar ${ }^{4}$ of primitive form, on which is the following inscription: ${ }^{5}$ -

## SEI DEO SEI DEIVAE SAC(rum) C. SEXTIVS C. F. CALVINVS PR(aetor) DE SENATI SENTENTIA RESTITVIT

This C. Sextius Calvinus was a candidate for the praetorship in 100 b.c., and the altar was probably erected soon after that date. It is of travertine, and undoubtedly a copy of the earlier one on which was the original inscription. It had no connection with the altar erected to commemorate the voice heard in the grove of Vesta, announcing the approach of the Gauls, and known as the ara Aii Locutii. ${ }^{6}$ The altar of Calvinus is not in situ, as the level of the soil at this point is about 12 metres above that of the republic.

At a very much later date, the mad emperor Elagabalus (218-222 A.D.) built a temple of the Sun ${ }^{7}$ on the Palatine near the domus Augustana, in which he is said to have intended to place the image of the Magna Mater, the sacred fire of Vesta, the palladium, and the ancilia. This temple was burned, probably not long after the death of Elagabalus, and it is not mentioned in the Notitia.

The presence of a vicus Fortunae Respicientis, on the Capitoline Base, points to the existence of a temple, shrine, or statue of this deity on the Palatine.

[^107]There are on that part of the hill which lies between the domus Augustana, the domus Tiberiana, and the southwest edge the remains of two temples. The first (C, Fig. 16) is between the domus Tiberiana and the scalae Caci, and its ruins ${ }^{1}$ consist of a massive podium, made of irregular pieces of tufa and peperino laid in thick mortar, and fragments of columns and entablature. The walls of the podium are 3.84 metres thick (those of the cella were somewhat thinner) on the sides and 5.50 in the rear, but this extraordinary thickness is due to the fact that the rear wall is double, there being an air space, 1.80 metres wide, between the parts. This wall was not faced on the outside with opus quadratum, but only with stucco. The total length of the temple was 33.18 metres, and its width 17.10. It was prostyle, hexastyle, and was approached by a flight of steps extending entirely across the front. From the rear wall of the cella projects the base of a pedestal, on which an image or statue probably stood. The remaining fragments of columns, capitals, and entablature are of peperino, and belong to a building of early date, undoubtedly the oldest of which any considerable remains have been preserved, and there are no traces of any later restoration.

The ruins ${ }^{2}$ of the other temple (F, Fig. 16) are between the scalae Caci and the domus Augustana, and consist of a podium of concrete, 44 metres long and 25 wide, faced with blocks of tufa. On and around the podium are fragments of columns of tufa and of red granite, and of colored marbles, some of which may have belonged to the temple. The fragment of an altar, now standing on the steps, which was dedicated by Cn . Domitius Calvinus, consul in 53 b.c., has nothing to do with the temple.

It is generally agreed that of these temples, that at the southwest corner of the hill is either the temple of Victoria ${ }^{3}$

[^108]${ }^{3}$ Richter, Top. ${ }^{2}$ 136-139.
or of the Magna Mater, ${ }^{1}$ and it is somewhat hazardous to pronounce definitely between the two views, although the evidence now available seems to be in favor of the former. If this is the temple of Victoria, then the other ruins belong without doubt to the temple of the Magna Mater. If the first temple is identified with that of the Magna Mater, the one to the east may be that of Iuppiter Victor.

Close to the northwest side of this latter temple are the tufa foundations of some structure of republican date, which was evidently of sufficient importance or sanctity to maintain its place among the later imperial buildings, but to the identity of which there is no clew.
The Empire. - The Palatine had been the Rome of the kings, but under the republic the political, religious, and commercial centre of Roman life was transferred to the Forum. One of the outward signs of the return to monarchy was the fixing of the abode of the emperors upon the Palatine hill.

Augustus was born on this hill, ad capita bubula, ${ }^{2}$ a street or quarter at its northeast angle, and close to the site afterward occupied by the temple of Apollo. After the death of Augustus, a shrine was erected to his memory on this spot. After the death of Julius Caesar, Augustus bought the house of the orator Hortensius, situated on the south side of the hill, overlooking the Circus Maximus. In 28 b.c. he purchased other adjoining property, including the house of Catiline, and increased the size of his own residence. This was burned in 23 b.c., and, aided by a popular subscription, ${ }^{3}$ Augustus built a new dwelling on a much grander scale than the earlier one. Besides this palace, the Augustan group on the Palatine comprised the temple and portico of Apollo, the library, and the temple of Vesta. The palace itself was destroyed by the great fire of Nero.

[^109]It was situated on some part of the site afterward covered by the enlarged palace of the Flavian emperors, but just what part is uncertain. It was called the domus Augustana, ${ }^{1}$ and this name continued to be applied to the imperial residence down to the fourth century. In modern times a distinction has frequently been made between the domus Augustana and the other parts of the completed palace, the former term being limited to that portion which is still covered by the villa Mills; and this distinction has sometimes been accompanied by the belief that this part was the original house of Augustus. In reality, however, this part dates from the time of Domitian or even later. Of the domus Augustana as it existed before Nero's fire, nothing remains. This term denotes the whole imperial residence ${ }^{2}$ east of the house of Germanicus, at any given period. Domus Flavia, domus Commodiana, domus Severiana, are names invented at a much later date for the parts erected by these several emperors.

After Augustus became pontifex maximus in 12 b.c., instead of living in the domus Publica, the official home of the pontifex maximus near the temple of Vesta in the Forum, he presented ${ }^{3}$ this property to the Vestal Virgins, and built a new temple to Vesta close to or within ${ }^{4}$ his own residence on the Palatine. This temple - doubtless of similar form to that in the Forum - was destroyed in the fire of 363 A.D., and no certain remains of it have been found.

The most magnificent of the buildings of Augustus, on the Palatine, was the famous temple of Apollo, ${ }^{5}$ which stood at the

[^110]northeast corner of the hill, close to the place of his birth, the site now occupied by the convent and gardens of S . Sebastiano. It was vowed by Augustus in 36 b.c., during his campaign against Sextus Pompeius, begun in the same year, and dedicated October 9, 28 B.c. ${ }^{1}$. It was built of solid white marble and filled with works of art and treasures of every sort, but as almost no details of its construction are given by classical writers, it is impossible to reconstruct it, except in a general way.

It was probably either prostyle hexastyle, or peripteral and octostyle, but in either case the intercolumniations were twice the diameter of the columns. ${ }^{2}$ In the area Apollinis stood a colossal bronze statue of Apollo Actius, pouring a libation on an altar before him. Around this altar were grouped four bronze oxen, the work of Myron. The temple was surrounded by a porticus, ${ }^{3}$ the main entrance of which, directly opposite the front of the temple, was formed by an arch, ${ }^{4}$ above which stood a famous work of Lysias, - Apollo and Diana in a quadriga. The columus of the porticus were of giallo antico, and between them were statues of the fifty daughters of Danaus, ${ }^{5}$ while before them were placed equestrian statues of their unfortunate husbands, the sons of Aegyptus. ${ }^{6}$ The façade of the temple was ornamented with bronze statues, and its doors with bas-reliefs representing the defeat of the Gauls and the death of the children of Niobe.

Adjoining the porticus, or perhaps forming a part of it, was a. library, ${ }^{7}$ consisting of two sections, one for Greek and one for Latin books, with medallion portraits of famous authors on the

[^111]
Fig. 19.- The Area Palatina restored.
walls. It is possible that the remains of a building at the north end of the Hippodromus (p. 152), still almost entirely hidden beneath the terrace of S . Bonaventura, may belong to this library, which must in this case have filled the space between the peristyle of the temple and the domus Augustana.
This temple survived until the great fire of 363 A.D., but has since vanished entirely, with the exception of a few portions of the statues of the Danaids, and some architectural fragments which were not found in situ, but in the course of excavations round the villa Mills.

Tiberius did not live in the domus Augustana, but built another house for himself, the domus Tiberiana, ${ }^{1}$ which adjoined the house of his father, the domus Germanici, and extended north and west from it. ${ }^{2}$ This palace was built round a central court, about 100 metres square, and surrounded by a colonnade. It did not extend on the north as far as the clivus Victoriae, and its façade was probably on the east. Among the apartments which opened off from the central court there seems to have been a famous library, the bibliotheca domus Tiberianae, ${ }^{3}$ which was in existence in the fourth century (see p. 159). The site of this house is now occupied by the Farnese gardens, and there is practically nothing visible except some substructures on the south side, which belong to the platform, partly natural, partly artificial, on which the palace stood. Between the original walls is a row of chambers of later date, which are cut back into the native tufa and finished with opus reticulatum. They were designed for the use of slaves, soldiers, and palace attendants, as is shown by many graffiti ${ }^{4}$ scratched on the stuccoed walls. At the south corner of the domus Tiberiana is a large oval water tank, or piscina, of

[^112]peculiar construction, which probably served to contain the fish until they were needed for the emperor's table.

Caligula added ${ }^{1}$ a wing to the domus Tiberiana on the north, but this extended no farther than the clivus Victoriae, and the vast masses of masonry now existing at this corner of the hill, and sometimes called the domus Gaiana, belong to a much later period, - the second and third centuries. A sunken corridor or cryptoporticus, about 140 metres long, led from the wing of Caligula along the east side of the domus Tiberiana to the house of Livia, and by a branch to the domus Augustana. Its walls were covered with slabs of colored marbles; its floor was made of mosaic; while the ceiling was adorned with mosaic and painting. This corridor still exists in a state of partial preservation; but what is left of the mosaic and marble belongs to the later restorations of the Antonines. Light was admitted through windows in the vaulted roof. It was in this corridor that Caligula was assassinated. ${ }^{2}$

In order to connect his own residence directly with the temple of Jupiter on the Capitoline, ${ }^{3}$ Caligula built a footbridge across the intervening valley, making use of the temple of Augustus and the basilica Iulia as piers; but this ridiculous structure was removed soon after the emperor's death. Notwithstanding the great additions and restorations made by later emperors, all that part of the palace which was west of the area Palatina continued to be called the domus Tiberiana.

Of all the ruins of the imperial residence now visible on the Palatine, almost nothing but the cryptoporticus and some substructures belong to the ante-Flavian epoch.

The great fire of 64 A.d. destroyed the domus Augustana, and Vespasian therefore began a new palace, which was finished early in the reign of Domitian. It extended southeast from

[^113]the so-called temple of Iuppiter Victor, covering the space occupied by the earlier palace and including the area of the Hippodromus, or palace-gardens. The distinctive name, domus Flavia, however, is usually limited to that part of the pile which lies west of the villa Mills. Between the domus Flavia and the Hippodromus, the ruins of the palace are buried deep beneath the gardens of the villa Mills, and only a very few rooms are accessible by a passage from the gardens.

That Hadrian restored to some extent the imperial residence is shown by the large number of bricks bearing his stamp, and, in particular, he added the great exedra to the Hippodromus; but it was not until the destructive fire of 191 A.D. that repairs on a large scale were necessary. They were carried out by Severus and Caracalla, who enlarged the domus Augustana on the southeast by building an additional wing on enormous substructures and by erecting the Septizonium, and extended the domus Tiberiana in the same way across the clivus Victoriae to the Nova via.

The Domus Flavia. - The palace of Domitian ${ }^{1}$ was built partly on a rectangular platform, about 150 metres in length and 80 in width, extending northeast and southwest over the depression which originally divided the Cermalus and the Palatium. The private houses which stood here were partly destroyed and partly used as supports for the structure above. One such dwelling of late republican or early imperial date is still accessible beneath the southwest part of the peristyle. The concrete walls of the palace foundations cut directly through the rooms of this house. Besides its walls and vaults, some of the stucco moldings and marble floors remain, but the colored decoration has mostly disappeared.

Until further excavations have been made, it will be impos-

[^114]
sible to form any idea of the character or use of the subterranean passages and chambers of the domus Flavia, and as nothing remains of the second story, only the plan of the first floor is known. The palace faced northeast, and in front of the façade was a porticus formed by twenty-two columns of cipollino, standing on the edge of the lofty podium. ${ }^{1}$ This porticus also extended a considerable distance toward the south along each side. The northern part of the palace was divided into three rooms, a large aula regia, or throne room, in the centre, and a smaller one on each side. This throne room was 55 by 40 metres, and on each side were three niches containing colossal statues of basalt. Between these niches, and also at the ends, were sixteen columns of pavonazetto, 8 metres in height. The main entrance was flanked by two columns of giallo antico, the bases and capitals of which were of ivory-colored marble, and the entablature of white marble. Opposite the main entrance was the apse, in which stood the throne, and on each side of it, as well as on each side of the entrance, were other niches. The walls were covered with colored marbles, the coffered ceiling was gilded, and the floor was paved with rich mosaic ; but of all this magnificent decoration only insignificant fragments remain. This is true of the whole palace.

The room to the west of the throne room, about 35 by 20 metres, is called the basilica, and is supposed to have been the apartment where the emperor dispensed justice. It terminates at the south end in an apse, within which there are traces of a suggestus, or tribunal. Along each side of the hall was a row of six Corinthian columns of granite, which supported a narrow gallery and formed aisles. The original roof of this hall was of timber, but at some later period the side

[^115]walls were strengthened by massive supporting pillars, and a vaulted roof of concrete constructed. It is probable that there were gilt screens between the columns, which separated the central space from that under the galleries.

The room on the east of the throne room is the smallest of the three, and in it, built against the rear wall and approached by two flights of steps, an altar was found in the last century, which has since disappeared. Because of this altar, the name lararium was given to the apartment, although there is no further evidence to connect it with the worship of the emperor. South of the lararium are two small chambers and two stairways. One of these stairways leads to the upper floor, and the other to a cellar in the unexcavated part of the palace beneath the villa Mills.

The central open court, or peristyle, was surrounded by a colonnade, of which the columns themselves were of Porta santa, and the Corinthian capitals and bases of white marble. Over this colonnade was an open gallery, with columns of granite and porphyry. A large part of the inner walls of the corridor was covered with slabs of phengite marble, ${ }^{1}$ which, when polished, reflected the image of the passer-by. The rest of the side walls and the pavement were made of the most magnificent colored marbles and porphyry, of which nothing remains but a few fragments.

On the west side of the peristyle is a series of nine apartments, of which the central room, octagonal in shape, seems to have been an entrance hall or vestibule. The other smaller chambers were probably used for anterooms for footmen, and for cloakrooms. As the eastern portion of the peristyle and that part of the palace which lies beyond have not yet been excavated, it is impossible to say with certainty whether the rooms on the east of the peristyle correspond exactly with those on the west, or not.

South of the peristyle is another large and imposing apartment, which served as a state dining-room, the triclinium or cenatio Iovis. ${ }^{1}$ This room terminates at the south end in an apse, where probably the emperor's table was set. From the evidence of the fragments which have been found, it is probable that this room was flanked by two rows of six or eight granite columns, and its decoration was, if possible, more magnificent than that of the peristyle. Some of the marble pavement of the apse is still in place, but it is of inferior workmanship and dates from a late restoration. On each side of the triclinium is a nymphaeum, or fountain-room. That on the east, although explored in the sixteenth century, is now hidden beneath the villa Mills, and it corresponds to that on the other side. In this room is a large oval core of concrete, which was entirely covered with alabaster. In its sides were niches containing statues, and froni its top streams of water gushed out of pipes and flowed in miniature cascades into the surrounding channel. Flowers and statues were placed here and there between the streams of water and around the room, and probably birds also. The thick wall between this room and the triclinium was pierced with five large openings, so that the guests at the emperor's table might enjoy the sound of the waterfalls, the singing of the birds, and the perfume of the flowers.

South of the triclinium are two rooms, side by side and curved into hemicycles on the east, which are commonly called the bibliotheca and the academia. No reason can be given for these names, except that they are suggested by the shape. In the bibliotheca, which is nearest to the palace, nothing remains but some bits of pavement; in the other, the academia, there are rows of seats at the curved end, and above them niches for statues.

[^116]The platform, or first floor of the palace, rests at this south end upon substructures, which appear to be partly earlier buildings and partly walls erected for the purpose, and it is certain that there were many apartments on this lower level. Some of them were discovered and stripped of their decorations in the last century, but at present they are almost entirely inaccessible. Some remains of republican masonry may still be seen.
The larger part of the Flavian palace still lies buried beneath the villa Mills. ${ }^{.}$Excavations were made here in 1775 by Guattani, and from the plans and drawings which he has left, together with the little which is now accessible, the general plan of the southern portion can be made out. The front wall, which is exposed, is curved, and forms a species of exedra from which the sports in the circus could be viewed. This exedra, however, has nothing to do with the pulvinar ad circum maximum (p. 385) built by Augustus. Access to the ruins of this part of the palace is by an entrance from the Hippodromus, where a flight of steps which led to the upper gallery has been broken away. All that can now be seen is a few standing walls and the three rooms north of the peristyle. Its general plan is that of a central court, with the main entrance on the south. This court was surrounded with a colonnade of fifty-six fluted Ionic columns of white marble, supporting a gallery with another colonnade of Corinthian columns. From all sides of the peristyle opened apartments of various shapes and sizes, of which the three ( $x, y, z$, Fig. 16) on the north have been excavated. The two outer rooms are octagonal in shape, and all three had domed ceilings and received light from above. There were niches in all these rooms for statues, and the decoration corresponded in beauty with that of the rest of the palace. Many architectural fragments have been found here, as well as some famous works of art.

[^117]Adjoining the domus Augustana on the southeast, and with the same orientation, is the Hippodromus, ${ }^{1}$ which has usually, though erroneously, been called the Stadium of Domitian. It is a large open space, 160 metres long and 50 wide, inclosed by a wall and nearly rectangular in shape, except at the south end, where there is a slight curve. Within the wall and surrounding the entire central area was a porticus, formed by a row of pillars of brick-faced concrete with engaged half-columns. Pilasters projected from the inside of the wall directly opposite each pillar, and arches, resting on these pilasters and pillars, supported an upper gallery, which also surrounded the entire court. Columns and pilasters were covered with slabs of Porta santa marble, with bases and capitals of white marble. In the middle of the east side is an enormous exedra with two stories. Its lower floor, which is on a level with the central area, contained three rooms, a large central hall, and two small chambers on either side, one of which appears not to have been finished. In the other the mosaic floor is still in existence. The second floor had only one room, semicircular in shape, with a domed ceiling. The front of this imperial box was decorated with a colonnade of granite, and the back with one of pavonazetto, as is shown by the numerous fragments which remain.

Back of the porticus, at the north end of the Hippodromus, is a row of five small chambers which originally supported a balcony, before the erection of the porticus. At each end of the longitudinal axis of the central area, which was not paved, is a semicircular piscina or fountain-basin, and on a line between the basins stand the pedestals of statues. Lead pipes, stamped with the name of Domitian, brought water into this

[^118]area at its northeast corner, about 60 centimetres above its present level, and a stone water-channel encircles the whole area, parallel to the porticus.

This Hippodromus was the garden of the Flavian palace, and consisted at first of the central area surrounded by a wall, into which one could look from the windows of the palace. Later emperors made various changes, and it is probable that Hadrian built the great exedra, and Severus the porticus.


Fig. 21. - Plan of Hippodromus.
These changes were the natural result of the additions to the palace, made by these emperors, which shut off the view to the east and south. Although only fragments of the decoration remain, the appearance of the Hippodromus must have been remarkably beautiful, on account of the combination of brilliant marbles and mosaics with flowers and plants of all descriptions.

At a much later period, perhaps as late as Theodoric, still further changes were made. Another porticus was built across the Hippodromus from the north end of the exedra, and a wall parallel to this porticus, from the south end of the exedra,
thus dividing the whole area into three parts. Within the southern division an elliptical inclosure was erected, the walls of which were tangent to the cross-wall and the colonnade. The masonry of this inclosure is of the latest period, and the walls, although the remains are a metre high, have no solid foundations, but rest on the debris of the area. This elliptical wall was strengthened at certain points by spur walls extending to the colonnade. The only entrance to the inclosure was at the south end, where two pedestals from the house of the Vestals were built into the doorway. Openings, somewhat over a metre in width, were made in the wall itself at regular intervals, and just within each opening was a basin or trough with two compartments. It is altogether probable that this was a vivarium, built to contain wild animals, a sort of private menagerie of the emperors.
In connection with the Flavian palace, there was also an aủ入̀ ' 'Aס́śvidos, ${ }^{1}$ which has usually been identified with the edifice or space marked ADONAEA ${ }^{2}$ on the Capitoline Plan. The extent of this Adonaea (apparently at least 110 by 90 metres) is so great that it seems impossible to find room for it on the Palatine. The aủ入n was probably a room in the palace, or perhaps a conservatory.

The south front of the Hippodromus, which dates from the time of Severus, seems to have contained several apartments on two floors, the purpose of the whole being apparently to afford a view over the Circus Maximus and the Campagna.

The style and material of the masonry show that Hadrian made restorations at some points in the domus Augustana, and in particular added extensive baths to the palace, to which belong the coffered hall and rooms with hypocausts just east and southeast of the exedra. It is almost impossible, however,

[^119]to separate with certainty the work of Hadrian and that of Severus who completed the palace in this direction. It is evident that much the greater part.belongs to the latter emperor. As the slope of the hill began just east of Hadrian's addition, it was necessary for Severus, ${ }^{1}$, when he wished to extend the palace in this direction, to build out an artificial platform by means of a series of enormous arches and substructures. On this platform the new part of the palace proper rose. These arched substructures extend to some distance from the edge of the hill, and at their extremity the platform is from 23 to 24.5 metres above the valley beneath. They are still among the most imposing ruins of Rome. Of the palace itself almost nothing remains, but the substructures are very complicated in their arrangement of arches, cisterns and apartments of various sizes, the use of which cannot be made out.

At the extreme southeast corner of the hill, Severus constructed an edifice, called the Septizonium, -ut ex Africa venientibus suum opus occurreret. ${ }^{2}$ This structure stood about 100 metres east of the end of the existing lofty platform of the palace, and some remains of its north end are beneath the level of the modern via di S. Gregorio. The building was nothing more than a decorative façade, about 100 metres long, 31 high, and 17 deep, the back of which was a plain wall. In this façade were three great niches, flanked by projecting towers. The edifice was three stories high, each of which was ornamented with columns of marble, porphyry, and granite. We are told that Severus intended that the central niche of the Septizonium should be the principal entrance to the Palatium, but that during the absence of the emperor the prefect of the city set up a colossal statue of his master at this very point.

[^120]Whatever may be the value of this story, it is quite possible that changes in the original plan of the building were introduced during its construction. It seems certain that it served no purpose except to form a magnificent architectural member to complete the palace of Severus.

No thoroughly satisfactory explanation of the name Septizonium has been found. The edifice was not seven stories in height, and the septem zonae may refer to the seven bands formed by the stylobate, the three colonnades, and the three entablatures. ${ }^{1}$ The main axis of the Septizonium did not correspond with that of the Palatium or of the Circus Maximus, but was perpendicular to the line of the via Appia, which began directly in front of the central niche. Very considerable portions of this structure were standing at the close of the sixteenth century, but they were then torn down, and the material employed elsewhere.

Directly below the southwest end of the domus Flavia, about halfway up the slope of the hill, are remains of a building, consisting of a number of small chambers opening from the north side of a peristyle. The walls of these chambers were lined with marble and stucco, and round the peristyle ran a porticus supported by Corinthian columns of granite, one of which is in situ. While much of the construction is of later date, the original building was probably in existence when Domitian's palace was erected. The present porticus is entirely a modern restoration. Numerous graffiti ${ }^{2}$ have been found, incised in the stucco of the chambers, which have been supposed to prove that the building was used as a Paedagogium, or training school for the pages of the imperial household, ${ }^{3}$ but this is somewhat doubtful.

[^121]In front of this Paedagogium, at a lower level and with a slightly different orientation, are the ruins of a private house, consisting of an atrium, a tablinum, and a triclinium. ${ }^{1}$ This house is on the same level as the Circus Maximus, and close to it. It has been identified with a domus Gelotiana, ${ }^{2}$ which was incorporated into the palace by Caligula, but the evidence for this identification is inconclusive.
The Additions to the Domus Tiberiana. - As has been stated above, the additions made to the domus Tiberiana by Caligula did not extend beyond the later clivus Victoriae, and by far the greater part of the enormous mass of masonry at this corner of the Palatine belongs to the later building of the Antonines, especially Severus and Caracalla. These emperors adopted the same method of increasing the available area here as at the opposite corner of the hill. From the line of the Nova via great arched substructures rose to the height of the hill itself, and on the platform which they supported the additions to the palace were erected. The height of the perpendicular from the pavement of the Nova via to the summit of the hill is about 25 metres, so that the façade of the palace on the side toward the Forum was remarkably imposing. These substructures were filled with story above story of apartments, devoted partly to the use of palace attendants of all grades, and partly, along the Nova via and the clivus, to shops. This complicated mass of masonry, of concrete faced with tufa and brick, comprises the remnants of the original structure of Caligula, and the restorations and additions of the two centuries following, which in some parts have a different orientation.

Three tiers of apartments can be distinguished, the lowest opening on the Nova via, which appear to have been shops; those of the story above opening on the clivus Victoriae, perhaps shops also; and finally those at the top of the hill. Of

[^122]the palace proper which towered above the platform, nothing remains. Vestiges of elaborate wall-decorations, marble linings, and mosaic pavements may still be seen in some of the chambers and passages of the substructures, and a part of a gallery above the clivus Vietoriae. Flights of steps connected


Fig. 22. - Northwest Corner of the Palatine.
the different stories, of which the longest, in a good state of preservation, leads from the clivus Victoriae to the top of the hill.
Direct access from the Forum to this part of the palace was afforded by a flight of steps that led up between the temples of Vesta and Castor to the north corner of the hill, and by another flight that led to the same place from a point a little farther east on the Nova via. Another way of approach was by a passage, paved with opus spicatum, or herring-bone brick, ${ }^{1}$

[^123]which ascended in a zigzag course from behind the temple of Castor along the east side of the bibliotheca divi Augusti until it joined the first of these flights of steps and the clivus Victoriae.

The Temple and Library of Augustus. - Tiberius commenced and Caligula completed the erection of a temple of Augustus, ${ }^{1}$ in which were placed the statues of Augustus, Livia, Claudius, Drusilla, Claudia, and Poppaea Sabina, all of whom had been deified. The temple was therefore called by various names, templum divi Augusti, ${ }^{2}$ divi Augusti et divae Augustae, ${ }^{3}$ templum novum, ${ }^{4}$ templum novum in Palatio, etc., and it is altogether probable that aedes Caesarum ${ }^{5}$ and templum divorum in Palatio ${ }^{6}$ refer to the same building. It was burned in the reign of Vespasian or Domitian, ${ }^{7}$ and rebuilt by the latter, after which time it was still spoken of as the templum novum ${ }^{8}$ or templum divi Augusti ad Minervam. ${ }^{9}$ Coins ${ }^{10}$ of Antoninus Pius indicate a restoration during his reign.

Tiberius also erected a library ${ }^{11}$ (bibliotheca templi divi Augusti) in connection with the temple, which was probably injured in the fire which destroyed the temple, for the books appear to have been removed by Domitian and replaced by Trajan. ${ }^{12}$ This library may possibly be the same as that which was afterwards called the bibliotheca domus Tiberianae ${ }^{13}$ (see p. 144).

The position of this temple is defined by the statement that Caligula united the Capitoline and the Palatine by a bridge, -

[^124]super templum divi Augusti transmisso, ${ }^{1}$ - and it is almost certainly the building the ruins of which, belonging to the period of Domitian and partly known before, have been recently uncovered by the removal of the church of S. Maria Liberatrice. This structure ${ }^{2}$ filled the space between the temple of Castor, the vicus Tuscus, and the clivus Victoriae, at a height of about 12 metres above the level of the Forum pavement (Fig. 42). The main façade was toward the vicus Tuscus, and the axis of the building was perpendicular to that street.

The front part, or temple proper, consists of a vestibule, 32 metres wide and 6 deep, which forms the façade, and of a very large rectangular hall behind it. The roof of the vestibule was lower than that of the main hall, and seems to have had no supports originally except at the ends. At a later period six short cross-walls ( $a^{\prime} a^{\prime}$, Fig. 42) were built in the vestibule. At each end was a colossal semicircular niche. The remains of the front wall of the temple are too scanty to afford any indication as to the number of doorways between the vestibule and the main hall. This hall was 32 metres wide and about 25 deep, and in its walls were rectangular and semicircular niches, arranged alternately, in which the statues of the deified persons were placed. Above the niches the wall was plain, and the roof was probably of timber. The upper part of the front wall, over the vestibule, was pierced with windows.

On the north side of the building, toward the temple of Castor, was a porticus of brick piers ( $b$ ' $b$ ', Fig. 42) with engaged columns on their outer face, which formed a sort of second façade. From this porticus one entrance led into the great hall just described, and another, farther east, into that part of the building which was behind the temple proper. This part consists of a large rectangular hall (H), behind it a sort of

[^125]peristyle ( $P$ ) or quadriporticus, and back of that a series of three rooms opening into the peristyle. The first hall is about 21 metres deep by 20 wide, and its walls contain niches, alternately square and semicircular. Doors opened from this hall into the temple proper, and on the opposite side into the passage (A) which ascends gradually, with four turns, to the clivus Victoriae. The second hall, or peristyle, was divided by four brick piers, with columns between them, into a central part and aisles. The central space was not roofed over. Doorways opened from the aisles into the temple proper and into the ascending corridor. At the south end of this peristyle were three rectangular rooms, the central one being the largest, 8.5 by 7 metres, and the others smaller, 4.5 by 7 , and 4.5 by 5 . The south wall is built at an angle with the axis of the temple, and perpendicular to the line of the clivus Victoriae. It was perfectly solid, so as to cut off the building entirely from the hill on the south and southeast. There is little doubt that this eastern portion of the structure is the bibliotheca attached to the temple, although the temple itself is far from conforming to the normal type.

Beneath the bibliotheca are the remains of a very large piscina (B), built of brick with steps at each end and niches in the sides, which dates from the time of Caligula, and seems to have belonged to the buildings by which he connected the Palatine and Capitoline. It is oriented according to the line of the clivus Victoriae and the infima Nova via. Other fragments of an earlier structure with the same orientation have been found beneath the temple proper, which may have belonged to the first temple of Caligula.
The original Nova via ${ }^{1}$ ran along the north slope of the Palatine, and at the northwest corner of the hill it probably

[^126]turned toward the south and joined the vicus Tuscus at some point not far from this corner. The erection of the temple of Augustus must have changed the conditions essentially, and the course of the Nova via is now exceedingly doubtful. The existing pavement ${ }^{1}$ of this street lies along the south side of the atriun Vestae, but is blocked completely ${ }^{2}$ at the corner of the hill by a hall ( $p$, Fig. 42 ; cf. p. 212) in front of the bibliotheca. During the imperial period, therefore, it appears that the Nova via had no connection with the temple of Castor or the vicus Tuscus, except through the Forum or the clivus Victoriae.

During the Byzantine period the library of the temple of Augustus was converted into the church of S. Maria Antiqua, ${ }^{3}$ and various changes were made in the original structure, such as the substitution of granite columns for the brick piers in the peristyle, the cutting of doors through the niches between the hall and peristyle, and the construction of a sort of choir in the central portion. The walls of the church were covered with frescoes, which have been brought to light by the recent excavations.

On the southwest side of the temple of Augustus these excavations ${ }^{4}$ have also disclosed a series of chambers which are built against the side of the hill, and rise to the level of the clivus Victoriae. The lower rooms are of opus quadratum, and the upper of brickwork, and in front of them are remains of a later period. These remains may belong to the buildings represented on the Capitoline Plan as standing here, which appear to be horrea, possibly the horrea Germaniciana of the Notitia. ${ }^{5}$

[^127]The space between the domus Tiberiana, the domus Augustana, and the temple of Apollo, of somewhat indefinite extent and use, was called the area Palatina (Fig. 19). ${ }^{1} \quad$ The principal approach to it was by a street which led up from the summa Sacra via through the porta Mugonia. This street is now usually called the clivus Palatinus, but there is no ancient authority for this name. By some an attempt has been made to identify it with the Sacer clivus (p. 294), while others think it may be the vicus Apollinis of the Capitoline Base. The modern road preserves the line of the ancient clivus, and fragments of a pavement ${ }^{2}$ of the first century have been found both north and south of the Nova via, besides other fragments of later date.

The exact site of the porta Mugonia (p. 37) cannot be determined with certainty, although it was undoubtedly very near the intersection of the Nova via and the clivus Palatinus. Very near the centre of the area Palatina is a mass of medieval masonry, which belonged to the fortifications of the Frangipani family. Near by are traces of buildings of the earliest period, but nothing which can be identified, although it is altogether probable that the Mundus, ${ }^{3}$ or augural centre of the city (p. 39), was just here.

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## CHAPTER IX.

## THE FORUM.

The Topographical Centre of Ancient Rome was the low ground lying between the Palatine, the Velia, the Esquiline, the Viminal, and the Capitoline. When the Palatine city had extended its boundaries to the adjacent heights, this became the natural meeting-place for trade and political action. These two functions were carefully separated, the political assemblies being held on the Comitium, a small and definitely markedout area, which lay at the northwest corner of the much larger and undetermined area where the people met for other purposes. This was called the Forum, or market-place. ${ }^{1}$ Although there was no natural line of demarcation between Forum and Comitium, they were kept distinct in use until the middle of the second century b.c. After that date they gradually lost their separate identity, and the phrase Comitium et Forum ${ }^{2}$ conveyed but one idea.
This valley was originally swampy, being the natural basin for the drainage of the surrounding hills. The principal water course (see p. 18) came down from the Subura, and crossing the Forum flowed through the Velabrum to the Tiber. It is not possible to ascertain the exact elevation of all parts of this district, but the original level of the Comitium appears to have been 9 metres above the sea, or 2.30 metres above the mean level of the Tiber, while that of the travertine pavement in front of the temple of Julius Caesar, on which the altar was

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built, is 12.62 metres above the sea. This was one of the lowest points in the Forum, in the last century of the republic. The distance from the base of the Capitoline hill, directly in front of the steps of the temple of Saturn, to the east end of the Regia is about 210 metres.

The path or road from the ridge of the Velia down to the Forum was called the Sacra via (p. 54), a name that in time was extended to the continuation of this road, which ran through the Forum to the base of the Capitoline.

We may distinguish four stages in the development of the Forum, the first extending to the last years of the monarchy, the second to the beginning of the second century b.c., the third to the time of Julius Caesar, and the fourth to the third century.

The end of the first period was marked by the beginning of a systematic attempt to drain the swampy ground. This was effected by constructing sewers, and especially the Cloaca Maxima, which at this early time was made by simply walling up the banks of the Spinon and regulating its flow. Previously it had been impracticable to construct any permanent buildings in the centre of the Forum, but temporary booths, tabernae, ${ }^{1}$ had been erected on both sides of the Sacra via, which were occupied by butchers and fishmongers. There were a few sanctuaries, such as the altars of Saturn and Vulcan at the west end on the slope of the Capitoline, the double archway of Janus on the north side, and the shrine of Vesta at the corner of the Palatine. There must also have been a building in which the senate met, on the Comitium, and the Regia at the east end of the Forum. There were clay pits (p. 170) on the north side, from which the material for crude brick was obtained, and tufa quarries, Lautumiae (p.242), at the base of the Capitoline. There were several springs and pools, two of which, the

[^130]lacus Curtius and lacus Iuturnae, continued to exist during historical times. It is possible that the tabernae assumed a more permanent character toward the end of this period.

During the second period, -the first three centuries of the republic, - the Forum became an increasingly important part of the city. The temples of Saturn, of Castor and Pollux, and of Concord were erected, the central area paved, probably in the fourth century, and gladiatorial games and shows of all sorts were celebrated here. C. Maenius, the victor in the battle of Antium, introduced the custom of erecting galleries above the shops, from which these games could be witnessed, and which were called maeniana. ${ }^{1}$ In 210 в.c. the shops on the north side of the Sacra via burned down, and after being rebuilt were called tabernae novae, while those on the south side were known as tabernae veteres, and the two sides of the Forum were distinguished as sub novis and sub veteribus. ${ }^{2}$ On the Comitium, the Rostra and the Graecostasis, or platform on which foreign ambassadors were received, were built during this period.

Two things contributed to change the character and appearance of the Forum at the beginning of the second century в.c., - the erection of the Macellum, or market house, north of the Forum, and of the three basilicas, Porcia, Aemilia, and Sempronia, and, fifty years later, of the Opimia. The erection of the Macellum (p. 259) caused the butchers and fishmongers to be banished from the Forum, ${ }^{3}$ and the shops were then occupied by more agreeable kinds of business, especially money-changing and banking. This was particularly true of those on the north side, which were frequently called tabernae argentariae. ${ }^{4}$ The erection of the basilicas added greatly to the

[^131]appearance of the Forum ; but their main object was to afford convenient and sheltered halls where the Romans could meet to transact the steadily increasing business of the capital. The arch of Fabius was built at the east entrance to the Forum, and two or more arches of Janus at other points, while the area was gradually filled with statues of famous citizens. In the latter part of this period, considerable changes took place in the Comitium. On the whole, however, the appearance of the Forum in the middle of the first century b.c. must have been decidedly ugly and irregular. In the middle of the second century b.c. the political assemblies of the people had been transferred from the small Comitium to the Forum, a transfer marked by the removal of the Rostra to the Forum itself, which then became in the fullest sense the centre of Rome.

The fourth period witnessed the complete rebuilding of the Forum, a process which was just begun by Julius Caesar, and carried out by Augustus and Tiberius. Later emperors did something; but, with the exception of the temples of Vespasian and Fanstina, the arch of Septimius Severus, the eight pedestals and columns in front of the basilica Iulia, and a few minor changes, the Forum of the empire, which is known to us by its ruins, is the work of Augustus and Tiberius.

In its final shape, ${ }^{1}$ the area of the Forum was surrounded by the following buildings, beginning at the northwest corner: the Carcer, the temples of Concord and Vespasian, which abutted against the substructures of the Tabularium, the porticus Deorum Consentium in the angle of the clivus Capitolinus, and the temple of Saturn; on the south side, the basilica Iulia, the temple of Castor and Pollux, the lacus Iuturnae, and the temple of Vesta; at the east end, the temple of Julius Caesar and

[^132]the arch of Augustus, and behind them the Regia, the atrium ${ }^{*}$ Vestae, and the arch of Fabius; on the north side, the temple of Faustina, the basilica Aemilia, the Curia, and the Secretarium senatus. Across the west end stretched the Rostra of the empire, and there were numerous other structures of various sorts, which will be described hereafter. After the building of the imperial fora, the old Forum was sometimes distinguished from them by the epithets Romanum or Magnum.

Streets. - Until the time of Augustus, the Sacra via passed along the north side of the Regia, and then, bending to the left, continued along the south side of the Forum to the temple of Saturn, where the clivus Capitolinus began. The erection of the temple of the deified Julius necessitated a change, and thereafter the street ran in a straight line from the arch of Fabius to the north corner of the temple of Julius, then turned at a right angle and passed in front of this temple to the temple of Castor, where it turned again at a right angle and ran along the front of the basilica Iulia.

Besides the Sacra via and clivus Capitolinus, six other ways led into the Forum: the vicus Iugarius, between the temple of Saturn and the basilica Iulia; the vicus Tuscus, between the basilica Iulia and the temple of Castor; the flight of steps (p. 158) which led up to the Nova via and clivus Victoriae, between the lacus Iuturnae and the atrium Vestae; the street between the temple of Faustina and the basilica Aemilia, the name of which is not known; the Argiletum, between the basilica Aemilia and the Curia; and, finally, the street between the Curia and the temple of Concord, which was called clivus Argentarius ${ }^{1}$ in the middle ages. This latter, which connected the Forum with the porta Fontinalis (p. 116), was the means of communication between the Forum and the campus Martius until the imperial fora were built. The ancient

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Eig. 24
FORUM RO
METRES

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1 Aedicula Faustinae (?).

- Closed Door of Tabularium.

3 Substructures of Clivus Capitolinus.
4 Arch of Janus.
Lapis Niger.

6 Basin of Fountain.
7 Sacellum Veneris Cloa
8 Inscription to Lucius
9 Ara Caesaris.
10 Lacus Iuturnae.

pavement has been found beneath the modern via di Marforio, with which it approximately coincides.

The vicus Iugarius is said to have received its name from an altar of Iuno Iuga, quam putarent matrimonium iungere, ${ }^{1}$ but it is quite as likely that it was so called because it connected the Forum with the district of the forum Holitorium, or because the makers of yokes had their shops here. The present pavement is not ancient, ${ }^{2}$ but preserves the line of the street after the building of the basilica Iulia. Some earlier foundations, recently discovered ${ }^{3}$ beneath the temple of Saturn, show that before the Augustan period this street was a little farther to the southeast.

According to tradition, ${ }^{4}$ the vicus Tuscus derived its name from a settlement of Etruscans, who either had fled to Rome after the repulse of Porsenna at Aricia or had come to the assistance of the Romans against Titus Tatius. A more plausible explanation is that this settlement was composed of the workmen who had come to Rome to build the temple of Iuppiter Capitolinus. This street connected the Forum and Velabrum, and bore an unsavory reputation. ${ }^{5}$ Some remains of the shops which lined its east side, along the foot of the Palatine, have recently been found; and the removal of the medieval pavement between the basilica Iulia and the temple of Castor has exposed to view ${ }^{6}$ a unique specimen of street pavement of opus spicatum, or small cubes of brick. This pavement is about 15 metres in length, and is bounded on the west side by a gutter, but on the other it extends beneath the foundations of the temple, and was therefore laid before

[^134]this temple was rebuilt in 42 B.c. In this street stood a statue of Vortumnus, ${ }^{1}$ which tradition assigned to Numa.

The Argiletum ${ }^{2}$ connected the Forum with the Subura and the eastern section of the city, and was one of the great arteries of communication. Its general character was like that of the Subura (p. 435), but it was also a centre of the book trade. Any number of explanations were given by the Romans for the name, but the most probable is that it derived its name from the clay (argilla) which was dug close by. It was converted by Domitian and Nerva into the forum Transitorium (p. 266).

The Temple of Concord. - From the very earliest times an altar of Vulcan stood on the lower slope of the Capitoline, at the northwest corner of the Forum, and the surrounding space was called the area Volcani or Volcanal. ${ }^{3}$ This area, a locus substructus, was about 5 metres above the level of the Comitium, and from it, before the building of the Rostra, the Roman officials addressed the people. Within this area was also the Senaculum (p. 224), the assembling place of the senate. Some remains of very early tufa foundations have recently been found ${ }^{4}$ just behind the arch of Severus, which seem to have belonged to the Volcanal, and traces of a sort of rock platform, 3.95 metres long by 2.80 wide, which had been covered with cement and painted red. This may possibly have been the ara Volcani. It shows signs of having been damaged and repaired.
The first temple of Concord was built by M. Furius Camillus in 367 в.c., to commemorate the passage of the Licinian

[^135]laws and the end of the long struggle between the orders. ${ }^{1}$ The space around the temple was then called the area Ooncordiae. The first temple was rebuilt in 121 в.c. by C. Opimius, ${ }^{2}$ who also erected the basilica Opimia ${ }^{3}$ close to the temple on the north, with probably the same orientation. The basilica was removed and the temple entirely rebuilt in 10 a.D. by Tiberius, and dedicated by him and Drusus as the aedes Concordiae Augustae. ${ }^{4}$ It was restored at least once afterward, but at an unknown date. The contour of the ground and the conditions of the environment caused Tiberius to adopt a plan which made the structure unique among Roman temples. Instead of the usual proportions, the cella was 45 metres wide and only 24 deep, while the pronaos was only 24 metres wide and 14 deep, and therefore did not extend across the whole front of the cella. The back wall of the cella abutted against the front of the Tabularium (p. 288), and a very wide flight of steps led down from the pronaos to the area. The interior of the cella was surrounded by a row of white marble columns, standing on a low shelf which projected from the main wall. This wall contained eleven niches, in the central one of which, opposite the entrance, a statue of Concord must have stood.

The existing remains consist of the concrete core of the podium, in which is a chamber that may have been a storeroom for treasure; the threshold of the main entrance, composed of two blocks of Porta santa marble 7 metres long; a very few fragments of the marble pavement of the cella and the pronaos; and a part of the magnificent cornice, now in the Tabularium, together with numerous small architectural frag-

[^136]ments. The exterior of the temple was covered with marble, and the cella was a veritable museum ${ }^{1}$ of works of art of all kinds, to which frequent reference is made in classical literature. It also served as a frequent meeting-place for the senate.

Near by was an aedicula Concordiae, built by Q. Flavius in 304 b.c. This shrine ${ }^{2}$ was made of bronze and stood in Graecostasi (p. 223) quae tunc supra comitium erat. It must have been removed when Tiberius rebuilt the temple of Concord.
Close to the Volcanal were certain stationes municipiorum, ${ }^{3}$ the exact object of which is not known; but for their position near the temple of Concord epigraphic evidence has recently been found.

The Temple of Vespasian. - The temple of Vespasian, ${ }^{4}$ or the temple of Vespasian and Titus, as it was sometimes called, was begun by Titus, completed by Domitian, and restored by Severus. It was prostyle hexastyle, 33 metres long and 22 wide. The existing remains consist of the core of the podium, with some of its peperino lining; two fragments of the cella wall of travertine; part of the pedestal in the rear of the cella, on which stood the statues of Vespasian and Titus; and three Corinthian columns at the southeast corner of the pronaos. These columns are of white marble, 15.20 metres high and 1.57 in diameter at the base, and support a portion of the entablature on which are the last letters of the inscription ${ }^{5}$ recording the restoratiou by Severus and Caracalla. A restored fragment of the cornice is in the Tabularium. The temple was covered inside

[^137]

and out with marble in the usual way, and there were marble columns round the interior of the cella, as in the temple of Castor.

As the available space was small and ill adapted for its purpose, this temple had to be built directly against the front of the Tabularium. It thus closed the entrance to the long flight of steps which led from the Forum through the Tabularium to the top of the Capitoline (p. 290). The existing columus and entablature were taken down in 1810, and reset.

Between this temple and that of Concord are the ruins of a small building, erroneously called an aedicula Faustinae, ${ }^{1}$ which is contemporary with the temple of Vespasian, as its left wall rests on the foundations of the temple, which were made to project for this very purpose. A stamped brick of this period has also been found in the wall. The building was 4.10 metres wide and 2.50 deep, and the marks of its vaulted roof are visible on the front wall of the Tabularium. The purpose of the structure is unknown.

The Porticus Deorum Consentium. - Next to the temple of Vespasian, in the obtuse angle formed by the Tabularium and the clivus Capitolinus, are the remains of a curious structure consisting of two parts. The substructure contains seven small chambers, without light and of unknown use. Above is a platform, paved with blocks of marble, on which is a row of twelve small rooms, 4 metres high and 3.70 deep, made of brick-faced concrete. They are built against the rock under the Tabularium, and against the retaining wall of the clivus. Seven have been excavated, and the other five are buried beneath the houses on the west side of the clivus. In front of these chambers, which open outward, is a porticus of Corinthian columns supporting an entablature. This porticus has been restored, but most of the entablature and four of the columns are
ancient. The statues of the twelve Dii Consentes stood probably in the intercolumniations of this colonnade, the restoration or building of which in 367 a.d. by Vettius Praetextatus, a vigorous supporter of paganism, is recorded by the inscription ${ }^{1}$ on the architrave. Gilded statues of these gods and goddesses ${ }^{2}$ had stood in this part of the Forum from very early times, but nothing is known of any temple or shrine in which they were placed.


Fig. 26. - The Porticus Deorum Consentium.
The Temple of Saturn. - Corresponding to the altar of Vulcan at the northwest corner of the Forum, there was at the southwest corner a very ancient altar of Saturn, ${ }^{3}$ which was replaced at the beginning of the republic by a temple, built, it was said, by the consuls for the year 497 B.c. ${ }^{4}$ The temple

[^138]was rebuilt ${ }^{1}$ by M. Munatius Plancus in 42 в.c., and is represented on fragments ${ }^{2}$ of the Marble Plan. During the later empire, it was injured by fire and restored, as the inscription ${ }^{3}$ on the architrave records. The existing podium belongs to the temple of Plancus. It is constructed of walls of travertine and peperino, with concrete filling, and was covered with marble facing. It is 22.50 metres wide, about 40 long, and its front rises 5 metres above the Forum. The temple was Ionic, hexastyle prostyle, with two columns on each side, not counting those at the angles. Of the superstructure eight columns of the pronaos remain, six in front and one on each side, together with the entablature, and all date from a period of great decadence, that of the final restoration. The front columns are of gray and those on the sides of red granite, while the entablature is of white marble. The columns are 11 metres in height, and 1.43 in diameter at the base; but in some of them the drums which form the shaft have been wrongly placed, so that the shaft does not taper regularly toward the top. The bases, also, are of three different kinds Attic, and Corinthian with and without a plinth. The entablature exhibits the same debased style, as architrave and frieze are united in one plane.

The steps of this temple were of peculiar form, on account of the closeness of the clivus Capitolinus and the sharp angle which it made in front of the temple, the main flight being only about one-third the width of the pronaos. Fragments of the foundations of the earlier temple, recently discovered, ${ }^{4}$ show that it projected farther south and had a somewhat different orientation. From the early years of the republic to the end of the empire, the temple of Saturn contained the Aerarium

[^139]Saturni or state treasury, which was presided over by quaestors and praefecti aerarii, under the control of the senate. It is possible that there may be strong rooms for the storage of money in the podium, but they have not been discovered.

The area Saturni ${ }^{1}$ was probably in the space between the vicus Iugarius and the clivus Capitolinus, south of the temple, for there appears to have been no room for it on any other side. The offices of the treasury department may have stood on this area, and also altars of Ceres and 0 ps, erected in 7 B.c. in vico Iugario. ${ }^{2}$

The Temple of Castor. - The official name of this temple was aedes Castoris ${ }^{3}$ [ad Forum] but it was also called aedes Castorum, ${ }^{4}$ and sometimes erroneously aedes Castoris et Pollucis. ${ }^{5}$ It was built, according to tradition, in 484 в.c., ${ }^{6}$ close to the spring of Juturna, to commemorate the appearance of the Dioscuri at that spot after the battle of lake Regillus. It was restored ${ }^{7}$ in 117 b.c. by L. Caecilius Metellus, but probably still in the Tuscan style, with stuccoed columns of tufa. Some repairs at least were made by Verres ; ${ }^{8}$ but the temple was completely rebuilt by Tiberius, ${ }^{9}$ and dedicated in his own and Drusus's name in 6 A.D. A still later restoration seems to have been carried out by Hadrian, but not such as to materially affect the appearance of the building. The whole podium has recently been excavated, and with the three standing columns, the entablature, and various other architectural fragments, our knowledge of the construction of the building is reasonably exact.

[^140]

It was Corinthian, ${ }^{1}$ octostyle and peripteral, with eleven columns on a side, and a double row on each side of the pronaos. This pronaos was 9.90 metres by 15.80 , the cella 16 by 19.70 , and the whole temple about 50 metres long by 30 wide. The floor of the temple was about 7 metres above the Sacra via. The very lofty podium consisted of a concrete core enclosed in tufa walls, from which projected short spur walls. On these stood the columns, but directly beneath them at the points of heaviest pressure travertine was substituted for tufa. Between these spur walls were chambers in the podium, opening outward and closed by metal doors, which seem to have been used as safe deposit vaults for the imperial fiscus and for the treasures of private persons. ${ }^{2}$

From the pronaos a flight of eleven steps, extending nearly across the whole width of the temple, led down to a wide plat form, 3.66 metres above the area in front. This platform was provided with a railing, and was regularly used as a rostra from which to address the people. From the frequent references in literature, it is evident that there was a similar arrangement in the earlier temple of Metellus. Leading from this platform to the ground were two narrow staircases, at the ends and not in front. The podium was covered with marble facing, and decorated with two cornices, one at the top, and another just above the metal doors of the strong chambers. The pavement of the temple of Tiberius was of mosaic, of which a small fragment has been preserved, but this was afterward covered by a pavement of marble slabs. Of the superstructure three columns on the east side are standing, which are regarded as perhaps the finest architectural remains in Rome. They are of white marble, fluted, 12.50 metres in

[^141]height and 1.45 in diameter. The entablature, 3.75 metres high, has a plain frieze and an admirably worked cornice.

In the temple of Castor were kept the standard weights and measures, ${ }^{1}$ and it was frequently used for meetings of the senate, ${ }^{2}$ as its commanding position made it comparatively safe from attacks of the mob.


Fig. 28. - The Temple of Castor restored.
The Temple of Julius Caesar. -Julius Caesar erected a second platform, ${ }^{3}$ the rostra Iulia, at the east end of the Forum, in front of the Regia, and it was here that his body was burnt and that Antonius delivered his funeral oration. ${ }^{4}$ On this

[^142]very spot an altar ${ }^{1}$ was erected and a column of Numidian marble, ${ }^{2}$ twenty feet high, set up; but they were soon removed by Dolabella. ${ }^{3}$ In 42 b.c. Augustus determined ${ }^{4}$ to build here a temple to the deified Caesar (aedes divi Iuli). The temple was finished some years later, after the battle of Actium, and


Fig. 29. - The Altar of Caesar.
dedicated August 18, 29 b.c. ${ }^{5}$ It was restored by Hadrian, ${ }^{6}$ and there are some traces of a still later restoration, perhaps in the fourth century.

Considerable portions of the foundation remain, and the excavations, ${ }^{7}$ recently completed, have shown that it consisted

[^143]of two parts, a rectangular platform 3.5 metres high, 26 wide, and about 30 long, and on this the stylobate proper of the temple, which rose 2.36 metres above the platform and was about 17 metres in width. In the middle of the front of the platform is a semicircular niche, 8.3 metres in diameter, of


Fig. 30. - The Temple of Caesar restored.
which the peperino wall has been left in place, although elsewhere the tufa and peperino blocks have been removed and only the concrete core remains. At a late date, a rude wall of tufa was built directly across this niche, and its removal disclosed a portion of the concrete core of a round altar standing on the travertine slabs which formed the pavement of the Forum when the ternple was built. This is shown by the fact that the slabs were cut off to allow the wall of the
niche to be built. The altar appears to have been purposely demolished. It is evident that when the temple was built the altar on the spot where Caesar's body was burnt had been restored, and that the sacred monument was preserved in the niche of the platform. This platform projected beyond the stylobate on both sides, and in front for a distance of 7 metres. The projection in front, encircling the niche, took the place of the rostra Iulia, and was itself called by that name, or rostra aedis divi Iuli. The wall on both sides of the niche was decorated with the beaks of the ships which were captured at Actium, ${ }^{1}$ in a style similar to that of the old Rostra.

The temple itself was of an unusual type, ${ }^{2}$ being of the Ionic order, hexastyle pyenostyle, probably with antac. The diameter of the columus at the base was about 1.18 metres, and their height nine times the diameter. The cella occupied the whole width of the temple, about 17 metres, but was only about 6.5 metres deep. Within the cella, opposite the very wide entrance, stood a colossal statue of Caesar, the head of which was ornamented with a comet or star. The space between the two middle columns of the pronaos was wider than that between the others, so that this statue could be seen from the area of the Forum. The approaches to the lower platform of the temple were at each side of the rostra. From the architectural fragments a fairly satisfactory reconstruction can be made.

The Temple of Antoninus and Faustina. - This temple was erected in 141 A.d., and dedicated to Faustina, the deified wife of Antoninus Pius; and after the death of the latter in 161, it was dedicated to both together. ${ }^{3}$ The inscription ${ }^{4}$ on the architrave records the first dedication, and that added afterward on the frieze records the second. In the seventh or

[^144]eighth century the temple, apparently in good condition, was converted into the church of S. Lorenzo in Miranda, but since that time it has suffered great injuries. It was hexastyle, prostyle, with two columns on each side, besides those at the corners, and pilasters in antis. The columns are of cipollino,


Fig. 31. - The Regia and the Temple of Antoninus and Faustina.

17 metres high and 1.45 in diameter at the base, with Corinthian capitals of white marble, and support an entablature of white marble, which probably encircled the whole building. The existing remains consist of portions of the cella wall of peperino, built into the walls of the church, extending for 20 metres on the northwest and 15 on the southeast side; the
columns of the pronaos, which stand free from the church with the exception of the two nearest the antae; the architrave and frieze of the façade and sides as far as the cella wall extends, but only a small part of the cornice; and the wide flight of steps ${ }^{1}$ leading down to the Sacra via, in the middle of which is the pedestal of a statue, probably that of Faustina. Some fragments of a colossal sitting female statue ${ }^{2}$ have been found


Fig. 32. - The Ancient Necropolis on the Sacra Via.
near by, which may belong to this statue. The whole temple was covered with slabs of marble, but these have entirely disappeared. The frieze on the sides of the temple is very beautifully sculptured in relief with garlands, sacrificial implements, and ox-skulls.
The recent excavations have brought to light the original level of the Sacra via in front of the temple of Faustina, the

[^145]lower part of its steps, and also the remains of several private houses which occupied this site before the building of the temple, each one of which was provided with a separate sewer emptying into the main cloaca under the street (p. 255). The most important discovery at this point is that of an ancient necropolis, ${ }^{1}$ evidently belonging to the early Palatine city. At the southeast corner of the steps of the temple, and 3 metres beneath the pavement of the Sacra via, was a tomb ( $\alpha$, Fig. $32 \alpha$ ), covered with a flat slab of tufa, and containing a dolium 36 centimetres high and 44 centimetres in diameter. Within this dolium was a cinerary urn and eight smaller clay vessels. The urn was bowl-shaped, with handles, and its oval lid had raised bars to represent the rafters of a house, in the same manner as the ordinary hut-urns. The


Fig. 32 a. clay was reddish-brown, and the vessels belonged to the period of transition between the bronze and the iron age. The urn contained fragments of bone, two charred grains of wheat, and a bean. About 10 metres farther east was another tomb (c), with a similar dolium containing a hut-urn with incinerated remains, and nine cups.

Near each of these tombs was another for burial $(b, d)$, made of tufa, and resembling the archaic graves on the Esquiline.

[^146]In one of them (d) was a wooden coffin, made out of the trunk of a tree, which had contained the skeleton of a child. A little farther south, two other tombs $(e, f)$ were found at a slightly higher level, one of which consisted of a dolium set upside down, and the other of two urns, which also contained the bones of infants. At the period of this necropolis, cremation and burial seem to have been practised at nearly the same time, although the tombs of the first class appear to have been in general the earlier. So far about twenty-one tombs have been found.

The Temple of Ianus Geminus. - This temple is said to have been built by Numa, ${ }^{1}$ but there is no record of any restoration or rebuilding of any sort, although the edifice was standing in the fifth century. It is therefore very unlikely that it was ever moved from its original site. Besides Geminus, the epithets Quirinus, ${ }^{2}$ Bifrons, ${ }^{3}$ and Biformis ${ }^{4}$ were employed when this temple was mentioned. Its gates were opened in time of war and closed in time of peace. After the reign of Numa, such closing is said to have occurred in the year 235 b.c. after the end of the first Punic war, in 30 b.c. after the battle of Actium, and thereafter at more frequent intervals, down to the fifth century. ${ }^{5}$

A very brief description, ${ }^{6}$ and coins of Nero, ${ }^{7}$ represent this temple as a small rectangular structure, with two side walls and double doors at each end. The walls were not so high as the doors, and were surmounted by a grating. These gratings and the arches over the doors supported an entablature of two members, which extended all round the building, but there was no roof. The ancient bronze statue of the two-faced god, of

[^147]Etruscan workmanship, stood in the centre of the temple, which was no temple in the ordinary sense, but a passage (ianus) with gates, intended to symbolize some essential part of the Roman conception of this divinity: The whole temple, as well as the statue, was of bronze, and being so small a structure, it appears to have disappeared entirely, for no traces of it have ever been found. The numerous references in literature to its site do not furnish as exact information as might be desired. It is described as being circa imum Argiletum, ${ }^{1}$ ad infimum Argiletum, ${ }^{2}$ before the Curia, ${ }^{3}$ in front of the Curia, ${ }^{4}$ and Ovid ${ }^{5}$ says that it was iuncta duobus foris, i.e. the forum Romanum and the forum Iulium. It is clear, therefore, that it was on the north side of the Forum, near the


Fig. 33. - The Temple of Janus. Curia, and it has generally been supposed that it was between the Curia and the west end of the basilica Aemilia, at the end of the Argiletum. The recent excavations, however, have shown that there is no room here even for so small a building. ${ }^{6}$

The temple was also called geminae portae and portae belli, ${ }^{7}$ and Varro, ${ }^{8}$ in describing the gates of the Servian wall, states that the third was called the porta Ianualis from Janus, and therefore a statue of Janus was placed there. According to another tradition, ${ }^{9}$ Janus caused a flood of hot water to issue from this gate, the porta Ianualis, ${ }^{10}$ to defend the Romans from the advance of the victorious Sabines, and from this event the
${ }^{1}$ Serv. Aen. vii. 607.
2 Liv. i. 19.
${ }^{8}$ Procop. Bell. Goth. i. 25. ${ }^{6}$ Mitt. 1902, 47.
${ }^{10}$ For an ingenious but unconvincing theory that the temple, identical with the porta Ianualis, was a gate in the fortification of the Septimontium, which here coincided with the brook Spinon, and that the story of a flood of hot water was connected with this stream, see Schneider, Mitt. 1895, 172-178.
spot was called Lautolae (a lavando). ${ }^{1}$ If there was a porta Ianualis in the Servian wall, it cannot have been marked by the site of the later temple, as the wall was not near enough to the Forum at any point.

The Basilica Iulia. - The regular appearance of the Forum was due in large measure to the great basilicas which bounded it on the north and south sides. In 170 b.c. Sempronius Gracchus erected the basilica Sempronia ${ }^{2}$ behind the tabernae veteres, but nothing further is known of this building, and it and the tabernae must have been removed to make room for the basilica Iulia. This was begun by Julius Caesar in 54 b.c., dedicated in an unfinished state in 46, completed by Augustus, burned soon afterward, and, having been rebuilt by Augustus, dedicated again in the names of Gaius and Lucius Caesar. ${ }^{3}$ There are indications of repairs or restorations under the Antonines, ${ }^{4}$ and the building was restored by Diocletian after it had been severely injured by fire. In 377 A.d. it was again restored ${ }^{5}$ by Probianus, prefect of the city, who also adorned it with statues. The amount and magnificence of the marble used in this basilica marked it as the special prey of the vandals of the middle ages, a lime-kiln having been found built on its very pavement. In the sixth century the outer aisle on the west side was converted into the church of S. Maria de Foro, later S. Maria de Cannapara. ${ }^{6}$

The basilica occupied a space 101 metres long and 49 wide, bounded on all sides by streets, the Sacra via, the vicus Iugarius, the vicus Tuscus, and a street on the south connecting the last two, the name of which is not known. In the later restorations the material of construction, but not the form, of the Augustan

[^148]basilica was changed. ${ }^{1}$ It consisted of a central court, 82 metres long and 16 wide, surrounded on all sides by two aisles, 7.50 metres wide, over which were the galleries of a second story. ${ }^{2}$ These aisles were formed by rows of pillars of travertine, lined with marble, which were replaced by brick in the building of Diocletian. The first floor of the basilica was therefore an open arcade, divided by the marble balustrades which joined the pillars. There were eighteen pillars on each of the longer sides and eight on the shorter, and on their outer faces were engaged half-columns of the Doric order. The entire outside of the basilica was constructed originally of white marble, but this was afterward replaced by brick work. The floor of the basilica sloped slightly toward the northeast corner, and was paved with slabs of marble, colored in the central court and white in the aisles. There is no doubt that the central area was covered with a wooden roof. ${ }^{3}$

From the floor of the basilica, continuous flights of steps on three sides, north, east, and west, led down to the pavement of the streets. These flights were broken by one wide landing, and as there is a considerable grade in the Sacra via, there were nine steps at the east end and only four at the west. On the south side was a row of shops, opening on the street.

The existing remains consist of the foundation, with fragments of the marble pavement, both white and colored, on which are inscribed upwards of eighty tabulae lusoriae ${ }^{4}$; the steps, with portions of the marble casing; and on the vicus Iugarius some of the pillars of brick belonging to the restoration of Diocletian, with some fragments of those of travertine and marble. Almost all the brick piers now standing are modern restorations, designed to show the position of the originals.

[^149][^150]The Basilica Aemilia. - In 179 b.c. the censors M. Aemilius Lepidus and M. Fulvius Nobilior erected a basilica ${ }^{1}$ which was called either the Fulvia ${ }^{2}$ or Aemilia et Fulvia. ${ }^{3}$ This edifice was restored in 54 b.c. by L. Aemilius Lepidus, ${ }^{4}$ and henceforth was called the basilica Aemilia or Pauli. It was again restored in 34 в.c., ${ }^{5}$ burned in 14, and finally rebuilt by


Fig. 34.-The Basilica Afmilia.
Augustus, ${ }^{6}$ but in the name of an Aemilius. Some parts of this basilica were visible as late as the sixteenth century, but they were destroyed or buried soon afterward. As a result of the recent excavations, however, a considerable portion of the building has been uncovered, and although the work has

[^151]not yet been completed, the general plan of the southern half is now known.

The basilica ${ }^{1}$ occupied the whole space between the temple of Faustina and the Argiletum, and the ruins which have been found in this area belong to four successive epochs, - the republican, the Augustan, the late imperial, and the medieval. The first lie beneath the second, and consist principally of massive walls of tufa, some of which have been worked into


Fig. 35. - Plan of the Basilica Aemilia.
the foundations of the Augustan structure, and of a network of drains, some of them very ancient, which are at a lower level than the so-called Cloaca Maxima.

So far as can be known from the excavations up to date, the Augustan basilica consisted of three parts: the porticus, or façade toward the Forum; the tabernae, or rooms opening into the porticus; and the main hall, which was separated from the front part by a continuous wall. Six steps lead from the Forum area to a platform 0.75 metre wide, and three more to the floor of the porticus, the façade of which was

[^152]formed by an arcade of sixteen great pillars of white marble, with engaged half-columns on their outer faces. Only the base of the pillar (b, Fig. 35) at the east corner was found standing, but the travertine foundations of all the others are in situ, except that of the pillar at the west corner. Here the foundations had been removed bodily, and the entire west end ${ }^{1}$ of the porticus had been built over with medieval structures. The distance between these pillars was 5.41 metres, and from 14 to 15 metres behind them was a wall of tufa, 0.60 metre thick, which separated the porticus from the central hall. This wall was reinforced, in later times, by a brick wall of equal thickness, laid upon the inner side of the tufa, on which fragments of the decoration of the hall were found. From this main wall, spur walls 7 metres long projected on lines corresponding exactly with the pillars of the façade, and formed chambers between them, 7.15 metres in depth and 5.41 in breadth. These chambers have been called tabernae, and doubtless served as offices of some sort. The spur walls ended in marble pilasters, of one of which a fragment was found in situ, and the walls themselves were probably covered with marble. As they projected 7 metres from the main wall, the space between them and the pillars of the façade was also 7 metres wide, thus forming a corridor of that width and about 85 metres long. In the middle taberna, the main wall has been cut through and a doorway 3.80 metres wide made, of which the threshold is still in situ; but this was probably a later arrangement, and in the original building there was no connection between the porticus and the main hall. At the east end of the row of tabernae is a smaller room, and at the west end two, which may have contained staircases to the upper story. Across the east end of the porticus is a sort of pavilion-

[^153]like hall. Very few remains have been found of the architectural members of the façade of this basilica (cf. Fig. 36).

Only a part of the main hall has been excavated, and its exact length cannot be stated, but it was probably about 80 metres. Its width was 22 metres, and it was divided into a central nave 12 metres wide and two aisles 5 metres in


Fig. 36. - Fragments from the Basilica Aemilita.
width. The pavement of this main hall was composed of slabs of colored marble, many of which are in situ. Fastened to them by partial melting are many coins and bits of metal, the evident result of a fire in the third or fourth century. This pavement was then covered over with another. The side aisles were divided from the nave by rows of columns of African marble, 0.85 metre in diameter, with Corinthian capi-
tals and an entablature of white marble. Over the aisles were galleries, and an upper row of columns stood upon the lower, of the same marble, but only 0.55 metre in diameter. Many fragments of these columns and entablatures have been found, and they exhibit the best form of Roman decorative art. We are told that one of the chief ornaments of this basilica was twenty-four columns of Phrygian marble, ${ }^{1}$ but no trace of them has yet been found, and the pavonazetto columns of S. Paolo fuori le Mura certainly never stood here. The main entrances to this hall must have been at the east and west ends.

At a much later period, probably in the early part of the fifth century, the porticus underwent a complete transformation. The façade was entirely destroyed, probably by fire, and in place of the great marble pillars, about twenty-five columns of red granite with Corinthian capitals were erected on white marble pedestals, with an intercolumnar space of 3.77 metres. These columns did not correspond with the walls of the tabernae, and what was done with these chambers cannot be discorered from the ruins. One of these columns only (l, Fig. 35) was found in situ, but parts of three others ( $h, i, k$ ) have been set up in their proper places.

In the seventh and eighth centuries the basilica was more or less built over, and walls of that epoch, with pavements of white and colored marble, are visible, especially in the tabernae, where there was evidently a sort of fortified dwelling. The threshold ( $n$, Fig. 35) of one of the doors is formed by one of the blocks of marble from the Regia, on which the fasti consulares were engraved. ${ }^{2}$ This block contains part of the lists of the years 380 and $331 / 330$ в.с., but some of the inscription has been worn away.

[^154]On the north side of the Forum, near the Comitium and the cloaca, was a shrine of Venus Cloacina, ${ }^{1}$ which probably dated from the end of the sixth century b.c. At the edge of the lowest step of the basilica, near the west end, is a marble base ( $a$, Fig. 35), round, except on the west side where it has a rectangular projection, and about 2 metres in diameter. This is very probably, but not certainly, the base of the later shrine of Venus Cloacina.
At the south corner of the basilica was found a pile of broken blocks of marble, which has not been disturbed. Some of them belong to the Augustan basilica, and the rest are of unknown origin. Most noteworthy are three very large pieces which together form an epistyle ${ }^{2}$ ฮ.75 metres long and 1.75 high, on which is a dedicatory inscription to Lucius Caesar. No explanation of this is as yet forthcoming.

The Temenos of Vesta. - The temenos or precinct of Vesta contained originally the temple of Vesta, the dwelling of the Vestals, the sacred grove ${ }^{3}$ (lucus), the so-called domus Publica, ${ }^{4}$ or official residence of the pontifex maximus, which has often been confused with the Regia, and the Regia itself. Only the first three belonged to the Vestals during the republic, but in 12 в.c. Augustus, who was then pontifex maximus, removed to his new palace on the Palatine, and presented the domus Publica to the Vestals. ${ }^{\circ}$ All these buildings had the same orientation, north and south, east and west, - which corresponded with that of the republican Comitium at the other end of the Forum; and were surrounded by a common wall. ${ }^{6}$ This has been traced along the Sacra via, round the temple of Vesta, and under the central

[^155]court, and its line is preserved by the inclined way (p. 212) that led up to the Palatine from the Forum, along the west wall of the atrium Vestae. The remains ${ }^{1}$ of a fine house of the republic, which are visible all along the north side of the atrium, are doubtless to be identified with the domus Publica, which was probably used by the Vestals in its original shape until the rebuilding of the second century. The temple was probably always on the same site, and between it, the domus Publica, and the dwelling of the Vestals at the east end of the precinct, was the lucus, which extended up the slope of the Palatine as far as the Nova via. This grove was destroyed when the later atrium was built.

The Temple of Vesta. - The temple of Vesta was said to have been built by Numa, ${ }^{2}$ but it was outside the Palatine pomerium, and cannot have antedated the second, Septimontium, stage of the city's growth. It was perhaps the most sacred spot in Rome, although not a consecrated templum, ${ }^{3}$ round in shape, ${ }^{4}$ and contained the sacred fire, ${ }^{5}$ the Palladium, ${ }^{8}$ and other sacra, which were kept in a secret recess called the penus Vestae, ${ }^{7}$ but no statue ${ }^{8}$ of the goddess herself. The temple was burned in 390 and in 241 b.c., ${ }^{9}$ again in the fire of Nero, ${ }^{10}$ after which it was restored by the Flavians, and finally in 191 A.d. ${ }^{11}$ when it was restored by Julia Domna, the wife of Septimius Severus. ${ }^{12}$
The existing remains ${ }^{13}$ of the temple are the podium and many architectural fragments. The podium consists of four

[^156]strata of concrete, with facings of opus incertum and brick. The lowest stratum is a circular foundation set in the soil, 15.05 metres in diameter and 2.17 metres thick. On this rest the three others, between the second and third of which there is a very thin layer of bits of marble. On the east side of these strata are some tufa blocks, which were the foundation of the marble steps. In the centre of the podium is a cavity of


Fig. 37. - The Podium of the Temple of Vesta.
trapezoidal shape, extending to the bottom of the foundation, a depth of 5 metres. The sides measure between 2.30 and 2.50 metres in length. This cavity, or favissa, was entered from the floor of the cella, and may have been the receptacle for the stercus, ${ }^{1}$ or ashes of the sacred fire, which was removed once a year and emptied out of the porta Stercoraria (p. 278). The two lowest strata, and probably the third, belong to the time of the Flavians ; the uppermost, to that of Julia Domna.


Fig. 38. - The Peribolus of the Temple of Vesta.
It is to her restoration also that the remaining architectural fragments belong. These fragments, with coins ${ }^{1}$ of the period, and
${ }^{1}$ Cohen, Med. Imp. iii, pl. ix. p. 333, and Nos. 121-123, 205-209; Dressel, Zeitschrift f. Numismutik, 1899, 20-31.


Fig. 39. - Plan of the Temple of Vesta.
a relief ${ }^{1}$ in Florence enable us to reconstruct ${ }^{2}$ the temple with considerable accuracy. It is not probable that the structure of

[^157]Domitian's time varied greatly from that of the time of Severus, except in the height of the podium.

The temple was round, peripteral, and built of white marble, with twenty columns counected by metal gratings. The roof was dome-shaped, with an opening in the centre for the exit of the smoke of the sacred fire, and there also were windows in the upper part of the cella wall. The shafts of the columns were fluted, 0.51 metre in diameter and about 4.45 metres high, with Corinthian capitals. Near the temple were statues of an ox and a ram. A coin of Augustus ${ }^{1}$ seems to represent the temple of his time as Ionic in style. On the north and southwest sides of the temple were found many sacrificial remains, bones, ashes, potsherds, statuettes, etc.

The Atrium Vestae. - During the republican period the atrium ${ }^{2}$ Vestae, or house of the Vestals, suffered from fires at the same time as the temple, but we know nothing of its restorations before the second century. It was then rebuilt entirely, probably by Hadrian, ${ }^{3}$ and after the great fire of 191 by Julia Domna, the wife of Septimius Severus. The existing remains, which were excavated in $1883^{4}$ and 1899-1902, ${ }^{5}$ belong for the most part to these two epochs, but many vestiges of the earlier atrium have been found in all parts of the later, especially north of the peristyle.

The atrium (see Forum plan) as finally completed consisted of an open peristyle, surrounded on all sides by rooms of vari-

[^158]ous kinds, in two, three, and five stories. The central court was rectangular, 69 metres long and 24 wide, and was surrounded by a colonnade of forty-eight Corinthian columns of cipollino. These columns stood about 4 metres from the wall, forming a corridor of that width, and leaving an open court 15 by 60 metres in length and breadth. Above these columns was an upper arcade of the same number of columns of breccia corallina, of which two have been preserved uninjured, besides numerous fragments. Of the columns of the lower arcade only the travertine foundations are preserved. At a late period it appears that a brick wall, pierced with arches, was substituted for this colonnade, and that the cipollino columns were sawn into slabs for other purposes. The latest pavement of the court was lava mosaic; but under it are remains of an older one of opus spicatum, and beneath that a network of brick drains has been found, which run under the various parts of the building, and finally flow into one large cloaca that passes out at the northwest corner. At the east end of the peristyle is a piscina, or water tank, about 4 metres square, and at the opposite end is another, slightly larger. Between this latter tank and the centre of the peristyle is a third, lined with marble like the other two, of about the same width, but about 13 metres long and a little more than 1 metre deep. This third piscina extends under the octagonal structure in the centre of the peristyle, and was filled up when that was built. This structure consists of a pattern in brickwork, an octagon inclosing a circle, the radii of which are prolonged from the circumference to the angles of the octagon. Whether this is all that is left of the foundation of a shrine, or of a sort of curb which might have inclosed a flower bed, is uncertain. On the northeast side of the northwest piscina are remains of the earlier atrium, a mosaic pavement and an adjoining one of tufa blocks. The walls of the peristyle, and in general the walls of all the adjoining rooms except those which were for the most domestic
uses, were magnificently decorated with linings of colored marbles, of which a little has been found in place.

At the east end of the peristyle, the corridor is paved with colored marbles instead of mosaic, and from it four steps lead up between two columns into a hall, which is also paved with magnificent marbles, and out of which six smaller rooms open, three on each side. The hall is usually called the tablinum. At the southeast corner are other rooms, in which are remains of the earlier tufa walls, and in one of them a square altar made of ashes and sacrificial matter, covered with stucco and surrounded by a stone gutter, which belonged to the house of the republic. Very little is left of the rooms on the north side - of the peristyle; but they were large, and perhaps served as the public reception rooms and offices. Outside the north wall of the building was a row of tabernae, opening on the Sacra via; and under and in front of them are the remains of several rooms of the domus Publica, with well-preserved mosaic pavements.

Among the rooms recently excavated at the west end are a kitchen and a pantry, in which were found many hundred potsherds; a large hall, which corresponds with the tablinum at the other end; and another large apartment, with adjoining rooms, which may have been the more secret part of the house. It is possible that this rather than the southeast end, as has usually been supposed, is really the earliest part of the house. The remains of the earlier building are numerous at this west end. Some of the rooms on the east, west, and north sides were heated by hypocausts, the floors being double, and the walls lined with flues. The rooms on the south side of the peristyle were especially exposed to dampness, because they were built against the cliff of the Palatine, and were cut off from the sunlight by the lofty palace on the hill. Consequently, about the middle of the third century, an inner wall was built in nearly all these rooms, and an air space, more
than a metre in width, left between this and the outer wall. The floor level was also raised, 0.70 metre on the average, and the removal of this later floor has exposed to view in several of the rooms the original mosaic of opus sectile, of the time of the Antonines. In one room especially, nearly the whole pavement of giallo antico, pavonazetto, and Porta santa has been preserved.

The first three rooms on this side, at the east end, belonged to the culinary department of the house, and in one of them is a mill. Behind the fourth and fifth is a staircase leading to the second story, and at the west end are two other staircases. Behind the last room is a corridor, the door of which had been walled up; and in this corridor, in the opening of a brick drain, was found a hoard of three hundred and ninety-seven gold coins, ${ }^{1}$ which had evidently been placed in a bag and thrown into this drain for concealment. These coins date from 335 to 467-472 A.D. The Vestals were driven from their house in 394 A.D., ${ }^{2}$ and it is supposed that the atrium then became the residence of imperial officials, who fled about 470 to escape some invasion from the North. In 1883 a hoard of eight hundred and thirty Anglo-Saxon coins, dating down to the middle of the tenth century, was found at the northwest corner of the atrium. ${ }^{3}$

The second story has almost entirely disappeared, but what remains, at the southeast corner, seems to have consisted principally of elaborate baths, and to belong to a later period than that of Severus. Set up round the peristyle are the fragments of the many statues ${ }^{4}$ of the Vestals, belonging for the most part to the third century, with inscribed pedestals. Pedestals and statues, however, do not belong together.
${ }^{1}$ NS. 1899, 327-330.
${ }^{8}$ NS. 1883, 487-514.
${ }^{4}$ Jordan, Der Tempel der Vesta, 44-49, and pl. VIII-X.

The main entrance to the atrium was at the northwest corner, and close by it is the podium, about 3 by 2 metres in dimensions, of an aedicula Vestae. ${ }^{1}$ As the temple itself did not contain any statue of the goddess, the aedicula was probably erected for this purpose. Some fragments of the marble lining and plinth are in situ; and the eutablature with an inscription of the time of Hadrian which records a restoration, together with numerous architectural fragments, have been found. The entablature has recently been placed upon the column and a brick pier.

The Regia. - The Regia ${ }^{2}$ is said to have been built and dwelt in by Numa, ${ }^{3}$ and it is also said to have been the house of the rex sacrificulus and of the pontifex maximus. ${ }^{4}$ In historical times, however, it was a consecrated fanum, the official headquarters of the pontifex maximus, and is to be carefully distinguished from the house of the rex sacrificulus on the Velia, and the domus Publica (p. 195). It contained the sacrarium Martis ${ }^{5}$ in which the sacred spears and shields (ancilia) were kept, the sacrarium Opis Consivae, ${ }^{6}$ the archives of the pontifices, and a place of assembly for various sacred colleges. The Regia was burned and restored in $210,148,{ }^{7}$ and 36 b.c. This last restoration ${ }^{8}$ was carried out by Cn. Domitius Calvinus, who erected a building which, although small, must have been of unusual beanty.

[^159]Its site has now been completely excavated, and the existing ruins ${ }^{1}$ belong to three periods, the republican, the imperial, and the medieval. Of the superstructure of the first two periods, almost nothing remains except the lowest courses of some of the walls and many architectural fragments. The republican remains are found only in the foundations of the later structure, and have been built over so many times that no reconstruction of the original building is possible, but it probably extended farther to the west and south than the Regia of Calvinus. After his restoration, the Regia was shaped like an irregular pentagon, filling the space between the Sacra via, the temenos of Vesta, and the temple of Julius Caesar, and consisting of parts unsymmetrically joined together.

The principal part was trapezoidal (klmn, Fig. 40), with a mean length of about 22 metres and a width of 8 metres. Unlike most Roman buildings, this was built of solid blocks of white marble. On the west and south sides were inscribed in four double panels the fasti consulares, and on the pilasters of the south side, the fasti triumphales. Many of the fragments of these blocks have been preserved. Fig. 41 represents the architectural arrangement of these panels, and also of the building itself.

