



**“Rome was not built in a day !!”**

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## **CITY PLANNING IN THE ROMAN PERIOD**

**The objective of this study is to investigate into the history of city planning in the Roman period, with the purpose of learning from the success and failure of Roman planning. The success stories will add to our knowledge of the planning profession, thereby helping us to solve the current problems. Their failures are important because the mistakes they did will not be repeated today.**

# The Roman period

Lasted from **500B.C. to 800A.D.**

## Arguments for and against an independent planning tradition

- In the past scholars have argued for an independent **tradition of regular planning** in Italy which was based on the Etruscans and their predecessors, the Villanovans. Other authorities, however, have maintained that there is no evidence for an independent planning tradition, and Etruscan and Roman planning came about through direct contact with the Greeks in southern Italy. The ambiguities in part arise from the fact that in many cities, especially in central Italy, **Greeks, Etruscans and Romans** came into **direct and close contact**.

- **Native cities were influenced or occupied consecutively and sometimes even concurrently by the Greeks and the Etruscans. Therefore it is often difficult to unravel the exact contribution which each made to the development of a particular town.**
- **The increasing evidence for early Greek planning in Italy, together with the **scarcity of evidence** for regular planning at early Etruscan towns and their Villanovan forerunners, is an indication of the **importance of the Greeks** in the **transmission of town planning ideas** to the indigenous people of Italy. The suggestion that town planning in the Roman period had developed independent of any Greek influence can now almost certainly be discounted.**

- The **Etruscans** were the **first true city builders** of central and northern Italy. Before them, there existed only the **hut villages** of the **early iron-age people of Italy**, known as the **Villanovans**.
- In the course of the seventh century B.C. changes began to take place. Now, more substantially built cities began to appear as the Etruscans, building in **stone** and **mud-brick**, replaced the less substantial **wattle** and **wooden huts** of the Villanovans.

# History and Development of Roman city planning

## Planning in the Roman empire

- The Roman empire **embraced** the whole of the **Mediterranean basin**, a large part of **northern** and **central Europe** including **Britain**, and the **middle east** as far as the **Euphrates river**.
- In order to achieve the aims of **maintaining peaceful governance** and **security** within the Roman empire, the central government relied heavily upon the city.

## Cities for the Romans were:

- The **primary level** of the administration of the empire
- Believed to be the institution most capable of maintaining **peace** and **promoting civilization** in the Roman sense Thus Rome **encouraged the growth** of towns and cities throughout the provinces of the empire.
- In the **first two centuries** of the Christian era the Roman empire enjoyed an unparalleled period of **peace, security and material prosperity**- all of which had important consequences for the **development of cities** and **urban life** within the empire.

## Cities for the Romans were (con't)

- **Defense** was no longer an important consideration either in the initial seating of a new city or in its subsequent development. Consequently, except in frontier areas, urban walls were not required.
- Cities took advantage of the **new** and **vast economic** opportunities
- A **spirit of competition** was fostered both **within cities** and between cities in the Roman empire. there was a deep and genuine feeling of **civic pride** and **civic patriotism**, especially amongst the **leading citizens** of the towns, and this patriotism had a profound effect on the development of towns throughout the empire.

## Cities for the Romans were (con't)

- The desire to **beautify** and **aggrandize** (increase the power) also put an increasingly unbearable strain on the resources of the cities and their citizens.
- The spirit of **rivalry** also brought other **potential dangers**. An example of such a case are the numerous ill-conceived, **unfinished** and completely dangerous public **building projects** which were undertaken by the cities of **Bithynia**. The reasons for such situation are:
  - **Too ambitious** projects
  - **Lack** of funds
  - Sometimes **personal profit** might also be involved

# Characteristics of Roman city planning

- Certain principles of Roman city planning had been developed independently as early as the **4<sup>th</sup> century B.C.**
- All **colonial towns** have been laid out as **camp plans** and **regularly planned** entities, that is as military outposts of the mother country.
- **Military** and **civilian** principles of city planning were almost **identical**

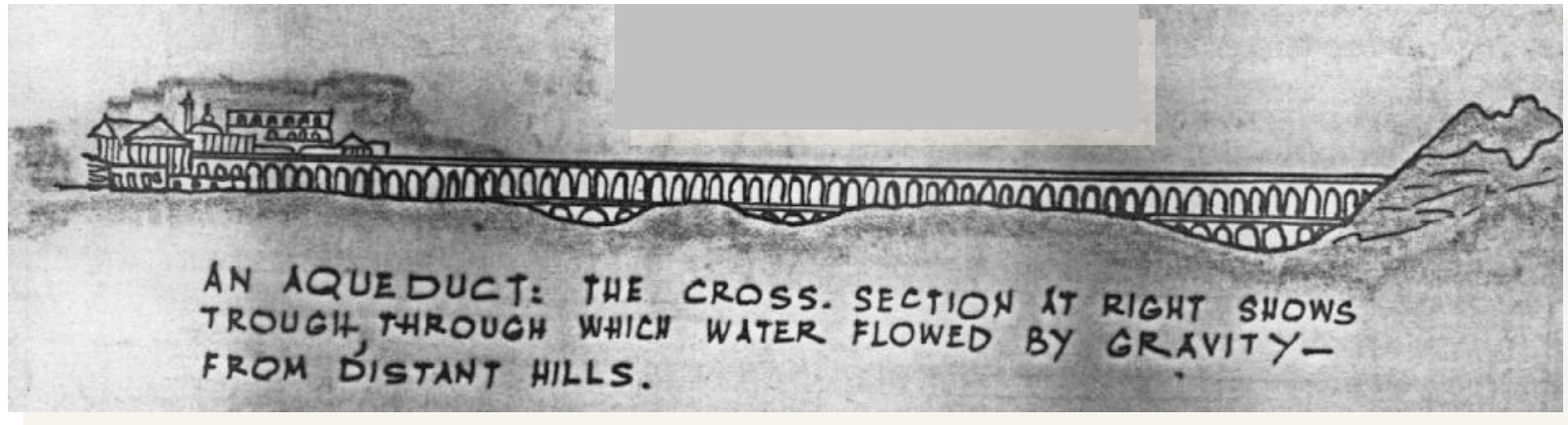
## Characteristics of Roman city planning (cont'd.)

- Roman foundations were **colonies** established as outposts in foreign countries on strategically favorable sites protecting the military roads that held the Roman Empire together.
- All of the Roman cities were designed as **units** with **blocks** around **250 sq. ft.** called **INSULAE**.
- And with their **open spaces** and **public buildings** duly cited at the beginning, in relation to the main thoroughfares(road)
- Even where a hill was relatively handy across a river as at Turin, the town would be set on a **level site** by the river, for **free circulation** and a more regular layout.

## Characteristics of Roman city planning (cont'd.)

- The **Piazzas** and **Campos** of the later Italian town were a direct issues of Roma planning
- Made sites plain to lay out their city plans while the **Greeks harmonized their buildings with the landscape**. By so doing the **Romans did not respect the existing features like hilltops, contours** and made them to fit in their pre-conceived city plans.
- Most of the Roman cities had **fortifications**
- **Straight roads** and a **grid iron pattern** of planning which afforded them a proper orientation.