The interior of the building was divided into three rooms, in the largest of which was found a pavement of tufa blocks, and on this a circular substructure ( $d$, Fig. 40) of gray tufa, 2.53 metres in diameter, dating from the early period. There was a doorway (c) in the original building, but it was roughly widened for the medieval house, and two rude steps placed in front of it.

The irregular space between this part of the Regia and the Sacra via was occupied by an open court, with a covered ante-

[^160]chamber at the east end, where the main entrance seems to have been. The greatest width, north to south, of the whole building was about 27 metres, and the least about 12 metres.


Fig. 40.-Plan of the Regia.
The court was paved with slabs of marble, and in it are two wells and a cistern, which date from a very early time. One of these wells ( $h$ ) is 14.35 metres deep and 0.69 in diameter, and contained pieces of fire-marked tufa, terra-cotta weights,
and potsherds. The other well contained nothing of interest. The cistern ( $f$ ), shaped like a tholus, 4.36 metres deep and 3.02 in diameter at the bottom, with tufa walls and a bottom of opus signinum, contained fragments of amphorae and Arretine vases, eighty-two bone stili, part of an oaken writing-tablet, and a fragment of a marble curb, on which was the word REGIA in letters of republican date. Near this cistern is a


Fig. 41. - The Regia restored.
base (g) of tufa blocks, on which there are traces of a circular superstructure, to which probably belongs a fragment of peperino found near by, with the inscription A. COVRI.

At the southwest end of the marble building is a small room ( $n m p$ ) paved with black and white mosaic. Near it in the wall was found a fragment of an epistyle with part of an inscription, ${ }^{1}$ - the other part of which was already known, - which

[^161]proves the existence in or near the Regia of a schola kalatorum pontificum. No identification of any of the existing divisions of the ruins with any of the ancient parts of the Regia is possible.

In the seventh or eighth century the Regia was transformed into a private house, the traces of which are visible in all parts of the area, but especially along the Sacra via, where the house was approached by a flight of two steps (ab), roughly made of marble and travertine and 20 metres long. Above them stood a row of cipollino columns with bases of red granite, which had been taken from some ancient building and formed the entrance to this house.

Between the south wall of the Regia and the temenos of Vesta is another well of republican date, ${ }^{1}$ about 5 metres deep, built of tufa.

The Lacus Iuturnae. - The most famous spring near the Forum was that of Juturna, ${ }^{2}$ which was known to be close to the temple of Castor. This part of the Forum has now been excavated, and the triangular space between the temple of Castor and the atrium Vestae may be called the precinct of Juturna. The existing ruins ${ }^{3}$ belong principally to the imperial period, but there are some of earlier date. In the centre of the precinct is the lacus (fgki, Fig. 42), a basin 2.12 metres deep, the bottom of which measures 5.13 by 5.04 metres. In the middle of the basin is a quadrilateral base $(w) 1.78$ metres high and about 3 long by 2 wide. The basin is paved with marble slabs, beneath which are some tufa remains with a different orientation, which belong to the earlier structure. The lower walls of opus reticulatum rise to the same height on three sides as the base just

[^162]
mentioned, and this appears to have been the level of the precinct in republican times. On this wall is a ledge about 1.50 metres wide, and round this a later wall of opus incertum, 1.23 metres high, on which is a travertine curbing. At the top, therefore, the basin measures about 10 metres square. At the northeast and northwest corners of the pavement of the basin are the two springs by which it has always been fed, which are now flowing freely. The whole inner surface of this basin was lined with marble, much of which is in situ. The east side of the basin has been entirely changed by being built over in the fourth century, in order to enlarge the room at the east (e).

About 4 metres south of the lacus is a group belonging to the precinct, and composed of an altar ( $n$ ), a well with marble curb or puteal, and a shrine ( 0 ) of the goddess Juturna. The puteal is 0.968 metre high, with decorated plinth and cornice. On the edge of the puteal and on its front is an inscription, ${ }^{1}$ which states that it was restored and dedicated by M. Barbatius Pollio, probably the partisan of Marcus Antonius. ${ }^{2}$ Close to the front of the puteal is a large slab of marble, and on this was found a marble altar, lying on its face, on which are sculptured a male and female figure in the style of the time of Severus. Slab and altar had been used as steps to the puteal, which seems to have been too high for the convenient drawing of water at this later period. The base of the puteal had also been covered up with pozzolana. The level of the spring in this well is the same as that of those in the basin.

Immediately behind and somewhat higher than the puteal is a brick foundation on which stands the aedicula Iuturnae (o), which consisted of cella and pronaos, with two marble columns. Of these columns there are no remains. A statue of the goddess undoubtedly stood in the apse of this aedicula, and a


Fig. 43. - The Precinct of Juturna.
fragment of the epistyle was found near by, with the inscription IVTVRNAI S.
The inclined way from the Forum to the Palatine started near the temple of Vesta, and ascended along the wall of the atrium ( $x y$ ), supported by a series of arches, under which are chambers ( $c, d$ ) opening on the corridor. The room $e$, with three niches in the east wall, has been enlarged by taking down the wall between the two adjoining chambers, destroying the original west wall, and building out over the lacus, as previously described. In this room and the next ( $m$ ) there is a pavement of tiles laid over an early one of opus spicatum. On the west side of the corridor are two other rooms ( $\alpha, b$ ), and in the corridor itself are three pavements, the earliest of opus spicatum, the next of tiles, and the latest of white and black mosaic. In these rooms have been found many fragments of inscriptions ${ }^{1}$ relating to the curatores aquarum and the statio aquarum, or headquarters of the water department of Rome. One of these records a restoration of the statio by Fl. Maesius Egnatius Lollianus in 328 A.D., and it is probable that the enlargement just described took place at that time, when the statio was in the precinct of Juturna. When this office was first established here is not known.
Many remains of sculpture were found here, among them a marble altar in the lacus, with beautiful reliefs, fragments of the Dioscuri of life size, ${ }^{2}$ and a statue of Aesculapius in front of the niche in room e. The large number of medieval potsherds shows that the springs were in use at a late date.

Immediately south of the aedicula, at a higher level, is a large hall ( $p$ ) with an apse, which completely blocks the Nova via ( p . 162) and probably dates from about the same period as the enlargement of the statio aquarum. In the middle

[^163]
ages this became an oratory. No trace has been found of the sacellum Larum ${ }^{1}$ (p.128), which is described as being one of the points in the first pomerium, and is supposed to have stood at this corner of the hill.
The Rostra. - The Rostra ${ }^{2}$ was the famous platform from which the Roman orators addressed the people. Such a platform must have existed from very early times, but the name rostra was applied to it after 338 в.c., when C. Maenius ${ }^{3}$ built a suggestus and decorated it with the rostra of the ships captured at Antium. This platform stood on the south side of the republican Comitium (p. 222), so that from it the speaker could address the people assembled either on the Comitium or in the Forum. ${ }^{4}$ It was consecrated as a templum, ${ }^{5}$ and on it were placed statues ${ }^{6}$ of famous men, in such numbers that at intervals the platform had to be cleared in order to make room for new claimants for the honor. On this Rostra, or close by, was the columna rostrata, ${ }^{7}$ a column ornamented with beaks of ships, and erected in honor of C. Duilius Nepos, the victor at Mylae in 260 b.c. The column and its archaic inscription were restored by Augustus or Tliberius, and part of the restored inscription has been preserved. This Rostra kept its place on the Comitium throughout the republic, and was the most distinctive symbol of the old régime.

Caesar decided to remove the Rostra to the Forum, but his definite plan seems not to have been carried out until after 42 b.c. ${ }^{8}$ Thenceforth the Rostra of the empire was a long plat-

[^164]form extending across the west end of the Forum. It was restored by Trajan, remodelled by Severus, and lengthened in the fifth century. The existing remains date back to the restoration of Trajan, but this probably incorporated the earlier structure, and reproduced it in its main features. It is represented in a famous relief on the arch of Constantine.

The Rostra ${ }^{1}$ was 24 metres long, 10 deep, and 3 high. The front and side walls were built of opus quadratum of tufa, and the rear wall of brick-faced concrete. The travertine slabs of the platform were supported by these walls and by three rows of travertine piers, which were in later times partly replaced and partly strengthened by brick piers and walls. This was necessitated by the increasing weight of the statnes and honorary columns which were set up on the Rostra. A marble balustrade extended along the sides and front of the platform, except in the centre, where there was an opening. The façade was lined with

1 Richter, Rekonstruktion und Geschichte der Rön. Rednerbühne, 1884; Jahrb. des Inst. 1889, 1-17; Mitt. 1889, 238$239 ; 1893,91$; 1902, 17-20; BC. 1903, 158.

marble, with plinth and cornice, and divided into twenty compartments by pilasters of bronze, and bronze strips above the plinth and under the cornice. In the centre of each compartment a bronze beak was fixed, and a second row of beaks, below these, was fixed to the pilasters, making thirty-nine in all. These beaks were made for the purpose, and not actually taken from ships. The approach was by an inclined plane, or possibly steps, which led up to the middle of the back side. The marble balustrades (p.250) now standing on the pavement of


Fig. 46. - The Front of the Rostra restored.
the Forum belonged to the Rostra, and stood either on each side of the approach, or on the two shorter sides of the platform, in place of the marble screen.

During the reign of Severus, the hemicycle directly behind the Rostra was built, most of the north wall (hi, Fig. 48) of the Rostra was removed and replaced by a balustrade on a marble foundation, the north part of the back wall ( $h f$ f) of brick was cut down to a height of only 26 centimetres above its base, and the south half of this same wall reduced to half its original height. This left an open space between the hemi-
cycle, the north half of the Rostra, and the balustrade, which was paved with tiles laid over the earlier opus spicatum. This new pavement extended to the south end of the Rostra, and much of it is still in situ. The Rostra itself was thus much diminished in size, and its approach seems now to have been from the south half of the hemicycle. At a much later date the Rostra was lengthened by a trapezoidal brick addition ( $j m$ ) at the north end, the façade of which was also decorated with


Fig. 47. - The Rear of the Rostra restored.
beaks. Oiu some of the marble blocks which took the place of a cornice was an inscription, fragments of which have been recovered, recording the restoration by Junius Valentinus in honor of two Augusti, perhaps Leo and Anthemius. ${ }^{1}$

The hemicycle ${ }^{2}$ just mentioned consists of a curved façade, nearly as long as the Rostra, and a flight of five travertine steps, equally wide, which leads up from the level of the clivus Capitolinus to the top of the façade on the inner side of the

[^165]0

Fig. 48. - Plan of the Rostra and Surrounding Structures.
curve. It thus formed a retaining wall for the higher level of the area Concordiae. The steps of the north half are well preserved, but of the south half only the core of opus incertum is left. The top of the hemicycle was narrow and paved with travertine, and on its north half at least was a colonnade. The façade was decorated with slabs of Porta santa marble, with a plinth of Pentelic marble, and a cornice, only fragments of which have been found. At the north end of the hemicycle is the core of the Umbilicus Romae, ${ }^{1}$ a cylindrical brick-faced structure which rose in three stages, its diameter at the bottom being 4.60 metres and at the top 3 . This was covered with marble and represented the central point of city and empire, possibly in imitation of the ó $\mu \phi$ длós at Delphi.

At the west end of the Forum, Augustus had erected a column, covered with gilt-bronze, which was called the Milliarium Aureum. ${ }^{2}$ On it were engraved the names of the principal cities of the empire, and their distances from the capital. Part of a circular marble plinth has been found here, which may possibly have belonged to this monument; and it is probable that when the hemicycle was built, the Milliarium Aureum was placed at the south end, and the Umbilicus at the other. ${ }^{3}$ The object of the hemicycle, then, was to form an ornate retaining wall for the area Concordiae, connecting these two columnar structures, and there is no longer any plausibility in its identification with the Graecostasis (p. 223).

Beginning behind the south end of the hemicycle, and extending about 20 metres south, is a row (op, Fig. 48) of eight arched rectangular chambers, ${ }^{4}$ which have been excavated recently. They are set on a line parallel with the major axis of

[^166]

Fig. 49. - The Substructures of the Clivus Capitolinus.
the temple of Saturn, and form an angle of $15^{\circ}$ with that of the Rostra. The two chambers at the south end were partially built over by the foundations of the arch of Tiberius. The structure is built of opus reticulatum of tufa, and is 20.80 metres long and 2.30 high. The rooms are 1.60 metres high,
1.70 broad, and from 1.50 to 2.15 deep. The inside walls are covered with opus signinum, and the pavement is of rude brick tesserae, and extended for a distance of 4 metres from the front of the row. Above these rooms is a floor of rammed tufa, edged with tufa slabs.

It seems clear that this row of arches was a sort of viaduct, built to support the clivus Capitolinus when the temple of Saturn was restored by Plancus in 42 в.c. The enlargement of the temple at that time made it necessary to push the line of the clivus farther east, and it was then carried on these substructures. The theory at first advanced ${ }^{1}$ that this structure was the rostra of Julius Caesar has been shown to be untenable.

In front of these chambers, between the arch of Tiberius and the prolongation of the south wall of the Rostra, are the remains of a room ( $q$, Fig. 48) of trapezoidal shape, with a pavement of white marble. A marble seat encircled three sides of the chamber, and in the middle of the north wall is a door from which a flight of steps led up to the level of the clivus Capitolinus. There are also marks of posts or columns on the pavement. This may possibly have been the so-called schola Xanthi, ${ }^{2}$ an office of the scribae, librarii, and praecones of the curule aediles. An epistyle ${ }^{3}$ was found on this spot in the sixteenth century, which recorded the erection of this schola by Bebryx Ang. lib. Drusianus and A. Fabius Xanthus, probably not later than the middle of the second century, and its restoration by a certain C. Avilius Licinius Trosius at the beginning of the third.

The Comitium. - The word comitium ${ }^{4}$ means the place of assembly (com-eo), and until the middle of the second century

[^167]B.c. ${ }^{1}$ it was the political centre of Rome (p. 167). The changes effected by Caesar and his successors destroyed its previous topographical arrangement, but this can be reconstructed in its main lines. The republican Comitium ${ }^{2}$ was a templum or inaugurated plot of ground, approximately 70 metres east and west and somewhat more north and south, oriented according to the cardinal points of the compass. This is also the orientation of three sides of the Carcer, of some of the so-called tabernae on the south side of the forum Iulium, the foundations of which have been found, of part of the early structures under the lapis niger (p. 237), and of the early Regia and domus Publica. The east side of the Carcer and of the tabernae determine the west and north sides of the Comitium, while its extent toward the east was limited by the brook Spinon and the Argiletum. In the centre of the north side was the Curia; on the west were the basilica Porcia and the Carcer; on the south were the Rostra and the Graecostasis; and a little farther off was the Senaculum. The area of the Comitium, undoubtedly paved at a very early date, was inclosed ${ }^{3}$ partly by these buildings and partly by railings.

The building of the first senate house was ascribed to Tullus Hostilius,. and it was regularly called the curia Hostilia. It was rebuilt ${ }^{5}$ by Sulla in 80 B.c., and must have been somewhat enlarged, as Sulla is said to have removed the statues ${ }^{6}$ of Pythagoras and Alcibiades, which had stood at the corners of the Comitium. This hall was burned in 54 b.c. and rebuilt in 52 by Faustus Sulla. ${ }^{7}$ In 45 b.c. Caesar began the erection of a new Curia, ${ }^{8}$ - the curia Iulia, - just east of the curia

[^168]Hostilia, and with a different orientation. ${ }^{1}$ We are told that he removed the curia Hostilia, and erected on its site a temple of Felicitas, but this temple was completed and dedicated by Lepidus after Caesar's death, and in 45 b.c. the old Curia was still in use. It is therefore probable that it was not entirely destroyed until the new building was at least partially ready for use, and that the temple of Felicitas occupied only a small part of its site, on its west side. The presence of this temple, with the orientation of the old Curia, would account for the irregular shape of the tabernae of the forum Iulium at this point. Of the later history of the temple nothing is known, nor is there any clew to the appearance of the curia Hostilia, except that it was not so large as the curia Iulia.

On the west side of the Comitium was the basilica Porcia, ${ }^{2}$ the first structure of the sort of which we have any record. It was built by Cato the Censor in 184 b.c., and stood in lautumiis and next to the Curia, so that its site is very closely determined. It was burned in 54 b.c., at the same time with the Curia of Sulla.
The Rostra (p. 214) of the republic occupied a large part of the south side of the Comitium. West of it was the Graecostasis, and the relative position of these structures and the general orientation of the Comitium is further determined by the statement of Pliny ${ }^{3}$ that the accensus of the consuls proclaimed the hour of noon when, from the Curia, he saw the sun between the Rostra and Graecostasis, - that is, in the south.
This Graecostasis ${ }^{4}$ was a raised platform, without a roof, on which ambassadors from foreign states awaited their reception

[^169]in the senate, and from which they could witness the assemblies of the people. It was moved into the Forum with the Rostra, and was restored by Antoninus Pius, and again after the fire of Carinus. During the empire it was also called the Graecostadium, and this name appears on the Marble Plan, ${ }^{1}$ but without the structure itself, and all attempts to identify it with any existing remains have proved abortive. ${ }^{2}$

The Senaculum, ${ }^{3}$ a building in which the senators assembled, - presumably before entering the Curia itself, - was supra Graecostasim, ubi aedes et basilica Opimia. It must, therefore, have stood on the Volcanal, at the very edge of the Comitium and in front of the earlier temple of Concord and the basilica Opimia. Its position is thus determined within very narrow limits. It must have been removed at the latest when the temple of Concord was rebuilt by Tiberius, but it was probably moved at a still earlier date, along with the Rostra and the Graecostasis. The statement in a late authority ${ }^{4}$ that there were three senacula in Rome, the other two being at the porta Capena and near the temple of Bellona, seems open to serious question.

On the Comitium, in front of the Curia, was a puteal, or stone curb, on a spot which had been struck by lightning; but in the development of the legend of Attus Navius, the belief had become general that his razor and whetstone were buried here. ${ }^{5}$ The statue of the famous augur stood on the left side of the steps of the Curia, and near by was the ficus Ruminalis ${ }^{6}$ (p. 127), which he had caused to be miraculously transplanted from the Lupercal to the Comitium. This fig tree was stand-

[^170]ing in the time of Nero, when its drying up and reviving was regarded as a prodigy.

Near the basilica Porcia and the Carcer was the columna Maenia, ${ }^{1}$ erected in 338 в.c. in honor of C. Maenius, the victor at Antium. Another story ${ }^{2}$ that was current in later times about the origin of this column is certainly false. It stood until the end of the republic, but is not mentioned afterward. Just west of the Curia were the subsellia tribunorum, ${ }^{3}$ the wooden benches occupied by the tribunes of the people, which seem not to have survived the republic, being mentioned for the last time in connection with Caesar's triumph in 45 . Near these subsellia was the tabula Valeria, ${ }^{4}$ a painting of the naval battle between the Romans and Carthaginians in 263 в.c., which was placed, we are told, by the victor, Valerius Messalla, in latere curiae. This is interpreted to mean either the wall of the Curia, although it is somewhat difficult to explain how it survived the rebuilding by Sulla, or a sort of separate balustrade which might have surrounded the whole or part of the Curia.

Until the recent excavations, the Comitium was buried to a depth of more than 9 metres, but it has now been completely uncovered from the front of the Curia (S. Adriano) in all directions, except on the northwest side. A stratigraphic examination ${ }^{5}$ of the area of the Comitium has shown that there are twenty-three successive strata from the latest pavement to the virgin soil, a depth of 4.04 metres. These successive elevations in level are due to human agency; and while it is not

[^171]

Fig. 50. - The Comitium as recently excavated,
possible to assign any definite duration of time to most of them, they present a vivid picture of the rapid changes which were going on continually in and round the Forum.

The latest pavement ${ }^{1}$ of the Comitium begins at a distance of about 11 metres from the front of the Curia, and extends as far as the lapis niger. It consists of slabs of travertine, very roughly laid, and dates from the fourth or fifth century, as is shown by the fact that it was already in place when the marble basin of the fountain (see below) was set up. Directly in front of the Curia is a pavement of blocks of Luna marble of the early imperial period. This lies about 20 centimetres below the level of the pavement just described, and represents the level of the Comitium during the first four centuries of our era, 13.50 metres above the sea. Between this marble pavement and the later one is a travertine water-channel (ef, Fig. 50) 0.42 metre wide, parallel to the front of the Curia, and also a strip of gray marble $(g h)$ in which are traces of the holes for marble pilasters, 1 metre apart. Between these pilasters there must have been a screen which divided the Comitium into two parts. Beyond this division the pavement of the earlier imperial period was of travertine, some traces of which have been found beneath the later travertine.

Resting partly on the marble pavement and partly on the later travertine, is the circular marble basin (i), 5.26 metres in diameter, which belonged to a fountain. ${ }^{2}$ It is made of eight pieces, and in its centre is an octagonal space in which the foot of the fountain stood. This must have been something like a slender cantharus in shape, and was fed by a lead pipe laid in the water-channel ( $e f$ ). It dates from about the fifth or sixth century.

[^172]At a depth of 0.47 metre below the level of the imperial pavement is a small section of a pavement (k) of perfectly squared slabs of travertine on a foundation of broken tufa. The orientation of this pavement is not that of those above it, - which correspond with the Curia, - but is almost north and south, east and west, like that of the republican Comitium ; and this is, in fact, the pavement of the last century of the republic. Under it are the remains of a flight of tufa steps $(l)$, 1.24 metres high, leading down to a still older pavement made of bits of broken tufa. This pavement is 2.40 metres below that of the empire, and extends southeast a distance of 2.64 metres, where it is blocked by a vaulted drain ( $p$, Fig. 51). This drain is built of tufa, is 1.63 metres high, and runs


Fig. 51. - Section of the Comitium.
parallel to the front of the Curia, emptying into the sewer of the Argiletum. It appears to have been built in the time of Caesar, when the lines of the Comitium were changed.

The various strata beneath the republican level contain fragments of all sorts, such as potsherds, sacrificial remains, votive offerings, and bricks, the oldest of which is a part of an Italic vase of the Villanova type. It is suggestive of the unsolved problems connected with the Comitium, that the stratum which contains the largest amount of broken brick and cannot be dated earlier than the fifth century b.c., is 0.50 metre lower than the level on which the archaic pedestals (p. 234) stand.

Standing on a layer of earth which covered the late travertine pavement is a marble pedestal ${ }^{1}$ ( $x$, Fig. 50) 1.26 metres high and 0.80 by 0.85 in width and breadth. On its top are holes for clamps to hold a statue or column. This pedestal was originally dedicated by the officials of a guild of carpenters (fabri tignuarii), August 1, 154 A.D., as is shown by the inscriptions on the north and west sides. It was afterward dedicated in the name of Maxentius to Mars Inviotus and the founders - Romulus and Remus - of the eternal city, by a certain Furius Octavianus, on the birthday of the city, April 21 of some unknown year. The two inscriptions which record this dedication are on the south and east sides. This base has an important bearing on the question of the lapis niger (p. 240). On the east side of the Comitium, along the Argiletum, are three marble pedestals ( $a, b, c$, Fig. 50 ) in situ, one of which ( $a$ ) is broken, but which was originally of the same size as the others, 1.55 metres high and about 1.30 square. One of these (b) bears a dedicatory inscription ${ }^{2}$ of Memmius Vitrasius Orfitus to the emperor Constantius, and the other (c) the most meagre traces of a similar inscription, probably to the emperor Julianus. In the medieval masonry at the southeast corner of the porch of the Curia were found some inscribed cippi; and at various points on the Comitium and Forum, both built into later masonry and lying in the midst of the accumulated soil, many inscriptions ${ }^{3}$ have come to light, which date all the way from the end of the republic to the end of the empire. At $d$ on the late pavement is a large rectangular base of brickwork, but there is no clew to what it supported.
At various points in the Comitium, in the stratum lying beneath the republican pavement, are twenty-one small and

[^173]shallow pits ${ }^{1}$ (as $n, 0$, Fig. 50), made of blocks of tufa, and of various shapes, - rectangular, pentagonal, and rhombo-trapezoidal. These pits are sometimes covered with stone slabs, but are usually open at the bottom. Similar pits have been


Fig. 52. - Shallow Pit, and Vault of the Cloaca Maxima.
found at various points in the Forum, - a line of eleven in front of the Rostra (cd, Fig. 25), another line of nine under the Sacra via $(\alpha b)$ at the west end of the basilica Iulia, and others south of the lapis niger (ef). When discovered, most

[^174]of these were filled with rubbish of the end of the republic, in which were fragments of bones, potsherds, etc. According to one explanation, these pits are "pozzi rituali," or receptacles in which the remains of sacrifices were preserved; according to another, - at least as probable, - they are simply openings built to facilitate the draining away of rain-water.

The curia Iulia ${ }^{1}$ was dedicated in 29 b.c., at which time Augustus added to it a sort of annex, called the Chalcidicum and afterward the atrium Minervae, which seems to have been a repository for records. There was also another annex or part of the senate house, the Secretarium senatus, of which we have no direct evidence before an inscription ${ }^{2}$ of the time of Honorius; but there is little doubt that this apartment, evidently an office for the clerks of the senate, formed part of the structure of Augustus, as it did of that of Diocletian. The first curia Iulia was restored by Domitian, ${ }^{3}$ burned in the fire of Carinus, and finally rebuilt by Diocletian. ${ }^{4}$ This building is the present church of S . Adriano, into which it was transformed about 630 A.D. Drawings of the sixteenth century show the condition of the building at that time and the main lines of its original construction. It occupied a rectangular space, 51.28 metres long and 27.51 wide, fronting on the Comitium, and in the rear abutting on the inclosure wall of the forum Iulium. Its east side was on the Argiletum. The building consisted of three parts. The Curia proper, or hall in which the senate met, which is the modern church, occupied the east end. This hall is 25.20 metres deep and 17.61 wide. Little of the ancient interior remains except the Corinthian pilasters of marble on each side and at the ends. The exterior can hardly have been imposing. The lower part of

[^175]the brick-faced façade was covered with slabs of colored marble, some of which have been found in situ, and the upper part with painted stucco, traces of which are visible. ${ }^{1}$ The brick cornice is supported by travertine consoles, and above it is a triangular pediment, round which the cornice was continued. The main entrance of Diocletian's Curia was at the top of a flight of steps, 1.60 metres above the imperial pavement. Only the foundation of these steps remains. The doorway itself was 5.90 metres in height from threshold to architrave, and continued in use until the latter part of the eleventh century, probably after the Norman invasion, when its lower half was walled up with fragments of all -sorts, marble and porphyry columns, inscriptions, and the like, and the new threshold was laid 3.25 metres above the earlier. In 1655 the upper part of the original doorway was walled up, and a new one cut through above, so that its threshold corresponded with the top of the first. This was the doorway of the church which was in use until the recent excavations. The bronze doors themselves were removed to the Lateran by Alexander VII in the seventeenth century. By means of a tunnel cut through the wall (at $y$, Fig. 50) portions of the original pavement of colored marbles have been found in situ.

After the building had become a church, bodies were buried in niches (loculi) cut in the front wall, seven of which have been found, one containing a skeleton. Other tombs were cut in the foundation of the steps ( $z$, Fig. 50), and on this foundation and on the Comitium were found three sarcophagi. At the west end of the steps is a well of republican date ( $w$, Fig. 50 ) 0.69 metre in diameter, in which, besides the usual rubbish, were fragments of stucco decoration in the second Pompeian style, which may have belonged to the curia Hostilia.

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Fig. 53. - Curia and Comitium.
The west end of the building was occupied by the Secretarium, a hall measuring 18.17 by 8.92 metres, with an apse at the north end. This hall became the church of S. Martina, and was completely modernized in the sixteenth century. Through the centre of the building, between the Curia and Secretarium, Cardinal Bonelli cut the modern via Bonella. From the drawings it is not possible to decide with certainty whether this space was taken up by one large hall, divided by rows of columns into a nave and two aisles, or by two smaller rooms. The first is the more probable, but in any case the central portion was the Ohalcidicum or atrium Minervae.

The Lapis Niger and Adjacent Monuments. ${ }^{1}$ - At the south edge of the Comitium is a pavement of black marble (Fig. 54),

[^177]about 4 metres long by 3 wide, and 0.25 to 0.30 metre thick. It has suffered from fire and other injuries, and has been repaired in one place with a block of white marble. The centre of this pavement is 29.50 metres from the Curia, and 19.50 from the arch of Severus, and it lies on the same level as the imperial pavement ( p .227 ) of the Comitium. On the south and adjacent parts of the east and west sldes, it is pro-


Fig. 54. - The Lapis Niger.
tected by a rude curb of marble slabs set in travertine sills. As excavations have been made beneath this pavement, it is now supported by an iron framework. It has the same orientation as the Curia.

Underneath this pavement is a group of ancient tufa structures which rest on a pavement of broken tufa, 2 metres below the upper surface of the black marble, and about 1 metre below the level of the travertine pavement of the later republic. This group consists of two parts. That at the east consists of a rectangular foundation of one course of tufa, on
which rest two bases ( $A, B$, Fig. 55), 2.66 metres long and 1.31 broad, and 1 metre apart, connected at the rear (south) by a


Fig. 55. - The Archaic Structures under the Lapis Niger.
course of the same height and 0.435 metre broad. The height of the upper surface of these bases from the pavement is 0.59 metre. In the centre of the rectangle, between the bases, is an
open space, 1.20 by 1 metres, where there is no foundation, but a bottom of soil and ashes. On the edge of the foundation, and projecting over this space, is a single tufa block ( $C$ ), measuring 0.725 by 0.52 by 0.29 metre. The rectangle formed by these two bases measures 3.64 metres in length and 2.66 in depth. On the bases were pedestals of tufa with very archaic profiles except at the south, where the ends were cut off square. Of these pedestals, that on the west base is almost entirely preserved, but of the other only two blocks remain. There is no trace of what they supported. Directly behind them is another platform ( $D$ ) of tufa, 3.50 metres long and 1.60 wide, with no trace of a superstructure. The orientation of this group differs not only from that of the adjacent structures and of the lapis niger, but also from that of the Comitium of the republic, being $30^{\circ}$ east of north. Just east of this structure, and nearly parallel with it, is a wall of four courses of tufa blocks, which was evidently built as a protection when the surrounding level was raised.

West of this rectangle is the second part of the group, consisting of a sort of triangular platform which projects from another rectangular platform in such a way that they form a continuous front to the north. The courses of this triangle are laid as steps, and on the corner nearest the pedestals is part of a conical column ( $G$, Fig. 55) of yellow tufa, 0.77 metre in diameter at the bottom and 0.69 at the top, which has been broken off at a height of 0.48 metre. Directly south of this column is the lower part of a cippus $(H)$ of brown tufa, which has also been broken off at a height varying from 0.45 to 0.61 metre. It is four-sided, each edge being bevelled, and tapers slightly from the bottom, where it measures 0.47 by 0.52 metre. On the four sides and on one of the bevelled edges is part of an archaic inscription in Greek letters, which dates probably from about the beginning of the fifth century b.c. As nearly as can be judged, from a half to two-thirds of the
cippus has been broken off, and as the inscription is cut in the vertical boustrophedon style, - that is, with letters running in different directions in alternate lines, from one end of the cippus to the other, - only a few words can be made out with certainty, and no agreement has been reached as to its meaning.


Fig. 56. - The Cippus and Inscription.
The adjacent rectangular platform has not been completely excavated, but symmetry requires us to suppose that at its west end there was a second triangular projection and cone. Steps ( $K^{\prime}$ ) lead up to the top of this rectangular structure on the north side. This part of the group is oriented north and south, like the republican Comitium. North of the broken cone is a square pit $(J)$, inclosed by walls of brown tufa which project 0.90 metre above the level on which these tufa structures stand. The filling between this level and the lapis niger
was composed of a layer of sand and gravel from the Tiber, 0.55 metre thick, and above this a layer, 0.40 metre thick, of earth and ashes in which were very many fragments of bones of animals, potsherds, terra cottas, and figurines and objects made of bronze of various sorts, ${ }^{1}$ dating from the sixth to the first century в.c., and mixed together in the utmost confusion. This matter was largely made up of the remains of sacrifices and of votive offerings, and covered the tufa structures. Above it was laid a mass of broken stone, tufa, travertine, and colored marble of various kinds, including fragments of the black marble of which the lapis niger consists. On this was laid the concrete bed of the lapis niger itself.

The attempt to explain and identify these monuments has given rise to a vast amount of discussion and speculation. ${ }^{2}$ Several passages in literature, ${ }^{3}$ which can all be traced back to Varro, state that on the border between the Comitium and the Forum, on or near the Rostra, was a black stone, lapis niger, and one or two lions, which marked the tomb of Romulus or Faustulus. The language used implies that these monuments were visible in the middle of the first century b.c. The existing pedestals and other tufa structures beneath the lapis niger stand on a level which was that of the Comitium at a period considerably earlier than that of the travertine pavement of the later republic, and all indications point to a date for their erection as early as the fifth century b.c. As the matter in the layer of sacrificial remains which covered them was not deposited in chronologically successive strata, but was brought

[^178]here and dumped, the ruins cannot have been buried before the middle of the first century b.c., and therefore Varro might have seen them. The wall on the east had evidently been built much earlier, in order to protect the monuments against the encroachment of the rising level of the Comitium. The cippus and cone were evidently broken off intentionally, and it would be natural to suppose that this was done at the time of the Gallic invasion, were it not for the evidence to the contrary just cited. The exact position and character of the original lapis niger is, of course, uncertain, but the most plausible hypothesis yet offered is that it was a cone-shaped stone, standing between the two pedestals.

Of the explanations thus far given, that which seems to be least open to objections ${ }^{1}$ is that the pedestal group did represent the supposed tomb of Romulus or Faustulus. Whether the cippus, cone, and platform beyond had any organic connection with the pedestal group is entirely a matter of conjecture. The tomb of Romulus was said to be close to the Rostra, and it may be that either the platform of the cippus or that just behind the pedestals belongs to this earliest Rostra of the republic; but the excavations have not been carried far enough to justify any certain identification. Whatever the connection between pedestal group and cippus group, they shared the same fate. As the level gradually rose round them, the wall on the east was first built, and finally, at the end of the republic, the cippus and cone were broken off, the lions removed, and the ruins covered up to the new level of the Comitium.

The pavement of black marble is much easier to explain. ${ }^{2}$ Its level and workmanship prove its late date, and as it does not correspond at all, in extent or orientation, with the monuments beneath, it cannot have been laid until the knowledge of their exact position had been lost. It is well known from
literary and other sources that the emperor Maxentius revived the cult of Romulus, and the discovery of the base ( $x$, Fig. 50) on the Comitium, dedicated to Mars Invictus and to Romulus and Remus, the founders of the city, in the name of Maxentius, makes it practically certain that he laid the pavement of black marble, to reproduce the lapis niger of the founder's tomb, as nearly as possible over its original site.

The Carcer. - Between the temple of Concord and the Curia, at the foot of the Capitoline, media urbe foro imminens, ${ }^{1}$ is the ancient prison of Rome, which, in part at least; is as old as any structure in the city. Above it have been built the small churches of S. Giuseppe dei Falegnami and S. Pietro in Carcere. This Carcer consists of two parts. ${ }^{2}$ The lower and more ancient part is an underground chamber, shaped like the segment of a circle, with the chord five metres in length, lying toward the northeast or Forum side. The walls are built of tufa blocks, except on the straight side, which is the native tufa rock, and these blocks are laid in such a way that each successive course projects farther inward than that immediately beneath it, thus giving the chamber the shape of an irregular truncated cone. The roof of this chamber is an exceedingly flat arch of tufa blocks fastened together with iron clamps, in the centre of which is an aperture 0.60 metre in diameter. It seems decidedly probable that the original walls of this chamber rose to a greater height, so that they almost touched, and the opening could be closed by a flat lintel. These walls were cut off when the upper room was added. This hypothesis is strengthened by the presence of the iron clamps and the apparent ignorance of the principle of the arch. In the floor is a well, 0.55 metre in diameter and 0.63 deep, which is fed by a spring. From this room a drain leads into the cloaca of the Forum, but it appears to be of very late construction.

[^179][^180]The upper room is trapezoidal in shape, its longest side, 5 metres in length, being over the straight side of the lower room. The other sides measure $4.95,4.90$, and 3.60 metres in length. The roof is a barrel-vault 5 metres high, in the centre of which is a square opening, apparently at one time the only entrance. On the outside of this chamber is a travertine string course, on which is an inscription ${ }^{1}$ recording a restoration in the consulship of C. Vibius Rufinus and M. Cocceius Nerva. This is generally assigned to the reign of Tiberius.

The lower room was called, in classical times, Tullianum, ${ }^{2}$ and the whole prison Carcer simply, the name Custodia Mamertini not being found until the middle ages. Tullianum ${ }^{3}$ is usually derived from tullius, a spring, and this chamber is supposed to have been a springhouse, built in the regal period, which was afterward made into a prison. The upper room was undoubtedly first built at an early period, but materially changed in the later restoration. Its irregular shape was made necessary by its position between two streets. Adjoining it are other chambers which have not been excavated and are not

[^181]accessible. There are many difficulties connected with this explanation of the Tullianum as a spring-house, and an attempt has recently been made to prove that it had nothing to do with a spring, but was an ancient tomb. ${ }^{1}$ However this may be, there is no doubt that this was the Carcer of the republic, where so many famous victims were executed and their bodies then thrown out on the scalae Gemoniae (p. 278), which passed close by.

At just this point on the slope of the hill were the stonequarries that came to be used as a prison, especially for slaves. They were called Lautumiae ${ }^{2}$ ( $\lambda a$ aro $\mu^{\prime}$ ), after those at Syracuse which were used for a similar purpose. It is possible that the unexcavated chambers next to the Carcer may belong to the prison in lautumiis.

The Arch of Augustus. - There were at least three triumphal arches in the Forum, besides the fornix Fabianus (p. 300) at the entrance. We are told that two such arches were erected in honor of Augustus, one ${ }^{3}$ in 29 в.c. to cominemorate the victory at Actium, and the other in 19 в.c. on account of the return of the standards which had been captured by the Parthians at Carrhae. ${ }^{4}$ This return of the standards is also recorded on a denarius of $18 / 17$ в.c., ${ }^{5}$ together with a representation of a triple arch. The foundations of such an arch have been discovered between the temple of Julius and that of Castor, ${ }^{6}$ being laid on the short axis of the former temple and

[^182]close to it. These foundations consist of travertine blocks on concrete beds, and those of three of the four piers are in situ. The middle piers were 2.95 metres wide, and those at the sides 1.35 , thus giving the arch a peculiar appearance. The width of the central archway was 4.05 metres, and that of the side arches 2.55 , the breadth of the whole structure being 17.75 metres. The pavement in the central passage is still partially preserved. If the coin referred to above is a fairly accurate representation of this arch, the middle portion was much higher than the sides, and was surmounted by a quadriga. When the temple of Castor was rebuilt by Tiberius, the south part of the arch was largely hidden by the steps of the temple, which were very close to it.

Another coin ${ }^{1}$ of the period represents a triple arch, but of a different shape; and an inscription ${ }^{2}$ cut on a block of Parian marble, about 3 metres long, which was found close to these foundations, records a dedication to Augustus in 29 b.c. This inscription may have been set in an arch, and it is therefore somewhat uncertain whether the arch which stood on the foundations that have been discovered was erected in 29 or 19. There was no corresponding arch on the other side of the temple of Julius.

The Arch of Tiberius. - This arch was built by Tiberius ${ }^{3}$ to commemorate the return of the standards which had been captured by the Germans in $8 \mathrm{~A} . \mathrm{d}$. at the defeat of Varus. It stood at the northwest corner of the basilica Iulia, not spanning the Sacra via, but just north of it. The street was made narrower at this point, and the curb bent toward the south to afford room for the arch. The concrete foundations, 9 metres long by 6.3 wide, have recently been found. ${ }^{4}$ The arch was single, and was approached by steps from the level of the Forum.

[^183]Its foundations blocked up two of the arches (Fig. 48) at the southwest end of the viaduct of the clivus Capitolinus and two of the pits in the line of the street (p. 230). Some architectural fragments of this arch and part of the inscription have been recovered. ${ }^{1}$

The Arch of Severus. - As the arch of Tiberius stood at the south end of the later Rostra, it has been thought probable that another arch stood at the north end; but if so, it must have been removed to make room for the great arch of Severus, which was erected in 203 A.d. in honor of Severus and his two sons, Geta and Caracalla. This dedication is recorded in the inscription ${ }^{2}$ which is repeated on both sides of the attic. The bronze letters have disappeared, but the matrices remain, and it can be seen that the name of Geta was chiselled away after he was murdered by Caracalla. This arch destroyed the symmetry of the Forum, and its architecture and sculpture display the marked artistic decadence of the period.

The arch is triple, ${ }^{3}$ of Pentelic marble, and stands on foundations of travertine, the upper part of which was covered with marble facing. Originally the level of the ground on the side toward the Forum was so high that the pavement of the central arch was reached by four or five steps. The steps to the side arches were cut at a later date. About the middle of the fourth century the level in front of the arch was lowered, - contrary to the general rule, - as is shown by the massive concrete base on which is set the pedestal of the equestrian statue of Constantius, dedicated by Naeratius Cerialis, prefect of the city in 354 A.D. ${ }^{4}$ The level on which this base stands is 3 metres below that of the pavement of the arch, and 1.40 below that of the lowest steps to the side arches.

The arch is 23 metres high, 25 wide and 11.85 deep, the cen-

[^184]

Fig. 58. - The Arch of Septimius Severus (before the RECENT EXCAVATIONS).
tral archway being 12 metres high and 7 wide, and the side archways 7.80 high and 3 wide. Between the central and side arches are vaulted passages, the ceilings of which are coffered, with rosettes in the coffers. On each face of the arch are four fluted Corinthian columns, 8.78 metres high and 0.90 metre in diameter at the base. These columns stand free from the arch on projecting pedestals, and behind them are corresponding pilasters. An entablature surrounds the arch, and above it is the lofty attic, 5.60 metres in height, within which are four chambers.

Over the side arches are narrow bands of reliefs representing the triumphs of Rome over conquered peoples; and above these bands four large reliefs which represent the campaigns of Severus in the East. In the spandrels of the central arch are winged Victories, and in those of the side arches, river gods. On the keystones of the central arch are reliefs of Mars Victor, and on the pedestals of the columns, Roman soldiers driving captives before them. On top of the arch, in the centre, was originally a chariot in which stood Severus and Victory, escorted by Geta and Caracalla, and on the ends four equestrian figures; but of these statues no traces have been found.

The Arches of Janus. - Besides the temple of Ianus Geminus (p. 186), a Lanus medius ${ }^{1}$ is mentioned by Cicero and Horace and in inscriptions of the second century, and later commentators agree with these literary sources in making it the headquarters of bankers and speculators. They also seem to locate it near the basilica Aemilia. A. Ianus primus occurs in one inscription, ${ }^{2}$ but it is doubtful whether this was in the Forum. The Horatian ${ }^{3}$ phrase, haec ianus summus ab imo prodocet, cannot be regarded as authority for a Ianus summus and a Ianus imus. The most probable explanation ${ }^{4}$ of these references is that Ianus medius was a small single arch which stood in the Forum near the basilica Aemilia; but there is no means of deciding whether medius refers to its position in the Forum, or to its position with respect to other similar arches. Those who take the latter view suppose that these arches stood at the points where the streets entered the Forum; and, in support of this, point to the two cases of possible iani on the Rostra relief, the remains of an arch across the vicus Iugarius

[^185](of later date), the presence of such a ianus near the statue of Vortumnus ${ }^{1}$ in the vicus Tuscus, and the statements of commentators of the later empire. Against this view may be urged the entire absence of any certain reference to other iani in the Forum. ${ }^{2}$

The Area of the Forum. - After the completion of the surrounding buildings, the open area between them, the Forum proper, formed an irregular quadrilateral, which was bounded on the east and south by the Sacra via. The length of this area, from the foundation wall of the Rostra to the curb of the Sacra via in front of the temple of Julius Caesar, is 102 metres; its width from the steps of the temple of Castor to the basilica Aemilia, 45 metres, and from the curb of the Sacra via in front of the basilica Iulia to the edge of the lapis niger, 46 metres. The Forum was paved, partially at least, as early as the fourth or third century b.c.; but, like the Comitium, its level was gradually raised until the very end of the empire, from which period the present pavement of travertine probably dates, although some of it may perhaps be medieval. About 60 square metres of the pavement of the republic have been found at various points, part of which is more than 2 metres below the later level. The pavement of the Sacra via is separated from that of the area by a travertine curb (crepido), the raised portion of which is 0.72 metre wide. In this curb, at intervals of from 0.60 to 0.80 metre, are square holes, in which it is probable that the poles which supported awnings were set. We know that shelter of this sort was provided in the Forum. ${ }^{3}$

[^186]In the middle of the area is a series of lines cut in the late pavement, which form a large rectangle, for which no explanation has been found.
Like the Comitium, the Forum was incumbered with many statues, honorary columns, and similar memorials. As early as 158 b.c. ${ }^{1}$ the censors decreed that all statues of magistrates which had been erected without the sanction of the state should be removed, and from time to time existing statues disappeared to make room for others. Almost nothing is known from literary sources about any of the individual statues; and of the inscriptions which have been recovered, only about one quarter date from a period earlier than that of the Antonines, and the same is true of the existing monuments themselves. On the south side of the area is a row of large cubical pedestals of brick-faced concrete, once covered with marble, which date from the time of Diocletian. These pedestals supported lofty columns of red and gray granite and pavonazetto. Two shafts ${ }^{2}$ found lying near have been set up on the two easternmost pedestals, the missing architectural members being restored in brick.

In front of the Rostra is the columna Phocae, a fluted Corinthian column of white marble, 1.39 metres in diameter and 13.60 high, on which was placed the statue of Phocas in gilt bronze. The inscription ${ }^{3}$ on the marble base states that it was erected in 608 A.D. by Smaragdus, exarch of Rome, in honor of the eastern emperor Phocas. ${ }^{4}$ The marble base rests on a rectangular pedestal, each side of which is composed of nine steps made of tufa blocks taken from other structures. These steps were covered with marble. As the column is far superior in style and execution to the work of so late a period, it must have been taken from some other building and set up by Sma-

[^187]ragdus, or else it was already standing here, and the inscription refers only to the erection of the statue of Phocas. It is possible that the outer pedestal, which is built of tufa and portions of other buildings, was constructed in 608 , around an inner and earlier one of brick, but the excavations have not yet determined this point.

In the middle of the area, close to the course of the Cloaca Maxima, is the low concrete pedestal of an equestrian statue, standing directly upon the travertine pavement. This may have been the pedestal of the equestrian statue of the emperor Constantine, but it probably occupies the site of the earlier and more famous one of Domitian. ${ }^{1}$ At the northeast corner of the arch of Severus, at the edge of the Comitium, is a large pedestal of concrete, once faced with marble, which stands on a level 3 metres below that of the original pavement of the passages in the arch. This corresponds with the level of the fourth century, and the base of an equestrian statue of Constantius, dedicated by the prefect of the city, Naeratius Cerialis, in 354 A.d., ${ }^{2}$ has recently been placed upon it.

In the vicinity of the arch of Severus, the remains of several monuments and inscriptions have been found, which record the struggles during the last century of the western empire. Some of them have been left in the Forum. One consists of a travertine base, supporting a marble block, itself originally the perlestal of an equestrian statue. This block had been set upon end, and the later inscription cut transversely across the field of an earlier one that had been erased. This was set up in 405 A.D., by vote of the state, to commemorate the victory of Stilicho over Radagaisus. ${ }^{3}$ Near by is the base of an equestrian statue, erected in honor of Arcadius and Honorius, to commemorate their victory over the African rebel, Gildo, in 398 A.D. ${ }^{4}$

[^188]A short distance northwest of the column of Phocas are the two marble plutei, or balustrades, which formed part of the Rostra (p. 216), standing either on each side of the approach or at the ends of the platform. They now stand, just as they were found, on rough foundations of travertine which rest directly upon the pavement of the area. These balustrades date from the time of Trajan or Hadrian, and are made of several blocks of marble of unequal size. ${ }^{1}$ A little modern restoration has been made with pieces of white marble, in order that they may stand firmly. They measure 5.37 metres in length, 1.75 in breadth, and stand parallel to each other 2.95 metres apart. The inner surfaces of both have the same reliefs, figures of a sheep, swine, and bull, adorned with garlands and fillets, representing the sacrifice of the suovetaurilia. On the outer side of the west pluteus, at the left end, is a platform adorned with rostria in profile, upon which stands a man clad in a toga, attended by lictors. In front of the platform is a group of men, also clad in togas, in the act of applauding. Just to the right of the centre is a platform upon which sits the emperor, and before him stands a woman who seems to hold a child on her left arm, and to be leading another. Several men stand near. At the right end of the platforn is a figure of Marsyas with a wine-skin, and a fig tree on a square base. On the outer side of the other (the east) pluteus, at the left end, is a similar representation of the fig tree and Marsyas. The central portion is occupied by figures of men who are bringing burdens on their shoulders, and throwing them down in a pile in the foreground. The right end of this pluteus has been broken, but there are traces of a platform with a seated figure. The background of each relief is formed by a succession of buildings and arches, and the general explanation is that these buildings represent the sides of the Forum, while the scenes in

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The South Side of the Forum.


The North Side of the Furum.


Fig. 59. - Balustrades from the Rostra.
the foreground represent Trajan's charity in providing for the support of the poor in various parts of Italy, and his measures for the remitting of taxes on inheritances already due the imperial treasury. The precise identification of the buildings has given rise to much discussion. ${ }^{1}$

In the centre of the area, near the column of Phocas, a system of underground passages (cuniculi) has been found. ${ }^{2}$ These passages are about 1.5 metres wide, a little more than this in height, with tufa walls and a concrete vault, the crown of which is about 1.5 metres below the late pavement of the area. These cuniculi themselves date from about the first century в.c. Of the seven passages discovered, the longest extends about 25 metres in a southeast direction from the Rostra. Parallel with this and about 5 metres from it are two shorter passages, and these two are crossed at right angles by four others. At the ends of these passages are small, nearly rectangular chambers, with a large block of travertine set in the middle of the pavement; and at their intersections are shafts, the angles of which are much worn by ropes. The east cuniculus corresponds almost exactly with one of the series of long lines (p. 248) incised in the pavement of the area. These passages and shafts seem to have had some connection with the games which were celebrated in the Forum.

Drainage. - The recent excavations have brought to light a complicated network of sewers, extending from the slope of the Capitoline to the Velia. They lie at various levels, and show that the drainage of this district was always a most difficult problem. Some of these sewers are undoubtedly of

[^190]early republican date; but the gradual changes in level and the great building activity of the early empire necessitated the construction of new cloacae, and the consequent neglect of the old. The official reports have contained as yet little information, except with regard to the Cloaca Maxima.

Previous to the recent excavations, the supposed original Cloaca Maxima (p. 109) had been traced along the east side of the Curia and Comitium to a point not far from the sculptured plutei, where it turned sharply to the east, and, after continuing in this direction about 40 metres, turned again sharply to the south and crossed the area of the Forum. It passed under the east end of the basilica Iulia, and thence into the Velabrum. The excavation of the basilica Aemilia has shown that at least all that part of this cloaca which skirts the basilica dates from the early empire, and was probably the work of Agrippa. ${ }^{1}$ This new course was necessitated by the enlargement of the basilica toward the west, in the year 34 b.c. The side walls of the cloaca rest partly upon the tufa pavement (p. 228) of the republican period in front of the basilica, and the top of its vault is about 1.50 metres above the level of the republican Comitium. Furthermore, the stone out of which this part of the cloaca was constructed had been taken from republican buildings (cf. Fig. 52).

Beneath the nave of the basilica an earlier channel of this sewer has been found, crossing the building obliquely in a northeast-southwest direction. The original channel has been widened and repaired, so that now the lower courses of the walls and the pavement are of travertine, and the upper part of the walls of tufa. Where the wall supporting the north row of columns of the nave crosses the line of this sewer,

[^191]three large blocks of travertine lie in the channel, evidently to afford additional support for the wall above. This sewer continued originally in a straight line toward the column of Phocas, probably as far as the present west corner of the basilica; but just where it passed under the main longitudinal wall which separates the nave from the tabernae, a later branch sewer was built. This crosses the rest of the basilica in a line perpendicular to its main axis, at an angle of about $30^{\circ}$ with the earlier channel, and meets the latest sewer about where it turns south to cross the area of the Forum. It is evident, therefore, that the basilica, when rebuilt in 34 в.с., was extended over the earlier Cloaca Maxima, and that the new course of the sewer was constructed round the northwest end of the basilica. The pavement in front of the restored basilica must have rested almost directly upon the top of the cloaca. The earlier sewer dates from the third or second century b.c. It was not covered, and is undoubtedly the canalis mentioned by Plautus. ${ }^{1}$

The principal sewer west of the Cloaca Maxima seems to have been that which runs beneath the clivus Capitolinus. Its course ${ }^{2}$ has been traced from the via di Marforio, through the vicus Iugarius (via della Consolazione) as far as the church of S. Maria della Consolazione. The section nearest the church is of brick, with brick pavement and concrete vaulting, and dates from the empire. The rest is of early date, being built of tufa blocks, with a tufa pavement and flat tufa top, thus having a rectangular section. The pavement of this sewer is 10 metres below the level of the via della Consolazione. In the Forum, the crown of its vault is higher than the substructures of the clivus Capitolinus. Between this sewer and the upper slope of the hill is a network of ancient drains, rumning at various angles and levels; and beneath the founda-

[^192]tion of the steps of the temple of Saturn is a vaulted sewer of tufa, of very early date, and parallel to the front of the temple. ${ }^{1}$ Its north wall has been so much corroded as to present the appearance of a shelf cut intentionally in the side of the channel.

The slope from the Velia to the Forum proper was drained into the basin of the Cloaca Maxima by means of a sewer under the Sacra via. Sections of this sewer have been excavated near the summa Sacra via, where the construction is of tufa blocks with a tile roof; in front of the basilica of Constantine, ${ }^{2}$ where it is of opus reticulatum of tufa; and along the north side of the Regia and temple of Julius Caesar, where the work is also of opus reticulatum. It is evident that this sewer was of early date, but that it underwent considerable change in line and construction, at later periods.

During the recent excavations more than thirty wells (putei) of various depths and sizes have been found scattered through the Forum. Most of these wells belong either to the republic or to the middle ages, although there are a few of the intervening period. Some are fed by springs, and, after being cleaned out, have begun to flow. Their presence in such numbers is puzzling.

Minor Structures. - On the north side of the Rostra there were statues of three Sibyls, which were called the Tria Fata, ${ }^{3}$ and, in the later centuries of the empire, gave this name to the whole area about the Curia. Still later it was called the Palma Aurea. These statues were said to have been set up originally on the Comitium in the time of Tarquinius Priscus, but they afterward disappeared, and were restored by Augustus.

[^193]Besides the lacus Iuturnae there were two other lacus in the Forum. One of these, the lacus Servilius, ${ }^{1}$ is mentioned in connection with the massacres of Sulla, and is generally supposed to have been near the vicus Iugarius. The other, the so-called lacus Ourtius, was probably somewhere in the middle of the area. ${ }^{2}$ Three stories were current among the Romans as to the origin of this lacus. ${ }^{3}$ One was that at the beginning of the regal period a chasm suddenly opened in the centre of the Forum valley. When the soothsayers asserted that this could be closed only by the sacrifice of that quo plurimum populus Romanus posset, a youth named Curtius leaped in, and the chasm closed over him. According to the second story, the swamp was called the lacus Curtius from the Sabine Mettius Curtius, who boldly rode his horse into it when hard pressed by the Romans, and escaped. The third explanation was that the lacus was a spot of ground which had been struck by lightning, and then inclosed by a stone curb, or puteal, by C. Curtius, consul in 445 b.c. This last is precisely what the lacus Curtius was in the time of Augustus, when we are told that people of all ranks were accustomed to throw coins into it once a year, as an offering for the health of the emperor. ${ }^{4}$ It is probable that there had once been a pool or fountain here, ${ }^{5}$ which had dried up, and its place was marked by a puteal. The lacus is not mentioned after the latter part of the first century. At that time there were near it a fig tree and vine, which had sprung from chance seeds, and an olive tree. An altar, which had formed part of the group, had been removed when the last gladiatorial games were given by Julius Caesar. ${ }^{6}$

[^194]At the east end of the Forum, evidently near the temple of Castor, was a group of three structures, which are frequently mentioned as standing close together. One of these was the puteal Libonis ${ }^{1}$ or Scribonianum, ${ }^{2}$ which was said to have been built by a certain Scribonius Libo, at a spot that had been struck by lightning. It is represented on a coin of the gens Sempronia. ${ }^{3}$ The second of the three was the tribunal praetorium, a sort of wooden platform, which perhaps rested on a stone foundation, but was not a monumental structure. This was the judgment seat of the praetor, and was originally on the Comitium. ${ }^{4}$ The date of its removal to the east end of the Forum is not known with certainty, but it was probably in the second century b.c., a period marked by the transfer of the comitia to the Forum. No mention of this tribunal occurs after the time of Augustus, when all law business began to be transferred to the imperial fora. The origin of the third member of the group, the statue of Marsyas, ${ }^{5}$ is also unknown, but it may well have been erected when the tribunal praetorium was removed to the Forum. Marsyas was regarded as a symbol of liberty, ${ }^{6}$ and the type occurs on coins of cities which enjoyed special privileges. The statue in the Forum is represented on a coin ${ }^{7}$ of the first century b.c., and on the marble balustrades, where the satyr is figured as standing upright with a wine-skin over his shoulder. ${ }^{8}$ The statue was standing at the beginning of the second century.

[^195]The increase in the number of jury trials during the last century of the republic must have necessitated the erection of other tribunals besides that of the praetor, but we know definitely of only one, the tribunal Aurelium, which is mentioned several times in Cicero, ${ }^{1}$ and was probably built by M. Aurelius Cotta, consul in 74 .в.c. The gradus Aurelii, also mentioned by Cicero, ${ }^{2}$ was undoubtedly another name for the same structure, the gradus being the rows of steps which led up to the platform proper. The exact site of this tribunal is of course unknown. ${ }^{3}$ According to the Notitia, a shrine dedicated to the Genius populi Romani stood near the Rostra.

The pila Horatia ${ }^{4}$ was a memorial of the contest between the Horatii and the Curiatii. It was probably originally a column, but is described in the time of Augustus as being the corner pillar of one of the halls at the entrance of the Forum, that is, probably, of the basilica Iulia.

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PLAN OF THE IMPERIAL FORA

## CHAPTER X.

## THE IMPERIAL FORA.

By the middle of the first century b.c. the district north of the Forum, extending between the Quirinal and the Capitoline to the line of the Servian wall, had become one of the most densely populated in the city, as it contained almost no public buildings. Previous to 179 в.с. the fish-market, forum Piscatorium ${ }^{1}$ or Piscarium, stood here ; but in that year M. Fulvius Nobilior banished the nuisance and erected in its place a macellum, or general market (p. 449). In the time of Augustus an important market, known as the macellum Liviae, ${ }^{2}$ was erected on the Esquiline, and the earlier market seems to have been removed when the forum Pacis was built.

The rapid increase in population had made the old Forum too small, and it was with the object of providing adequate space for political and business requirements, as well as to beautify the city itself, that Caesar began the series of imperial fora. His plans were comprehensive and included the conversion of this district into public fora, which should form a convenient and splendid thoroughfare between the Forum and the campus Martius. Communication between these two parts of the city had hitherto been provided only by a road leading past the Tullianum, along the slope of the Capitoline,

[^197]to the porta Fontinalis, the present via di Marforio. In the middle ages this road was called the clivus Argentarius, ${ }^{1}$ and a basilica Argentaria is mentioned in the Regionary Catalogue; but there is no doubt that the road itself dates from the time of the republic, and the ancient pavement has been found only a little beneath the level of the modern street.

We are told that Caesar intended to extend the Forum as far as the atrium Libertatis. This building, ${ }^{2}$ which contained the offices and archives of the censors, was magnificently restored by Asinius Pollio, who established in it the first library in Rome. In the sixth century the name, atrium Libertatis, appears to have been applied to a part of the Curia. It is uncertain, therefore, where this building stood, whether within the space afterward occupied by Trajan's forum, or beyond it in the campus Martius. The principal street in this region was the Argiletum (p. 170), a name also given to the district on either side of it, leading from the Subura into the Forum between the Curia and the basilica Aemilia, and afterward incorporated into the forum Transitorium of Nerva.

The first step toward carrying out the general plan was the building of the forum Iulium or Caesaris, which Caesar began in 54 b.c. and which was finished by Augustus. ${ }^{3}$ It is said that the cost of the ground alone was a hundred million sesterces ${ }^{4}$ (about four million dollars), but this has been thought an exaggeration. The old Forum and the new fora were essentially different. The first was an irregular open space which in the course of centuries had been surrounded with buildings of various sorts; the latter were regular areas, inclosed by walls and containing temples and halls, symmetrically placed.

[^198]The forum Iulium ${ }^{1}$ was a rectangular court, about 115 metres long and 30 wide, surrounded by a colonnade and wall. In the centre of this court stood the temple of Venus Genetrix. The main axis of the forum ran northwest and southeast, in the same direction as that of the curia Iulia, which adjoined it at the south corner. The temple of Venus Genetrix, ${ }^{2}$ the mythical ancestress of the Julian gens, was vowed by Caesar on the battlefield of Pharsalus, and dedicated September 26,46 в.с. Vitruvius ${ }^{3}$ describes the temple as hexastyle, peripteral, pycnostyle, and built of solid marble. Excavations in the sixteenth century brought to light portions of the foundations of peperino and travertine, and fragments of columns and a frieze, corresponding to the description of Vitruvius. All that now remains of this forum is a part of the peperino inclosure wall on the west side (via delle Marmorelle 29), 12 metres high and 3.70 thick, and some small vaulted chambers or tabernae, which opened into the corridor of the Forum through a row of peperino arches with travertine imposts. In front of the temple stood a famous equestrian statue ${ }^{4}$ of Caesar himself, and a fountain surrounded by a group of nymphs, called the Appiades. ${ }^{5}$ This forum was not intended for markets or trade, but for legal business and as a general meeting-place. ${ }^{6}$ It was injured by fire in 283 A.D. and restored by Diocletian, ${ }^{7}$ but is not mentioned afterward.

Forum Augustum. - The forum Romanum and the forum Iulium did not afford sufficient room for the courts and legal business of the city, and to provide for this deficiency, Augustus erected a third, ${ }^{8}$ in connection with the temple of Mars Ultor

[^199]which he had vowed at the battle of Philippi. This forum, known as the forum Augustum, or at a later period Martis forum, inclosed the tem-


Fig. 61. - The Forum of Augustus. ple of Mars, just as the forum Iulium inclosed the temple of Venus Genetrix.

The forum Augustum ${ }^{1}$ was rectangular in shape, about 125 metres long and 90 wide, and joined the forum Iulium on the north, its longest axis being perpendicular to that of the latter. The regularity of this rectangle was broken by two large semicircular apses or exedrae on the east and west sides, and also at the north end, where the irregularity is explained by the fact that Augustus, who was obliged to purchase all the site of this forum from private owners, ${ }^{2}$ did not succeed in acquiring enough land to carry out his original plan. Exactly in the middle of the north half of the forum stood the temple of Mars, with its end abutting against the inclosure wall. The

[^200]building of temple and forum was so much delayed that the formal dedication did not take place until August 1, 2 в.c., ${ }^{1}$ a day which was afterward celebrated as an annual festival. The forum was surrounded by an enormous wall, which served the double purpose of protecting it against fire and shutting off the view of the squalid quarters of the city in the immediate neighborhood. A considerable part of this wall at the north end, and also of the east exedra, has been preserved. It was originally nearly 36 metres high, and was built of large blocks of peperino in alternate courses of headers and stretchers, with wooden dowels but no mortar. On the outside, two courses of travertine divided it into three sections. In the part of the wall now standing is one of the original arched gateways (arco dei Pantani), through which the modern via Bonella passes, 6 metres above the ancient level. The inner surface of the wall was covered with marble and stucco. Whether a colonnade and porticus surrounded the south part of the forum within the wall, is uncertain.

Each apse was separated from the forum area by a line of four pilasters and six fluted columns of cipollino, 9.50 metres high, which supported an entablature of white marble. In the curved wall of the apse were two rows of rectangular niches, the lower about 2.50 metres, and the upper about 15 , from the pavement. The wide wall-space (about 8.50 metres) between these two rows of niches, which appears to have been bare of ornament other than the lining, was probably masked by the entablature already mentioned. About 5 metres above the upper row of niches ran a cornice, and above this the wall rose again for a considerable height. In each apse, in the lower row, were fourteen niches, not counting the large one in the middle, and four between each apse and the temple, making thirty-six in all. Whether there were more in the other portion of the wall, is not known.

[^201]In these lower niches were placed the bronze statues of all the Roman triumphatores, from Aeneas down. ${ }^{1}$ The name and cursus honorum of each general were engraved on the plinth of the statue, and the res gestae on a marble slab fixed to the wall below. Of these inscriptions a considerable number have been recovered. ${ }^{2}$ The upper niches probably contained trophies.

The temple of Mars Ultor, ${ }^{3}$ one of the most magnificent in Rome, was octostyle, and peripteral except at the north end, where it joined the forum wall. Three of the columns with the architrave are still standing. They are of white marble, fluted, 15.30 metres high and 1.76 in diameter, with Corinthian capitals. It is possible that they belong to the restoration by Hadrian, ${ }^{4}$ and not to the structure of Augustus. The cella wall is of peperino, lined with Greek marble. The ceiling of the peristyle, between the cella wall and the columns, is coffered, with rosettes in the centre of each coffer.
The forum Augustum was intended primarily for the Roman courts, ${ }^{5}$ and Trajan himself sat in judgment here, although the construction of his great forum diminished the importance of the others. Certain formalities ${ }^{6}$ were regularly observed here, i.e. the assumption of the toga virilis by all members of the imperial household, the formal leave-taking of provincial governors when setting out for their posts, and the granting of the honor of a triumph by the senate. The insignia of triumph and the standards recovered from the Parthians ${ }^{7}$ were deposited in the temple of Mars, and the form itself contained the bronze statues of victorious generals ${ }^{8}$ and many works of art. ${ }^{9}$

[^202]In 19 A.D. Tiberius erected two triumphal arches, ${ }^{1}$ one on each side of the temple, in honor of the victories of Drusus and Germanicus in Germany. By a decree of the senate a quadriga was dedicated to Augustus himself, as pater patriae. ${ }^{2}$

Forum Pacis or Vespasiani. - In 71 A.D., after the taking of Jerusalem, Vespasian commenced building a temple of Peace, ${ }^{3}$ which was completed four years later. The inclosed area in the centre of which the temple stood was finished by Domitian and came to be known as the forum Pacis. ${ }^{4}$ It lay behind the basilica Aemilia and east of the forum Augustum but not directly adjoining it, as the Argiletum, the main thoroughfare to the Subura, passed between the two. The orientation of the two fora was the same. The forum Pacis was rectangular in shape, 145 metres in length and about 85 in width, and was surrounded by a lofty wall of peperino lined with marble and pierced by several gates. At its south corner this forum adjoined the templum Sacrae Urbis, on the back wall of which was the Marble Plan of the city. As this latter structure was erected by Vespasian, the forum Pacis, which seemed in a way to be attached to it, was sometimes called the forum Vespasiani. ${ }^{5}$

The temple of Sacra Urbs ${ }^{6}$ has been already discussed (p. 2). Why and when it was called a temple is not known, but possibly it was the result of the apotheosis of the city, which was common after the time of Severus. The main hall of the ancient building forms the body of the modern church of SS. Cosma e Damiano. The north, east, and west walls exhibit the original construction of peperino of the first century, while the south wall is a restoration in concrete and brick by Severus.

[^203]In each of the three sides, south, east, and west, are five large windows, and there were originally two entrances, one of which, on the northeast, is still visible.
The temple of Peace contained the spoils brought from Jerusalem ${ }^{1}$ and numerous other works of art, ${ }^{2}$ as well as a library. This temple, the basilica Aemilia, and the forum Augustum were regarded as exceptionally beautiful buildings. ${ }^{3}$ The temple was burned in 191 A.d., ${ }^{4}$ and restored by Severus. Both forum and temple were in existence in the fourth century. In the sixth century Procopius ${ }^{5}$ speaks of the works of art in the forum, but says that the temple had been long since destroyed by lightning. Only the faintest traces now remain. Some fragments of the pavement of giallo antico and pavonazetto were found in 1875, 10 metres below the present level of the via del Tempio della Pace. ${ }^{6}$

Forum Nervae or Forum Transitorium. - To make a proper connection between the forum Pacis and the forum Augustum, Domitian transformed the intervening Argiletum into a magnificent avenue, which had the form of a very narrow forum. ${ }^{7}$ As the work was completed during the short reign of Nerva, ${ }^{8}$ it was ordinarily known by his name, but also as the forum Transitorium ${ }^{9}$ or Pervium, ${ }^{10}$ because it was the main thoroughfare between the Subura and the forum Romanum and between the other imperial fora. The poets appear to have called it the forum Palladium, ${ }^{11}$ on account of the temple of Minerva within it. Its length was about 120 metres and its width only

[^204]about 40 , the walls of the fora already existing being extended so as to form a continuous inclosure. ${ }^{1}$ A part of the wall at the north end is still standing, and corresponds in height and character with that of the forum Augustum, which it adjoins.

In the centre of the north end of the forum Nervae stood the temple of Minerva, ${ }^{2}$ whose worship was especially cultivated by Domitian. From either side of the temple short walls stretched across to the fora of Augustus and Vespasian. The main entrance to the forum was in one of these short walls east of the temple, and there was a similar gate on the west. The temple itself, as represented on the Capitoline Plan, ${ }^{3}$ was hexastyle prostyle, as the narrowness of the space rendered a peristyle impossible. The apse projected beyond the limits of the forum. Considerable remains of the temple were visible in the sixteenth century, but all have disappeared, except a small part of the cella wall next to the forum Augustum, and fragments of the inscription on the façade. Some of the modern houses now stand directly upon the podium of the temple.

Within the inclosure wall was a colonnade of marble columns, two of which, together with about 11 metres of the wall itself, are still standing at the northeast corner of the forum, in the via della Croce Bianca. This ruin, one of the most beautiful bits in Rome, is called Le Colonnacce. The wall is peperino, and part of the marble lining is still in place. The columns are 10 metres high and 0.90 metre in diameter, and the intercolumniations 5.30 metres in width. As the level of the modern street is much higher than that of the original pavement of the forum, only the upper part of the columns is visible.

Above the columns are a cornice and a lofty attic, which, instead of following the line of the columns, run along the wall itself in the intercolumnar spaces, and project and return round

[^205]the columns, thus breaking the entablature into sections. The attic, which is 4.40 metres high, has a plinth and a cornice, and in the space between the columns is a relief of Minerva, 2.65 metres high. ${ }^{1}$ It is probable that similar reliefs, either of Minerva or of some other goddess, stood in each intercolumnar space. The frieze is decorated with reliefs representing scenes of household life, such as spinning, weaving, and dyeing, - the arts which were especially under the protection of Minerva.

Somewhere in this forum Domitian erected a temple to Ianus Quadrifrons, ${ }^{2}$ which was square in shape, with doors in the centre of each side. During the reign of Alexander Severus ${ }^{3}$ statues of all the emperors who had been deified were set up in this forum.

Forum Traiani. - This, the last, largest, and most magnificent of the imperial fora, consisted of the forum proper, the basilica Ulpia, the column of Trajan, and the bibliotheca, all of which were built by Trajan with the assistance of his architect, Apollodorus of Damascus, and dedicated about the year 113 A.D. ${ }^{4}$ The great temple of Trajan, which was added by Hadrian, did not form part of the original plan.

By cutting away the ridge, collis Latiaris, between the Quirinal and the Capitoline, Trajan successfully carried out Caesar's plan (p. 259) of connecting the Forum valley with the campus Martius. The space thus levelled was 185 metres in width, and the extreme length of forum and temple was about 310 metres. The inscription ${ }^{5}$ on the base of the column of Trajan states that it was erected ad declarandum quantae altitudinis

[^206]mons et locus tantis operibus sit egestus, that is, to indicate to what height the hill had been cut away for this great work. The height of column and pedestal is 38 metres, and the amount of earth which was removed and carted outside of the porta Collina is variously estimated at from 700,000 to 850,000 cubic metres. ${ }^{1}$

While the other imperial fora consisted of a temple with its surrounding court, the forum of Trajan represented rather the idea of the old Forum, consisting, as it did, of a very large open area flanked on one side by a basilica and library. There was, however, a sacellum Libertatis ${ }^{2}$ in the north apse of the basilica, which seems to indicate that this goddess was recognized as the presiding divinity of the forum, a choice significant of the liberal character of the emperor.

The orientation of Trajan's forum was the same as that of the other imperial fora, and it was probably connected directly with the forum Augustum, although the inclosure walls seem to have been separated by a short distance. In any case there must have been an avenue leading across the intervening space between the two.

The forum proper consisted of a rectangular area, 116 metres wide and 95 metres long, ${ }^{3}$ inclosed by a wall of peperino faced with marble, except on the two sides, where great hemicycles, 45 metres in depth, projected outward. Around three sides was a colonnade of different kinds of marble, single on the east and double on the north and south. The entrance to this area was in the middle of the east side, where Trajan erected a magnificent triumphal arch to commemorate his victories in Dacia. This arch is represented on coins ${ }^{4}$ with six columns in front,

[^207]and above the attic a six-horse chariot driven by the emperor himself. In the centre of the area stood a bronze equestrian statue of Trajan, and in the intercolumnar spaces of the portico successive emperors erected statues of many distinguished statesmen and generals. ${ }^{1}$

Of the two hemicycles, on either side of the forum proper, the northeastern is well preserved and has been partially excavated. It is built of brick with travertine facing, and consists principally of two stories of chambers, which abut directly against the side of the Quirinal hill. A third story has entirely disappeared, and possibly a fourth. The rooms on the ground floor, which were doubtless shops, open on a road paved with polygonal blocks of basalt, which follows the line of the hemicycle. Above the first story is a gallery with Doric pilasters, into which the rooms of the second story open. They are paved with black and white mosaic, and the walls are covered with stucco. The semicircular space in front of this hemicycle was paved with white marble and surrounded with a colonnade decorated with gilt-bronze trophies.

The northwest side of the forum proper was closed by the basilica Ulpia, ${ }^{2}$ which was raised about 1 metre above the level of the forum, and was approached by three short flights of steps. The entrances to the basilica, at the tops of these steps, were flanked by columns of yellow marble and statues and surmounted by chariots and bronze trophies. The steps themselves were of giallo antico. The walls of the basilica were of concrete covered with marble, its roof of timber covered with gilt-bronze tiles, and its floor was paved with slabs of white marble, some of which are still in situ. The basilica was rectangular in shape, with large apses at each end. Its main axis was perpendicular to that of the forum. The great hall was

[^208]surrounded with a double row of white marble columns, ninetysix in all, with Corinthian capitals. These columns formed two aisles, 5 metres wide, and supported a gallery on both sides of the nave and at the ends. The nave itself was 25 metres wide.

Behind the basilica Ulpia was a small rectangular court, 24 metres wide by 16 deep, formed by the basilica itself, the two


Fig. 62. - The Column of Trajan.
halls of the bibliotheca, and the temple of Trajan. In the centre of this space, and forming, as it were, the crown of the whole forum, rose the columna divi Traiani, ${ }^{1}$ which still stands

[^209]in a state of perfect preservation. This column, called columna cochlis from its resemblance to the shell of a snail, or centenaria from its being exactly 100 Roman feet in height, is built entirely of Parian marble. The shaft and base are composed of eighteen blocks, 3.70 metres in diameter, and, with the additional block which forms the capital, measure 100 Roman feet ( 29.55 metres) in height. It is this height of the shaft which is referred to in the inscription. The height of column and pedestal together is 38 metres. On the top of the column stood a statue of Trajan in gilt-bronze, but Sixtus V replaced this in 1588 by the present statue of St. Peter. The base, 5.5 metres square and 5.04 metres high, is ornamented on three sides with trophies. The southeastern side has a door, and above it the dedicatory inscription. The statement found in certain ancient writers ${ }^{1}$ that the ashes of Trajan, in a golden urn, were placed beneath the column, does not correspond with the inscription, nor has any trace of a tomb been discovered. The column is hollow, and a spiral staircase, with one hundred and eighty-five steps, leads to the top. Light is furnished by forty-three narrow slits in the wall.

The entire surface of the shaft is covered with reliefs, arranged on a spiral band, which varies in width from about 90 centimetres at the bottom to nearly 1.25 metres at the top. These reliefs represent the principal events in the campaigns of Trajan in Dacia between 101 and 106 A.D. The average height of the reliefs is 60 centimetres, and they were cut after the column had been erected, so that the joints of the blocks are almost wholly concealed. These reliefs were also colored most brilliantly. ${ }^{2}$ They form a complete encyclopedia of the organization and equipment of the Roman army in the second century.

[^210]On either side of the column and abutting against the rear wall of the basilica were the two buildings of the library, ${ }^{1}$ called the bibliotheca Ulpia, or the bibliotheca templi Traiani. One of these buildings contained the Greek and the other the Latin books, and in both were reading rooms, on the walls of which were placed the busts of celebrated authors. ${ }^{2}$ State archives, such as the edicts of the praetors and the libri lintei, or acts of the emperors, were kept here. ${ }^{3}$ At a later period, and for some unknown reason, the books were transferred to the baths of Diocletian. ${ }^{4}$

The forum Traiani was completed by Hadrian, who erected the temple of Trajan (templum divi Traiani) and his wife, Plotina, just west of the column. ${ }^{5}$. This temple was octostyle peripteral, and stood on a raised platform, round which was a porticus. Fragments of its granite columns 2 metres in diameter, of smaller marble columns 1.80 metres in diameter, and some corresponding capitals of the Corinthian order have been found at various times, as well as remains of the concrete substructures. ${ }^{6}$
The portion of this forum which is now exposed to view consists of the column, the central part of the basilica, and a small part of the north end of the forum proper. The broken columns of granite now standing do not belong to the basilica, but to some other part of the forum. The remaining fragments, comparatively numerous as they are, give little idea of the wealth of precious marbles and decorative work of every conceivable kind with which this most magnificent group of buildings was adorned. Ammianus Marcellinus ${ }^{7}$ gives a most

[^211]7 xvi .10 .15.
vivid picture of the astonishment of the emperor Constantius on the occasion of his first visit to this forum. It soon outstripped all the others in importance, as is shown by the countless statues of famous men set up here between the second and fifth centuries. ${ }^{1}$ The history of its destruction begins with the sixth century, and throughout the middle ages it furnished an almost inexhaustible supply of decorative material for the churches and palaces of Rome. ${ }^{2}$

[^212]
## CHAPTER XI.

## THE CAPITOLINE HILL.

The Capitoline ${ }^{1}$ hill (mons Capitolinus) was originally not an isolated elevation, like the Palatine, but a part of the Quirinal, with which it was connected by a ridge, the collis Latiaris. This ridge was cut through to make room for Trajan's forum. The Capitoline stretches in a south west-northeast direction, and is about 460 metres in length and 150 in breadth, being the smallest of the hills of the city. It was surrounded by steep. cliffs on all sides except the east, where it was accessible from the Forum valley, and was composed of three distinct parts, the elevations at the north and south ends and the depression between them. The present height of the north summit, at the church of S. Maria in Aracoeli, is 39 metres above the Tiber; that of the south summit, via di monte Tarpeo, 38 metres; and that of the piazza del Campidoglio, 30 metres.

In the earliest period, the north elevation seems to have formed part of the Sabine settlement on the Quirinal, while the south portion of the hill may have come into the possession of the Palatine Romans. Each summit was fortified in the usual way, ${ }^{2}$ by escarpments and a breastwork where the cliff was steep, and elsewhere by tufa walls. This hill became a part of the city of the Four Regions (p. 44), and its inclusion at that time marked the completed union of the Palatine and Sabine elements in the population. The earlier fortifications

[^213]on the west side of the hill became a part of the Servian wall, so that each summit formed a separate inclosure within the outer wall.

The north peak became the arx or citadel of the new city, as it undoubtedly had been of the earlier Sabine settlement. On the south peak the Tarquin dynasty established the worship of the triad of great gods, - Jupiter, Juno, and Minerva, thereby marking this point as the religious centre of the community. ${ }^{1}$ To it was given the name of Capitolium ${ }^{2}$ (from capitalis, caput), and thenceforth throughout antiquity it continued to represent to the Romans the visible centre of the state.

The settlers on the Quirinal had already a temple dedicated to this triad of divinities and called Capitolium, which, after the erection of the Tarquinian temple, was known as the Capitolium vetus (p. 465).

The double nature of the Capitoline is shown by the prevalence of the double designation, Arx et Capitolium, ${ }^{3}$ down to the end of the republic, although the increasing importance of the Capitolium and the decreasing necessity for a citadel led to the gradual application of the word Capitolium to the entire hill. On the other hand, the word Capitolium ${ }^{4}$ was also employed to designate simply the temple of Jupiter itself, as the most significant part of the whole. The adjective capitolinus was derived from the noun, and mons Capitolinus became a common name for the whole hill. The depression between the two summits was called inter duos lucos, or Asylum, ${ }^{5}$ the latter name being explained by the story that Romulus welcomed here the refugees from other communities.

The precipitous cliff at the southwest corner of the Capitolium, from which criminals convicted of capital offences

[^214]
were hurled, was known from the earliest times as saxum Tarpeium, ${ }^{1}$ and later as rupes Tarpeia. ${ }^{2}$ The statement that the original name of the hill itself was mons Tarpeius is false, and due to the imagination of the Roman antiquarians. Of the earliest fortifications some remains still exist, especially several courses ${ }^{3}$ of tufa blocks at the top of the Tarpeian rock, similar in construction to the wall of Roma quadrata, and also above the Carcer just east of the via dell' arco di Settimio Severo. Of the Servian wall, remains ${ }^{4}$ have been found below the palazzo Caffarelli, in the via delle Tre Pile, and on the site of the monument of Victor Emanuel. The erection of the Tabularium, at the end of the republic, and of the medieval buildings destroyed all traces of earlier conditions on the ridge between the two summits.

The principal approach to the Arx and Capitolium was by a path from the Forum, which led first to the Asylum, and there divided. At the end of the regal period, the path to the Asylum, with the branch to the Capitolium, was made into a road suitable for vehicles, and this was henceforth known as the clivus Oapitolinus. ${ }^{5}$ It was paved by the censors Q. Fulvius Flaccus and A. Postumius Albinus, in 174 b.c., and a porticus was built on the right side of the road from the temple of Saturn to the Capitolium. In 190 b.c. Scipio erected a decorative arch ${ }^{6}$ at the top of the clivus, which may have been called the fornix Oalpurnius ; ${ }^{7}$ and probably other arches were afterward built over the road.

The clivus Capitolinus, which is in effect a continuation of the Sacra via, begins near the arch of Tiberius, at the corner

[^215]of the basilica Iulia, skirts the west side of the temple of Saturn, and making a sharp turn at the corner of the porticus Deorum Consentium, ascends to the Asylum. Part of the back wall of the porticus serves as a foundation for the clivus, but its upper course has been changed by more recent structures. Portions of the lava pavement of the clivus still exist at various points near the bottom of the ascent, especially in front of the temple of Saturn, where one of the best specimens of republican paving in Rome may be seen. No trace remains of the upper part of the clivus or of the branch which led to the Arx, which was at first the more important of the two. Both paths probably ascended the slope in windings. It is uncertain whether the clivus entered ${ }^{1}$ the area Capitolina on the northeast or the southeast side, but probably on the latter, directly opposite the façade of the temple.

Somewhere on the clivus, probably not far from the temple of Saturn, a passage led out through a gate, the porta Stercoraria. ${ }^{2}$ This gate was opened only once a year, in order that the rubbish, stercus, from the temple of Vesta might be thrown out.

Besides the clivus, two flights of steps led to the top of the hill. One, the Centum gradus, ${ }^{3}$ led to the Capitolium at its southeast corner near the Tarpeian rock; the other ${ }^{4}$ ascended to the Asylum and Arx, between the temple of Concord and the Carcer, and may possibly be identified with the gradus Monetae mentioned by Ovid. ${ }^{5}$ The scalae Gemoniae, ${ }^{6}$ on which the bodies of executed criminals were thrown, either branched off from the steps just mentioned or was another name for them.

[^216]The Arx. - Of the exact topography of the northern part of the Capitoline hill almost nothing is known, ${ }^{1}$ as the building of the medieval church and cloisters of S. Maria in Aracoeli ${ }^{2}$ changed previous conditions completely. The excavations of recent years have brought to light on the southeast slope of the hill remains of early tufa walls, over some of which is concrete of the imperial period. These remains admit of no identification, but seem to belong to at least two different structures. It is plain, however, that the slope of the hill was protected by a retaining wall, and the top was probably artificially levelled.

There was no permanent garrison in the citadel; but in the early days sentinels were posted here while the comitia were being held in the campus Martius, to watch for the signal, displayed on the Janiculum, of an approaching enemy. ${ }^{3}$ Another sigual, vexillum russi coloris, ${ }^{4}$ was at the same time raised on the Arx.

Somewhere on the east part of the Arx was the Auguraculum, ${ }^{5}$ or open grassy spot where the omens were observed, which played an important part in some of the oldest ritual of the state. On the Arx was the house of M. Manlius Capitolinus, destroyed in 384 b.c. by order of the senate, on the site of which, forty years later, Camillus erected the famous temple of Iuno Moneta. ${ }^{6}$ The origin of the epithet Moneta is unknown, but it was explained by the Roman antiquarians as being derived from the warning voice of the goddess which was heard in the temple on the occasion of an earthquake ut sue plena procuratio fieret. ${ }^{7}$ When the coinage of silver

[^217]money was begun in Rome in 269 в.c., the mint was established in this temple as an eminently safe place, and designated thenceforth as ad Monetam or Moneta. L. Manlius built a temple to Concord ${ }^{1}$ on the Arx in 217 B.c., which is mentioned by Livy, and the temple of Honor et Virtus, ${ }^{2}$ erected by Marius, may perhaps have stood on the east slope of the citadel.

Capitolium. - The chief place on the south summit of the hill was occupied by the most famous of all Roman temples, the aedes Iovis Optimi Maximi or Capitolini, ${ }^{3}$ dedicated to Jupiter and his companion deities, Juno and Minerva. It stood in the centre of the area Capitolina, a space formed by building retaining walls and substructures round the edge of the hill and levelling off the surface inclosed. ${ }^{4}$ This temple dated from the end of the regal period, its erection being ascribed by tradition ${ }^{5}$ to Tarquinius Superbus and its dedication ${ }^{6}$ to the first year of the republic. From the first it was regarded as the symbol of the existence and greatness of Rome. Hence Capitolium and aedes Iovis Optimi Maximi became practically synonymous terms.

The site of the temple is now occupied by the palazzo Caffarelli, which was built in the sixteenth century. The excavations that have been carried on since that time, supplemented by the description of the temple by Vitruvius ${ }^{7}$ and Dionysius, ${ }^{8}$ enable us to form a reasonably definite idea of its size and

[^218]appearance, especially as we are distinctly told that the original foundations were preserved through all the rebuildings.

The present palazzo, while standing on the foundations of the temple, does not coincide exactly with them. The temple was rectangular, almost square, and its main axis deviated $24^{\circ}$ to the east of the north-south line, the front being toward the south. So far as can be learned from the excavations, the stylobate was not a solid mass, but consisted of a series of parallel walls, 5.60 metres wide, of tufa blocks laid without mortar and set deep in the ground The height of the stylobate was apparently from 4 to 5 metres. From a comparison of present measurements with the figures given by Dionysius, it is almost certain that the temple was built by the standard of the early Italic foot ${ }^{1}$ ( 0.278 metre), instead of the later Roman foot ( 0.296 metre). The plan of the temple is given in Fig. 63. The cella was divided into three chambers, the proportion in width between the central chamber and the two on its sides being as four to three. The length of the shorter sides of the stylobate, derived from actual measurements, exclusive of its outer lining of which nothing is known, was 52.50 metres, or 188.85 Italic feet, and that of the longer sides probably 204 feet, about 60 metres. The temple was hexastyle, with three rows of columns across the front and a row on each side. The intercolumniations corresponded with the different widths of the central and side chambers of the cella. This was probably also true of the intercolumnar spaces on the sides. As the bases of the columns were about 8 feet ( 2.23 metres) in breadth, the wider intercolumniations measured 40 feet ( 11.12 metres) and the narrower 30 feet ( 8.9 metres). According to this plan the cella was exactly 100 feet ( 27.81 metres) square. On this foundation four successive edifices were erected.

[^219]1. The temple of Tarquin. According to tradition, there were shrines dedicated to other divinities on the site intended for this temple, all of whom allowed themselves to be dispossessed in the proper way except Terminus, the god of boundaries. ${ }^{1}$ His shrine was therefore incorporated in the new temple, and this fact was regarded as a prophecy of the permanence of the cult and of Rome itself. The original temple was probably built of the native tufa of the hill, quarried near by. As stated above, it was hexastyle, with three rows of columns across the front and one on the sides. The central chamber of the cella contained an Etruscan statue of Jupiter of terra cotta, ${ }^{2}$ the face of which was painted red. The statue was clothed with the attire of a Roman triumphator, the tunic adorned with palm branches and Victories, and the toga of purple embroidered with gold. The chamber on the right ${ }^{3}$ was dedicated to Minerva, and that on the left to Juno. Each contained a terra cotta statue of the divinity. The entablature was of wood and bore painted terra cotta statues - on the apex Jupiter in a quadriga. ${ }^{4}$ This terra cotta quadriga was replaced in 296 в.c. by one of bronze. The pediment was filled with terra cotta reliefs. In 179 в.c. the walls and columns were covered anew with stucco; ${ }^{5}$ in 142 the ceiling was gilded and a mosaic pavement laid in the cella. ${ }^{6}$. This temple became a repository for works of art of all descriptions, the gifts of Roman generals and foreigners, as well as for dedicatory offerings and trophies of victory. Their number became so great that in 179 b.c. it was necessary to remove them en masse. ${ }^{7}$
2. The temple of Sulla and Catulus. In 83 в.c. the first temple was burned to the ground. ${ }^{8}$ Its rebuilding was begun by Sulla, and finished by Q. Lutatius Catulus, by whom it was
[^220][^221]dedicated in 69. ${ }^{1}$ Sulla is said to have brought the white marble Corinthian columns of the Olympieion in Athens to Rome for this temple, ${ }^{2}$ but a denarius ${ }^{3}$ of 43 в.c. represents the columns as still Doric. The only difference between the first and second temples was in the greater magnificence of the latter and the greater height of the columns. ${ }^{*}$ The kind of stone employed in this rebuilding is not known. The roof was covered with gilt bronze. In the centre of the pediment was a relief of Roma with the wolf and twins, and on the apex was a statue of Jupiter standing in a quadriga. The ancient terra cotta statue of Jupiter in the cella was replaced by one of gold and ivory, made by Apollonius in imitation of that of Zeus at Olympia. In 28 b.c. Augustus restored ${ }^{5}$ this temple at great expense, but we have no information as to what changes were made at that time.
3. The temple of Vespasian. In 69 A.D. the second temple was burned, when the Capitol was stormed by the Vitellians. ${ }^{6}$ Vespasian rebuilt it exactly as it was before, except that the height was again increased. Coins ${ }^{7}$ of the period represent it as hexastyle, with Corinthian columns and a pediment surmounted by a quadriga, two chariots, two eagles, and the statues of Jupiter, Juno, and Minerva.
4. The temple of Domitian. Again, in 80 A.D., the temple was burned, and rebuilt by Domitian on the lines of the earlier edifices, which it surpassed, however, in magnificence. ${ }^{8}$ The columns ${ }^{9}$ of the portico were of the Corinthian order, and of white marble brought from Athens. The doors of the cella

[^222]were covered with plates of gold, and the roof with gilt tiles. The pediment was adorned with reliefs, and its apex and gables with statues, as in the earlier temples. This temple lasted as long as the empire, and represented its spirit, as the first temple had represented that of the republic. Its destruction began in the fifth century, when Stilicho carried off the gold plates of the doors, ${ }^{1}$ and from that time on it suffered from continual acts of vandalism, until the Caffarelli built their palace upon its foundations. Of the upper structure of this wonderful temple scarcely anything is left, except one drum of a fluted white marble column, 2.10 metres in diameter, and some fragments of the cornice and frieze, sculptured with reliefs.

Area Capitolina. - The open space before and round the temple of Jupiter was called the area Capitolina. ${ }^{2}$ It was surrounded with a wall, and the principal entrance, probably the porta Pandana, was on the south side, opposite the façade of the temple. This area was the meeting place of the comitia calata and the comitia tributa, while the cella of the temple itself served on certain occasions for the assembly of the senate. Beneath the surface of the area were subterranean passages, called farissae, ${ }^{3}$ which were entered from the cella of the temple. In these favissae were stored the old statues which had fallen from the temple, and various dedicatory gifts. The Sibylline books were kept in the cella of the temple itself.
In the area was the aedes Thensarum, ${ }^{4}$ where the carriages of the gods were kept; the curia Oalabra, ${ }^{5}$ where the pontifex

[^223]minor proclaimed the calendar for each month; and the casa Romuli, ${ }^{1}$ which was probably a replica of that on the Palatine (p. 128). Other temples were here, among them that of Fides, ${ }^{2}$ which was traditionally assigned to Numa and was next in size to the great temple; that of Iuppiter Feretrius, ${ }^{3}$ which was said to have been founded by Romulus to commemorate the first winning of the spolia opima, and was restored by Augustus; and of Iuppiter Oustos, ${ }^{4}$ built by Domitian in recognition of his concealment in the house of a porter in the area Capitolina, when the Capitol was stormed by the Vitellians. He had first built a sacellum Iovis Oonservatoris.

The exact extent of the area Capitolina is not known, but its east wall appears to have been about 30 metres from the great temple, and the south wall about 40 metres. It is probable that certain other temples, which stood on the Capitolium, were within its limits. ${ }^{5}$ These were the temple of Mens and that of Venus Erycina or Victrix, ${ }^{6}$ which were vowed after the disastrous battle of the Trasimene lake in 217 в.c.; the temple of Ops in Capitolio, ${ }^{7}$ first mentioned in 186 b.c., restored between 123 and 114 B.c. by L. Metellus, and famous as the place where Caesar stored his vast wealth; the temples of Mars Ultor and Iuppiter Tonans, which were built by Augustus, the first ${ }^{8}$ in 20 a.d. to receive the standards recovered from the Parthians, which were afterwards transferred to the forum Augustum;

[^224]and the latter ${ }^{1}$ in 29 A.D., in commemoration of the emperor's narrow escape from being struck by lightning while engaged in a campaign against the Cantabrians. This temple was famous for its magnificence and for the statues which it contained.

Besides these temples, the area contained several altars, the most famous of which was the great ara Iovis ${ }^{2}$ in the centre, where solemu sacrifices were offered at the beginning of the year, at the celebration of triumphs, and on some other occasions. There were also many statues of divinities, - Hercules, Liber, Nemesis ${ }^{3}$ and others, ${ }^{4}$ - and especially one of Jupiter, ${ }^{5}$ which was struck by lightning in 65 в.c. and replaced by another standing on the top of a high column. Equally numerous were the statues of famous men, ${ }^{6}$ among which the most conspicuous must have been those of the seven kings of Rome.?

So numerous ${ }^{8}$ were the shrines and statues of the gods, that it was said without exaggeration in Capitolio . . . deorum omnium simulacra colebantur. ${ }^{9}$ Trophies of victory, like those set up by Marius ${ }^{10}$ and the tropaea Germanici, and votive monuments ${ }^{11}$ were also thickly strewn about, and a wholesale removal of these objects was ordered in the year 179 b.c. and again in the time of Augustus. ${ }^{12}$ Countless bronze tablets containing treaties and laws and military diplomas were preserved on the Capitol, being ordinarily fastened to the walls

[^225]of the temples and to the bases of statues and monuments. ${ }^{1}$ We are told that three thousand such tablets were melted in the fire of 69 A.d. ${ }^{2}$

Of the masonry of the area itself, a part of the east wall was found in 1875. Of the numerous structures within it, only the most meagre remains have been discovered, the most noticeable of which was a mass of concrete south of the great temple. ${ }^{3}$ This mass, so far as it was excavated, measured 14.80 metres on the east and 16 metres on the north side. It dated from the republican period, but had itself been built over earlier structures. It was probably the foundation of some one of the temples, but no identification was possible.

The Asylum or Inter Duos Lucos. - The level of the depression between the two summits of the Capitoline hill has remained practically unchanged, as was shown when the foundations were laid for the equestrian statue of Marcus Aurelius, which now stands in the centre of the piazza del Campidoglio.

The importance of this part of the hill arose from the fact that it formed the thoroughfare between the two summits and the city. So far as known, only one temple stood here, that of Veiovis inter duos lucos, ${ }^{4}$ which is said to have been of peculiar shape and to have contained a statue of a youthful Jupiter, holding arrows in his hand. This - probably ancient - temple was rebuilt by Augustus, and was in existence in the time of Hadrian. In 62 A.d. Nero erected a triumphal arch ${ }^{5}$ and trophy of victory, of which nothing further is known.

During the first centuries of the republic, private dwellings were erected to some extent on the Capitoline hill, for in the

[^226]year 380 в.c. there was a guild of those who dwelt in Capitolio atque arce; ${ }^{1}$ and after the treason of M. Manlius, a law was passed which forbade any patrician to live on either summit. ${ }^{2}$ In spite of such prohibitions, the gradual destruction of the fortifications and the demands of a rapidly increasing population led to continual encroachinents upon this quasi-sacred hill. In 93 в.c. a considerable tract, which had belonged to the priests, was sold and came into private possession. ${ }^{3}$ By the middle of the first century the whole hill, with the exception of the area Capitolina and the actual sites of the temples, was occupied by private houses. ${ }^{4}$ Remains ${ }^{5}$ of these houses have been found on the Arx near the church of S. Maria in Aracoeli, and at the foot of the stairway leading from the piazza del Campidoglio to the church. 'The steepest parts of the hill remained free from buildings, but on the east slope, below the Asylum, there still remains a considerable portion of a noble republican structure, the Tabularium, which formed an imposing façade, as it were, for the whole hill from the Forum side.

The Tabularium. - This building, ${ }^{6}$ trapezoidal in shape, filled the entire space between the clivus Capitolinus and the flight of steps (gradus Monetae?) which led up past the Carcer to the Arx. It is not mentioned in literature; but an inscriptiou ${ }^{7}$ found in it states that in 78 b.c. Q. Lutatius Catulus erected substructionem et tabularium. As the plan of this building seems to be that of a repository of archives, and as the style of masonry indicates precisely this period, there is no difficulty in identifying it with the tabularium of Catulus, although

[^227]there were other tabularia in Rome. No changes were made in it during the empire, and it remains by far the most interesting, as well as the best preserved, specimen of republican architecture. Nothing is known of its history until the reign of Boniface VIII (about 1300 A.D.), when the present tower at the north end was erected. Later, Michelangelo destroyed the entire upper and western part, and built the present palazzo del Senatore directly upon the ancient structure.

The total length of the Tabularium is 71 metres. The slope of the hill was first scarped away, and the front wall of the building was begun on the level of the area Volcani. Above this substructure, on the Forum side, there were three stories. The first consists of a long passage between the tufa rock of the hill itself and the wall of the building. This wall is here 3.43 metres thick, with a series of six recesses 1.68 metres high, from which narrow windows open. This corridor is now blocked at both ends, and may always have been so.

Immediately above this corridor is another, 5 metres wide and 10 high, extending the whole length of the building, and originally open at both ends. The arched doorway on the clivus is still in use. The front of this corridor was an arcade of the Doric order, with engaged columns of peperino. There were eleven arches, 7.50 metres in height and 3.70 in width, all but one of which have been walled up. This arcade afforded an excellent means of communication between the two portions of the Capitoline, and formed a striking architectural terminus for the Forum. Its effect, however, was sadly marred by the erection of the temple of Vespasian and the porticus Deorum Consentium, and by the restoration and enlargement of the temple of Concord. Above this arcade the palazzo is built, but there is little doubt that originally there was a second arcade above the first, probably of another order.

We can tell very little about the arrangement of the upper and west part of the building; but some rooms and passages
still remain, especially one large hall behind the existing arcade and at a somewhat higher level, flanked with a row of chambers cut in the rock. In the wall of the substructure, at the ground level, is a fine arched doorway, and from it a long flight of sixty-seven steps, partly cut in the rock, leads up to the hall just mentioned. These steps have no connection with any other part of the building, and afforded direct access from the Forum to the upper part of the Tabularium and the Asylum. When the temple of Vespasian was built, its podium effectually blocked the entrance to this stairease.

The masonry of the Tabularium shows the very best republican workmanship. It is wholly of opus quadratum, the blocks being uniformly two Roman feet in height and width, and averaging four in length. They are laid in alternate courses of headers and stretchers (emplecton), with a thin layer of cement. The outer walls are of peperino, the bases and capitals of the half-columns and the imposts of the arches of travertine, and the inner walls of tufa. As the building was once used as a storehouse for salt, the inner walls have suffered much from corrosion. ${ }^{1}$

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## CHAPTER XII..

## THE SACRA VIA AND THE VELIA.

The Sacra via, ${ }^{1}$ the oldest and most famous street in Rome, began at the sacellum Streniae, - a shrine mentioned only in this connection, - in the Colosseum valley, and ran northwest to the summit of the Velia, which it crossed near the arch of Titus. This was the summa Sacra via, and from here the street curved toward the north and entered the Forum at the fornix Fabianus. Its course from this point to the Capitol has been described (p. 54). Originally the name Sacra via was given only to that part of the street which was between the Velia and the Forum, but it was soon made to include the whole. The part from the Forum to the Velia was also called the Sacer clivus. ${ }^{2}$

The origin of the name has been the subject of much discussion. ${ }^{3}$ The Romans themselves were not agreed in their explanations, some saying that the street was sacra because it was the scene of the famous treaty between Romulus and Titus Tatius, and others believing that it was so called because of the religious processions which took place there. The explanation now generally accepted, though not altogether satisfactory, is that this name was given to the street because on it were the temples of Vesta and the Lares. It may be that the street itself, from its very position and early importance, was regarded as something intrinsically sacred. ${ }^{4}$

[^229]Until the recent excavations, ${ }^{1}$ the medieval pavement 23 metres wide which was laid along the front of the basilica of Constantine to S. Fraucesca Romana was supposed to be that of the Sacra via of the empire; but this has now been found, 2 metres below the medieval. This imperial pavement is 5 metres wide; and in front of the basilica it


Fig. 64. - The Pavement of the Sacra Via.
makes a bend southward toward the arch of Titus. The greater part of this curve is buried beneath the foundations of a building of the fourth century, which was erected on the south side of the later street; but the imperial pavement has been found farther east, beyond the arch of Titus, and this was the line of the street, at least until the temple of Venus and Roma was built. From the Sacra via another street branched off to

[^230]

Fig. 65.-The Sacra Via.
the south, crossed the Nova via and ascended the Palatine. This is the street which is generally called the clivus Palatinus, and its ancient pavement ${ }^{1}$ has been found beneath the arch of Titus and south of the Nova via. Whether the name Sacer clivus ${ }^{2}$ was also applied to this street, as well as to the Sacra via between the Velia and Forum, is a matter of dispute. The foundations of the arch are above the pavement of this street (cf. p. 302).

Under the east end of the basilica of Constantine, and projecting out toward the south, are the foundations and walls of older private houses and also of a building, probably the horrea Piperataria (p. 316), or pepper warehouse, which was built by Domitian on the north side of the Sacra via. It has usually been supposed that this building was destroyed by fire in 191 A.D., and that the line of the Sacra via was then changed so as to run straight to the west façade of the temple of Venus and Roma. It has also been thought possible that the horrea were destroyed at an earlier date, so that the change in the line of the street was made at the time when the temple itself was built by Hadrian. The latest excavations show that marked changes did take place here in consequence of the erection of the temple, but it still seems probable that the horrea continued to exist until the basilica was built, or at least until the fire of 285 A.D., and that the change in the line of the street did not take place until then. The various changes in the level in front of the basilica are marked by corresponding indications of successive pavements between that of the first century and that of the middle ages. There is therefore no doubt that this newly discovered pavement (p. 292) is that of the beginning of the empire, and marks the line of the original Sacra via.

On the summa Sacra via stood the house of the rex sacrorum, ${ }^{3}$ where this priest dwelt after the expulsion of the kings, and

[^231]the temple of the Lares, ${ }^{1}$ which, although very ancient, is not mentioned in literature before 106 b.c. This temple was restored by Augustus.

Just east of the arch of Titus are the ruins of a building which is probably to be identified with the temple of Iuppiter Stator (p. 135). ${ }^{2}$ These ruins consist of a large rectangular platform of concrete, on which are some enormous blocks of peperino and travertine. On this foundation the medieval turris Cartularia was built, which served as a refuge for the popes in the eleventh and twelfth centuries.

Near the temple of the Lares was the fanum Orbonae, ${ }^{3}$ which is mentioned only once. A temple of Bacchus and a tholus of Cybele are also once mentioned together. ${ }^{4}$ They stood on the summa Sacra via, near its junction with the clivus Palatinus and near the arch of Titus. On the Haterii relief is a representation of a statue of the Magna Mater, seated under an arch at the top of a flight of thirteen steps, and this may be intended for the tholus of Cybele. ${ }^{5}$ During the recent excavations in the Sacra via, a part of a curved epistyle was found, which bears a dedicatory inscription to Bacchus and is therefore supposed to have belonged to the first of these two temples. ${ }^{6}$

Farther down the street, perhaps on the site afterward occupied by the Heroon Romuli, was the temple of the Penates,? which tradition ascribed to Tullus Hostilius. It was restored by Augustus, but was probably removed by Vespasian when he built the forum Pacis.

On the Velia was a shrine of Mutunus Tutunus, ${ }^{8}$ a deity of fertility, which was said to have been removed to make

[^232]room for the house of Cn. Domitius Calvinus; and another of Vica Pota, ${ }^{1}$ apparently identical with Victoria, which stood on the site originally occupied by the house of the Valerii. ${ }^{2}$ In regard to this house, tradition varied widely. According to one account, ${ }^{3}$ Valerius Poplicola lived, at the beginning of the republic, in summa Velia, but was forced by the people to tear this house down and build again infra Veliam, because his first dwelling seemed too much like a stronghold. According to another account, ${ }^{4}$ this house, in summa Velia or in Palatio, was given to Valerius or to his brother Marcus by the people as an especial honor. It is, however, probably true that the early home of the gens Valeria was on this ridge, and also their sepulchre. ${ }^{5}$ Tullus Hostilius ${ }^{6}$ was believed to have lived here, and his successors, Numa, Ancus Marcius, and Tarquinius Superbus, near by in the Sacra via. ${ }^{7}$

There were many private houses ${ }^{8}$ on and near the Sacra via, of which many remains of the period of the republic have recently been found. Those who lived there were called Sacravienses. ${ }^{9}$ These dwellings gradually disappeared before the increasing demands of business, but a house on the Sacra via was given to $P$. Scipio Nasica ${ }^{10}$ at the end of the third century b.c., and the domus Domitiana ${ }^{11}$ apparently continued to be the residence of that family throughout the republic. In the last years of the republic, the houses of a certain Tettius Damio ${ }^{12}$ and of Octavius ${ }^{13}$ were on the Sacra via.

[^233]Like all the first streets in great cities, the Sacra via became very early a street of shops. ${ }^{1}$ Down to the empire it is probable that these shops lined both sides of the way, from the entrance to the Forum (fornix Fabianus) to the Velia. In consequence of the great transformations wrought by the erection of the forum Pacis, the templum Sacrae Urbis, and the temple of Faustina, they were restricted for the most part to the south side of the street between the atrium Vestae and the arch of Titus. This district was burned in 191 A.D., but the shops must have been immediately rebuilt. In the fourth century a sort of porticus or bazaar was built on the south side of the Sacra via, the foundations of which (p. 292) cut the earlier line of the street. The recent excavations have also brought to light many remains of the earlier shops, which correspond to the original line of the Sacra via. As many inscriptions ${ }^{2}$ have been found which relate to the tradesmen of the Sacra via, especially jewellers of all sorts, it is evident that these shops were largely devoted to this business. An attempt has therefore been made to identify the porticus just mentioned with the portious Margaritaria, ${ }^{3}$ which is said to have stood in this region in the fourth century, and this bazaar is assumed to have covered the whole space between the Palatine, the atrium Vestae, the Sacra via, and the Velia. The excavations do not justify this hypothesis. ${ }^{4}$ On the Sacra via were also shops ${ }^{5}$ where flowers, fruit, and the chief articles of luxury of the capital were sold, and this was one of the most fashionable shopping districts in the city.

[^234]The Temple of Venus and Roma. - This double temple, the largest and most magnificent in Rome, was built by Hadrian ${ }^{1}$ and dedicated to Venus Felix, the ancestress of the Roman people, and to the genius of the city, Roma Aeterna. In accordance with Roman theory in such matters, it was necessary to build a separate cella for each goddess, and in this case the cellae were not erected side by side, but back to back, one facing east and the other west. The temple was injured by fire in 307 A.D. and restored by Maxentius. ${ }^{2}$


Fig. 66. - Plan of the Temple of Venus and Roma.
The temple proper was built on an enormous podium of concrete faced with travertine, 145 metres long and 100 wide, on the north side of the Sacra via, between the Velia and the Colosseum. This necessitated the removal ${ }^{3}$ of the Colossus Neronis (p. 315), which was then set up nearer the Colosseum, where its base still remains visible. Owing to the slope of the ground, the height of the podium at the east end is very considerable,

[^235]and chambers were constructed in it for the storage of the machinery and apparatus of the amphitheatre. On this podium was a peribolus formed of a colonnade, double at each end and single on the sides, of enormous columns of red and gray Egyptian granite. Many fragments of these still lie on the podium. At the west end of the podium a wide flight of steps led down to the paved area in front of the temple; but at the east end there were only two small flights. A wide flight here would have encroached too much upon the area round the Colosseum. The temple proper was raised on a platform, seven steps high, in the centre of the peribolus. The two cellae ended in apses placed back to back; but, as the side walls of the cellae were prolonged so as to meet, the external appearance was that of one long rectangular building. This temple ${ }^{1}$ was decastyle, in antis, and pseudodipteral, the columns of the peristyle being of cipollino, about 1.8 metres in diameter. The building was constructed of concrete and brick, and covered entirely with marble. Within the cellae, on each side, were rows of porphyry columns supporting an entablature. In the apses were five niches, alternately square and semicircular, with columns and entablatures in front of them. In the central niche of each apse was the statue of the goddess herself, - Venus in one and Roma in the other, - and there were also other works of art in the temple. ${ }^{2}$ The roof was covered with gilt tiles, and the pediments sculptured in relief. A part of the west front of the temple is represented on two fragments of a relief, ${ }^{3}$ which, although in separate museums, the Lateran and the Museo delle Terme, belong together. One of these fragments shows that on the west pediment there were reliefs of Mars visiting Rhea Silvia and of the she-wolf suckling the twins. The greater part of the west cella has been destroyed, and its area partly covered by

[^236]the cloisters of the church of S. Francesca Romana, which was built in 1612 on the site of an earlier church. The apse and part of the wall of the other cella still stand in ruins, with portions of the pedestals of columns and bits of mosaic pavement made of colored marbles and porphyry.

It has been remarked that this temple with its enormous peribolus really falls into the same category of buildings as the imperial fora, of which it formed a virtual continuation.

Triumphal Arches. - The first triumphal arch in Rome was the fornix Fabianus or arcus Fabiorum, ${ }^{1}$ which was erected by Q. Fabius Allobrogicus in 121 B.c., to commemorate his victory over the Allobroges. This small and single arch stood on the Sacra via, a little to the east of the Regia. Some portions of it were found in 1882, ${ }^{2}$ and others during the recent excavations; among them, all the blocks of the arch proper, the span of which is about 4 metres. These blocks are of travertine and the core of the arch is of peperino and tufa. Its exact site is still somewhat uncertain, as no trace of its foundations has been discovered. ${ }^{3}$

At the extreme east end of the Sacra via, near the Colosseum, was an arch known to us only from the Haterii relief (Fig. 2), on which it is represented as triple, with the inscription arous ad Isis on the attic. ${ }^{4}$ This is generally supposed to have been only the popular name for the arch.

The arch of Titus is the most celebrated as well as the oldest now standing and the sinallest of the triumphal arches in Rome. It was erected in summa Sacra via by Domitian, in honor of the deified Titus and in commemoration of his siege of Jerusalem. It suffered serious damage in the middle ages,

[^237]especially during the twelfth and thirteenth centuries, when it formed part of the city stronghold of the Frangipani family. In 1822 it was taken down and rebuilt. The central portion


Fig. 67. - The Arch of Titus.
alone, of Pentelic marble, is original, the two ends being restorations in travertine. The archway is 8.30 metres high and 5.35 metres wide. ${ }^{1}$ Above it is a simple entablature, and an attic 4.40 metres in height, on which is the inscription. ${ }^{2}$ On

[^238]each side of the archway is an engaged and fluted Corinthian column, standing on a square pedestal. The capitals of these columns are the earliest examples of the Composite style.

On the inner jambs of the arch are the two fannous reliefs, that on the south representing the spoils from the temple at Jerusalem, the table of shewbread, the seven-branched candlestick, and the silver trumpets, which are being carried in triumph into the city; and that on the north representing Titus standing in a quadriga, the horses of which are led by Roma, while Victory crowns the emperor with laurel as he passes through a triumphal arch.

In the centre of the ceiling of the archway, which is finished in soffits (lacunaria), is a relief of the apotheosis of Titus, representing him as being carried up to heaven by an eagle. The frieze is ornamented with small figures representing sacrificial scenes, and in the spandrels are the usual winged Victories. On the keystones are figures of Rome and the Genius Populi Romani (or Fortune) with a cornucopia. Recent excavations have shown that the foundations of the arch rest upon the pavement of the clivus Palatinus (cf. p. 294), and therefore it has been supposed by some that the arch stood originally farther north and was moved when the temple of Venus and Roma was built. This hypothesis has little in its favor.

Southwest of the Colosseum, at the entrance to the valley between the Palatine and the Caelian, near the point where the ancient road through this valley joined the Sacra via, stands the arch of Oonstantine, which was built by Constantine to commemorate his victory over Maxentius at the pons Mulvius in 312 A.D. ${ }^{1}$ This arch, the largest and best preserved in Rome, stands at the beginning of the modern via di S. Gregorio, which coincides with the line of the ancient street, but is at a much higher level (p. 109). The pavement of the archways was

[^239]higher than that of the street, and the approach was by means of steps, so that vehicles could not drive through. The arch


Fig. 68. - The Arch of Constantine.
is built of white marble, is 21 metres high, 25.70 wide, and 7.40 deep, and has three archways. That in the centre is 11.50 metres high and 6.50 wide, those at the sides 7.40 metres high
and 3.36 wide. Between the archways and at the corners are eight fluted Corinthian columns, 7 metres high and 0.75 in diameter. These columns are monoliths of giallo antico, except one, which is of white marble and replaces the original which has been removed to the Lateran. Above the avehes is an entablature, and an attic 6.60 metres high. Above the columns are projecting pedestals round which the cornice runs. These pedestals support statues of barbarian prisoners, sculptured in the round. In the central part of the attic, on both sides of the arch, is the dedicatory inscription. The arch is richly decorated with reliefs, ${ }^{1}$ some of which are of the period of Constantine and exhibit the characteristic decadence of that era, while the others are of earlier date and were removed from their original position by Constantine. To this latter class belong: -
(1) The round medallions over the side arches, which belong to the period of Trajan and represent that emperor in alternate sacrificial and hunting scenes. These medallions, now disarranged, were originally placed in pairs, probably on an arch. It is a plausible conjecture that this was the arch of Trajan on the via Appia (p. 413).
(2) The two reliefs at the ends of the arch and the two on the jambs of the central archway, representing combats between Romans and Dacians and scenes of victory. These also date from the time of Trajan, but appear to have been parts of a long band which belonged to some structure quite different from an arch.
(3) The eight rectangular reliefs in the attic over the side archways, which represent the emperor entering Rome, engaging in sacrifice, receiving an address from his soldiers, receiving Dacian captives and kings who are paying homage, and dispensing charity. These reliefs belong to the period of the

[^240]Antonines, but are an evident imitation of the style of the preceding half-century.

To the same period as the arch itself belong the remaining decorations, - the sculptured band above the side arches and on the ends which represents Constantine's victories, the statues on the columns, the two round medallions at the ends, the barbarian captives on the pedestals of the columns, and the Victories and river-gods in the spandrels.

Near the arch of Constantine, on the Sacra via, was a statue of Oloelia (p. 135), and also one of Romulus, while the corresponding statue of Titus Tatius was at the other end of the street near the Rostra. ${ }^{1}$

Amphitheatrum Flavium. - Gladiatorial combats ${ }^{2}$ are said to have been introduced into Rome in 264 b.c., and venationes, ${ }^{3}$ or fights with wild animals, twelve years later. During the republican period these performances usually took place in the Forum, where temporary platforms, maeniana (p.166), were erected for the spectators. In 59 b.c. Curio is said to have devised the strange plan of building two theatres ${ }^{4}$ back to back, which were supported on pivots, and could therefore be turned round, so as to form together a circular structure in which shows of this sort could be held. This new kind of spectacular building was called by the Greek name, amphitheatrum.

The first permanent stone amphitheatre was erected in the campus Martius, by Statilius Taurus in 29 b.c. (p. 344); but the great amphitheatre of Rome, one of the most remarkable buildings in the world, belongs to a much later time. It was begun by Vespasian, and opened and dedicated by Titus in 80 A.D. ${ }^{5}$ This wonderful structure was called the amphitheatrum Flavium, but since the middle ages it has been

[^241]

Fig. 69. - The Interior of the Colosseum.
. 306
\&
commonly known as the Colosseum. The low ground between the Velia, the Esquiline, and the Caelian had been included within the domus Aurea, and here Nero had constructed an artificial pond, or stagnum, maris instar circumsaeptum aedificiis


Fig. 70. - Sectional Plan of the Colosseum.
ad urbium speciem. ${ }^{1}$ When Vespasian destroyed so much of the domus Aurea, he built the amphitheatre on the site of the stagnum, - one of the most accessible in the city.

Although the amphitheatre was opened by Titus, it is uncertain whether it was entirely finished during his reign or during that of Domitian, ${ }^{2}$ and it was afterward restored by Trajan

[^242][^243]and Antoninus Pius. ${ }^{1}$ In 217 A.d. it was struck by lightning, ${ }^{2}$ and so seriously damaged that no more gladiatorial combats could be held in the building until $222-223$, when the repairs begun by Elagabalus ${ }^{3}$ were completed by Alexander Severus ${ }^{4}$ (or perhaps by Gordianus III). Again, in 250, the building was restored by Decius, ${ }^{5}$ after a fire caused by another stroke of lightning. It was injured by the earthquake of 442 , and probably again a few years later, for restorations are recorded which were carried on by Theodosius II and Valentinian III in $442,{ }^{6}$ and by Anthemius between 467 and $472 .{ }^{7}$ Still later repairs were made by Basilius in $508,{ }^{8}$ and by Eutharich in 519.

The last gladiatorial combats ${ }^{9}$ took place in the amphitheatre in 404 A.D., and the last recorded venationes ${ }^{10}$ in 523. In the sixth century began the gradual destruction of the great structure, which suffered from all the causes which combined to wreck the imperial city. The greatest destruction, however, was wrought by those who regarded the building as a travertine quarry. Out of it were built many medieval palaces, among them the Cancelleria, the Farnese, and the Venezia. No other Roman building has had so interesting and varied a history. ${ }^{11}$ During the last century various attempts were made to preserve the remaining portions from further ruin, especially by the popes between 1805 and 1852 , when great buttresses were built to support the ends of the walls.

Under the direction of Canina (1850-1852), thirteen of the arches on the third story and seven of those on the fourth were restored, the outer wall strengthened, new stairways erected, and the marble columns and pediment of the main

| ${ }^{1}$ Jul. Cap. Vit. Pii, 8. | ${ }^{6}$ CIL. vi. 1763. |
| :---: | :---: |
| ${ }^{\text {E }}$ Dio Cass. Ixxviii. 25. | ${ }^{7}$ CIL. . vi. p. 860, n. 100. |
| ${ }^{3}$ Lamprid. Vit. Elagab. 17. | ${ }^{8}$ CIL. vi. 32094. |
| ${ }^{4}$ Lamprid. Vit. Alex. 24. | ${ }^{8}$ Theodoretus, v. 26. |
| ${ }^{-12}$ Hieron. Chron. p. 181. | ${ }^{10}$ Cassiodor. Var. v. 42. |
| ${ }_{11} \mathrm{Cf}$. Babucke, Geschichte | nigsberg, 1899. |

entrance, which had been taken away, were replaced by travertine. These restorations, however, were carried too far, and have rendered much of the original construction somewhat obscure. In spite of these injuries, enough of the Colosseum is left to make it one of the most imposing buildings in the world. The north side of the outer wall still stands, comprising the arches numbered XXIII to LIV, with that part of


Fig. 71. - The Colosseum.
the building which is between it and the inner wall supporting the colonnade ( p .314 ). Of that part of the building between this inner wall and the arena, practically the whole skeleton remains, - that is, the encircling and radiating walls on which the cavea with its marble seats rested. These inarble seats, and everything in the nature of decoration, have long since disappeared,

The amphitheatre ${ }^{1}$ is elliptical in form. Its main axis, running northwest-southeast, is 188 metres in length, and its minor axis 156 . The whole exterior is constructed of large blocks of travertine; the inner walls are of concrete, with and without brick facing, strengthened by piers of peperino and travertine at the points of greatest pressure. The general plan of the building may be seen by a glance at the cross-section (Fig. 72). The outer wall, or façade, is 48.50 metres high, and stands upon a stylobate, which is raised two steps above a pavement of travertine. This is 17.50 metres wide, and extended round the whole building. Its outer edge is marked by a row of stone cippi - some of which are in situ - provided with bronze rings through which wooden bars were run, to serve the purpose of a fence. The outer wall itself is divided into four stories, of which the lower three consist of rows of open arcades. The arches of the lower arcade are 7.05 metres high and 4.20 wide; the pillars between them are 2.40 metres wide and 2.70 deep. In front of these pillars are engaged columns of the Doric order, which support an entablature 2.35 metres high, but without the distinguishing characteristics of this order. There were eighty arches in the lower areade, of which the four at the ends of the two axes formed the main entrances to the amphitheatre, and were unnumbered. The remaining seventy-six were numbered, the numbers being cut on the façade just beneath the architrave. Above the entablature is an attic of the same height, with projections above the columns, which serve as pedestals for the engaged columns of the second arcade. This arcade has the same dimensions as the

[^244]lowest, except that the arches are only 6.45 metres high. The half-columns are of the Ionic order, and in turn support an entablature 2.10 metres in height, but not in perfect Ionic style. Above this is a second attic, 1.95 metres high, on which the columns of the third arcade rest. This last is of the


Fig. 72. - Section of the Colosseum.
Corinthian order, and its arches are 6.40 metres high. Above this is a third entablature and attic. In each of the arches of the first and second arcades was a statue.

The three lower arcades of the outer wall belong to the original work of Vespasian and Titus. Coins of the latter emperor, however, show a fourth story as already existing at that time, and it is the current view that this was at first constructed of wood, and not replaced by stone until the third century. The existing upper division of the façade dates from this later period.

The attic above the third arcade is 2.10 metres high, and is pierced by small rectangular windows over every second arch.

On it rests the upper division of the wall. This is solid, and is adorned with flat Corinthian pilasters in place of the half-columns of the lower arcades. Above these pilasters is an entablature, and between every second pair of pilasters is a window cut through the wall. Above these openings is a row of consoles, - three between each pair of pilasters. In these consoles are sockets for the masts which projected upward through corresponding holes in the cornice and perhaps supported the awnings (velaria) that protected the cavea.

Within this outer wall, at a distance of 5.80 metres, is a second wall with corresponding arches; and 4.50 metres inside of this a third, which divides the building into two main sections. On the lower floor, between these three walls, are two lofty arched corridors or ambulatories, encircling the entire building; on the second floor, two corridors like those below, except that the inner one is itself divided into two, an upper and a lower; and on the third floor, two more. In the inner corridor on the second floor, and in both on the third, are flights of steps, very ingeniously arranged, which lead to the topmost story, and afford access to the upper part of the second tier of seats.
Within the innermost of the three walls just mentioned are other walls parallel to it, and radiating walls, struck from certain points within the oval and perpendicular to its circum. ference. These radiating walls correspond in number to the piers of the lower arcade, and are divided into three parts, so as to leave room for two more corridors round the building. This system of radiating walls supported the sloping floor (cavea) on which the rows of marble seats (gradus) were placed. Underneath, in corridors and arches, are other flights of steps which lead to all parts of the cavea, through openings called vomitoria.

The arena is itself elliptical, the major axis being 86 metres long and the minor 54. All around the arena was a wall,
built to protect the spectators from the attacks of the wild beasts, and behind it a narrow passage paved with marble. Behind this passage was the podium, a platform raised about 4 metres above the arena, on which were three rows of marble seats for the emperor and his family, ambassadors, and high officials of state. The names of the corporations or officials to whom these chairs belonged were inscribed on the steps or pavement of the podium. When a seat passed from one owner to another, the old name was erased and a new one substituted. More than two hundred such inscriptions have been found. ${ }^{1}$ In the fourth century these seats began to be assigned to families and individuals. Some of these marble seats have been preserved, having been converted into bishops' thrones in the Roman churches, as in S. Stefano Rotondo and S. Gregorio. The front of the podium was protected by a brass balustrade.

From the podium, the cavea sloped upward as far as the innermost of the three walls described above. It was divided into sections (maeniana) by aisles and low walls (praecinctiones); the lower section (maenianum primum) contained about twenty rows of seats (gradus) and the upper section (muenianum secundum, further subdivided into maenianum superius and inferius) about sixteen. These maeniana were also divided into cunei, or wedge-shaped sections, by the steps and aisles from the vomitoria. Each individual seat was exactly designated by its gradus, cuneus, and number. These seats were assigned according to wealth and rank, and by the famous lex Roscia of 67 b.c., which was revived by Domitian, the first fourteen rows were reserved for the equites. Behind the miaenianum secundum the wall rose to a height of 5 metres above the cavea, and was pierced with doors and windows which afforded communication with the corridor behind. On
this wall was a Corinthian colonnade, which, together with the outer wall, supported a flat roof. The columns were of cipollino and granite, and dated from the Flavian period. Behind them, protected by the roof, was the summum maenianum in ligneis, which contained wooden seats for women. On the roof was standing room for the pullati, or poorest classes of the population. It is probable that this upper part was built entirely of wood until the third century.

Of the four principal entrances, those at the north and south ends of the minor axis were for the imperial family, and the arches here were wider and more highly ornamented than the rest. The entrance on the north seems to have been connected with the Esquiline by a porticus. A wide passage led directly from this entrance to the imperial box (pulvinar) on the podium. A corresponding box on the opposite side of the podium was probably reserved for the praefectus urbi. The entrances at the ends of the major axis led directly into the arena.

The floor of the arena rested on lofty substructures, consisting of walls, some of which follow the elliptical curve of the building, while others are parallel to the major axis. The east half of the arena has been excavated so that these substructures are visible. They are entered by four subterranean passages, on the lines of the major and minor axes. Commodus constructed another subterranean passage, a sort of cryptoporticus, which starts a little to the east of the state entrance on the south side, and leads to the buildings of Claudius on the Caelian. This was for his own use, when he visited the amphitheatre. In the substructures are traces of dens for wild beasts, elevators, and mechanical appliances of various sorts, but their principal object must have been to provide for the drainage of the water, which flows so abundantly into this hollow and which was carried off in a sewer ${ }^{1}$ connecting

[^245]with that beneath the modern via di S. Gregorio (p. 109). The masonry of these substructures dates all the way from the first century to the end of the fifth.

The total seating capacity of the Colosseum was probably from forty to forty-five thousand, and there was standing room on the roof for some fire thousand more. ${ }^{1}$

Near the amphitheatre were several other buildings, used for purposes connected with the sports in the arena. Among them were four training schools for gladiators, the ludus Magnus, ludus Dacious, ludus Gallicus, and ludus Matutinus. The first two, in region III, are spoken of on p. 428. The ludus Gallicus ${ }^{2}$ was a training school for Gallic gladiators; but the name ludus Matutinus ${ }^{3}$ has not been satisfactorily explained. Both of these schools were in region II, as well as the Armamentarium (p. 428), or armory, and the Samiarium, ${ }^{4}$ apparently a place for the repairing and sharpening of weapons. The Summum Choragium, or storehouse for stage settings and scenery, was in region III, as was also the Spoliarium where the bodies of dead gladiators were exposed to view. All these annexes were probably built by Domitian, when he completed the amphitheatre itself.

Nero erected a colossal bronze statue of himself (Colossus Neronis), 31.5 metres high, in the vestibule of the domus Aurea on the summit of the Velia. ${ }^{5}$ This statue was the work of a Greek, Zenodorus. It was changed by Vespasian ${ }^{6}$ into a statue of the sun. Hadrian ${ }^{7}$ moved it nearer to the Colosseum, in order to make room for the temple of Venus and Roma. This removal was effected without taking the statue down.

[^246]Commodus ${ }^{1}$ converted it into a statue of Hercules; but at his death it was restored as the sun, and so remained. The last mention of this statue in antiquity is in the fourth century. ${ }^{2}$ Part of the pedestal which was built by Hadrian still exists, between the Colosseum and the temple of Venus and Roma. This pedestal is 8 metres square, and is constructed of brickfaced concrete, originally covered with marble.

Just south of the Colossus was the Meta Sudans, ${ }^{3}$ a great fountain said to have been built by Domitian in 97 A.D. In shape it resembled a goal (meta), and sudans described the appearance of the jets and streams of water. It stood at the point of meeting of five regions, I, II, III, IV, and X. The core still stands, conical in shape, 9 metres high and 5 metres in diameter at the bottom. Around its base is a great basin, which probably dates from the time of Constantine. The whole fountain was originally covered with marble.

The horrea Piperataria have been mentioned on page 294. Enough of the foundations and walls of what was probably this warehouse ${ }^{4}$ have been excavated to make the plan of the building recoguizable (Fig. 65). It consisted of rows of square chambers on each side of a common wall, with passages between the rows. The front of the building was toward the west, where there was a colonnade, of which two travertine bases have been found. There were earlier buildings of opus reticulatum and opus quadratum, with the same orientation, on this site, the walls of which were used as foundations for the horrea.

Basilica Constantini. - This great building, also called the basilica Nova, was begun by Maxentius, but completed by

[^247]Constantine. ${ }^{1}$ It was erected on the north side of the Sacra via, partly on the site of the burned horrea Piperataria, on an enormous rectangular platform of concrete, 100 metres long and 65 wide. The basilica itself was of peculiar form, consisting of a central nave, 80 metres long, 25 wide, and 35 high, and two side aisles, each 16 metres wide. These aisles were divided into three sections by walls, pierced by wide arches and ending on each side of the nave in massive piers. In front of these


Fig. 73. - Plan of the Basilica of Constantine.
piers and at the corners of the nave were eight monolithic columns of marble. On these columns and piers rested the roof of the nave, divided into three bays with quadripartite groining.

The façade of the basilica as built by Maxentius was toward the east, and at this end was a corridor or vestibule, 8 metres deep, which extended across the whole width of the building. From this vestibule there were five entrances into the basilica, three into the nave, and one into each of the aisles. A flight

[^248]of steps led up from the street in front to the vestibule, which was adorned with columns. At the west end of the nave was a semicircular apse, 20 metres in diameter.

Constantine constructed a second entrance from the Sacra via in the middle of the south side where he built a porch with porphyry columns and a long flight of steps. Opposite this new entrance he constructed a second semicircular apse in the north wall, as large as that at the west end of the nave. Thenceforth the basilica produced the same impression, - of three parallel halls, - whether one entered it from the south or from the east.

The material employed in the whole structure was brick and concrete, and the great thickness of the walls - 6 metres at the west end - and the enormous height and span of the vaulted roof, made it one of the most remarkable buildings in Rome.

Besides the foundation, which has been almost wholly uncovered, the north wall and the north aisle - or, as it rather appears, the north sections of the three halls regarded as running north and south - are still standing. The semicircular apse in the central hall contains sixteen rectangular niches in two rows, with a pedestal or suggestus in the centre. A marble seat with steps runs round the apse, which was separated from the rest of the hall by two columns and marble screens, thus forming a sort of tribunal for the emperor when holding court.

All of the monolithic marble columns of the nave have been destroyed except one, which was removed by Paul V in 1613 to the piazza di S. Maria Maggiore, where it now stands. This column, with base and capital, measures 19.25 metres in height. The vaulted roof of the basilica is constructed with deep hexagonal and rhomboidal coffers. Some very large fragments of the roof, which have fallen down within comparatively recent years, lie on the floor. Nothing of the nave remains except the bases of the great piers. The core of the porch and of the
flight of steps leading down to the Sacra via is still visible, and several fragments of the porphyry columns have been set up, but not in situ. Of the pavement of slabs of marble practically nothing is left.

The northwest corner of the basilica joined the wall of the forum of Vespasian, thereby cutting off the previously existing thoroughfare between the forum Romanum and the district of the Carinae. Maxentius therefore constructed a passageway under the northwest corner of the building, about 4 metres wide and 15 long. In the sixth century one end of this passage was walled up, but the interrupted communication was afterward restored. In the middle ages this passage was known as the arco di Latrone, from its dangerous associations.

Just west of the basilica of Constantine, on the Sacra via, is the Heroon Romuli, or temple of Romulus, which was begun by Maxentius in honor of his son Romulus, who, having died at an early age, had been deified. ${ }^{1}$ The temple was finished by Constantine. It adjoined the templum Sacrae Urbis in the rear, and with this latter edifice was converted into the church of SS. Cosma e Damiano in the sixth century. The original structure, which has been almost completely preserved, consists of a central circular hall 17 metres in diameter, and on each side a narrow rectangular hall, terminating in an apse at the rear. These halls open toward the Sacra via, and the doorways of the smaller rooms are flanked with cipollino columns, two of which are still standing. In front of the circular hall is a sort of curved porch, and the main entrance is flanked by columns of red porphyry. The original bronze doors are still in place, and above them is a richly decorated cornice of white marble. The temple is built of concrete with brick and tufa facing, but nothing remains of the marble and stucco lining.

[^249]Beneath the pavement in front of this temple and extending to the temple of Faustina are remains of houses of the republican period, and a series of rooms (Fig. 32) opening off from a corridor, which were incorporated into the foundations of the temple. These rooms are built of tufa and paved with opus spicatum, and may have served as storerooms for the jewellers of the Sacra via. ${ }^{1}$
${ }^{1}$ Mitt. 1902,94 ; NS. 1902,$96 ; B C .1902,31-34 ; 1903,30-32$. The identification in these last two journals of these rooms with the carcer in lautumiis is erroneous.

## CHAPTER XIII.

## THE CAMPUS MARTIUS.

The term campus Martius was used at different times with somewhat varying signification. In its widest sense it embraced the district outside the Servian wall between the Capitoline, the Quirinal, and the Pincian hills, and the Tiber. This is a level plain, extending a little more than 2 kilometres from the Capitoline to the porta Flaminia, and being nearly 2 kilometres wide in its widest part between the Quirinal and the river. At least as early as the fifth century b.c. the south portion of this district was known as the prata Flaminia, ${ }^{1}$ and campus Martius was the ordinary designation for what lay beyond. After Augustus had divided the city into fourteen regions, the name campus Martius was restricted to that portion of region IX (circus Flaminius) which was west of the via Lata, the modern Corso, and here again there seems to have been a further distinction. A cippus ${ }^{2}$ found in the via del Seminario, near the Pantheon, proves that this campus Martius of the time of Augustus was divided into two parts, the open meadow to the north, and the district between the cippus and the circus Flaminius, which had been more or less built over. A little later this line of separation was marked by a street (called by Lanciani the via Recta), which ran west from the modern piazza Colonna to the Tiber. The original pavement of this street has been uneovered for most of this distance, and its line corresponds in general with the modern via di S. Agostino and via dei Coronari.

There were several swamps or ponds in this low-lying district, as well as streams, the largest of which, the Petronia amnis, came from a spring on the Quirinal, called the Oati fons (p.19), and flowed into the largest swamp, the palus Caprae, or Capreae, ${ }^{1}$ where were afterward the pool and baths of Agrippa. In the northwest part of the campus Martius, near the great bend in the river, there were hot springs, probably sulphurous, and other traces of volcanic action. This part was called the Tarentum, ${ }^{2}$ or sometimes campus Ignifer.

The name campus Martius was derived from an ancient altar of Mars, ${ }^{3}$ ascribed by tradition to Romulus, which probably stood about halfway between the baths of Agrippa and the Arx. The whole district belonged to the community, ${ }^{4}$ part of it being cultivated as domain land. We are told that Sulla, ${ }^{5}$ under the financial pressure of the impending war with Mithridates, was the first to sell to private owners any part of this public domain; but the very name, prata Flaminia, which is quoted as early as 449 b.c., seems to indicate some private ownership at a very early date. It is probable, however, that these prata had become public property but retained their original name. The campus Martius was entirely outside of the pomerium during the republic and probably down to the reign of Claudius (p. 69). By the time of Hadrian the pomerium had been extended so as to include the prata Flaminia; but the campus Martius in its narrower sense was not included until the wall of Aurelian was built. Because it was public domain and outside the pomerium, the campus was used as the place of assembly ${ }^{6}$ for the citizens, in their

[^250]military capacity as an army and in their civil capacity as the comitia centuriata. Audience was given here by the senate to foreign ambassadors who could not enter the city, and foreign cults were allowed to be domiciled in temples erected here. Finally public buildings of all sorts were built in the south half of the campus, while private houses did not begin to multiply to any extent before the time of the empire. ${ }^{1}$

Besides those already mentioned, other parts of this extensive district bore distinctive names. The forum Holitorium, or vegetable market, was just outside the Servian wall, close to the Tiber. Between the modern ponte Garibaldi and the theatre of Pompeius was a grove called the Aesculetum, ${ }^{2}$ where the comitia met in 287 b.c. to pass the famouis Hortensian laws. Fragments of the pavement of the vicus Aesculeti have been found in the modern via della Regola di S. Bartolommeo. The suburb that in process of time extended from the porta Flumentana along the bank of the river to the Navalia, was known as extra portam Flumentanam ; ${ }^{3}$ and within the limits of this precinct there had been, as late as the Gallic invasion, a grove called the lucus Petelinus. Another suburb, the Aemiliana, ${ }^{4}$ is more difficult to locate with certainty, but it was probably the district between the porta Fontinalis and the Saepta Iulia. The Trigarium, ${ }^{5}$ where horses were exercised, was in the northwest part of the campus, between the modern piazza Navona and the Tiber. Just east of this Trigarium was probably the place where chariot races, equiria, ${ }^{6}$ were held in honor of Mars, although this race course may have been farther north. On the bank of the river, not far south

[^251]of the mausoleum of Augustus, were storehouses for wine; and, to judge from the somewhat uncertain evidence, this part seems to have been called Ciconiae nixae, ${ }^{1}$ apparently from some statue standing here.
Besides the three principal streets in the campus Martius, the via Lata, the via Tecta (p. 356), and the so-called via Recta, - fragments of the pavement of some others have been found. ${ }^{2}$ One of them ran southwest from the theatre of Pompeius to the river, along the line of the modern via dei Pettinari; another ran north from this theatre along the via dei Sediari ; a third extended from the theatre of Balbus to a point near the Tarentum, where it joined the via Tecta, its course being nearly that of the via S. Paolina, vicolo dei Venti, and via del Montserrato. The pavement of a fourth lies in a line between the via degli Astalli and the Corso, and may be that of the vicus Pallacinae, ${ }^{3}$ which derived its name from the balineae Pallacinae near the circus Flaminius. Another stretch of pavement has been discovered just north of the thermae Alexandrinae, in the via di Ripetta; and there are also traces of two cross-streets between the via Flaminia and the Tiber, one north (via dei Pontefici) and the other south of the mausoleum of Augustus. In 216 b.c. there was a via Fornioata, quae ad campum erat, but this street is mentioned only once. ${ }^{4}$

The Earliest Structures. - If the ara Martis was the first altar in the campus Martius, the ara Ditis et Proserpinae in Tarento ${ }^{5}$ was undoubtedly the second. The springs and pool of the

[^252]Tarentum naturally suggested an entrance to Hades, and hence the worship of the gods of the lower world was established at this spot. This ara Ditis is said to have been 6 metres beneath the surface of the ground. Upon it were offered the sacrifices at the ludi Tarentini, games which were afterward merged with the ludi saeculares. The altar ${ }^{1}$ of the time of the empire was discovered in 1886-1887, behind the palazzo Cesarini, 5 metres below the level of the Corso Vittorio Emanuele. Two blocks of the altar itself were found, resting upon a pedestal which was approached by three steps. The altar was 3.40 metres square. Behind it was a massive wall of tufa, and round it a triple wall of peperino. Not far away, in a medieval wall, were found large portions of the marble slabs containing the inscriptions which record the celebration of the ludi saeculares by Augustus in 17 b.c. and by Severus in 204 A.d. ${ }^{2}$ The altar is not visible, but the inscription is in the Museo delle Terme.

The oldest temples in this district were those dedicated to Bellona and Apollo. According to one account, ${ }^{3}$ the temple of Bellona was built by Appius Claudius Regillensis, who in 495 b.c. set up in this temple the statues of his ancestors; according to another, ${ }^{4}$ a temple to Bellona was vowed by Appius Claudius Caecus in 296 b.c. The most probable explanation is that the later Claudius rebuilt the edifice which his ancestor had erected at a much earlier date. This temple is mentioned as existing ${ }^{5}$ in the second century, but no trace of it has been found. It stood without doubt near the west, or pulvinar, end of the circus Flaminius, as inscriptions ${ }^{6}$ record an aedes Bellonae Pulvinensis, which is probably the same temple. Considerable importance attached to this temple during the republic, as it was used for sessions of the senate at which vic-

[^253]torious generals presented their claims for a triumph. ${ }^{1}$ This could not be done within the pomerium. Near the temple was a small area which a soldier of Pyrrhus had been forced to buy in order that it might represent foreign soil. In this area was the so-called columna bellica, ${ }^{2}$ representing a boundary stone, over which the fetialis cast his spear when declaring war in due form against a foreign foe.

The earliest worship of Apollo in Rome was connected with the Apollinare, ${ }^{3}$ an altar or grove that was situated just west of the Capitolium, between it and the porticus Octaviae. On this spot a temple was built in 429 B.c., ${ }^{4}$ which had been vowed the year before in consequence of a plague. This was the only temple of Apollo in Rome until Augustus erected that on the Palatine. ${ }^{5}$ It was restored in 32 в.c., ${ }^{6}$ and probably again in the years $356-359$ A.d. ${ }^{7}$ Portions of the foundation wall of opus quadratum have been found beneath the houses on the south side of the piazza Campitelli, and a few fragments of the entablature with reliefs. ${ }^{8}$ This temple was frequently used for extra-pomerial sessions of the senate, ${ }^{9}$ and it contained many works of art, among them the famous Niobe group, and treasures of various kinds. ${ }^{10}$

Close by the ara Martis, and just northwest of the modern piazza del Gesù, was the Villa Publica, ${ }^{11}$ which was said to have been built in 435 в.с. It was the only public building in the campus Martius proper before the end of the republic. Although no remains have been found, its approximate position

[^254]is certain. ${ }^{1}$ It consisted of a walled inclosure, within which was a square building, represented on a coin ${ }^{2}$ of the end of the republic as having two stories, the lower one opening outward with a row of arches. It served as the headquarters for state officials when engaged in taking the census or levying troops. ${ }^{3}$ Foreign ambassadors and generals who desired a triumph were also lodged here. ${ }^{4}$ The Villa was restored in 194 в.с., ${ }^{5}$ and again in 34 by P. Fonteius Capito, but seems to have been removed when Agrippa finally completed the Saepta Iulia (p. 364), or else incorporated in that structure. Within the walls of the Villa, in 82 b.c., Sulla ${ }^{6}$ massacred the four thousand prisoners taken in the battle of the Colline gate. Adjoining the building was the inclosed area, called the Saepta, ${ }^{7}$ where the comitia centuriata assembled to vote. The division of this inclosure into smaller sections, for tribes and centuries, caused it to resemble a sheepfold, and hence it was often called Ovile.

Near the Villa Publica stood the porta Triumphalis, ${ }^{8}$ an arched gateway, which took its name from the fact that the general who was celebrating a triumph began his march into the city at this point. We are not informed as to the date of its erection, but it was probably as early as the second century b.c. No vestiges of this arch have been found. Domitian either built a second triumphal arch over this same street, or restored the existing one. ${ }^{9}$

The forum Holitorium, forming as it did an almost totally distinct section of the campus Martius, will be described on

[^255]pp. 370-372, and the remaining buildings of region IX will be taken up by groups, in chronological order.
Temples. - (1) The temple of Neptune. Livy ${ }^{1}$ mentions an altar of Neptune as existing in 207 b.c. This altar was probably replaced by the temple ${ }^{2}$ built by some member of the gens Domitia at an uncertain date, which contained a masterpiece of Skopas. Northwest of the piazza S. Salvatore, the remains of the substructures and five columns of a pyenostyle temple have been found, which are usually identified with this temple of Neptune. ${ }^{3}$
(2) The temple of Vulcan. A temple of Vulcan existed in 214 b.c. and as late as the first century. ${ }^{4}$ Its exact site is not known, but it was near the boundary between the circus Flaminius and the campus Martius proper. The reason why this temple was outside the pomerium is given by Vitruvius: ${ }^{5}$ (ut) Volcani vi e moenibus religionibus et sacrificiis evocata ab timore incendiorum aedificia videantur liberari.
(3) The temple of Hercules Custos. This temple was built to Hercules in his capacity as guardian of the circus Flaminius, sometime between the date of erection of the circus, 221 в.c., and 189 в.c. ${ }^{6}$ It was restored by Sulla, and is mentioned in the first century. Its exact site is unknown, but it was near the east end of the circus.
(4) The temple of Heroules and the Muses. This temple was close to the southwest part of the circus Flaminius, and is shown on the Capitoline Plan. ${ }^{7}$ It was built by M. Fulvius

[^256]Nobilior after his campaign in Aetolia, about 187 b.c. In it was a statue of Hercules playing on the lyre, and terra cotta statues of the Muses, the work of Zeuxis. ${ }^{1}$ In 29 b.c. L. Marcius Philippus restored the temple ${ }^{2}$ and built a colonnade, the porticus Philippi (p. 355), round it. This composite structure is mentioned as late as the fourth century, ${ }^{3}$ and some remains have been found in the piazza Mattei. ${ }^{4}$
(5) The temple of Fortuna Equestris. This temple stood in circo Flaminio ${ }^{5}$ and ad theatrum lapideum, ${ }^{6}$ therefore between the circus Flaminius and the theatre of Pompeius. It was vowed in 180 b.c. by Q. Fulvius Flaccus during his campaign in Spain, ${ }^{7}$ and dedicated in 173. Fulvius is said to have stolen the marble tiles from the temple of Iuno Lacinia in Bruttiis, but to have been forced to restore them. ${ }^{8}$ As we are told that there was no temple to Fortuna Equestris in Rome in 23 A.d., ${ }^{9}$ it must have been destroyed before that date, and never rebuilt.
(6) The temple of the Lares Permarini. This temple, consecrated to the Lares who protect sailors, was vowed by L. Aemilius Regillus during a naval battle with the forces of Antiochus in 190 B.C., and dedicated in $179 .^{10}$ As it is said to have stood in campo Martio and also in porticu Minucia, its location depends upon that of the porticus (p. 352).
(7 and 8) The temples of Diana and Iuno Regina. These temples were vowed by M. Aemilius Lepidus in 187 в.c., and dedicated in 179.1 They were near the circus Flaminius, but no traces of them have been found. A porticus ${ }^{12}$ connected the temple of Iuno Regina with the temple of Fortuna Equestris.

[^257](9 and 10) The temples of Iuno and Iuppiter Stator. In 147 b.c. Q. Caecilius Metellus Macedonicus inclosed these two temples within his porticus (p. 350). It is not clearly stated whether he built the temples at this time or not, but it is more probable that one or both of them were already in existence. ${ }^{1}$ Both temples were restored by Augustus ; burned in 80 A.D.; again rebuilt, probably by Domitian ; and were standing in the fourth century. They were parallel to each other, and faced southwest. Both are represented on the Marble Plan, ${ }^{2}$ the temple of Juno being hexastyle prostyle, and the temple of Jupiter hexastyle and peripteral, with eleven columns on a side. The exact site of each temple is known, that of Jupiter being mainly beneath the church of S . Maria in Campitelli. The ruins of these temples are concealed for the most part by modern houses in the via di S. Angelo in Pescheria, and consist chiefly of substructures and walls of travertine and opus reticulatum, with fragments of marble columns and entablatures. Three fluted columns of white marble belonging to the temple of Juno, 12.50 metres in height and 1.25 metres in diameter, with Corinthian capitals and entablature, may be seen in No. 11 of the street just mentioned.
(11) The temple of Mars. This temple ${ }^{3}$ also was near the circus Flaminius, but its exact site is unknown. It was built by D. Junius Brutus Callaicus in 138 b.c.,. and contained a colossal statue of Mars and a Venus by Skopas.
(12) The temple of Iuturna. This temple ${ }^{4}$ was erected in 78 b.c. by Q. Lutatius Catulus, the builder of the Tabularium, and was standing in the first century. Its exact site is unknown, but it must have been near the north end of the Saepta.

[^258](13) The temple of Minerva Chalcidica. In the year 62 в.c. Pompeius built a temple to Minerva from the spoils of his campaigns in the East. ${ }^{1}$ Domitian ${ }^{\text {a }}$ is said to have erected a temple to Minerva Chalcidica between the Pantheon and the temple of Isis and Serapis. It is possible that the latter was a restoration of the former, which may have been destroyed in the fire of 80 A.D. The temple of Domitian was standing in the early part of the sixteenth century, but it was destroyed then, and the modern chureh of S. Maria sopra Minerva was built over part of its foundations. ${ }^{3}$. No satisfactory explanation has been found for the epithet Chalcidica.
( 14,15 , and 16 ) There were three other temples in the region of the circus Flaminius, of which the exact position and date of erection are unknown, but which probably belong to the last century of the republic. The temple of Pietas ${ }^{4}$ (14) is mentioned as having been struck by lightning in 91 в.c. The temple of the Nymphs (15) was near the atrium Libertatis (p. 260), and contained many documents relating to the census. ${ }^{5}$. It was burned by Clodius. The temple of Castor (16) existed in the time of Augustus, but nothing further is known about it. ${ }^{6}$
(17) The Pantheon. The Pantheon ${ }^{7}$ was built by Agrippa in 27 b.c., and with the thermae, stagnum, and Euripus formed the group of monuments which he constructed in this part of the campus Martius. This temple contained the statues of many divinities, among them those of Mars, Venus, and the deified Julius, and was probably dedicated particularly to these ancestral deities of the Julian family. Statues of Augustus

[^259]and Agrippa himself stood in the pronaos. The Pantheon was burned ${ }^{1}$ in 80 A.D.; restored by Domitian ; ${ }^{2}$ struck by lightning and again destroyed about 110 A.D. $;^{3}$ rebuilt by Hadrian; ${ }^{4}$ and again restored by Severus in 202 A.D. On the frieze of the pronaos of the existing structure is the inseription M. AGRIPPA L. F. COS. TERTIVM FECIT; on the architrave below, another inscription recording the restoration by Severus and Caracalla. ${ }^{5}$ In consequence of the first of these inscriptions, the present structure was regarded until very recently as the original building of Agrippa, restored ${ }^{6}$ but not greatly changed by later emperors ; but the investigations carried on in 1892 by Chedanne have proved this belief to be entirely erroneous. ${ }^{7}$ The discovery of bricks of Hadrian's time ${ }^{8}$ in every part of the edifice proves conclusively that it was wholly constructed between the years 120 and 124 A.d.

The building ${ }^{9}$ consists of three parts, the rotunda or drum, the vestibule, and the pronaos. The rotunda is an enormous circular structure, containing a single hall. The walls, which are 6.20 metres thick, support a vast dome, at the top of which is a circular opening 9 metres in diameter, through which light is admitted. The inner diameter of the drum is the same as the height from the pavement to the opening in the dome, 43.50 metres. Directly opposite the entrance, and in the middle of the east and west sides, are semicircular niches, and between these are square niches, making seven in all besides

[^260]

Fig. 74. -The Plan of the Pantheon.
the entrance. An entablature runs round the hall, supported by pilasters flanking each niche and by marble Corinthian columns in front of the niches. Between the niches are rectangular projections flanked by small columns, which have been converted into altars. The pavement is composed of slabs of granite, porphyry, and colored marbles, and the walls of the hall were once covered with magnificent marble linings. The ceiling of the dome is coffered and was originally gilded.

The walls are built of brick and brick-faced concrete, with a somewhat complicated system of brick relieving arches. Thus above each niche in the perpendicular wall is an arch spanning the entire width of the niche, resting on the piers on each side of the niche and reaching nearly to the impost of the dome. This arch is composed of three concentric rings of brick (tegulae bipedales), and extends through the whole thickness of the wall. Beneath each of these arches are three small flat arches, and beneath them three others still smaller and flatter. Within the space of each large arch are two walls of brick, perpendicular to the circumference of the drum. This method of construction serves to distribute the vast weight of the dome.

The investigation of the dome itself has been carried as far as the second row of coffers, and has shown that it is constructed of horizontal rings of brick, constantly diminishing in diameter, and of a series of arches which correspond to those just described. The walls of the drum rest upon foundations of concrete, which project 15 centimetres beyond the drum on the outside and 70 centimetres on the inside. This foundation is itself surrounded on the outside by a ring of opus reticulatum, ${ }^{1}$ which is thought by some to be earlier than Hadrian's building and perhaps to have belonged to the thermae of Agrippa.

The vestibule, 34 metres wide and 7.40 deep, is connected with the rotunda, rests upon the same foundations, and was

[^261]built at the same time. In front, on each side of the entrance, are semicircular niches, which formerly contained the statues of Augustus and Agrippa. These niches are flanked with Corinthian pilasters, and above them runs a double frieze with


Fig. 75. - The Pantheon.
reliefs of garlands and candelabra. The threshold of the rotunda is an enormous slab of Porta santa marble; but the bronze doors date from the sixteenth century. The exterior of the building is faced with small triangular bricks, with courses of tegulae bipedales at regular intervals, and is divided into three zones by cornices. In the central zone are sixteen sham windows. This whole surface of the drum and the vestibule was covered with marble and stucco, while that of the dome was covered with tiles of gilt bronze.

The portico or pronaos is rectangular, 34 metres wide and 13.60 deep, and has three rows of columns, eight in the front
row and four in the second and third, making sixteen in all. These columns are of red and gray granite, 12.50 metres in height and 1.50 in diameter, and are surmounted by Corinthian capitals of white marble. Two of those now standing at the east end of the portico were taken from the thermae Alexandrinae and set up by Alexander VII in 1662, to replace two of the original columns which had been injured. These columns support an entablature and a triangular pediment, which was adorned with reliefs and statues. The inscriptions on the frieze and architrave have already been mentioned. The entablature is continued on both sides of the portico and vestibule as far as the wall of the drum, thus cutting the central zone of the latter directly in the middle. The pavement of the portico is composed of slabs of Egyptian granite. There is no connection between the portico and the main structure, but an open space 55 millimetres wide, and the foundations of the portico were built after those of the rotunda. It is therefore certain that the portico was built after the rest of the structure, but probably immediately afterward, for its construction dates from Hadrian's time and we can hardly conceive of the rotunda and vestibule standing by themselves with no proper front. The roof of the portico was supported by a system of trusses and was ornamented with gilding. The columns rest upon two sorts of foundation; those of the second and third rows upon parallel walls of concrete of Hadrian's time, and those of the front row on a travertine wall which belonged to an earlier rectangular structure, 43.76 metres wide and 19.82 deep, the short axis of which coincides with the north-south axis of the rotunda. This travertine wall, being longer than the width of the portico, projects beyond it on each side, and could have supported ten instead of eight columns. The side wall on the west can be traced, and is 19.82 metres long. These walls belonged to a travertine and peperino podium; and surrounding them, at an average dis-
tance of 1 metre, was a marble stylobate. The space between the stylobate and the podium appears to have been filled with rubble. On the south side of this early building was a projection - evidently a pronaos - 21.26 metres wide, showing that the building was a temple fronting south, in form similar to the temple of Concord, much wider than deep, with a pronaos which did not extend across the entire front. The


Fig. 76. - The Interior of the Pantheon. ${ }^{1}$
level of this travertine podium is about 2.50 metres below the present pavement of the portico.
Beneath the pavement of the rotunda, at a depth of 2.15 metres, there is an earlier pavement, consisting of a bed of rubble on which were laid slabs of marble, of which fragments of pavonazetto and giallo antico have been found. This pavement extends everywhere under the rotunda, and originally

1 The proper proportions of the building have been changed in this illustration, in order to show more of the interior.
covered a greater area, for it was cut off when the circular foundations of the drum were laid. It is highest in the middle and slopes away in all directions, a condition which is probably due to the great pressure of the walls of the drum. There are no traces of walls crossing this pavement, and therefore it is probable that it was the pavement of an open area, in front of the earlier structure which is beneath the portico. Traces of a third pavement have been found beneath that just described. The marble pavement has also been found under the portico, between the travertine podium and the present pavement.

The result of these discoveries is to show that the existing Pantheon is entirely the work of Hadrian, and that it was built over an earlier building, which is probably the Pantheon of Agrippa, restored by Domitian. The presence of the inscription recording Agrippa's building may be explained by the statement of Hadrian's biographer that that emperor never inscribed his own name on monuments which he restored, nor even on those which he himself erected, with but one exception. The inscription may therefore be either the original one of Agrippa, preserved through the vicissitudes of one hundred and fifty years, or one cut by Hadrian.
The restoration by Severus was probably confined to a redecoration of the interior. Portions of this marble ornamentation existed until the eighteenth century, when the present system was substituted. The gilt tiles of the roof of the dome were carried off by Constans II, and the bronze trusses and roof of the portico were converted into cannon by the Barberini Pope, Urban VIII, in 1625.
In 609, Boniface IV brought to the Pantheon the bones of several hundred martyrs from the catacombs, and dedicated the temple as the church of S. Maria ad Martyres. In later times it has been known as S. Maria Rotonda, and has been made the burial place of the kings of Italy.

In front of the Pantheon was an open space surrounded by the usual porticus, which extended north as far as the present via delle Copelle and via del Collegio, and on the east and west coincided with the line of the modern houses. Its columns were of gray granite, and its level somewhat below the present. Flights of five steps led from the portico of the Pantheon to the travertine pavement of this area. Some fragments of pavement and columns have been discovered.
(18) Iseum et Serapeum. The great temple of Isis and Serapis stood between the Saepta and the temple of Minerva. It was probably first built in the Augustan period, for we are told that the triumvirs voted in 43 b.c. to erect a temple to these divinities. ${ }^{1}$ In consequence of the shameless conduct of the priestesses, the temple was destroyed ${ }^{2}$ during the reign of Tiberius and the statue of Isis thrown into the Tiber; but it must have been rebuilt, for it was burned in 80 A.D. ${ }^{3}$ It was afterward rebuilt by Domitian ${ }^{4}$ on a magnificent scale; and restored still later by Alexander Severus, ${ }^{5}$ about the time when this cult reached the height of its popularity. The last restoration was under Diocletian. ${ }^{6}$

The structure ${ }^{7}$ of Domitian occupied a long and narrow rectangular area, and consisted of an inclosing porticus, with wall and inner colonnade in pure Graeco-Roman style, and resembled in form and architecture the forum Transitorium. The main entrance was at the north end, between propylaea adorned with pyramidal towers. In front of the propylaea were two obelisks, ${ }^{8}$ one of which now stands in the piazza

[^262]della Rotonda, and the other in the villa Mattei. The north half of the inclosure formed a court, through the centre of which and forming its main axis ran the dromos, an avenue adorned with statues of sphinxes and lions.

It has usually been supposed that the temple itself was double, and that its two cellae stood back to back, as in the temple of Venus and Roma, but the very recent rearrangement of the fragments of the Marble Plan (p. 3) has shown that the south end of the whole structure was formed by a large semicircular apse, about 60 metres in diameter, in the outer wall of which were several small exedrae. The inner side of this apse was adorned with columns, and a colonnade formed its diameter. Immediately north of this apse was a rectangular area, of the same width as the apse, and about 20 metres deep, with three entrances on its north side. The name Serapeum is given to this part of the structure on the Marble Plan, and it is therefore clear that the Iseum and the Serapeum were separate structures, and not built together in the shape of a double cella.

Within the temple and porticus were gathered together countless works of art, many of which have been recovered, among them the statues of the Tiber (Louvre), the Nile (Vatican), the Ocean (Naples), the lions ${ }^{1}$ in the Vatican, and the obelisk now in front of the railroad station. Parts of six of the columns of the Iseum have been found in situ, and of eight of the Serapeum.
(19) The temple of Fortuna Redux. This temple ${ }^{2}$ was built by Domitian immediately after his triumphal entry into Rome in 93 A.D. It was probably near the porta Triumphalis, and is mentioned in the fourth century.
(20) The temple of the deified Hadrian, or Hadrianeum. ${ }^{3}$ This temple, erected by Antoninus Pius, probably stood near the

[^263]modern church of S. Maria in Aquiro in the piazza Capranica. It is represented on a coin ${ }^{1}$ of 151 A.D. as octostyle, and is mentioned in the fourth century.

With these temples may be counted the ara Pacis Augustae. After the return of Augustus from Spain and Gaul in 13 в.c., the Senate voted to erect an altar to the Pax Augusta, ${ }^{2}$ on which the magistrates, priests, and Vestals should offer sacrifices once a year. This decree was dated July 4, 13 b.c., but the dedication did not take place until January 30, 9 b.c. The altar ${ }^{5}$ stood on the via Flaminia, under the modern palazzo Fiano at the corner of the Corso and the via in Lucina, where many of its fragments have been found. These fragments are now scattered in various collections in Rome, Florence, and Paris, and from them three attempts at a reconstruction have been made. Although the details are uncertain, it is clear that the altar proper stood within an inclosure of white marble, about 10 metres square. The outer decoration consisted of a band of garlands, etc., a frieze representing the scenes of a triumph, and an entablature, with Corinthian pilasters at the corners. On the inner side of the wall were palm branches, ox-skulls, and festoons of flowers. The entrance was on the east side, on the via Flaminia, and was flanked by pilasters similar to those on the corners. In the centre of the rear wall was a niche to contain a statue.

The church of S. Niccoló ai Cesarini, just east of the porticus Pompeia, stands upon the foundations of a rectangular peripteral hexastyle temple of tufa. Parts of six columns of the front of the pronaos and of three of the left side, together with a part of the angle of the cella, are in situ beneath the

[^264]church. In the garden of the same church, close to the south wall, are the remains of a circular peripteral temple, ${ }^{1}$ with a travertine podium and fluted columns of tufa. Four of the columns are now standing in situ, and a part of another. There were sixteen columns in all, with capitals of white Corinthian marble, of which five have been preserved.

Both these temples are represented on the Marble Plan ${ }^{2}$ and in drawings of the end of the fifteenth century, but they cannot be identified with any certainty, although some ${ }^{3}$ regard the round temple as that of Hercules Magnus Custos (see above, p. 328, No. 3).