## Characteristics of Roman city planning (cont'd.)



- **Excellent system of drainage and water supply** by using

### ACQUEDUCTS

- **Public baths** are also the characteristics of Roman cities



## Characteristics of Roman city planning (cont'd.)

- The Romans regarded **public buildings** as their **political tools** and used them to **impress their glory** upon their subjects. These buildings **varied in their sizes according to their functions**, but **not** one tended to dominate the others.
- Roman cities had **large** and **wide** roads because of **occasional ceremonial** parades and **military marches**.
- The Romans were worried about their **state buildings**, which received their **military attention**, because they were militia people.

# Types of Roman city plans

• There are **two types** of Roman city plans –

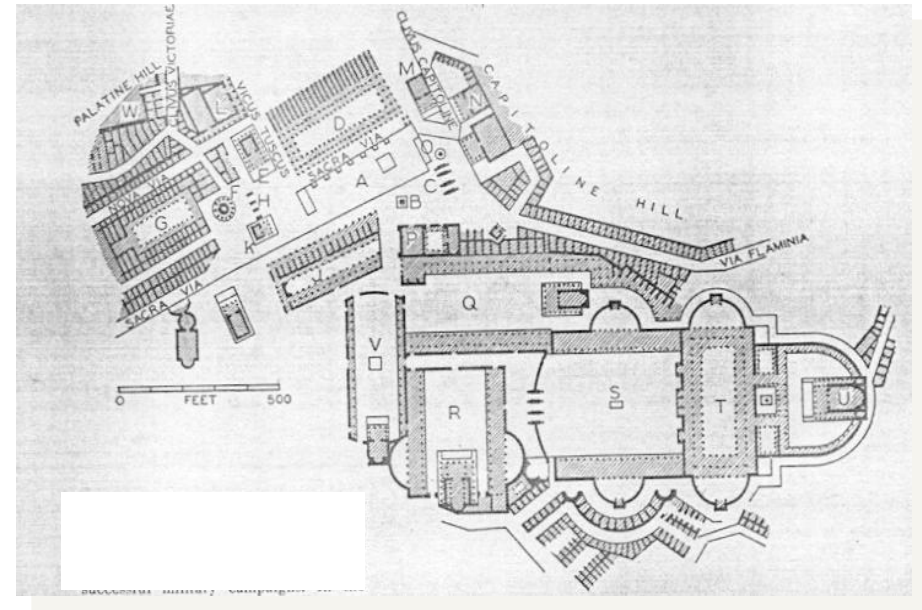
1. The **rectangular** and the

2. **Axial plans.**

1. The rectangular plans have taken hold in **northern Italy** and may well date from the early **Neolithic** times,

2. the axial type of town, with its **two main streets** crossing at right angles near the center.

- **Public baths** are also the characteristic of Roman cities
- From the **Hellenistic town**, the **Romans** received a pattern of **aesthetic order** that rested on a practical base; the Romans gave a characteristic turn of its own outdoing the original in **ornateness** (elaborately) and **magnificence**.

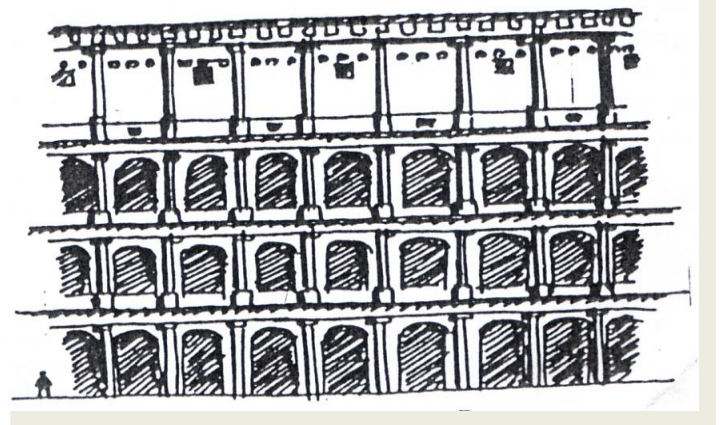


# A comparison of Roman and Greek urban design

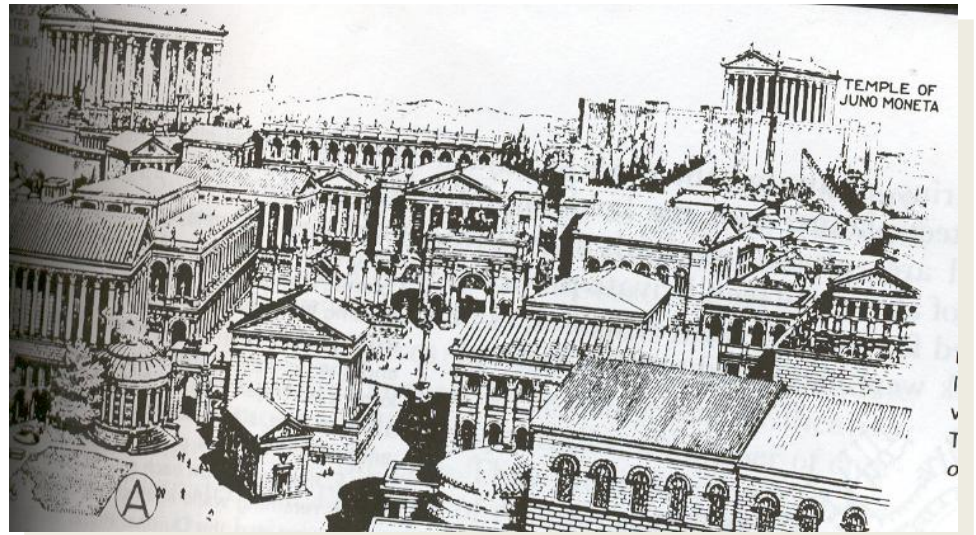
- Whereas the Greeks were motivated by the **sense of the finite in their towns** and **buildings**, the Romans were motivated by **political power** and **organization**.
- The **proportion** and **sizes** of Greek architecture, its **scale**-were based primarily on **human measurements**. The Romans, on the other hand used a **sense of what would harmoniously** relate the various parts of a building to each other and **not** necessarily to human measure.
- In their towns, the Romans choose a **module, insulae**, for relating all the parts of a town but the urban module for the Greeks was a **house** whereas the Roman urban module was more abstract.

## A comparison of Roman and Greek urban design (con't)

- Roman cities had **big market places** called **FORUMS**, the Roman equivalent of **acropolis** and **agora**, conceived as one.



Elevation of the **Coliseum**, Rome

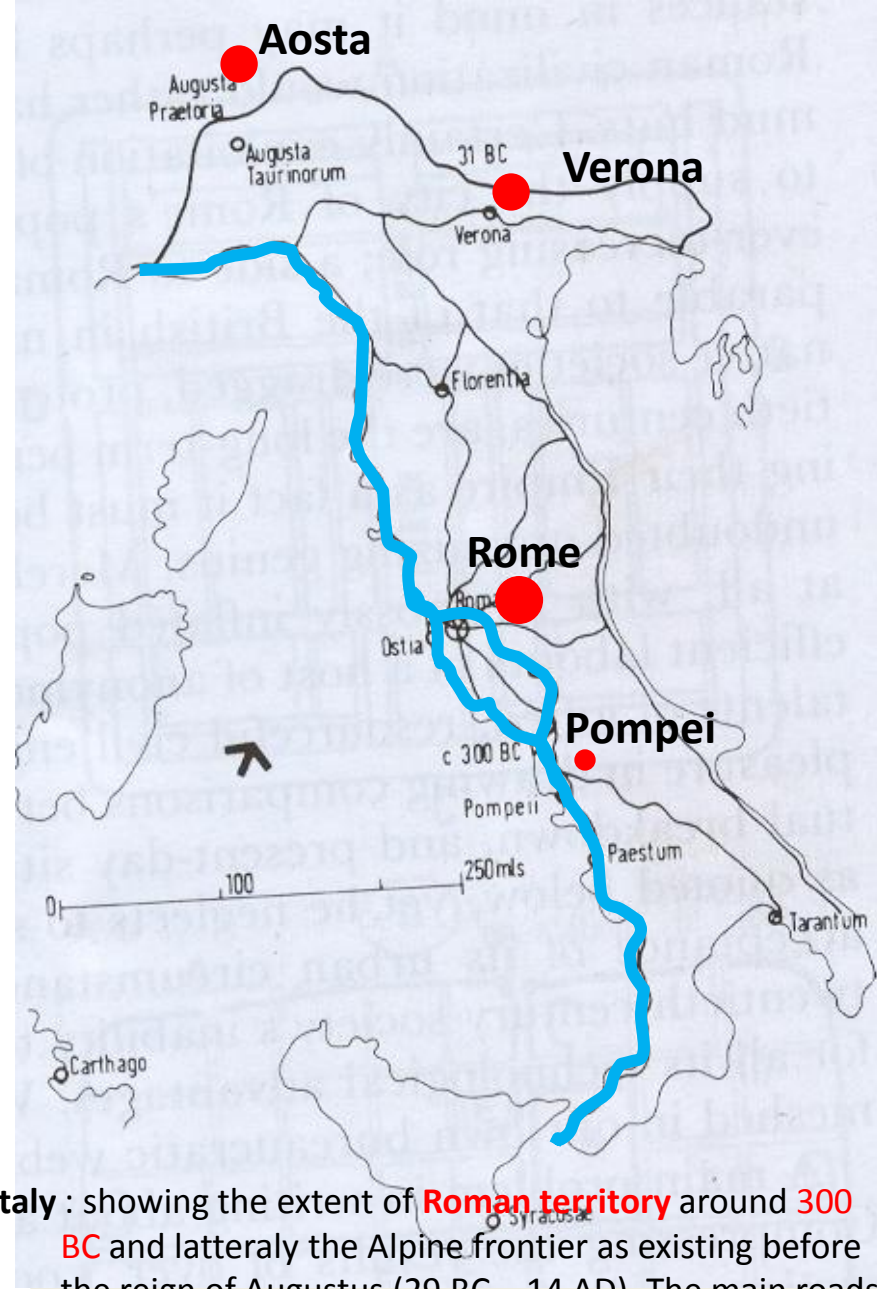


Areal view of **forum** Romanum

# Roman cites

## THE CITY OF ROME

The original settlement of Rome lay on the **banks of the Tiber** near the later Forum **Romanum**. From this center, protected by the surrounding hills, the city **fanned out in all directions**. It became the scene for a series of ever greater projects glorifying the **military leaders** and **emperors**.



Italy : showing the extent of **Roman territory** around **300 BC** and latterly the Alpine frontier as existing before the reign of Augustus (29 BC – 14 AD). The main roads are also shown (Augusta Praetoria is modern Aosta, Augusta Taurinorum is Turin)

- A Forum Romanum
  - B Forum of Emperors
  - C Palace of the Emperors
  - D Colosseum
  - E Circus Maximus
  - F Cloaca Maxima
  - G Claudian Aqueduct
  - H Baths of Caracalla
- 
- J Baths of Trajan
  - K Baths of Diocletian
  - L Theater of Pompey
  - M Theater of Marcellus
  - N Pantheon
  - O Tomb of Hadrian
  - P Circus Flaminius



## The city of Rome (cont'd.)

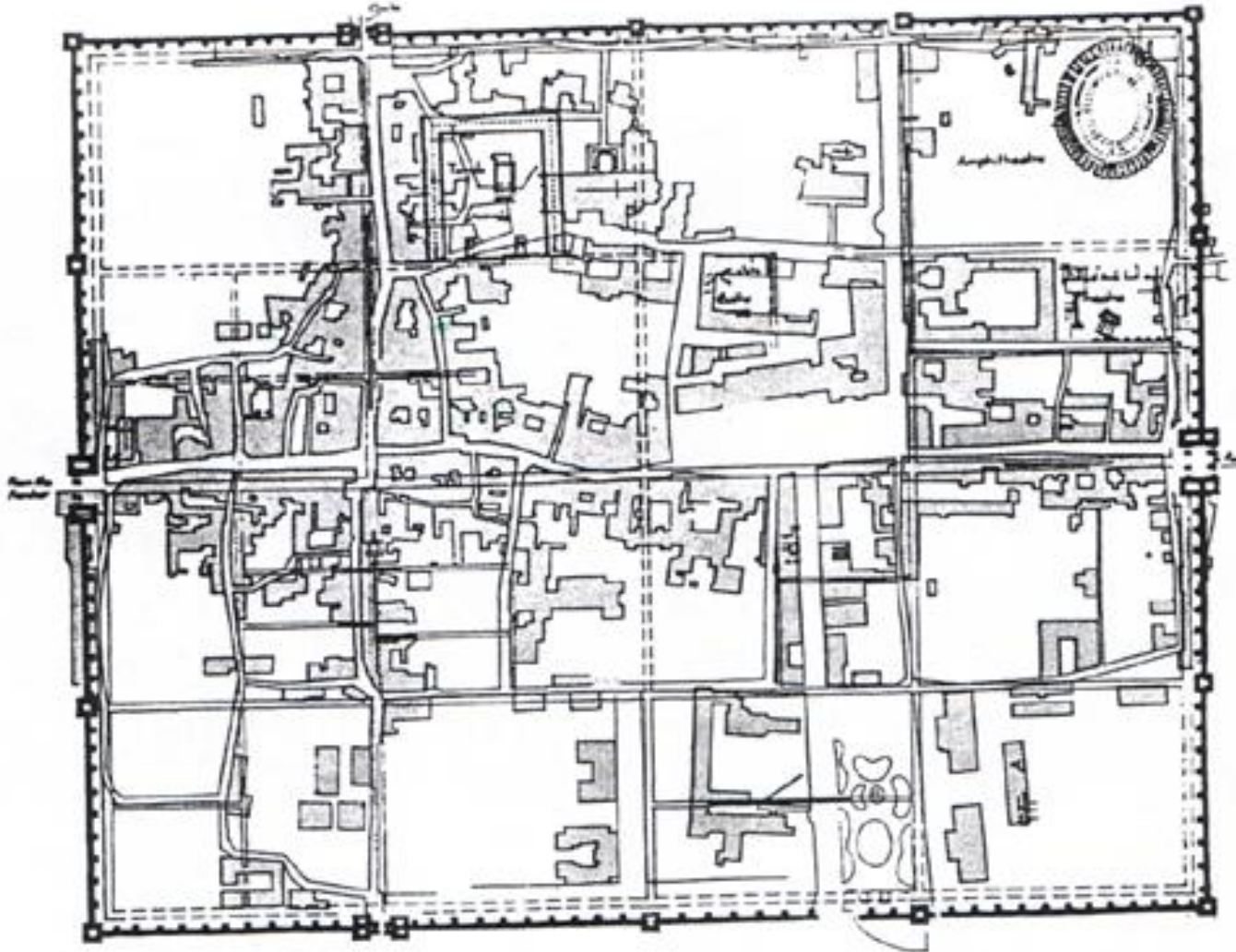
- In addition to the **temples, forum, and palaces**, huge facilities for entertainment were built for inversion of the masses-the **baths, collosia, theatres, stadia, and the circuses**.
- There is no indication that the street system in Rome was other than an **irregular pattern** typical of great cities which grew by **organic enlargement**.
- Rome **grew in population**, suffered speculation in land and buildings, became **congested**, and was over run with **slums**.
- Buildings increased in **height** until Augustus found it necessary to decrease a height limit of 70ft (about 21 mts).