The most recent study of the Marble Plan (1903), consequent upon its removal from the Capitoline Museum, has resulted in the discovery that fourteen of its fragments exhibit a group of buildings between the Saepta Iulia and the baths of Agrippa. ${ }^{4}$ This structure covered the greater part of the area now occupied by the palazzi Venezia, Grazioli, and Altieri, and the church of the Gesù, and it was hitherto known to us only as Divorum, from its mention in the Regionary Catalogue ${ }^{5}$ and Chronograph. A porticus Divorum is also said to have been built by Domitian. ${ }^{6}$. It is now almost certain that Divorum is an abbreviation for templum Divorum, that is aedes divi Vespasiani et aedes divi Titi, a temple erected by Domitian in memory of his father and brother, and that the porticus Divorum was the usual porticus attached to this double temple. The building is represented as a rectangle about 200 metres long and 55 wide, containing a grove and an altar, with something over thirty columns on the long sides and sixteen on one short side. The entrance, on the north, was formed

[^265]by a double arch; and just within this entrance, on either side, was a small tetrastyle shrine. It is entirely probable that one of these was the aedes divi Vespasiani and the other the aedes divi Titi. ${ }^{1}$ In front of the entrance is a lavacrum, where the famous bronze cone (pinea pigna) of the Vatican may have stood.

Buildings for Theatrical Representations and Games. - The circus Flaminius. As early as 221 b.c., C. Flaminius Nepos, while censor, erected in the south part of the campus Martius his famous circus, ${ }^{2}$ which was for many years the most conspicuous building in this section of the city, and gave its name first to the immediate neighborhood and afterward to the whole ninth region. Its site is now entirely covered with modern houses, and no traces of the circus itself are visible; but its exact position is known from the descriptions of writers of the sixteenth century, at which time large portions of the first story were still standing. The length of the circus was about 297 metres, its width about 120 , and its main axis ran nearly east and west. It appears to have been built according to the plan adopted in later structures of a similar nature, and its lower story opened outward through a series of travertine areades, between which were Doric half-columns. In this circus the ludi plebeii ${ }^{3}$ and the ludi Taurii ${ }^{4}$ were celebrated, and its proximity to the centre of the city made it a favorite place for holding assemblies of the people ${ }^{5}$ and for markets.

Amphitheatres. The amphitheatre, or edifice consisting of concentric rows of rising seats which entirely inclose a central arena, seems to have been a purely Roman invention, adapted for shows of various kinds, but especially for gladiatorial com-

[^266]bats and fights with wild beasts. The most conspicuous example of this class of buildings is the Colosseum, but there were at least two earlier ones in the campus Martius.
The first stone amphitheatre in Rome was built in 29 в.c. by L. Statilius Taurus. ${ }^{1}$ It belonged to the family of the builder, and seems to have been of small size. ${ }^{2}$ It was burned ${ }^{5}$ in the great fire of 64 A.D., but Nero immediately erected a wooden amphitheatre, perhaps on the site of that of Taurus. ${ }^{4}$ No traces of either amphitheatre have been found, but the slight elevation in the campus Martius, called monte Giordano, is thought by some ${ }^{5}$ to have been caused by the ruins of the building of Taurus.
Stadium Domitiani. The athletic contests of the Greeks were introduced into Rome in the last century of the republic, and Caesar and Augustus ${ }^{6}$ erected temporary structures in which they might be held, but Nero ${ }^{7}$ seems to have been the first to put up a permanent building. This Gymnasium, as it was called, which was attached to Nero's baths, was regarded as one of the most wonderful edifices in the city. ${ }^{8}$ It was struck by lightning ${ }^{9}$ and burned to the ground in 62 A.D., and there is no record of its restoration ; but the stadium built by Domitian ${ }^{10}$ probably occupied the same site. This stadium was restored by Trajan ${ }^{11}$ and by Alexander Severus, ${ }^{12}$ and was known in the middle ages as the stadium Alexandrinum. It was spoken of in the fourth century ${ }^{18}$ as one of the most beautiful buildings in Rome. Curiously enough, the modern piazza Navona, the longest in the city, preserves almost exactly the

[^267]shape and size of the stadium of Domitian. The piazza corresponds with the arena of the stadium, the length of which seems to have been about 250 metres, and the surrounding buildings stand on the ruins of the cavea. Under some of these buildings, especially the church of S. Agnese in the middle of the west side, brick and concrete walls and fragments of the travertine seats may still be seen.

Theatre of Pompeius. This, the first permanent theatre in Rome, was built by Cn. Pompeius in 55 b.c., and from its construction was frequently called theatrum lapideum or marmoreum. ${ }^{1}$ The results of excavations at various periods, compared with the outlines of the theatre on the Marble Plan, enable us to determine its location with accuracy, just northwest of the circus Flaminius. Some remains of walls of travertine and opus reticulatum still exist beneath the modern houses. The façade of the semicircular cavea resembled that of the theatre of Marcellus, consisting of three series of arcades, the lowest adorned with half-columns of the Doric order, the second of Ionic, and the third of Corinthian. The whole building was magnificently embellished with stucco and marble. It was always the most important ${ }^{2}$ theatre in the city, as well as the largest, seating, according to the most careful estimates, about ten thousand spectators. ${ }^{3}$ Even after the erection of all the wonderful structures of the empire, it was regarded in the fourth century as inter decora urbis aeternae. ${ }^{4}$

In order to avoid censure for having built a permanent theatre, Pompeius is said ${ }^{5}$ to have erected a temple to Venus Victrix at the top of the central part of the cavea, so that

[^268]the rows of seats might appear to be the steps leading up to the temple, and to have dedicated the whole as a temple and not as a theatre. From a notice in one of the calendars, ${ }^{1}$ it appears that there were at least three other temples, dedicated to Honor, Virtus, and Felicitas, similarly placed within the theatre.

Augustus ${ }^{2}$ restored this theatre in 32 b.c. ; and it was afterward frequently injured by fire, but always rebuilt, - by Tiberius, Caligula, and Claudius, ${ }^{3}$ by Titus and Domitian, ${ }^{4}$ by Septimius Severus, ${ }^{5}$ by Diocletian, ${ }^{6}$ and by Honorius and Arcadius. ${ }^{7}$

The theatre of Balbus. This theatre was built by L. Cornelius Balbus, a friend of Augustus, and dedicated in 13 в.c. ${ }^{8}$ It was burned in 80 A.D., restored, ${ }^{9}$ probably by Domitian, and is mentioned as existing in the fourth century. It was smaller than the theatre of Pompeius and held about eight thousand spectators. ${ }^{10}$ The ruins of this theatre formed in the middle ages the slight elevation known as the monte dei Cenci, and some remains of walls are now hidden by the houses in the piazza dei Cenci. From data afforded by earlier excavations and by notes and drawings of the renaissance, it has been possible to fix the exact site of the theatre. Its main axis ran northeast-southwest, and the cavea was turned toward the Tiber. Its exterior was like that of the theatres of Pompeius and Marcellus, being built of travertine with three series of arcades with engaged columns, Doric below, and Ionic and Corinthian on the second and third stories. It contained four columns of onyx, which excited the utmost wonder and admiration in Rome. ${ }^{11}$

[^269]The theatre of Marcellus. The building of this theatre was planned by Julius Caesar, but carried out by Augustus, who purchased the site from private owners at great expense. ${ }^{1}$ The temple of Pietas in the forum Holitorium and other shrines and temples were removed to make room for the new theatre, which was named after Marcellus, the adopted son of Augustus, who died in 23 в.c., and dedicated in 13 b.c. (or, according to Pliny, in 11 b.c.). ${ }^{2}$ The stage portion was restored by Vespasian, ${ }^{3}$ and Alexander Severus is said to have wished to restore the whole building; ${ }^{4}$ but the destruction of the edifice must have begun as early as 360 a.d., for some of its stone blocks were then taken out to be used in repairing the pons Cestius. ${ }^{5}$ From 1086, for nearly two centuries, the structure was occupied by the Pierleoni family as a medieval stronghold. In 1386 it came into the possession of the Savelli, and in 1712 into that of the Orsini. ${ }^{6}$ The present palazzo Orsini stands upon the stage and a large part of the cavea of the old theatre.

The theatre is near the Tiber, between it and the southwest end of the Capitoline, the stage being toward the river, and the main axis running north-northeast and south-southwest. It was built of travertine for the most part, but the inside was covered with stucco and marble. This same method may have been employed on portions of the exterior also. Part of the masonry of the interior was of opus reticulatum. Just off the piazza Montanara, in the via del Teatro di Marcello, a considerable portion of the semicircular façade is still standing, and in spite of the disreputable surroundings it forms one of the most imposing ruins in Rome.

[^270]As in the Colosseum, the exterior of the cavea was built with three series of open arcades, one above another. The existing ruins comprise a little less than one-third of the total semi-circumference. The half-columns between the arches of the lower areade are of the Doric order. Above them is a Doric entablature with triglyphs and an attic, 1.20 metres high, the projections of which form the bases of the half-columns of the second Ionic arcade. The entablature above these columns consists of an architrave of three projecting ledges, with a plain frieze and a cornice. The masonry above the second story is modern, but there was undoubtedly an original third story, decorated with Corinthian pilasters.

The original level of the ground was about 5 metres beneath that of the modern street, and about one-third of the lower arcade is therefore buried. There are thirteen piers of this lower arcade now standing, with their engaged columns. The piers themselves are 3 metres wide and 2 thick. Immediately within these piers was an ambulatory that ran entirely round the cavea, and from it spur walls were built on radial lines, which supported the tiers of seats. The construction of walls, seats, etc., as well as of the exterior, seems to have been quite like that of the Colosseum. The modern palace covers most of the inner portion of the theatre, but a considerable section of the ambulatories and chambers between the spur walls has recently been made accessible, and there the construction may be conveniently studied. Some parts of the stage lie beneath the houses in the via monte Savelli. From the statement of the Curiosum, it is estimated that this theatre contained seats for more than fourteen thousand persons, - more than the theatre of Pompeius, although that was a larger building, - but considerable doubt attaches to these estimates of seating capacity. ${ }^{1}$

Somewhere in region IX, Domitian erected a building for theatrical performances called the Odeum, ${ }^{1}$ in imitation of similar buildings in Greece. This was the only building in the city which bore this name. It was restored by Trajan, ${ }^{2}$ and ranked in the fourth century as one of the most conspicuous monuments of Rome. No trace of it has ever been discovered.

We may mention here the Athenaeum, ${ }^{3}$ a building somewhat in the style of an amphitheatre, which was erected by Hadrian for readings, lectures, and similar purposes. It is not known definitely whether this building was in the campus Martius ${ }^{4}$ or on the Capitoline, ${ }^{5}$ but it was probably in the campus.

Porticoes. - The level plain of the campus Martius was particularly well adapted to this characteristic form of Roman architecture, - the porticus, - which conformed to a general model, while varying in proportions and details. The porticus consisted of a covered colonnade, formed by two or more rows of columns, or a wall on one side and columns on the other. Its chief purpose was to provide a place for walking and lounging which should be sheltered from storm and sun, and for this reason the intercolumnar spaces were sometimes filled with glass or hedges of box. Within the porticoes or in apartments connected closely with them, were collections of statuary, paintings, and works of art of all kinds, as well as shops and bazaars. In some cases the porticus took its name from some famous statue or painting, as the porticus Argonautarum (p. 355).

While the erection of the first porticus in the campus Martius dates from the early part of the second century в.c.,

[^271]the period of rapid development in their numbers and use did not begin until the Augustan era. The earliest of these structures seem to have been devoted exclusively to business purposes. By the time of the Antonines, there were upwards of a dozen in region IX, ${ }^{1}$ some of them of great size, and it was possible to walk from the forum of Trajan to the pons Aelius under a continuous shelter. They were usually magnificently decorated and embellished, and provided with beautiful gardens. Lanciani ${ }^{2}$ estimates the total area covered by porticoes and gardens in the campus Martius at about 100,000 square metres. The modern continuation of the porticus idea may be seen in some European cities, especially Bologna, Munich, and in the Rue de Rivoli in Paris.

Within the limits of region IX there were the following porticoes:-
(1) The porticus Octavia, built by Cn. Octavius in 179 b.c. to commemorate a naval victory over Perseus of Macedonia. ${ }^{\circ}$ It was also called the porticus Corinthia, from its bronze Corinthian capitals, which may have been the first instance of the use of this order in Rome. Augustus restored ${ }^{4}$ this porticus in 33 b.c. and placed within it the standards which he had taken from the Dalmatians. It stood between the theatre of Pompeius and the circus Flaminius.
(2) The portious Metelli, built in 147 b.c. by Q. Caecilius Metellus Macedonicus, ${ }^{5}$ and situated between the circus Flaminius and the theatre of Marcellus. It inclosed the temples of Iuppiter Stator and Juno (p. 330) and contained many famous works of art brought by Marcellus from the east. Some time after 14 b.c., ${ }^{6}$ Augustus removed this porticus and erected in its place the porticus Octaviae, ${ }^{7}$ at the same time restoring the inclosed temples.

[^272]The porticus Octaviae was burned ${ }^{1}$ in 80 A.D. and restored, probably by Domitian, and again, after a second fire, by Severus and Caracalla in 203 A.d. ${ }^{2}$ It inclosed a rectangular area 135 metres long and 115 . wide, and is represented on the Marble Plan. It consister of an exterior wall of brick and concrete, lined with marble, and of a double row of marble columns


Ftg. 77. - The Porticus Octaviae restored.
within. The main axis ran northeast-southwest, and the principal entrance was in the middle of the southwest side. At the four corners of the porticus were smaller vaulted entrances. Within the inclosure was a bibliotheca, ${ }^{3}$ erected by Octavia in memory of the youthful Marcellus, a curia Octaviae, ${ }^{4}$ where the senate sometimes met, and a so-called schola; ${ }^{5}$ but it is uncer-

[^273]tain whether these different names were applied to the same building, to different parts of the same building, or to entirely distinct structures.

Of this porticus some ruins ${ }^{1}$ still remain, especially of the main entrance, which had the form of a double pronaos, projecting outward and inward. Across each front of this pronaos, between the side walls, were four Corinthian columns of white marble, which supported an entablature and a triangular pediment. The entablature and pediment and two of the columns of the outer front still exist, but the remaining columus were replaced in the fifth century by a brick arch. On the architrave is the inscription which records the restoration in 203 A.D. The height of the shaft of the columns of the pronaos is 8.60 metres, and their diameter at the bottom 1.10, and at the top 0.96 metre. Parts of a number of the columns of the south colonnade are also standing, but their bases are below the present level of the ground. Some of the capitals of these columns are built into the walls of houses in the via del Teatro di Marcello.
(3) The porticus Minucia, built in 109 b.c. by M. Minucius Rufus. ${ }^{2}$ This porticus was double, and seems to have consisted of two parts; for, at a later period, we are told that there were two buildings, - the porticus Minucia vetus and the portious Minucia frumentaria. ${ }^{3}$ In the latter, under the empire, the distribution of grain tickets to the proletariat took place; while the former was a place for lounging and for political assemblies. The relation between the porticus vetus and the porticus frumentaria has never been satisfactorily explained, ${ }^{4}$ as it is expressly stated that they were both built by the same man at the same time.

[^274]The porticus Minucia was directly at the base of the Capitoline hill, between it and the theatre of Marcellus. In the second century it seems to have served as one of the offices of the water works of the city, as we read of curatores aquarum et Miniciae. ${ }^{1}$ Both parts of the porticus existed in the fourth century, and some remains now visible - e.g. two pilasters built into the walls of houses in the piazza Montanara-are thought to belong to them.
(4) The porticus Pompei, built in 55 b.c. by Pompeius, ${ }^{2}$ at the same time as his theatre. The porticus adjoined the scena of the theatre ${ }^{3}$ and inclosed a large rectangular court, its purpose being to provide shelter for the spectators in case of sudden showers. The same provision was made in the case of the theatre of Marcellus, but no trace of that porticus has been found. The porticus Pompei suffered in the conflagrations which destroyed the theatre, and was restored by Domitian; in the reign of Diocletian, by the prefect of the city, Aulus Helvins Dionysius; and by Arcadius and Honorius ${ }^{4}$ in 418420 a.d. Helvius called one part of the restored structure porticus Iovia ${ }^{5}$ and the other porticus Herculea, in honor of the emperors Diocletian and Maximian. The central area was laid out as a garden with shady walks, and contained many works of art. ${ }^{6}$ At some point in the porticus was an exedra, called the curia Pompei, ${ }^{7}$ in which Caesar was murdered. The statue of Pompeius which stood there was removed by Augustus, ${ }^{8}$ who walled up the curia as a locus sceleratus. In connection with this porticus was one built by Augustus, and called the

[^275]porticus ad Nationes, ${ }^{1}$ because it contained statues representing all the nations of the earth. It is possible, however, that this was not a separate porticus, but only a portion added to the porticus Pompei. No remains of the latter exist above ground, but its lines are known from earlier discoveries, and some fragments have been found in recent years. ${ }^{2}$
(5) The Hecatostylon. Very near to the porticus Pompei was a similar structure, called the Hecatostylon, or porticus of the hundred columns. This is not mentioned until the end of the first century, ${ }^{3}$ but it may have been built by Pompeius. It is represented on the Marble Plan, and some of its ruins have been found in and around the piazza del Gesù, the most noteworthy of which was a long piece of peperino wall with travertine pavement in front, parallel to the line of the Corso Vittorio Emanuele, between the piazza and the via dell' arco dei Ginnasi. ${ }^{4}$
(6) The Orypta Balbi, a porticus ${ }^{5}$ built by Balbus in 15 в.c., adjoining his theatre and consisting of a series of arcades, covering an area 148.50 by 44.55 metres in extent. Above these arcades was a second story, which may have been the reason why the porticus was called crypta, a name usually applied to an underground corridor which was lighted from above. A considerable portion of the building existed in the sixteenth century, and we possess plans and drawings of that period; but the foundations are now covered with houses. Two travertine pilasters, with engaged columns and the entablature, are built into the front of a house in the via in Cacaberis, No. 23. Blocks of the travertine pavement have also been found in the via Arenula, 5.80 metres beneath the present level. ${ }^{6}$

[^276](7) The porticus Philippi, built as the peribolus of the temple of Hercules and the Muses (p. 329), by L. Marcius Philippus, the stepfather of Augustus, at the same time that he rebuilt the temple. The exact date is not known. This porticus is represented on the Marble Plan, and is mentioned in the fourth century. It contained some famous pictures, and hairdressers' shops. ${ }^{1}$ A few of its ruins have been found in the piazza Mattei. ${ }^{2}$
(8) The porticus Argonautarum, built by Agrippa in 25 в.c. as the peribolus of the basilica Neptuni (p. 357), north of the Saepta. Basilica and porticus thus carried out the idea of the imperial fora. The name was given to the porticus because the adventures of the Argonauts were painted on its walls. ${ }^{3}$ It consisted of an inclosure wall and of a colonnade within which was probably single, the inclosed area being 108 metres long and 98 wide. It was burned in 80 A.D., restored by Domitian and again by Hadrian, and was one of the most frequented ${ }^{4}$ resorts in the city. Some of its ruins have been found, - namely, portions of travertine pavement 4 metres below the present level of the soil, peperino blocks belonging to the inclosure wall, a Corinthian column of yellow marble, and various architectural fragments.
(9) The porticus Boni Eventus, built by Agrippa round the temple of Bonus Eventus, ${ }^{5}$ which he erected at the same time, between the thermae Agrippae and the theatre of Pompeius. Some remains of an ancient peperino wall, evidently of a temple, found on the site of the church of S. Maria in Monterone, have been thought to belong to this temple. At different times since the sixteenth century, five capitals of white

[^277]marble of great size, 1.70 metres in height and 1.44 in width, have been found in an almost straight line 100 metres in length, between the church of S. Maria in Monterone and the Teatro della Valle. These capitals were lying at an equal depth beneath the surface of the ground, and undoubtedly belonged to the porticus.
(10) The porticus Europae, situated near the Saepta, of which the exact location and date of building are unknown. Its name was derived from a famous painting of Europa on its wall. ${ }^{1}$ In Martial's time this was one of the most popular lounging places in Rome.

In the fourth century a porticus Meleagri ${ }^{2}$ is mentioned, but it is uncertain whether this was a separate porticus or only a part of the Saepta, so named from a statue or painting.
(11) The porticus Maximae. One of the most important streets in region IX was that which led from the neighborhood of the theatre of Balbus to the pons Aelius. During the reign of Gratian, Valentinian, and Theodosius, about 380 A.D., this street was provided with a colonnade, the porticus Maximae, ${ }^{3}$ which extended from the Aelian bridge to the theatre of Pompeius and connected several of the other porticoes in this region. Its ruins have been found in the piazza del Pianto and the via della Reginella, -fragments of granite columns with Corinthian capitals, and bases, 3.10 metres below the present level of the ground. The pavement of the street has also been found at various points, and its line is followed closely by the modern vie di Pescheria, del Pianto, de' Giubbonari, de' Cappellari, and del Banco di S. Spirito.

Several times in classical literature a via Tecta is mentioned, ${ }^{4}$ which seems to have connected the region of the circus Flami-

[^278]nius with the Tarentum. This direction corresponds with that of the street just described, and it may be that this street was protected in some way long before the porticus Maximae were built, and was therefore called the via Tecta.
(12) The porticus Divorum (divi Vespasiani et Titi ?). See p. 342.

Basilicas. - The basilica Neptuni was erected by Agrippa in 25 B.c. to commemorate the naval victories of Augustus. ${ }^{1}$ Although called a basilica, it appears to have been a temple dedicated to Neptune, standing in the middle of the inclosure formed by the porticus Argonautarum. It was burned in 80 A.D., and restored, probably by Hadrian. A drawing of the sixteenth century represents the building as hexastyle and peripteral, with fifteen columns on each side. A part of the northeast side is still standing, although much injured by fire, and forms part of the building that was until recently the Custom House, but is now the Bourse. ${ }^{2}$ This part consists of eleven fluted columns of white marble with Corinthian capitals, and a richly decorated entablature. The columns are 13.10 metres in height and 1.44 in diameter, and date from Hadrian's restoration. The cornice has been so badly restored as to appear now in three patterns. The wall of the cella behind the columns is of peperino, and the original marble lining has entirely disappeared. Cella and columns stand upon a lofty stylobate, which is now buried beneath the surface of the ground. This stylobate was adorned with reliefs, ${ }^{3}$ those beneath the columns representing the provinces, and those in the intercolumnar spaces trophies of victory. In all, sixteen statues of provinces and six trophies have been found, but they are seattered in five different collections in Rome and Naples.

[^279]An exact restoration of this building is perhaps impossible, but it is quite probable that the temple was octostyle, peripteral, with fifteen columns on a side. If we suppose that a wide flight of steps occupied the whole front of the stylobate, there would be space for thirty-six reliefs beneath the remaining columns of the peristyle, and this is exactly the number of


Fig. 78. - The Basilica of Neptune.
the provinces in the time of Hadrian. Other remains have been found, among them pieces of travertine pavement within the cella, and fragments of columns and cornice and a granite threshold 4 metres below the present floor level.

Basilica Matidiae, basilica Marcianae. These two basilicas were between the Pantheon, the north end of the Saepta, and the column of Aurelius. One of them was named from Matidia, the mother-in-law of Hadrian, and the other from Marciana,
the sister of Trajan. ${ }^{1}$ They probably formed one group with the temple of Hadrian (p. 340). Some cipollino columns that have been found just north of the via dei Pastini, between the Pantheon and the vicolo della Spada d' Orlando, undoubtedly belong to one of them.

Arches. - Arcus Tiberii, arous Domitiani. In the campus Martius were many triumphal arches. Tiberius erected one near the theatre of Pompeius, which is mentioned only once, ${ }^{2}$ and Domitian another, which was either near the porta Triumphalis or was a restoration of this gate itself (p.327).

Arcus Pietatis. On the north side of the Pantheon, in the line of the inclosing porticus, was a triumphal arch, adorned with reliefs that represented the provinces, personified, in the act of asking favor of the emperor. This arch was called arcus Pietatis in the middle ages, but its original name is unknown.

Arcus Gratiani Valentiniani et Theodosii. This arch ${ }^{3}$ stood directly in front of the pons Aelius, spanned the principal street of region IX which led to this bridge from the circus Flaminius, and formed the north end of the porticus Maximae (p. 356). It was quite customary to erect such an arch at the approach to a bridge. This arch was built between 379 and 383 A.D., and seems to have stood until 1503.

Arcus Arcadii Honorii et Theodosii. This arch was erected in 403 a.d. by Arcadius, Honorius, and Theodosius, in honor of Stilicho's victories. ${ }^{4}$ It was certainly near the arch just mentioned, but whether it spanned the same street or a branch a short distance to the south, we do not know. This branch led from the porticus Maximae to the pons Neronianus.

[^280]Columns. - There were two columns like that of Trajan in region IX. The first, columna Antonini Pii, was erected in memory of Antoninus Pius, by his two adopted sons, Marcus Aurelius and Lucius Verus. It stood ${ }^{1}$ a little west of the present House of Parliament, on the edge of the slight elevation known as monte Citorio (p. 17). It had the same orientation as the Ustrinum, from which it was separated by a distance of 25 metres. The column was a monolith of red granite, 14.75 metres high, and stood on a pedestal of white marble. As represented on a coin ${ }^{2}$ of Antoninus, it was surrounded by a grating. Previous to the eighteenth century the base of the column was entirely buried, but the lower part of the shaft itself projected about 6 metres above the ground. In 1703 the base was excavated, but the shaft lay in the piazza Colonna for many years, until it was used to repair the obelisk in the same piazza. Three of the sides of the pedestal, which is now in the Vatican gardens, are covered with reliefs. The principal one, representing the apotheosis of Antoninus and Faustina, was turned toward the Ustrinum. The other two represent soldiers on the march. The fourth side bears the dedicatory inscription. ${ }^{3}$

In close connection with the column was the Ustrinum Antoninorum, or crematory of the Antomines. There is no mention of this building in ancient literature; but the excavations of 1703 brought enough of its ruins to light to afford a satisfactory idea of its character. ${ }^{4}$ It consisted of three square inclosures, one within another. The two inner inclosure walls were of travertine ; the outer consisted of a travertine curb, on which stood pillars of the same material with an iron grating between them. The innermost inclosure, where the cremation took place, was 18 metres square, the second inclosure 32 , and

[^281]the outer 43 metres square. A free space, 4.7 metres wide, was left between the first and second walls and between the second and third. The entrance was on the south.

The other column, columna M. Aurelii Antonini, which was also called columna cochlis and columna centenaria divi Marci, stood on the west side of the via Lata, opposite the campus Agrippae and was erected some time before 193 A.D. to commemorate the victories of Marcus Aurelius over the Dacians and Marcomani in 172-175 A.D. ${ }^{1}$

It is a direct imitation of the column of Trajan, the height of shaft and capital being the same, 100 Roman feet. The shaft itself, 26.60 metres in height and 3.96 in diameter, is composed of twenty-six rings of Luna marble. It is hollow, and contains a spiral staircase of two hundred and three steps. The interior is lighted by fifty-six rectangular loopholes. The capital is of the Doric order, and was surmounted originally by statues of Marcus Aurelius and Faustina. These disappeared at some unknown date, and the present bronze statue of St. Paul was erected by Sixtus V. The pedestal of the column is of great height, for a considerable part of it still rises above the present level of the ground, which in turn is 4.75 metres above the ancient travertine pavement.

The exterior of the column is adorned with reliefs, arranged on a spiral band which returns upon itself twenty-one times. These reliefs represent scenes in the campaigns of Aurelius and correspond to those on the column of Trajan, but are far inferior to them in execution, and have been much injured by fire and earthquake. The original reliefs of the pedestal were chiselled off by Sixtus V, who added the present marble decoration, some of which was taken from the Septizonium.

[^282]It is probable that the temple of Aurelius, aedes divi Antonini, stood just west of this column, in the same relation to it as the temple of Trajan to his column, and that temple and column were surrounded by a porticus; but no traces of this temple have been found. Near the column was a lodge, built in 193 A.D. by Adrastus, procurator columnae centenariae divi Marci, at the expense of the government. The inscription ${ }^{1}$ which records this transaction has been preserved.

The Obeliscus Augusti. - Augustus brought two obelisks ${ }^{2}$ from Heliopolis to Rome, one of which was set up in the Circus Maximus and the other in the campus Martius, between the ara Pacis Augustae and the columna Antonini Pii. The latter is the one now standing in the piazza di monte Citorio. The inscriptions ${ }^{3}$ on the pedestals of the two obelisks are identical, and show that they were set up in the year 10 в.с.

The obelisk of the campus Martius is of red granite, 21.30 metres in height and covered with hieroglyphies. The travertine base has been much restored, and the column itself repaired with fragments of stone from the columua Antonini.

Augustus employed this obelisk as the gnomon, or needle, of a great sun-dial, or solarium, ${ }^{4}$ formed by laying an extensive pavement of white marble on the north side of the obelisk, on which pavement the lines were indicated by strips of gilt metal inlaid in the marble. Portions of this pavement, of the gilt lines, and of figures of animals representing the signs of the Zodiac, were found at various times in the fifteenth and sixteenth centuries, but they were again covered and are still buried beneath the modern buildings. The obelisk itself was thrown down at some unknown date, and although it was dis-

[^283]covered under the ground in 1463 , it was not excavated until 1748 , nor set up until 1792. The marble pavement must have extended about 150 metres in an east and west direction, and something more than half that distance north and south.

The Mausoleum Augusti. - During the first century b.c. ${ }^{1}$ it had become customary to grant the privilege of burial in the campus Martius to persons of distinction, by special decree of the senate. With this precedent in view, Augustus erected in 27 B.c., in the most northerly part of the campus, a mausoleum for the imperial family, the remains of which still exist. ${ }^{2}$ This mausoleum, called also the tumulus Caesarum, or tumulus Iuliorum, ${ }^{3}$ consisted of three parts, a square foundation entirely below the present ground level, a circular drum, and above this a tumulus or cone-shaped mound, planted with evergreens and surmounted by a colossal bronze statue of Augustus. The circular portion was composed of concentric ring-walls of concrete, faced with opus reticulatum and covered with stucco or white marble. The entrance was on the south, and the passageway led directly to a central chamber, which was the tomb of Augustus himself. Between the outer and the second wall was a row of twelve chambers, designed for other members of the imperial family. ${ }^{4}$ On the outer wall of the mausoleum, on each side of the entrance, were fastened the two bronze tablets ${ }^{5}$ on which were inscribed the Res Gestae (p. 2), and in front was a portico flanked by two obelisks. ${ }^{6}$ One of these obelisks was dug up in 1527 , and in 1587 it was set up in the piazza dell' Esquilino. The other was found in 1781 and erected in the piazza del Quirinale. The latter is 14.40 metres in height, the former somewhat less.

[^284]In this mausoleum ${ }^{\mathbf{1}}$ were placed the ashes of Augustus, his nephew Marcellus, Lucius and Gaius Caesar, Germanicus, Livia, Tiberius, Claudius, and some other members of the family. The remains of Vespasian, Titus, and his daughter Julia, which were placed here first, were afterward removed to the temple of the gens Flavia (p. 483) on the Quirinal.

In 410 Alaric plundered the mausoleum, and in the middle ages it was used as a fortress by the Colonna. In the sixteenth century the Soderini converted it into a sort of terraced garden. The outer wall of the drum now forms part of a circus, and the rest of the structure has been almost entirely transformed or built over. ${ }^{2}$

The Saepta Iulia. - We are told ${ }^{3}$ that Julius Caesar planned to replace the existing Saepta (p.327) by a marble structure inclosed by a porticus one mile in extent. This work, which Caesar only began, was continued by Lepidus and finished by Agrippa in 27 в.c. ${ }^{4}$ It is certain, however, that the building, as completed, was not built exactly on the lines laid down by Caesar, for a part at least of the area had been taken up by the thermae of Agrippa and the temple of Isis and Serapis. The new Saepta was injured by fire in 80 A.D., restored by Domitian and afterward by Hadrian. ${ }^{5}$

The diminishing importance of the comitia, and the final transfer of elections from the people to the senate during the reign of Tiberius, must have brought about great changes in the use, and perhaps in the form, of the restored Saepta. Agrippa adorned it with statues; Caligula and Claudius exhibited gladiatorial shows in the building; ${ }^{6}$ and the former also

[^285]constructed a naumachia ${ }^{1}$ within its precincts. In Domitian's time it contained a bazaar, where the most expensive luxuries in Rome were for sale. ${ }^{2}$ It is mentioned at the beginning of the third century, ${ }^{3}$ but of its later history nothing is known.

The Saepta is partly represented on the Marble Plan, ${ }^{4}$ and from this and the remains which have been discovered, a reconstruction of the building in its main lines is possible. It was a rectanglar porticus, ${ }^{5}$ extending along the west side of the via Flaminia, from the aqua Virgo on the north to the modern via di S. Marco on the south, a distance of 440 metres ( 1500 Roman feet). Its depth was 60 metres. This porticus was built of travertine and was septuple in form, that is, there were eight longitudinal rows of columns. The first row along the via Flaminia was ornamented with a balustrade. Remains of this porticus have been found at various points, especially
${ }^{1}$ Dio Cass. lix. 10.
${ }^{2}$ Mart. ii. 14. 5; ix. 59 ; x. 80.
${ }^{3}$ Lamprid. Vit. Alex. Sev. 26.
4 Jordan, FUR. 34-36.
${ }^{5}$ BC. 1893, 119-142; Gilbert, III. 174176 ; Mon. d. Lincei, i. 471-473.

beneath S. Maria in via Lata, the palazzo Doria, and the palazzo Bonaparte, the most southerly traces being beneath the palazzo Venezia and S. Marco. Whether the porticus extended as far south as the via di S . Marco is disputed, Lanciani asserting that its limit in this direction is marked by the pavement of an ancient street found just south of the remains which are beneath the church of S. Marco. If the porticus extended as far as the via di S. Marco, there was room for eighty latitudinal aisles between the short rows of columns, a number which suggests the eighty centuries of the first class of the comitia centuriata.

It is evident from the Marble Plan that this porticus constituted the Saepta in the third century ; but whether it is the porticus which Lepidus built in 17 b.c. on the via Flaminia, or whether it represents in any considerable degree the original Saepta of Agrippa, is an open question. Manifestly no naumachia could be constructed within this porticus, nor could gladiatorial shows have been exhibited here. We must, therefore, assume that west of it was an open area belonging to the Saepta, which may or may not have been inclosed, but which after the fire in 80 A.D. was used for entirely different purposes. Even remains of private houses have been found within its limits under the church of S. Ignazio.

The Diribitorium. - Agrippa also began the erection of a building in which the votes cast by the people in the Saepta could be counted (diribere $=$ dis-hibere), and which was therefore called the Diribitorium. This building was finished by Augustus in 8 b.c., and was famous for the construction of the roof of its central hall, which rested on beams more than 100 feet long, without pillars or supports of any kind. ${ }^{1}$ For many years it was the widest roof of this sort in Rome, but it fell during Caligula's reign and could not be restored in the

[^286]same form. In 80 A.d. the Diribitorium was burned, but it must have been rebuilt, for it is mentioned as existing in the third century.

It has usually been supposed that while the exact location of the Diribitorium was unknown, it was a separate building ${ }^{1}$ near the Saepta; but there is much to be said in support of a recent theory, according to which Diribitorium was the name applied to the second story of the Saepta. ${ }^{2}$

Thermae. - The first of the thermae, or great public baths of Rome, were the thermae Agrippae, built by Agrippa ${ }^{3}$ in 27 в.c., at the same time with the Pantheon; but as the aqua Virgo which supplied these baths with water was not completed until 19 в.с., the baths themselves can hardly have been opened before that date. Agrippa called these thermae by the name Laconicum (sc. balineume), and adorned the structure with many works of art. ${ }^{4}$ They were burned in 80 A.D., and restored ${ }^{5}$ either by Titus or Domitian, and afterward by Hadrian ${ }^{6}$ between 115 and 125. A later restoration was carried out by Constans and Constantius ${ }^{7}$ in 344-345 A.d.
The excavations ${ }^{8}$ of recent years and the drawings and notes of architects of the sixteenth century, when much of the building was still standing, furnish us with considerable information. The original thermae of Agrippa occupied a rectangular space 86 metres wide and 228 metres in a north-south direction, from the present Pantheon to that part of the ruins which is called the arco di Ciambella. These thermae were not connected with Hadrian's Pantheon, and therefore probably not

[^287]with the original Pantheon of Agrippa. Hadrian enlarged the area of the baths toward the east and west, and appears to have rebuilt them almost entirely. About the time of Severus they were enlarged still more, so as to cover an area 260 metres long and 200 wide, extending as far south as the modern Corso Vittorio Emanuele. Countless architectural and decorative remains have been found in this area, but all that is now visible of any importance is the hall directly south of the Pantheon, and the arco di Ciambella. The hall is rectangular, 45 metres long and 19 wide, and represents in the main the frigidarium of the original baths of Agrippa. The apse 9 metres in diameter, in the north wall, and the large pedestal for a statue are additions of Hadrian. Along each of the longer sides stood four columns of pavonazetto and red granite. Between the first and second and the third and fourth columns on each side were three niches, two rectangular and one semicircular. Round the hall ran a remarkably well executed frieze. Fragments of this and also of the marbles with which the hall was lined are still in situ. Opposite the apse was the passage into the tepidarium. The hall was paved with slabs of marble, especially pavonazetto and nero Africano. The walls are only 1.75 metres in thickness, and hence it is probable that the hall of Agrippa had only a wooden roof or none at all. The cross-walls which have been found between the drum of the Pantheon and the north wall of this hall date from Hadrian's time, and as they are not connected with either structure, but simply abut against them, it is clear that they were intended to serve as buttresses, so that a heavy roof might be put over the hall.

Arco di Ciambella is the name given to the portion now standing of a large domed roof which may be seen above the houses in the street of the same name. The hall, of the roof of which this dome is a part, was about 25 metres in diameter, and belonged to the latest enlargement of the thermae, being very probably a caldarium.

Adjoining the thermae, Agrippa constructed a stagnum, ${ }^{1}$ or artificial pool, of considerable size, which probably extended from the thermae as far as the modern church of S. Andrea della Valle. This stagnum was bordered by the horti Agrippae, gardens in which were many treasures of art. An open channel, called the Euripus, flowed through the gardens to the Tiber and doubtless served as an outlet for the stagnum. Horti and stagnum played an important part in the entertainments of Nero, and although some remains have been found which probably belong to this group, nothing more definite is known of their location or extent.

The second bathing establishment in Rome, the thermae Neronianae, was built by Nero ${ }^{2}$ in 64 a.D., after the great fire. It was near the Pantheon and is spoken of as remarkable for its magnificence. ${ }^{3}$ For some unknown reason these baths were entirely rebuilt by Alexander Severus about 228 A.D., and were henceforth known only as the thermae Alexandrinae. ${ }^{4}$ They occupied a rectangular area extending from the northwest corner of the Pantheon to the stadium of Domitian (piazza Navona), and although nothing remains above ground except a few portions of walls built into the palazzo Madama, excavations ${ }^{5}$ made at various times within this area have brought to light architectural fragments of great beauty and value. Among them are four columns of red granite, two of which were used in the restoration of the pronaos of the Pantheon; an enormous basin for a fountain, 6.70 metres in diameter, cut from a single block of red granite, with fragments of sev-

[^288]eral others; white marble capitals; and fragments of columns of porphyry, pavonazetto, and gray granite.

Julius Cæsar constructed an artificial lake, the naumachia Caesaris ${ }^{1}$ in the campus Martius, and exhibited there sham naval battles on a great scale. This lake was filled up ${ }^{2}$ in 43 в.c. in consequence of an epidemic in the city, and no traces have been found to indicate its exact position.

Stabula IV factionum. Near the circus Flaminius were the stables ${ }^{8}$ of the different racing companies (factiones) of charioteers. In the first century of the empire there were four of these factiones, distinguished by their colors, albata, russea, veneta, and prasina. Two more, aurata and purpurea, were added by Domitian, but did not last long. According to the Notitia, there were eight stables in the fourth century, while the Curiosum gives the number as six. Without doubt they were all in the same region and near each other, but the certain traces thus far discovered - a dedicated pedestal and an inscribed water pipe - belong to the stable of the green (prasina) company, situated close to the church of S. Lorenzo in Damaso. ${ }^{4}$

The Forum Holitorium. - Just outside of that part of the Servian wall which connected the Capitoline and the Tiber was the forum Holitorium, or vegetable market, within the limits of region IX. Originally an open market-place, ${ }^{5}$ this area was inclosed in process of time by various public buildings, - the theatre of Marcellus on the west, the porticus Minucia on the north, and at least four temples, which were built on

[^289]the side toward the river. Thus its original area, which had extended to the Tiber, was considerably diminished. It was connected with the vicus Iugarius and the forum Boarium by the porta Carmentalis and the porta Flumentana. By the second century b.c. this market-place had been paved, and considerable fragments of its travertine pavement ${ }^{1}$ have been found between the church of S. Nicola in Carcere and the piazza Montanara, extending over a distance of some 90 metres. On one side of this pavement some remains of a porticus have also been found. ${ }^{2}$

Four temples are spoken of as having been built in this forum.
(1) The temple of Ianus, ${ }^{3}$ erected in 260 B.c. by C. Duilius, and restored in 17 A.d. by Tiberius. The senate was forbidden to meet here, because the decree of the senate authorizing the ill-fated Fabii to march against Veii was passed in a temple of Janus.
(2) The temple of Spes, ${ }^{4}$ built by A. Atilius Calatinus during the first Punic war, burned in 213 b.c., rebuilt in $212,{ }^{5}$ burned again in the time of Augustus, and restored by Germanicus in 17 A.D. ${ }^{6}$
(3) The temple of Iuno Sospita, ${ }^{7}$ vowed in 197 b.c. by C. Cornelius Cethegus, dedicated in 194, and restored ${ }^{8}$ by L. Julius Caesar in 90 в.с.
(4) The temple of Pietas, vowed in 191 в.c. ${ }^{9}$ by $\mathrm{M}^{2}$. Acilius Glabrio, dedicated in 181, and destroyed by Augustus in order to make room for the theatre of Marcellus. ${ }^{10}$

[^290]Beneath the present church of S. Nicola in Carcere are the ruins of three temples which stand side by side and have the same orientation. Their façades are toward the east, - that is, toward the forum, - and the architectural fragments are of travertine and peperino, with no traces of marble. They must therefore be assigned to the last century of the republic.

The central and largest temple is about 30 metres long and 10 wide, of the Ionic order and peripteral. Three of its fluted columns of travertine, 8.70 metres


Fig. 80. - Plan of the three Temples beneath S. Nicola in Carcere. in height and 0.90 metre in diameter, are built into the façade of the church; while portions of the cella wall and of other columns with their architrave have been built into other parts of the church. The temple north of this is also Ionic, hexastyle, and peripteral except at the back, and of its columns six are standing, 0.70 metre in diameter, also built into the church walls. The third temple, the smallest of the three, is of the Tuscan order, hexastyle and peripteral. Some of its columns are also standing. It is probable that one or more of these existing temples are among those described on page 371 , but any exact identification is impossible. ${ }^{1}$

Extending south from these temples, under the modern via della Bocea della Verità, almost to the Cloaca Maxima, the ancient pavement of a street has been found, which seems to have been the principal thoroughfare in a north-south direction, and to have connected the circus Flaminius with the forum Boarium.

[^291]
## CHAPTER XIV.

## THE DISTRICT BETWEEN THE FORUM, THE TIBER, AND THE CIRCUS MAXIMUS. REGIONS VIII AND XI.

Between the Forum, the Capitoline, the Servian wall, the Tiber, the valley of the Circus Maxinus, and the Palatine lay an irregularly shaped district, which belonged for the most part to the eleventh region of Augustus, but also included a small part of the eighth. In this district were two open marketplaces, the Velabrum and the forum Boarium.

The Velabrum ${ }^{1}$ was bounded approximately by the Forum on the north, the slope of the Palatine and the vicus Tuscus on the east, and the district traversed by the vicus Iugarius on the west, while the line of separation between it and the forum Boarium passed through the present church of S. Giorgio in Velabro.

The forum Boarium ${ }^{2}$ was originally the open meadow where cattle were bought and sold, extending from the Velabrum to the Tiber, and from the valley of the Circus Maximus on the east to a line which was approximately indicated by the road leading from the pons Sublicius or the pons Aemilius to the Velabrum. In process of time the building of dwelling-houses and of public edifices greatly diminished the size of the open markets, and the names Velabrum and forum Boarium were applied not only to them, but to the immediately adjacent

[^292]districts, which became densely populated. The great fires in the city were usually particularly disastrous in this crowded region. ${ }^{1}$
The Velabrum. ${ }^{2}$ - The etymology ${ }^{3}$ of the word is uncertain. Varro derived it $\alpha$ vehendo and thereby supported the traditional view, which there seems to be no good reason to doubt, that this district was very swampy until it was drained, toward the close of the regal period. A distinction appears to have been made between the Velabrum maius and Velabrum minus, ${ }^{4}$ but we do not know what it was. In historical times the Velabrum was a most important centre of industrial and commercial activity, being especially frequented by dealers in all kinds of food-stuffs, oil, and wine. ${ }^{5}$ Its position made it a locus ceteberrimus urbis, ${ }^{6}$ for all the traffic between the part of the city about the Forum and the pons Sublicius passed through its principal streets, the vicus Tuscus and the vicus Iugarius. The character of the life and population of the Velabrum was such as to make it one of the most unsavory parts of the city.

It contained almost no monumental buildings. The only temple was that of Felicitas, ${ }^{7}$ built by L. Licinius Lucullus about 150 b.c., which was burned in the time of Claudius and was probably not rebuilt. Its site is unknown, and, in fact, it may have been in the forum Boarium rather than in the Velabrum. A sacellum or ara Accae Larentiae ${ }^{8}$ stood at the

[^293]point where the Nova via entered the Velabrum, and near it a sacellum Volupiae, ${ }^{1}$ with a statue of Diva Angerona. A structure called the atrium Caci, and a fountain called ${ }^{2}$ aquam cernentem (Jordan ferventem, Hülsen pendentem) quatuor scaros sub wede, were in this region, but nothing further is known about them. Between the vicus Iugarius and the Capitoline was a district called the Aequimelium, ${ }^{3}$ but even Cicero did not know the correct explanation of the name.

The Forum Boarium. ${ }^{4}$ - Next to the forum Romanum, this was perhaps the most frequently traversed section of the city. It was the thoroughfare for all traffic between the Forum and the Tiber; into it ran the clivus Publicius, the main street of the Aventine; the valley of the Circus Maximus connected it with the via Appia; through the porta Trigemina came all the travel and traffic from Ostia; the porta Carmentalis and the porta Flumentana formed the direct connection with the campus Martius and. the country to the north and east, while communication with Etruria was effected by means of two bridges, the pons Sublicius and pons Aemilius. Between the street leading to the Velabrum from the pons Aemilius and the Servian wall was a thickly settled district, and a line of buildings of various sorts probably stretched along the river bank. The district south of the church of S. Maria in Cosmedin was not regarded as a part of the forum Boarium.

This forum lay outside of the pomerium until the time of Claudius, and therefore human sacrifices took place there as late as the first century. ${ }^{5}$ Its distinctive sign was a famous

[^294]bronze statue of a bull, ${ }^{1}$ said to be the work of Myron and to have been brought from Aegina in the third century b.c. Somewhere within its limits was a spot called the Doliola, ${ }^{2}$ where earthenware pots were buried. It was not lawful to pollute this spot, and the jars were said to contain either the bones of corpses, or quaedam religiosa of Numa, or the sacred utensils of the Vestals which they buried when the Gauls sacked the city. At the northwest corner of the arch of lanus Quadrifrons (p. 383), and also at a distance of 22 metres from it, there have recently ${ }^{3}$ been discovered the remains of small chambers arranged on both sides of narrow corridors which form subterranean galleries. These chambers were vaulted over, and each contains a seat built across one side. They are of small size, 1.95 by 1.80 metres in width and depth, and 1.80 high. The floor is 3.25 metres below the ancient pavement of the forum Boarium, which has been found, and this is 4.50 metres below the present level of the via del Velabro. The construction of the galleries is that of the last centuries of the republic, and they seem to be especially adapted for an underground prison, suggesting the locus saxo consaeptus, ${ }^{4}$ in which two Gauls were buried alive in 215 b.c. This may have been the place where such human sacrifices were performed, and also the mysterious Doliola as well. Fragments of jars and of the bones of animals were found here.

It is usually supposed that the Busta Gallica, ${ }^{5}$ or burial-place of the Gauls who were killed at the sack of Rome, was also somewhere in the forum Boarium, but there is no evidence to support this view, except that they were media in urbe.

[^295]Outside the limits of the forum Boarium were three vici which were named from statues, i.e. Hercules Olivarius, ${ }^{1}$ Apollo Caelispex, ${ }^{2}$ and Elephas Herbarius. ${ }^{3}$ The first two were probably between the forum Boarium and the porta Trigemina, while the Elephas Herbarius was very near the forum Holitorium. This street was evidently the resort of herbarii, as that of Hercules Olivarius was occupied by dealers in oil.

The Cloaca Maxima (p. 109) runs through the forum Boarium in its original course, and at some points the masonry of the early republican period is still visible. Another ancient sewer ${ }^{4}$ which drained the valley of the Circus Maximus (p. 108) entered the forum Boarium at the corner of the via della Greca and the via della Salara, and emptied into the Tiber about 50 metres below the Cloaca Maxima. Its course has been traced from the Colosseum. Just west of the corner of these two streets two smaller sewers flow into it from the southeast, and between their channels remains of early republican masonry ${ }^{5}$ have been found, which, however, cannot be identified with any certainty.

The most ancient cult in the forum Boarium was that of Hercules, represented by two, and perhaps three, sanctuaries. The oldest of these was the ara Herculis Maxima, ${ }^{6}$ erected, according to tradition, by Hercules himself. This altar was standing in the fourth century, ${ }^{7}$ but has left no trace.

The oldest temple was that of Hercules Invictus or Vietor, ${ }^{8}$ a round temple said to have been built by Hercules himself. In 168 в.c. it was restored by L. Aemilius Paulus, at whose com-

[^296]mand the poet and painter Pacuvius decorated its interior. ${ }^{1}$ After the fire of Nero, it was restored by Vespasian. In form it was undoubtedly very like the existing round temple in the forum Boarium (p. 381). While the exact site of ara and temple cannot be marked out, ${ }^{2}$ there is no doubt that the altar stood a little to the south of S. Maria in Cosmedin, and about equally distant from it and the carceres of the Circus Maximus, and that the temple was very near the altar. A third temple of Hercules, the aedes Herculis Pompeiani, ${ }^{3}$ stood ad circum maximum, but its site is a matter of dispute (p. 382).

Near the temple of Hercules Invictus was the sacellum Pudicitiae Patriciae, ${ }^{4}$ mentioned for the first time under the date of 296 b.c., and connected with the struggle between the two orders in the state. Near the pons Aemilius was the Portunium, ${ }^{5}$ or temple of Portunus, and near this temple were fish and flower markets.

On the north side of the forum Boarium were two temples, ${ }^{6}$ that of Fortuna and that of Mater Matuta. The erection of the first was ascribed to Servius Tullius. ${ }^{7}$ It was burned in 213 в.с. ${ }^{8}$ and restored by a special commission, but it is not mentioned after the first century. In this temple was a statue, covered with two togas, ${ }^{9}$ which was thought by some Romans to be a statue of Servius Tullius, and by others to be that of the goddess Fortuna herself.

[^297]The temple of Mater Matuta ${ }^{1}$ was also ascribed to Servius Tullius. It was restored in 395 в.c. by Camillus; and burned and again restored in 213-212, at the same time as the temple of Fortuna. In this temple Ti. Sempronius Gracchus placed a bronze tablet, ${ }^{2}$ which recorded his campaigns in Sardinia, together with a map of the island. In 196 b.c. two arches (fornices) with gilded statues were set up in front of these two temples. ${ }^{3}$ If, as is probable, these arches were part of a colonnade surrounding the two temples, the temples themselves must have been close together, and perhaps had the same orientation. Another arch stood directly in front of the pons Aemilius, near these temples, the inscription ${ }^{4}$ on which, recording a restoration of the bridge by Augustus, was in existence in the middle ages.

Existing Remains in the Forum Boarium. - (1) S. Maria Egiziaca. This church is an ancient temple, which was converted into its present form in 872 A.D. The temple is Ionic, 20 metres long and 12 wide, with north-south orientation parallel to the river, tetrastyle prostyle, and stands on a podium 2.50 metres in height. It was pseudo-peripteral, having five engaged columns in the side walls of the cella, and a pronaos. The two free columns of the pronaos were walled up to increase the size of the church. The cella walls and engaged columns, except those at the angles, are of tufa; the columns of the pronaos, the entablature, and the podium, of travertine. The frieze is decorated with ox-skulls and garlands, and the style of construction points to the last century of the republic. This temple faced toward the street leading up from the pons Aemilius, and not toward the forum proper. It is generally

[^298]

Fig. 81. - S. Maria Egiziaca.
identified with the temple of Fortuna, and there seems no good reason for not accepting this identification.
(2) S. Maria del Sole. This church, which stands near the river in the piazza di Bocca della Verità, is an ancient round temple, very like the temples of Vesta. It is built of white marble, the blocks of the cella being solid, with a peristyle of twenty Corinthian columns. The cella is 10 metres in diameter and stands on a podium 2 metres high. This podium is of tufa and belongs to the period of the republic, but its marble covering and the whole marble superstructure date from the early empire. The entablature is missing, and the roof is modern. Eight steps lead up to the top of the podium, and the entrance is on the east, toward the forum.

This structure has been called by ten different names, ${ }^{1}$ but it is usually identified either with the temple of Portunus


Fig. 82. - S. Marta del Sole.
or that of Mater Matuta, as there is no possibility of its being a temple of Vesta. No certainty attaches to either of these identifications.
${ }^{1}$ Lanciani, Ruins, 518.
(3) S. Maria in Cosmedin. Recent excavations ${ }^{1}$ have shown that the present church occupies the site of an early republican temple and of some structure of the fourth century.

Of the temple nothing remains except tufa blocks belonging to foundations and walls. This temple appears to have existed, although in a ruined state, until the eighth century, when it was entirely destroyed, and the church, which up to that time had extended only to its wall, was enlarged so as


Fig. 83. - Plan of the Statio Annonae. to cover a considerable part of its foundations. There is complete uncertainty as to the name of this temple. It is sometimes identified with that of Ceres, Liber, and Libera ( p .390 ), sometimes with that of Hercules Pompeianus (p. 378), but there is no convincing proof in either case.

Directly in front of this temple is part of a structure of the fourth century, in
which the original church was built. This building was a rectangular porticus, 30 metres long and 15 wide, consisting of a brick wall at the rear and a colonnade on the front and sides. Eleven of the columns of this porticus are built into the wall of the present church. They appear to have stood, not on the pavement of the porticus, but on a low inclosure wall. The question of the roof of the porticus is a perplexing one, as the columns do not seem strong enough to have supported a roof without additional help. As it is known that this space at the

[^299]corner of the Aventine was largely occupied with buildings which belonged to the Annona urbis, it is a plausible conjecture that this particular building may have been the statio Annonae, ${ }^{1}$ or headquarters of the administration of the corn-supply.

Near the church of S. Giorgio in Velabro is a four-way arch of marble, ${ }^{2}$ consisting of four piers connected by quadripartite vaulting. It stands directly over the Cloaca Maxima and probably marked the line of separation between the forum Boarium and the Velabrum. It is of late date, - third or fourth century, and is without much doubt the arch which is called in the Notitia arcus Constantini. It is now usually known as Ianus quadrifrons. The whole structure is 12 metres square and 16 high, while the arches themselves are 10.60 metres high and 5.70 wide. Round all four sides run two rows of niches for statues, fortyeight in all, of which sixteen are unfinished. There are traces of sculpture on the keystones of the arches, but the workmanship is very poor and the whole structure illustrates the extreme decadence of the time of Constantine.

The so-called arcus Septimi Severi, or monumentum Argentariorum, is an arch which stands at the southwest angle of the church of S. Giorgio in Velabro ; in fact, the campanile of the church rests partly upon one pier of the arch, concealing two of its sides. It was erected in 204 A.d. by the argentarii et negotiantes boarii ${ }^{3}$ in honor of Septimius Severus, his wife, and sons. It is not a true arch, but a flat lintel resting on two piers, and is wholly of marble, except the base which is of travertine. It is 6.15 metres in height and the archway is 3.30 metres wide. At the corners of the piers are pilasters with Corinthian capitals, and the whole surface of the structure is adorned either with coarse decorative sculpture or reliefs which represent sacrificial scenes. On the inside of

[^300]the gateway the figures of some members of the imperial family are cut in relief. The ceiling of this gateway is carved in soffits, and on the architrave is the dedicatory inscription. The rest of the entablature exhibits the rich but superfluous decoration so characteristic of the decadence.

The Circus Maximus. - From the earliest times the Romans celebrated their games with races and public spectacles in the valley between the Palatine and the Aventine, which was well adapted by nature for this purpose, being 600 metres long and 150 wide, while the slopes of the hills afforded convenient places for the spectators. ${ }^{1}$ This valley was called the vallis Murcia, ad Murciam, or ad Murciae, ${ }^{2}$ from an altar of Murcia, a goddess sometimes identified with Venus. Roman etymologists derived the word from myrtea, and supposed that the valley was originally overgrown with myrtle. It must have been somewhat swampy, and a brook, called in medieval and modern times the Marrana, flowed through it, which drained the valleys of the Caelian and the adjacent districts. In process of time the brook was confined within walls of masonry for a part of its course, and became one of the great cloacae of Rome (p. 108).
The earliest cult in this valley was that of Consus, an ancient Italic deity of agriculture and the under-world, whose altar, the ara Consi, ${ }^{3}$ stood at the southeast end of the valley and was hidden beneath the earth except at festivals. Of the three festivals in honor of this deity, the principal one, the Consualia, was accompanied with horse and chariot races. After a permanent spina was built, the altar appears to have been at its southeast extremity.

[^301]In this valley the first and greatest of all Roman circi was gradually developed. ${ }^{1}$ During the regal period, while there was nothing in the way of a permanent building, special places were assigned to the different curiae, where they could erect their temporary seats. In 329 b.c. permanent carceres $^{2}$ were first built, and considerably later, in the first half of the second century, the activity displayed in so many other forms of municipal life made itself felt in the circus. It was at this time that the open Marrana was probably transformed into a closed cloaca, which would have allowed a permanent spina to be built. The decorative arches and statues ${ }^{3}$ erected at this time presuppose the existence of some permanent structure, and we may assume that by the third century b.c. the purely temporary character of the circus had passed away.

The history of the circus as one of the great buildings of the world begins with Caesar. ${ }^{4}$ As rebuilt by him, it consisted of three bands of seats, the lowest of masonry and the upper two of wood. Just inside the lowest tier of seats, encircling the arena, was a water-channel 3 metres wide, called the Euripus, the object of which was to protect the spectators from attacks of the wild beasts. In 31 b.c. the wooden part of the circus was burned, and restored by Augustus, ${ }^{5}$ who erected the pulvinar ad circum maximum, a species of box on the Palatine side, from which the imperial household could view the games. Augustus also set up on the spina the obelisk ${ }^{6}$ from Heliopolis, which is now in the piazza del Popolo. The circus was partially destroyed by fire in 35 A.D., and enlarged and restored by Claudius, ${ }^{7}$ who constructed carceres of marble and goals of gilt bronze. The

[^302]great fire in 64 A.D. broke out in the circus, ${ }^{1}$ and must have destroyed it so completely that the restoration of Domitian was practically a rebuilding. Again during Domitian's reign the edifice suffered from fire, ${ }^{2}$ but to what extent is not known. It was once more enlarged and restored by Trajan, and then reached its greatest size and magnificence. ${ }^{3}$ While the uppermost seats were always of wood and subject to not infrequent conflagrations, the main structure was of solid masonry and covered inside and outside with white marble. The size of this circus and its wealth of decoration of every description made it the most magnificent building, not only in Rome, but probably in the whole world. Later emperors ${ }^{4}$ did something in the way of restoration and decoration, but added little or nothing to its splendor.

From coins, fragments of the Marble Plan, the description of Dionysius, and other evidence, ${ }^{5}$ we can reconstruct the edifice in the main in its final shape. It was probably about 635 metres long and 150 wide. The exterior was formed of three stories, with arches and engaged columns of the Doric order, like the Colosseum, but all covered with marble. The cavea was divided into three bands or zones of seats, separated by corridors, and the arrangement of approaches and stairways was probably similar to that in the Colosseum. As in the latter building, a podium or raised platform surrounded the arena, between the seats and the Euripus, and on this were the chairs of the imperial family and high officials. The west end rose in several stories with towers and battlements, in such a manner as to suggest the appearance of a walled town, and this part of the circus was called sometimes oppidum. ${ }^{6}$ This end was not straight, but

[^303]
Fig. 84. - Plan of the Circus Maximus.
curved, and the ground level toward the arena was occupied by the carceres, probably twelve in number. These carceres were closed by barriers, and this fact probably explains the use of the name Duodecim portae ${ }^{1}$ to designate this end of the building. Above the carceres were two boxes, one for the presiding magistrate and the other for the judges.

On the spina stood the obelisk of Augustus (p.362) and a second erected by Constantius in 357 A.D. ${ }^{2}$ and now in front of the Lateran; the altar of Consus ( $h$, Fig. 84) ; a small shrine near each end, on one of which $(g)$ were sets of seven marble eggs (ovaria) ${ }^{3}$ used to indicate the laps of the race, and on the other $(b)$ sets of dolphins ${ }^{4}$ for the same purpose. At each end ( $a, a^{\prime}$ ) of the spina were the metae, or goals, three cones of gilt bronze. There were also other shrines ( $c, d, e, f$ ) and statues on the spina. ${ }^{5}$ The main entrance to the circus was in the middle of the west end, called the porta Pompae, through which the procession entered at the beginning of the games. The east end was semicircular in form and broken in the centre by a gateway, the porta Triumphalis, through which the victors in the races withdrew. This gateway was formed by a triumphal arch, the arcus Vespasiani et Titi, erected by Domitian ${ }^{6}$ in 81 A.D. in honor of his father and brother. The open arcades in the exterior of the circus on the ground level and the chambers above them were used for shops and especially for brothels, so that this district was one of the most disreputable in the city. ${ }^{7}$

The size ${ }^{8}$ and seating capacity of the Circus Maximus have

[^304]given rise to much discussion. The Notitia states that it contained three hundred and eighty-five thousand loca. The most probable explanation of this statement is that there were three hundred and eighty-five thousand rumning feet of seats, and therefore capacity for about two hundred thousand spectators. Others have estimated the capacity all the way from one hundred and forty thousand (Hülsen) ${ }^{1}$ to three hundred and eighty-five thousand. In any case, the enlargement after the time of Augustus was very considerable.

Throughout the republic the circus was used for gladiatorial combats and fights with wild beasts, as well as for races; but after the building of the amphitheatre of Statilius Taurus, and still more after the erection of the Colosseum, the first species of entertainment was largely, although not entirely, removed from the circus. The last recorded games took place under Totila in 549 A.d. ${ }^{2}$ In that century the destruction of the circus began, and has continued until the present day. In the sixteenth century nothing remained except some fragments of the arcades, spur walls, and spina. At present the site is occupied by the city gas works, and the only ruins visible are tufa and brick substructures on the Palatine side in the via dei Cerchi, near the church of S. Anastasia, and some brick walls with marble lining on the Aventine side, near the Jewish cemetery. ${ }^{3}$

Numerous divinities were worshipped within the circus, and their shrines or altars were either on the spina or in the cavea. Tertullian ${ }^{4}$ enumerates a long list, - Castor and Pollux, the Sun, Magna Mater, Neptune and Venus Murcia, together with various minor deities. The temple of the Sun is mentioned by

[^305]Tacitus ${ }^{1}$ and in the Regionary Catalogue as the templum Solis et Lunae.

Close by the circus were several temples, which were variously designated as ad circum maximum, in circo maximo, or prope circum, but of which there are no traces left. The most important of these was the temple of Ceres Liber Liberaque, ${ }^{2}$ which was said to have been vowed in 497 в.c. and dedicated three years later. It was burned in 31 в.c., rebuilt by Augustus, and dedicated by Tiberius in 17 A.d. ${ }^{3}$ It was Tuscan in style, with wide intercolumniations, and its façade was decorated with statues of terra cotta and gilt bronze. ${ }^{4}$ The worship of Ceres was essentially plebeian, and the political importance of this temple was very great, as it was the headquarters of the plebeian aediles, and within it were stored the plebeian archives. ${ }^{5}$ It was near the west end of the circus on the Aventine side, but how far up the slope of the hill is uncertain.

The other temples were those of Mercurius, ${ }^{6}$ on the slope of the Aventine above the circus, dedicated in 495 b.c., and restored by Marcus Aurelius; Summanus, ${ }^{7}$ built at some unknown date, and restored during the war with Pyrrhus; Venus, ${ }^{8}$ dedicated in 295 b.c., and mentioned as standing in the first century; Iuventas, ${ }^{9}$ near that of Summanus, dedicated by L . Licinius Lucullus in 193 b.c., restored by Augustus, burned in 16 A.d., and rebuilt, as it is mentioned fifty years later;

[^306]Flora, ${ }^{1}$ near the temple of Ceres, built in 240 or 238 в.c., and rebuilt and dedicated by Tiberius in 17 A.D.; Salus, ${ }^{2}$ built in 65 a.D. to commemorate Nero's escape from the conspiracy of Piso, and mentioned only once; and finally, Dis Pater, mentioned only in the Notitia, but which may have been near the circus.

Between the porta Trigemina and the statio Annonae was the arcus Lentuli et Crispini, ${ }^{3}$ erected by Lentulus and Crispinus, consuls in 2 A.D. This arch stood during the early middle ages, and its inscription, ${ }^{4}$ which has been preserved, is exactly like that ${ }^{5}$ on the arch of Dolabella and Silanus (p. 419). The arches themselves were probably alike, and it is not known whether they stood alone or were parts of the rivus Herculaneus (p. 96).

${ }^{1}$ Tac. Ann. ii. 49.<br>${ }^{4}$ CIL. vi. 1385.<br>2 Tac. Ann. xv. 74.<br>${ }^{5}$ CIL. vi. 1384.

## CHAPTER XV.

## THE AVENTINE. REGIONS XII AND XIII.

The Aventine is the southernmost of the hills of Rome, and stretches southeast from the Tiber. It is trapezoidal in form, and its sides, beginning with that toward the river, measure respectively about $500,600,750$, and 600 metres in length. Like the Palatine and the Capitoline, it is divided into two portions by a depression which crosses the hill from northeast to southwest. The western portion is much the larger, and the other is frequently called the Pseudo-Aventine, but there was no such distinction in antiquity. It is uncertain how much of the hill was originally called mons Aventinus. The earliest legends are connected with the eastern part, but this seems to have been distinguished from the Aventine proper. ${ }^{1}$ The hill rises abruptly from the bank of the river and is steep on the north and southwest, but slopes gradually toward the east and southeast. The Aventine ${ }^{2}$ did not become a part of the city until the Servian wall was built, when it was included for purposes of fortification. Originally it probably had its own walls, ${ }^{3}$ like the Palatine and the Capitoline, and was approached on its steep sides by long flights of steps. The name of one of these, the scalae Cassi, ${ }^{4}$ has been preserved, but its position is unknown. This hill remained without the pomerium until the time of Claudius, - an exclusion which was doubtless due to religious scruples connected with the tradition of the founding of the city. ${ }^{5}$ The line of the

[^307]Servian wall, its gates, and the existing remains, have been described (pp. 45-50, $113-116$ ).

The name Aventinus is still unexplained, in spite of the many etymologies offered by Roman antiquarians. ${ }^{1}$ It is, however, a plausible suggestion that the word represents the name of an ancient canton, especially as the term pagus Aventinus ${ }^{2}$ continued in use in historical times. According to tradition, the Aventine was public domain until 456 b.c., when by the lex Icilia a portion of it was handed over to the plebeians for settlement, ${ }^{3}$ and it became from that time an essentially plebeian quarter. It was always an unimportant part of the city, comparatively speaking, and few remains of interest have been found there.

The principal streets on and about the Aventine were: the two great roads, the via Appia, which formed the northeast boundary of region XII, and the via Ostiensis, which was virtually the extension of the street which skirted the hill on the southwest; the vicus Piscinae Publicae, ${ }^{4}$ which led from the eastern end of the Circus Maximus across the depression through the porta Raudusculana to the via Ostiensis, and a part of which may have been called the vicus portae Raudusculanae; ${ }^{\circ}$ the clivus Publicius, ${ }^{6}$ which began at the west end of the Circus Maximus in the forum Boarium, and extended in a southerly direction to the temple of Diana, near the church of S. Prisca (this street was paved in 237 b.c., and as it is said to have been burned over in 203 в.с., it must have

[^308]been closely built up by that time); the via Ardeatina, ${ }^{1}$ which, in the time of the empire, led from the vicus Piscinae Publicae across the east Aventine to the porta Ardeatina; and the via Nova, ${ }^{2}$ built by Caracalla to connect his new baths with the Circus Maximus. Somewhere on the hill was an open square called the Loretum, ${ }^{3}$ said to have been the burial-place of Titus Tatius, from which two streets were named, the vicus Loreti maioris and the vicus Loreti minoris. ${ }^{4}$ On the west Aventine was another open space, the Armilustrium, ${ }^{5}$ where the festival of the same name was celebrated on the 19th of October. This too was said to have been the burial-place of Tatius. At a later time it was largely built up, and the vicus Armilustri ${ }^{6}$ ran southeast from the present church of S. Alessio. The Mappa Aurea ${ }^{7}$ was probably a street on the hill above the Circus Maximus. Platanonis of the Notitia was also probably a vicus, and Nymphea tria a fountain.

Augustus divided the Aventine between two regions, making the vicus Piscinae Publicae the boundary. The west part of the hill and the level ground to the south, where the warehouses stood, formed region XIII, called Aventinus; the east part of the hill and the site afterward occupied by the baths of Caracalla constituted region XII, called Piscina Publica. ${ }^{8}$ This was a public reservoir situated just outside the porta Capena and first mentioned in 215 в.c., but of which nothing more is known.

[^309]
## Reaton XIII.

Temples and Altars. - According to tradition, the oldest shrine in this region was on the slope of the hill above the porta Trigemina, where the Cacus legend was localized and Hercules was said to have built an altar to Iuppiter Inventor. ${ }^{1}$

The oldest and by far the most important temple was that of Diana, ${ }^{2}$ ascribed by tradition to Servius Tullius, who assembled here the representatives of the surrounding Latin towns and built this temple as the common sanctuary of the league. It was rebuilt by Cornificius in the reign of Augustus, and is probably represented on a fragment of the Marble Plan, ${ }^{3}$ where it is drawn as octastyle and dipteral, surrounded by a double colonnade. Its site was near S. Prisea on the clivus Publicius. ${ }^{4}$

At the extreme northern point of the Aventine was the temple of Luna, ${ }^{5}$ also ascribed to Servius Tullius. It was destroyed in the fire of Nero, and is mentioned only infrequently. Near the temple of Diana was a group of three temples, dedicated to the three divinities of the Capitoline triad, Jupiter, Juno, and Minerva. Of these three, that of Iuno Regina stood near the present church of S . Sabina. It was dedicated in 392 b.c. by Camillus, ${ }^{6}$ who placed within it a wooden statue of Juno, which he had brought from the captured city of Veii. The temple was afterward rebuilt by Augustus. The temple of Minerva ${ }^{7}$ is first mentioned in the

[^310]time of the second Punic war, as being the sanctuary and headquarters of the guild of scribae and histriones established by Livius Andronicus. It was restored by Augustus, and is represented on the Marble Plan ${ }^{1}$ as peripteral, hexastyle, with thirteen columns on each side. The temple of Iuppiter Libertas is mentioned only twice, ${ }^{2}$ but it probably dated from the early republican period.

In the vicus Loreti maioris stood a temple of Vortumnus, and near it a temple of Consus. ${ }^{3}$ The first contained a portrait of M. Fulvius Flaccus in the robes of a triumphator, and the second a similar portrait of L. Papirius Cursor. It is probable, therefore, that the temple of Vortumnus was built by Fulvius in 264 b.c., and that of Consus by Papirius in 272, on the occasion of their triumphs.

The place of the temple of Libertas, ${ }^{4}$ built by Ti. Sempronius Gracchus in 238 в.с., is unknown. The site of the only remaining temple on this part of the hill, that of Iuppiter Dolichenus, ${ }^{5}$ a deity whose cult was introduced from Doliche in Syria, is shown by inscriptions to have been near the church of S. Alessio.

Baths. - Aside from temples, the only buildings of importance on the west Aventine appear to have been baths. The first of these, the thermae Suranae or balnea Surae, ${ }^{6}$ were built either by Licinius Sura, a friend of Trajan, or by Trajan himself in honor of this friend, who lived on the Aventine.

[^311]These baths are represented on the Marble Plan. ${ }^{1}$ With the thermae Suranae there are mentioned in the Notitia the thermae Decianae, which were built by the emperor Decius about 250 A.d. Plans of the thermae Decianae, drawn by Palladio about 1600, have recently bcen found, and it is thonght that some remains under the casino of the vigna Torlonia, opposite S. Prisca, may belong to them. ${ }^{2}$ No certain traces of the thermae Suranae have been found, but it is not unlikely that they adjoined those which Decius built. Some remains in the vigna Cavaletti may belong to the baths of Sura, but in any case they probably were situated somewhere between S. Prisca and S. Alessio.

Horrea. - All along the bank of the Tiber below the porta Trigemina docks and wharves had been built, and south of the Aventine the Emporium (p. 87) had been constructed. During the empire, the level ground between the Emporium, the southwest slope of the Aventine, and the line of the Aurelian wall was gradually occupied by a series of enormous horrea, or warehouses, in which were stored goods of every description.

In the second century b.c. the Sulpicii possessed large estates in this district, which were called the praedia Galbiana. Here Ser. Sulpicius Galba, consul in 144 or 108 b.c., was buried; and at some time before the end of the republic the horrea Galbiana, Galbae, or Sulpicia were built here, ${ }^{3}$ which afterward came into the possession of the government, as in the reign of Augustus they were directly under imperial control. The emperor Galba enlarged their capacity, ${ }^{4}$ but great care was taken not to disturb the tomb of the consular. This tomb has recently been discovered just in front of the horrea. To meet the increasing demands of commerce other horrea ${ }^{5}$ were built, so that in the

[^312]fourth century there were at least fourteen general warehouses, named after individuals, besides the large number which Alexander Severus caused to be erected in all parts of the city, and a few special storehouses, like the horrea Piperataria (p. 294) on the Sacra via. These horrea were the horrea Galbae, Vespasiani, ${ }^{1}$ Nervae, ${ }^{2}$ Oaesaris, ${ }^{3}$ Agrippiana et Germaniciana, ${ }^{4}$ Aniciana, ${ }^{5}$ Leoniana, ${ }^{6}$ Lolliana, ${ }^{7}$ Petroniana, ${ }^{8}$ Postumiana, ${ }^{9}$ Seiana, ${ }^{10}$ Sempronia, ${ }^{11}$ Q. Tinei Sacerdotis, ${ }^{12}$ Volusiana. ${ }^{13}$ Of these the Sempronia were the oldest, dating from the time of the Gracchi. The horrea Agrippiana et Germaniciana were in the forum Boarium, near the statio Annonae; but nearly all the rest were probably in region XIII.

Recent excavations, ${ }^{14}$ occasioned by the laying out of new streets in this quarter, have brought to light many of the foundation walls of these horrea, especially of the horrea Galbae, which were the largest and most important of all, being the storehouses of the grain which belonged to the government (annona publica). They were directly back of the Emporium, parallel to the river bank, and formed a rectangle 200 metres long and 155 wide, inclosed by a wall. The warehouses were divided symmetrically into sections separated by courts. These courts were surrounded by travertine colonnades, through which opened the chambers of the warehouses.

In this quarter were probably the porticus Fabaria, ${ }^{15}$ a sort of produce exchange, the vicus Frumentarius, ${ }^{16}$ and the forum Pistorum. ${ }^{17}$

[^313]South of the horrea Galbiana is a remarkable hill, the mons Testaceus ${ }^{1}$ (monte Testaccio), 35 metres high and about 1 kilometre in circunference, composed entirely of fragments of earthen jars (amphorae, doliola) in which corn and produce of all kinds had been brought to the horrea from Africa and Spain. Many of these jars had inscriptions upon the handles or necks, and a large number of them have been recovered. They date from 140 to 255 A.D., but it is certain that the dumping of debris on this spot began as early as the time of Augustus. Beneath the surface on one side of the hill a


Fig. 85. - The Horrea Galbiana.
tomb of the Rusticelii has been discovered, which was covered up by a sort of land-slide. The distribution of debris shows that this hill stood in the midst of the horrea.

Tomb of Cestius. - Close to the porta Ostiensis is a pyramidal tomb, the burial-place of a certain C. Cestius, ${ }^{2}$ who died before 12 в.c. When the wall of Aurelian was built, the pyramid was utilized in such a way that it stands directly in the line of the wall. Inscriptions ${ }^{3}$ on the two sides record the name and titles of Cestius, and a third inscription on the east side

[^314]describes the circumstances of the erection of the monument. The pyramid itself is of brick-faced concrete, covered with white marble. It is 37 metres high and rests upon a base of travertine 30 metres square. In the interior is the burial chamber, 5.95 metres long and 4.10 wide.

Outside of the porta Ostiensis, a necropolis like that on the via Salaria has been found, containing many cinerary urns of slaves and freedmen, with fragments of sarcophagi and skeletons. ${ }^{1}$

## Region XII.

The eastern portion of the Aventine was connected in legend with Remus, ${ }^{2}$ and it was here that he observed the auspices at the founding of the city, while Romulus did the same on the Palatine. The spot was called the Remuria and was near the church of S. Balbina, but whether it was always an open space or marked by some monument, we do not know. It was also called Saxum, ' 'the Rock,' and just below it, on the northwest slope of the hill toward the Circus Maximus, was the temple of Bona Dea Subsazana, ${ }^{4}$ assigned by tradition to the regal period, when it was dedicated by a Vestal Virgin of the Claudian family. It was restored by Livia, the wife of Augustus, and afterward by Hadrian. No traces of this temple have been found.

It was on this part of the hill that the ara Iovis Elicii ${ }^{5}$ stood, the erection of which was ascribed to Numa, for the purpose of drawing (elicere) information from Jupiter, an ara incendii Neroniani (p. 471), and a shrine of Silvanus. ${ }^{6}$

[^315]The horti Serviliani ${ }^{1}$ were probably in the south part of this region, beyond the line of the wall of Aurelian, and west of the via Ostiensis. Like most of the great parks (p. 443), they had become part of the imperial domain, and were a favorite resort of Nero and Vitellius. They contained some famous works of art. In the same district was a vinea publica, which is mentioned only in one inscription. ${ }^{2}$ This states that Vespasian recovered it from private individuals who had wrongfully taken possession of it.

Of buildings not connected with worship in this quarter, we know of the domus Cilonis, ${ }^{3}$ or house of Cilo, a distinguished citizen of the time of Severus, who lived near S. Balbina; the privata Traiani, ${ }^{4}$ or house of Trajan while still a private citizen, the site of which is probably that of the Benedictine monastery of St. Anselm ; and the privata Hadriani, ${ }^{5}$ which is supposed to have been situated just north of the porta Ostiensis.

The barracks of the cohors IV vigilum was on this part of the hill just north of S. Saba, where inscriptions relating to the establishment have been found. ${ }^{6}$

Thermae Antoninianae or Caracallae. - The most magnificent monument in region XIL was the baths of Caracalla, ${ }^{7}$ south of the Aventine, between the via Appia and the via Ardeatina. These baths were the largest ever built in Rome

[^316]except those of Diocletian (p. 472), and their ruins are among the most imposing in the city. They were begun about 212 A.D., opened by Caracalla about 216, and finished by Elagabalus and Alexander Severus. They were restored by Aurelian, and by Theodoric at the beginning of the sixth century. They accommodated sixteen hundred bathers at once, - half the number provided for in the baths of Diocletian.

The ruins ${ }^{1}$ of the thermae Antoninianae are better preserved than those of any other Roman baths, and furnish considerable information as to the arrangements and service of this most characteristic Roman institution. They are divided into two parts, - the group of buildings which form the baths proper, and a vast peribolus with annexes of various sorts. The whole area covered by the establishment is quadrangular, 353 metres by 335, with semicircular projections on the east and west sides. To provide so large a level space, it was necessary to make an artificial platform at a high level, and thereby to destroy or cover up many existing buildings. Excavations at the southeast corner of the area have disclosed the peristyle and adjoining rooms of a private house of Hadrian's time, with mosaic pavements and the ordinary decorations. The walls of these earlier buildings were utilized in supporting the platform of the baths. Covering a part of this site; and adjacent to it, were the gardens of Asinius, horti Asiniani, which are mentioned at the beginning of the second century.

The front of the thermae was parallel with the via Appia, but some distance back from it, so that Caracalla built a new street, the via Nova, directly from the Circus Maximus to the main entrance of the baths in the middle of the northeast side. The central building is 216 metres long and 112 wide, rectangular

[^317]except in the middle of the southwest side, where the caldarium projects. The arrangement of parts is that common to all thermae, and consists of three main divisions, frigidarium, tepidarium, and caldarium, with many smaller apartments for dressing, anointing, private bathing, service, and the many


Fig. 86. - Ruins of the Baths of Caracalla. The Frigidarium.
performances which took place within a Roman bath. The frigidarium is in the centre of the northwest front of the building, and is a rectangular hall divided by two rows of columns into three sections, a vestibule at each end and a great swimming pool in the centre. This pool is 53 metres long and 24 wide, and had a capacity of 1430 cubic metres of water. Wide
flights of steps led down into it from each end. The very lofty ceiling of this hall was flat, and supported by eight monolithic columns of granite, four on each side. Between these columns were smaller columns, placed in pairs, which supported an entablature running round the hall. Between the monoliths on the southwest side were two niches. This frigidarium is very probably the cella soliaris, ${ }^{1}$ which is mentioned as having excited the wonder of architects becanse of its enormous flat ceiling, which was supposed to have been supported by concealed girders. There are no traces of these girders, but several iron hooks about a metre long have been found, which evidently pierced the concrete ceiling and perhaps attached it to the beams above. The walls of this hall are standing, but of columns and decoration nothing but fragments and debris remain.