# AOSTA

Founded in 25BC by Augustus

- The whole **military camp** forms a **square** and the way in which it is divided up by **streets** and the general internal disposition gave it a lay out like that of a city.
- Roman Aosta covered a rectangular area of about 100 acres (about **400,000m<sup>2</sup>** or 40 hectares), 780 yards (**652.18m**) long and 620 yards (**518.40m**) wide, **surrounded by walls** with **twenty square towers**.
- **Six streets** crossing each other at **right angles** divided the interior into **sixteen large blocks** which, in their turn were subdivided in to insulae of about 70yards (58.53m) by 90 yards(75.25m).

## AOSTA (continued)



**Aosta, a typical Roman military town**

## AOSTA (continued)

- There were a **theater** and **amphitheatre** within the walls (not outside which was more usual); a **temple**, **public bath** and a **forum**- near but **not in the center** of the town.
- Shows **two principal streets** rounding across the length and breadth of the town, the main features which the Romans introduced in their **chess board** plan
- One of the **main streets**, the **Decumanus**, running **East-west** is centrally located;
- The other, the **Cardo**, is slightly **shifted to one** end.

AOSTA (continued)

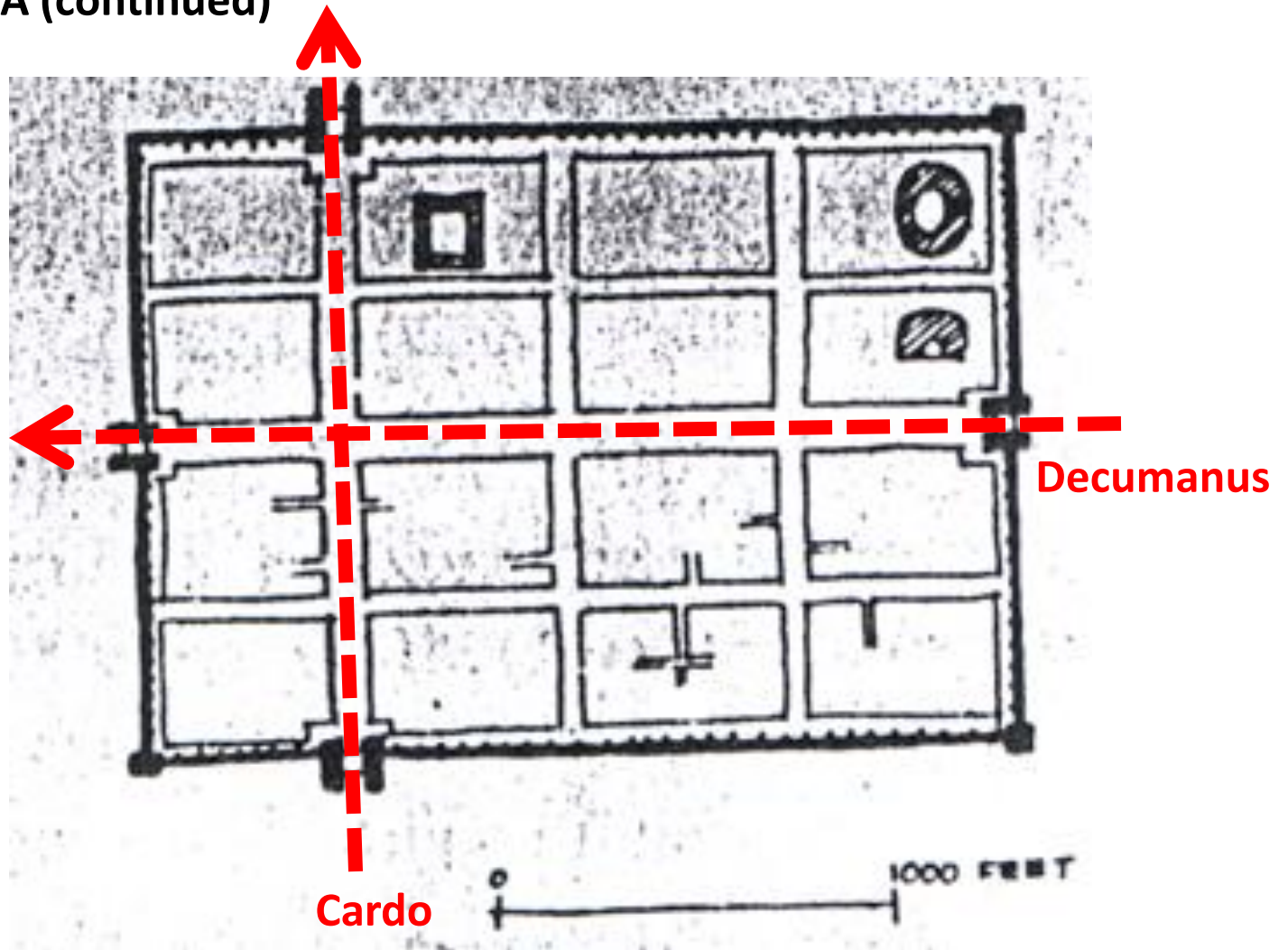


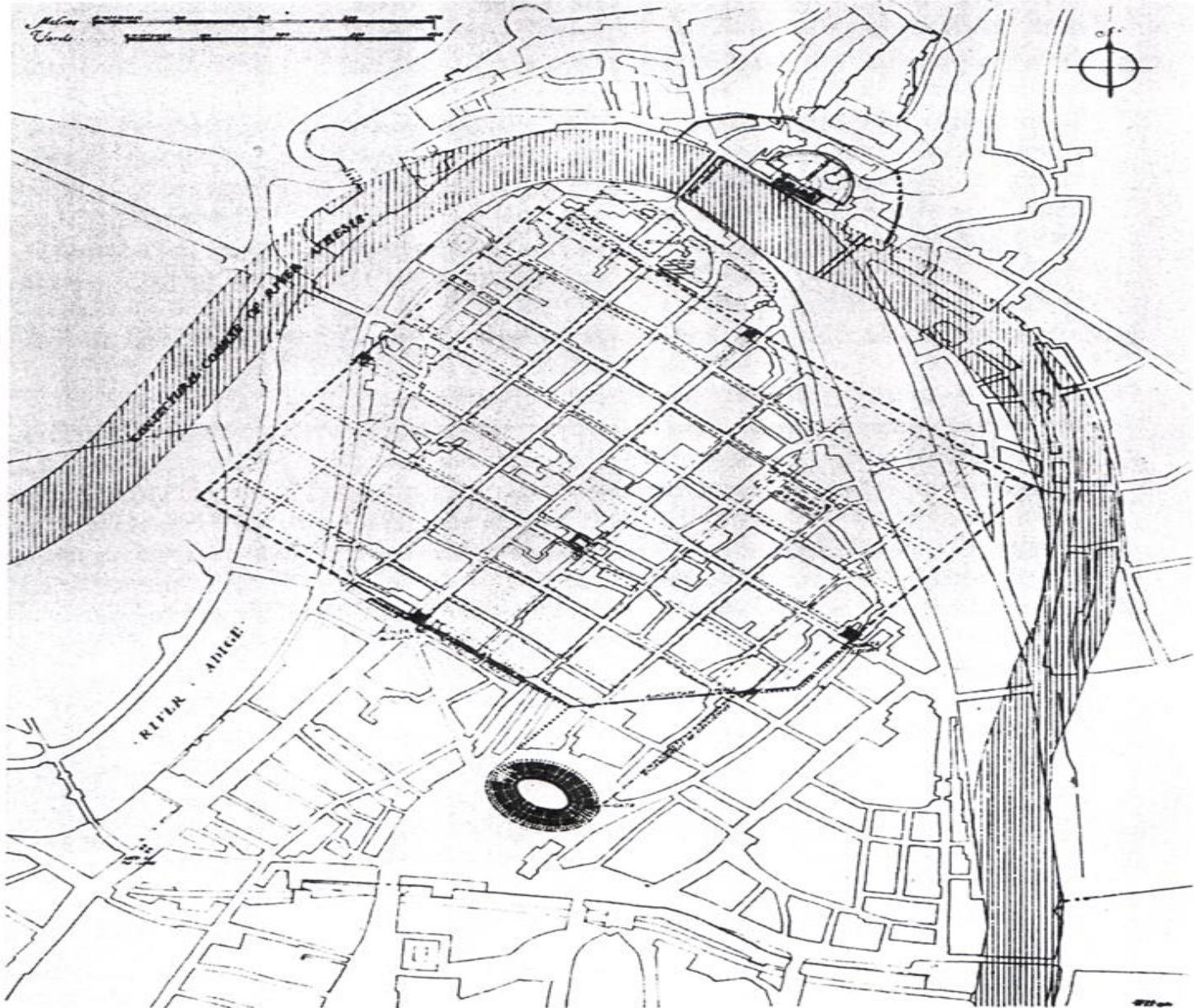
Figure showing the street structure of Aosta with important public buildings and gates.

# VERONA

- The earliest settlement on the site of the future Verona was a foundation by the **Raetians** and **Euganeans** of **northern Italy**.
- A **Latin colony** founded in 69 B.C.
- It covered an **alluvial plain** within the river bend, which protected almost two thirds of its circumference.
- The **rectangular** layout with the *decumanus* and *cardo* consisted of **eight blocks** from **north** to **south** and nine blocks from **east** to **west**, each forming a square of **260 feet** (79.25m) and **bounded by streets 20 feet** (6.1m) **wide** – except the **main streets**, which were **wider**.

- The rebuilding of Verona is best connected with the preparation of the **opening of the Brenner** and the **conquest of Raetia in 15 B.C.** thus the one plan may have inspired the other, and their resemblance is further evidence for the “**standardization**” of Augustan policy.
- An **amphitheatre** and a **circus** outside the walls, a **capitol** occupying a block south of the *decumanus* a **theatre** on the **east** side of the river built **against the slopes** of a the hill.