Behind the frigidarium is the tepidarium. This has the same dimensions as the main part of the frigidarium, and at each end are two similar vestibules. The ceiling was formed by three quadripartite vaults, resting on eight monolithic columns of gray granite. Only one of these columns still exists, and that is in the piazza S. Trinità in Florence. Each of the long sides of this hall has three niches, or recesses, in two of which were marble baths.

The third great hall, the caldarium, connected with the tepidarium by a large vestibule, is circular in shape, and projects for half its diameter beyond the line of the rectangle. This hall is 39 metres in diameter, and was surmounted by a domed ceiling resting on eight massive pilasters. Between the pilasters are the niches which contained the hot baths. In the pilasters spiral staircases were built, and the floor and side walls were lined with tiles communicating with hypocausts beneath. The greater part of the walls of this hall has been

[^318]destroyed, only two pilasters having been left standing in anything like their original form, and of the decoration nothing remains but insignificant fragments.

On either side of the caldarium are three large apartments for various purposes of toilet and attendance, and at each end of the building is a very large rectangular peristyle. The two


Fig. 87. - Plan of the Baths of Caracalla.
main entrances of the baths opened into these peristyles, which were surrounded by a colonnade supporting an entablature and gallery. The frieze was covered with reliefs representing scenes from the chase. One fragment of this frieze remains in situ, in the south peristyle. In the rear of each peristyle is a large apse. A considerable portion of the mosaic pavement from one of these peristyles, representing athletes, is now in the Lateran museum.

In some parts of the building there were upper stories, and in general these thermae illustrate in a most striking way the characteristic methods of Roman construction, especially in the enormous concrete vaults.

The space between this central block of buildings and those which formed the inclosure was laid out as a park and adorned with works of art. The whole northeast side of the peribolus and the adjacent parts of the northwest and southeast sides were inclosed with a wall, against which on the outside were built rows of small vaulted chambers opening outward. In front of these chambers was a porticus. The west halves of the northwest and southeast sides of the perikolus were occupied by semicircular projections, like enormous apses, in each of which was a row of three halls, with a colonnade between them and the outer wall of the apse. The central and larger part of the southwest side was occupied by a stadium, or rather half a stadium, as there was never an inner half. This stadium had tiers of marble seats, and behind it was the reservoir of the baths, built in the form of a rectangle and consisting of sixty-four small chambers arranged in parallel rows and in two stories. These chambers were equipped with hypocausts, so that the water might be heated before it left the reservoir. The capacity of this reservoir was 33,000 cubic metres, and the water was supplied by a branch of the aqua Marcia, the aqua Antoniniana, which was built by Caracalla and crossed the via Appia by the so-called arch of Drusus (p. 413).

These thermae were magnificently decorated and filled with works of art. It was here that the Farnese Bull and the Hercules in Naples were found.

Near these baths were the septem domus Parthorum, ${ }^{1}$ - some of the numerous houses which Septimius Severus built and presented to his friends.

[^319]
## CHAPTER XVI.

## THE CAELIAN. REGIONS I AND II.

The mons Caelius stretches west from the tableland which forms the east part of the city, in a long and irregular tongue which ends in two promontories, so to speak, - an eastern, where the church of SS. Quattro Coronati now stands, and a western, the site of SS. Giovanni e Paolo. The west portion of the Caelian was included in the Septimontium under the name of Sucusa (p. 40), while the east portion bore in early times the name of Ceroliensis, and at a later period that of Caeliolus. ${ }^{1}$ The earliest name for the whole hill is said to have. been mons Querquetulanus, ${ }^{2}$ from the oak groves which covered it; but this was perhaps an invention of the antiquarians to explain the porta Querquetulana of the Servian wall. Caelius was connected by them with the settlement of Caeles Vibenna and his Etruscan companions. ${ }^{3}$ A common name appears to have been Caelimons, ${ }^{4}$ or Caelemontium. ${ }^{5}$ In the reign of Tiberius the senate voted to name this hill Augustus in his honor, ${ }^{6}$ but this designation, if ever adopted, did not survive the emperor's lifetime.

[^320]All of the Caelian was included within the Servian wall except the extreme eastern part, where the hill joins the tableland. It had also its own line of fortification, like the Palatine and the Capitoline, as is shown by the remains of opus quadratum which have been found under S. Gregorio opposite the Palatine, and which resemble in construction the old Servian wall. ${ }^{1}$

In Augustus's division of the city, the Caelian hill fell into three regions, - the western and southern slopes into region I, the main portion into II, and the extreme eastern part into V. The hill was thickly populated during the republic. In 27 A.D. it suffered severely from a fire, ${ }^{2}$ and thereafter it became a favorite place for the residences of the rich, which, with their gardens, seem to have occupied a considerable part of the whole hill.

Streets and Squares. - The general plan of regions I and II can be made out with some degree of certainty, because of the fact that the modern streets have not infrequently followed the line of the ancient, the pavement of imperial times being still preserved beneath the present level. ${ }^{3}$ The west boundary (p. 302) of region I was the street leading from the Colosseum to the porta Capena, the modern via S. Gregorio, beneath which the old cloaca has been found, and over that the pavement of the republican period, 6.70 metres above the mean level of the Tiber. The later pavement, on which the arch of Constantine stands, is about 12 metres above the river, and the modern pavement about 15 metres. The ancient name of this street is not known. The ancient via Appia, which formed the southwest boundary of region I from the porta Capena to the northeast corner of the baths of Cara-

[^321]calla, was a little distance to the north of the modern via di porta S. Sebastiano.

From the four sides of the hill, - north, south, east, and west, -streets led to a common meeting place just a little north of the church of S. Maria in Navicella, thus forming two main arteries of travel across the hill in each direction. That on the west, starting from the street between the porta Capena and the Colosseum, just north of the church of S. Gregorio, is probably the street which was known in the middle ages as the clivus Scauri. ${ }^{1}$ The ancient pavement follows in general the via di SS. Giovanni e Paolo. From the north, the vicus Capitis Africae ${ }^{2}$ - a name derived probably from some statue - ascends from the east end of the Colosseum, in the valley between the Caelius and Caeliolus, the ancient pavement following the line of the via della Navicella. A continuation of this street must have led south to the gate in the Servian wall (porta Querquetulana?) and to the corresponding gate in the Aurelian wall (porta Metrovia?). The fourth street led from the common junction east to the porta Caelemontana, along the line of the via di S. Stefano, where many remains of the old pavement have been found. The names of these last two streets are not known with certainty, but one of them was probably the Caelemontium. ${ }^{3}$

From the via Appia, near the arcus Drusi (p. 413), a street ran northeast over the hill to the Lateran, which can be traced by its pavement for the first part of its course, and corresponds to the via della Ferratella, although the latter is much more crooked. The north boundary of region II seems to have been the street represented by the via dei SS. Quattro, thought by some to be the Tabernola mentioned by Varro. ${ }^{4}$

[^322]Other streets, the position of which may be approximately determined, are the vious Fabricii, evidently running into the compitum Fabricii, ${ }^{1}$ west of the buildings of Claudius; the vicus Trium Ararum, ${ }^{2}$ on the slope of the Caelian, north of the porta Capena; the vicus Honoris et Virtutis, ${ }^{3}$ running north from the via Appia near the temple of Honos et Virtus; and the vicus Camenarum, corresponding to the via delle Mole. There were two other streets, the vicus Sulpicins citerior and the vious Sulpicius ulterior, ${ }^{4}$ which branched off from the via Appia near the baths of Caracalla, but just where is not known. From the Notitia and Capitoline Base we know the names of a few other streets and of various squares or open piazzas, ${ }^{5}$ such as the area Calles, area Carruces, and area Pannaria, but their exact location is uncertain. The east portion of the Caelian was probably the campus Oaelemontanus, ${ }^{6}$ or Martialis, ${ }^{7}$ called in the middle ages campus Lateranensis.

West of the Lateran, extending along the inside of the Aurelian wall, was a swampy district, called the Decennium ${ }^{8}$ or Decenniae ; and the hill was crossed by two aqueducts, the rivus Herculaneus of the aqua Marcia and the arous Neroniani of the aqua Claudia.

## Region I.

Temples and Shrines. - The earliest cult in this region was that of the Camenae, ${ }^{9}$ dating from the early regal period.

[^323]According to tradition, Numa met his mistress, the nymph Egeria, in a grove just outside the later Servian wall at the foot of the Caelian, in the valley which is traversed by the via delle Mole, the ancient vicus Camenarum. This valley was called vallis Egeriae or Camenarum (p. 92); the grove, lucus Egeriae or Camenarum; and the spring, fons Egeriae or Camenarum (p. 91). Directed by Egeria, Numa built here a shrine to the Camenae, ${ }^{1}$ which was afterward replaced by a temple. The grotto containing the spring was also adorned with marble. (For another spring, the aqua Mercurii, see p. 92.)

The next oldest sanctuary in this region was the temple of Mars, situated at the left of the via Appia, 2 kilometres from the porta Capena and just outside the Aurelian wall. It stood on high ground, and the rise of the via Appia to the temple was called the clivus Martis. ${ }^{2}$ At a later time the grade of the road was removed, or at least very much diminished. The temple was probably dedicated ${ }^{3}$ in 388 b.c.; and in 296 в.с. a paved path, ${ }^{4}$ semita munita, was laid from the porta Capena to it. This path was replaced ${ }^{5}$ by another in 189 в.c., and provided with a porticus, so that it was afterward known as the via Tecta. ${ }^{6}$ This temple is frequently mentioned, ${ }^{7}$ but nothing is known of its history after the fourth century, and its approximate site is determined only by the discovery of inscriptions. ${ }^{8}$ An inscription ${ }^{9}$ is also the only evidence of the existence of a shrine of Aesculapius and Hygia near the temple of Mars. The lapis manalis, ${ }^{10}$ a miraculous stone which,
${ }^{1}$ Serv. ad Aen. i. 8; Pl. NH. xxxiv. 19.
${ }^{3}$ Liv. vi. $5 . \quad 4$ Liv. x. $23 . \quad{ }^{5}$ Liv. xxxviii. 28.
${ }^{6}$ Ov. Fast. vi. 191-192. (This street is to be distinguished from the via Tecta in the campus Martius, p. 356.)
 96-99.
${ }^{8}$ CIL. vi. 473-474; Jordan, I. 3. 213-215; II. $110 .{ }^{9}$ CIL. vi. 10234.
${ }^{10}$ Fest. 128; Serv. ad Aen. iii. 175 ; Varro, ap. Non. 637 ; Gilhert, II. $154-$ 155.
if brought into the city during a drought, caused rain, was also near this temple.

Between the temple of Mars and the tomb of the Scipios was the temple of the Tempestates, ${ }^{1}$ built in 259 b.c. by L. Cornelius Scipio, and a temple of Minerva which was in existence in the fourth century.

The temple of Honos et Virtus was situated on the north side of the via Appia, a short distance south of the porta Capena. The original part of this temple was built in 234 в.c. by Q. Fabius Maximus, and dedicated to Honos. ${ }^{2}$ In 208 b.c. M. Claudius Marcellus attempted to rededicate it to Honos et Virtus in pursuance of a vow which he had made at the battle of Clastidium. ${ }^{3}$ As this was forbidden by the pontifices, he restored the temple of Honos, and built a new part for Virtus. This temple was afterward restored ${ }^{4}$ by Vespasian. It contained many of the treasures which Marcellus brought from the sack of Syracuse. ${ }^{5}$ Its exact site has not been ascertained.

Near it was an ara Fortunae Reducis, ${ }^{6}$ erected by the senate in 19 B.c. in honor of the return of Augustus from the East.

Other Buildings. - Mention is made of other buildings in this region of which little or nothing is known, such as the Mutatorium Caesaris, ${ }^{7}$ an imperial property of unknown use, represented on the Marble Plan ${ }^{8}$ and situated probably between the Via Appia, the vicus Drusianus, and the Aurelian wall; the thermae Commodianae, ${ }^{9}$ erected by Cleander, a favorite of Com-

[^324]modus, and the thermae Severianae, ${ }^{1}$ built probably by Severus, both of which existed in the fourth century and were somewhere south of the baths of Caracalla; and six balnea, ${ }^{2}$ i.e. Abascantis, Mamertini, Bolani, Antiochiani, Torquati, Vespasiani.

Arches. - The via Appia was spanned by at least four arches within the limits of this region.
(1) The arcus Drusi, ${ }^{3}$ erected after 9 b.c. in honor of Drusus. It was of marble and adorned with trophies, and probably stood a short distance north of the point where the via Latina branches off from the via Appia, but no trace of it has been found.
(2) The arcus divi Traiani, ${ }^{4}$ erected in 113 A.D. by the senate to commemorate the victories of Trajan over the Dacians. This arch is represented on coins, and was standing in the fourth century. From it were perhaps taken some of the sculptures of the arch of Constantine (p. 304).
(3) The arch now standing just inside the porta S. Sebastiano, and called the aroo di Druso. This supported the aqua Antoniniana (p. 406) where it crossed the via Appia. It is of travertine, lined with marble, 7.21 metres high and 5.50 wide, and has a single passageway, flanked on each side by two Corinthian columns of yellow marble with white marble capitals, of which two are still standing. The origin of this arch is unknown, but it has been identified with each of those already mentioned. ${ }^{5}$
(4) The arcus divi Veri, ${ }^{6}$ erected in honor of the emperor Lucius Verus, probably over the via Appia, of which nothing further is known.

[^325]Tombs and Columbaria. - Roman law forbade burial within the city, and therefore it became customary from very early times to erect tombs and monuments outside the gates along the roads leading into the country. As the city grew, many of these tombs were included within its limits, especially in region I, where the distance between the porta Capena and the outer boundary of the region was so great. The two roads, Appia and Latina, were lined with the sepulchres of great families. Many of these tombs still exist, extending for several miles outside the present city limits.

Cicero ${ }^{1}$ speaks of four such families as having their tombs on the via Appia, - the Calatini, Servilii, Metelli, and Scipiones. Of these four, one at least was within the later city limits, for the tomb of the Scipios, sepulchrum or hypogaeum Scipionum, still exists. This tomb ${ }^{2}$ was discovered in 1780 , and is at the southeast corner of the via Appia and a road which crossed from it to the via Latina, the entrance being on this cross-road. It had originally two stories, but only the lower now remains. It consists of a series of irregular chambers excavated in the tufa rock and comnected by passages. The entrance is formed by an arched doorway of peperino, with engaged columns. The roof is now supported by modern piers.

As the Scipios were buried and not burned, ${ }^{3}$ the sepulchre was filled with sarcophagi, many of which were broken and their remains scattered when the tomb was opened. ${ }^{4}$ One, however, that of L. Cornelius Scipio Barbatus, consul in 298 в.с. and the first to be buried here, has been preserved and is now in the Vatican, together with portions of several others, on which are inscriptions. The sarcophagus of Barbatus is elaborately decorated with a Doric entablature, while the lid has Ionic volutes. The inscriptions ${ }^{5}$ in Saturnian metre upon this and the other sarcophagi are extremely valu-

[^326]able for the history of Latin literature and phonology, but they are probably much later than the date which has usually been assigned to them, the earliest being no earlier than the second Punic War. Ennius is said to have been buried in this tomb, ${ }^{1}$ and his statue to have stood here in Cicero's time.

The space between the via Appia, the via Latina, and the Aurelian wall, now included for the most part in the vigna Sassi and the vigna Codini, was occupied in process of time by tombs of all sorts, and upward of sixteen hundred sepulchral inscriptions ${ }^{2}$ have been found here.

With the increasing frequency of cremation, the growth of the population of the city, and the difficulty of securing space for burial purposes, the custom arose, about the beginning of the empire, of building chambers, mostly subterranean, the walls of which contained many rows of niches, arched or square, where hundreds of cinerary urns could be set. These rows of niches gave the tomb-chambers the appearance of dove-cotes, and hence they were called columbaria. They were built by the wealthy for their slaves and freedmen, by members of these familiae themselves by subscription, by guilds and fraternities of various kinds, or by speculators who sold places to any who chose to buy.

This method of tomb-building was very economical and became extremely common. Many such columbaria have been discovered in the last three centuries in this district, but only four have been preserved, that of Pomponius Hylas in the vigna Sassi near the porta Latina, discovered in 1831, and three in the vigna Codini, between the sepulchrum Scipionum and the porta Appia, discovered between 1840 and $1853 .{ }^{3}$

[^327]All four of these columbaria date from the first century, and while they differ in some respects, they resemble each other in the main. They are beneath the ground level and approached by steep flights of steps. That discovered in 1840 is 7.50 metres long, 5.65 wide, and 6.24 high, and contains four hundred and fifty niches. The sepulchral inscriptions in these columbaria were written on tablets affixed to the wall below


Fig. 88. - Columbarium in the Vigna Codini.
the niche; and as niches often passed from one owner to another, there are sometimes two inscriptions for one niche.
There were sometimes as many as nine rows of niches; and as it was impossible to reach the upper rows from the floor, provision was made for a temporary wooden scaffolding, which usually rested on stone corbels set in the wall. At a later period, after these columbaria had been filled with cinerary urns, they seem to have been opened and the uncremated bodies of the dead were thrown into them in a most promiscuous fashion. Other columbaria, as that of the slaves and freed-
men of Livia, ${ }^{1}$ the wife of Augustus, have been found outside the walls, but they are of the same general character as those just described.

## Region II.

Temples and Shrines. - On that part of the Caelian afterward included in region II there were three sanctuaries devoted to very ancient cults. These were:-
(1) The sacellum Minervae Oaptae, ${ }^{2}$ also called Minervium, on the north slope of the Caeliolus, which derived its name from the statue of Minerva brought from Falerii when that town was captured; it was near the arcus ad Isis (p. 300), and was standing in the fourth century; (2) the sacellum Deae Carnae, ${ }^{3}$ built by Brutus in the first year of the republic, for the goddess who, according to Ovid, was believed vitalibus humanis praeesse; and (3) the sacellum Dianae, ${ }^{4}$ maximum et sanctissimum, situated on the Caeliolus and removed by L. Calpurnius Piso, consul in 58 в.c. No traces of these shrines have been found, nor of the shrines (or statues) of Iuppiter Caelius and the Genius Caelimontis, which are represented on a relief ${ }^{5}$ found near the baths of Diocletian.

The only temple ${ }^{6}$ in this region of which anything definite is known was that of the deified Claudius, which was begun by Agrippina. After her death Nero destroyed, prope funditus, a considerable portion of what had been erected, and built in its place a nymphaeum for the branch of the aqua Claudia

[^328]which he brought over the hill. Vespasian rebuilt the temple, and dedicated it as the templum divi Claudi, but it appears to have been popularly known as the Claudium. It stood on the north spur of the Caelian opposite the Colosseum, the site now occupied by the gardens of the Passionist Fathers.

The temple itself stood on a lofty and extensive podium, and was surrounded by a colonnade, the porticus Claudia. ${ }^{1}$ Of the temple and porticus nothing remains, but the substructures of the podium are still visible. These substructures are different on the different sides of the podium, those on the west consisting of double rows of travertine arches with engaged columns and entablature; those on the north containing what seem to be reservoirs for water; and those on the east consisting of square and semicircular recesses, which are separated from the podium by a narrow passage. This difference in style and construction is probably due to the combination of temple and nymphaeum which was the result of Vespasian's restoration. The Claudium existed in the fourth century, but there are indications that its destruction began about that time.

Other Buildings. - On the Caelian were the castra Peregrina, ${ }^{2}$ or barracks of the peregrini, originally a corps of foreign troops which in the second and third centuries seems to have acted as a sort of special police. Within this camp was a shrine of Iuppiter Redux, ${ }^{3}$ erected by the soldiers of Alexander Severus and Mammaea. A few remains and inseriptions show that these barracks stood just north of S. Maria in Navicella. South of this church, in the grounds of the villa Mattei, part of a mosaic pavement and two inscribed pedestals mark the site of the barracks of the cohors $\nabla$ vigilum. ${ }^{4}$ At the north corner

[^329]of the site of the castra Peregrina stands the arcus Dolabellae et Silani, ${ }^{1}$ erected in 10 A.D. by the consuls P. Cornelius Dolabella and C. Junius Silanus. This arch is of travertine without ornamentation, and is ordinarily supposed to have been built to support a branch of the aqua Marcia and to have been utilized afterward by Nero in his extension of the aqua Claudia. Corroborative evidence for this theory is found in the similar construction and inscription ${ }^{2}$ of the arcus Lentuli et Crispini (p. 391) at the foot of the Aventine.

In 59 A.d. Nero built on the Caelian a public market, the macellum Magnum, ${ }^{3}$ which is shown on coins to have consisted of a building of two stories, with a central tholus, or domed structure, surrounded by columns. Recent investigations have shown that the church of 'S. Stefano Rotondo occupies the site of this tholus. The macellum of Nero was destroyed at some later date, and rebuilt about the end of the fourth century for public use, perhaps again as a market. A century later it was transformed into the church of S. Stefano Rotondo. Further changes were made in succeeding centuries, and of the original macellum of Nero the only remaining portions are the travertine foundations, part of the inclosure wall, and eight pilasters of the outer colonnade.

Private Houses. - Under the empire, the Caelian became a favorite residential quarter for the rich, ${ }^{4}$ and the excavations ${ }^{5}$ of recent years, particularly those carried on within the area now occupied by the villa Casali and the Ospedale Militare, have brought to light many remains and inscriptions belonging to their houses. ${ }^{6}$ They occupied the central part of the hill, on

[^330]both sides of the rivus Herculaneus from the castra Peregrina east.

Among them were the houses of Q. Aurelius Symmachus, ${ }^{1}$ the famous statesman and orator of the fourth century, and of 0 . Stertinius Xenophon, ${ }^{2}$ the physician of Claudius. Near by were the residences of the Pisones ${ }^{3}$ and Valerii, ${ }^{4}$ as well as many others. Here, too, was some sort of a pleasure resort of Domitian's, the Mica Aurea, ${ }^{5}$ and the basilica Hilariana, ${ }^{6}$ of which nothing more is known.

The most famous of all these houses is that which belonged to the Laterani, called by Juvenal ${ }^{7}$ egregiae Lateranorum aedes. In 65 A.D. Plautius Lateranus was executed by Nero for having joined in the conspiracy of Piso, and all his property is supposed to have been confiscated, including the house, which then remained in the possession of the emperors until Severus restored it to T. Sextius Lateranus. ${ }^{8}$ It must have fallen again into imperial hands, for Constantine presented it to pope Miltiades in 313 A.D., after which time it continued to be the official residence of the popes until it was destroyed by the gradual enlargement of the great church of St. John Lateran. Some of its ruins ${ }^{9}$ have been discovered beneath the choir of the church, at depths varying from 7.50 to 13 metres, and cousist principally of a series of apartments connected by a porticus and adorned with rows of columns, statues, and other

[^331]works of art. Lead pipes of the second century, inscribed with names of members of the Laterani family, are thought by some to prove that the house itself did not pass out of the possession of its original owners until the following century. The obelisk in front of the Lateran was brought from the Circus Maximus (p. 388), and the statue of Marcus Aurelius, now on the Capitol, stood here until the year 1538.

A very interesting house, of a rather late period, is that of St. John and St. Paul (domus sctt. Iohannis et Pauli), recently discovered beneath the church of SS. Giovanni e Paolo. ${ }^{1}$ This house, in which these two saints are reported to have been martyred, is a private dwelling of the second century, which was enlarged and rebuilt in the third and fourth, and over which the basilica was erected in the fifth. The enlargement consisted for the most part in connecting two houses, which had been separated by a narrow street. In the excavated portion upward of thirty rooms have been opened up, among them a cavaedium with five rows of three rooms each on its south side, bath-rooms, storerooms, and stairways. The house had three stories, traces of which may be seen on the left of the clivus Scauri (via di SS. Giovanni e Paolo). There is an arcade below, and rows of windows in the two upper stories. The atrium and adjacent apartments probably occupy most of that portion of the house which has not yet been excavated.

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## CHAPTER XVII.

## THE ESQUILINE. REGIONS III, IV, V.

The Esquiline district ${ }^{1}$ included the two spurs of the Esquiline hill, the Oppius and the Cispius; the Carinae ${ }^{2}$ or western, and the Fagutal or northwestern, slope of the Oppius; the Subura, the valley between the Oppius and the Cispius; and the campus Esquilinus ${ }^{3}$ or wide plateau east of the Servian wall which was afterward region V. Esquiliae or mons Esquilinus usually denoted the whole hill with its two spurs and the plateau behind ( p .41 ).

In the organization of Augustus this district was divided into three regions. Region III included the Colosseum valley and was bounded by the street which connected this valley with the porta Caelemontana (the modern via dei SS. Quattro), by the Servian wall, the clivus Suburanus and the Subura, and probably by the vicus Cuprius. Region IV lay north of III, and was bounded on the other sides by the Sacra via, the Forum, the forum of Nerva, and the vicus Patricius. Between the forum of Nerva and the vicus Patricius, the boundary seems to have described a wide curve. Region V lay east of the Servian wall, from the street between the porta Caelemontana and the porta Asinaria on the south to the castra Praetoria on the north. A large part of this region was known during the republic as the pagus Montanus, ${ }^{4}$ a reminiscence of

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1 Jordan, I. 3. }254\mathrm{ ff.
{ } ^ { 2 } \text { Varro, LL. v. 47; Gilbert, II. 62; Jordan, I. 3. 262-265.}
| Cic. Phil. ix. 17; Strabo, v. 237; Suet. Claud. }25
4 CIL. vi. 3823; Jordan, I. 1. 184; Gilbert, I. 169.
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its earlier organization as a canton; and its northern section, between the Servian and Aurelian walls and adjacent to the castra Praetoria, was called the campus Viminalis sub aggere. ${ }^{1}$

Ancient Necropolis. - In prehistoric times a vast necropolis ${ }^{2}$ spread over the Esquiline, from the modern villa Spithoever and the Treasury building to the piazza Vittorio Emanuele. Within this area tombs have been discovered, which belong to two successive periods. The earliest are putei, or graves cut in the tufa rock, from 2 to 4 metres in length, in which the bones of the dead were laid, together with various articles of furniture and personal equipment. Those of the second period are cinerary jars or urns, monolithic except for the lids, or else made of several slabs of stone, like small boxes. Tombs of both these kinds have been found in other places, but especially in the via Napoleone III and the piazza Vittorio Emanuele. These two successive strata of tombs belong to the period before the Servian wall, which was built directly across the necropolis, and over the tombs themselves.
During the republic this same district, outside the Servian wall and extending as far as the amphitheatrum Castrense, was used as a cemetery, and divided into two zones. The first, where the poor, slaves, and malefactors were buried, and which was in a sense a Potter's Field, is said to have occupied a space 1000 feet long and 300 wide, ${ }^{3}$ just outside the agger of Servius near the porta Esquilina. This was also the place of public executions ${ }^{4}$ during the republic. Under the empire, executions took place in the Sessorium (p. 448), a building set apart for this purpose, the site of which is marked by some ruins just north of S. Croce in Gerusalemme. In this part of the

[^333]cemetery the tombs were rectangular pits, from 4 to 5 metres in length and unconnected with each other, arranged in rows which ran north and south. They were called puticuli, ${ }^{1}$ and were made of blocks of lapis Gabinus. Into them the bodies were thrown promiscuously. In the via Napoleone III, besides the ancient tombs, a large number of these later ones was found, filled with matter containing bones, ashes, and organic debris. The average depth of soil above these tombs was from 6 to 8 metres. Traces have also been found of a stone channel, which is thought by some to have surrounded this part of the cemetery and to have formed a definite boundary. Adjacent to this cemetery was the lucus Libitinae, ${ }^{2}$ or grove of Venus Libitina, where that goddess was worshipped.

Beyond this zone lay the second, in which a better class of Romans - mechanics, tradesmen, and freedmen - were buried, and occasionally men of rank, as C. Pansa, Sev. Sulpicius, Horace, and Maecenas. ${ }^{3}$

The natural result of all this was the creation of an intolerable nuisance. This part of the Esquiline came to be known as the atrae Esquilicue, ${ }^{4}$ and was a menace to the health of the whole city until it was reclaimed by Maecenas (p. 443).

Streets. - A good deal is known about the ancient system of streets in this district from other evidence, and especially from the discovery of much of the ancient pavements. The main artery of communication between the Esquiline and the rest of the city was the $\operatorname{Argiletum~}^{5}$ (p. 260), which ran northeast from the Forum through the later forum Transitorium, and its continuation the Subura. The beginning of the Subura,

[^334]between the spurs of the Oppius, the Cispius, and the Viminal, was called the Primae Fauces, ${ }^{1}$ and its upper part, where it ascended the hill to the porta Esquilina, was called the clivus Suburanus. ${ }^{2}$ The ancient pavement of this thoroughfare has been found along the line of the via di S. Lucia in Selci, the via di S. Martino, and the via di S. Vito. Outside the porta Esquilina this road divided into the via Tiburtina and the via Praenestina. At the west end of the Cispius the vicus Patricius, ${ }^{3}$ the name of which is of doubtful origin, branched off from the Subura to the north, and extending to the porta Viminalis formed the boundary between regions IV and VI. The pavement of this street lies very near the via Urbana. A second street led from the northwest corner of the basilica of Constantine straight up the Carinae to the summit of the Oppius, and its pavement is beneath that of the via di S. Pietro in Vincoli. The ancient name of this street is uncertain, but it may have been the clivus Orbius ${ }^{4}$ (Urbius), which was also called the vicus Sceleratus, ${ }^{5}$ from the legend that here Tullia drove over the body of her murdered father.

Another street, the vicus Ouprius, ${ }^{6}$ started near the Colosseum and ran north across the slope of the Carinae to the Subura. This vicus, at its highest point, is said to have crossed the clivus Orbius; and in fact the pavement of an ancient street, which corresponds with what is known of the vicus Cuprius, does cross the clivus Orbius below the height of S. Pietro in Vincoli and coincides quite closely with the via del Cardello.

From the Colosseum valley two streets led east. The more northerly coincides closely with the modern via Labicana, and

[^335]can be traced across the Esquiline to the porta Maggiore. The other street is that which formed the boundary between regions II and III (perhaps the via Maior ${ }^{1}$ of the twelfth century), coinciding closely with the via dei SS. Quattro and via S. Giovanni in Laterano. This led to the porta Caelemontana and on to the porta Asinaria.

As the wall and agger of Servius gradually fell into decay and the moat was filled up, houses began to be erected on this new ground and streets to be laid out on both sides of the wall parallel to it. The pavement of one of these streets has been discovered for the entire distance between the porta Caelemontana and the northwest corner of the piazza Vittorio Emanuele, just outside the porta Esquilina, at an average depth of 5 to 6 metres below the modern level. The ancient name of this street is not known, but after the seventh century it was called the via Merulana, ${ }^{2}$ a name which has now been transferred to the new avenue which leads from S. Maria Maggiore to the Lateran. This ancient street was probably the principal thoroughfare between the north and south parts of the Esquiline.

Besides these streets, the line of which is partially determined, there was a clivus Pullius, ${ }^{3}$ leading from the Subura south to the Oppius; a vicus Sandaliarius ${ }^{4}$ which probably opened into the Argiletum and corresponds to the via del Colosseo; and a street ${ }^{5}$ of unknown name, which branched off toward the east from the vicus Cuprius. The vicus Iovis Fagutalis ${ }^{6}$ must have been on the Fagutal; and the vicus Summi Ohoragi ${ }^{7}$ evi-

[^336]dently derived its name from that building (p. 428). The Corneta ${ }^{1}$ was between the Sacra via and the Macellum. The vicus Sabuci ${ }^{2}$ was somewhere in region III; and the clivus Bassilli ${ }^{3}$ probably branched off to the north from the via Tiburtina. Of the vious Africus ${ }^{4}$ nothing is known except that it was on the Esquiline.

## Region III. ${ }^{5}$

Temples and Shrines. - The temple which gave its name to this region was that of Isis, ${ }^{6}$ which was also dedicated to Serapis, like that in the campus Martius; but nothing is known of the date of its building or of its history. On the relief of the Haterii (Fig. 2) an arch, spanning the street described on page 426 (bottom), is marked arcus ad Isis, and a little to the north of this street, between the via Leopardi and the via Machiavelli, the ruins of an Egyptian temple were discovered in the seventeenth century. These indications, with the recent finding of Egyptian sculpture in the same place, determine the site of the temple which was certainly the most important in the region during the imperial period.

At the crossing of the vicus Cuprius and the clivus Orbius stood the Dianium, a shrine of Diana, which is mentioned only once ${ }^{7}$ and had disappeared in Livy's time. Of the temple of Bellona Rufilia, ${ }^{8}$ which stood $a b$ Isis Serapis, nothing further is known.

Near the Tigillum Sororium were two altars, dedicated to Iuno Sororia and Ianus Curiatius, ${ }^{9}$ on which from early times

[^337]expiatory sacrifices had been made. These altars were undoubtedly connected with the expiation of Horatius.

Other Public Buildings. - Tradition said that the surviving Horatius was compelled to pass beneath a wooden cross-bar supported by two vertical posts, in expiation of the murder of his sister. ${ }^{1}$ This yoke was called the Tigillum Sororium, and was probably in reality an ancient Janus-gate, with which the Horatius legend became connected. It appears to have stood at a place where two roads crossed, ad compitum Acili, ${ }^{2}$ perhaps on the street described on page 425, - at any rate somewhere on the southwest slope of the Oppius.

Directly east of S . Clemente, the site of the imperial mint is marked by the discovery of inscriptions relating to the Moneta, or Moneta Caesaris, and to its officials, the monetarii. ${ }^{3}$ The mint had apparently been transferred hither from the temple of Iuno Moneta on the Capitoline. Between the thermae Traianae and S. Clemente were the castra Misenatium, ${ }^{4}$ the barracks occupied by the sailors detailed for service in the city from the imperial fleet stationed at Misenum. The site is known only from inscriptions and a fragment of the Marble Plan. Near it was the Armamentarium, ${ }^{5}$ and between it and S. Clemente was the Summum Choragium ${ }^{6}$ where the stage settings and appliances for theatrical shows in the Colosseum were kept. Still farther east on the same street was the ludus Magnus, ${ }^{7}$ or principal training school for gladiators, and probably

[^338]the ludus Dacicus, ${ }^{1}$ a similar school for Dacians. In the vineyard of the monks of S. Pietro in Vincoli inscriptions ${ }^{2}$ have
 $\dot{a} \theta \lambda \eta \tau \hat{\omega} \nu$ or curia athletorum, evidently the headquarters of some organization of athletes. This hall was undoubtedly in the neighborhood of the thermae Traianae; but whether it can be identified with the basilica-shaped hall just north of these thermae, as some believe, is entirely uncertain.

The porticus Liviae, ${ }^{3}$ fronting directly on the clivus Suburanus, was built by Augustus on the site previously occupied by the house of Vedius Pollio. This house, ${ }^{4}$ which had become famous for its luxury and magnificence, was left by will to Augustus by Pollio, who died in 15 в.c.; but the emperor tore it down at once, in order to show his disapproval of such private residences, and erected the porticus in its place. This was not finished and dedicated to Livia until 7 b.c. ${ }^{5}$ It was the most important porticus in the city, after those of the campus Martius, and much frequented. ${ }^{6}$ Its site and general plan are known to us from three fragments of the Marble Plan, ${ }^{7}$ and from drawings made in the sixteenth century of the ruins which were then visible. It was rectangular in shape, about 115 metres long and 75 wide, and consisted of an outer wall and a double row of columns within. In each of the long sides were three niches, the central one square, the others semicircular. There was also a semicircular apse on the south side. The entrance was on the north, where there was a flight of steps 20 metres wide leading down to the clivus

[^339]Suburanus. In the centre of the area was something which appears to have been a fountain. An aedes Concordiae ${ }^{1}$ built by Livia was connected with the porticus, but it was probably outside the inclosure, toward the northeast.

The office of praefectus urbi became permanent during the reign of Tiberius, and thenceforth one of the most important in the empire. The general offices, Praefectura Urbana, ${ }^{2}$ of this prefecture were west of the thermae Traianae, within the area now bounded by the vie di S. Pietro in Vincoli, della Polveriera, del Colosseo, and dell' Agnello. The identification of this site is rendered possible by inscriptions, although no trace of the building itself remains. It dated from the early empire, and contained at least three parts, - the scrinia or archives, the secretarium or prefect's office, and the tribunalia where he gave his decisions. The secretarium was called secretarium Tellurense, which indicates that the building stood in Tellure, or in the vicus Tellurensis, near the temple of Tellus. The inscriptions also indicate that adjacent to the Praefectura was a porticus, ${ }^{3}$ in which copies of the edicts, preserved in the archives, were set up for public inspection; and this porticus may be identical with the porticus thermarum Traianarum mentioned in another inscription. ${ }^{4}$

The domus Aurea ${ }^{5}$ of Nero, as has already been said (p. 73), spread over a large part of the Esquiline. It was evidently a large park, ${ }^{6}$ containing various buildings of the greatest magnificence and many treasures. The most extensive existing remains are beneath and just east of the thermae Traianae. That part which is beneath the thermae is built of opus lateri-

[^340]cium covered with stucco, and consists of a series of parallel chambers opening north and south into courts surrounded with colonnades. In the centre of the north peristyle is a fountain, and along its north side a cryptoporticus. The wall-paintings that were found in these chambers ${ }^{1}$ in the fifteenth century afterward inspired Raphael to paint his famous frescoes in the loggia of the Vatican and in the villa Madama. A few traces of them still remain, and also of others discovered in 1813 in the cryptoporticus.

The ruins of the domus Aurea just east of the thermae, generally known as Le Capocce or Le Sette Sale, belong to a piscina, or reservoir. This building is rectangular except on the east where it is curved, and consists of nine parallel chambers lined with waterproof cement. Originally there was a second story, as in the piscina of the baths of Caracalla. The interior walls are pierced with openings, so arranged as not to be opposite each other.

Thermae. - We are told that when the Colosseum was dedicated, Titus built the thermae Titianae near by with great speed, and celebrated their completion with magnificent games. ${ }^{2}$ These baths were still used in the fourth century; ${ }^{3}$ and inthe sixteenth so much of them was visible that drawings could be made. After that time they were almost totally destroyed, and it is only within the last decade that a few meagre remains have come to light. They are situated just west of the thermae Traianae, on the edge of the slope overhanging the Colosseum, and within the domus Aurea. A wide flight of steps led up from the paved area round the Colosseum to the thermae, which were 18 metres above. Recent

[^341]excavations have disclosed the ruins ${ }^{1}$ of a sort of porticus at the foot of this flight of steps, consisting of a row of six pilasters, adorned with half columns on travertine bases, and originally connected by arches. This porticus may have belonged distinctively to the approach of the thermae, or to a porticus


Fig. 89: - The Baths of Titus and Trajan.
that surrounded a large part of the Colosseum area. In the fifth century the porticus was completely changed in appearance, and a Christian cemetery located here. The façade of the thermae was toward the north, and of this a small portion was found. These baths were the smallest of those known to us, measuring about 115 by 110 metres, and no actual buildings of

[^342]the domus Aurea appear to have been destroyed to make room for them.

Nothing is known of the circumstances attending the building of the thermae Traianae. Trajan ${ }^{1}$ erected them between the porticus Liviae and the thermae Titianae, thereby destroying or burying a considerable part of the domus Aurea. Our knowledge of their plan is based upon a sinall fragment of the Marble Plan, ${ }^{2}$ on drawings of the sixteenth and eighteenth centuries, when enough of the building was left to admit of quite exact description, and on the very meagre remains which are now visible. They corresponded in general with the other thermae. The main building contained a rectangular frigidarium, a tepidarium, and a circular caldarium, with apodyteria or dressing rooms, open courts or palaestrae at each end surrounded with colonnades, and the usual number of small baths and rooms for various purposes. This main building was surrounded on three sides, east, south, and west, by a peribolus which contained libraries, reading rooms, gymnasia, and exedrae at the four corners. In the middle of the south side was a very large exedra, which served as a theatre. This exedra was built over that part of the domus Aurea already described (p. 431); and in order to provide sufficiently strong foundations for the cavea of the theatre, additional walls were built through the chambers of the domus Aurea, some corresponding with the walls of these chambers and others with the orientation of the baths themselves. The axis of the domus Aurea runs north and south, while that of the thermae runs northeast and southwest at an angle of $30^{\circ}$ from the meridian. The extreme measurements of these baths are 340 metres in width and 330 in depth, or, excluding the exedral projections, 280 by 210 metres. The chief remains now visible belong to

[^343]the exedrae at the northeast and southwest corners and to the east palaestra. These baths contained many works of art, some of which have been recovered, notably the Laocoon group.

Private Houses. - Besides the house of Vedius Pollio, another famous house in this region was that of Pompeius, ${ }^{1}$ which stood in Carinis near the temple of Tellus, and was ornamented with rostra ${ }^{2}$ that had been taken from captured pirate ships. After the death of Pompeius the house became the property of Antonius, and later of the imperial family. Tiberius lived in it before his accession; ${ }^{3}$ and in the third century it belonged to the Gordiani.

Throughout the whole Esquiline district very many ruins of private dwellings have been found which can seldom or never be identified with any certainty. ${ }^{4}$ In a few cases, the discovery of inscriptions gives the clew to the owners' names. Thus we know that the house of M. Servilius Fabianus ${ }^{\circ}$ was south of the clivus Suburanus and just east of the porticus Liviae; that of Vettius Agorius Praetextatus and Fabia Paulina ${ }^{6}$ was also south of the clivus Suburanus and just inside the Servian wall; and that of Petronius Maximus ${ }^{7}$ was destroyed by the building of the domus Aurea. The house of Bruttius Praesens in this region is singled out for mention in the Notitia, and was probably especially noteworthy. The emperor Balbinus ${ }^{8}$ lived on the Carinae. Near Le Sette Sale (p. 431) are remains ${ }^{9}$ of a tenement house called the insula Vitaliana from-its builder or owner.

[^344]The present church of S. Clemente is built over an earlier basilica, which, in its turn, rests upon a stratum of early imperial opus latericium; and beneath this is a great mass of opus quadratum of tufa. This belongs to the republican period and probably to some public building, not to a private house, but there is no clew as to its identity. Below the first basilica and behind the apse are the chambers of a house of the period before the Antonines, and among them a Mithraeum, or shrine of Mithras. ${ }^{1}$

## Region IV.

This region took its name from the templum Pacis of Vespasian. The monumental structures in its southwest part, along the Sacra via, have been described in Chapter XII.

Its two principal streets, the Argiletum and the Subura, were perhaps the most crowded, noisy, and disreputable in the city. Certainly the reputation of the Subura ${ }^{2}$ was of the very worst, as is amply testified by the evidence of literature. Retail business ${ }^{3}$ of every description was carried on here ; but the Argiletum seems to have been noted especially for its book and shoe shops, ${ }^{4}$ while there is epigraphic and literary evidence for the presence in the Subura of crepidarii, ${ }^{5}$ lanarii, ${ }^{6}$ praecones, ${ }^{7}$ ferrarii, ${ }^{8}$ lintearii, ${ }^{9}$ and impilarii, ${ }^{10}$ and it was notorious for brothels and drinking shops. ${ }^{11}$ In spite of this unsavory character, the Subura retained its importance, and no less a person than Julius Caesar lived in a house in this street, afterward inhabited by the grammarian Antonius Gnipho. ${ }^{12}$

[^345]Temples and Shrines. - Except for the great temples on the Sacra via, buildings devoted to religious purposes were neither numerous nor important in this region. Probably the oldest temple was that of Tellus, situated on the west slope of the Carinae, ${ }^{1}$ just west of the boundary of region III, on the site of the house of Sp . Cassius, ${ }^{2}$ who was said to have been put to death for alleged treason in 485 в.c. In 270 b.c. P. Sempronius Sophus vowed a temple to Tellus, ${ }^{3}$ but the building which he erected was probably only an enlargement or rebuilding of a much earlier one. According to another form of the tradition, the temple of Tellus was in existence before Sp. Cassius, and the site occupied by his house was added to that of the temple. ${ }^{4}$ The area in front of the temple was dedicated to Ceres, ${ }^{5}$ and the two goddesses were worshipped here together on December 13. The temple was restored by Q. Cicero about 54 b.c., and apparently some of the ground hitherto belonging to it fell into Cicero's hands. ${ }^{6}$ The temple is mentioned in the fourth century, and while no remains have been found, it was undoubtedly situated just east of the via del Colosseo. ${ }^{7}$ Near by were the horrea Chartaria, ${ }^{8}$ or paper warehouses.

The temple of Iuno Lucina ${ }^{9}$ was built in 375 b.c. It stood in a grove on the slope of the Cispius, overlooking the Subura, and near the sixth chapel of the Argei. This would place the temple between the church of S. Prassede and the via dei Quattro Cantoni. Little is known of the later history of this tem-

[^346]ple, except that in 41 в.c. a murus Iunonis Lucinae ${ }^{1}$ was either built or restored, and that the edifice itself continued to exist during the empire. The annual festival of the Matronalia ${ }^{2}$ was celebrated here on March 1, and votive inscriptions to Juno have been found in the neighborhood.
In the vicus Sandaliarius was a statue of Apollo Sandaliarius, and a shrine dedicated by the magistri of that vicus to Stata Fortuna, ${ }^{3}$ and in the vicus Patricius was a shrine of Diana. ${ }^{4}$

In 1888, at the corner of the via S. Lucia in Selci (clivus Suburanus) and the via dei Quattro Cantoni a marble base was discovered, on which had stood a statue, and behind it part of an early travertine altar. On the base was an inscription recording the dedication in 10 в.c. of the statue to Mercurius. ${ }^{6}$ This was one of the statues which Augustus erected at various points in the city with the money which the citizens presented to him on New Year's Day. The monument stood in a paved area, evidently the crossing of the clivus Suburanus and another street (the vicus Sobrius?), ${ }^{6}$ and the statue was perhaps that of Mercurius Sobrius. ${ }^{7}$ The older travertine altar was probably one of those which marked compita, and possibly replaced one of the older shrines of the Argei.

Other Public Buildings. - In the Subura was a tower, the turris Mamilia, ${ }^{8}$ on which the inhabitants of the district, the Suburanenses, fastened the head of the horse which was sacrificed at the October festival, if they were successful in their annual contest with the Sacravienses (p. 41). The quarter immediately around this tower was called ad turrim Mamiliam.

[^347]An atrium Sutorium ${ }^{1}$ is mentioned as being the place where the annual ceremony of the tubilustrium was observed; and while it is not even known in what part of the city this building was situated, it is natural to connect it with the headquarters of the shoe trade, and to place it in the Argiletum. As it is not mentioned after the first century, it may have stood on the site afterward occupied by the forum Transitorium. ${ }^{2}$

At the east end of the forum Transitorium and abutting against the apse of the forum of Augustus, are the remains of a curved wall, opening toward the Argiletum, which is probably the porticus Absidata ${ }^{3}$ mentioned in the Notitia. It formed a species of pendant to the forum Transitorium.

The Roman markets, which had originally been held in the Forum itself, were gradually removed to make room for more important interests (p. 166). The forum Ouppedinis, ${ }^{4}$ or market for delicacies, and the forum Piscarium, ${ }^{5}$ or fish market, were moved during the third century в.c. into the district between the Sacra via and the Argiletum, and the general market ${ }^{6}$ must have been established there at about the same time. In 210 b.c. the forum Piscarium was burned, ${ }^{7}$ and a few years later, in 179 b.c., M. Fulvius Nobilior built a new market-house, the Macellum, and also his new basilica Aemilia between the Macellum and the Forum. ${ }^{8}$ Into this Macellum the different markets were brought together, ${ }^{9}$ and thenceforth this name displaced the earlier individual designations. The building consisted of a central tholus, surrounded by shops. ${ }^{10}$ It continued to be the principal market of Rome until Augustus

[^348]began to build other markets in different quarters of the city. Its usefulness even for the Subura was greatly diminished by the establishment of the macellum Liviae (p. 449), and it was entirely removed at last to make room for the forum of Vespasian. Near the Fanoes Macelli, ${ }^{1}$ the entrance to the market-house, were the atria Licinia, ${ }^{2}$ or auction rooms.

The only baths in this region of which we have any definite knowledge were the balnea Naeratii Cerialis, ${ }^{3}$ built by Naeratius Cerialis, consul in 358 A.D. They were situated in the square now bounded hy the vie Cavour, Maniu, Farini, and the piazza dell' Esquilino, but the remains are too meagre to admit of any attempt at reconstruction. At the time when these baths were built, the area south of them now occupied by S. Maria Maggiore was called the Sicininum, ${ }^{4}$ but no explanation of this name has been given.

Inscriptions ${ }^{5}$ found at the corner of the via Mazzini and the via Carlo Alberto indicate that at this point there was a building called the castra Fontanorum, apparently the headquarters of the fontani or fullones. ${ }^{6}$ This guild erected many statues and votive altars to Victoria, Diana, Hercules, and Minerva, in gratitude for their victory in some litigation with the curatores aquarum, between 226 and 244 A.D.

Near this point Junius Bassus, consul in 317 A.d., erected a basilica, ${ }^{7}$ which was converted into the church of S. Andrea between 468 and 482 . The church was destroyed in 1686.

Private Houses. - The excavations have brought to light evidence for the site and ownership of several private houses in this region, which is perhaps more definite than at some other points (cf. p. 434). The house of T. Flavius Tiberianus ${ }^{8}$ was at the corner of the via Mazzini and via Napo-

[^349][^350]leone III; that of L. Octavius Felix, near the railroad station; those of Geminia Bassa, Q. Munatius Celsus, and L. Naevius Clemens, just inside the porta Viminalis; and that of Naeratius Cerialis, close to his balnea. Near S. Martino ai Monti the remains of a large house of the fourth century were found, ${ }^{1}$ among which was an aedicula, the lararium of the house, which contained a statue of Isis as Fortuia and busts of other divinities. Below and behind this aedicula was a Mithraeum, or square chamber dedicated to the worship of this oriental deity. On the wall was a relief of Mithras slaying the bull.

In the old via Graziosa, which has now given way to the via Cavour, in the years 1847-1850 a house was found which contained the wall paintings, representing landscapes from the Odyssey, which are now in the Vatican in the room of the Aldobrandini Nuptials.

## Region V.

Temples and Shrines. - Buildings devoted to religious purposes were few and unimportant in this region. The temple of Minerva Medica, ${ }^{2}$ dating from republican times, was situated just west of the via Merulana in the via Curva, where in 1887 some ruins of tufa walls resembling favissae were found, together with hundreds of votive offerings. This discovery settled the dispute as to the site of this temple, for the name Minerva Medica had been for many years given to the nymphaeum in the horti Liciniani (p. 441).

Just inside the porta Praenestina was a district known as ad Spem veterem, ${ }^{3}$ the meeting place of several aqueducts (p. 94).

[^351]This name was derived from an ancient temple of Spes, which is mentioned only twice ${ }^{1}$ in literature, and to which the via Gabina must have led from the porta Esquilina. Nothing more is known of this temple or its history.

Near the church of S. Eusebio many inscriptions ${ }^{2}$ have been found which record dedications made by foreign soldiers, especially Thracians, to their native deities. These inscriptions mark the site of some shrine, perhaps one of Mars and Hercules. ${ }^{3}$ Other inscriptions, ${ }^{4}$ found near by, were dedicated to Iuppiter Dolichenus (cf. p. 396).

Lastly, the Notitia mentions a temple to Hercules Sullanus, ${ }^{5}$ evidently erected by Sulla, perhaps for his victory over Marius on the Esquiline; and a shrine or temple of Isis Patricia.

Water Works. - The most characteristic features of this region were the aqueducts which crossed the Esquiline in various directions after having entered the city ad Spem veterem, and the horti or parks. The aqueducts have been described in Chapter VI. There were nymphaea, great fountains, and piscinae, distributing stations, at various points throughout the region, and remains of many of them have been found. The most conspicuous of the nymphaea is that which stands southwest of the railroad tracks in the viale Principessa Margherita, in the ancient horti Liciniani (p. 446). These ruins ${ }^{6}$ were known in the middle ages as the Terme di Galluccio or Le Galluzze, and after the beginning of the seventeenth century as Minerva Medica, having been erroneously identified with that temple. The Notitia mentions in region V a nymphaeum divi Alexandri, and it is still a disputed question whether this name belongs to the nymphaeum under considera-

[^352]tion, or to another. The ruins consist of a decagonal hall of opus latericium, covered with a vaulted roof and surrounded on three sides with other chambers. In the interior of the hall are nine niches, besides the entrance ; and above these are ten corresponding round-arched windows. The diameter of the hall is about 34 metres and the height was 33 . The outside walls were covered with marble, and the interior richly decorated in a similar manner. Some of the pavement of porphyry has been found.

In the piazza Vittorio Emanuele are the remains of a great fountain, popularly known as I Trofei di Mario, which has sometimes been erroneously regarded as a castellum aquae. This ruin was called Cimbrum or templum Mariii in the middle ages, ${ }^{1}$ because in its niches were the trophies (tropaea) removed by Sixtus V in 1587, which are now on the balustrade of the piazza del Campidoglio. These trophies date from the time of Domitian, and therefore are not those erected by Marius on the Esquiline. We do not know how the name came to be transferred from one set of trophies to another which had nothing to do with the first. The structure itself is later than Domitian, and falls into the first part of the third century, but it was afterward restored by Alexander Severus. As it is a monumental fountain, standing at the angle between two streets, the via Tiburtina and the via Praenestina, it has sometimes been identified with the lacus Orphei, ${ }^{2}$ mentioned in the Notitia, which was evidently a fountain named from a statue of Orpheus. This fountain is fed by the aqua Iulia, and the existing ruins of brick-faced concrete indicate a high circular structure, perhaps 40 metres in diameter, with two stories and quite complicated in arrangement. Around the interior of the halls on each floor were niches, and water probably flowed out from openings in the walls into a surrounding basin.

[^353]A third nymphaeum, which may have been the nymphaeum divi Alexandri, is reported ${ }^{1}$ to have been found at the close of the fifteenth century in the villa Altieri, near the corner of the new streets the via Bixio and the via Principe Eugenio.

Horti. - Horti, gardens or parks which were generally laid out by private individuals and afterward in most cases fell into the possession of the emperors, surrounded almost the entire city. They were most numerous, however, in regions V and VII, and nn the right bank of the river. Credit for the development of this system is apparently due to Maecenas, who transformed the worst part of the Esquiline cemetery (p. 425) by levelling the agger, filling up the moat, and covering the area with earth to a depth of about 6 metres, and then laid out the horti Maecenatis. ${ }^{2}$

The extent ${ }^{3}$ of these gardens is uncertain, and topographers are not agreed as to whether they lay on both sides of the agger and both north and south of the porta Esquilina. Whatever may have been the original area laid out by Maecenas, in their final shape the gardens probably stretched out on both sides of the agger south of the gate, and also on the north of the gate, but how far is only a matter of conjecture. They cannot have extended very far north of the gate on the east side of the agger, or they would have encroached upon the space occupied by the macellum Liviae. At the death of Maecenas these gardens became the property of Augustus. Nero connected them with the domus Aurea, and viewed the burning of Rome from the turris Maecenatiana, ${ }^{4}$ a tower in the gardens which was praised as moles propinqua nubibus arduis. ${ }^{5}$ The gardens also contained a swimming pool of warm water. ${ }^{6}$

[^354]The ruins of one very curious building in these gardens still remain. It is the so-called Auditorium Maecenatis, ${ }^{1}$ in the angle between the via Merulana and the via Leopardi. It is a hall of opus reticulatum, in the style of the beginning of the empire, and built directly across the line of the Servian wall. At the west end is a semicircular apse; the length of the hall is 24.40 metres and its width 10.60 . Since the floor is 7


Fig. 90. - The so-called Auditorium of Maecenas.
metres below the ancient level of the ground, the hall had to be entered by an inclined plane. The walls reach 6 metres above this ancient ground level, so that the hall was 13 metres high. In the apse are seven rows of curved steps, arranged like the cavea of a theatre. Above these steps in the apse are five niches, and six more in each of the side walls of the hall. All of these were beautifully painted with garden scenes and

[^355]landscapes, but the frescoes have almost entirely disappeared. The pavement is of black and white mosaic. While the purpose of this hall is entirely uncertain, it was probably not an auditorium and may have been intended as a conservatory. ${ }^{1}$

Near the horti Maecenatiani were the horti Lamiani, ${ }^{2}$ which were probably laid out by L. Aelius Lamia, consul in 3 A.D. The house of the Lamiae ${ }^{3}$ was near the Trofei di Mario, and the horti extended south from about this point, and east of the ancient street (via Merulana) which separated them from the gardens of Maecenas. They became imperial property, and Caligula's ashes were deposited here before being carried to the mausoleum of Augustus. With these horti were connected the horti Maiani, ${ }^{4}$ of which nothing further is known; but the two are mentioned together as forming one whole, -horti Lamiani et Maiani. The area occupied by these gardens is approximately bounded by the piazza Vittorio Emanuele, the via Machiavelli, the via Bixio, the via Emanuele Filiberto, and the via Cairoli. Ancient writers describe the magnificence of the buildings and works of art within this area. Of the latter many have been found; but of the buildings themselves only insignificant remains, - rooms of opus reticulatum, a nymphaeum, and part of a porticus.

The horti Epaphroditiani, Pallantiani, and Torquatiani, ${ }^{5}$ dating from the first century, were almost contiguous and are mentioned together. The horti Epaphroditiani, named probably after the freedman of Nero, lay north of the via Praenestina, within the area now bounded by the via Principe Eugenio, the via Mazzini, the via di S. Bibiana, and the piazza Vittorio

[^356]Emanuele. The horti Pallantiani ${ }^{1}$ were north of the horti Epaphroditiani and of the via di S. Bibiana, probably along the line of the via Tiburtina vetus, between the porta Esquilina and the porta Tiburtina. They were the property of Pallas, the freedman of Nero, and at his death were seized by Nero and added to the imperial domain. The horti Torquatiani are mentioned only once, but were probably south of the horti Epaphroditiani on the opposite side of the via Praenestina. They may have belonged to Torquatus Julius Silanus, who was killed and whose possessions were confiscated by Nero.

The horti Liciniani ${ }^{2}$ belonged to the Licinian family, and are first mentioned in the third century, in connection with the emperor of that family, Gallienus, who made these gardens his favorite place of residence. They probably occupied most of the triangular space between the via Praenestina and the later wall of Aurelian, from the horti Epaphroditiani east, which latter gardens they had perhaps absorbed. The remains of some nymphaea have been found within this area, but they are insignificant, except that described on page 442.

Horti Variani ${ }^{3}$ is the name given ordinarily to a large park which extended south from the porta Praenestina to a point considerably beyond the line of the Aurelian wall. The name is derived from Varius, the father of the emperor Elagabalus. These gardens certainly belonged to this emperor, but the name given them in his biography ${ }^{4}$ is horti Spei veteris, and it is possible that the horti Variani were really on the Pincian. Elagabalus is said to have built a temple here in honor of his god Elagabalus; ${ }^{5}$ and within that part of the gardens which lies outside the Aurelian wall remains of a circus are said to have been found. The fragments of an Egyptian obelisk, found on the site of the supposed circus, mark the site of a sepulchral monument of Hadrian's favorite, Antinous, ${ }^{6}$ who, however, was

[^357]not buried here. This obelisk now stands on the Pincian. The Aurelian wall was built across these gardens, for remains of walls connecting the two parts have been found, and the ruins of buildings in the two sections have the same orientation. ${ }^{1}$ In the wall itself parts of structures of the third century are embedded.

The horti Tauriani and horti Calyclani, ${ }^{2}$ outside the Servian wall and north of the porta Esquilina, appear to have extended east toward the porta Tiburtina, and perhaps adjoined the horti Pallantiani on the north. Their limit on the west is marked by two terminal stones discovered in the via Principe Amadeo. The horti Tauriani belonged to M. Statilius Taurus, ${ }^{3}$ consul in 44 A.D., whom Agrippina put to death in 53 A.D. in order that she might get possession of the gardens. Of the horti Calyclani nothing is known. In the neighborhood of these gardens was a forum Tauri, and in the middle ages the district was called Oaput Tauri, ${ }^{4}$ perhaps from the ox-skulls on the frieze of the forum. The porta Tiburtina was also called porta Taurina, ${ }^{5}$ which would seem to indicate that the gardens extended as far as that gate. Near the horti Tauriani were the horti Vettiani, ${ }^{6}$ and probably the horti Scatoniani also, ${ }^{7}$ but it is possible that this last name was applied to a part of the horti Vettiani.

The horti Lolliani ${ }^{8}$ may be mentioned here, although they were not in region $V$, but on the boundaries of IV and VI south of the baths of Diocletian, as is shown by a travertine terminal stone discovered at the corner of the via Principe Umberto and the piazza di Termini. These gardens probably belonged to Lollia Paulina, the defeated rival of

[^358]Agrippina for the hand of Claudius. She was banished by Agrippina and her possessions confiscated.
All these gardens were probably preserved as parks until the downfall of the empire ; but after that time they must have been largely converted into private property and built over, for almost the whole Esquiline was covered with streets in the early middle ages.

Other Buildings. - The Sessorium, a building ${ }^{1}$ known in later times as the palatium Sessorianum, was standing in the first century, when it is mentioned as being near the spot where the execution of criminals took place (p.423). The origin of the name is unexplained, but the building became an imperial residence in the fourth century and was a favorite home of Helena, the mother of Constantine. Its site is known, for the church of S. Croce in Gerusalemme occupies one of the halls of the ancient palace. This rectangular hall, 34 metres long, 21 wide, and 20 high, resembled closely the templum Sacrae Urbis of Vespasian both in construction and scheme of decoration. It was converted into a church by Constantine, who added the apse at the east end, while the columns were not set up until the eighth century. North of the church, in the garden, are the remains of another hall of the Sessorium, consisting of an apse and the walls on each side. This hall was not destroyed until the sixteenth century.

North of S. Croce in the vigna Conti are the ruins of some thermae, including a piscina, which are known to have been restored by Helena after a fire ${ }^{2}$ and are therefore called the thermae Helenae. Complete plans of these baths, made by Palladio and Sangallo in the sixteenth century, are in existence, ${ }^{3}$ but the ruins themselves are very meagre.

[^359]The barracks of the cohors II vigilum ${ }^{1}$ were in region $V$, and inscriptions found at the extreme south end of the piazza Vittorio Emanuele indicate their site.

Just outside the porta Esquilina was the open area of the forum Esquilinum, ${ }^{2}$ and adjacent to it the macellum Liviae, or market built by Augustus and named after his wife. ${ }^{3}$ It was probably north of the forum Esquilinum and near the old Servian wall, just east of the horti Maecenatis. Between the piazza Fanti and the arcus Gallieni the ruins of an open court surrounded with porticoes and shops have been found, which resemble a macellum ; but the construction, of brick and opus reticulatum without ornament, dates from the time of Trajan, so that this was probably a later part of the macellum Liviae. Inscriptions ${ }^{4}$ indicate restorations of this macellum in the third and fourth centuries, and it appears to have existed until the late middle ages.

The porta Esquilina opened into the forum Esquilinum, but the gate itself disappeared with the wall. In 262 A.D. M. Aurelius Victor, praefectus urbi, erected on its site a triumphal arch, dedicated to the emperor Gallienus. This arous Gallieni now stands in the via di S. Vito, close to the church of the same name. The existing single arch is of travertine. Its height is 8.80 metres, its width 7.30 , and its depth 3.50 . The piers which support the arch are 1.40 metres wide and 3.50 deep, and outside of them are two pilasters of the same depth, with Corinthian capitals. The arch has an entablature 2 metres high, with the dedicatory inscription ${ }^{5}$ on the architrave. Beneath the spring of the arch on each side is a simple cornice. Drawings of the fifteenth century show small side arches, but almost all traces of them have disappeared. The lower part

[^360]of the arch is buried beneath the earth, as the modern level is considerably higher than the ancient.

South of S. Croce are the remains of another amphitheatre, the amphitheatrum Castrense, ${ }^{1}$ erected some time during the second century. The reason for the name is unknown, although it is sometimes explained as having been given to the amphitheatre because it was built for the soldiers of


Fig. 91. - Remains of the Amphitheatrum Castrense.
the castra Praetoria. When the Aurelian wall was built, the amphitheatre was utilized as a part of the line of fortification, the wall being joined to it in the middle of the east and west sides. The outer half of the building was thus made a projecting bastion, and the open arcades of the exterior were walled up. The inner half was evidently pulled down, so that little use can have been made of the edifice at that time. It was an elliptical building, with axes 88.5 and 78 metres in length. The exterior wall consisted of three stories of open arcades, adorned with pilasters with Corinthian capitals. The

[^361]whole structure, including columns and capitals, was built of brick and brick-faced concrete. Drawings ${ }^{1}$ of the sixteenth century represent all three stories, but since that time the upper one has entirely disappeared and all but a few fragments of the second. The cavea and the wall of the arena have also been destroyed, so that the remaining portion consists of the walled-up arcades of the lowest story.

In the via Tasso, just northwest of the Scala Santa, the remains ${ }^{2}$ of the castra equitum singularium were found. The equites singulares were a select corps of cavalry, organized in the latter part of the first or at the beginning of the second century as a body-guard of the emperors. The meagre ruins of the barracks consisted principally of the wall of a large rectangular court in which were niches and in front of the niches inscribed pedestals. These inscriptions ${ }^{3}$ have thrown much light upon the organization of the corps. The Notitia speaks of castra equitum singularium II, and an attempt has been made to identify the second of these barracks with some ruins found beneath the Corsini chapel of the Lateran, but without success.

Tombs. - Inside the porta Praenestina, on the north side of the old via Praenestina, during the laying out of new streets a number of burial-places have been found which have yielded a large store of inscriptions. Farthest from the gate, on the left of the viale Principessa Margherita, was the tomb of the Arruntii, monumentum Arruntiorum, ${ }^{4}$ consisting of three columbaria, which probably belonged to L. Arruntius, consul in 6 A.D, and were designed for his family, freedmen, and slaves. Nearer the gate were two other columbaria, forming the monu-

[^362]mentum Statiliorum. ${ }^{1}$ One of the members of this family was M. Statilius Taurus, the owner of the horti Tauriani. In the immediate vicinity were several other columbaria, ${ }^{2}$ all dating from the end of the republic or the early part of the first century. They were buried at a later time; but although the interiors were filled up, care was taken not to disturb the urns. In this new stratum of earth later graves were made, and near the monumentum Statiliorum tombs of three periods were found, one above another. ${ }^{3}$ The earliest graves, of republican date, were 9.75 metres, the columbaria of the Augustan age 6.25 metres, and the graves of the third century from 2 to 3 metres, below the present level.

Close to the outer side of the porta Praenestina, in the angle formed by the via Praenestina and the via Labicana, is a most curious tomb, sepulchrum Eurysacis, which was built by a baker, M. Vergilius Eurysaces, ${ }^{4}$ in the first century b.c. The tomb is trapezoidal in shape, and built of concrete faced with travertine. It was once partially covered by a tower which flanked the gate, and the east side is almost demolished. The other sides are largely composed of horizontal and vertical rows of stone cylinders, which possibly are designed to represent measures for grain. Above them is a cornice and a frieze covered with reliefs which represent the various operations of bread-making.

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{ } ^ { 1 } \text { CIL. vi. 6213-6640; BC. 1880, 51-75.}
2 CIL. vi. 5961-6148, 6641-6790, and plan on page 982.
` NS. 1880, 30.
4 CIL. vi. }1958
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## CHAPTER XVIII.

## THE VIA LATA AND THE PINCIAN HILL. REGION VII.

Region VII was bounded on the west by the via Lata (p. 123), which gave its name to the region and was included in it, and on the south and east, as far as the northwest corner of the Quirinal, by the Servian wall. From this point the line ran north, probably to the porta Pinciana, leaving the valley between the Pincian and the Quirinal in region VI. The north limit of the region in the time of Augustus is not known, but a stone ${ }^{1}$ of Vespasian's pomerium (p. 69) has been found west of the porta Pinciana, showing that the region extended to this point two centuries before the building of Aurelian's wall. As already remarked, the substructures of the Pincian on the north and east were made a part of Aurelian's line of defence. The north part of region VII was the collis hortorum, ${ }^{2}$ or mons Pincius, as it was afterward called from the gens Pincia which dwelt there. ${ }^{3}$ Down to the third century it is probable that only the south part of this region was built up, but that part was thickly inhabited. ${ }^{4}$

Between the via Lata and the eastern limits of the region, where the via Salaria vetus ran north to the porta Pinciana, there must have been several cross-streets like those north and south of the campus Agrippae, but none of these have been identified.

[^363]Temples and Shrines. - We know very little of temples in this region, and probably they were few in number. The most important was the great temple of the Sun, templum Solis Aureliani, built by Aurelian after his return from the east in 273 A.D., and famous for its magnificence. ${ }^{1}$ The temple was surrounded with a porticus, in some part of which were stored the vina fiscalia, which had been brought from the Ciconiae (p. 324). ${ }^{2}$ The temple is mentioned in the fourth century as being in campo Agrippae. ${ }^{3}$ By some it has been identified with the ruins ${ }^{4}$ in the gardens of the palazzo Colonna (p. 470); by others ${ }^{5}$ it is placed in the area bounded by the Corso, the via Claudio, and the via Frattina, all of which correspond to ancient streets. Here have been found peperino walls, granite columns, and architectural remains, and drawings of the sixteenth century represent here a structure which the supporters of this view assert to be a temple. These plans show two adjacent inclosures, one with curved ends, 90.50 metres in length and 42.70 in width, and the other rectangular, 126 metres long and 86.38 wide. Without further discussion it may be said that there is insufficient evidence for the hypothesis that these plans and ruins belong to a temple, and therefore the site of the temple of the Sun must be sought for elsewhere, although near the campus Agrippae. It is possible that the ruins just described may belong to porticoes in the horti Largiani, ${ }^{6}$ which are said to have been in this region.
The Regionary Catalogue mentions templa duo nova Spei et Fortunae, ${ }^{7}$ but nothing further is known of them. An inscrip-

[^364]tion ${ }^{1}$ belonging to a sacellum Silvani was found on the Pincian in the horti Aciliorum. In 1794 the foundation of the porticus of an octostyle temple ${ }^{2}$ fronting on the via Lata and also a portion of the cella wall were found at the corner of the Corso and the via Condotti. The columns were of red granite, and the bases, steps, and capitals of marble. No clew exists for the identification of this temple, and the same is true of other ruins ${ }^{3}$ not far distant, which may belong to a temple. These lie beneath the church of S. Giovannino in Capite, at the corner of the via della Mercede and the via del Moretto, and are the remains of travertine walls, 10 and 6 metres long, which form the sides of the northwest corner of some building in which a sanctuary of Mithras had been established in the fourth century.

Other Buildings. - The building activity displayed by Agrippa in the campus Martius extended across the via Lata, and the campus Agrippae, ${ }^{4}$ laid out by Agrippa and finished and dedicated by Augustus in 7 b.c., was the topographical centre of the region. This campus, which was a beautiful park and a favorite promenade of the Romans, extended from the line of the aqua Virgo on the south at least as far as the via Claudio on the north, and from the via Lata to the slope of the Quirinal, although its boundary on the east is quite uncertain. The west side of the campus was occupied by the porticus Vipsania or Polae, named from the sister of Agrippa, by whom it had been commenced. ${ }^{5}$ It was finished and opened by Augustus. This porticus ${ }^{6}$ extended along the via Lata from the aqua Virgo north, - that is, from the north end of the Saepta, of which

[^365]it formed a practical continuation, although on the opposite side of the street. It also resembled the Saepta closely in size and construction (p. 364). In it was a map of the world ${ }^{1}$ prepared by order of Agrippa. The porticus appears to have undergone changes in later times, as part of the remains date from the Flavian emperors, and in the second century the intercolumnar spaces were closed up with brick-faced walls, thus making rows of separate chambers. The edifice existed in the fourth century, when it is mentioned by the corrupted name of porticus Gypsiani. ${ }^{2}$ At various points in the area covered by the porticus remains have been found of semicircular arches with travertine pillars and pilasters with Doric capitals, and of a travertine pavement and cipollino columns with Corinthian capitals.

In the Regionary Catalogue, in connection with the porticus Gypsiani, is mentioned a porticus Constantini, ${ }^{3}$ but nothing further is known about it and there are no indications as to its exact location. It is possible that this was the name given to part of the porticus surrounding the statio cohortis I vigilum (p. 457).

In documents ${ }^{4}$ of the fourth century mention is also made of certain castra as in campo Agrippae, which must refer to the castra Urbana, or barracks of the cohortes urbanae. Near these barracks was the forum Suarium, ${ }^{5}$ or pork market. The trade in pork seems to have become even more important under the empire than in earlier times, and there are indications that the superintendence of this market was in the hands of an officer

[^366]of the cohortes urbanae. The site of the castra and of the forum Suarium was probably on the northwest side of the campus Agrippae, between it and the horti Lucullani.

Between the Saepta and the base of the Quirinal the remains of an extensive structure were found in the seventeenth century. This is represented on the Marble Plan, ${ }^{1}$ and was the statio cohortis I vigilum ${ }^{2}$ as well as the headquarters of the praefectus vigilum. It was a rectangular building, with its main axis extending due north and south at an angle of $18^{\circ}$ with the via Lata, and divided into three parts, each of which consisted of a central court surrounded by a porticus and rows of chambers. Some of these rooms showed signs of having been luxuriously furnished and decorated. The entire area is now covered with modern buildings.

Arches. - There were at least four arches erected on the via Lata which belonged to region VII. Just north of the Saepta the via Lata was crossed by the aqua Virgo, and here Claudius built a triumphal arch, the arcus Claudii, ${ }^{3}$ in commemoration of his victories in Britain in $51-52$ A.D. The arch formed part of the aqueduct, and seems to have been in ruins as early as the eighth century. Coins ${ }^{4}$ of the period represent an arch commemorating these victories of Claudius, which is surmounted by an equestrian statue and trophies. Portions of the travertine foundations, inscriptions ${ }^{5}$ dedicated to other members of the imperial family, and fragments of reliefs representing military scenes have been found at various times.

[^367]Farther north and close to the ara Pacis was an arch over the via Flaminia, the arcus Hadriani, ${ }^{1}$ which stood until 1662, when it was removed by Alexander VII in order that the Corso might be widened. The foundation of one of the piers has been found beneath the palazzo Fiano, 2.34 metres below the level of the Corso. During the middle ages it bore the name of arco di Portogallo. Two of the reliefs ${ }^{2}$ from this arch have been found, and are now in the palazzo dei Conservatori. They belong to the period of Hadrian, and the arch itself is usually ascribed to that emperor ; but descriptions written before its destruction seem to lend some support to the view that the structure itself was of late date, perhaps even later than Constantine, and that it was adorned with sculpture from much earlier buildings. One of the reliefs represents the apotheosis of an empress, either Plotina the wife of Trajan or Sabina the wife of Hadrian.

The arcus Diocletiani (Novus) ${ }^{3}$ spanned the via Lata south of the arcus Claudii and directly in front of the modern church of S. Maria in via Lata. It was probably built by Diocletian and Maximian in 301 A.D., and stood until the time of Innocent VIII (1488-1492). The fragments of a relief ${ }^{4}$ found near this site and now preserved in the villa Medici, which represent triumphal scenes, probably belonged to this arch.

A fourth arch was close to the porta Fontinalis. Nothing is known of it except that in the middle ages it was called arcus Manus Carneae. ${ }^{5}$

In the gardens of the house, No. 12 via del Nazareno, is another arch in the line of the aqua Virgo, which spanned an ancient street, and is also called arcus Claudii. ${ }^{6}$

[^368]Horti. - The horti Lucullani, laid out by L. Licinius Lucullus ${ }^{1}$ about 60 b.c., were on the southern slope of the Pincian, between the modern via del Tritone, the via due Macelli, and the via di Porta Pinciana. In 46 A.d. they belonged to Valerius Asiaticus, but were coveted by Messalina, who compelled the owner to commit suicide. After that time the gardens belonged to the imperial family. They contained a palace and the usual porticoes, libraries, and similar buildings, of which only the most meagre traces now remain, - some walls and bases of columns in the via Sistina and the via due Macelli, mosaic pavement in the via Gregoriana (No. 46), etc.

The northern and highest part of the Pincian was occupied by the horti Aciliorum, ${ }^{2}$ which extended from the church of S. Trinità dei Monti beyond the slopes of the hill into the grounds of the villa Borghese, and on the east probably as far as the porta Pinciana. We do not know the precise date when they were laid out, but they belonged to the Acilii Glabriones as early as the first century, and in the fourth to the Anicii Petronii, being one of the few gardens which did not fall into the hands of the emperors. They were inclosed on the north, west, and east by supporting walls and terraces, built along the slope of the hill. This wall on the east and north was utilized by Aurelian in his line of defence, part of it being rebuilt, but a considerable portion on each side of the extreme northeast angle being left in its original form. Even these substructures have been somewhat altered recently by additional buttresses, but their original construction can be seen. The wall is built of opus reticulatum, in a series of lofty arcades with massive intervening piers. On the west side of the hill there were two lines of terraces, supported by walls, of which nothing but the slightest traces remain. Just north of S. Trinità the ruins

[^369]of a great hemicycle have been found, which opened toward the west, and from which flights of steps led down to the plain below. Beneath the modern casino is a piscina, divided into two sections and connected with a reservoir by tunnels 80 metres long. This reservoir is formed of galleries cut in the rock, about 2 metres wide and a little more than 2 metres high, which intersect each other at right angles. East of the hemicycle, near the sharp angle in the Aurelian wall, is a mound called Il Parnasso or Belvedere di villa Medici, built on the ruins of an ancient round structure, once thought to be a temple, but really a nymphaeum belonging to the extensive water works of the gardens. The buildings of the palace and its various annexes extended along the west brow of the hill, from the villa Medici to S. Maria del Popolo, where their ruins were discovered in 1812. Under the north slope of the hill, near S. Maria del Popolo and also near S. Trinità, wine cellars, excavated in the rock and containing rows of amphorae, have been found.

Other gardens are mentioned as being on this hill, the horti Pompei ${ }^{1}$ and the horti Domitiorum, ${ }^{2}$ but their location is entirely uncertain.

Of the other monuments in this region mentioned in the Notitia - the lacus Ganymedis, nymphaeum Iovis, ${ }^{3}$ aedicula Oapraria, ${ }^{4}$ equi Tiridatis regis Armeniorum, Mansuetae, and lapis pertusus - nothing is known.

Tombs. - There were tombs on the via Flaminia, at points which marked the successive limits of the city. The oldest is the sepulchrum Bibuli, ${ }^{5}$ at the base of the Capitoline in the modern via di Marforio. This tomb is just outside the porta Fontinalis, and was erected in the last century of the republic

[^370]by decree of the senate, in honor of C. Publicius Bibulus, a plebeian aedile. It is built into a modern house, but the façade is exposed to view. This is of travertine, with a massive base supporting four Tuscan pilasters with an entablature. The frieze is decorated with reliefs of garlands, rosettes, and ox-skulls. Between the pilasters were windows, and the inscription is on the dado.

The tombs of the later period begin at the piazza del Popolo and extend beyond the porta Flaminia. ${ }^{1}$ The foundations of two of them, which seem to be as early as the end of the republic, have been found beneath the churches of S. Maria dei Miracoli and S. Maria in Montesanto, at the very end of the Corso. Immediately outside the porta del Popolo were the tombs of the gens Gallonia ${ }^{2}$ and of L. Nonius Asprenas, ${ }^{3}$ consul in 29 A.D.; of the gens Benina and of Publius Aelius Gutta Oalpurnius, a celebrated charioteer of the time of Hadrian or the Antonines.

Private Houses. - Few inscriptions relating to private houses have been found in this district, but there is epigraphic evidence for the existence of a domus Postumiorum ${ }^{4}$ on the Pincian, between the horti Lucullani and the horti Aciliorum, and of a house belonging to a certain T. Sextius Africanus, ${ }^{5}$ in the via del Babuino, at the corner of the via del Gesù Maria. Two inscriptions ${ }^{6}$ on the collars worn by slaves mention a physician Gemellinus and a certain Flavius in the via Lata.

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## CHAPTER XIX.

THE QUIRINAL AND THE VIMINAL. REGION VI.
This region, lying between the imperial fora, the east boundary of region VII, and the northwest boundary of region IV, comprised the Viminal, the Quirinal, the valley between the Quirinal and the Pincian, and the lower slope of the latter hill. The different divisions of the Quirinal, the earliest name for which is said to have been Agonus or Agonius, ${ }^{1}$ have been described on page 16, and the corresponding gates in the Servian wall on page 49. The region took its name from its principal street, the Alta Semita, which ran northwest along the ridge of the Quirinal to the porta Collina. This street corresponded exactly with the modern via del Quirinale and via Venti Settembre from the piazza del Quirinale east, and the ancient pavement lies at an average depth of 1.83 metres below the present level. ${ }^{2}$ Beyond the junction of the vicus Longus, this street was called the vicus portae Collinae. ${ }^{3}$

The second most important street in the region was the vicus Longus, ${ }^{4}$ which traversed the valley between the Quirinal and the Viminal, and joined the Alta Semita inside the porta Collina, very near where the via Quintino Sella runs into the via Venti Settembre. The pavement of the vicus Longus has been found on a line that crosses the via Nazionale at an

[^372]angle of $20^{\circ}$ near the Banca d'Italia, at various points between the bank and the baths of Diocletian, a distance of one kilometre. A considerable part of the northeast section of this street was destroyed by the erection of these baths.

A third street, running in the same general direction, was the vicus collis Viminalis, ${ }^{1}$ which extended along the ridge of the Viminal to the porta Viminalis. It is not represented by any modern street, but its pavement has been found along a line from the via Napoli through the porta Chiusa to the porta Viminalis.