74. Plan of Roman Verona.

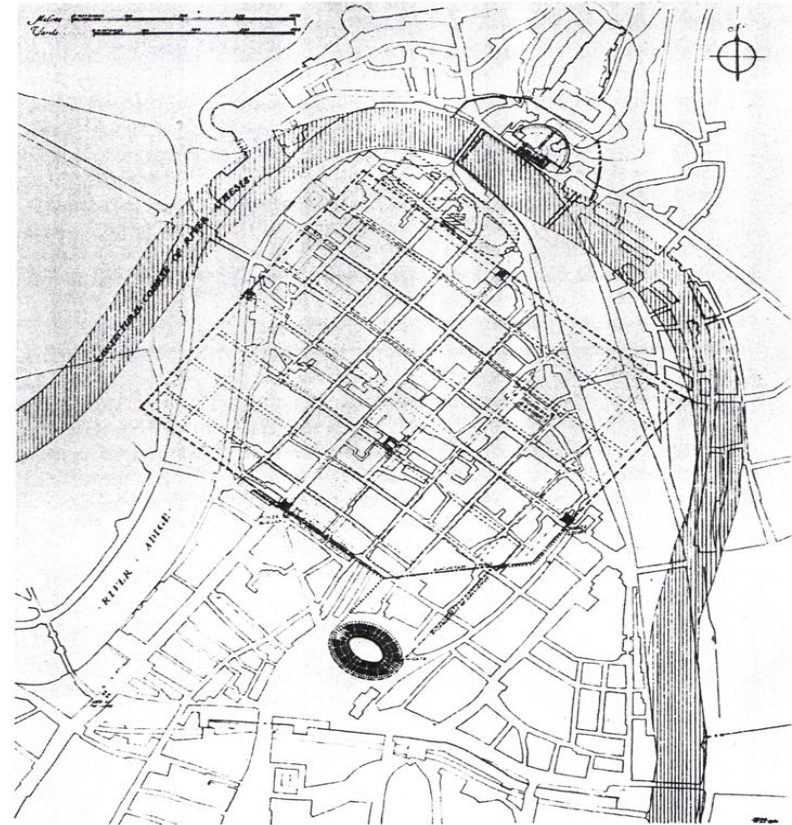


Plan of Roman Verona

## VERONA (cont'd.)

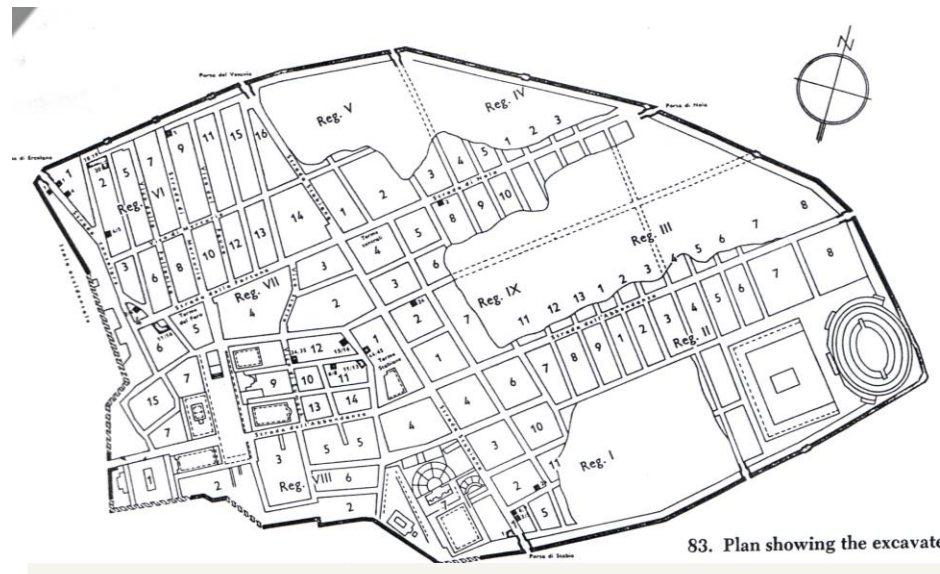
- The **Augustan** walls were placed in **265 A.D.** by a new enceinte somewhat in advance of the older course but, in general, following the same outline except at the **south – west** angle where it projected to include the **amphitheatre** like a great bastion (thing regarded as protection).

74. Plan of Roman Verona.



# Pompei

- Pompei rose upon a ridge about **130 ft above sea level**, produced by a large flow of lava from the flank or the center Vesuvius in pre-historic times.
- The external irregular shape of and the interior layout have been decisively influenced by the contours of the terrain.

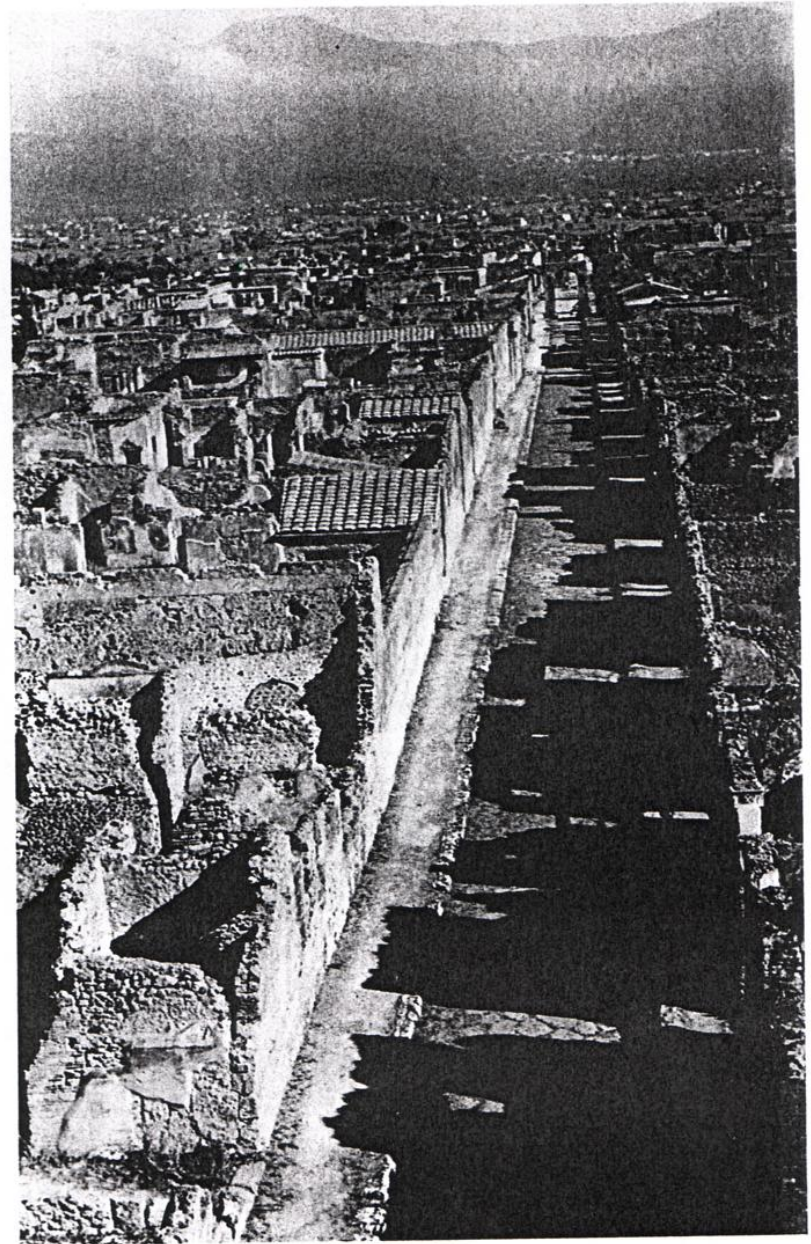


## POMPEI, province of Napoli (cont'd.)

- The **main axial road**, the *via di Stabia*, runs along the steepest slope roughly from the **southeast** to **northwest**. The walls follow the course of the lava flow partly along its crest. Their circumference of approximately **two miles** encloses an area of about 161 acres.
- The ***decumani*** run more or less parallel to the larger extension, from **east** to **west**, and the ***cardinies*** parallel to the shorter extension, from **north** to **south** of the enclosed urban area. These main roads were crossed at right angles by secondary streets, the *viae* or *itinerata*, and were all flanked by raised, paved sidewalks and traversed at intervals by stepping stones for pedestrians.

POMPEI, province of Napoli (cont'd.)

- Unlike many other Roman towns, the *forum* of Pompei is **not located at the center**, but at the **southwest end**, on a large **level site**, near the **walls** and the **Porta Marina**, and on a flat stretch of ground nearby stood the temple of Venus Pompeiana, the patron goddess of the city.