The practical continuation of the Alta Semita from the south end of the Quirinal ridge down to the imperial fora was the vicus laci Fundani, ${ }^{2}$ which seems to have corresponded in general with the present via del Quirinale. It derived its name from the lacus.Fundani, ${ }^{3}$ a fountain which was close to, or perhaps identical with, the Cati fons (p. 322), on the site now occupied by the bakery of the royal palace. Near the lacus Fundani was a temple of Hercules Fundanius. ${ }^{4}$

Communication between the Alta Semita and the vicus Longus was effected by three cross-streets, - the clivus Salutis or Salutaris, the clivus Mamuri, and a street called ad Malum Punicum. The first of these ${ }^{5}$ derived its name from the hill on which it was, the collis Salutaris, and corresponded in general with the via della Consulta. Its pavement ${ }^{6}$ has been found at a depth of 18 metres below the new public gardens, at the corner of the via della Consulta and the via Venti Settembre, and at the lower end under the Banca d' Italia. The olivus Mamuri, ${ }^{7}$ named from the statua Mamuri, ${ }^{8}$ was probably

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{ } ^ { 1 } \text { CIL. vi. 2227-2228; BC. 1874, } 1 9 9 .
{ } ^ { 3 } \text { CIL. vi. 1297; RhM. 1894, 401-403.}
{ } ^ { 8 } \text { Tac. Hist. iii. 69; Placidus, p. 29; CIL. vi. } 9 8 5 4 .
4.CIL. vi. 311; Vop. Vit. Tac. }17
5 Symm. Epist. v. 52; BC. 1889, 387; 1890, 11; RhM. 1894, 405.
{ } ^ { 6 } \text { BC. 1886, 187. } { } ^ { ( }
8 Not. Reg. vi.; Gilbert, III. }370
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just east of S. Vitale and S. Andrea di monte Cavallo. The third street, ad Malum Punioum, ${ }^{1}$ probably corresponded with the via delle Quattro Fontane. The vicus Insteius or Insteianus, ${ }^{2}$ mentioned in the description of the Argei, seems to have ascended the hill near the porta Fontinalis, but to have been destroyed by the building of the imperial fora. The street called ad Tonsores ${ }^{3}$ was near the temple of Flora, and its position is therefore dependent upon the site assigned to that edifice (p. 467). Another street, ad Tres Fortunas, was evidently near those temples (p. 468), and may possibly be identified with an ancient street the pavement of which has been found on a line west of the campus Sceleratus, between the via Venti Settembre and the baths of Diocletian.
The principal open space in this region was the campus Viminalis sub aggere, ${ }^{4}$ which lay between the castra Praetoria and the Servian agger, the district traversed by the vicus collis Viminalis. The northern part of this campus was afterward used as a drill ground by the praetorian cohorts. The campus Sceleratus ${ }^{5}$ was an open area, immediately inside the Servian wall and south of the porta Collina, where Vestal Virgins who had broken their vow of chastity were buried alive.
Two buildings are mentioned in the Regionary Catalogue which also designated localities, perhaps open squares. These were the Gallinae Albae and the Decem Tabernae, ${ }^{6}$ the latter plainly a sort of bazaar. Both were on the south part of the Viminal, in the vicinity of S . Lorenzo in Panisperna. Of the area Candidi mentioned in the Notitia, nothing is known, but it is conjecturally placed near S. Pudenziana. ${ }^{7}$

[^373]Temples and Shrines. - There were many places of worship on the Quirinal, as was to be expected from its early settlement. Before the great temple was built on the Capitoline to Jupiter, Juno, and Minerva, there was a temple on the Quirinal dedicated to these same gods and called the Capitolium, but known in historical times as the Capitolium vetus ${ }^{1}$ or antiquum, to distinguish it from the other. We know nothing of the history of the temple building, except that it existed throughout the empire. The discovery of dedicatory inscriptions, ${ }^{2}$ placed in the temple by certain cities of Asia Minor during the Mithradatic wars, and other known facts in the topography of the Quirinal, make it almost certain that it stood north of the Alta Semita, at the northeast end of the present royal gardens. ${ }^{3}$ About 1630 Urban VIII removed a mound of earth which stood there, and so destroyed all possibility of finding traces of the building. Besides its Capitolium, the original Quirinal settlement possessed an Auguraculum ${ }^{4}$ on the south point of the hill, the collis Latiaris, which corresponded to the auguraculum on the Arx of the Capitoline.

A second very ancient temple on the Quirinal was that of the Sabine deity, Semo Sancus or Dius Fidius. ${ }^{5}$ Tradition ascribed the building of this temple to Titus Tatius, and it was said to have contained such ancient documents as the treaty with Gabii, and the household implements of Tanaquil. According to another form of the tradition, ${ }^{6}$ it was built by Tarquinius Superbus and dedicated by Sp. Postumius in 466 b.c. Possibly an earlier edifice was only restored by Postumius.

[^374]The temple undoubtedly stood on the slope of the hill just north of the porta Sanqualis, ${ }^{1}$ between the sharp turn of the via Nazionale and the via del Quirinale, where inscriptions ${ }^{2}$ have been found, and three fraginents of concrete foundations which may possibly have belonged to it.

The temple of Quirinus represented perhaps the oldest cult in this part of the city. Its establishment ${ }^{3}$ was ascribed to Numa, and the name was said to have been given to the porta Quirinalis, and presumably to the hill itself, because of a shrine of Quirinus which was near the gate. The builder of the actual temple of Quirinus is said to have been L. Papirius Cursor, ${ }^{4}$ in 293 в.c., although an assembly of the senate is said to have been held in this temple in 453 в.c. In 206 в.c. ${ }^{5}$ the temple was injured by lightning, and it was burned in 49 b.c., but soon rebuilt. ${ }^{6}$ A final restoration was completed by Augustus in 16 в.c. ${ }^{7}$ and this structure lasted at least as long as the empire. It is described ${ }^{8}$ as being dipteral, octostyle, with a pronaos and a porch in the rear. It had seventy-six columns in all, two rows of fifteen each on the sides and a double row of eight in front, and was surrounded by a porticus. ${ }^{9}$ Augustus's restoration occupied the site of the temple of Papirius, and this has been determined, by the finding of inscriptions, ${ }^{10}$ to be north of the Alta Semita, in the very centre of the royal gardens. This, however, cannot have been the site of the original sacellum Quirini, ${ }^{11}$ which was near the porta Quirinalis. Next

[^375]to his temple Papirius set up the first solarium horologium ${ }^{1}$ in Rome, and just west of it was the pulvinar Solis, a shrine dedicated to the sun. ${ }^{2}$ Little is known of this, except that it was in existence during the first centuries before and after Christ.

The worship of Salus ${ }^{3}$ existed at a very early date on the Quirinal, one part of which, the collis Salutaris, derived its name from this cult. Some shrine must therefore have stood here in earlier times, although Roman historians state that the temple was vowed in 306 and dedicated in 303 b.c. by C. Junius Bubulcus. It was famous for the paintings ${ }^{4}$ by Fabius Pictor with which it was adorned, and although the edifice was injured by fire in 20 в.c. and destroyed in the reign of Claudius, the paintings appear to have been preserved. The temple was restored and was in existence in the fourth century. No traces of the building have come to light, but it was near the temple of Quirinus and the house of Atticus (p. 482), and probably on or near the clivus Salutis. ${ }^{5}$ Therefore, of the two conjectural sites, one just east of the via delle Quattro Fontane and the other at the west end of the royal palace, the latter is the more probable.

The cult of Flora was of ancient Sabine origin and was established on the Quirinal, where Titus Tatius is said to have erected an altar. ${ }^{6}$ Nothing is known of the date of the building of the temple as it existed in historical times, or of its history, except a possible restoration by the younger Symmachus in the fourth century; nor is its site at all certain. We are told that a clivus led up to the Capitolium vetus from the temple of Flora, and that it was not far from the temple of Quirinus; but

[^376]it is claimed that two sites conform to this statement, one outside the Servian wall at the foot of the Quirinal, near the piazza Barberini, and the other just below the Capitolium vetus, between it and the street ad Malum Punicum, the modern via delle Quattro Fontane. The street on which the temple stood was called Pila Tiburtina. ${ }^{1}$

On the Quirinal side of the vicus Longus was a sacellum Pudicitiae Plebeiae, ${ }^{2}$ said to have been built by a certain Virginia of patrician birth, who had married a plebeian consul, L. Volumnius, and had therefore been excluded from participation in the worship of the goddess Pudicitia Patricia in the forum Boarium. The shrine certainly dated from the time of the struggle between the orders.

Near the porta Collina were three temples of Fortuna, Tres Fortunae, ${ }^{3}$. on the street ad Tres Fortunas (p. 464). These temples seem to have formed a sort of cult-unit, although they were built at different times and their festivals occurred on different days. According to the calendar, one was dedicated to Fortuna Publica, another to Fortuna Publica populi Romani Quiritium, and the third to Fortuna Primigenia. This last was vowed in 204 b.c. by P. Sempronius Sophus and dedicated in 194 by Q. Marcius Ralla, and is mentioned by Vitruvius as an illustration of a temple in antis. Its podium and foundations were discovered ${ }^{4}$ in 1881-1882, just inside the Servian agger, at the corner of the new streets via Flavia and via di Servio Tullio. Somewhere on the Quirinal, but apparently without connection with these three temples, was an altar to ríx $\eta$


[^377]Outside the porta Collina, and probably west of the via Salaria, was a temple of Venus Erycina, ${ }^{1}$ which was vowed in 184 b.c. by the consul L. Porcius Licinius during his Ligurian campaign, and dedicated three years later. It was surrounded by a porticus, and lasted as long as the empire. Unsuccessful attempts have been made to identify this temple with that of Venus hortorum Sallustianorum (p. 480).
Near the temple of Venus Erycina was the temple of Honos, of which nothing is known except that it dated from republican. times, and that its erection necessitated the removal of numerous tombs. ${ }^{2}$ The discovery of an inscription from this temple shows that it stood between the via Salaria and the via Nomentana, in the angle of the present via di porta Salaria and via Venti Settembre.

A third temple in this immediate neighborhood outside the porta Collina was that of Heroules, ${ }^{3}$ which was built before the second Punic war, as Haunibal is said to have approached the city ad portam Collinam usque ad Herculis templum. There are, however, no indications as to its exact distance from the gate. Somewhere outside the porta Viminalis was a sacellum Deae Neniae, but this is mentioned only once. ${ }^{4}$

Besides the temples already described, there were two altars in this region, belonging to the republican period. One, the ara Iovis Vimini, ${ }^{5}$, was the only shrine of any kind on the Viminal proper. It belonged to a very early period, as it is mentioned in connection with the Argei, and was dedicated to the worship of Jupiter as tutelary divinity of the Viminal hill. The

[^378]second altar, the ara Vermini, ${ }^{1}$ was found when the debris of the agger between the porta Collina and the porta Viminalis was removed. It was erected in the first century b.c. by the duumvir A. Postumius, in accordance with a lex Plaetoria. This altar, now in the Museo degli Orti Botanici, is 0.75 metre square and 1.03 metres high. In shape it resembles that found on the Palatine (p. 138), dedicated to an unknown deity.

The only temple in region VI which is known to have been erected during the imperial period was that of Serapis, mentioned in the Regionary Catalogue. Sufficient epigraphic evidence ${ }^{2}$ has been found to prove that Caracalla built the temple, but its site is not indicated. It has been identified by some ${ }^{3}$ with the temple which stood on the site of the Colonna gardens; while others ${ }^{4}$ think that this latter edifice was the famous temple of the Sun, which was built by Aurelian (p. 454). This latter hypothesis is, however, untenable.

Of the great temple in the Colonna gardens considerable ruins were still standing in the sixteenth and seventeenth centuries, especially of one corner of the front wall of the cella and of the pediment, which was known as the Torre Mesa, Torre di Mecenate, or Frontispizio di Nerone. Drawings and plans of that time give a fairly satisfactory idea of the structure. It stood on the edge of the hill, on the west side of the present via della Consulta. It extended due east and west, and from the platform at the rear of the cella a great flight of steps led down to the valley some 20 metres below. This flight was curiously built, being divided into double narrow rows of steps on each side of a central space. The temple area was surrounded with a wall containing niches, but not with the usual porticus. The cella was built of peperino lined with marble, and was surrounded by marble columns in front and on the

[^379]sides. The shafts of these columns were 17.66 , the capitals 2.47 , and the entablature 4.83 metres in height. The corner of the cornice now lying in the Colonna gardens is the largest architectural fragment in Rome, its dimensions being $3.70 \times$ $2.80 \times 3.90$ metres, and its weight 100 tons. Another fragment of the architrave and frieze measured $5 \times 2.50 \times 1.60$ metres. The material of the steps was used to build the steps of Aracoeli in 1348.

In commemoration of the great fire of Nero, and also incendiorum arcendorum causa, Domitian erected a certain number of altars, arae incendii Neroniani, on which annual sacrifices were offered to Vulcan. Two of the inscriptions ${ }^{1}$ relating to these altars are extant, and a third is vouched for. One of these altars was on the Aventine (p. 400) and has disappeared, but another was found in 1889 on the Quirinal. It stood in an area paved with travertine, on the south side of the Alta Semita, ${ }^{2}$ opposite the temple of Quirinus, and close to the modern church of S . Andrea. Three steps led up from this area to the higher level of the Alta Semita. They have been traced for a distance of 35 metres, and are partially visible in the modern wall. Along the front of the area, close to the lower step, was a row of travertine cippi, 1.40 metres in height, $0.80 \times 0.50$ in depth and width, and 2.50 apart, of which three were found in situ, two whole and one injured. The altar itself was 2.75 metres back from the cippi, and was built of travertine, with a marble cornice. It was 1.26 metres in height and $3.25 \times 6.25$ in breadth and length, and stood on a pedestal with two steps. It is probable that there was one of these altars in each region.

Epigraphic evidence of four shrines of Silvanus has been found in region VI, - one ${ }^{3}$ at the northwest corner of the thermae Diocletiani near S. Susanna, where there was also a

[^380]Mithraeum; ${ }^{1}$ one ${ }^{2}$ near the southwest side of the thermae; one ${ }^{3}$ near the southeast corner of the thermae Constantinianae, under the Banca d'Italia, near which was also a Mithraeum; ${ }^{4}$ and the fourth in the gardens of Sallust. ${ }^{5}$

Thermae. - By far the largest building in region VI was the thermae Diocletiani, which were built by Diocletian and Maximian, and dedicated in 305-306 A.D. after their abdication. ${ }^{6}$ These thermae, the largest in the empire, occupied an area about 410 metres long and 400 wide, or, without the projecting rooms, 356 by 316 metres, and could accommodate thirty-two hundred bathers at once. The erection of so large a structure on the Quirinal plateau necessitated the complete transformation of existing topographical conditions by the destruction of the east part of the vicus Longus and the many buildings previously occupying its site, as well as by the construction of a new ground-level. ${ }^{7}$

The dedicatory inscription ${ }^{8}$ has been preserved, with one which records a later restoration, and we know that the baths were in use as late as the sixth century. After the fall of the empire this great mass of buildings suffered from continual destruction and transformation. They were in a sad state of ruin in the sixteenth century, when Michelangelo restored the tepidarium as the church of S. Maria degli Angeli and constructed the cloisters in the east part of the building, which are now the Museo delle Terme. In recent years new streets have been opened, and great buildings, like the Grand hotel, the Massimi palace, and the treasury, have been erected within the limits of the thermae. The ruins have been built over

[^381]and are at present occupied by churches, a prison, a museum, an orphan asylum, a coal yard, and government offices. While the aspect of the whole edifice has thus been rendered unrecognizable, some parts have been fairly well preserved; and with the help of early drawings it is possible not only to make out the original plan, but also to reconstruct ${ }^{1}$ the whole building in a reasonably satisfactory manner.

In general plan these thermae did not differ from those of Caracalla, and consisted of a vast inclosure or peribolus surrounding the baths proper. This building was rectangular in shape, 280 metres wide and 160 deep, and its main axis ran northeast-southwest. Its exterior was built in two stories of arcades and pilasters, the lower of the Ionic, the upper of the composite Corinthian order. In the centre of the east side was the frigidarium, an enormous open hall that contained the piscina, or swimming pool, with two semicircular niches on the west side. At each end of this hall were vestibules, separated from it by rows of columns, and beyond them large dressing rooms, or apodyteria. There were four entrances on the east side, which was the front, two into the two vestibules and two into the apodyteria beyond. There was therefore no direct entrance into the frigidarium from without, as in the thermae of Caracalla. Behind the frigidarium was the great hall of the tepidarium, 65 metres wide and 25 deep, with a vaulted roof supported on eight monolithic columns of gray granite. In the piers at the four corners of the hall were small baths. This hall forms the transept of the church of S. Maria degli Angeli, but the floor of the church is 2 metres above the ancient level, so that the bases of the columns are entirely covered, and the apparent bases are only rings. Between the tepidarium and caldarium was a circular hall, which now serves as the vestibule of the church. The caldarium itself

[^382]projected out from the west side of the building and has been destroyed. In the centre of the north and south sides were two large open palaestrae, surrounded with colonnades above which there were galleries. Besides these principal halls, there were very many other apartments of all sizes for the numerous purposes of the baths, - dressing, anointing, bathing, and


Fig. 92. - Plan of the Baths of Diocletian.
exercising. In the building there are said to have been twelve hundred marble seats and three thousand marble baths. The edifice was built of concrete and brick and lined with stucco and marble, the slabs of which were fastened to the walls with bronze hooks. There is no doubt that the whole structure was magnificently decorated, but it probably was not especially rich in works of art.

Around the peribolus were small rectangular halls and semicircular exedrae, which were used as reading and lecture rooms, gymnasia, and lounging rooms. In the centre of the west side was a very large exedra equipped as a theatre. The lines of this exedra are preserved in the piazza delle Terme, where the modern buildings stand on the curve of its circumference. At the northwest and southwest corners of the peribolus were circular halls of which the exact purpose is not known. That at the northwest corner is well preserved and has been dedicated as the church of S . Bernardo. In the ruins of the other a prison has been established. During the fourth century, the bibliotheoa Ulpia which Trajan had established in his forum (p. 273) was transferred to these thermae.

The piscina, or reservoir of the baths, fed by the aqua Marcia, was outside the peribolus, on the south side. As it was in the angle between two streets, it was trapezoidal in shape, 91 metres long, with an average width of 16 metres. The vaulted roof was supported by forty-five square piers of masonry. ${ }^{1}$ Considerable remains of this piscina existed until 1860, and the last vestiges were not destroyed until 1876. At the northeast corner of the thermae was the piscina aquarum Marciae Tepulae Iuliae, which was discovered in building the foundations of the treasury.

The thermae Constantinianae, the last great baths of Rome, were built by Constantine ; but aside from this fact we know nothing of their history, except that at some later time they were restored by a certain Petronius Perpenna, prefect of the city. ${ }^{2}$ The ruins, which were standing in the seventeenth century, were destroyed to make room for the palazzo Rospigliosi, and although in the process of building the via Nazionale and the Teatro Drammatico portions of them have been found,

[^383]there is nothing now remaining but the most meagre fragments.

Only an irregular space, ${ }^{1}$ between the vicus Longus, the Alta Semita, the clivus Salutis, and the clivus laci Fundani, was available for these baths, and as it was also on a side hill it was necessary to make an artificial level, and remains of houses of the second, third, and fourth centuries have been found, buried beneath the foundations. As a result of these conditions these thermae differed from all others in Rome. Our knowledge of them is derived from drawings of architects of the sixteenth century. They extended due north and south, and as the main building occupied all the space between the streets on the east and west, the ordinary peribolus was replaced by an inclosure which extended across its front and was bounded on the north by a curved line. The palazzo della Consulta now occupies this curved quasi-peribolus. The frigidarium was in the middle of the north side, and back of it the tepidarium and the caldarium, both circular in shape. Owing to the narrowness of the space, the ordinary succession of three anterooms on each side of the caldarium was not possible, and these rooms were grouped differently.

During the excavations ${ }^{2}$ on this site some notable works of art have been found, such as the Dioscuri on the Quirinal and the statue of Constantine in the Lateran, which undoubtedly came from the thermae. Besides these thermae, balnea Stephani are mentioned, ${ }^{3}$ probably near the house of Martial.

Other Buildings. - The castra Praetoria, ${ }^{4}$ or barracks of the praetorian cohorts, were built by Tiberius in the extreme

[^384]northeastern part of the city, just beyond the inhabited district. These barracks were constructed on the well-known model of a fortified Roman camp, and formed a rectangle 440 metres long and 380 wide. The walls were furnished with towers, battlements, and gates, the masonry being brickwork of the


Fig. 93. - Plan of the Baths of Constantine.
best period. Aurelian incorporated the castra in his line of fortification, which joined the castra at the northwest corner and again at the middle of the south side. The north and east wall of the castra thus formed the continuation of the Aurelian wall; but as it was not sufficiently high, its height was increased not only by an addition at the top, but also by digging away the soil at its base on the outside to a depth of 3.50
metres, thus laying bare the foundations. Constantine dismantled the barracks by destroying the wall on the inner sides, toward the city. The original wall on the north and east sides can be distinguished from the additions of Aurelian by the difference in brickwork and by the outline of the battlements. The gates on these two sides, which were walled up by Aurelian, can also be seen. All around the inside of the wall were rows of chambers occupied by the soldiers, some of which have been excavated. They are 4 metres in height and 4.40 in width, built of opus reticulatum and lined with stucco. Above them was a vaulted corridor 7.70 metres high, and over that a paved walk for the guards. This form of construction probably surrounded the whole area of the castra, but all traces of the west side, and almost all of the south side except some foundations, have disappeared. Many fragments ${ }^{1}$ of lead water pipes have been found, which show the care expended by successive ęmperors, Marcus Aurelius, Severus, Caracalla, and others, on the water supply of the barracks.
Just inside the gate in the west wall, the porta Praetoria, stood a triumphal arch ${ }^{2}$ dedicated to Gordianus III and his wife Tranquillina. It was triple, the side arches being smaller than that in the centre, and very richly decorated. Above the side arches were sculptured medallions. In the fifteenth century much of the marble decoration of this arch, which was then in ruins, was used in the building of the Cancelleria, and some architectural fragments have been excavated in recent years. They exhibit unusual artistic excellence for so late a period. In the north part of the castra, near the porta Principalis sinistra, was an ara Fortunae Restitutricis, ${ }^{3}$ the inseription of which was found on the spot; and it is probable that there were several such altars to various divinities within the precinct. Modern barracks now occupy the area of the old castra.

[^385]The campus Viminalis (p. 464) in front of the castra was undoubtedly devoted to the use of the praetorians, for no traces of buildings have been found there, except of some few shrines and altars. The ruins of two such shrines have been found in the via Magenta. ${ }^{1}$ One, at the corner of the via Gaeta, was a small tetrastyle temple 10 metres wide and 16 long, with a cornice and a frieze adorned with ox-skulls, which stood in the midst of a paved inclosure. It contained inscribed lists, laterculi, of the soldiers who had dedicated it. In the same street, a little to the north near the via Campobello, was the other shrine, a small aedicula with four columns in front, which was dedicated by the same soldiers.

The statio cohortis III vigilum, or barracks of the watchmen on duty in the regions IV and VI, was probably just inside the porta Viminalis, near the southeast corner of the thermae Diocletiani, but the evidence, which is epigraphic, is scanty. ${ }^{2}$ South of the castra Praetoria, on the opposite side of the road leading out of the porta Viminalis and outside the wall, was the Vivarium, ${ }^{3}$ an extensive rectangular inclosure with dens for wild beasts, built against the inside of the wall. As this district was known during the middle ages as the Vivariolum and as some remains which might well belong to such a structure did not entirely disappear until very recently, it is probable that the Vivarium was here rather than just outside the porta Praenestina, close to the amphitheatrum Castrense, where it is placed by some topographers. Between the temples of Flora and Quirinus were the officinae minii, ${ }^{4}$ or mills for the working of the cinuabar brought from Spain. Assuming

[^386]${ }^{4}$ Vitr. vii. 9.4 ; $B C .1889,379 ; R h M .1894,407$.
that the temple of Flora was near the Capitolium vetus (p. 467), these officinae were probably on the north side of the Alta Semita, the site now occupied by the east part of the royal palace.

Horti Sallustiani. - Although within the limits of region VI, these gardens with the horti Lucullani and horti Aciliorum formed the northern group of parks, just as those on the Esquiline formed the southern. They occupied the northwest slope of the Quirinal, the southeast slope of the Pincian as far as the via Salaria vetus, and the valley between, extending nearly to the line of the Aurelian wall in one direction and to the campus Agrippae in the other. They were laid out by the historian Sallust, ${ }^{1}$ who lavished upon them the great wealth which he had amassed in Numidia, and they continued in the possession of the family of the Sallustii until the reign of Tiberius. After that time they were a favorite residence of the emperors, especially Nero, Vespasian, and Nerva, and later Aurelian. ${ }^{2}$ In 410 a.d. they were sacked by the Goths under Alaric. ${ }^{3}$ It is probable that these gardens were on the whole the most magnificent in Rome. Many works of art have been found within the ruins, as well as the obelisk which now stands in the piazza di S. Trinità dei Monti.

Within the gardens were many buildings of various kinds, of some of which architectural fragments have been found, but usually not such as to admit of identification. Several inscriptions prove the existence of a temple of Venus hortorum Sallustianorum, ${ }^{4}$ and an attempt has been made to identify this temple with a round structure near the porta Salaria, the ruins of which

[^387]were discovered in the sixteenth century and described by architects of the time. ${ }^{1}$ This structure, however, was not a temple, but rather a nymphaeum, connected with the elaborate system of water supply installed in the gardens. The remains of three piscinae belonging to this system have been found, ${ }^{2}$ one on the north side of the vicus portae Collinae (via Venti Settembre) opposite the treasury, one in the vicolo di S. Nicolò da Tolentino, and the third under the casino Aurora in the via Ludovisi; also a number of lead water pipes inscribed with the names of Nero, Severus Alexander, and Valentinian. ${ }^{3}$

Aurelian constructed a porticus Miliarensis ${ }^{4}$ - a name which should mean a porticus one thousand passus in length - within these gardens, and this is frequently located on the north side of the vicus portae Collinae, but without convincing evidence. A porticus of this length must have run about the gardens in various directions.

Before the destruction of the villa Ludovisi that occupied this district and the construction of the new Ludovisi quar'ter, many more vestiges of the ancient gardens remained, notably the ruins of a mansion built against the slope of the Quirinal south of the via Sallustiana, which has been entirely removed. During the process of transformation a porticus with travertine columns was found between the via Sallustiana and the via Boncompagni. At present the only ruins visible are at the end of the via Sallustiana, where the ancient level is far below the modern. These ruins are those of a nymphaeum containing a circular hall with niches and lined with marble, and of an adjacent large building, probably a place of residence, with apartments rising to a height of four stories.

In the fourth century the historian Obsequens ${ }^{5}$ speaks of

[^388]certain horti Oaesaris ad portam Collinam as existing in the year 17 в.c., but these cannot have been the horti Sallustiani.

Private Houses. - In no other section of the city have indications of private houses been found in such numbers. In most cases the evidence comes from inscriptions, generally from those on water pipes, and must be used with caution in determining the exact location of a house, as pipes belonging to one man might extend to a considerable distance beyond his house. The names indicate that this section was largely inhabited by rich and influential families. T. Pomponius Atticus, ${ }^{1}$ the friend of Cicero, lived on the Quirinal near the temples of Salus and Quirinus. His house was old-fashioned in its appointments, but provided with a delightful garden. An inscription ${ }^{2}$ of 101 A.D. shows that the house of T. Pomponius Bassus, curator alimentorum under Trajan, was at the southeast corner of the Alta Semita and the clivus Salutis, and there is every reason to believe that this had been the site of the house of the Pomponii from the first. Martial lived ${ }^{3}$ in a tenement in the street called ad Pirum, and later ${ }^{4}$ in his own house in the street that led from the temple of Flora to the Capitolium vetus; but neither site can be definitely located. Vespasian lived in a house in the street ad Malum Punicum, ${ }^{5}$ and his brother Flavius Sabinus next door.
A glance at Lanciani's map ${ }^{6}$ will show the number of houses of which pipes have been found, ${ }^{7}$ but the exact position of only a small part of these is assured. Of this small number may be mentioned those of Vulcacius Rufinus, ${ }^{8}$ uncle of the

[^389]emperor Julian, under the Ministero della Guerra, and that of the gens Numia ${ }^{1}$ just east of it; that of T. Aelius Naevius Antoninus Severus, ${ }^{2}$ in the via Nazionale near the palazzo dell' Esposizione, and that of Aemilia Paulina Asiatica, ${ }^{3}$ under this building; those of L. Cornelius Pusio ${ }^{4}$ and C. Articuleius Germinianus, ${ }^{5}$ near the Banca d'Italia; that of a certain Cornelia Tauri f. Taxi (uxor), ${ }^{6}$ in the via Nazionale, east of the via dei Serpenti; that of Alfenius Ceionius Iulianus Camenius, ${ }^{7}$ in the villa Barberini; and that of Q. Valerius Vegetus, near the Ministero della Guerra. Near the Teatro Drammatico was the house of Narcissus, ${ }^{8}$ the famous freedman of Claudius.

Outside the Servian wall the character of the population was very different. When the moat was filled up, rows of small houses were built on the filling, against the retaining wall of the agger. These appear to have been called summoenia, ${ }^{9}$ and to have been occupied by brothels and houses of ill-fame which would naturally be found in the neighborhood of barracks and thermae.

Tombs. - Domitian was born in 51 A.D. in the house of his father Vespasian, and after becoming emperor he erected on this spot a temple to the gens Flavia, ${ }^{10}$ which was to be the mausoleum of the family. In this mausoleum were deposited the remains of the three Flavian emperors, and the edifice existed in the fourth century, although nothing is known of its intervening history. Its site, ${ }^{11}$ as already indicated (p. 482),

[^390]was south of the Alta Semita, near the street ad Malum Punicum (via delle Quattro Fontane).

Just outside the porta Salutaris, at the upper end of the present via Dataria, was found a tomb of republican date belonging to the Sempronii. ${ }^{1}$ This tomb was built of travertine and ornamented with a Greek frieze. Its discovery in 1866 assisted materially in determining the position of the porta and clivus Salutaris.

In the seventeenth century the large marble tomb of a certain Octavia, ${ }^{2}$ wife of Appius, was found on the east side of the via Salaria vetus, at the corner of the present via di porta Pinciana and the via Sistina; inside the porta Salaria on the east side of the via Salaria nova, in the grounds of the villa Buonaparte, the tomb of the Calpurnii; ${ }^{3}$ just outside this gate and partially covered by its towers, the tombs of Cornelia Scipionis f. Vatieni (uxor) on the north side, and of Q. Sulpicius Maximus on the south; and under the tower of the porta Nomentana, the tomb of a Q. Haterius. ${ }^{4}$
Outside the Aurelian wall, between the via Salaria and the via di porta Pinciana, was a necropolis of the last century of the republic and the first two of the empire, where the freedmen and slaves of more than twenty of the great families of Rome, and also the soldiers of the praetorian guard, were buried. Traces of this cemetery had been discovered in previous years, but the recent laying out of a new quarter of the city has brought to light many columbaria and hundreds of inscriptions. ${ }^{5}$ These columbaria are regularly built of opus reticulatum, and correspond in orientation with the via Salaria. Outside the porta Nomentana were the columbaria of the Aelii and Domitii, and other tombs.

[^391]
## CHAPTER XX.

## THE TRANSTIBERINE DISTRICT. REGION XIV.

The right bank of the Tiber was originally in the possession of the Etruscans, in particular of the inhabitants of Veii, and hence it was called the ripa Veientana. ${ }^{1}$ The whole district between the lower reaches of the Tiber and the more restricted limits of Veientine territory was known to the Romans as ager Vaticanus, ${ }^{2}$ a name for which no satisfactory explanation has been found, although it may possibly have been derived from that of some early town, Vaticum or Vatica. The ridge that runs north and south along the river through this ager Vaticanus was called from earliest times Ianiculum, or the Janus-city (p. 16). It extended from a point opposite the extreme southern limit of the city to monte Mario, the division between the modern monte Vaticano and the ridge being artificial ${ }^{3}$ and due to the removal of the vast amount of clay which has been dug here for many centuries. By the end of the republic the term mons Vaticanus, ${ }^{4}$ or its plural montes Vaticani, had come to be employed as synonymous with Ianiculum, but there is no evidence that mons Vaticanus was used as a specific name for any part of the ridge.

The level ground between this ridge and the river was called Vaticanum, ${ }^{5}$ until Caligula built his circus where St. Peter's

[^392]now stands. Thenceforth Vaticanum seems to have been gradually restricted to this circus and its immediate surroundings. ${ }^{1}$ That part of the plain which is inclosed in the great bend of the Tiber, opposite the forum Boarium, was known as the pagus Ianioulensis, ${ }^{2}$ a reminiscence of its earlier corporate existence (cf. pagus Montanus, p. 422).

This Transtiberine district was one of the earliest parts of the ager Romanus, and until the later times of the republic it preserved an almost purely suburban character. The prata Quinctia, ${ }^{3}$ or four acres which belonged to Cincinnatus opposite the Navalia, were cultivated even in the reign of Augustus, as were also the prata Mucia. ${ }^{4}$ The district did not form a part of the Servian city, but the building of the pons Sublicius necessitated some sort of fortification on the right bank of the river; and, in fact, remains ${ }^{5}$ of opus quadratum, like that of the Servian wall, have been found just opposite the forum Boarium. When the pons Aemilius was built, a sort of viaduct of tufa was constructed from it to the Janiculum, fragments of which have been found. ${ }^{6}$ The road appears to have been 20 Roman feet in width. Augustus included trans-Tiberim in the city, and made it the fourteenth region. Its boundaries are quite uncertain, but it must have included much more than was afterward brought within the Aurelian wall, and probably extended from the horti Agrippinae south as far as the Aventine. The line of the Aurelian wall has been already described (p. 66).

The earliest population of the right bank seems to have been made up for the most part of fishermen, tanners, and

[^393]potters. To the importance of the first the ludi piscatoriï ${ }^{1}$ bear witness. The Coraria, ${ }^{2}$ or tanners' quarter, existed down to the fourth century. Many remains of the shops of the potters ${ }^{3}$ have been found on the bank, especially near the Ospizio di S . Michele, and the clay pits have already been referred to. Other trades ${ }^{4}$ followed these; and under the empire the larger part of the district was covered with a network of narrow streets and crowded houses and shops and inhabited by a population decidedly doubtful in character.

There were also docks and horrea ${ }^{5}$ on this side of the river, for mounds of broken amphorae and doliola, like those of monte Testaccio, have been found in the Prati di Castello, the name formerly given to the fields north and east of the Vatican, - while the church of S. Francesco a Ripa stands upon a similar mound. ${ }^{6}$ During the excavations in the villa Farnesina, an inscription ${ }^{7}$ belonging to the cellae vinariae nova et Arruntiana was found beneath a pile of broken wine jars, and afterward the warehouse itself (p. 493) was discovered.

Our information as to the growth and appearance of the Transtiberine district before the end of the sepublic is very meagre ; but after that date it developed along two lines, - one, that already described, and the other, that which was suggested to the rich Romans by the natural beauty of the ridge of the Janiculum. This gave rise to the formation of a series of gardens and parks, which belonged both to private individuals and to the emperors.

Temples and Shrines. - Tradition assigned the earliest cults in this district to the time of Numa, who was said to have been

[^394]buried near the altar of Fons or Fontus, ${ }^{1}$ a son of Janus. To this period also belongs the lucus Furrinae, ${ }^{2}$ in which C. Gracchus was killed.

The temple of Fors Fortuna stood at the first milestone on the via Portuensis, and was ascribed to Servius Tullius, ${ }^{3}$ as well as another temple ${ }^{4}$ of the same goddess at the sixth milestone, in the grove of the Arval Brethren. In 293 b.c. Sp. Carvilius built a temple to Fors Fortuna prope aedem eius deae ab rege Servio Tullio dedicatam, ${ }^{5}$ but it is uncertain which of the two earlier temples is referred to. Again, in 17 A.d., still another temple to this goddess was erected in the horti Caesaris, and therefore close to the first ascribed to Servius. ${ }^{6}$ In this neighborhood many small votive offerings in bronze have been found. ${ }^{7}$ The ruins of a concrete podium faced with peperino, with architectural fragments, which were discovered in 1861, may perhaps belong to the temple of Servius. ${ }^{8}$

Where the railroad station of Trastevere now stands, a shrine was discovered, ${ }^{9}$ cut in the tufa rock and dedicated to Hercules, who is represented as reclining. In front of the shrine were two altars, exactly alike. One of the streets in this region, the vicus Hereulis Oubantis, plainly took its name from this shrine, and with it may be compared the names of two other neighboring streets, the vicus statuae aleriae ${ }^{10}$ and the vicus capitis Gorgonis. ${ }^{11}$

[^395]Near the church of S. Cecilia was a sacellum Bonae Deae, ${ }^{1}$ and near Caligula's circus a temple of the Magna Mater. ${ }^{2}$ This temple was also called Frigianum (Phrygianum), and must have been one of the most important seats of the cult of Cybele, for an inscription ${ }^{3}$ found in Lyons shows that a similar sanctuary there was called Vaticanum.

Of the shrines dedicated to the Corniscae ${ }^{4}$ and to luppiter Dolichenus ${ }^{5}$ nothing further is known.

Horti. - The most distinctive feature of the Transtiberine region was the gardens, which extended from the bank of the river opposite monte Testaccio along the ridge of the Janiculum to the mausoleum of Hadrian. The most southern were the horti Caesaris, ${ }^{6}$ which extended from a point near the porta Aurelia south along the via Portuensis, and contained within their limits the temple of Fors Fortuna, which was one mile from the porta Portuensis. These gardens were left by Caesar to the Roman people, and were thereafter public property. There is no later mention of them; but remains of works of art as well as of buildings have frequently been found ${ }^{7}$ within these limits, among them the foundations of what is sometimes thought to be a temple of the Sun, together with ruins of porticoes and fountains.

North of the horti Caesaris were the horti Getae, ${ }^{8}$ which probably lay on the ridge and the east slope of the Janiculum, covering the ground now occupied by the villa Corsini, the villa Lante, and perhaps part of the convent of S. Onofrio.

[^396]These gardens were probably constructed by Severus, ${ }^{1}$ under the name of his youngest son, and some remains of their works of art and buildings have been discovered.

At the foot of the slope beyond $S$. Onofrio were the horti Agrippinae, which occupied the present site of St. Peter's and extended to the Tiber, from which they were separated by a portico. These gardens were owned by Agrippina, ${ }^{2}$ and at her death in 33 A.D. came into the possession of her son Caligula. Thenceforth they were a part of the imperial property, and were a favorite resort of later emperors, especially of Nero and Elagabalus.

The north boundary of the horti Agrippinae appears to have been the via Cornelia, and from this street east extended the horti Domitiae, ${ }^{3}$ which belonged to Domitia, the sister of Nero's father. In 59 A.D. Nero caused her to be assassinated, and seizing the gardens, united them to the horti Agrippinae. In building the palazzo di Giustizia, the west boundary of these gardens was found to coincide with the axis of the new structure, and on the west of this line many monumental remains of opus reticulatum and marble were discovered. ${ }^{4}$

It is probable that after the horti Agrippinae and horti Domitiae were united, the whole park was called the horti Neronis. ${ }^{5}$ Before the great changes effected since 1870 in this part of the city, the north portion of this park was represented by the Prati di Castello.

There were many other gardens in this region. Cicero mentions those of Drusus, ${ }^{6}$ Cassius, Lamia, ${ }^{7}$ Clodia, ${ }^{8}$ Silius, ${ }^{9}$ and Scapula, ${ }^{10}$ some of which he thought of buying; Galba had his

| ${ }^{1}$ Spart. Vit. Sev. 4. | 2 Sen. de Ira, iii. 18. |
| :--- | :--- |
| ${ }^{8}$ Jul. Cap. Vit. Anton. 5; Vop. Vit. Aurel. 49; Not. Reg. xiv. |  |
| ${ }^{4}$ BC. 1889, 173-178, 445-446. |  |
| ${ }^{5}$ Tac. Ann. xv. 39, 44. | 8 Pro Cael. 36. |
| 6  <br> Ad Att. xii. 21, 23, 25. 9 Ad Att. xii. 26, 27. <br> ${ }^{7}$ Ad Att. xii. 21. ${ }^{10}$ Ad Att. xii. 37. |  |

own on the via Aurelia; ${ }^{1}$ and those of M . Regulus ${ }^{2}$ were probably near by. One inscription ${ }^{3}$ records the horti Aboniani. The horti Antoniani ${ }^{4}$ were near those of Caesar.

Other Buildings. - Directly opposite the Aventine Augustus constructed a naumachia, the naumachia Augusti, and between it and the river he laid out a grove, the nemus Caesarum. ${ }^{5}$ Some remains of the pavementand travertine walls of the naumachia have been found. ${ }^{6}$ It was an elliptical basin 532.80 metres long and 355.20 wide, with its major axis running northwest and southeast. It included the church of S. Cosimato at one end and S. Francesco a Ripa at the other. The water was supplied by the aqua Alsietina, built by Augustus for this purpose (p. 99). This naumachia was used by Nero and Titus, ${ }^{7}$ and was in existence at least as late as the time of Alexander Severus. ${ }^{8}$ The pons Naumacharius, ${ }^{9}$ which was restored by Tiberius after a fire, must have been a bridge across this naumachia. Domitian built a second naumachia ${ }^{10}$ on this side of the river, and Philippus Arabs still a third. ${ }^{11}$ It is probable that the naumachia of Domitian was situated northwest of the mausoleum of Hadrian, in the district called regio naumachiae in the middle ages, where remains of such a structure have been found. ${ }^{12}$

At the monte de' Fiori, near the church of S. Crisogono, is the excubitorium cohortis VII vigilum, which was discovered in 1866. The building, which appears to have been originally a large private house, belongs to the second century, and on its

[^397]walls are many graffiti, dating from 215 to 245 a.d. and containing much information with regard to the organization of the corps. ${ }^{1}$ The portion excavated consists of a central atrium with mosaic pavement and a hexagonal fountain, and adjacent apartments, among them a lararium and a balneum.

Near this excubitorium were the castra Lecticariorum, ${ }^{2}$ or headquarters of the guild of litter-carriers, and nearer S. Maria in Trastevere the castra Ravennatium, ${ }^{3}$ or barracks of a detachment of sailors from the imperial fleet stationed at Ravenna (cf. p. 428). No trace of these castra has been found except inscriptions. ${ }^{4}$

In the horti Agrippinae, Caligula built the cirous Vaticanus, ${ }^{5}$ sometimes called the cirous Gai et Neronis, ${ }^{6}$ as it was conspicuously identified with the orgies of the latter emperor. The south wall of the first basilica of St. Peter's coincided with the north wall of this circus. On the spina, Caligula erected the obelisk ${ }^{7}$ from Heliopolis, oboliscus Vaticanus, which now stands in front of St. Peter's. It is of red granite, a monolith 25.36 metres in height, and covered with hieroglyphics that are now hardly visible. It was moved from its ancient to its present site in 1586 , having stood erect from the time when it was brought to the city.

Whether the name Gaianum, ${ }^{8}$ found in the Regionary Catalogue, was ever applied to the circus of Caligula, is doubtful. It is, on the contrary, very probable that this was the name of

[^398]an open space just west of the naumachia of Domitian, round which the statues of famous charioteers were erected. ${ }^{1}$

We know the names of baths, the balnea Ampelidis and Prisci et Dianae; ${ }^{2}$ of a campus, the campus Bruttianus ; ${ }^{3}$ and of a street, the Mica Aurea ${ }^{4}$ (cf. p. 420), but none of these can be located.

In widening the channel of the Tiber within the grounds of the villa Farnesina some interesting buildings were discovered, ${ }^{5}$ which have since been destroyed. The farthest north of these was a private dwelling of the first century, with a cryptoporticus and various rooms in which excellent specimens of wall-paintings were found. These paintings are now in the Museo delle Terme, together with stucco ceilings in relief. South of this house was a rectangular structure, the first story of which consisted of vaulted store-rooms, and the second of a complex of courts surrounded by long porticoes, of many of which the columns were found. The building in general resembled the horrea, and was called the cellae vinariae nova et Arruntiana (p. 487). It was cut through by the Aurelian wall when that was built.

Between these two buildings was another, of trapezoidal shape, which may have been the schola of the collegium Liberi patris et Mercuri negotiantium cellarum vinariarum novae et Arruntianae Caesaris (nostri).

South of the Aurelian wall and close to it was found the tomb of O. Sulpicius Platorinus, ${ }^{6}$ who was triumvir monetalis in 18 в.c. The tomb itself was rectangular, 7.44 metres long and 7.12 wide, with the entrance on the west. The stylobate and front part of the walls were of travertine, the inner walls

[^399]of brick-faced concrete. The pavement was of white mosaic. In the niches were cinerary urns with inscriptions, and on the pavement were found two statues of heroic size and a bust.

Mausoleum Hadriani. - In the horti Domitiae, Hadrian began the erection of his famous mausoleum, ${ }^{1}$ also called moles Hadriani or Hadrianeum, which was not finished until 139 A.d. At the same time he constructed the pons Aelius. When the Aurelian wall was restored by Honorius, the mausoleum was connected by short walls with the north end of the pons Aelius and the fortifications on the left bank, ${ }^{2}$ and converted into the chief fortress of the city, which it has continued to be until the present time. In 590 A.D., during a plague, Gregory the Great is said to have beheld the archangel Michael sheathing his sword above the fortress. A chapel was therefore dedicated to the archangel on the mausoleum and a statue erected, since which time the building has borne the name of Castel S. Angelo.
The structure has undergone very extensive changes and many additions have been made during the past centuries, but with the help of medieval drawings and recent excavations, its original form can be made out quite satisfactorily. ${ }^{3}$ The lower part was a rectangular foundation or podium 84 metres square and 31 high, built of concrete with travertine walls, which were faced with blocks of white marble. The outer surface was decorated with Corinthian pilasters and an entablature, the frieze of which was adorned with garlands and ox-skulls in relief. A fragment of this frieze and one of the capitals are in the Museo delle Terme. Around this foundation was a rather wide avenue, inclosed by a low wall and a line of travertine pillars, between which were bronze gratings. On the tops of the pillars were

[^400]bronze peacocks. The entrance was in the centre of the side toward the river, directly opposite the head of the bridge, between which and thê inclosing grating there was a street running along the river bank. The opening through this inclos-


Fig. 94. - The Castle of S. Angelo.
ing grating and the wall was triple, after the manner of a triumphal arch, the central passage being 2.40 metres wide, and the others 2.10. Over the entrance, set in the wall of the podium, was the sepulchral inscription of Hadrian ; and on each side of the entrance was a row of eight inscriptions, commemorating other members of the imperial family, while that of Commodus was set above this row on the left. Of these eighteen inscrip-
tions, ${ }^{1}$ twelve have been found. This great foundation is for the most part below the present level or concealed by later masonry.

On this square base stood a circular mass 64 metres in diameter and 21 high , made of concrete inclosed in walls of travertine, which was faced with Parian marble. The exterior of this drum was divided by pilasters supporting an entablature, and above this entablature was a row of statues encircling the entire building. This cylindrical portion forms the principal part of the modern fortress; but of the decoration nothing but some fragments of the marble facing remains. Above the centre of the drum rose a small base, probably cylindrical, which supported a statue of Hadrian in a quadriga. The colossal heads of Hadrian and Antoninus now in the Vatican undoubtedly belonged to the adornment of the mausoleum, but we do not know just where they were placed.

From the outer entrance in the square base, an inclined way led straight into the mass for about 16 metres to a vaulted vestibule, in which was a niche where a statue of Hadrian must have stood. From this vestibule, a passage more than 9 metres high and 3 wide led upward in a spiral round the whole drum, until it reached a point directly over the vestibule. Thence it led straight into the principal sepulchral chamber in the upper part of the drum. This passage was lined with marble and paved with mosaic. The sepulchral chamber was 9 by 9 metres in area and 14 metres high, constructed of blocks of peperino and travertine and lined with the most precious marbles. In each of the four sides of the chamber were niches containing sarcophagi. The lid of a porphyry sarcophagus found here is now used as the baptismal font in St. Peter's, but the sarcophagus itself has disappeared. In this chamber were the ashes of Hadrian and probably of his wife Sabina, and of Aelius Caesar. From this chamber, and also from the

[^401]spiral passage, air ducts were cut through to the outside of the drum, and provision was also made for drainage. There must have been other sepulchral chambers, but the interior of the monument has undergone such extensive changes that it is impossible to locate them. In this mausoleum were probably buried all the emperors and members of their immediate families, from Hadrian to Severus and his sons. ${ }^{1}$


Fig. 95. - The Mausoleum of Hadrian restored.
Many traces of tombs have been found along the streets which ran west and northwest from the pons Aelius; and between 1492 and 1503 a pyramid ${ }^{2}$ which stood between St. Peter's and the Castel S. Angelo was removed by Alexander VI. This pyramid was regarded by some as a tomb of Romulus, and by others as that of Scipio Africanus. An obelisk, which was known in the middle ages as the obeliscus Neronis and which was situated not far from the pyramid, was also destroyed at about the same period.

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[^0]:    ${ }^{1}$ CIL. vi. 935.
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    ${ }^{3}$ CIL. i ${ }^{2}$. passim. ${ }^{4}$ CIL. xv. pt. i.
    ${ }^{5}$ BC. 1892, 93-111; Mitt. 1897, 146-160; Pl. NH. iii. 66-67.

[^1]:    1 CIL. vi. 935.
    2 They have recently been transferred to the exterior wall of the palazzo Caffarelli. BC. 1902, 347-348; Berl. Phil. Wochenschrift, 1903, 766-767.

[^2]:    ${ }^{1}$ NS. 1882, 233-238.
    2 NS. 1884, 423.
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    ${ }^{5}$ NS. 1900, 633-63土; BC. 1901, 3-21; CR. 1899, 234; 1901, 330; 1902, 96.
    ${ }^{6}$ The total number of fragments discovered up to March, 1900, was ten hundred and thirty-seven ; cf. BC. 1901, 3-4.
    ${ }^{7}$ BC. 1886, 270-274; Ann. d. Ist. 1883, 5-22.

[^3]:    ${ }^{1}$ BC. 1893, 128-134; 1901, 5; Mitt. 1889, 79, 229; 1892, 267 ; RhM. 1894, 420.
    ${ }^{2}$ H. Jordan, Forma Urbis Romae regionum xiv, Berlin, 1874; A. Elter, De forma urbis Romae . . . diss. i. ii. Bonn, 1891; Hülsen, Piante icnografiche incise in marmo, Mitt. 1890, 46-63.
    ${ }^{3}$ Preller, Die Regionen der Stadt Rom, Jena, 1846; Jordan, II. 1-178, 546582 ; Richter, Tor. ${ }^{2}$ 371-391.

[^4]:    ${ }^{1}$ E. Babelon, Monnaies de la République Romaine, 2 vols., Paris, 1885-1886; H. Cohen, Monnaies frappées sous l'Empire Romaine, 2 d ed. 8 vols., Paris, 1880-1892.
    ${ }^{2}$ Ann. d. Ist. 1894, 465-510; Mon. d. Ist. v. 7; Helbig, Führer durch die Museen Roms, i². 462-466.

[^5]:    ${ }^{1}$ Lanciani, L'Itinerario di Einsiedeln e l'ordine di Benedetto Canonico. Monumenti Antichi pubblicati per cura della Reale Accademia dei Lincei, i. 1891, 437-452; Jordau, II. 329-356, 646-663.

[^6]:    ${ }^{1}$ Cod. Vat. 1960 ; Höfler, Deutsche Päpste, i. 324.
    ${ }^{2}$ Jordan, II. 578-582.
    ${ }^{3}$ F. M. Nichols, Mirabitia Urbis Romae. An English version, London, 1889; Jordan, II. 357-5334, 605-643.

[^7]:    1 Jordan, II. 387-400; Bull. d. Ist. 1871, 11-17; CIL. vi. pp. xp-xvi.
    2 Ed. Mercklin, Dorpat, 1852.

[^8]:    ${ }^{1}$ List of those known in $B C .1892,38-40$, notes ; de Rossi, Piante icnografiche e prospettiche di Roma anteriori al secolo xvi, Rome, 1879.

[^9]:    ${ }^{1}$ R. Burn, Rome and the Campagna, London, 1876, 346-444; E. Abbate, Guida della provincia di Roma 2d ed. 2 vols., Rome, 1894, i. 1-175; T. Ashby, Jr., Classical Topography of the Roman Campagna, I., Papers of the British School at Rome, vol. i. No. 2, 1902; Giovanni Brocehi, Dello stato fisico del suolo di Roma, Rome, 1820; Raffaele Canevari, Cenni sulle condizioni altimetriche ed idrauliche dell' agro romano, Rome, 1874 (Annali del Ministero di Agricoltura) ; Felice Giordano, Condizioni topografiche e fisiche di Roma e della Campagna Romana, Monografia della città di Roma e della Campagna Romana presentata all' Esposizione universale di Parigi, 1878; Paolo Mantovani, Descrizione geologica della Campagna Romana, Rome, 1874.

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[^10]:    1 Jordan, I. 1. 148-152.

[^11]:    ${ }^{1}$ All previous maps of the ancient city of Rome have been superseded by the following great work: Forma Urbis Romcue, consilio et auctoritate Regiae Academiae Lincaeorum . . . edidit Rodolphus Lanciani, forty-six sheets, Milan, Hoepli, 1893-1901. The best wall-map is Hülsen, Romae veteris tabula in usum scholarum descripta, 1: 4250, Berlin, 1901.

[^12]:    1 For another view, cf. BC. 1883, 244-258.
    ${ }^{2}$ Fest. 250 ; Epit. 45 ; RhM. 1894, 401 ff. ; Richter, Top. ${ }^{2} 225,285$.

[^13]:    ${ }^{1}$ Lanciani, Ruins, 99-104; Destruction of Ancient Rome, chapters ii, xix, and passim.

[^14]:    ${ }^{1}$ Tac. Ann. xv. 43.
    2 Vitr. ii. 7. 1-2.
    ${ }^{3}$ Middleton, Remains, i. 7.

[^15]:    ${ }^{4}$ Pl. NH. xxxvi. 168.
    5 Vitr. ii. 6. 1.

[^16]:    1 Vitr. ii. 3.
    2 Varr, RR. iii. 9. 3.
    ${ }^{8}$ Marini, Iscrizioni doliari, Rome, 1884; H. Dressel, in CIL. xv. 1.

[^17]:    ${ }^{1}$ Corsi, Delle pietre antiche, Rome, 1845; H. W. Pullen, Handbook of Ancient Roman Marbles, London, 1894.
    ${ }^{2}$ Suet. Aug. 29.
    ${ }^{3}$ Middleton, Remains, i. 27-91; A. Choisy, L'Art de bâtir chez les Romains, Paris, 1873; J. Durm, Die Baukunst der Römer, Darmstadt, 1885 ; Jordan, I. 1. 3-24.

    4 Vitr. ii. 8. 5-8.

[^18]:    ${ }^{1}$ Mau-Kelsey, Pompeii, its Life and Art, pp. 37-38, New York, 1889.

[^19]:    1 Vitr. ii. 3.
    Vitr. vii. 2-6.

[^20]:    ${ }^{1}$ Schneider, Mitt. 1895, 160-175.

[^21]:    ${ }^{1}$ BC. 1881, 63-75; Jordan. I. 1. 180-183; Varro, LL. v. 53 ; Fest. 220 ; Serv. ad Aen. viii. 51 ; Dionys. i. 32; ii. 1.
    ${ }^{2}$ Gilbert, I. 40-41, notes; Jordan, I, 3. 35-36; Plut. Rom. 3; Varro, LL. v. 54.
    ${ }^{3}$ Cic. ad Att. iv. 3. 3; Liv. xxxiii. 26.
    ${ }^{4}$ Liv. ii. 7. 6 ; Asc. in Pis. 52; Gilbert, I. 38-39, 161-169; Jordan, I. 2. 416.
    5 Solin. i. 24.

[^22]:    ${ }^{1}$ Aun. d. Ist. 1871, 41-47; 1884, 189-204; Bull. d. Ist. 1882, 53-58; Jordan, 1. 1. 172 ; NS. 1886, 51.
    ${ }^{2}$ Plut. Rom. 20; Dionys. i. 79 ; Notit. Reg. x.; Gilbert, I. 48.
    ${ }^{8}$ Dionys. i. 32. 79; Serv. ad Aen. viii. 90 ; Ov. Fast. ii. 421 ; Cic. ad F'am vii. 20. 1 ; Gilbert, I. 53-59.
    ${ }^{4}$ Plut. Rom. 3.

[^23]:    ${ }^{1}$ Serv. ad Aen. viii. 100 ; Roscher, Lexikon der Mythologie, 842 ; Mitt. 1895, 163.
    ${ }^{2}$ Dionys. i. 79; Jordan, I. 1. 162; Marquardt, Römische Staatsverwaltung, iii. 438-446; Gilbert, I. 83-88.
    ${ }^{3}$ Liv. v. 52 ; Varro, LL. vi. 53 ; v. 33 ; Gell. xiii. 14 ; Nissen, Templum, 6 ff.
    ${ }^{4}$ LL. v. 143.

[^24]:    ${ }^{1}$ Mommsen, Das Begriff des Pomeriums, Hermes, 1876, 24-50; Röm. Forschungen, ii. 23-41; F. Wehr, Das Palatinische Pomerium, Brüx, 1895; O. Richter, Die älteste Wohnstätte des Röm. Volkes. Prog., Berlin, 1891; Becker, Topographie, 92-108; Jordan, I. 1. 163-175; Gilbert, I. 114-134; Hülsen, Mitt. 1892, 203; Platner, The Pomerium and Roma Quadrata, AJP. 1901, 420-425.
    ${ }^{2}$ Tac. Ann. xii. 24.
    ${ }^{3}$ Dionys. i. 88 ; Jordan, I. 1. 163; Gilbert, I. 114-134; Mitt. 1892, 293. ${ }^{4}$ i. 44.
    ${ }^{5}$ Ann. xii. 24.

[^25]:    ${ }^{1}$ LLL. v. 164 .
    ${ }^{2}$ Fest. 262.
    ${ }^{3}$ Jordan, I. 1. 176; Gilbert, I. 112, 121; II. 114-116; BC. 1881, 69-70; Ann. d. Ist. 1884, 203-204.
    ${ }_{4}$ i. 17.
    ${ }^{5}$ Mitt. 1896, 210-212; AJP. 1901, 420-425.

[^26]:    ${ }^{1}$ Mitt. 1896, 202-204.

[^27]:    ${ }^{1}$ Fest. 340 ; Macrob. i. 16. 6 ; Jordan, I. 1. 199; Mommsen, Römisches Staatsrecht, iii. 1. 113-114; CIL. i². p. 336.
    ${ }^{2}$ LL. . 41.
    5 Wissowa, Satura Viadrina, Breslau, 1896, 1-19.
    ${ }^{4} 341$.
    6 Varro, LL. v. 152.

[^28]:    1 Jordan, I. 1. 183-188; 3. 254; Gilbert, I. 166-169.
    ${ }^{2}$ LL. v. 48.
    ${ }^{3}$ Schneider, Mitt. 1895, 167-178; Richter, Top. ${ }^{2} 38$ n.
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[^29]:    1 Varro, LL. $\vee .56$.
    2 Jordan I. 1. 180.
    ${ }_{3}$ Mommsen, History of Rome, i. 85.

[^30]:    ${ }^{1}$ LL. v. $45 . \quad 2$ Jordan I. 1. $180 . \quad 3$ LL. v. 45-54.
    ${ }^{4}$ Richter, Top. ${ }^{2}$ 9-10, 38-40; Gilbert, II. 329-375; Jordan, II. 237-290, 599604; Mommsen, Staatsvecht, iii. 122-126; Marquardt, Staatsverwaltung, iii. 190-194 ; Roscher, Lexikon der Mythologie, i. 496-500; Studemund, Phil. 1889, 168-177; Hülsen, RhM. 1894, 414-416; Wissowa, Pauly's Real-Encyclopädie (art. Argei) ; Diels, Sibyllinische Blätter, 43.

[^31]:    ${ }^{1}$ Jordan, I. 1. 201-295; Gilbert, II. 258-456; III. 1-57.
    ${ }^{2}$ Ann. d. Ist. 1871, 40-85; Jordan, I. 1. 201-245; BC. 1872, 225-226; 1876, 29-30, 34-38, 121-128; 1888, 12-22.

[^32]:    ${ }^{1}$ Liv. i. 44.

[^33]:    ${ }^{1}$ For the description of this wall and agger, see pp. 113-115.
    ${ }^{2}$ iv. 13.
    ${ }^{3}$ For the discussion of this question, see p. 78.
    ${ }^{4}$ Gell. xiii. 14; CIL. vi. 1231-1233.
    ${ }^{5}$ For further extensions of the pomerium, see pp. 67-70.
    ${ }^{6}$ Dionys. i. 32 ; Solin. i. 13.

[^34]:    ${ }^{1}$ Fest. $343 ; B C .1876,35-36 ; R h M .1894,411$.
    ${ }^{2}$ Fest. 326-327; RhM. 1894, 405, 411 ; BC. 1876, 126.
    ${ }^{3}$ Fest. 254; Hermes, 1891, 137.
    ${ }^{4}$ BC. 1876, 165-167; Strabo, v. 234; Dionys. ix. 68.
    ${ }^{5}$ Fest. 376 ; $B C$. 1876, 168-170.
    ${ }^{6}$ Censorin. 17. 8 ; BC. 1875, 191.
    ${ }^{7}$ Cic. in Pis. 55, 61; Liv. xxxv. 9 ; Lanciani, Mon. d. Lincei, i. 536.
    ${ }^{8}$ Ov. F'ast. vi. 192 ; Juv. iii. 11 ; Mart. iii. 47 ; Bull. d. Ist. 1882, 121-127.
    ${ }^{9}$ Solin. i. 8 ; Frontin. 5; Arch. Zeit. 1873, 9-11.
    ${ }_{10}$ Varro, LL. v. 163 ; Liv. ii. 11.
    11 Varro, LL. v. 163 ; Fest. Epit. 275 ; Val. Max. v. 6. 3.
    12 Varro, LL. v. 163 ; Fest. Epit. 117.

[^35]:    ${ }^{1}$ Varro, RR. iii. 2; Liv. vi. 20; xxxv. 9 and 21 ; Fest. 89 ; CIL. vi. 9208.
    ${ }^{\mathbb{}}$ Liv. xxxv. 10 ; Fest. 85 ; CIL. vi. 9514, 9921 ; RhM. 1894, 411.
    ${ }^{3}$ Pl. NH. xvi. 37; Fest. 260, 261.
    ${ }^{4}$ The porta Ratumena, mentioned by Festus, 274, was probably a gate in the Capitoline inclosure ; cf. Jordan, I. 1. 210; Hülsen, RhM. 189А, 412.
    ${ }^{5}$ Liv. i. 33 ; Dionys. iii. 45.
    "Liv. xxxix. 15; Dio Cass. xxxvii. 28.
    ${ }^{7}$ For the discussion of the Janiculum, cf. Richter, Befestigung des Janiculum, Berlin, 1882; Gilbert, II. 174-179; Jordan, I. 1, 241-345; Elter, RhM. 1891, 112-138; Mayerhöfer, Gesch.-topographische Studien, Munich, 1887, 7-21.

[^36]:    ${ }^{1}$ Varro, LL. v. 154 ; Gilbert, III. 66-69.
    ${ }^{3}$ Liv. xxxv. 9. 21 ; Jordan, I. 1. 240.
    ${ }^{4}$ Varro, RR. iii. 2; Gilbert, III. 378.
    ${ }^{5}$ For seven great fires, recorded in this period, see Jordan, I. 1. 482 note, and Friedländer, Sittengeschichte, 16. 31.

[^37]:    ${ }^{1}$ Cic. de Div. ii. 99: in latere aut in caemento ex quibus urbs effecta est. Varro ap. Non. 48. 9; Suet. Aug. 28: urbem neque pro maiestate imperii ornatam et inundationibus incendiisque obnoxiam excoluit adeo ut iure sit gloriatus marmoream se relinquere quam latericiam accepisset.

    - Mon. Anc. 21.

[^38]:    ${ }^{1}$ Liv. $\vee$. 5 5.

[^39]:    1 Via Tecta (p. 356), via Lata (p. 45゙3), via Fornicata (p. 324).

    - Via Nova sub thermis Antoninianis (p. 394).
    ${ }^{8}$ Liv. xxxviii. 28; xli. 27.
    ${ }^{4}$ Mitt. 1887, 214-220.

[^40]:    ${ }^{1}$ Kiepert and Hülsen, Nomenclator Topographicus, Berlin, 1896.
    ${ }^{2}$ Richter, Hermes, 1885, $91 \mathrm{ff}$. ; Attilio dei Marchi, Ricerche intorno alle "insulae" o case a pigione di Roma antica, Milan, 1891; Hülsen, Mitt. 1892, 279-284.

[^41]:    ${ }^{1}$ Suet. Aug. 30 ; Dio Cass. lv. 8 ; Preller, Die Regionen der Stadt Rom, Jena, 1846.
    ${ }^{2}$ BC. 1890, 121 ff. ; Jordan, II. 585-598.
    ${ }^{3}$ Suet. Aug. 31; Preller, Römische Mythologie, ii ${ }^{3}$. 113.
    ${ }^{4}$ Marquardt, Staatsverwaltung, iii. 203-207; Mommsen, Staatsrecht, ii. 1035-1037; iii. 119-122; CIL. vi. 975.
    ${ }^{5}$ Jordan, II. 540-574.

[^42]:    ${ }^{1}$ Notably Pl. NH. iii. 66-67; Preller, Regionen, 69.
    2 Dio Cass. Ixvi. 15 ; Joseph. Bell. Iud. vii. 5. 7; Pl. NH. xxxvi. 102.
    ${ }^{3}$ Jordan, I. 1. 296-339; BC. 1890, 115-137.
    ${ }^{4} R h M .1894,416-23$; cf. map of ancient city on opposite page, for the latest view as to the division.
    ${ }^{5}$ BC. 1892, 93-104. $\quad 6$ Mitt. 1897, 148-160.

[^43]:    1 Jordan, I. 1. 301.
    ${ }^{2}$ Mitt. 1897, 154-156.
    ${ }^{8}$ Pliny, NH. iii. 66-67 : Moenia urbis collegere ambitu imperatoribus censoribusque Vespasianis, anno conditae DCCCXXVI millia passuum XIIICC complexa montes septem. Ipsa dividitur in regiones quattuordecim, compita Larum CCLXV. Eiusdem spatium, mensura currente a milliario in capite Romani fori statuto ad singulas portas, quae sunt hodie numero XXXVII ita ut duodecim semel numerentur, praetereanturque ex veteribus septem, quae esse desierunt, efficit passuum per directum XXMDCCLXV. Ad extrema vero tectorum cum castris praetoriis ab eodem milliario per vias omnium vicorum mensura colligit paulo amplius XX millia passuum.
    ${ }^{4}$ CIL. vi. 1016 a, b, c; EE. iv. 787; CIL. vi. 31227.

[^44]:    ${ }^{1}$ Mitt. 1892, 270.
    ${ }^{2}$ Pl. l.c.
    ${ }^{3}$ Mitt. 1891, 307-308; RhM. 1894, 422.

[^45]:    1 Ann. xii. 24.
    ${ }^{2}$ Mitt. 1897, 153.

[^46]:    ${ }^{1}$ Mommsen, Staatsrecht, i. 328-329; ii. 594-595.
    ${ }^{2}$ Mommsen, Staatsrecht, ii. 1054-1058; Marquardt, Staatsverwaltung, ii. 484-487.
    ${ }^{4}$ CIL. vi. 2959-3090. ${ }^{5}$ Richter, Top. ${ }^{2} 54 \mathrm{n}$.
    ${ }^{6}$ Zos. i. 49; Vop. Vit. Aur. 21; Jordan, I. 1. 340-392.

[^47]:    ${ }^{1}$ CIL. vi. 1188-1190.
    ${ }^{8}$ Ruins, 68 ; BC. 1892, 87-111.
    2 Procop. Bell. Goth. iii. 22.

[^48]:    ${ }^{1}$ Jordan, II. 155-178, 578-582; Richter, Top. ${ }^{2}$ 393-394.

[^49]:    1 For the description of the wall, gates, roads, etc., see chap. vii.
    2 Richter, Top. ${ }^{2}$ 64-66; Jordan, I. 1. 319-336; Gilbert, III. 3-5, 9-13; Detlefsen, Das Pomerium Roms und die Grenzen Italiens, Hermes, 1886, 497-562; Hülsen, Das Pomerium Roms in der Kaiserzeit, ib., 1887, 615-6i26.
    ${ }^{3}$ Gell. xiii. 14.3.

[^50]:    ${ }^{1}$ Sen. de Brev. Vit. 13. 8. 2 Vop. Vit. Aur. 21.
    ${ }^{3}$ Gell. xiii. 14 ; Dio Cass. xliii. 49, 50; Vop. l.c. 21 ; Tac. Ann. xii. 24 ; CIL. vi. 930.
    ${ }^{4}$ CIL. vi. 1231; Ti. Claudius | Drusi f. Caisar | Aug. Germanicus | pont. max. trib. pot. | VIIII imp. XVI cos. IIII / censor p. p. | auctis populi romani | finibus pomerium | ampliavit terminavitque.

[^51]:    ${ }^{1}$ Cic. ad Att. iv. 16. 4 ; xiii. 20.1 ; 33 a, 1; 35. 1.

[^52]:    1 Mon. Anc. iv. 1-23.

[^53]:    1 Ann. xv. 38.
    2 Emery, Western Reserve University Bulletin, 1897, 22-28; Mitt. 1894, 94-97; Gilbert, III. 34-36.

[^54]:    ${ }^{1}$ CIL. xiv. 85.

[^55]:    -Lancianí, Ruins, 10.

[^56]:    ${ }^{1}$ BC. 1889, 165-172; Mitt. 1889, 285.
    ${ }^{2}$ BC. 1889, 185-205; 1894, 39-51, 354-359.
    ${ }^{3}$ CIL. vi. 1234-1242; Mitt. 1891, 130-136; 1892, 328-329; 1893, 319-320.
    ${ }^{4}$ Vop. Vit. Aur. 47 ; CIL. vi. 1242.

[^57]:    ${ }^{1}$ For the literature, mostly Italian, bearing on the Tiber, its peculiarities, inundations, embankments, etc., see Lanciani, Ruins, 10, 12, 13.
    ${ }^{2}$ Jordan, I. 1. 393-430; Mayerhöfer, Die Brücken im alten Rom, Gesch.topographische Studien, 1-63; Zippel, JJ. 1886, 481-499; Lanciani, Ruins, 16-26.
    ${ }^{3}$ Liv. i. 33 : Dionys. iii. 45 ; Plut. Numa, 9.
    ${ }^{4}$ Fest. 293.
    $5 \mathrm{Pl} . \mathrm{NH} . \mathrm{xxxvi} .100$.

[^58]:    ${ }^{1}$ Mitt. 1895, 160-162.
    2 Gilbert, II. 171-183, 217-223; Richter, Die Befestigung des Janiculum, 14 ff. ; Mommsen, Ber. d. k. sächs. Gesell. d. Wiss. 1850, 320-326; Urlichs, Sitzungsb. d. K. bayr. Akcud. 1870, 459-499; Wecklein, Hermes, 1872, 178-184; Jordan, I. 1. 402-407; Besnier, L'Île Tíbérine dans l'Antiquité, Paris, 1902, 123-132.
    ${ }^{3}$ xxxv. 21. 5. $\quad 4$ Jordan, $F U R .42$; Macrob. Sat. iii. 16. 14-17.

[^59]:    ${ }^{1}$ Liv. xxvii. 51.
    ${ }^{2}$ Auct. Vir. Ill. 72; Amm. Marc. xxvii. 3. 9. ${ }^{8}$ Mon. Anc. iv. 20.
    ${ }^{4}$ Ber. d. K. sächs. Gesell. 1850, 320-326; Gilbert, III. 257-260.
    ${ }^{5}$ Plut. Numa, 9 ; Liv. xl. 51. 4 ; CIL. i². p. 325 ; Lamprid. Vit. Elag. 17.
    ${ }^{6}$ Aethicus, Cosmog. 54.
    7 Mirabilia, 11.

[^60]:    1 Dio Cass. xxxvii. 45 ; Porph. ad. Hor. Sat. ii. 3. 36; CIL. i. 600 ; vi. 1305; Mitt. 1891, 135 ; Besnier, L'Âle Tibérine, Paris, 1902, 94-105.
    ${ }^{2}$ Pol. Silvius, 545 ; CIL. vi. 1175; Besnier, l.c. 107-119.
    ${ }^{3}$ Mitt. 1889, 282-285.
    ${ }^{4}$ CIL. vi. 31545.

[^61]:    ${ }^{1}$ NS. 1887, 323; BC. 1887, 306-313; 1888, 92-98; Mitt. 1889, 285-286; 1891, 135-136.

    - Anon. Magliabecchianus, 158. Gilbert, III. 261.
    ${ }^{4}$ Spart. Vit. Hudr. xix. 11; CIL. vi. 973; Dio Cass. Ixix. 23.
    ${ }^{5}$ Anon. Magliab. 158.
    ${ }^{6}$ BC. 1888, 129-131; 1893, 14-26; NS. 1892, 411-428; Mitt. 1893, 321-324.

[^62]:    1 Mirabilia, 11. ${ }^{2}$ Anon. Magliab. 158. ${ }^{3}$ BC. 1878, 241; 1881, 11.
    ${ }^{4}$ CIL. vi. 31402-31412; EE. iv. 799, 800; Amm. Mare. xxvii. 3. 3; NS. 1892, 50, 234-235.
    ${ }^{5}$ Spart. Vit. Sev. 19.

[^63]:    ${ }^{1}$ Mitt. 1893, 320 ; Gilbert, III. 262.
    ${ }^{2}$ Epist. iv. 70. 2; v. 76. $3 . \quad{ }^{3} B C .1877,167$; 1878, 243-247.
    ${ }^{4}$ Besnier, L'Île Tibérine dans l'Antiquité (Bibliothèque des Écoles françaises d'Athènes et de Rome), Paris, 1902.
    ${ }^{5}$ Liv. ii. 5 ; Dionys. v. 13 ; Plut. Popl. 8.

[^64]:    ${ }^{1}$ Plut. Quaest. Rom. 94 ; Gilbert, III. 72-73; Jordan, Commentarii in hon. Mommsen, 3ェ̃6-396; CIL. vi. 9-12.
    ${ }^{2}$ Suet. Claud. $25 . \quad{ }^{3}$ Sidon. Apoll. Epist. i. 7.
    4 Jordan, FUR. 42 ; Chonogr. a. 354, p. 145.
    ${ }^{5}$ Varro, LL. vii. 57 ; CILL. vi. 6, 7, 12.
    ${ }^{6}$ CIL. i². p. 309 ; Liv. xxxiii. 42 ; xxxiv. 53 ; Ov. Fast. ii. 193.
    ${ }^{7}$ Vitr. iii. 2. $3 . \quad 8$ Ov. Fast, i, 293; Liv, xxxi. 21.
    ${ }^{9}$ Gilbert, III. 82-84; cf. for opposite view, Besnier, op. cit. 249-272.
    ${ }^{10}$ CILL. $\mathrm{i}^{2}$. p. 336.
    ${ }^{11}$ CIL. vi. 567 ; Justin. Martyr. Apol. i. 26.

[^65]:    ${ }^{1}$ Ann. d. Ist. 1867, 389 ff .
    ${ }^{2}$ Claud. 25.
    ${ }^{3}$ Liv. i. 33 ; Pl. NH. xxxi. 89 ; Solin. i. 8.
    ${ }^{4}$ Fest. Epit. 327.

[^66]:    ${ }^{1}$ Liv. xxxv. 10. $12 . \quad{ }^{2}$ Gilbert III. 240-243; Jordan, I. 1. 429-434; 3. 171-173. ${ }^{3}$ Liv. xli. 27. 8; Jordan, FUR. 44.
    ${ }^{4}$ Jordan, I. 1. 429-430; 3. $174 . \quad$ CIL. vi. 9189-9190.
    ${ }^{6}$ Cassiod. i. 25 ; CIL. xv. 408-412; NS. 1892, 347.
    ${ }^{7}$ Bull. d. Ist. 1872, 134-135; BC. 1886, 34-35.

[^67]:    ${ }^{1}$ Ber. d. k. sächs. Gesell. 1848, 137 ff.
    ${ }^{2}$ BC. 1891, 23-36.
    ${ }^{3}$ Ann. d. Ist. 1870, 106-204; NS. 1886, 22.
    ${ }^{4}$ BC. 1891, 45-60; 1892, 175-178; Mitt. 1892, 322-326.
    ${ }^{5}$ Pl. NH. xviii. 15 ; xxxiv. 21.

    - Liv. iii. 26 ; Plut. Cato Min. 39 ; Gilbert, III. 146-150; Richter, Top. ${ }^{2} 200-$ 203; Jordan, FUR. 45-46.

[^68]:    ${ }^{1}$ Liv, viii. 14.
    ${ }^{2}$ Liy. xlv. 42.
    3 Cic. de Or. i. 62.
    ${ }^{4}$ Bell. Goth. iv. 22.
    ${ }^{9}$ Cohen, Méa. Imp. ii. 271, No. 17.
    ${ }^{10}$ Hülsen, Dissertazioni dell' Accailemia Pontificia, ser. ii. vol. vi. ; Zeitschr. f. Numismatik, 1899, 32 ; Jordan, I. 3. 142-144.
    ${ }^{5}$ Serv. ad Aen. xi. 326.
    ${ }^{6}$ Polyb. xxxvi. 3.
    7 Epit. 179.
    8 Liv. xl. 51.

[^69]:    ${ }^{1}$ Frontinus, de Aq. i. 4. $\quad{ }^{2}$ Lanciani, Acque, 6. ${ }^{3}$ Lanciani, Acque, 3-4. ${ }^{4}$ Vitr. viii. 3. 1; Front. de Aq. 1. 4; Lanciani, Acque, 11-13; Herschel, Frontinus, 131-132; Jordan, I. 3. 206-208.

[^70]:    ${ }^{1}$ Front. l.c.; Lanciani, Acque, 13.

    - Ov. F'ast. v. 673; Lanciani, Acque, 9-11.
    ${ }^{8}$ Lanciani, Acque, 21.

[^71]:    ${ }^{1}$ Lanciani, Acque, 29-30.
    2 The most authoritative works on the water supply and aquoducts of Rome are: Lanciani, I Commentarii di Frontino intorno le Acque e gli Aquedotti, Rome, 1880; and Herschel, The Two Books on the Water Supply of the City of Rome of Sextus Julius Frontinus, Boston, 1899.
    ${ }^{3}$ Front. 5, 7, 18, 22, 65, 79, 126; Lanciani, Acque, 34-43; Herschel, 143-146.

[^72]:    ${ }^{1}$ Front. 6, 7, 9, 18, 21, 92, and freq. ; CIL. vi. 1243, 2345; Lanciani, Acque, 43-58; Herschel, 141i-150.

[^73]:    ${ }^{1}$ Cf., however, CR. 1902, 336.
    ${ }^{2}$ CTL. vi. 1244-1251; Pl. NH. xxxvi. 121; Front. passim; Lanciani, Acque, 58-81, 86-102; Herschel, 150-162.

    8 Vitr. viii. 3. 1; Pl. NH. xxxi. 41.

[^74]:    ${ }^{1}$ Front. 19.

    - Cf. Juv. iii. 11.
    ${ }^{3}$ BC. 1886, 406; 1888, 400; Mitt. 1889, 235.
    ${ }^{4}$ Not. app. 1 ; CIL. vi. 1245 ; Lanciani, Acque, 103-106.

[^75]:    ${ }^{1}$ Lanciani, Acque, 106-107.

    - Mon. Anc. iv. 11.
    ${ }^{3}$ Front. 8, 9, 19. 68-69, and passim ; Lanciani, Acque, 81-83, 86-98, 101-102; Herschel, 163-164.
    ${ }^{4}$ Front. 9, 18-19, 69, 76, 83, and passim; Lanciani, Acque, 83-98, 102-103; Herschel, 164-170.

[^76]:    ${ }^{1}$ Front. 10, 18, 22, 70, and passim: Pl. NH. xxxi. 42; xxxvi. 121; Dio Cass. liv. 11 ; CIL, vi. 1252-12 44; Lanciani, Acque, 120-130; Herschel, 170-172.

[^77]:    ${ }^{1}$ BC. 1881, 61-67; 1883, 6-7, 51-52; Mitt. 1889, 269.
    ${ }_{2}$ Front. 11, 18, 22, 71, 83 ; Lanciani, Acque, 130-132; Herschel, 173-175.
    ${ }^{3}$ Mitt. 1889, 289.
    ${ }^{4}$ Front. passim ; CTL. vi. 125̆6-1259, 3886; cf. Tac. Ann. xi. 13; xiv. 22 ; Lanciani, Acque, 133-137, 144-162; Herschel, 175-183.

[^78]:    ${ }^{1}$ CIL. vi. 1257-1258.

[^79]:    ${ }^{2}$ CIL. vi. 1259; Lanciani, Acque, 152-162.

[^80]:    1 Cf., however, CIL. vi. $1256=45000$ passus.

    - Front. passim; Pl. NH. xxxvi. 122; CIL. vi. 1256; ix. 4051 ; Lanciani, Acque, 138-162; Herschel, 183-184.

[^81]:    ${ }^{1}$ CIL. vi. 1260 ; Pol. Silv. 545-546; Lanciani, Acque, 162-168.
    ${ }_{2}$ Cohen, Trai. 20-25. ${ }^{8}$ Procop. Bell. Goth. i. 19.

[^82]:    ${ }^{1}$ Lamprid. Vit. Alex. 25; Pol. Silv. 545-546; Lanciani, Acque, 168-177.
    ${ }^{2}$ Lanciani, Acque, 176.
    ${ }^{3}$ Jordan, I. 1. 479-480; II. 223-225; Gilbert, III. 277; Richter, Top. ${ }^{2} 381$.
    ${ }^{4}$ Pol. Silv. 545 T-546.
    ${ }^{5}$ CIL. xv. 7259; Lanciani, Acque, 225 n.
    ${ }^{6}$ BC. 1880, 55.

[^83]:    The altitudes are taken from Lanciani; the length of the channels is computed from Frontinus's statements (passus $=1.48 \mathrm{~m}$.) except in the of Herschel ( ${ }^{1}$ ) and Lanciani ${ }^{(2)}$. Abbreviations : $\mathrm{p}^{2}=\mathrm{passus}, \mathrm{m} .=$ metre, $\mathrm{km} .=$ kilometre.