77. General view of Pompei with one of the main streets.



78. General view of the *forum* in Pompeii.

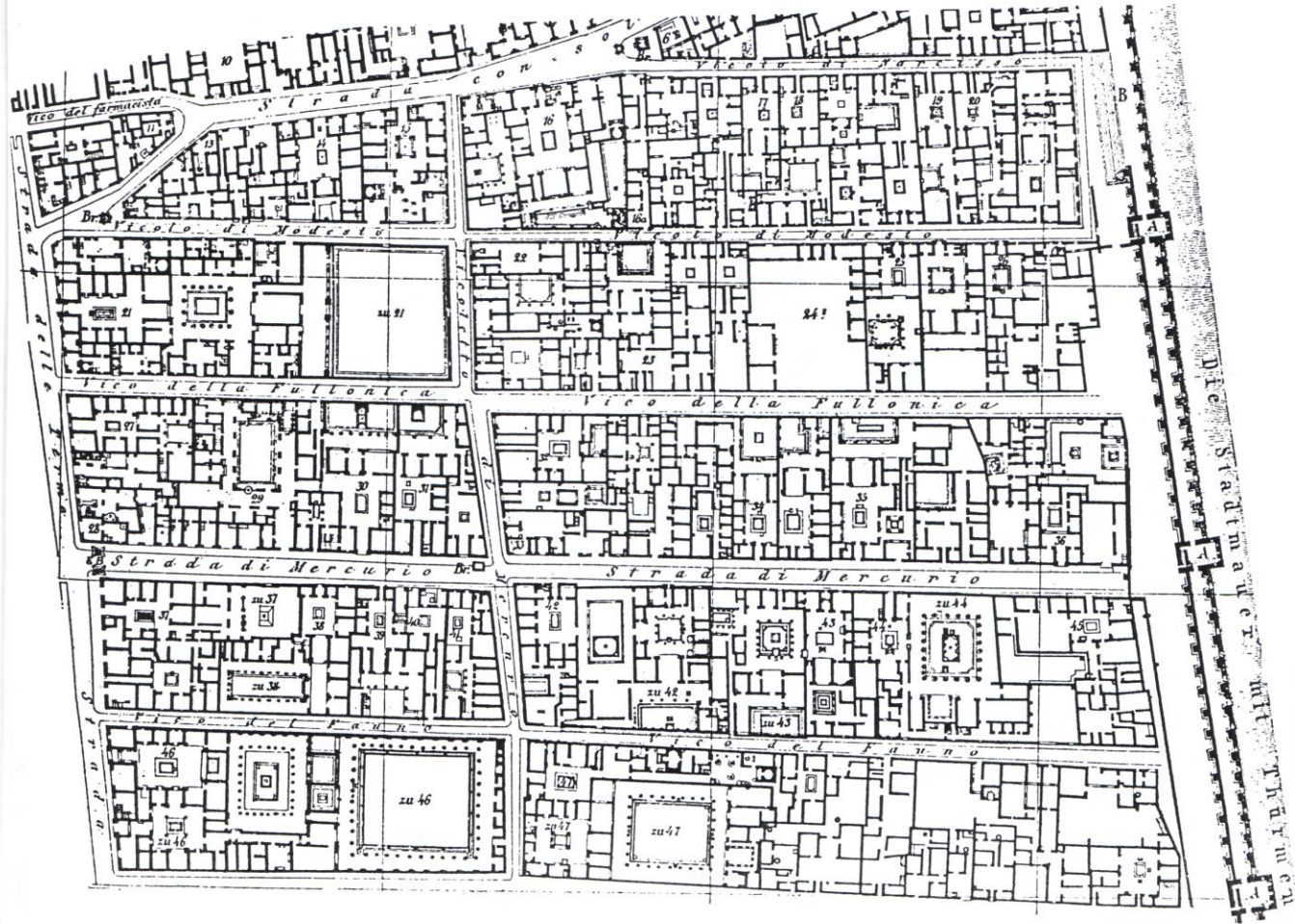
## POMPEII, province of Napoli (cont'd.)

- Further south, on another level area, the **Greek temple** of the sixth century and the **triangular forum** were situated, connected with the theatre on a lower level adjoining them.
- Finally at the extreme **south west** a vast area was reserved for the **amphitheatre** and the *palaestra*. It is obvious that the internal layout was adapted, to a high degree, to the natural configuration of the terrain.

- In the last years before A.D. 79, Pompei had begun to spill over its walls into the open country. Most of the houses had **two stories**, and the population numbered about **20,000** inhabitants.
- The **forum** was the **centre** of delineation Pompei.
- It was **more than a religious** or **administrative** or **economic center** individually or collectively.
- It was the **hub of the social life** of the town and as such the **meaningful symbol**,
- The focus of **social coherence** towards which the **manifold** (many and various) personal and professional functions of the whole body of inhabitants gravitated.

# POMPEI, province of Napoli (cont'd.)

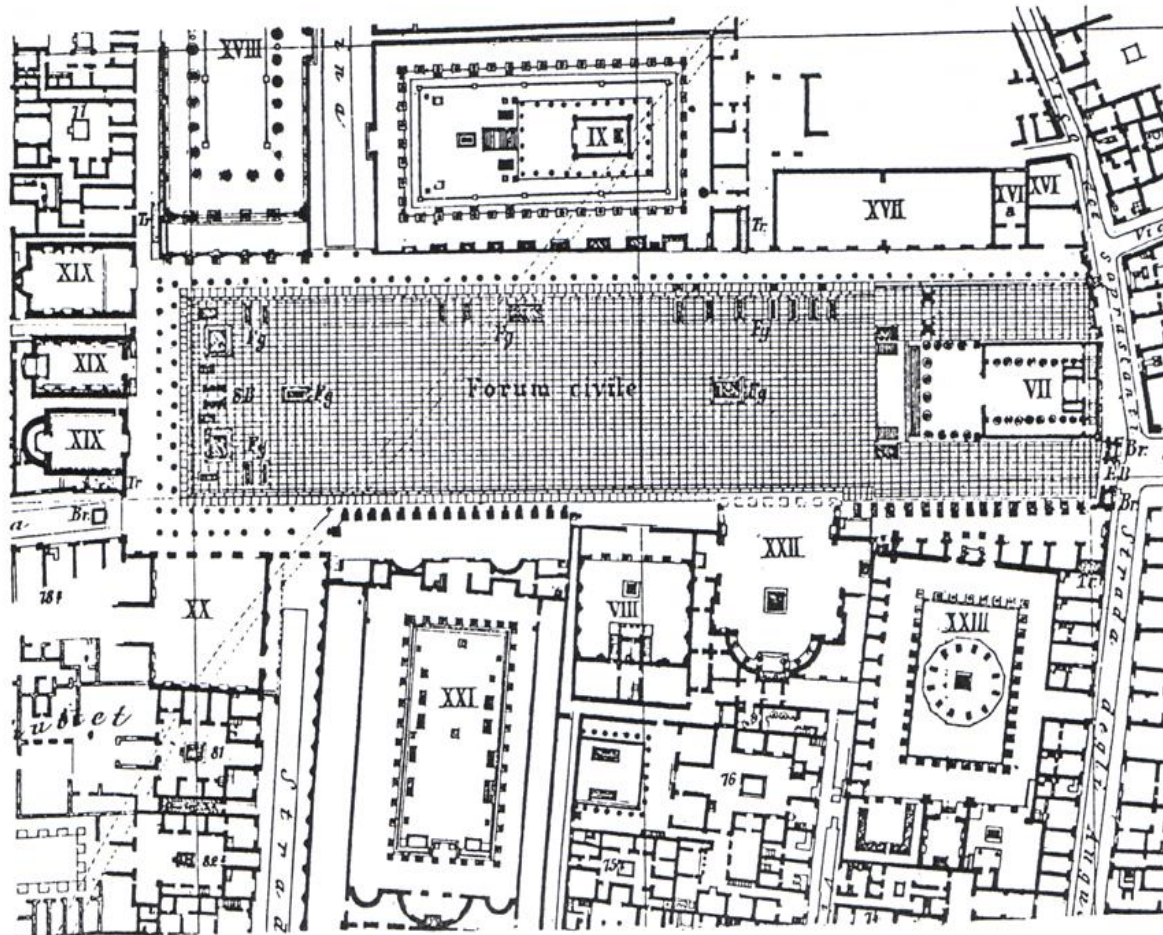
79. Plan of the northwestern section of the residential area in Pompeii.