[^84]:    ${ }^{1}$ Cf. Herschel, 200-215; and Morgan, Water Supply of Ancient Rome, Transactions of Am. Phil. Assoc. 1902, 30-37, and literature there cited.
    ${ }^{2}$ Narducci, Sulla F'ognatura della Città di Roma, Rome, 1889; Borsari, Topografia di Roma Antica, 90-96 ; Jordan, I. 1. 441-452; Gilbert, II. 410-415.

[^85]:    1 PI. NH. xxxvi. 24.
    ${ }^{2}$ Gilbert, III. 291-292; Narducci, op. cit. passim.

[^86]:    ${ }^{1}$ Narducci, op. cit. 36-37. ${ }^{2}$ Narducci, op. cit. 61-63; BC. 1892, 279-282.

[^87]:    ${ }^{1}$ Liv. i. 38, 56; Dionys. iii. 67 ; Pl. NH. xxxvi. 104.
    2 Narducci, op. cit. 39-49; Antike Denkmäler, i. 25-28, pl. 37; BC. 1890, 95-102; Mitt. 1891, 86-88.

[^88]:    ${ }^{1}$ Richter, Top. ${ }^{2} 31$ n., 133-134; Jordan, I. 3. 37 ; CR. 1902, 336.

[^89]:    1 Ann. d. Ist. 1871, 81 ff. ; Mon. d. Ist. 1871, 11.

[^90]:    ${ }^{1}$ BC. 1874, 199-202; 1876, 129-133, 171-172.
    ${ }_{2}$ Richter, Ueber antike Steinmetzzeichen, 39-42; Top. ${ }^{2} 43$; CR. 1902, 335-336.

[^91]:    ${ }^{1}$ BC. 1887, 52-566; 1876, 35-36, 123-124; RhM. 1894, 411.
    ${ }^{2}$ BC. 1892, 87-111.
    ${ }^{3}$ BC. 1886, 341; 1892, 104-105.

[^92]:    1 Jordan, I. 1. 353-383.
    ${ }^{2}$ BC. 1877, 207-213; 1880, 169-182; 1881, 174-188.
    ${ }^{3}$ RhM. 1894, 320-327. ${ }^{4}$ CIL. vi. $1190 . \quad 5$ Spart. Vit. Sev. 19.

[^93]:    ${ }^{1}$ CIL. vi. 1188.

[^94]:    1 BC. 1892, 102.

[^95]:    ${ }^{2}$ Cf. Vitr. vii. 1. 5-7; Stat. Silv. iv. 3. 1-3, 40-53.

[^96]:    ${ }^{1}$ For a complete description of the Praenestina, Labicana, and Collatina, beyond the city, see T. Ashby, Jr., Classical Topography of the Roman Campagna. I. Papers of the British School at Rome, vol. i. no. 2, 1902.

[^97]:    ${ }^{1}$ Liv. ix. 29 ; Stat. Silv. iv. 3. 1-3, 40-55; ii. 2.12.
    ${ }^{2}$ BC. 1876, 144-146; Mitt. 1894, 318-327.

[^98]:    1 Jordan, I. 3. 29-33.
    ${ }_{2}$ Liv. i. 4 ; Ov. Fast. ii. 412 ; Serv. ad Aen. viii. 90 ; Pl. NH. xv. 77 ; Tac. Ann. xiii. $58 . \quad{ }^{3}$ Dionys. i. 32, 79; Jordan, I. 3. 37-39.

[^99]:    ${ }^{1}$ iv. 2. $\quad{ }^{2}$ Solin. i. $18 . \quad{ }^{8}$ Dionys. i. 79 ; Plut. Rom. $20 . \quad{ }^{4}$ LLL. v. 54.
    ${ }^{5}$ Jordan, I. 3. 39-40 ; II. 268; Gilbert, I. 59; Richter, Top. ${ }^{2} 134$.
    ${ }^{6}$ Plut. Rom. 20.
    ${ }^{7}$ Cic. de Div. i. 17 ; Val. Max. i. 8. 11; Gilbert, I. 140; III. 424 ; Marquardt, Stacutsverwaltung, iii. 427-433.
    ${ }^{8}$ Varro, LL. v. 155; Gilbert, I. 208-213; Jordan, I. 3. 43-44.
    ${ }^{9}$ Fest. 174 ; Gilbert, I. 196-199, 208-213; II. 126-127.

[^100]:    ${ }^{1}$ Richter, Top. ${ }^{2} 33 \mathrm{n}$., with literature there cited.
    ${ }^{2}$ F'ast. v. 129-136.
    ${ }^{8}$ Ann. d. Ist. 1884, 189-204; Jordan, I. 3. 41-42.
    ${ }^{4}$ Solin. i. 18 ; Plut. Rom. $20 . \quad{ }^{5}$ Liv. i. 7.

[^101]:    ${ }^{1}$ Mitt. 1895, 163-164; Roscher, Texikon der Mythologie, 842.
    ${ }^{2}$ Berl. Phil. Wochenschrift, 1903, 605.

[^102]:    ${ }^{1}$ NS. 1882, 237-238, pl. xiv.
    ${ }^{2}$ Aug. 72.
    ${ }^{3}$ Cic. pro Domo, 102, 114 ; Val. Max. vi. 3. 1.
    ${ }^{4}$ Varro, RR. iii. 5; Pl. NH. xvii. 2.
    ${ }^{5}$ Vell. ii. 14. 3; Cic. passim; Gilbert, III. 418-419.
    ${ }^{6}$ Cic. ad Att. iv. 3. 2.
    ${ }^{7}$ Ascon. in Scaur. 23.
    ${ }^{8}$ Pl. NH. xvii. 5 ; xxxvi. 6.
    ${ }^{9}$ Suet. Aug. 72. For all the private houses on the Palatine, cf. Jordan, I. 3. 55-60, 104-105.
    ${ }^{10}$ GA. 1888, 128-130; Jordan, I. 3. 60-63.

[^103]:    ${ }^{1}$ Mon. d. Ist. xi. 22, 23; Mau, Geschichte der Wandmalerei, 167-174, 196-205.

[^104]:    ${ }^{1}$ Liv. i. 12, 41 ; x. 36, 37 ; Dionys. ii. 50; Plut. Cic. 16 ; Hermes, 1885, 425429 ; BC. 1902, 35; 1903, 18; CR. 1902, 336; Jordan, I. 3. 20-23.
    ${ }^{2}$ Mon. d. 7st. v. $7 . \quad{ }^{3}$ Pl. NH. xxxiv. 28; Gilbert, I. 226.
    ${ }^{4}$ Liv. x. 29; GA. 1888, 130 ; Jordan, I. 3. 50-51. ${ }^{5}$ CIL. vi. 2004-2009.
    ${ }^{6}$ Liv. x. 33 ; Dionys. i. 32.

[^105]:    ${ }^{1}$ Liv. xxix. 14.

    - Jordan, FUR. 37; Fest. 262.
    ${ }^{3}$ BC. 1885, 157-160; NS. 1882, 233-238; 1886, 51, 123; Mitt. 1895, 23-24.
    ${ }^{4}$ CIL . vi. 37059-37060.
    ${ }^{5}$ BC. 1883, 206-212 ; Mitt. 1895, 23-24; Jordan, I. 3. 47-50; Melanges, 1889, 197-199.

[^106]:    ${ }^{1}$ Liv. xxix. 37 ; xxxvi. 36 ; Mart. vii. 73; Cic. de Har. 24 ; Gilbert, III. 104 107 ; Jordan, I. 3. 51-54.

    Mon. Anc. iv. 8 ; Val. Max. i. 8, 11; Ov. Fast. iv. 347 ; Obseq. 99 ; Vop. Vit. Aurel. 1.
    ${ }^{3}$ CIL. vi. 3702, 1040.
    4 Jordan, I. 3. 45-47.
    ${ }^{8}$ Fest. 269.
    5 Liv. xxxv. 9.
    ${ }^{9}$ Pl. NH. xxxiv. 54, 60.
    ${ }^{6}$ Ov. F'ast. ii. 55.
    7 Varro, LL. v. 68.

[^107]:    ${ }^{1}$ Cic. de Nut. Deor. iii. 63 ; de Legg. ii. 28.
    ${ }^{2}$ Val. Max. ii. 1, $6 . \quad{ }^{3}$ Dio Cass. lxxiv. 3. ${ }^{4}$ Mitt. 1894, 33.
    ${ }^{5}$ CIL. i. p. 623; vi. 110.
    ${ }^{6}$ Cic. de Div. i. 45, 101; Gell. xvi. 17.
    ${ }^{7}$ Lamprid. Vit. Hel. 1, 3, 6 ; Jordan, I. 3. 105-106; Mitt. 1892, 158.

[^108]:    1 Mitt. 1895, 7-23.
    ${ }^{2}$ G.A. 1888, 130 ; Lanciani, Ruins, 138-139.

[^109]:    ${ }^{1}$ Hülsen, Mitt. 1895, 3-28; Jordan, I. 3. 48, 51-54.
    ${ }^{2}$ Suet. Aug. 5; Serv. ad Aen. viii. 261.
    ${ }^{3}$ Suet. Aug. 57.

[^110]:    ${ }^{1}$ Mitt. 1889, 185, 256; 1894, 3-36; GA. 1888, 145-147; Mélanges, 1889, $189-$ 191; Jordan, I. 3. 63-66, 74-76; CIL. vi. 8640-8646, 8649-8651.

    2 Joseph. Ant. Iud. xix. 1, 15.
    ${ }^{3}$ Dio Cass. liv. 27 ; Ov. Fast. iv. 949 ; Met. xv. 864.
    ${ }^{4}$ GA. 1888, 151-152; BC. 1883, 198-205; Mitt. 1895, 28-37.
    5 GA. 1888, 147-155; Melanges, 1889, 191-197; BC. 1883, 185-198; RhM. 1890, 76-77; Mitt. 1896, 193-212; Richter, Top. ${ }^{2}$ 148-149, and note; Jordan, I. 3. 66-74.

[^111]:    ${ }^{1}$ Vell. ii. 81; Dio Cass. liii. 1; Serv. ad Aen. viii. 720. See references in Richter, Top. ${ }^{2} 147$.
    ${ }^{2}$ Vitr. iii. 3, 4.
    ${ }^{4} \mathrm{Pl}$. NH. xxxvi. 36.
    ${ }^{3}$ Prop. ii. 31. 2, 9 ; Vell. ii. 81.
    ${ }^{5}$ Prop. ii. 31. 3-4. $\quad{ }^{6}$ Schol. Pers. 2, 56.
    ${ }^{7}$ Mélanges, 1889, 199-205; Suet. Aug. 29; Juv. i. 128; Tac. Ann. ii. 37, 83 ; Amm. Marc. xxiii. 3. 3.

[^112]:    ${ }^{1}$ Tac. Hist. i. 27 ; Suet. Vit. 15; Otho, 6; Plut. Galba, 24; CIL. vi. 86538655.
    ${ }^{2}$ GA. 1888, 655-657; Gilbert, III. 178; Jordan, I. 3. 76-79.
    ${ }^{3}$ Gell. xiii. 20, 1; Vop. Vit. Probi, 2.
    ${ }^{4}$ BC. 1894, 94-100.

[^113]:    ${ }^{1}$ Suet. Cal. 22.
    2 Dio Cass. lix. 29 ; Suet. Cal. 58.
    ${ }^{3}$ Suet. Cal. 37 ; Joseph. Ant. Iud. xix. 1, 11.

[^114]:    ${ }^{1}$ GA. 1888, 137-163, 211-215, pl. 21, 22, 23, 30; Mitt. 1895, 252-276; Jordan, I. 3. $86-94$.

[^115]:    ${ }^{1}$ For references to the magnificence of this palace, see Martial, i. 70; vii. 56 ; viii. $36,39,60$; ix. 13,79 ; x. 71 ; xii. 15 ; Stat. Silv. i. 1 . 24 ; iv. 2. $18-25$; Plut. Popl. 15.

[^116]:    ${ }^{1}$ Jul. Capit. Vit. Pertin. 11.

[^117]:    ${ }^{1}$ Mitt. 1889, 185-187; Jordan, FUR. 144, 168.

[^118]:    ${ }^{1}$ GA. 1888, 216-224 ; Mélanges, 1889, 184-229; Juhrbuch des Instituts, 1895, 129-143 ; Mon. d. Lincei, v. 16-83, pl. i-iv ; Mitt. 1894, 16-17; 1895, 276-283; NS. 1877, 79-80, 109-110, 201-204; 1878, 66, 93, 346; 1893, 31-32, 70, 117-118, 162-163, 358-360, 419; Sturm, Das Kaiserl. Stadium, 1888; Jordan, I. 3 94-96.

[^119]:    ${ }^{1}$ Philostr. Vit. Apoll. Tyan. vii. 32 ; Richter, Top. ${ }^{2}$ 1055-156; Mitt. 1890, 11. ${ }^{2}$ Jordan, F'UR. 44.

[^120]:    1 Jordan, I. 3. 98-100.
    -Spart. Vit. Sev. 24 (21) ; Jordan, FUR. 38 ; CIL. vi. 1032 ; Hülsen, Das Septizonium, Berlin, 1886; BC. 1888, 269-278; Mitt. 1889, 258-259; Jordan, I. 3. 100-102.

[^121]:    ${ }^{1}$ Archiv f. Lat. Lexikographie, 1892, 272.
    ${ }^{2}$ BC. 1893, 248-260; 1894, 89-94.
    ${ }^{3}$ Bull. Crist. 1863, 72 ; 1867, 75; Ann. d. Ist. 1882, 191-220; Jordan, I. 3. 93-94.

[^122]:    ${ }^{1}$ NS. 1892, 44; Mitt. 1893, 289-292.
    ${ }^{2}$ Suet. Cal. 18; CIL. vi. 8663.

[^123]:    ${ }^{1}$ BC. 1900,$74 ; 1903,167-170 ;$ Mitt. 1902, 74.

[^124]:    ${ }^{1}$ Suet. Tib. 47 ; Cal. 21 ; Dio Cass. lvi. 46; Pl. NH. xii. 94; Tac. Ann. vi. 45 ; Gilbert, III. 121-123, 131-133; Jordan, I. 3. 79-86; Lanciani, Ruins, 122-125.
    ${ }^{-}$Suet. Cal. $22 . \quad{ }^{4}$ Suet. Tib. 74.
    ${ }^{3}$ CIL. vi. $4222 . \quad 5$ Suet. Galba, 1.
    ${ }^{6}$ CIL. vi. 2087, 2104; cf., however, Hülsen in Jordan, I. 3. 81-82.
    ${ }^{7}$ Pl. NH. xii. $94 . \quad{ }^{9}$ CIL. iii. 859, 861.
    8 Mart. iv. $53 . \quad{ }^{10}$ Cohen, Ant. 797-810.
    ${ }^{11}$ Suet. Tib. 74.
    ${ }^{12}$ Mart. xii. 3 (in Friedländer's ed.). ${ }^{13}$ Gell. xiii. 20 ; Vop. Vit, Prob. 2.

[^125]:    1 Suet. Cal. 22.
    ${ }^{2}$ Mitt. 1902, 74-82; Papers of British School at Rome, 1. 19-25; CR. 1901, 329 ; 1902, 95 , 284 ; BC. 1903, 199-204, 230-236.

[^126]:    ${ }^{1}$ Cic. de Div. i. 101 ; ii. 69 ; Varro, LL. v. 43, 164; vi. 59; Ov. Fast. vi. 389-390; Liv. i. 41 ; v. 32 ; Gilbert, II. 114-117; III. 422-423; Hermes, 1885, 428-429.

[^127]:    ${ }^{1}$ NS. 1882, 234-238, 413; 1884, 191.

    - Mitt. 1902, 73-74.
    ${ }^{3}$ Papers of the British School at Rome, I. 1-119 (S. Maria Antiqua) ; Mitt. 1902, 82-86; BCY. 1900, 299-320; 1903, 204-230.

[^128]:    ${ }^{1}$ Gell. xx. 1, 1; Mitt. 1890, 77.
    ${ }^{2} C R .1892,96,286 ; B C .1903,17$.
    8 Ov. Fast. iv. 821 ; Fest. 157, 258 ; EE. viii. 283, 12 ; Mitt. 1890, 76; 1896, 202-204; Jordan, I. 3. 43.

[^129]:    ${ }^{1}$ Varro, LL. $\mathrm{V} .145-146$; Fest. 84.
    ${ }^{2}$ Tac. Agr. 2 (ac for et).

[^130]:    ${ }^{1}$ Liv. i. 35 ; Dionys. iii. 67 ; Non. 532.

[^131]:    ${ }^{1}$ Fest. 134 ; Vitr. v. 1, 1.
    ${ }^{2}$ Liv. xxvi. 27; Varro, LL. vi. 59 ; Fest. 230; Cic. Acad. ii. 70; Jordan, I. 2. 378-383; Gilbert, III. 202-207.
    ${ }^{3}$ Varro, LLL. v. 147.
    ${ }^{4}$ Varro, ap. Non. 532 ; Vitr. v. 1, 1.

[^132]:    ${ }^{1}$ For a new triangulation of the Forum, and the elevations of its various points, see NS. 1900, 220-229, with plan. The best descriptions of the excavations of 1899-1902, yet published, are by Hülsen, Mitt. 1902, 1-97, and Richter, Top. ${ }^{2}$ 355-370. See also Vaglieri, BC. 1903, 3-239.

[^133]:    1 Jordan, I. 2. 437-438.

[^134]:    ${ }^{1}$ Fest. 290 ; Epit. 104 ; Jordan, I. 2. 468 ; Gilbert, I. 257-263; III. 416-417. ${ }^{2}$ NS. 1883, 14. ${ }^{3} C R .1902,94$.
    ${ }^{4}$ Liv. ii. 14 ; Varro, LL. v. 46 ; Tac. Ann. iv. 65 ; Serv. ad. Aen. v. 560 ; Jordan, I. 1. 273-274, 295; I. 2. 469; Gilbert, II. 101-118; III. 416.

    5 Plaut. Curc. 482 ; Hor. Sat. ii. 3. 228.
    ${ }^{6}$ CR. 1899, 466 ; BC. 1899, 253; 1902, 29.

[^135]:    ${ }^{1}$ Prop. iv. 2; Gilbert III. 416.
    『Varro, LL. v. 157 ; Serv. ad Aen. viii. 345; Mart. i. 3. 1, 117. 9; Jordan, I. 2. 351; Gilbert, II. 87-92; BC. 1890, 98-102.
    ${ }^{3}$ Liv. xl. 19 ; Dionys. ii. 50 ; Fest. 290 ; Gell. iv. 5 ; Pl. NH. xvi. 236 ; Jordan, I. 2. 339-341; Gilbert, I. 248-257; Mitt. 1893, 87-88.
    ${ }^{4} C R .1902,94$; BC. 1902, 25-26, 125-133; 1903, 159-162 ; Mitt. 1902, 10.

[^136]:    ${ }^{1}$ Plut. Cam. 42 ; Ov. Fast. i. 641 ; Jordan, I. 2. 332-336; Gilbert, III. 62-64.
    ${ }^{2}$ App. Bell. Civ. i. 26 ; Plut. C. Gracch. 17.
    8 Varro, LLL. v. 156 ; Cic. pro Sest. 140 ; CIL. vi. 2338-2339; Jordan, I. 2. 338, 384 ; Gilbert, III. 214 ; Mitt. 1893, 84, 91.
    ${ }^{4}$ Suet. Tib. 20; Dio Cass. 1v. 8; lvi. 25; CIL. vi. 89-94.

[^137]:    ${ }^{1}$ Pl. NH. xxxiv. 73, 80, 89; xxxvii. 4; Jacobi, Grundzüge einer Museographie d. Stadt Rom zur Zeit des Kaisers Augustus, 1884.
    ${ }^{\square}$ Pl. NH. xxxiii. 19 ; Liv. ix. 46 ; Gilbert, III. 64.
    ${ }^{3}$ Pl. NH. xvi. 236 ; BC. 1899, 242-243 ; 1900, 124-134; Mitt. 1902, 11.
    ${ }^{4}$ Jordan, I. 2. 192-193; Reber, Die Ruinen Roms, 81-86.
    ${ }^{5}$ CILL. vi. 938.

[^138]:    ${ }^{1}$ CTL. vi. 102.
    ${ }^{2}$ Varro, $R$ R. i. 1 ; Jordan, I. 2. 366-367 ; Gilbert, III. 102-103.
    ${ }^{3}$ Dionys. i. 34 ; Macrob. Sat. i. 8. 2.
    ${ }^{4}$ Liv. ii. 21 ; Dionys. vi. 1 ; Jordan I. 2. 360-363; Gilbert, III. 401-403.

[^139]:    ${ }^{1}$ Suet. Aug. 29; CIL. vi. 1316 ; x. 6087.
    2 Jordan, $F^{\prime} C^{\prime} R .22,23,30 . \quad{ }^{8}$ CIIL. vi. 937.
    ${ }^{4}$ For recent excavations, see NS. 1899, 49; Arch. Anz. 1899, 7; CR. 1899, 234 ; BC. 1902, 26 ; Mitt. 1902, 9.

[^140]:    ${ }^{1}$ CIL. i. 636 ; vi. 1265.
    (1) CIL. i². p. 240; Jordan, I. 2. 364-365.
    ${ }^{3}$ Suet. Caes. 10.
    ${ }^{4} \mathrm{Pl} . N H$. x. 121.
    ${ }^{5}$ Suet. Cal. 22 ; CIL. vi. 2202.
    ${ }^{6}$ Liv. ii. 42 ; Ov. Fast. i. 706.
    ${ }^{7}$ Asc. ad Scaur. 46 ; Cic. in Verr. i. 145.
    ${ }^{8}$ Cic. in Verr. i. 130-154.
    ${ }^{9}$ Suet. Tib. 20 ; Dio Cass. lv. 27 ; Jordan, I. 2. 369-376; Gilbert, III. 58-62.

[^141]:    ${ }^{1}$ Reber, Die Ruinen Roms, 136-142; Jahrb. d. Inst. 1898, 87-114; CR. 1899, $466 ; 1902,95,284 ; B C .1899,253 ; 1900,66,285 ; 1902,28 ; 1903,165 ;$ Mitt. 1902, 66-67.
    ${ }^{2}$ Cic. pro Quinct. 17 ; Schol. Juven. xiv. 261.

[^142]:    1 Jordan, I. 2.374 n. ; Mitt. 1889, 244-245.
    ${ }_{2}$ Cic. in Verr. i. 129; Jul. Capit. Vit. Maximin. 16 ; Trebell. Vit. Valerian. 5 ; CIL. i. p. 107.
    ${ }^{3}$ Suet. Aug. 100 ; Dio Cass. lvi. 34 ; Front. de Aquis, 129 ; Jordan, I. 2. 227229.
    ${ }^{4}$ Liv. Epit. 116; Plut. Caes. 68.

[^143]:    ${ }^{1}$ App. Bell. Civ. ii. 148 ; iiii. 2 ; Dio Cass. xliv. $51 . \quad 2$ Suet. Caes. 85.
    ${ }^{3}$ Cic. ad Att. xiv. 15; Phil. i. 5.
    ${ }^{4}$ Dio Cass. xlvii. 18, 19 ; Mon. Anc. iv. 2; Jordan, I. 2. 406-409.

    - Dio Cass. 1i. 22; Hemer. Anit. Antiat. ad xv. Kal. Sept.
    - Cohen, Hadr. 416-419, 1388.

    7 Jahrb. des Inst. 1889, 137-162; Antike Denkmäler, i. 27, 28; CR. 1899, 185, 466; Mitt. 1902, 61-62; BC. 1903, 81-83.

[^144]:    ${ }^{1}$ Dio Cass. li. 19.
    2 Vitr. iii. 2. 2; Stat. Silv. i. 1. 22-24.
    ${ }^{3}$ Jul. Capit. Vit. Pii, 6, 13 ; CIL. vi. 2001.
    ${ }^{4}$ CIL. vi. 1005.

[^145]:    ${ }^{1}$ CR. 1899, 186 ; NS. 1899, 77; BC. 1900, 62-63.
    ${ }^{2}$ CR. 1902, 285; BC. 1902, 30-31.

[^146]:    ${ }^{1}$ NS. 1902, $96-111$; 1903, 123 ff. ; BC. 1902, 37-53, 186-189; 1903, 33-42, 252271; Mitt. 1902, 92-94; CR. 1902, 476-477; 1903, 328. Some of these notices were received too late for use.

[^147]:    ${ }^{1}$ Liv. i. 19; Jordan, I. 2. 345-352; Gilbert, I. 321-328.
    ${ }^{2}$ Suet. Aug. $22 . \quad 8$ Verg. Aen. xii. $198 . \quad 4$ Ov. Fast. i. 89.
    ${ }^{5}$ Mon. Anc. ii. 42 ; Lamprid. Vit. Comm. 16; Jul. Capit. Vit. Gordian. 26;
    Claudian. de Cons. Stil. ii. 286.
    ${ }^{6}$ Procop. Bell. Goth. i. 25.
    ${ }^{7}$ Cohen, Nero, 132-178, 183.

[^148]:    ${ }^{1}$ Varro, LLL. v. $156 . \quad 2$ Liv. xliv. 16; Gilbert, III. 214.
    ${ }^{3}$ Cic. ad Att. iv. 17.7 (16. 14) ; Mon. Anc. iv. 13; Suet. Aug. 29; Jordan, I. 2. 385-391; Gilbert, III. 221-223.
    ${ }^{4}$ BC. 1871, 246.
    ${ }^{6}$ Cf. BC. 1891, 229 ff. ; Archivio Storico dell' Arte, 1896, 164.

[^149]:    ${ }^{1}$ CR. 1901, 13ti; Mitt. 1902, 60.
    ${ }^{2}$ Pl. Epist. vi. 33 ; Suet. Cal. 37.

[^150]:    ${ }^{3}$ Stat. Silv. i. 1, 29 ; Mart. vi. 38. 6.
    ${ }^{4}$ Mitt. 1896, 227-252.

[^151]:    ${ }^{1}$ Liv. xl. 51.
    ${ }^{2}$ Plut. Caes. 29.
    3 Varro, LLL. vi. 4.
    ${ }^{4}$ App. Bell. Civ. ii. 26; Stat. Silv. i. 1, 30; Tac. Ann. iii. 72.
    ${ }^{5}$ Dio Cass. xlix. 42.
    ${ }^{6}$ Dio Cass. liv. 24 ; Jordan, I. 2. 391-394; Gilbert, III. 213, 221-222.

[^152]:    ${ }^{1}$ BC. 1899, 169-204; 1900, 3-8; Arch. Anz. 1900, 5-6; Mitt. 1902, 41-57; 1903, $87-96 ; C R .1899,464 ; 1900,237 ; 1901,136 ; 1902,95$.

[^153]:    ${ }^{1}$ For a discussion of the sixteenth-century drawings of this end of the basilica, see Mitt. 1902, 45-49, and literature there cited.

[^154]:    ${ }^{1}$ Pl. NH. xxxvi. 102; cf. Mitt. 1888, 95 ; 1889, 242.
    ${ }^{2}$ NS. 1899, 348; BC. 1899, 204-213; Arch. Anz. 1900, 5.

[^155]:    ${ }^{1}$ Liv. iii. 48 ; Pl. NH. xv. 119; Plant. Curc. 471 ; Cohen, Méd. Cons. xxix, Mussidia, 5, 6; Mitt. 1893, 248 ; BC. 1900, 61-62; 1903, 97-99; CR. 1901, 138.
    ${ }^{2}$ BC. 1899, 141 ff., pl. xiii, xiv. 1; 1903, 83-86; Arch. Arız. 1900, 6.
    ${ }^{3}$ Cic. de IViv. i. $101 . \quad{ }^{4}$ Suet. Caes. 46 ; Jahrb. d. Inst. 1889, 247.
    5 Dio Cass. liv. 27.
    ${ }^{6}$ Mitt. 1886, 100 ; BC. 1903, 55-56.

[^156]:    ${ }^{1}$ BC. 1903, 79-80.
    ${ }^{2}$ Dionys. ii. 65, 66.
    ${ }^{3}$ Gell. xiv. 7; Serv. ad Aen. vii. 153.
    ${ }^{4}$ Ov. F'ast. vi. 265̌-296; Fest. 262.
    ${ }^{5}$ Ov. F'ast. vi. 297.
    6 Ov. Trist, iii. 1. 29.
    ${ }^{7}$ Fest. 250 ; Serv. ad Aen. iii. 12. 8 Ov. F'ast. vi. 295-298.
    ${ }^{9}$ Liv. Epit. 19 ; Oros. iv. 11; Ov. Fast. vi. 437-454.
    ${ }^{10}$ Tac. Ann. xv. 41.
    ${ }^{11}$ Dio Cass. Ixxii. 24 ; Herodian, i. 14.
    ${ }^{12}$ For a general discussion of this temple, see Jordan, I. 2. 293, 421-423; Gilbert, I. 301-310; III. 405-415.
    ${ }^{13}$ NS. 1883, 434-468; 1900, 159-191; Nuova Antologic, fase. 1, Aug. 1900; BC. 1900, 281-284; 1903, 57-69; CR. 1899, 185; 1901, 139; Mitt. 1902, 86-90.

[^157]:    1 Mitt. 1892, 284-287; 1893, 285-286.
    ${ }_{2}$ Jordan, Der Tempel der Vesta u. das Haus der Vestalinnen, 1886; Auer, Der Tempel der Vesta u. das Haus der Vestalinnen, Denkschriften der Wiener Akademie, 1888, 209-228; Mitt. 1889, 245-247; cf. Boni, NS. 1900, 185-189.

[^158]:    ${ }^{1}$ Cohen, Aug. 250, 251; Zeitschrift f. Numismatik, 1899, pl. I. Nos. 3-8.
    ${ }^{2}$ Ov. F'ast. vi. 263; Gell. i. 12; Serv. ad Aen. vii. 153; Jordan, I. 2. 299, 427; Gilbert, I. 304-305; III. 408-410.
    ${ }^{3}$ See brick stamps in Jordan, Der Tempel der Vesta, 29-33.
    ${ }^{4}$ NS. 1883, 468-470, 480-486; Jordan, Der Tempel der Vesta, 25-40; Auer, op. cit. 209-222.
    ${ }^{5}$ NS. 1899, 325-333; 1900, 159-191; BC. 1899, 253-256; 1902, 30; 1903, 70-78; Arch. Anz. 1900, 8-9; C'R. 1899, 467 ; 1900, 238; 1901, 139; 1902, 284 ; Mitt. 1902, 90-92.

[^159]:    ${ }^{1}$ Cf. Cic. de Nat. Deor. iii. 80; de Or. iii. 40; Liv. Epit. 86; Jordan, Der Tempel der Vesta, 25-28; Top. I. 2. 290-291.
    ${ }^{4}$ Jordan, I. 2. 302-304, 423-429; Gilbert, I. 225-227, 305-310, 341-352; III. 407-410.
    ${ }^{3}$ Solin. i. 21; Ov. Trist. iii. 1; Tac. Ann. xv. 41.
    ${ }^{4}$ Fest. 278-279; Serv. ad Aen. viii. 363.
    5 Gell. iv. 6; Liv. xl. 19; Dio Cass. xliv. 17; Jordan, II. 271-278.

    - Varro, LL. vi. 21; Fest. 186.
    ${ }^{7}$ Liv. xxvi. 27; Obseq. 19.
    ${ }^{8}$ Dio Cass. xlviii. 42 ; Pl. NH. xxxiv. 48.

[^160]:    ${ }^{1}$ Mitt. 1886, 94-98, 99-111; 1902, 62-66; Archaeologia, 1887, 227-250; Jahr. d. Inst. 1889, 228-253; NS. 1899, 220-223, 384-386, 486-488; BC. 1899, 205-213; 1903, 42-55 ; CR. 1899, 322, 466 ; 1901, 139; Arch. Auz. 1900, 6-8.

[^161]:    ${ }^{1}$ NS. 1899, 128; BC. 1899, 146 ; Mitt. 1902, 65-66.

[^162]:    ${ }^{1}$ BC. 1903, 56-57.
    ${ }^{2}$ Ov. Fast. i. 706 ; Dionys. vi. 13; Jordan, I. 2.371 ; Lanciani, Acque, 13-14; Herschel, Frontinus, 132-133.
    ${ }^{3}$ NS. $1900,291-295 ; 1901,41-144 ; B C .1900,67-74,285-295$; 1903, 166-198; CR. 1901, 139; Mitt. 1902, 67-74.

[^163]:    ${ }^{1}$ NS. 1901, 129-131; BC. 1900, 72; Mitt. 1902, 72-73.
    ${ }^{2}$ Mitt. 1900, 338-349.

[^164]:    ${ }^{1}$ Tac. Ann. xii. 24 .
    ${ }^{2}$ Jordan, I. 2. 353-356; Gilbert, III. 151-155, 172-173. See Preface, p. vi.
    ${ }^{3}$ Liv. viii. 14 ; Pl. NH. xxxiv. 20.
    ${ }^{4}$ Varro, LL. v. 155 ; Diodor. xii. 26 ; Ascon. in Mil. 37.
    ${ }^{5}$ Liv. ii. 56 ; Cic. in Vatin. 24.
    ${ }^{6}$ Liv. iv. 17 ; viii. 13; Cic. Phil. ix. 4, 13, and freq. ; cf. Jacobi, Grundzüge einer Museographie der Stadt Rom, 52-53.
    ${ }^{7}$ Pl. NH. xxxiv. 20 ; Quint. i. 7. 12; Serv. ad Georg. iii. 29 ; CIL. vi. 1300 ; Ber. d. k. bayerisch. Akademie, 1890, 293-321.
    ${ }^{8}$ Dio Cass. xliii. 49.

[^165]:    ${ }^{1}$ Mitt. 1895, 59-60; 1902, 19.
    ${ }^{2}$ Mitt. 1902, 17-19; CR. 1901, 88; BC. 1903, 158-159.

[^166]:    1 Not. Reg. viii. ; Jordan, I. 2. 245.
    ${ }^{2}$ Pl. NH. iii. 66; Tac. Hist. i. 27 ; Dio Cass. liv. 8; Gilbert, III. 173-174.
    ${ }^{3}$ CR. 1900, 237; Mitt. 1902, 20.
    ${ }^{4}$ NS. 1900, 627-634; BC. 1900, 267-269; 1903, 153-158; CR. 1901, 87-88; Mitt. 1902, 13-16.

[^167]:    ${ }^{1}$ NS. 1900, 627-634.
    2 Gilbert, III. 161-162; Mitt. 1888, 208-232; 1902, 12-13; BC. 1903, 164.
    ${ }^{3}$ CIL. vi. 103.
    4 Varro, LL. v. 155.

[^168]:    ${ }^{1}$ Cic. Lael. 96 ; Varro, RR. i. 2. 9; Gilbert, III. 138-141.
    2 Jordan, I. 2. 261, 318-322; Gilbert, II. 70-74; and esp. Mitt. 1893, 79-94.
    ${ }^{3}$ Cic. de Rep. ii. 11.
    ${ }^{4}$ Varro, LL. v. 155; Mem. dei Linc. 1883, 1-5.
    ${ }^{5}$ Cic. de Fir. v. $2 . \quad 6$ Pl. NH. xxxiv. 26.
    ${ }^{7}$ Cic. pro Mil. 33; Ascon. in Mil. p. 29; Dio Cass. xl. 49.
    8 Dio Cass. xliy. 5 ; xlv. 17 ; xlvii. 19.

[^169]:    ${ }^{1}$ For the subsequent history of the curia Iulia, see p. 231.
    ${ }^{2}$ Liv. xxxix. 44 ; Ascon. in Mil. p. 29 ; Plut. Cat. 19 ; Gilbert, III. 210212 ; Mitt. 1893, 84, 91.
    ${ }^{3}$ NH. vii. 212.
    4 Varro, LL. v. 155 ; Cic. ad Q. Fr. ii. 13; Jul. Capit. Vit. Ant. Pii, 9 ; Obseq. 83, 87, 91 ; Jordan, I. 2. 243-244; Gilbert, III. 139-140; Mitt. 1893, 87, 91.

[^170]:    1 Jordan, FUR. 19.

    - Cf., however, CR. 1901, 88.
    ${ }^{3}$ Varro, LL. v. 156 ; Fest. 347 ; Val. Max. ii. 2. 6; Gilbert, II. 70-71; III. 63; Mitl. 1893, 87, 91; Mommsen, Staatsrecht, iii. 913-915.
    ${ }^{4}$ Fest. l.c.
    ${ }^{5}$ Liv. i. 36 ; Cic. de Div. i. 33.
    ${ }^{6}$ Conon, Narr. 48 ; Dionys. iii. 71; Pl. NH. xv. 77; Tac. Ann. xiii. 58; Jordan, I. 2. 264, 356-357; Mitt. 1893, 92; Gilbert, III. 138-139.

[^171]:    1 Pl. NH. vii. 212 ; xxxiv. 20 ; Cic. Div. in Verr. 50 ; Jordan, I. 2. 345 ; Mitt. 1893, 84-85.
    ${ }^{2}$ Pseudo-Ascon. ad Cic. Div. in Caecil. 16; Porphyr. ad Hor. Sat. 1. 3. 21.
    3 Suet. Caes. 78 ; cf. Cic. pro Sest. 18; Plut. Cat. Min. 5 ; Gilbert, III. 165.
    ${ }^{4}$ Cic. in Vatin. 21; ad Fam. xiv. 2; Pl. NH. xxxv. 22; Jordan, I. 2. 330-331; Mitt. 1893, 93 ; AJP. 1898, 406-412.
    ${ }^{5}$ NS. 1900, 317-340; BC. 1900, 274-280; 1903, 125-134.

[^172]:    1 For these pavements, see NS. 1900, 305-316; BC. 1900, 273-274; 1903, 146149 ; CR. 1899, 233; 1900, 237 ; Mitt. 1902, 31-39.
    ${ }^{2}$ BC. 1902, 13-25; CR. 1901, 86-87 ; Mitt. 1902, 34-35.

[^173]:    ${ }^{1}$ BC. 1899, 213-220; 1903, 134-138; NS. 1900, 303-305; Mitt. 1902, 31.
    ${ }^{2}$ CIL. vi. 31395.

    - For inscriptions found during the excavations 1899-1902, see NS. passim; BC 1899, 205-247; 1900, 63-74.

[^174]:    ${ }^{1}$ NS. 1900, 317; BC'. 1900, 60; 1903, 149-150; Mitt. 1902, 58.

[^175]:    ${ }^{1}$ Mon. Anc. iv. 1; Dio Cass. li. 22; Gilbert, III. 167-170; Mem. dei Linc. 1883, 5-26, and plates; Mitt. 1893, 276-281.
    ${ }^{2}$ CIL. vi. 1718 ; Jordan, I. 2. 256-257.
    ${ }^{3}$ Hieronym. 161.
    ${ }^{4}$ Cf. CILL. vi. 877.

[^176]:    ${ }^{1}$ NS. 1900, 48-49, 295-303; BC. 1899, 251-252; 1900, 271-273; 1903, 143-146; CR. 1900, 236-237 ; Mitt. 1902, 39-41.

[^177]:    ${ }^{1}$ For the description of these monuments, see esp. NS. 1809, 129, 151-158; Comparetti, Iscrizione Arcaica del Foro Romano, 1900, 1-13; Mitt. 1902, 22-26; Richter, Top. ${ }^{2}$ 363-367; BC. 1903, 108-114.

[^178]:    ${ }^{1}$ NS. 1900, 143-146; Mitt. 1902, 25-26; BC'. 1903, 115-123.
    ${ }^{2}$ For a complete review of this literature to April, 1903, see G. Tropea, La Stele Arcaica del Foro Romano, Cronaca della discussione. Rivista di Storia Antica, 1899, 470-509; 1900, 101-136, 301-359; 1901, 157-184; 1902, 36-45, 425-427. Brief lists of the more important works in Arch. Anz. 1900, 2 n. ; Mitf. 1902, $26 \mathrm{n} . ; B C .1903,138-139$.
    ${ }^{3}$ Fest. 177 ; Schol. Hor. Epod. 16. 13, 14 ; Porphyr. ib. ; Dionys. i. 87 ; iii. 1.

[^179]:    ${ }^{1}$ Liv. i. 33.

[^180]:    ${ }^{2}$ Sallust, Cat. 55; Abeken, Mittelitalien, 191-197.

[^181]:    ${ }^{1}$ CIL. vi. 1539.
    ${ }^{2}$ Pl. NH. vii. 212; Fest. 356; Varro, LL. v. 150 ; cf. also Fest. 264.
    ${ }^{3}$ Jordan, I. 1. 453-455; 2. 323-328; Gilbert, II. 74-81; Lanciani, Acque, 23-24.

[^182]:    ${ }^{1}$ BC. 1902, 40-45; Rendiconti dei Lincei, 1902, 226-239.
    ${ }^{2}$ Varro, LL. v. 151; Fest. 117 ; Sen. Contr. ix. 27. 20 ; Liv. xxvi. 27 ; xxxii. 26 ; xxxvii. 3 ; xxxix. 44 ; Jordan, 1. 1. 505-507; 2. 343-345; Gilbert, II. 80; for an erroneous view that the Lautumiae were near the temple of Faustina, cf. NS. 1902, 96; BC. 1902, 31-34; Berl. Phil. Wochenschrift, 1903, 1647.
    ${ }^{3}$ Dio Cass. li. 19.
    ${ }^{4}$ Dio Cass. liv. 8 ; Schol. Veron. Aen. vii. 606.
    \#Eckhel, vi. 101; Cohen, Aug. 82.
    ${ }^{6}$ Jahrl. des Inst. 1889, 151-162; Antike Denkmäler, 1. 14-15, 27-28; Mitt. 1889, 243-244.

[^183]:    ${ }^{1}$ Eckhel, vi. 106 ; Cohen, Aug. 544. ${ }^{2}$ CIL. vi. 873. ${ }^{3}$ Tac. Ann. ii. 41. ${ }^{4}$ NS. 1900, 632; BC. 1902, 26-27; 1903, 163; CR. 1901, 329; Mitt. 1902, 12.

[^184]:    ${ }^{1}$ CIL. ví. 906; Jordan, I. 2. 211-213.
    ${ }^{3}$ CR. 1899, 233; Mitt. 1902, 21-22.
    ${ }^{2}$ CILL. vi. 1033.
    ${ }^{4}$ CIL. vi. 1158.

[^185]:    ${ }^{1}$ Cic. de Off. ii. 87 ; Phil. vi. 15 ; vii. 16 ; Hor. Sat. ii. 3. 18, and Porphyrion's note; CIL. vi. 5845, 10027.

    』CIL. vi. $12816 . \quad{ }^{8}$ Epist. i. 1. 54.
    ${ }^{4}$ Cf. Jordan, I. 2. 214-218; Richter, Top. ${ }^{2}$ 106-107.

[^186]:    ${ }^{1}$ Hor. Epist. i. 20. 1; cf. Cic. Verr. i. 154 and Asconius' note; Varro, LI. v. 46 ; Prop. iv. 2.5; cf. Berl. Phil. Wochenschrift, 1903, 1117.
    ${ }^{2}$ For a third but erroneous view, according to which summus, medius, and imus refer to points on a street, the vicus Ianus, which ran along the north side of the Forum, see Bentley, Hor. Epist. i. 1. 54, and Lanciani, BC. 1890, 100; Ruins, 253-254.

    3 Pl. NH. xix. 23, 24.

[^187]:    ${ }^{1}$ Pl. NH. xxxiv. 30.
    ${ }^{2}$ Mitt. 1902, 59-60.
    ${ }^{8}$ CIL. vi. 1200.
    ${ }^{4}$ Jordan, I. 2. 246 ; Mitt. 1891, 88-90; 1902, 58-59.

[^188]:    ${ }^{1}$ Stat. Silv. i. 1. 29; cf., however, the very recent discovery of another foundation, $B C .1903,273$.
    ${ }^{2}$ CIL. vi. $1158 . \quad{ }^{8}$ EEE. iv. 849. ${ }^{4}$ Mitt. 1895, 52-58; CIL. vi. 1187.

[^189]:    ${ }^{1}$ Mon. d. Ist. ix. 47, 48.

[^190]:    ${ }^{1}$ See the latest literature: Petersen, Die Reliefschranken auf dem römischen Forum, Abhandl. A. v. Oettingen . . . gewidmet, 1898, 130-143; BC. 1900, 145-146; Mitt. 1897, 326-327; 1902, 21; AJ A. 1901, 58-82.
    ${ }^{2}$ BC. 1902, 27-28; 1903, 101, 271-272; CR. 1902, 94 ; 1903, 328; Mitt. 1902, 57. Only four of these cuniculi are shown in Fig. 25.

[^191]:    1 Mitt. 1902, 29, 44, 57-58; CR. 1901, 86, 137-138; BC. 1900, 60-61, 279-280; 1903, 96, 99.

[^192]:    ${ }^{1}$ Curc. $476 .{ }^{2}$ NS. 1899, $49 ;$ BC. 1899, 248-250; 1903, 162; Mitt. 1902, 9.

[^193]:    ${ }^{1}$ Mitt. 1902, 9 ; $C R$. 1899, 234, 464 ; $B C .1903,162-163$.
    2 NS. 1899, 266; BC. 1902, 34.
    ${ }^{3}$ Procop. Bell. Goth. i. 25 ; Pl. NH. xxxiv. 22; Jordan, I. 2. 259, 349; II. 482.

[^194]:    ${ }^{1}$ Cic. pro Rosc. Am. 89 ; Fest. 290 ; Sen. de Prov. 3. 7.

    - Gilbert, III. 334-338.
    - Varro, LL. v. 148-150; Liv. i. 13 ; vii. 6; Dionys. ii. 42.
    ${ }^{4}$ Suet. Aug. 57.
    ${ }^{5}$ Ov. Fast. vi. 401-405.
    ${ }^{6} \mathrm{Pl}$. NH. xv. 78.

[^195]:    ${ }^{1}$ Schol. Pers. iv. 49 ; Cic. pro Sest. 18 ; Hor. Epist. i. 19. 8, and Porphyrion's note.
    ${ }^{2}$ Fest. 333 ; Jordan, I. 2.403 ; Gilbert, III. 159.
    ${ }^{3}$ Babelon, Monnaies, Aemilia, 11, Scribon. 8.
    ${ }^{4}$ Liv. xxvii. 50; Jordan, I. 2. 402.
    ${ }^{5}$ Hor. Sat. i. 6. 120, and Schol. ; Pl. NH. xxi. 9; Jordan, I. 2. 265266.
    ${ }^{6}$ Serv. ad Aen. iii. 20.
    7 Babelon, Monnaies, Marcia, 42.
    ${ }^{8}$ Arch. Anz. 1891, 14-15; Mitt. 1892, 287-288.

[^196]:    ${ }^{1}$ Pro Sest. 34 ; in Pis. 11 ; de Domo, 54.
    ${ }^{1}$ Pro Cluent. 93 ; pro Flacc. 66 ; Jordan, I. 2.405.

    - Cf. AJ A. 1900, 303-309.
    ${ }^{4}$ Liv. i. 26 ; Dionys. iii. 22; Schol. Bob. Cic. pro Mil. p. 277; Gilbert, II. 67-70; Jordan, I. 2. 394.

[^197]:    ${ }^{1}$ Liv. xxvi. 27 ; xl. 51 ; Varro, LL. v. 145-147; Fest. 125; Jordan, I. 2. 433-435.
    ${ }^{2}$ Dio Cass. Iv. 8; GIL. vi. 1178; Not. Reg.v; Gilbert, III. 238.

[^198]:    ${ }^{1}$ Gilbert, III. 228-229.
    ${ }^{2}$ Hermes, 1888, 631-633; BC. 1889, 362-363 ; Mitt. 1889, 240-241; Gilbert, III. 162-163; Liv. xliii. 16; xlv. 15 ; Cic. ad Att. iv. 16 ; pro Mil. 59 ; Fest. 241 ; Suet. Aug. 29; Galba, 20.

    - Nic. Damasc. Caes. 22; Mon. Anc. iv. 12.
    ${ }^{4}$ Pl. NH. xxxvi. 103; Suet. Caes. 26.

[^199]:    1 Jordan, I. 2. 436-441; Gilbert, III. 225-227.
    ${ }_{2}$ Dio Cass. xliii. 22; Pl. NH. vii. 126; ix. 116 ; xxxv. 10 6 ; xxxvii. 11.
    ${ }^{3}$ iii. 2. 2. ${ }^{4}$ Suet. Caes. 61; Ber. d. \%. süchs. Gesell. 1891, 99-112.
    ${ }^{5}$ Pl. NH. xxxvi. 33. ${ }^{6}$ App. Bell. Civ. ii. 102. ${ }^{7}$ Chronogr. a. 354, p. 148.
    ${ }^{8}$ Suet. Aug. 29; Ov. F'ast. v. 566-598; Jordan, I. 2. 442-447; Gilbert, III. 229-231.

[^200]:    ${ }^{1}$ Mem. d. Lincei, xiii. 1884, 400-415 ; Mitt. 1891, 94-98.
    ${ }^{-}$Suet. Aug. 56 ; Mon. Anc. iv. 21.

[^201]:    ${ }^{1}$ Macrob. Sat. ii. 4. 9; Dio Cass. lvi. 27.

[^202]:    1 Suet. Aug. 31; Pl. NH. xxii. 13; Dio Cass. lv. 10.
    ${ }^{2}$ BC. 1889, 26-34, 73-79, 481-482; 1890, 251-259; Mitt. 1889, 247-249; 1891, 99-101 ; CIL. i². pp. 186-202.
    ${ }^{3}$ Mem. d. Lincei, xiii. 1884, 405-411.
    ${ }^{4}$ Spart. Vit. Hadr. 19.
    ${ }^{5}$ Suet. Claud. 33 ; Dio Cass. Ixviii. 10.
    ${ }^{6}$ Dio Cass. lv. 10.
    7 Mon. Anc. v. 42.
    ${ }^{8}$ Tac. Ann. iii. 16; iv. 15 ; xiii. 8.
    ${ }^{9}$ Pl. NH. vii. 183 ; xxxv. 93.

[^203]:    ${ }^{1}$ Tac. Ann. ii. 64. $\quad 2$ Mon. Anc. vi. 26.
    ${ }^{3}$ Suet. Vesp. 9; Dio Cass. Ixvi. 15; cf. Statius, Silv. iv. 3. 17.
    ${ }^{4}$ Aur. Vict. Caes. 9 ; Amm. Marc. xvi. 10. 14 ; Gilbert, III. 135; Jordan, I. 3. 2-5.

    5 Polem. Silv. $545 . \quad{ }^{6}$ Gilbert, III. 186-187; Jordan, I. 3. 4-7.

[^204]:    ${ }^{1}$ Jos. Bell. Jud. vii. ๖̆. 7; Pl. NH. xxxiv. 84 ; xxxv. 102, 109.
    ${ }^{2}$ Gell. v. 21. 9 ; xvi. 8. 2.
    ${ }^{3} \mathrm{Pl}$. NH. xxxvi. 102.
    5 Bell. Goth. iv. 21.
    ${ }^{4}$ Dio Cass. Ixxii. 24.
    ${ }^{6}$ BC. 1876, 52-ธ̃3.
    ${ }^{7}$ Suet. Dom. 5 ; Stat. Silv. iv. 3. 9; Mart. x. 51. 12; Jordan, I. 2. 449-453; Gilbert, III. 232-234.

    | 8 CILL. vi. 953. | 10 Vict. Caes. 12. |
    | :--- | :--- |
    | ${ }^{9}$ Lamprid. Vit. Alex. 28, 36. | 11 Mart. i. 2. 8. |

[^205]:    ${ }_{1}$ Mem. d. Lincei, xi. 1883, 22-26; Mélanges, 1889, 346-355; Mitt. 1891, 101103.
    ${ }^{2}$ Suet. Dom. 15 ; Dio Cass. 1 xvii. 1.
    ${ }^{3}$ Jordan, FUR. 116.

[^206]:    ${ }^{1}$ Ann. d. Ist. 1877, 5-36; Mon. Ined. x. pl. 40, 41, 41a ; Mitt. 1889, 88, 249.
    ${ }^{-}$Serv. ad Aen. vii. 607; Mart. x. 28. 3; Mem. d. Lincei, xi. 1883, 26-32.
    ${ }^{3}$ Lamprid. Vit. Alex. 28.
    ${ }^{4}$ Vict. Caes. 13 ; Dio Cass. lxix. 4 ; Jordan, I. 2. 453-467; Gilbert, III. 234237 ; Richter e Grifi, Ristauro del Foro Traiano, Rome, 1839.
    ${ }^{5}$ CIL. vi. 960 ; cf. Dio Cass. Ixviii. 16.

[^207]:    ${ }^{1}$ BC. 1892, 107-108; Mitt. 1893, $287 . \quad 2$ Jordan, FUR. 25.
    ${ }^{3}$ This is the length according to Lanciani's measurements, as he traces the course of the murus marmoreus, or east wall of the forum, 25 metres farther from the form Augustum than other topographers do.
    ${ }^{4}$ Cohen, Trajan, 95.

[^208]:    ${ }^{1}$ Gell. xiii. 25.1.
    ${ }^{2}$ Jordan, FUR. 25, 26 ; Cohen, Trajan, 42-44; Lesueur, La Basilica ulpiemne, restauration executée en 1823, Paris, 1878.

[^209]:    ${ }^{1}$ Fröhner, La Colonne Trajane, Paris, 1874 ; Percier, Restauration des monuments antiques, pt. ii. 1878; Cichorius, Die Reliefs der Trajans-Säule. 2 parts, Berlin, 1896.

[^210]:    ${ }^{1}$ Eutr. viii. 5 ; Dio Cass. 1xix. 2; Aur. Vict. Epit. 13.

    - Bull. d. Ist. 1833, 92; 1836, 39-41.

[^211]:    ${ }^{1}$ Vop. Vit. Probi, 2; Vit. Aur. 24; Gell. xi. 17.
    ${ }^{2}$ Sid. Apollin. ix. 16.
    ${ }^{8}$ Vop. Vit. Aur. 1 ; Vit. Tac. 8; Vit. Numer. 11.
    4 Vop, Vit. Probi, 2.
    ${ }^{5}$ Spart. Vit. Hadr. 19; CIL. vi, 966, 31215.
    ${ }^{6}$ Bull. d. Ist. 1869, 237 ; NS. 1886, 158 ff.

[^212]:    ${ }^{1}$ CIL. vi. passim ; Jordan, I. 2. 465.
    ${ }^{2}$ Cf. Cerasoli, La Colonna Traiana e le sue Adiacenze nei secoli wvi e xvii, BC. 1901, 300-308.

[^213]:    1 Jordan, I. 2. 3-5̆; Gilbert, I. 244-247; II. 310-322.
    ${ }^{2}$ BC. 1873, 138-146; 1887, 275.

[^214]:    ${ }^{1}$ Gilbert, II. 448-456.
    ${ }^{2}$ Varro, LL. v. 41; Liv. i. 55.
    ${ }^{8}$ Liv. v. 39; Cic. Catil. iv. 16.
    ${ }^{5}$ Liv i. 8; Jordan, I. 2. 115-118; Gilbert, I. 331; II. 433-434.

[^215]:    1 Liv. v. 41. ${ }^{2}$ Tac. Hist. iii. 71. ${ }^{3}$ Ann. d. Ist. 1871, 49-51.
    ${ }^{4}$ Bull. d. Ist. 1882, 227-230; BC. 1887, 275; 1892, 145-146; NS. 1889, 361; 1890, 215; 1892, 200; Mitt. 1889, 254-255; 1891, 104; 1893, 287.

    ■Liv. xli. 27; Pl. NH. xix. 23 ; Tac. Hist. iii. 71 ; Jordan, I. 2. 62, 78, 120121; Gilbert, I. 313-315; II. 311-317, 445-448; Hermes, 1883, 104-128, 616-619; 1884, 322-324.

    6 Liv. xxxvii. 3.
    ${ }^{7}$ Oros. v. 9.

[^216]:    ${ }^{1}$ Hülsen, Zur Topographie des Kapitols, Festschrift für H. Kiepert, Berlin, 1898, 220-222; Richter, Capitolium und Clivus Capitolinus, Berlin, 1903.
    ${ }^{2}$ Fest. 344; Gilbert, II. 316.
    ${ }^{4}$ Dio Cass. 1viii. 5; Hermes, 1883, 125-126.
    ${ }^{6}$ Gilbert, I. 327 ; III. 164; Jordan, I. 2. 324-325, and classical literature there cited.

[^217]:    1 Gilbert, I. 267-270, 320-328. Jordan, I. 2. 112-113.
    ${ }^{3}$ Dio Cass. xxxvii. 28.
    ${ }^{4}$ Macrob. Sat. i. 16. 15 ; Serv. ad Aen. viii. 1; Fest. Epit. 103.
    5 Fest. Epit. 18; Varro, LL. vii. 8; Cic. de O.t才. iii. 66 ; Vitr. ii. 1. 6 ; Jordan, I. 2. 104-106; Gilbert, II. 454-455; 1II. 401.
    ${ }^{6}$ Liv. vi. 20 ; vii. 28 ; Ov. Fast. i. 638 ; vi. $183-186$; Solin. i. 21 ; Jordan, I. 2. 108-111; Gilbert, I. 333-334.

[^218]:    ${ }^{1}$ Liv. xxii. 33; xxiii. 21; CIL. i². p. 309.
    ${ }^{2}$ Cic. pro Sest. 116 ; Vitr. iii. 2.5 ; vii. praef. 17 ; Val. Max. i. 7. 5; Fest. 344 ; Jordan, I. 2.44 ; Gilbert, III. 99.

    - Ann. d. Ist. 1876, 145-172; Mon. Ined. x. pl. xxx a; BC. 1875, 165-189; Mitt. 1888, 150-155; 1889, 249-252; Mélanges, 1889, 120-133; Hermes, 1884, 322-324; Richter, Top. ${ }^{2}$ 121-126; Capitolium und Clivus Capitolinus, Berlin, 1903; Jordan, I. 2. 8-101; Gilbert, II. 416-423, 434-448; III. 382-398.
    ${ }^{4}$ Liv. vi. 4; Pl. NH. xxxvi. 104.
    ${ }^{1}$ Cic. de Rep. ii. 36 ; Liv. i, 38 ; Tac. Hist. iii. 72 ; Dionys. iii. 69 ; iv. 59.
    -Liv. ii. 8. 61.
    7 iii. 2. 5.
    8 iv. 61.

[^219]:    1 Hermes, 1887, 17-28; 1888, 477-479; Richter, Top. ${ }^{2}$ 122-123; CR. 1902, 335-336.

[^220]:    ${ }^{1}$ Liv. i. 55 ; Fest. 162 ; Dionys. iii. 69.
    ${ }^{4}$ Pl. NH. xxxv. 157.
    ${ }^{3}$ Liv. vii. 3.
    ${ }^{4}$ Pl. NH. xxviii. 16.

[^221]:    ${ }^{5}$ Liv. x]. 51.
    6 P1. NH. xxxiii. 57; xxxvi. 185.
    ${ }^{7}$ Liv. xl. 51.
    ${ }^{8}$ Cic. Cat. iii. 9; Tac. Hist. iii. 72.

[^222]:    ${ }^{1}$ Cic. Verr. iv. 69.
    ${ }^{2}$ Pl. NH. xxxvi. 45.
    ${ }^{8}$ Cohen, Méd. Cons. pl. xxx ; Pet. 1. 2. For a list of coins representing this temple at different periods, see Arch. Zeit. 1872, 1-8; Jordan, I. 2. 88-90.
    ${ }^{4}$ Dionys. iv. 61 ; Val. Max. iv. 4. 11.
    5 Mon. Anc. iv. 9.
    ${ }^{6}$ Tac. Hist. iii. 71; iv. 53.
    ${ }^{7}$ Cohen, Vesp. 409 ; Tit. 270, $271 . \quad{ }^{8}$ Dio Cass. lxvi. 24 ; Suet. Dom. 8.
    ${ }^{9}$ Mon. d. Tst. v. 36 ; Cohen, Dom. 1, 69, 71.

[^223]:    ${ }^{1}$ Zos. v. 38. For further references in classical literature, see Kiepert and Hülsen, Nomenclator, p. 82.
    ${ }^{2}$ Liv. xxv. 3; Tac. Hist. iii. 71; Jordan, I. 2. 37-40; Gilbert, II. 423-425; III. 388, 399; Hermes, 1883, 115-118.
    ${ }^{3}$ Gell. ii. 10 ; Fest. 88; Gilbert, II. 419.
    ${ }^{4}$ CILL. iii. p. 845,22 ; p. 1963, 16.
    ${ }^{\text {oै V Varro, LL. vi. } 27 \text {; Macrob. Sat. i. 15. 9; Fest. } 49 \text {; Gilbert, II. 451-452. }}$

[^224]:    1 Vitr. ii. 1. 5 ; Seneca, Controv. ii. 1. 4.
    ${ }^{2}$ Liv. j. 21 ; Dionys. ii. 75 ; Cic. de O.ff. iii. 104 ; de Nat. Deor. ii. 61 ; CIL. iii. Suppl. p. 2034.
    ${ }^{3}$ Liv. i. 10 ; iv. 20 ; Dionys. ii. 34 ; Nepos, Att. 20 ; Mon. Anc. iv. 5 ; Fest. 92.
    ${ }^{4}$ Tac. Hist. iii. 74 ; Suet. Dom. 5.
    ${ }^{5}$ Hülsen, Zur Topographie des Kapitols, 209-220 ; Mitt. 1892, 290-291.

    - Liv. xxii. 10; xxiii. 30, 31 ; Cic. de Nat. Deor. ii. 61 ; Suet. Cal. 7.
    ${ }^{7}$ Liv. xxxix. 22; Pl. NH. xi. 174 ; CIL. vi. p. 507; Cic. Phil. ii. 93; EE. iii. 64-73; CIL. i2. p. 327; Gilbert, I. 248; III. 399.
    ${ }^{8}$ Dio Cass. liv. 8 ; Mon. Anc. iv. 5 ; Cohen. Aug. 189-205.

[^225]:    ${ }^{1}$ Mon. Anc. iv. 5 ; Suet. Aug. 29, 91; Pl. NH. xxxiv. 78, 79; xxxvi. 50; Jordan, I. 2. 47-49; Gilbert, III. 399.

    2 Jordan, I. 2. 38-39.
    ${ }^{1}$ Liv. ix. 44 ; Pl. NH. xi. 251.
    ${ }^{4}$ Gilbert, III. 102, 387-388.
    ̄ Dio Cass. xxxvii. 9; Cic. Cat. iii. 20.
    ${ }^{6}$ Gilbert, III. 386.
    ${ }^{7}$ Pl. NH. xxxiii. 9-10; xxxiv. 22-23; Gilbert, I. 24-25 ; Jordan, I. 2. 56-58.
    ${ }^{8}$ Cic. Cat. iii. 19.
    ${ }^{9}$ Serv. ad Aen. ii. 319.
    ${ }^{10}$ Plut. Caes. 6 ; Suet. Caes. 11 ; Jordan, I. 2. 44-45.
    11 Gilbert, III. 384-387; Mitt. 1889, 252-253. 12 Suet. Cal. 34.

[^226]:    ${ }^{1}$ Cf. BC. 1896, 187-190; Jordan, I. 2. 52-56.
    ${ }^{2}$ Suet. Vesp. 8.
    ${ }^{3}$ BC. 1896, 116-120; Hülsen, Zur Topographie des Kapitols, 215-219.
    ${ }^{4}$ Gell. v. 12 ; Ov. Fast. iii. 429-430, 437-438; Vitr. iv. 8.4 ; Pl. NH. xvi. 215 ; Jordan, I. 2. 116; Gilbert, III. 83-84, 401.
    ${ }_{5}$ Tac. Ann. xili. 14; xv. 18.

[^227]:    1 Liv. v. 50.
    ${ }^{2}$ Liv. vi. 20.
    ${ }^{5}$ NS. 1888, 497 ; 1889, 68; Mitt. 1889, 255; BC. 1873, 111-122, 143-146; 1888, 331.
    ${ }^{6}$ Ann. d. Ist. 1858, 206-212; 1881, 62-73; Jordan, I. 2. 135-154; Gilbert, III. 165-167.
    ${ }^{7}$ C'IL. vi. 916, 1313-1314.

[^228]:    ${ }^{1}$ For the later history of the Capitoline, see Lanciani, Il Monte Tarpeio nel secolo 2vi, BC. 1901, 245゙-269, and Hülsen, Bilder aus der Geschichte des Kapitols, Rome, 1899.

[^229]:    1 Varro, LL. v. 47 ; Fest. 290 ; Jordan, I. 2. 274-286, 415-416; 3. 14-15; Gilbert, I. 214-220, 236-238, 300-335; Richter, Top. ${ }^{2}$ 369-370.
    ${ }^{2}$ Hor. Od. iv. 2. 35. $\quad{ }^{3}$ See literature cited above. ${ }^{4}$ Mitt. 1895, 162.

[^230]:    ${ }^{1}$ NS. 1899, 265-266; BC. 1902, 34; 1903, 19-23; Arch. Anz. 1900, 9; CR 1899, 322, 467; 1900, 239; 1902, 96, 286; Mitt. 1902, 94-95.

[^231]:    ${ }^{1}$ CR. 1903, 136; BC. 1903, 17-18.
    ${ }^{2}$ Mart. i. 70 ; iv. 78; C'R. 1902, 336; Gilbert, III. 423-424; Richter, Top. ${ }^{2} 160$ n. ${ }^{3}$ Varro, LLL. v. 47 ; Fest. 290 ; Gilbert, I. 225.

[^232]:    ${ }^{1}$ Solin. i. 23 ; Mon. Anc. iv. 7 ; Ov. Fast. vi. 791 ; Obseq. 41; CILL. vi. 4556 ; Jordan, I. 2. 420 ; Gilbert, III. 424.
    ${ }^{2}$ Lanciani, Ruins, 200 ; BC. 1903, 18 ; Jordan, I. 3. 20-23.
    ${ }^{3}$ Cic. de Nat. Deor. iii. 63. $\quad 5$ Mitt. 1895, 25-27.
    ${ }^{4}$ Mart. i. 70. 9-10. $\quad 6$ Mitt. 1902, 96 ; BC. 1903, 27-29.
    ${ }^{7}$ Varro, LL. v. 54 ; Solin. i. 22 ; Liv. xlv. 16; Dionys. i. 68 ; Obseq. 13 ; Mon. Anc. iv. 7; Gilbert, II. 81-84. $\quad 8$ Fest. 154; Gilbert, I. 156; II. 369-370.

[^233]:    ${ }^{1}$ Cic. de Legg. ii. 28.
    ${ }^{2}$ Jordan, I. 2. 416; Gilbert, I. 106-109; EE. iii. 1-4; CIL. i². pp. 189-190.
    ${ }^{3}$ Liv. ii. 7 ; Plut. Popl. 10 ; cf. Dionys. v. 19; Val. Max. i. 1. 1.
    ${ }^{4}$ Cic. de Har. Resp. 16 ; Asc. in Pis. 52; Pl. NH. xxxvi. 112.
    ${ }^{5}$ Cic. de Legg. v. 58 ; Dionys. v. 48 ; Plut. Quaest. Rom. 79.
    ${ }^{6}$ Cic. de Rep. ii. $53 . \quad{ }^{10}$ Pomp. Dig. i. 2. 2. 37.
    7 Solin. i. 22 ; Pl. NH. xxxiv. $13 . \quad 11$ CIL. vi. p. 487.
    ${ }^{8}$ Gilbert, III. 360; Mitt. 1902, 94-95.
    ${ }^{9}$ Fest. 178.
    ${ }^{12}$ Cic. ad Att. iv. 3. 3.
    ${ }^{13}$ Sall. Hist. Frag. ii. 45.

[^234]:    ${ }^{1}$ Ov. Ars Am. ii. 265-266; Amor. i. 8. 100; Prop. ii. 24. 14-15; Richter, Top. ${ }^{2}$ 163-164.
    ${ }^{2}$ CIL. vi. 9207, 9221, 9239, 9418, 9419, 9545-9549.
    ${ }^{3}$ BC. 1882, 228 ; Jordan, I. 2. 288.
    ${ }^{4}$ CR. 1900, 238; BC. 1900, 34; Arch. Anz. 1900, 9; 1902, 51; Mitt. 1902, 95 ; Richter, Top. ${ }^{2} 164$.
    ${ }^{5}$ CIL. vi. 9795, 9283, 9935, 9418-9419.

[^235]:    ${ }^{1}$ Dio Cass. Ixix. 4 ; Chronogr. a. 354, p. 146; Prud. c. Symm. i. 214 ; Jordan, I. 3. 17-20.
    ${ }_{2}$ Aur. Vict. Caes. 40.
    ${ }^{3}$ Spart. Vit. Hadr. 19.

[^236]:    1 Cf. Cohen, Pius, 698-703, 1074-1076; BC. 1903, 19.
    ${ }_{2}$ Treb. Pol. Vit. Tyr. Trig. 32; Dio Cass. lxxi. 31.
    ${ }^{3}$ Mitt. 1895, 248; Matz-Duhn, Antike Bildwerke, 3519.

[^237]:    ${ }^{1}$ Cic. pro Planc. 17 ; in Verr. i. 19 ; de Or. ii. 267 ; Schol. pp. 133, 393, 399, ed. Orelli; Sen. Dial. ii.1.3; CIL. i². p. 198; vi. 1303-1304; Jordan, I. 2. 209; Gilbert, I. 310-312. Triumphal is used in its strict signification of an arch erected on the occasion of a regular triumph. Cf. $A J A .1904,15$.
    ${ }^{2}$ NS. 1882, 222-226.
    ${ }^{3}$ Mitt. 1902, 96.
    ${ }^{4}$ Gilbert, III. 193-194.

[^238]:    ${ }^{1}$ CR. 1902, 286.
    ${ }^{2}$ CIL . vi. 945.

[^239]:    ${ }^{1}$ CIL. vi. 1139; Jordan, I. 3. 25-28.

[^240]:    ${ }^{1}$ Mitt. 1889, 314-339; 1891, 93; BC. 1900, 75-116.

[^241]:    ${ }^{1}$ Serv. in Aen. viii. 641; Gilbert, I. 24-25.
    ${ }^{2}$ Liv. Epit, xvi. ${ }^{3}$ Pl. NH. viii. 15-16. ${ }^{4}$ Pl. NH. xxxvi. 117-130.
    5 Suet. Vesp. 9 ; Tit. 7; Vict. Cues. 9, 7; Dio Cass. lxvi. 25.

[^242]:    ${ }^{1}$ Suet. Nero, 31; Mart. de Spect. 2. 5.

[^243]:    ${ }^{2}$ Chronogr. a. 354, p. 146.

[^244]:    ${ }^{1}$ For plates and description, see Beschreibung der Stadt Rom, iii, 1. 312336; Canina, E'difizi di Roma antica, iv. 164-177; Reber, Die Ruinen Roms, 407-421; Cresy-Taylor, Architectural Antiquities of Rome, London, 1874, 114129; Dreger, Das flavische Amphitheater in seiner ersten Gestalt, Allyemeine Bauzeitung, 1896, 40-60. For restorations, see Knapp in Beschreibung der Stadt Rom, Bilderheft, 2 (the better), and Uggieri, Giornate pittoriche degli Edifizi di Roma, xxiii. (1816) ; Mitt. 1897, 334.

[^245]:    ${ }^{1}$ For the sewerage system of the Colosseum, see Narducci, Sulla Fognatura clella Città di Roma, 65-72.

[^246]:    1 BC. 1894, 312-324.
    ${ }^{3}$ CIL. vi. 352, 10172.
    ${ }^{2}$ CIL. vi. 9470.
    ${ }^{4}$ CIL. vi. 10164 ; Jordan, II. 18.
    ${ }^{5}$ Suet. Nero, 31 ; Pl. NH. xxxiv. 45 ; Mart. de Spect. 2. 1; i. 70. 7; Dio Cass. Ixvi. 15; Jordan, II. 510 ; Gilbert, III. 195.
    ${ }^{6}$ Suet. Vesp. 18.
    7 Spart. Vit. Hadr. 19.

[^247]:    ${ }^{1}$ Lamprid. Vit. Com. 17; Dio Cass. Ixxii. 22.
    ${ }_{2}^{2}$ Not. Reg. iv.
    ${ }^{3}$ Chronogr. a.354, p. 146 ; Sen. Epist. 56. 4 ; Cohen, Titus, 163, 184; Jordan, I. 3. 24-25.
    ${ }^{4}$ Chronogr. a. 354, p. 146 ; Dio Cass. Ixxii. 24 ; BC. 1900, 8-13; 1903, 25-27; CR. 1900, 239. Cf., however, Jordan, I. 3. 7.

[^248]:    1 Chronogr. a. 354, p. 146 ; Vict. Caes. 40. 26; Melanges, xi. 161-167; Mitt. 1892, 289; Jordan, I. 3. 11-14.

[^249]:    ${ }^{1}$ CIL. vi. 1147; Bull. Crist. 1867, 66-69; BC. 1882, 29-54; Jordan, I. 3. 10-11.

[^250]:    ${ }^{1}$ Liv. i. 16; Ov. F'ast. ii. 491; Gilbert, I. 290-291.
    ${ }^{2}$ Fest. 329, 350.
    ${ }^{3}$ Liv. ii. 5; Dionys, v. 13 ; Plut. Popl. 8 ; Schol. Juv. ii. 132 ; Liv. xxxv. 10 ; x1. 45 ; Fest. 189 ; Gilbert, I. 289. There are indications that this ara became afterward an redes. Cf. Liv. vi. 5; Dio Cass. lvi. 24; Ov. Fust. ii. 860.
    ${ }^{4}$ Gilbert, III. 6-7, 67-68.
    ${ }^{5}$ Oros. v. 18.
    ${ }^{6}$ Liv. i. 44 ; Dionys. iv. 22 ; Gell. xv. 27.

[^251]:    ${ }^{1}$ Cic. ad Att. xiii. 33.
    2 Varro, LL. v. 152 ; Pl. NH. xvi. 37 ; Mitt. 1889, 265-267.

    - Varro, RR. iji. 2; Liv. vi. 20.

    4 Varro, l.c. ; Tac. Ann. xv. 40 ; Suet. Claud. 18; Gilbert, III. 378.
    5 Pl. NH. xxxv. 202; CIL. vi. 31545.
    ${ }^{6}$ Fest. Epit. 81 ; Varro, LL. vi. 13 ; Ov. F'ast. ii. 860 ; iii. 519 ; Richter, Top. ${ }^{2}$ 223 ; Gilbert, II. 97.

[^252]:    ${ }^{1}$ Not. Reg. ix; CIL. i². p. 332; vi. 1785; Gilbert, I. 290.
    ${ }^{2}$ Cf. Gilbert, III. 378-379.

    - Cic. pro Rosc. Amer. 132, and Schol.; Jordan, II. 592-593; Hermes, 1867, 76.
    ${ }^{4}$ Liv. xxii. 36.
    ${ }^{5}$ Fest. 329. Cf. Val. Max. ii. 4. 5; Serv. in Aen. viii. 63; Ov. Fast. i. 501; Mart. x, 63, 3.

[^253]:    ${ }^{1}$ Mitt. 1891, 127-129; BC. 1887, 276-277; Mon. d. Lincei, i. 540-5448.
    ${ }^{2}$ NS. 1890, 285; BC. 1896, 191-230; EE. viii. 225-309.
    ${ }^{3}$ Pl. NH. xxxv. 12. ${ }^{4}$ Liv. x. 19; Ov. Fast. vi. 203. ${ }^{5}$ Dio Cass. lxxi. 33. ${ }^{6}$ CIL. vi. 490, 2232-2235; cf. Richter, Top. ${ }^{2}$ 215; Gilbert, III. 75.

[^254]:    ${ }^{1}$ Fest. 347 ; Liv. xxvi. 21, and freq. ; cf. Richter, l.c.
    ${ }^{2}$ Serv. in Aen. ix. 52; Fest. Epit. 33; Ov. Fast. vi. 205-209; Dio Cass. 1.4; lxxi. 33.
    ${ }^{8}$ Liv. iii. 63.
    ${ }^{4}$ Liv. iv. 25, 29.
    ${ }^{5}$ Asc. in Or. in Tog. Cand. 115. ${ }^{8}$ Bull. d. Ist. 1878, 218; BC. 1893, 46-60.
    ${ }^{9}$ Liv. xxxiv. 43 and freq.; Cic. ad Q. Fr. ii. 3.
    ${ }^{10} \mathrm{Pl}$. NH. xxxv. 99; xxxvi. 34.
    ${ }^{11}$ Liv. iv. 22; Gilbert, III. 144-145.

[^255]:    1 Varro, RR. iii. 2; Plut. Sulla, 30; cf. Berl. Phil. Wochenschrift, 1903, 575.
    2 Babelon, Monnaies, Fonteia, 18.
    ${ }^{3}$ Varro, l.c. ${ }^{4}$ Liv. xxx. 21 ; xxxiii. $24 . \quad{ }^{5}$ Liv. xxxiv. 44.
    ${ }^{6}$ Liv. Epit. 88 ; Val. Max. ix. 2. 1.
    7 Liv. xxvi. 22 ; Juv. vi. 529; Serv. ad Ecl. i. 33.
    8 Cic. in Pis. 23 ; Jos. Bell. Iud. vii. 5. 4 ; Gilbert, III. 157-158.
    9 Suet. Dom. 13; Dio Cass. lxviii. 1; Richter, Top. ${ }^{2} 227$; cf. Mart. viii. 6568; Gilbert, III. 190-191.

[^256]:    ${ }^{1}$ xxviii. 11.
    ${ }^{2}$ Pl. NH. xxxvi. 26.

    - BC. 1873, 212-221; Sitz.-Ber. d. Bayr. Akad. 1876, 344 ; Bursian's Jahresbericht, 1873, 787-789.
    ${ }^{4}$ Liv. xxiv. 10 ; Plut. Quaest. Rom. 47 ; CILL. i$. ~ p . ~ 326 ; ~ E E . ~ i . ~ p . ~ 230 ; ~ G i l b e r t, ~$ I. 252; Neue Heidelberger Jahrbücher, 1899, 116-117.
    ${ }^{5}$ i. 7. 1.
    ${ }^{6}$ Ov. Fust. vi. 209; Liv. xxxviii. 35 ; Comm. in hon. Mommsen, 266-267; CIL. i². pp. 319, 324; Gilbert, III. 80-81. $\quad 7$ Jordan, FUR. 33.

[^257]:    ${ }^{1}$ Serv. in Aen. 1. 8; Pl. NH. xxxv. 66; Ov. F'ast. vi. 797-812; Bull. d. Ist. 1869, 3-12; Comm. in hon. Mommsen, 262-266. ${ }^{2}$ Suet. Aug. 29.

    3 Macrob. Sat. i. 12. 16.
    ${ }^{4}$ Rosa, Relazione, 75.
    5 Obseq. 113.
    ${ }^{9}$ Tac. Ann. iii. 71; but cf. Berl. Phil. Wochenschrift, 1903, 1648.
    ${ }^{10}$ Liv. xl. 52 ; Macrob. Sat. i. 10. 10; CIL. i². p. 338; Gilbert, III. 147-148. ${ }^{11}$ Liv. xxxix. 2 ; xl. 52.

    - Vitr. iii. 3. 2.
    ${ }^{7}$ Liv. xl. 40, 44; xlii. 10.
    ${ }^{8}$ Liv. xlii. 3; Val. Max. i. 1. 20.

    CIL. ${ }^{2}$. p.
    12 Obseq. 75.

[^258]:    ${ }^{1}$ Pl. NH. xxxvi. 35, 40, 42, 43 ; Vell. i. 11 ; Macrob. Sat. iii. 4. 2; Ann. d. Ist. 1868, 108-132; Gilbert, III. 86-87.
    ${ }^{\quad}$ Jordan, F'UR. 33. ${ }^{8}$ Priscian, viii. 17; Pl. NH. xxxvi. 26 ; BC. 1887, 302.
    ${ }^{4}$ Cic. pro Clu. 101; Ov. Frast. i. 463-464; Serv. in Aen. xii. 139; Bull. d. Ist. 1871, 136-145; CIL. i². p. 326.

[^259]:    ${ }^{1}$ Pl. NH. vii. $97 . \quad 2$ Chronog. a. 354, p. 146; Cur. Reg. ix.
    3 Berl. Phil. Wocherschrift, 1903, 575.
    4 Obseq. 114; CIL. $\mathrm{i}^{2}$. pp. 335-336.
    5 Cic. pro Mil. 73; pro Cael. 78; Parad. iv. 31; CIL. i². p. 326 ; Gilbert, III. 162-163.

    Vitr. iv. 8. 4.
    ${ }^{7}$ Dio Cass. liii. 27; Pl. NH. xxxvi. 38; Macrob. Sat. iii. 17. 18; Amm. Marc. xvi. 10.14.

[^260]:    ${ }^{1}$ Dio Cass. lxvi. 24.
    ${ }^{2}$ Chronogr. a. 354, p. 146.
    ${ }^{3}$ Oros. vii. 12.
    ${ }^{4}$ Spart. Vit. Hadr. 19.
    ${ }^{5}$ CIL. vi. 896.
    ${ }^{6}$ NS. 1881, 255-276; 1882, 341-347.
    ${ }^{7}$ NS. 1892, 88-90; BC. 1892, 150-159; Arch. Anz. 1893, 1-5; Mitt. 1893, 305-318.
    ${ }^{8}$ Mitt. 1893, 312-315; CTL. xv. 276, 362, 811, 1408, etc.

    - For the recent literature on the Pantheon, see Richter, Top. ${ }^{2}$ 239. Most important are Michaelis, Das Pantheon, etc., Preussische Jahrbücher, 1893, 208-224; Guillaume, Le Pantheon d'Agrippa, Revue des deux mondes, 1892, 562-581; L. Beltrami, Il Pantheon, Milan, 1898.

[^261]:    ${ }^{1}$ NS. 1900, 634; CR. 1902, 96.

[^262]:    1 Dio Cass. xlvii. $15 . \quad 2$ Jos. Antiq. xviii. 3. 4.
    ${ }^{3}$ Dio Cass. lxvi. 24 ; cf. Jos. Bell. Iud. vii. 5. 4.
    ${ }^{4}$ Eutrop. vii. 23.
    ${ }^{5}$ Lamprid. Vit. Alex. Sev. 26.
    ${ }^{6}$ Chronogr. a. 354, p. 148.
    7 Lanciani, L'Iseum et Serapeum della regione IX, BC. 1883, 33-131; 1887, 377 ; Hülsen, Porticus Divorum und Serapeum, Mitt. 1903, 17-57, pl. I, II.

    8 Marucchi, Gli obelischi egiziani di Roma, 2d ed., Rome, 1898.

[^263]:    ${ }^{1}$ BC. 1890, 321-324; Mitt. 1891, 125.
    ${ }^{2}$ Mart. viii. 65 ; Claud. de VI Cons. Honorii, 1.
    ${ }^{3}$ Jul. Cap. Vit. Ant. 8; Vit. Veri, 3; Cur. Reg. ix; BC. 1885, 92-93.

[^264]:    1 Cohen, Antoninus, 618.
    ${ }^{2}$ Mon. Anc. ii. 37-41; Ov. F'ast. i. 709; Dio Cass. liv. 25.
    ${ }^{3}$ Mitt. 1894, 171-228; 1903, 164-176; Ann. d. Ist. 1881, 302-329; Mon. d. Ist. xi. pl. xxxiv-xxxvi ; NS. 1899, 50-51; CR. 1899, 234 ; Petersen, Ara Pacis Augustae, Vienna, 1902.

[^265]:    ${ }^{1}$ BC. 1893, 191.
    ${ }^{2}$ Jordan, FUR. 110.
    ${ }^{3}$ Lanciani, Ruins, 457-458.
    ${ }^{4}$ Berl. Phil. Wochenschrift, 1903, 574-575; Mitt. 1903, 17-57, pl. I, II.
    ${ }^{5}$ Not. Reg. ix ; Gilbert, III. 133.
    6 Eutrop. vii. 23.

[^266]:    ${ }^{1}$ CIL. vi. 10234, lines 8, 23.
    ${ }^{2}$ Liv. Epit. xx; Varro, LL. v. 154 ; Jordan, FUR. 27 ; CTL. vi. 9713.
    8 Val. Max. i. 7. 4.
    ${ }^{4}$ Fest. 351.
    ${ }^{5}$ Cic. ad Att. i. 14 ; pro Sest. 33; Dio Cass. Iv. 2.

[^267]:    ${ }^{1}$ Suet. Aug. 29; Dio Cass. li. 23.
    ${ }^{2}$ CIL. vi. 1226-1228; Dio Cass. lix. 10.
    ${ }^{3}$ Dio Cass. lxii. 18.
    ${ }^{4}$ Suet. Nero, 12; Tac. Ann. xiii. 31.
    ${ }^{5}$ Lanciani, Ruins, 369-371.
    ${ }^{6}$ Suet. Caes. 39 ; Dio Cass. liii. 1. ${ }^{7}$ Tac. Ann. xiii. 47.

[^268]:    ${ }^{1}$ Asc. in Pis. 1; Vell. ii. 48 ; Plut. Pomp. 52; Dio Cass. xxxix. 38; Vitr. iii. 3. 2; Gilbert, III. 322-327; Jordan, FUR. 30.
    ${ }^{2}$ Tac. Ann. xiii. 54 ; Dio Cass. lxiii. 6; Pl. NH. xxxiii. 54.
    ${ }^{3} B C .1894,321$; Pl. NH. xxxvi. 115.
    ${ }^{4}$ Amm. Marcell. xvi. 10. 14.
    5 Tertull. de Spect. 10; Gell. x. 1. 6-10.

[^269]:    ${ }^{1}$ Hemerol. Amitern. Aug. 12; CIL. i². p. $324 . \quad$ - Mon. Anc. iv. 9.
    ${ }^{3}$ Tac. Ann. iii. 72 ; vi. 45 ; Suet. Tib. 47 ; Cal. 21 ; Claud. 21 ; Dio Cass. 1x. 6.
    ${ }^{4}$ Dio Cass. Ixvi. 24.

    - CIL, viii. 1439.
    ${ }^{6}$ Vop. Vit. Carin. 19.
    ${ }^{7}$ CIL. vi. 1191; Mitt. 1899, 251-259.

    9 Dio Cass. Ixvi. 24.
    ${ }^{10}$ BC. 1894, 320.
    ${ }_{11}$ Pl. NH. xxxyi. 60.

[^270]:    ${ }^{1}$ Dio Cass. xliii. 49 ; liii. 30; Suet. Aug. 29; Mon. Anc. iv. 22 ; Jordan, FUR. 28; EE. viii. 233, 284-285.
    ${ }^{2}$ NH. viii. 65. ${ }^{4}$ Lamprid. Vit. Alex. Sev. 44.
    ${ }^{3}$ Suet. Vesp, 19.
    5 NS. 1886, 159.
    ${ }^{6}$ BC. 1901, 52-60 (Le vicende del teatro. Il teatro nei libri di topografia).

[^271]:    1 Suet. Dom. 5.
    ${ }_{2}$ Dio Cass. lxix. 4 ; Amm. Marcell. xvi. 10. 14.
    3 Vict. Caes. 14 ; Jul. Cap. Vit. Pertin. 11 ; Vit. Gord. 3; Lamprid. Vit. Alex. Sev. 35; Sid. Apoll. ix. 14.
    ${ }^{4}$ Richter, Top. ${ }^{2} 249$.

[^272]:    ${ }^{1}$ Arn. d. Ist. 1883, 5-22. $\quad{ }^{2}$ Ruins, $448 .{ }^{3}$ Fest. 178; Pl. NH. xxxiv. 13.
    ${ }^{4}$ Mon. Anc. iv. 3; Dio Cass. xlix. 43 ; Appian. Illyr. 28.
    ${ }^{5}$ Vell. i. 11; ii. $1 . \quad{ }^{6}$ Vitr. iii. 2. $5 . \quad{ }^{7}$ Suet. Aug. 29.

[^273]:    ${ }^{1}$ Dio Cass. 1xvi. 24.
    ${ }^{2}$ CIL. vi. 1034 ; Jordan, FUUR. 33.
    ${ }^{3}$ Plut. Marc. 30 ; Suet. de Gram. 21; CIL. vi. 2347-2349, 4431-4433, 4435.
    ${ }^{4}$ Pl. NH. xxxvi. 28 ; Dio Cass. lv. 8.
    ${ }^{5}$ Pl. NH. xxxv. 114; xxxvi. 22, 29.

[^274]:    ${ }^{1}$ Bull. d. Ist. 1878, 209-219; BC. 1887, 332; 1890, 66-67; Mitt. 1889, 264-265.
    ${ }^{2}$ Vell. ii. $8 . \quad 3$ Not. Reg. ix; Chronogr. a. 354, p. 146.
    ${ }^{4}$ Phil. 1870, 63-67; Hirschfeld, Römische Verwaltungsgeschichte, i. 134, 166; Gilbert, III. 144, 286; $B C$. 1901, 182-183.

[^275]:    ${ }^{1}$ CIL. v. 7783 ; vi. 1532 ; Mommsen, Staatsrecht, ii ${ }^{3}$. 1053-1054.
    ${ }^{2}$ Cic. de F'ato iv. 8 ; Ov. Ars Am. iii. 387; Catull. lv. 6 ; Gilbert, III. 325-326.
    3 Vitr. v. 9. 1.
    ${ }^{4}$ CIL. vi. 1191, 1676.
    ${ }^{5}$ Chronogr. a. 354, p. 146 ; CIL. vi. 255, 256; Ann. d. Ist. 1883, 11-12.
    ${ }^{6}$ Mart. ii. 14. 10; Pl. NH. xxxy. 114.
    ${ }^{7}$ Cic. de Div. ii. 9. 23 ; Asc. in Mil. 67 ; Gell. xiv. 7, and often.
    8 Suet. Caes. 88 ; Aug. 31.

[^276]:    ${ }^{1}$ Serv. in Aen. viii. 721 ; Pl. NH. xxxvi. 41 ; Suet. Nero, 46.
    ${ }^{2}$ BC. 1892, 146-148; NS. 1892, 348.
    ${ }^{3}$ Mart. ii. 14. 9; iii. 19. 1; Gilbert, III. 327; Jordan, FUR. 31.
    ${ }^{4}$ NS. 1884, 103-104; BC. 1893, 122, 189-193.
    ${ }^{5}$ Not. Reg. ix ; Jordan, II. 534; Gilbert, III. 329.
    ${ }^{6}$ NS. 1891, 336; 1892, 265; Mitt. 1892, 321 ; 1893, 318.

[^277]:    ${ }^{1}$ Pl. NH. xxxv. 66, 144; Ov. Ars Am. iii. 168.
    ${ }^{2}$ Ann. d. Ist. 1869, 3-12; BC. 1890, 67 ; Mon.d. Lincei, i. 506 ; Jordan, FUR. 33.
    ${ }^{3}$ BC. 1878, 10-27; 1883, 14-16. $\quad{ }^{4}$ Mart. ii. 14. 6; iii. 20. 11; xi. 1. 12.
    ${ }^{5}$ Amm. Marcell. xxix. 6. 19; BC. 1878, 212-213; 1891, 224-227; Archivio della $R$. Società romana di storia patria, ix. 471.

[^278]:    ${ }^{1}$ Mart. ii. 14. 3, 5, 15 ; iii. 20. 12; vii. 32. 11; xi. 1. 11. Not. Reg. ix.
    ${ }^{11}$ CIL. vi. 1184 ; BC. 1890, 67-68; Ann. d. Ist. 1883, 7, 20 ff.
    ${ }^{4}$ Mart. iii. 5.5 ; viii. 75. 2; Seneca, de Morte Claudii, 13; Jordan, II. 378; Gilbert, III. 378.

[^279]:    ${ }^{1}$ Dio Cass. liii. 27 ; Spart. Vit. Hadr. 19; BC. 1878, 10-27.
    2 NS. 1879, 68, 267, 314; 1880, 228; 1883, 81.
    ${ }^{3}$ Jahrb. d. Inst. 1900, 1-42.

[^280]:    ${ }^{1}$ Not. Reg. ix ; Pol. Silv. 545 ; BC. 1883, 5-16; Mitt. 1899, 141-153; Gilbert, III. 127.
    ${ }^{2}$ Suet. Claud. $11 . \quad{ }^{3}$ CIL. vi. 1184; Jordan, II. 413.
    ${ }^{4}$ CILL. vi. 1196 ; Jordan, II. 413; Richter, Top. 257.

[^281]:    ${ }^{1}$ Mitt. 1889, 41-48.
    ${ }^{8}$ CIL. vi. 1004.
    ${ }^{2}$ Cohen, Ant. Pius, 353.
    ${ }^{4}$ Mitt. 1889, 48-64.

[^282]:    1 CIL. vi. 1585; Vict. Caes. 16; Epit. 16; Not. Reg. ix; Petersen, von Domaszewski, Calderini, Die Marcussäule auf Piazza Colonna in Rom, Munich, 1896.

[^283]:    ${ }^{1}$ CIL. vi. 1585 a, b.
    ${ }^{2}$ Amm. Marcell. xvii. 4. 12-23; Jordan, II. 181-184; Marucchi, Gli obelischi egiziani di Roma, 2d ed., Rome, 1898.
    ${ }^{3}$ CILL. vi. 701-702.
    4 P1. NH. xxxvi. 72.

[^284]:    ${ }^{1}$ Richter, Top. ${ }^{2}$ 249-250; Gilbert, III. 305-307.
    ${ }^{2}$ Strabo, v. 3. 8(236) ; Suet. Aug. 100; Jordan, II. 435-436.
    ${ }^{3}$ Tac. Ann. iii. 9; xvi. 6.
    ${ }^{4}$ BC. 1882, 152-154; 1885, 89 ; 1895, 301-308.
    ${ }^{5}$ Suet. Aug. $101 . \quad{ }^{6}$ Amm. Marcell. xvii. 4. 16.

[^285]:    ${ }^{1}$ Cf. Richter, Top. ${ }^{2} 250-251$, and Hirschfeld, Die Kaiserlichen Grabstätten in Rom., Abhandlungen der kaiserl. Akad. zu Berlin, 1886, 1149 ff., for classical references. Inscriptions, CIL. vi. 884-895.

    - BC. 1895, 301-308.
    ${ }^{3}$ Cic. ad Att. iv. 16. $14 . \quad{ }^{5}$ Dio Cass. lxvi. 24 ; Spart. Vit. Hadr. 19.
    ${ }^{4}$ Dio Cass. liii. 23. $\quad 6$ Suet. C'al. 18; Claud. 21.

[^286]:    ${ }^{1}$ Dio Cass. lv. 8 ; lix. 7; Pl. NH. xxxvi. 102 ; xvi. 201.

[^287]:    1 Dio Cass. Ixvi. 24; Suet. Claud. 18.
    ${ }^{2}$ BC. 1893, 119-141.
    3 Dio Cass. liii. 27 ; liv. 29.
    4 Pl. NH. xxxiv. 62 ; xxxv. 26 ; xxxvi. 189.
    5 Dio Cass. lxvi. 24 ; Mart. iii. 20. 15.
    ${ }^{5}$ Spart. Vit. Hadr. 19.
    7 CIL. vi. 1165.
    ${ }^{8}$ NS. 1881, 276-281; 1882, 347-359; BC. 1900, 3-19.

[^288]:    ${ }^{1}$ Tac. Ann. xv. 37 ; Ov. ex Pont. i. 8. 37-38; Strabo, xiii. p. 590 ; Sen. Epist. 83. 5; NS. 1881, 281-282; Gilbert, III. 293-294.

    2 Suet. Nero, 12.
    ${ }^{3}$ Stat. Silv. i. 5. 62; Mart. vii. 34. 5.
    4 Lamprid. Vit. Alex. 25; Chronogr. a. 354, p. 147; Cassiodor. Var. 194; Gilbert, III. 298.
    ${ }^{5}$ NS. 1881, 270-273; 1882, 412-413; 1883, 81, 130; 1892, 265.

[^289]:    ${ }^{1}$ Dio Cass. 1xiii. 23 ; Appian, Bell. Civ. ii. 102; Suet. Caes. 39; Gilbert, III. 334.
    ${ }^{2}$ Dio Cass. lxv. 17 ; Suet. Caes. 44.
    ${ }^{3}$ Cf. Suet. Cal. 55 ; Tac. Hist. ii. 94 ; Dio Cass. lix. 14.
    ${ }^{4}$ BC. 1886, 343; 1887, 10, 263-264; 1900, 333-334; CIL. vi. 10058; xv. 7254; Gilbert, III. 321 ; Mon. d. Lincei, i. 545.
    ${ }^{5}$ Varro, LL. v. 146.

[^290]:    ${ }^{1}$ BC. 1875, 173.
    थ NS. 1879, 314.
    ${ }^{3}$ CIL. i. ${ }^{2}$ pp. 325, 337 ; Tac. Ann. ii. 49 ; Fest. 285 ; Gilbert, I. $260-265$; III. 380.
    ${ }^{4}$ Cic. de Legg. ii. 11; de Nat. Deor. ii. 23; Tac. Ann. ii. 49.
    ${ }^{5}$ Liv. xxiv. 47 ; xxv. $7 . \quad{ }^{6}$ Dio Cass. 1. 10; Tac. l.c.
    ${ }^{7}$ Liv. xxxii. 30; xxxiv. 53.
    ${ }^{8}$ Cic. de Div. i. 4, 99; Gilbert, III. 82, 430.
    ${ }^{9}$ Liv. xl. 34; Fest. 209 ; Pl. NH. vii. 121; Val. Max. ii. 5. 1 (v. 4. 7).
    ${ }^{10}$ Dio Cass. xliii. 49.

[^291]:    ${ }^{1}$ Cf. Lanciani, Ruins, 513-514.

[^292]:    1 Varro, LL. v. 43 ; vi. 24 ; CIL. vi. 1035.
    ${ }^{2}$ Ov. Fust. vi. 477-478; CIL. vi. 919, 31574.

[^293]:    ${ }^{1}$ Liv. xxiv. 47 ; xxxv. 40.
    』Jordan, I. 1. 194-195; 2. 473-474; Gilbert, I. 69-70; III. 439; Richter, Top. ${ }^{2}$ 181-183.
    ${ }^{8}$ Varro, LL. v. 44 ; Prop. iv. 9.5 ; Tib. ii. 5. 33.
    ${ }^{4}$ Varro, LL, v. 156 ; Ov, F'ast. vi. 405.
    ${ }^{5}$ Plant. Capt. 489 ; Hor. Sat. ii. 3. 229-230; Mart. xi. 52. 10 ; CIL. vi. 467 , 9184, 9259, 9671, 9993.
    ${ }^{6}$ Macrob. Sat. i. 10. 15.
    ${ }^{7}$ Strabo, viii. 6. 23; Dio Cass. xliii. 21; Cic. Verr. iv. 2. 4; Pl. NH. xxxiv. 69 ; xxxvi. 39 ; Jordan, I. 2. 486; Gilbert, III. 106-107.
    ${ }^{8}$ Cic. ad Brut. i. 15. 8; Varro, LL. vi. 24; CIL. $\mathbf{i}^{2}$. p. 338.

[^294]:    1 Varro, LL. vi. $23-24$; Pl. NH. iii. 65; Macrob. Sat. i. 10. 7; CIL. i2. p. 337 ; Gilbert, I. 57-58; Not. Reg. viii.
    ${ }^{2}$ Not. Reg. viii. ; Jordan, I. 2. 472; II. 19; Mitt. 1896, 223.
    ${ }^{3}$ Varro, LLL. v. 157 ; Liv. iv. 16; xxiv. 47 ; xxxviii. 28; Cic. de Domo, 101; Dionys. xii. 4 ; Jordan, I. 1. 62; Gilbert, I. 257-258.
    ${ }^{4}$ Gilbert, I. 74-80.
    ${ }^{5}$ Liv. xxii. 57 ; Pl. NH. xxviii. 12.

[^295]:    ${ }^{1}$ Pl. NH. xxxiv. 10.
    I Varro, LL. v. 157 ; Fest. Epit. 69; Placid. 32; Gilbert, I. 78-79; Bull. d. Ist. 1879, 76-77.
    ${ }^{8}$ BC. 1901, 141-145, 283-284; NS. 1901, 354-355, 422, 481-483.
    ${ }^{4}$ Liv. xxii. 57.
    ${ }^{5}$ Varro, LL. v. 157; Liv. v. 48 ; xxii. 14.

[^296]:    1 Not. Reg. xi. ; NS. 1895, 459; Diss. d. Accad. Pontif. JI. vi. 1896, 261.
    ${ }_{2}$ Not. ib. ${ }^{4}$ BC. 1892, 261-262, 281-283.
    ${ }^{3}$ Not. Reg. viii. ; Jordan, I. 2. $476 . \quad{ }^{5}$ NS. 1885, 527.
    ${ }^{6}$ Liv. i. 7 ; Ov. Fast. i. 581-582; Tac. Ann. xii. 24; xv. 41 ; Serv. in Aen. viii. 269-271; Gilbert, I. 78-82.
    ${ }^{7}$ CIL. vi. 312-319.
    ${ }^{8}$ Tac. Ann. xv. 41 ; Liv. x. 23 ; Pl. NH. xxxiv. 33.

[^297]:    ${ }^{1}$ Fest. 242 ; Pl. NH. xxxv. 19.
    ${ }^{2}$ Mon. d. Ist. 1854, 28-38; Richter, Top. ${ }^{2}$ 188-189; Gilbert, III. 433-434; Jordan, I. 2. 480-483.

    - Vitr. iii. 2. 5; Pl. NH. xxxiv. 57; Gilbert, III. 434; Jordan, I. 3. 148.
    ${ }^{4}$ Liv. x. 23 ; Fest. 242 ; Jordan, I. 2. 483 ; Gilbert, III. 435.
    ${ }^{5}$ Varro, LL. vi. 19 ; Fronto, i. 7, p. 19 (Naber) ; Jordan, I. 2. 485-486; II. 199, 257 ; Gilbert, I. 263.
    " Jordan, I. 2. 484-485 ; Gilbert, II. 390-393; III. 438-439.
    7 Dionys. iv. 27.
    Liv. Xxiv. 47 ; xxy. 7.
    ${ }^{9}$ Pl. NH. viii. 194 ; Wissowa, Analecta Romana Topographica, 1897, p. 5.

[^298]:    ${ }^{1}$ Dio Cass. iv. 27 ; Ov. Fast. 480-481; Liv. v. 19; xxiv. 47 ; xxv. 7.
    2 Liv. xli. 28.
    ${ }^{3}$ Liv. xxxiii. 27.
    ${ }^{4}$ CIL. vi. 878 ; cf. Anonymus Magliabecchianus, p. 57.

[^299]:    ${ }^{1}$ G. B. Giovenale, Annuario dell' Associazione artistica frai cultori di architettura, v. 1895.

[^300]:    1 Ann. d. Ist. 1885, 223-234; BC. 1889, 358; Mitt. 1891, 107; Jordan, I. 3. 146-147. ${ }^{2}$ Jordan, I. 2. 471-472.
    ${ }^{3}$ CIL. vi. 1035.

[^301]:    ${ }^{1}$ Liv. i. 35, 56 ; Dionys. iii. 68; CIL. i. 1166.
    ${ }^{2}$ Liv. i. 33 ; Varro, LL. v. 154; Serv, in Aen. viii. 636.
    ${ }^{8}$ Varro, LLL. vi. 20 ; Tac. Ann. xii. 24 ; Dionys. ii. 31 ; Tertull. de Spect. 5 .

[^302]:    1 Gilbert, II. 454-456; III. 313-319; Jordan, I. 3. 120-144; Pauly, Real-Encyclopädie, 2572-2581.

    2 Liv. viii. 20.
    ${ }^{3}$ Liv. xxxiii. 27 ; xxxix. 7; xl. 2.
    ${ }^{4}$ Suet. Caes. 39 ; Dionys. iii. 68.
    ${ }^{5}$ Mon. Anc. iv. 4.
    ${ }^{6} \mathrm{Pl}$. NH. xxxvi. 71.
    7 Tac. Ann. vi. 51 ; Suet. Claud. 21.

[^303]:    ${ }^{1}$ Tac. Ann. xv. 38.
    ${ }^{2}$ Suet. Dom. 5.
    ${ }^{3}$ Pl. Paneg. 51; Dio Cass. Ixviii. 7.
    ${ }^{5}$ Abhandlungen d. Berl. Akademie, 1873, 67 ff. ; Jordan, FUR. 38-40; Ann. d. Ist. 1870, 232-261.
    ${ }^{6}$ Varro, LL. v. 153 ; Fest. Epit. 184.

[^304]:    ${ }^{1}$ Pl. NH. iii. 67 ; Not. Reg. xi.
    ${ }^{2}$ Amm. Marc. xvii. 4. 12.
    ${ }^{3}$ Liv. xli. 27.
    ${ }^{7}$ Hor. Sat. i.6. 113; Juv. vi. 588; Cic. pro Mil. 65 ; de Div. i. 132 ; Lamprid. Vit. Elag. 26.
    ${ }^{8}$ Dionys. iii. 68 ; Pl. NH. xxxvi. 102 ; Pauly, Real-Encyclopädie, 2578; Richter, Top. ${ }^{2} 178$; Jordan, I. 3. 132-140.

[^305]:    ${ }^{1}$ BC. 1894, 321-324.

    - Procop. Bell. Goth. iii. 37.
    ${ }^{3}$ NS. 1876, 101, 138-139, 184; 1877, 8, 110, 204; 1888, 191, 226-227; Mitt. 1892, 289, 295; 1893, 289.
    ${ }^{4}$ De Spect. 8.

[^306]:    ${ }^{1}$ Ann. xv. 74. Cf. Tertull. de Spect. 9; Hülsen, Diss. d. Accad. Pontif. II. vi. $1896,267$.
    ${ }^{2}$ Dionys. vi. 17, 94; Gilbert, II. 242-250; Jordan, I. 3. 115-117.
    ${ }^{3}$ Dio Cass. 1. 10 ; Tac. Ann. ii. 49.
    ${ }^{4}$ Vitr. iii. 3. 5; Pl. NH. xxxv. 154.
    ${ }^{5}$ Liv. iii. 55 ; x. 23 ; Dionys. vi. 89.
    ${ }^{6}$ Liv. ii. 21, 27 ; Ov. F'ast. v. 669 ; Apul. Met. vi. 8 ; Gilbert, II. 251.
    ${ }^{7}$ Ov. Fast. vi. 731; CIL. i². p. 320.
    ${ }^{8}$ Liv. x. 31 ; xxix. 37 ; Fest. 265 ; CIL. i². p. 320.
    ${ }^{9}$ Pl. NH. xxix. 57 ; Liv. $x x x v i .36$; Mon. Anc. iv. 8 ; Dio Cass. liv. 19.

[^307]:    ${ }^{1}$ Jordan, I. 3. 149-151. $\quad{ }^{2}$ Gilbert, II. 144-257. $\quad{ }^{3}$ Cf. Liv. xxvi. 10. ${ }^{4}$ Not. Reg. xiii.

[^308]:    1 Varro, LL. v. 43 ; Liv. i. 3 ; Verg. Aen. vii. 657 ; Serv. ad loc.; Jordan, I. 1. 183-185; 3. 151-153.
    ${ }^{2}$ CIL. xiv. 2105 (or Aventinensis).
    ${ }^{3}$ Dionys. iii. 43 ; x. 31-32 ; Liv. iii. 31.
    ${ }^{4}$ Bas. Capit. 2 ; cf. Amm. Marc. xvii. 4 ; CIL. vi. 167; Jordan, I. 3. 183-185.
    5 BC. 1891, 211 n.
    6 Varro, LLL. v. 158; Fest. 238; Ov. Fast. v. 293-294; Liv. xxvi. 10; xxvii. 37 ; xxx. 26 ; Gilbert, III. 441 ; Jordan, I. 3. 153-156.

[^309]:    ${ }^{1}$ Mitt. 1894, 320-327.
    ${ }^{2}$ Spart. Vit. Carac. 9 ; Viet. Caes. 21; Gilbert, III. 443; CIL. vi. 9684.
    ${ }^{3}$ Varro, LL. v. 152 ; Dionys. iii. 43; Pl. NH. xv. 138; Fest. 360 ; Serv. ad Aen. viii. 276; Gilbert, II. 236-237; Jordan, I. 3. 161-163.
    ${ }^{4}$ Bas. Capit. 31-32.
    ${ }^{5}$ Varro, LL. v. 153 ; vi. 22; Fest. Epit. 19; Plut. Rom. 23. For a false identification with the Circus Maximus, cf. Gilbert, I. 131-132.

    - CIL. vi. 802, 31069 ; Bull. d. Ist. 1870, 88.
    ${ }^{\text {B CIL }}$ CIL. xv. 7182; Not. Reg. xiii ; Jordan, I. 3. 170.
    ${ }^{8}$ Fest. 213 ; Liv. xxiii. 32 ; Cic. ad Q. Fr. iii. 7; Jordan, II. 106-107.

[^310]:    1 Solin. i. 7-8.
    ${ }^{2}$ Liv. i. 45 ; Fest. 343 ; Oros. v. 12 ; Dionys. iv. 26 ; Suet. Aug. 29; Gilbert, II. 236-241; Jurdan, I. 3. 157-159.
    ${ }^{3}$ BC. 1891, 210-216; Jordan, FUR. $2 . \quad{ }^{4}$ Mart. vi. 64. 12.
    ${ }_{5}$ Tac. Ann. xv. 41 ; Liv. xl. 2; App. Bell. Civ. i. 78; Auct. de Vir. Ill. 65; Vitr. v. 5. 8; Ov. Fast. iii. 883; Jordan, I. 3. 160-161.
    ${ }^{6}$ Liv. v. 22, 23, 37; Dionys. xiii. 3; Mon. Anc. iv. 6; CIL. vi. 364-365̆; Jordan, I, 3. 165-167.

    7 Fest. 257, 333; Mon. Anc. iv. 6; Ov. Frast. vi. 728; Gilbert, II. 233-235, 238 ; Jordan, I. 3. 159-160; BC. 1891, 216; CIL. í ${ }^{2}$. p. 312.

[^311]:    ${ }^{1}$ Jordan, FUR. 2.
    ${ }^{2}$ Mon. Anc. iv. 6 ; Jordan, I. 3. 167.
    ${ }^{3}$ Fest. 209; CIL. i². pp. 325-326; Gilbert, II. 191, 234-238; III. 446 ; Richter, Top. 2206 n.
    ${ }^{4}$ Fest. Epit. 121 ; Liv. xxiv. 16; Gilbert, III. 97.
    5 Not. Reg. xiii ; CIL. vi. 366, 406-413; Gilbert, III. 113-114; Jordan, I. 3. 167-168; BC. 1893, 5-7, 223-244.
    ${ }^{6}$ Dio Cass. Ixviii. 15; Vict. Caes. 13; Epit. 13; Spart. Vit. Hadr. 2 ; BC. 1878, 253 ; Jordan, I. 3. 156-157.

[^312]:    1 Jordan, FUR. 41.
    ${ }^{2}$ BC. 1887, 266 ; 1893, 240-241.
    ${ }^{3}$ Hor. Od. iv. 12. 18, and Porphyr. ad loc.; Gilbert, III. 285 ; Jordan, I. 3. 176.
    ${ }^{4}$ Chronogr. a. 354, p. 146.
    5 Gilbert, III. 284-285; Jordan, I. 3. 176-177.

[^313]:    ${ }^{1}$ Chronogr. a. 354, p. 146.
    ${ }^{2}$ CIL. vi. 8681.
    ${ }^{3}$ CIL. vi. 4240.
    ${ }^{4}$ CIL. vi. 9972. Cf. p. 162.
    ${ }^{5}$ Not. Reg. xiii.
    ${ }^{6}$ CIL . vi. 237.
    ${ }^{8}$ CIL . vi. 3971.
    ${ }^{9}$ Marini, Iscrizioni Doliari, 279.
    ${ }^{10}$ CIL. vi. 238.
    ${ }^{11}$ Fest. 290.
    ${ }^{12}$ Marini, op. cit. 279.
    ${ }^{13}$ CIL. vi. 9973.
    ${ }^{7}$ Jordan, FUR. 51; CILL. vi. 4226.
    ${ }^{14}$ BC. 1885, 51-53, 110-129; Mitt. 1886, 42-44, 62-78; Ann. d. Ist. 1885, 223-
    ${ }^{15}$ Not. Reg. xiii.
    ${ }^{16}$ Bas. Capit. Reg. xiii ; CIL. vi, 814.
    17 Not. Reg, xiii.

[^314]:    ${ }^{1}$ Ann. d. Ist. 1878, 118-192; 1885, 232-234; Jordan, I. 3. 177-178.
    ${ }^{2}$ Cic. Phil. iii. 26.
    ${ }^{3}$ CIL. vi. 1374.

[^315]:    ${ }^{1}$ BC. 1897, 310-316.
    ${ }_{2}$ Fest. 276 ; Dionys. i. 85-87; Plut. Rom. 9, 11; Ov. F'ast. v. 148-150; Gilbert, II. 201-204.
    ${ }^{3}$ Cic. pro Domo, 136.
    ${ }^{4}$ Ov. F'ast. v. 155-158; Macrob. Sat. i. 12. 21 ; Spart. Vit. Hadr. 19 ; Gilbert, II. 206-211; III. 445 ; Jordan, I. 3. 181-183.
    ${ }^{5}$ Liv. i. 20 ; Varro, LL. vi. 95 ; Ov. Fast. iii. 327-331; Gilbert, II. 153.
    ${ }^{6}$ CTL. vi. 673.

[^316]:    ${ }^{1}$ Tac. Ann. xv. 55 ; Hist. iii. 38; Suet. Nero, 47 ; Pl. NH. xxxvi. 23, 25, 36; CIL. vi. $8673,8674$.

    - CIL. vi. 933 ; BC. 1882, 155.
    ${ }^{3}$ Jordan, FUUR. 43 ; Vict. Epit. 20 ; CIL. xv. 7448; Bull. d. Ist. 1859, 164; NS. 1884, 223.
    ${ }^{4}$ Not. Reg. xii.
    ${ }^{5}$ Jul. Capit. Vit. Aur. 5 ; Bull. d. Ist. 1859, 15.
    ${ }^{6}$ Ann. d. Ist. 1858, 285-289; CIL. vi. 219; BC. 1902, 204-206; Jordan, I. 1. 308-309; Gilbert, III. 197.
    ${ }^{7}$ Spart. Vit. Sever. 21 ; Carac. 9; Lamprid. Vit. Elagab. 17; Alex. 25 ; Vict. Caes. 21 ; Chronogr. a. 354, pp. 147-148; CIL. vi. 794, 1170-1173, 9232; Gilbert, III. 298 ; Jordan, I. 3. 189-196.

[^317]:    ${ }^{1}$ NS. 1878, 346 ; 1879, 15, 40, 114, 141, 314; 1881, 57, 89; CR. 1902, 286; Mitt. 1893, 294-295. The latest and most complete description and restoration of these thermae is by S. A. Iwanoff, Architektonische Studien, Heft III, herausgeg. vom kais, deutsch. arch. Institut, 1898.

[^318]:    ${ }^{1}$ Spart. Vit. Carac. 9.

[^319]:    ${ }^{1}$ Not. Reg. xii. ; Vict. Epit. 20.

[^320]:    ${ }^{1}$ Varro, LL. v. 46-47 ; Cic. de Har. Resp. 32; Mart. xii. 18. 3; Gilbert, I. 163; II. 32 ; Jordan, I. 3. 220-224, 227-230 (Hülsen reverses Sucusa and Caeliolus). 2 Tac. Ann. iv. 65.
    ${ }^{3}$ Claud. Or. de Lugdun.; Fest. 355, Epit. 44 ; Gilbert, II. 18, 32-41; Jordan, I. 1. 186-188.
    ${ }^{4} B C .1887$, pl. xix.
    ${ }^{5}$ Not. Reg. ii. ; CIL. vi. 10099 ; Mitt. 1892, 270.
    ${ }^{6}$ Tac. Ann. iv. 64.

[^321]:    ${ }^{1}$ Ann. d. Ist. 1871, 47 ; cf. Varro, LL. v. 46.
    ${ }^{2}$ Tac. Ann. iv. 64.
    ${ }^{3}$ Mon. d. Lincei, i. 516-518.

[^322]:    1 Jordan, I. 3. 231; II. 594-595.
    ${ }^{2}$ Not. Reg. ii. ; CIL. vi. 8982-8987; Ann. d. Ist.1882, 191-220; Jordan, I. 3. 238.
    ${ }^{3}$ Bull. Crist. 1874, 41 ; BC. 1891, 342-344; Mitt. 1892, 270.
    ${ }^{4}$ LL. v. 47 ; cf., however, Jordan, I. 3. 227.

[^323]:    ${ }^{1}$ Bas. Capit. Reg. i ; Fest. 174 ; Placidus, 45 ; Gilbert, II. 126.
    ${ }^{2}$ CIL. vi. 452 ; BC. 1892, 65.
    ${ }^{3}$ Lanciani, Acque, 56.
    ${ }^{4}$ Bas. Capit. Reg. i. ; Lamprid. Vit. Elagab. 17; Lanciani, l.c.; Richter, Top. ${ }^{2}$ 341-342; Jordan, I. 3. 196, 208-209.
    ${ }^{5}$ Gilbert, III. 346-347; Richter, Top. ${ }^{2}$ 342, 344-345.
    ${ }^{6}$ CIL. vi. 9475; Mon. d. Lincei, i. 534-536; Gilbert, II. 96-97.
    ${ }^{7}$ Ov. F'ast. iii. 519-523; Fest. Epit. 131 ; Jordan, I. 3. 225.

    - BC. 1891, 343, 355-356.
    ${ }^{9}$ Liv. i. 21 ; Juv. 3. 10-17 ; Plut. Numa, 13 ; Gilbert, I. 109-111; II. 152-158.

[^324]:    ${ }^{1}$ CIL. i. $32=$ vi. 1287 ; Ov. F'ast. vi. 193-194; Not. Reg. i. ; Gilbert, III. 100.
    ${ }^{2}$ Cic. de Nat. Deor. ii. 61; Gilbert, III. 97-98; Bull. d. Ist. 1873, 89-91.
    ${ }^{8}$ Liv. xxvii. 25 ; Val. Max. i. 1. 8; Plut. Marc. 28; Symm. Epist. i. 21.
    ${ }^{4}$ Pl. NH. xxxv. 120.
    ${ }^{5}$ Liv. xxv. 40 ; Cic. Verr. iv. 120-121; Plut. Marc. 21 ; CIL. i. p. 530, note.
    ${ }^{6}$ Mon. Anc. ii. 29 ; Dio Cass. liv. 10 ; CIL. i2. p. 332 ; Cohen, August. 102108.

    7 Not. Reg. i.; Gilbert, III. 350-351.
    ${ }^{8}$ Jordan, FUR. 3.
    ${ }^{9}$ Herodian. i. 12, 3 ; Lamprid. Vit. Commodi, 17; Not. Reg. i.; Chronogr. a. 354, p. 148; Gilbert, III. 298; BC. 1887, 323-324.

[^325]:    ${ }^{1}$ Spart. Vit. Sev. 19; Chronogr. a. 354, p. 148 ; Jordan, I. 3. 217-218.
    ${ }^{2}$ Not. Reg. i.
    ${ }^{3}$ Suet. Claud. 1; Jordan, I. 1. 365 ; Lanciani, Acque, 55.
    ${ }^{4}$ Not. Reg. i. ; Gilbert, III. 191; Cohen, Traian. 547.
    ${ }^{5}$ Cf. Gilbert, III. 189; Jordan, I. 3. 216.
    ${ }^{6}$ Not. Reg. i.

[^326]:    ${ }^{1}$ Tusc. i. 13. Jordan, I. 3. 210-211. ${ }^{8}$ Cic. de Leg. ii. 57.
    ${ }^{4}$ Cf. CIL. i. 11-12. $\quad 5$ CIL. i. $29-39=$ vi. 1284-1294.

[^327]:    ${ }^{1}$ Suet. de Poet.; Pl. NH. vii. 114 ; Liv. xxxviii. 56; Cic. pro Arch. 22.
    ${ }^{2}$ In vigna Sassi CIL. vi. 5539-5678; in vigna Codini CIL. vi. 4418-5538, 5676-5886.
    ${ }^{3}$ Bull. d. Ist. 1840, 135-138; 1847, 49-51; 1852, 81-83; Ann. d. Ist. 1856, 8-24; ef. Lanciani, Ruins, 329-337; Jordan, I. 3. 211-213,

[^328]:    ${ }^{1}$ CTL. vi. 3926-4326.
    ${ }^{2}$ Ov. Fast. iii. 835-838; Varro, LL. v. 47 ; CIL. vi. 524 ; Gilbert, II. 26-27; Ann. d. Ist. 1849, 377; Mon. d. Ist. v. 7 ; Jordan, I. 3. 226.
    ${ }^{3}$ Macrob. Sat. i. 12, 31 ; Tertull. ad Nat. ii. 9 ; Ov. Fast. vi. 101-102; Gilbert, II. 19-22.
    ${ }^{4}$ Cic. de Har. Resp. 32 ; Jordan, II. 257 ; Gilbert, II. 22-26.
    ${ }^{5}$ BC. 1887, 314.
    ${ }^{6}$ Suet. Vesp. 9; Front. de Aquis, 20, 76; Vict. Caes. 9; CIL. vi. 10251 a; Ann. d. Ist. 1882, 205; NS. 1880, 463; Lanciani, Acque, 159; Gilbert, III. 124 ; Jordan, I. 3. 232-234.

[^329]:    ${ }^{1}$ Mart. de Spect. ii. 9 ; Jordan, FUR. 33.
    ${ }_{2}$ Amm. Marcell. xvi. 12. 66; CIL. vi. 230-231, 254 ; Bull. d. Ist. 1851, 113; 1884, 21-29; Jordan, I. 3. 234-236.
    ${ }^{3}$ CTL. vi, 428.
    ${ }^{4}$ C'IL. vi. 221, 222, 1057, 1058; Ann. d. Ist. 1858, 289-294; Gilbert, III. 197.

[^330]:    ${ }^{1}$ CIL. vi. 1384; Lanciani, Acque, 101; Gilbert, III. 189.
    ${ }^{2}$ CIL. vi. 1385.
    3 Dio Cass. lxi. 18; CIL. vi. 1648,9183; Cohen, Ner"o, 126-130; Mon.d. Lincei, i. 503-507; Mitt. 1892, 297-299; Gilbert, III. 238; Jordan, I. 3. 237-238.
    ${ }^{4}$ Cf. Gilbert, III. 348-349; Mart. xii. 18. $4 . \quad{ }^{5}$ NS. 1885, 66.
    ${ }^{6}$ For a list of these houses, see Richter, Top. ${ }^{2}$ 338-339.

[^331]:    ${ }^{1}$ Symm. Epist. iii. 12. 88; vii. 18. 19; CTL. vi. 1699.
    ${ }^{2}$ Pl. NH. xxix. 7 ; CIL. vi. 8905; xv. 7544; BC. 1886, 104.
    ${ }^{8}$ Cic. in Pis. 61 ; CIL. xv. 7513.
    ${ }^{4}$ CIL. vi. 1684-1694; BC. 1890, 288-292; Jordan, I. 3. 240. For the interesting excavations recently made on the site of this house, see NS. 1902, 283284 ; BC. 1902, 74-78, 145-163.
    ${ }^{5}$ Mart. ii. 59 ; Chronogr. a. 354, p. 146; Not. Reg. ii.
    ${ }^{6}$ BC. 1890, 18-25, 78; Mitt. 1891, 109-110.
    ${ }^{7}$ x. 17.
    ${ }^{8}$ Tac. Anu. xv. 49, 60; Vict. Epit. 20; Jul. Cap. Vit. M. Ant. 1; Gilbert, III. 349; Jordan, I. 3. 243-245.
    ${ }^{9}$ Ann. d. Ist. 1877, 332-384.

[^332]:    ${ }_{1}$ NS. 1887, 532 ; 1890, 79-80, 150 ; 1891, 161-162; 1892, 264 ; BC. 1887, 321322 ; 1892, 65 ; Mitt. 1889, 260-261; 1891, 107-108; 1892, 297; AJ.A. 1890, 261285 , pl. xvi, xvii ; 1891, 25-37, pl. iv-vi.

[^333]:    ${ }^{1}$ Not. Reg. v. ; Jordan, II. 129.
    ${ }^{2}$ BC. 1874, 46-53; 1885, 39-50; 1898, 137-140; Ann. d. Ist. 1879, 253-299; 1880, 265-342; 1882, 5-58; Bull. d. Ist. 1885, 72-77; CR. 1902, 336; Jordan, I. 3. 261, 265-270.
    ${ }^{3}$ Hor. Sat. i. 8. 8-13. $\quad{ }^{4}$ Tac. Ann. ii. 32 ; Suet. Claud. 25.

[^334]:    ${ }^{1}$ Varro, LL. v. 25 ; Fest. Epit. 216 ; Comm. Cruq. ad Hor. Sat. i. 8. 10 ; Gilbert, III. 310-311.
    ${ }^{4}$ Dionys. iv. 15 ; Plut. Quaest. Rom. 23; Asc. in Mil. 34; CIL. vi. 9974, 10022.
    ${ }^{3}$ Cic. Phil. ix. 17 ; Suet. Vit. Hor.
    ${ }^{4}$ Hor. Sat. ii. 6. 32.
    ${ }^{5}$ BC. 1880, 98-102.

[^335]:    ${ }^{1}$ Mart. ii. 17. 1.
    2 Mart. v. 22. 5.
    ${ }^{3}$ Fest. 221, 351; Mart. vii. 73. 2; x. fi8. 2; Jordan, FUR. 9; CIL. vi. 1775; Bull. Crist. 1867, 57; Gilbert, II. 358 ; III. 357.
    ${ }^{4}$ Fest. 182 ; Solin. i. 25 ; Liv. i. 48 ; Dionys. iv. 39 ; Jordan, I. 3.258.
    5 Varro, LL. v. 159; Fest. 333; Gilbert, I. 186-191.
    6 Varro, LL. v. 159 ; Liv. i. 48 ; Dionys. iii. 22 ; Gilbert, I. 187-189.

[^336]:    ${ }^{1}$ Jordan, I. 3. 242; II. 352-353.
    ${ }^{2}$ Mon. d. Lincei, i. 5552-553.
    ${ }^{3}$ Varro, LL. v. 158 ; Solin. i. 26 ; BC. 1891, 342 ; Jordan, I. 3. 257 ; II. 254 ; Gilbert, I. 164; III. 352; Bull. Crist. 1863, 28.
    ${ }^{4}$ Suet. Aug. 57; Gell. xviii. 4; CIL. vi. 448; BC. 1877, 162-163; 1890, 131132 ; RhM. 1894, 630.
    ${ }^{5}$ Richter, Top. ${ }^{2} 311$; NS. 1884, 396.
    ${ }^{6}$ CIL. vi. 452.
    7 Jordan, FUR. 7.

[^337]:    1 Varro, LL. v. 152; Gilbert, III. 209. 3 BC. 1890, 335; Mitt. 1891, 112.
    ${ }^{2}$ CIL. vi. 801. ${ }^{4}$ Varro, LL. v. 159.
    5 The Colosseum and attached buildings, although falling within this region, have been already described, pp. 305-320.
    ${ }^{6}$ Not. Reg. iii.; Treb. Poll. Vit. Trig. Tyr. 25 ; NS. 1888, 626 ; BC. 1887, 132-134; 1889, 37-39; Mitt. 1889, 279-280.
    ${ }^{7}$ Liv. i. 48.
    ${ }^{9}$ Fest. 297 ; Eppit. 307 ; Dionys. iii. 22 ; Schol. Bob. ad Cic. pro. Mil. 3.

[^338]:    ${ }^{1}$ Dionys. iii. 22; Fest. 297 ; Epit. 307 ; Liv. i. 26 ; Auct. de Vir. Ill. 4 ; Gilbert, I. 178-179; II. 55-58; BC. 1890, 128-129.
    ${ }^{2}$ Pl. NH. xxix. 12; Hemerol. Arv. Kal. Oct.; Jordan, II. 100; Gilbert, I. 182, 191.
    ${ }^{3}$ Not. Reg. iii. ; BC. 1891, 343; CIL. vi. 42-44, 791; Gilbert, III. 185.
    ${ }^{4}$ Jordan, FUR. 5 ; CIL. vi. 1091 ; Jordan, II. 116; Gilbert, III. 200 ; Ann. d. Ist. 1862, $64 ; B C .1891,193 . \quad{ }^{5}$ CIL. vi. 10164 ; Gilbert, III. 333.
    " Jordan, FUR. 7 ; Not. Reg. iii. ; CIL. vi. 776; Jordan, II. 117.
    ${ }^{7}$ Not. Reg. iii. ; Herodian. i. 16 ; Jordan, F'UR. 4 ; CIL. vi. 1645, 1647, 7659, 10164-10170; Gilbert, III. 332.

[^339]:    ${ }^{1}$ Not. Reg. iii.

    - BC. 1891, 185-209; CIL. vi. 10153-10154 ; Inscriptiones Graecae Siciliae et Italicie, 1102-1110.
    ${ }^{3}$ BC. 1886, 270-274; Mitt. 1889, 78-79.
    4 Dio Cass. liv. 23; Ov. Fast. vi. 639-644.
    5 Dio Cass. lv. 8 ; Suet. Aug. 29.
    ${ }^{6}$ Ov. Ars Am. i. 71; Strabo, v. 3. 8; Pl. NH. xiv. 11; Gilbert, III. 2053.
    ${ }^{7}$ Jordan, $F^{\prime} U R .10,11,109$.

[^340]:    ${ }^{1}$ Ov. Frast. vi. 637.
    BC. 1892, 19-37 ; Mitt. 1893, 298-302; RhM. 1894, 629-630.
    ${ }^{3}$ BC. 1891, 342-358.
    ${ }^{4}$ Athen. Mitt. 1891, 267-279.
    ${ }^{5}$ Mélanges, xi. 161-167; Mitt. 1892, 289-292.
    ${ }^{6}$ Suet. Nero, 31 ; Otho, 7 ; Dio Cass. lxv. 4 ; Tac. Ann. xv. 39, 42; Pl. NH. xxxiii. 54 ; xxxiv. 84 ; xxxv. 120; xxxvi. 37 ; Gilbert, III. 179-180.

[^341]:    ${ }^{1}$ Mitt. 1896, 213; BC. 1895, 174-181.
    ${ }^{2}$ Suet. Tit. 7 ; Dio Cass. Ixvi. 25 ; Mart. de Spect. 2. 7 ; iii. 20, 15; BC. 1895, 110-115.

    8 Not. Reg. iii.; CIL. vi. 9797 ; CYronogr. a. 354, p. 146.

[^342]:    ${ }^{1} B C .1895,117-127$.

[^343]:    ${ }^{1}$ Pausan. v. 12.4; Dio Cass. Ixix. 4 ; CIL. vi. 1670, 8677, 8678, 9797 ; Gilbert, III. 297.
    ${ }^{2}$ Jordan, FUR. 109; Mon. d. Lincei, 1. 481-485; Mitt. 1892, 302-304.

[^344]:    ${ }^{1}$ Suet. de Gramm. 15 ; App. Bell. Civ. ii. 126; Vell. ii. 77 ; Cic. de Har. Resp. 49; Gilbert, III. 355.
    ${ }^{2}$ Cic. Phil. ii. 68 ; Jul. Cap. Vit. Gord. 3.
    ${ }^{3}$ Suet. Tib. 15.
    ${ }^{4}$ Cf., however, Lanciani, Forma Urbis, 23, 24, 30.
    ${ }^{5}$ CIL . vi. 1557.
    ${ }^{6}$ CYL. xv. $7563 . \quad{ }^{8}$ Jul. Cap. Vit. Maximi et Balbini, 16.
    ${ }^{7}$ CIL. vi. 1197-1198. ${ }^{\circ}$ BC. 1895, 129.

[^345]:    ${ }^{1}$ CTL. vi. 748 ; Bull. Crist. 1870, 125 ff.
    ${ }^{2}$ Mart. xii. 18. 2 ; Juv. xi. $51 . \quad{ }^{3}$ Mart. vii. 31.
    ${ }^{4}$ Mart. i. 3. 1; 117. 9; ii. 17. 3; ef. vicus Sandaliarius, p. 426.
    5 CIL. vi. $9284 . \quad 7$ CYTL. vi. $1953 . \quad{ }^{9}$ CIL. vi. 9526.
    ${ }^{6}$ CIL. vi. $9491 . \quad 8^{8}$ CIL. vi. $9399 . \quad{ }^{10}$ BC. 1887, 163.
    11 Mart. vi. 66. 1-2; xi. 61.3.
    ${ }^{12}$ Suet. Caes. 56 ; de Gramm. 7.

[^346]:    ${ }^{1}$ Dionys. viii. 79; Suet. de Gramm. 15.
    ${ }^{-}$Cic. de Domo, 101 ; Val. Max. vi. 3.
    ${ }^{3}$ Flor. i. 14.
    ${ }^{4} \mathrm{Pl}$. NH. xxxiv. 30.
    ${ }^{5}$ Dionys. viii. 79 ; Liv. ii. 41 ; CIL. i2. pp. 336-337.
    ${ }^{6}$ Cic. de Har. Resp. 31 ; ad Q. Fr. ii. 3; iii. 1.
    ${ }^{7}$ BC. 1892, 19-37; Mitt. 1893, 299-302; Elter, Forma Urbis, i. 9; Gilbert, I. 193-195.

    Not. Reg. iv.
    ${ }^{9}$ Varro, LL. จ. 49, 50; Pl. NH. xvi. 235; Ov. F'ast. ii. 435-436; iii. 247-248; BC. 1888, 394; 1889, 40; Mitt. 1889, 281.

[^347]:    ${ }^{1}$ CIL. vi. 358; Eckhel, vii. 99.
    ${ }^{2}$ CIL, i². p. 310.
    ${ }^{8}$ CIL. vi. 761.
    ${ }^{4}$ Plut. Quaest. Rom. 3.
    ${ }^{5}$ BC. 1888, 221-231.
    ${ }^{6}$ Fest. Epit. 297 ; CIL. vi. 9483.
    7 CIL. vi. 9714.
    ${ }^{8}$ Fest. 178, Epit. 131; Gilbert, II. 46, 94; BC. 1888, 398-399.

[^348]:    1 Varro, LL. vi. 14 ; Fest. 352; CIL. i2. p. 313.
    ${ }^{2}$ Jordan, I. 2. 452 ; Gilbert, 1. 144.
    ${ }^{3}$ Mon. dei Lincei, i. 530-532; Jordan, II. 99-100, 319.
    ${ }^{4}$ Varro, LL. v. 146; Fest. 48; Donat. ad Ter. Eun. 256.
    ${ }^{5}$ Plaut. Curc. 474 ; Varro, l.c.
    ${ }^{6}$ Jordan, I. 2. 432-435; Gilbert, III. 207-209. ${ }^{8}$ Liv. xl. 51.
    ${ }^{9}$ Varro, LL. v. 147 ;- Plaut. Pseud. 168 ; Ter. Eun. 255-257.
    10 Varro, ap. Non. 448.

[^349]:    ${ }^{1}$ Cic. Verr. iii. 145 ; pro Quinct. 25.
    ${ }^{2}$ Cic. pro Quinct. 12.
    ${ }^{8}$ CIL. vi. 1744; BC. 1874, 84-88.
    ${ }^{4}$ BC. 1899, 230-233.

[^350]:    ${ }^{5}$ CIL. vi. 127, 266-268.
    ${ }^{6}$ BC. 1876, 139-140.
    ${ }^{7}$ BC. 1893, 89-104.
    ${ }^{8}$ CIL. xv. 7453.

[^351]:    ${ }^{1}$ BC. 1885, 27-38; NS. 1885, 67, 154.
    ${ }^{1}$ CIL. vi. 10133, 30980; Not. Reg. v. ; BC. 1887, 154-156, 192-200; 1888, 124 125; Mitt. 1889, 278.
    ${ }^{3}$ Front. de Aquis, 5, 19, 20, 21, 65 ; Lanciani, Acque, 36 ; Herschel, Fronti. nus, 144.

[^352]:    ${ }^{1}$ Liv. ii. 51 ; Dionys. ix. 24.
    ${ }^{2}$ CIL. vi. 2797-2860, and freq.; BC. 1893, 261-271; 1894, 101-128, 225-240.
    ${ }^{3}$ CIL. vi. $2819 . \quad$ 5 Jordan, II. 129.
    ${ }^{4}$ CIL. vi. 3698-3699. $\quad{ }^{6}$ BC. 1883, 17-18.

[^353]:    ${ }^{1}$ Mitt. 1899, 255-259. $\quad 2$ Mart. x. 19.6-7; Not. Reg. v. ; Jordan, II. 127, 495.

[^354]:    1 Vacca, Memorie, 109; Jordan, II. 128.
    2 Hor. Sat. i. 8. 7, 14, and Schol. ; Tac. Ann. xv. 39 ; Gilbert, III. 361-362.
    ${ }^{8}$ BC. 1874, 166-171.
    ${ }^{4}$ Suet. Nero, 38.
    ${ }^{5}$ Hor. Od. iii. 29. 10.
    6 Dio Cass. lv. 7.

[^355]:    ${ }^{1}$ BC. 1874, 137-165.

[^356]:    ${ }^{1}$ Bull. d. Ist. 1875, 89.
    ${ }^{2}$ Suet. Cal. 59; Philo Jud. de Virt. ii. 597; CIL. vi. 8668; Gilbert, III. 362.
    ${ }^{3}$ Cf. Hor. Od. i. 26 ; iii. 17; Val. Max. iv. 4.8.
    ${ }^{4} \mathrm{Pl}$. NH. xxxv. 51; CIL. vi. 6152, 8668-8669.
    ${ }^{5}$ Front. de Aquis, 5, 19, 20, 68-69; BC. 1874, 53-54; Lanciani, Acque, 36-37; Gilbert, III. 362.

[^357]:    ${ }^{1}$ Not. Reg. v.
    ${ }^{2}$ BC. 1874, 55.
    ${ }^{3}$ Vop. Vit. Aur. 1.
    ${ }^{5}$ Herodian. v. 6. 6.
    ${ }^{6}$ Mitt. 1896, 113-130.

[^358]:    1 Mon. d. Lincei, i. 490-492.
    ${ }^{2}$ BC. 1874, 57 ; 1875, 153.
    8 Tac. Ann. xii. 59.

    5 Urlichs, Codex Topographicus, 115, 127-130, 150.
    ${ }^{6}$ CIL. xv. 7563; Lanciani, Syll. Aq. $52 . \quad{ }^{7}$ CIL. vi. 6281.

    - BC. 1883, 220; CIL. vi. 31284; Civillà Cattolica, 1883, 210.

[^359]:    ${ }^{1}$ Plut. Galba, 28; Exc. Valesia, 69; Comm. Cruq. ad Hor. Epod. 5. 100; Sat. i. 8. 11; Gilbert, III. 311; Ann. d. Ist. 1877, 371; Mon. d. Lincei, i. 490492; Joxdan, I. 3. $249 . \quad 2$ CIL. vi. $1136 . \quad{ }^{3}$ BC. 1896, 238,

[^360]:    ${ }^{1}$ CIL. vi. 414, 1059 ; Ann. d. Ist. 1858, 279-284; Gilbert, III. 196.
    ${ }^{2}$ App. Bell. Civ. i. 58; CIL. vi. 2223, 9179-9180.
    ${ }^{3}$ Dio Cass. 1v. 8 ; Not. Reg. v. ; Mon. d. Lincei, i. 531 ; Gilbert, III. 238.
    ${ }^{4}$ CIL. vi. 1178, 1662.
    ${ }^{5}$ CIL, vi. 1106.

[^361]:    ${ }^{1}$ Not. Reg. v. ; Jordan, I. 3. 248.

[^362]:    ${ }^{1}$ Lanciani, Ruins, 386.
    ${ }^{2}$ NS. 1886, 12-21, 49-50; 1887, 139; 1891, 126-129; BC. 1885, 137-156; Mitt. 1889, 279; 1892, 300; Jordan, I. 3. 246.
    ${ }^{3}$ C'IL. vi. 31138-31187; Ann. d. Ist. 1885, 235-291 ; BC. 1886, 124-147.
    ${ }^{4}$ CILL. vi. 5931-5960.

[^363]:    ${ }^{1}$ CIL. vi, 31538 b. 2 Suet. Nero, 50.
    ${ }^{3}$ CIL. vi. 1754; Cassiod. Var. iii. 10; Mitt. 1889, 269-270.
    ${ }^{4}$ Jul. Cap. Vit. Gord. 32; Not. Reg. vii.; Richter, 'Top, ${ }^{2} 260$; Gilbert, III. 373-374.

[^364]:    ${ }^{1}$ Vop. Fit. Aur. 1, 10, 25, 28, 35, 39; Vit. Tac. 9 ; Aur. Vict. Caes. 35 ; Eutrop. ix. 15.
    ${ }^{2}$ Vop. Vit. Aur. 48 ; cf. CII. vi. 1785.
    ${ }^{3}$ Chronogr. a. 354, p, 148.
    ${ }^{4}$ BC. 1894, 297-304; 1895, 94-101.
    ${ }^{5}$ Mitt. 1888, 98 ; RhM. 1894, 393-396; BC. 1895, 39-59.
    ${ }^{6}$ Not. Reg. vii.
    7 Jordan, II. 7-8.

[^365]:    ${ }^{1}$ CIL. vi. 623; Bull. d. Ist. 1868, 119.
    2 BC. 1894, 292-293.
    ${ }^{3}$ BC. 1894, 293-296.
    ${ }^{4}$ Dio Cass. lv. 8; Gilbert, III. 245-247.
    ${ }^{5}$ Tac. Hist. i. 31 ; Mart. i. 108. 3; iv. 18. 1; Plut. Galba, 25; Pl. NH. iii, 17; Dio Cass. l.c.
    ${ }^{6}$ BC. 1887, 146-148; 1892, 275-279; 1895, 46-48.

[^366]:    ${ }^{1}$ Pl. NH. iii. 17.
    ${ }^{2}$ Not. Reg. vii.
    ${ }^{8}$ BC. 1887, 146; Ann. d. Ist. 1858, 279; Mon. d. Lincei, i. 474-475; Gilbert III. 252.
    ${ }^{4}$ Not. Reg. vii. ; Chronogr. a. 354, p. 148.
    ${ }^{5}$ Not. Reg. vii. ; CIL. vi. 1156. 3728, 9631; BC. 1895, 48-49; Gilbert, III. 199.

[^367]:    1 Jordan, FUR. 36.
    ${ }^{2}$ CIL. vi. 233, 1056, 1092; Ann. d. Ist. 1858, 267-278; BC. 1894, 287-291; Gilbert, III. 196; Jordan, I. 1. 308.
    ${ }^{3}$ CIL. vi. 920 ; Jordan, II. 418 ; Gilbert, III. $190 ; B C .1878,14-21$; Mon. d. Lincei, i. 478.

    4 Cohen, Claud. 16.
    ${ }^{5}$ CIL. vi. 921-923.

[^368]:    ${ }^{1}$ BC. 1891, 18-23; 1896, 239-246; Mitt. 1892, 315 ; 1893, 304.
    ${ }^{2}$ Helbig, Führer durch die Museen Roms, 2d ed. i. 380.
    ${ }^{3}$ BC. 1895, 46 ; Jordan, II. 7, 102, 417.
    ${ }^{4}$ Matz-Duhn, Antike Bildwerke, 3525 ; CIL. vi. 31383.
    ${ }^{5}$ Mon. d. Lincei, i. $550 . \quad{ }^{6}$ CIL. vi. 1252 ; Mon. d. Lincei, i. 455.

[^369]:    ${ }^{1}$ Front. de Aq. 22 ; Tac. Ann. xi. 1, 32, 37; Plut. Lucull. 39; Gilbert, III. 377 ; BC. 1891, 153-155.
    ${ }^{2}$ CIL. vi. 623 ; BC. 1891, 132-155.

[^370]:    ${ }^{1}$ Plut. Pomp. 44 ; CIL. vi. 6299 ; cf. Asc. in Mil. 67.
    ${ }^{2}$ Suet. Nero, $30 . \quad{ }^{4}$ Gilbert, III. 377.
    ${ }^{3}$ BC. 1887, 144-145. $\quad 5$ CIL. vi. 1319 ; Jordan, I. 1. 207.

[^371]:    ${ }^{1}$ BC. 1877, 184-195; 1880, 169-182; 1881, 174-188.
    ${ }^{2}$ EE. iv. 822.
    ${ }^{4}$ RhM. 1894, 390.
    ${ }^{3}$ EE. iv. 818.
    ${ }_{5}$ Gilbert, III. 375.
    ${ }^{6}$ Richter, Top. ${ }^{2} 260$; Doni, Inscriptiones Antiquae, 104, 172; Gori, Inscriptiones Etruscae, i. 263, 49.

[^372]:    ${ }^{1}$ Fest. Epit. 10, 254.
    (18C. 1889, 332; RhM. 1894, 387 ; Gilbert, III. 368.
    ${ }^{-}$CIL. vi. 450.
    ${ }^{4}$ Fest. 237 ; Liv. x. 23; Val. Max. ii. 5. 6; CIL. vi. 9736,10023 ; RhM. 1894, 382-384; Gilbert, III. 368.

[^373]:    1 Suet. Dom. 1; RhM. 1894, 399, 401; BC. 1889, 383.
    ${ }^{2}$ Varro, LL. v. 52 ; Liv. xxiv. 10.
    ${ }^{3}$ Mitt. 1891, 341 ; BC. 1893, 187.
    ${ }^{4}$ Not. Reg. v.; Arch. d. Soc. Romana di Storia patria, 1889, 199-207; Mitt. 1891, 113 ; Jordan, II. 129-130.
    ${ }^{5}$ Serv. ad Aen. xi. 206 ; Liv. viii. 15 ; Dionys. ii. 67 ; Plut. NTuma, 10.
    ${ }^{6}$ Not. Reg. vi. ; RhM. 1894, 417; Mitt. 1892, 307.
    ${ }^{7}$ RhM. l.c.

[^374]:    1 Varro, LL. v. 158; Mart. v. 22; vii. 73; Gilbert, II. 84-89; III. 371.
    ${ }_{2}$ CIL. vi. 373, 374 ; BC. 1887, 251.
    ${ }^{8}$ RhM. 1894, 408-409.
    ${ }^{4}$ Varro, LL. v. 52 ; Jordan, II. 264 ; Gilbert, I. 274.
    ${ }^{5}$ Tertull. ad Nat. ii. 9; Ov. Fast. vi. 213-218; Dionys. iv. 58; PI. NH. viii. 194; Gilbert, I. 275-280; III. 370-371.

    6 Dionys. ix. 60.

[^375]:    ${ }^{1}$ Fest. 345; Liv. viii. 20; RhM. 1894, 409; BC. 1881, 5; 1887, 8; Mitt. 1889, 274. ${ }^{2}$ CIL . vi. 568.
    ${ }^{3}$ Cie. de Legg. i. 1; Dionys. ii. 63 ; Fest. 254; Varro, LL. v. 51 ; Gilbert, I. 280; III. 370 ; CIL. i². pp. 310, 320 ; Hermes, 1891, 137-144.
    ${ }^{4}$ Liv. iv. 21 ; x. 46; Ov. Fast. ii. 511; vi. 795-796.
    ${ }^{5}$ Liv. xxviii. 11.
    ${ }^{6}$ Dio Cass. xli, 14 ; xliii. $45 . \quad 8$ Vitr. iii. 2. 7.
    ${ }^{7}$ Mon. Anc. iv. 6; Dio Cass. liv. 19. $\quad{ }^{9}$ Mart. xi. 1. 9.
    ${ }^{10}$ BC. 1889, 336-339, 379-391; RhM. 1894, 405-406.
    ${ }^{11}$ Pl. NH. xv. 120; Fest. 255; Hermes, 1891, 139; Mitt. 1891, 119.

[^376]:    ${ }^{1}$ Pl. NH. vii. 213.
    ${ }^{2}$ Quint. i. 7. 12.
    ${ }^{3}$ Liv. ix. 43 ; x. 1; xxviii. 11 ; Gilbert, III. 371.
    4 Val. Max. viii. 14. 6; Pl. NH. xxxv. 19 ; BC. 1889, 340 ; Helbig, Führer, $i^{2} .421$.
    ${ }^{5}$ Cic. ad Att. iv. 1 ; xii. 45 ; RhM. 1894, 404; BC. 1873, 227.
    6 Varro, LL. v. 158; Vitr. vii. 9. 4 ; Mart. v. 22 ; vi. 27 ; Gilbert, I. 287 ; BC. 1893, 189 ; Bull. Crist. 1868, 55; RhM. 1894, 407.

[^377]:    ${ }^{1}$ Mart. v. 22. 3; RhM. 1894, 397.
    ${ }^{2}$ Liv. x. 23.
    ${ }^{\|}$Vitr. iii. 2. 2; Ov. Fast. iv. 375 ; v. 729 ; Liv. xxxi. 36 ; xxxiv. 53 ; xliii. 13 ; CIL. i². pp. 315, 319, 335 ; vi. 3679,3681 ; Gilbert, III. 372.
    ${ }^{4}$ BC. 1873, 201-211, 233, 243, 248.
    5 Plut. de Fort. Rom. 10.

[^378]:    1 Ov. F'ast. iv. 871 ; Rem. Am. 549 ; Liv. xxx. 38; xl. 34; Strabo, vi. 2. 5; App. Bell. Civ. i. 93 ; Gilbert, III. 91; Mitt. 1892, 32-80; 1889, 270-275; Helbig, Führer, ii ${ }^{2}$. 118.
    ${ }^{2}$ Cic. de Leg.g. ii. 58; CTIL. vi. 3692; BC. 1873, 229; Bull. d. Ist. 1873, 90.
    ${ }^{3}$ Liv. xxvi. 10; Gilbert, III. 92 ; Mitt. 1891, 114; EiE. iv. 734.
    ${ }^{4}$ Fest. Epit. 163.
    5 Varro, LL. v. 51 ; Fest. 376; Gilbert, I. 271.

[^379]:    ${ }^{1}$ CTL. vi. 31057; BC. 1876, 24-28; 1898, 164-165.
    ${ }^{2}$ CIL. vi. 570, 573.
    ${ }^{3}$ RhM. 1894, 392-396; BC. 1895, 29 ff.
    ${ }^{4}$ BC. 1894, 285 ; 1895, 81.

[^380]:    ${ }^{1}$ CIL. vi. 826; Mitt. 1894, 94-97; 1891, 116-118.
    ${ }^{2}$ BC. 1889, 331-335, 379 ff .
    ${ }^{3}$ CIL, vi. 635.

[^381]:    ${ }^{1}$ CIL. vi. 728, 3794. ${ }^{2}$ CIL. vi. 3714. BC. 1887, 102.
    ${ }^{4}$ CIL. vi. 726, 737; EE. iv. 762, 866.
    ${ }^{5}$ CIL. vi. 583, 640; BC. 1887, 223; 1888, 402; Mitt. 1889, 270.
    ${ }^{6}$ Treb. Pol. Vit. Trig. Tyr. 21 ; Vop. Vit. Probi, 2 ; Olympiodorus ap. Photium, 80 ; Gilbert, III. 299 ; $R$ hM. 1894, 388-389.
    ${ }^{7}$ BC. 1887, 181; CTL. xv. 7441.
    ${ }^{8}$ CIL. vi. $1130,1131$.

[^382]:    ${ }^{1}$ E. Paulin, Les Thermes de Dioclétien, Paris, 1890, Fol. max. ; Mitt. 1892, 308-311.

[^383]:    ${ }^{1}$ Lanciani, Acque, 96.
    ${ }^{1}$ Aur. Vict. Caes. 40 ; CIL. vi. 1750; Jordan, II. 526-ŏ28; Gilbert, III. 300.

[^384]:    ${ }^{1}$ RhM. 1894, 389-392.
    ${ }^{2}$ RhM. 1894, 423 n. ; CIL. vi. 1148-1150; Lanciani, Ancient Rome, 297 ff.
    ${ }^{8}$ Mart. xi. 52. 4 ; xiv. 60.
    ${ }^{4}$ Suet. Tib. 37 ; Nero, 48 ; Tac. Ann. iv. 2; Hist. iii. 84; Schol. Juv. x. 95 ; Pl. NH. iii. 67 ; $B C .1873,5,12 ; 1876,176 \mathrm{ff} . ; 1877,81 ; 1879,36 ; 1880,82$; Gilbert, III. 198-199.

[^385]:    ${ }^{1}$ CIL. xv. 7237-7244. $\quad$ BC. 1872, 103, 234 ; cf. Mon. d. Lincei, i. 550. - CIL. vi. 30872; BC. 1888, 109.

[^386]:    ${ }^{1}$ BC. 1877, 21 ; 1878, 263.
    ${ }^{2}$ CIL. vi. 3761 ; $B C .1872,250 ; 1876,107$; RhM. 1894, 417 n. ; Lanciani, Acque, 286 ; Jordan, I. 1. 309; II. 122.
    ${ }^{8}$ Procop. Bell. Goth. i. 22-23; CIL. vi. 130; BC. 1876, 188; 1877, 93 ; Gilbert, III. 333.

[^387]:    ${ }^{1}$ Dio Cass. xliii. 9; Ps.-Cic. Resp. in Sall. 19; Tac. Ann. iii. 30; CIL. vi. 8670-8672, 9005; Gilbert, III. 375-376.
    "Tac. Ann. xiii. 47 ; Dio Cass. lxvi. 10; Vop. Vit. Aurel. 49 ; Chronogr. a. 354, p. 146 .
    ${ }^{3}$ Procop. Bell. Vand. i. 2.
    ${ }^{4}$ CIL. vi. 122 ; EE. iv. 869 ; BC. $1885,162$.

[^388]:    ${ }^{1}$ BC. 1888, 3-11; Mitt. 1889, 270-274; 1892, 313; Mélanges, 1891, 167-170.
    ${ }_{2}$ Gilbert, III. 376, and references there given.
    ${ }^{8}$ CIL. xv. 7249, 7250, 7259.
    ${ }^{4}$ Vop. Vit. Aur. 49.
    571 (131).

[^389]:    ${ }^{1}$ Cic. ad Att. iv. 1; xii. 45; de Legg. i. 3; Nepos, Att. 13.
    ${ }^{2}$ CIL. vi. 1492; BC. 1889, 380 ; RhM. 1894, 397, 399, 403.
    ${ }^{3}$ Mart. i. 108. 3, 117. 6; RhM. 1894, 396-397.
    ${ }^{4}$ Mart. v. 22. 3; x. $58 . \quad{ }^{5}$ CIL. vi. 29788 ; Suet. Dom. 1.

    - Nos. ix, x, xvi, xvii.
    ${ }^{7}$ CIL. xv. 7235-7913; RhM. 1894, $384 ; B C .1889,379$ ff.
    ${ }^{8}$ BC. 1884, 45 ; 1885, 17-22; RhM. 1894, 385.

[^390]:    ${ }^{1}$ CIL. vi. $1748 ;$ BC. 1885, 5-10; 1886, 18-25; RhM. 1894, 387.
    ${ }_{2}$ BC. 1881, 15; Kaibel, Inscriptiones Graecac, 1071 ; CIL. vi. 1332, 9147 ; RhM. 1894, 385-386. " CIL. xy. 7380; Mitt. 1889, 276.
    ${ }^{4}$ Mitt. 1892, 197-203; NS. 1893, 194; RhM. 1894, 386.
    ${ }^{5}$ RhM. 1894, 386.
    ${ }^{6}$ BC. 1880, 327 ; 1881, 15 ; RhM. 1894, 386.
    7 CIL. vi. 1675 ; BC. 1884, 43; RhM. 1894, 387.
    ${ }^{8}$ CIL. xv. $7500 . \quad 9$ Mart. i. 34; iii. 82; xi. 61.
    ${ }^{10}$ Suet. Dom. 1, 5, 15, 17 ; Stat. Silv. iv. 3. 18; Mart. ix. 1. 8, 3. 12, 34. 7.
    ${ }^{11}$ BC. 1889, 383 ; RhM. 1894, 399-400; Mitt. 1891, 120.

[^391]:    ${ }^{1}$ BC. 1876, 126; RhM. 1894, 405, 411; CIL. vi. 26, 152. $\quad 2$ CIL. vi. 23330.

    - BC. 1885, 101; Bull. d. Ist. 1885, 9-13, 22-30.
    ${ }^{4}$ CIL. vi. 1426.
    ${ }^{5}$ NS. 1886-1900; BC. 1886, 401 ff . ; 1897, $57 \mathrm{ff} ., 276 \mathrm{ff} . ; 1899,63 \mathrm{ff}$., 152 ff ., 263-269; 1902, 81-92; Mitt. 1891, 124.

[^392]:    ${ }^{1}$ BC. 1887, 15; Mitt. 1892, 286-287.
    ${ }^{2}$ Cic. de Legg. ii. 96 ; Liv. x. 26 ; Gell. xix. 7; RhM. 1891, 112-138.
    ${ }^{3}$ BC. 1892, 288.
    ${ }^{4}$ Cic. ad Att. xiii, 33; Hor. Od. i. 20 ; Juv. vi. $343 . \quad{ }^{5} \mathrm{Pl}$. NH. xviii. 20.

[^393]:    ${ }^{1}$ Pl. NH. xxxvi. 74 ; xvi. 201; Suet. Claud. 21.
    ${ }_{2}$ CTLL. vi. 2219-2220; Gilbert, II. 176-177.
    ${ }^{3}$ Liv. iii. 26 ; Pl. NH. xviii. 20.
    ${ }^{4}$ Liv. ii. 13 ; Dionys. v. 35.
    ${ }^{5}$ NS. 1880, 226, 468.
    ${ }^{6}$ BC. 1889, 475-476; 1890, 6-9, 57-65 ; Mitt. 1891, 145-158.

[^394]:    ${ }^{1}$ Fest. 210, 238.
    ${ }^{2}$ Bull. d. Ist. 1871, 161-170; BC. 1887, 3-7 : Mitt. 1889, 288-289; Gilbert, III. 447.
    ${ }^{3}$ Cf. Juv. vi. 343 ; Pl. NH. xxxv. 163.
    $\begin{array}{ll}{ }^{4} \text { NS. 1887, } 17 . & { }^{6} \text { Ann. d. Ist. 1878, 186-187. } \\ { }^{5} \text { BC. 1889, 359; NS. 1884, 392. } & { }^{7} \text { CIL. vi. 8826; NS. 1878, } 66 .\end{array}$

[^395]:    ${ }^{1}$ Liv. xl. 29; Cic. de Legg. ii. 56 ; de Nat. Deor. iii. 52.
    ${ }^{2}$ Cic. ad Q. Fr. iii. 1; Auct. de Vir. Ill. 65 ; CIL. ${ }^{2}$. p. 323.
    ${ }^{3}$ Varro, LL. vi. 17 ; Plut. de Fort. Rom.5; Donat. Phorm. v. 6. 1; Gilbert, II. 393; III. 450-451.
    ${ }^{4}$ Hemer. Amit. viii Kal. Iul.; CIL. i². p. 320; Ov. Fast. vi. 783; CIL. vi. 167-169.
    ${ }^{5}$ Liv. x. 46.
    ${ }^{6}$ Tac. Ann. ii. 41 ; Plut. Brut. 20.
    ${ }^{7}$ NS. 1888, 229; Mitt. 1889, 290-291.
    ${ }^{8}$ BC. 1884, 26-27; Ann. d. Ist. 1860, 415-418.
    ${ }^{9}$ NS. 1889, 243-247; BC. 1890, 9; Mitt. 1891, 149; 1892, 331.
    ${ }^{10}$ Bas. Cap. Reg. xiv. 12 ; BC. 1891, 342, 357; Not. Reg. xiv.
    ${ }_{11}$ Not. Reg. xiv.

[^396]:    ${ }^{1}$ CIL. vi. 655-67, 75.
    ${ }^{2}$ CIL. vi. 497-504; Not. Reg. xiv. ; Gilbert, III. 113; RhM. 1891, 132.
    ${ }^{3}$ Insc. Orell. 2322.
    ${ }^{4}$ CIL. vi. 96 ; Fest. Epit. 64.
    ${ }^{5}$ CIL, vi. 415.
    ${ }^{6}$ Cic. Phil. ii. 109; Hor. Sat. i. 9. 18; Tac. Ann. ii. 41 ; Dio Cass. xliv. 35.
    ${ }^{7}$ BC. 1884, 25-30; 1887, 90-95; Ann. d. Ist. 1860, 415-450.
    ${ }^{8}$ Not. Reg. xiv.

[^397]:    ${ }^{1}$ Suet. Galba, 20; Tac. Hist. i. 49.
    2 Pl. Epist. iv. $2 . \quad{ }^{3}$ CIL. vi. 671.
    ${ }^{4}$ CILL. vi. 9990-9991; Dio Cass. xlvii. 40.
    ${ }^{5}$ Mon. Anc. iv. 43-44; Tac. Ann. xii. 56; xiv. 15; Suet. Aug. 43; Tib. 72; Gilbert, III. 334-335. ${ }^{6}$ Mitt. 1889, 289.
    7 Suet. Nero, 12, Tit. 7 ; Dio Cass. lxi. 20 ; Ixvi. 25.
    ${ }^{8}$ Dio Cass. 1v. 10 . $\quad{ }^{10}$ Suet. Dom. 4-5; Dio Cass. Ixvii. 8.
    ${ }^{2}$ Pl. NH. xvi. 190, $200 . \quad 11$ Aur. Vict. Caes. 28.
    12 Jordan, II. 328, 430 ; Hülsen, Il Gaianum e la Naumachia Vaticana, Diss. d. Pont. Accad. Romana, 1902, 355-379.

[^398]:    ${ }^{1}$ Bull. d. Ist. 1867, 8-12 (building), 12-30 (inscriptions) ; Ann. d. Ist. 1874, 111-163 (insc.) ; CIL. vi. 2998-3091; Jordan, I. 1. 309; Gilbert, III. 197.

    Not. Reg. xiv. ; CIL. vi. 8872-8876; Gilbert, III. 184.
    ${ }^{3}$ Mirab. 10.
    ${ }^{4}$ CIL. vi. 3148-3162.
    ${ }^{5}$ Suet. Cal. 54 ; Claud. 21 ; Nero, 22 ; Dio Cass. lix. 14; Tac. Ann. xiv. 14 ; Gilbert, III. 320.
    ${ }^{6}$ Pl. NH. xxxvi. 74.
    ${ }^{7}$ Pl. NH. xvi. 201; CILL. vi. 882; Gilbert, III. 194.
    ${ }^{8}$ Dio Cass. lix. 14 ; BC. 1896, 248-249.

[^399]:    ${ }^{1}$ See Hülsen's work, quoted on p. 491, note 12.
    ${ }^{2}$ Not. Reg. xiv. ${ }^{3}$ Not. Reg. xiv.
    ${ }^{4}$ BC. 1889, 392-399 ; Mitt. 1891, 148.
    ${ }^{5}$ NS. 1878, 66; 1879, 15, 40, 68; 1880, 127-142, pl. iv.; 1884, 238; BC. 1900, 321-341.
    ${ }^{6}$ NS. 1880, 129-138; 1883, 372 ; BC. 1880, 136; Mitt. 1889, 286.

[^400]:    ${ }^{1}$ Spart. Vit. Hadr. 19 ; Jul. Cap. Vit. Ant. Pii, 5 ; Procop. Bell. Goth. i. 22 ; Gilbert, III. 308-309; Jordan, II. 426-428, 433-434.
    ${ }^{2}$ Mon. d. Lincei, i. 444-449; Mitt. 1892, 329.
    ${ }^{\text {§ }}$ BC. 1888, 129-131; 1893, 22-25; NS. 1892, 411-428; Mitt. 1891, 137-145; 1893, 321-324; Borgatti, C'astel S. Angelo, Rome, 1890.

[^401]:    1 CIL . vị. 984-995.

[^402]:    ${ }^{1}$ Spart. Vit. Sev. 19, 24 ; Jul. Cap. Vit. Opil. Macrin. 5; Dio Cass. lxxvi. 15 ; lxxviii. 9, 24. - Jordan, II. 405-406.