## THE FORUM

- The forum was a **perfect open air** interior within which people could **move, chat, consort, or discuss business** and **yet feel at home**, instinctively aware of the temple as the center-piece.
- **No vehicular traffic** was allowed in or near it. It remained an area reserved exclusively for **pedestrians**.
- The rectangular area, extending with its longer axis from **north to south** and measuring about 124ft by 466ft (**37.8m by 142m**), was small enough to **retain its intimacy**. It was originally surrounded by a **portico** above which rose a gallery accessible by stairways.

80. Forum and surrounding buildings at Pompeii.



Forum and surrounding buildings at Pompeii

# The Influence of Roman City Planning in Addis Ababa, Ethiopia

- The Italians, during their **five years occupation** of Ethiopia between the years **1936-1941**, concentrated more on **urban development** and **infrastructural development** in the country.
- They were involved in building the city of Gondar by **harmonizing** the existing castle area with the new development they proposed.
- **Gondar** owes very much to the Italians for its present urban character and qualities.



## The Influence ... in Addis Ababa, Ethiopia (Con't)

- Had it **not** been for their shorter span of life in Ethiopia, they could have contributed a lot more for the development of **urban centers** in the country.
- Addis Ababa is one of the cities that received the planning **influence** during the five years stay of the Italians in Ethiopia
- **1936**, the Italians commissioned the famous architect Le Corbusier to prepare a **master plan** for the **colonial town** Addis Ababa.
- He prepared a **proposal sketch** for the city without visiting the city.
- Le Corbu's proposal was derived from his concept to the **radiant city**, consisting of **monumental structures** and a **grand boulevard** running from **north** to **south**. His proposal however did not get the approval of the Italian authorities and was not realized.

## The Influence ... in Addis Ababa, Ethiopia (Con't)

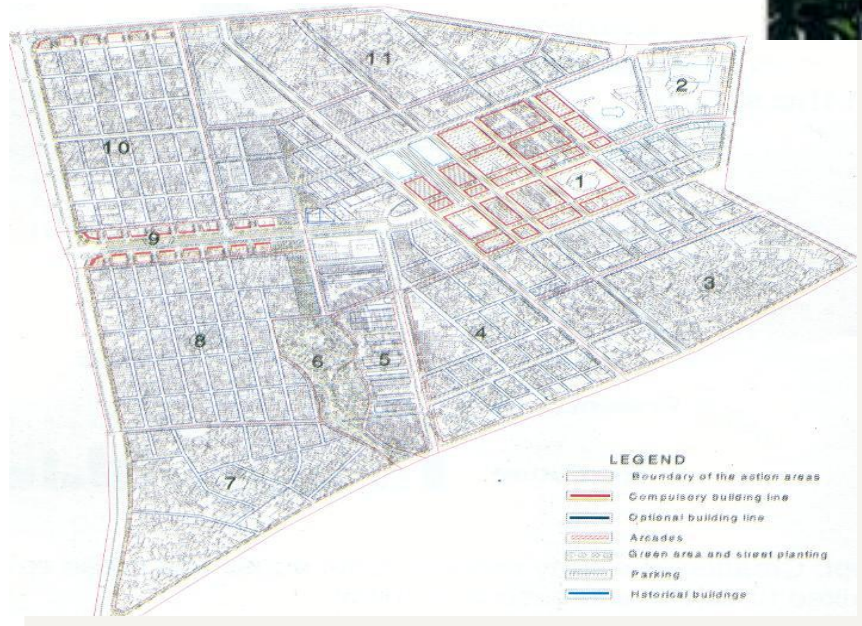
- In the same year, 1936, two Italians, **Guidi** and **Valle**, prepared a city plan that emphasized the “**prestige of the colonizer**”.
- Their proposal divided the city into **two parts**: “ the **European city**” with two parallel axes and “the **native city**” (Addis Ketema) with a **grid iron** street network located on the **west side** of the “**European city**”.
- The effects of this plan are still evident in the city today.



Guidi and Valle's plan for Addis Ababa showing the influence of Roman planning, 1936

# The Influence ... in Addis Ababa, Ethiopia (Con't)

- Italian heritage in Addis Ababa
- **Addis Ketema**
- Some characteristic Italian buildings in **Piassa**, Addis Ababa.



Merkato, Addis Ketema, in Addis Ababa showing the influence of **Italian planning** which is itself influenced by Roman planning – **Grid iron** planning.

## The Influence ... in Addis Ababa, Ethiopia (Con't)



- Some pictures from Piassa showing the influence of Italian urban design – look at the **perimeter** buildings **defining corners** of blocks in the area

## Lessons drawn

- The Roman city planning tradition is itself a **student of the Etruscan** and the **Hellenic planning** preaching to us the importance of earlier civilizations.
- **Modesty** in **scale** and **simplicity** in layout
- Street **hierarchies**
- **Environmental considerations** in city design and planning, Vitruvius suggested that **minor streets** or alleys be oriented to shut out the unpleasant cold winds and the ‘infectious’ hot ones, as **opposed to the customary religious principle of orientation**.
- The idea of a **city center**, the **forum** with all the **surrounding buildings placed at the center** of a Roman town, usually at the **intersection** of the *decumanes* and the *cardo*.

- **Segregation** between **public** and **residential** functions
- **Water supply system** of the Roman towns by using **aqueducts** is also another lesson that we learn from the Romans. The aqueducts were used to supply water for the baths of a Roman town, which were located in the different parts of the *insulae*.
- **Straight roads** and a **grid iron** pattern of planning are also lessons that we learn from Roman city planning.
  - The Romans regarded **public buildings** as their political tools and used them to **impress their glory** upon their subjects. These grand buildings **varied in their sizes** according to their functions, but **not** one tended to **dominate the others**. This is also a lesson that we learn from Roman city design and planning.

**Thank you for your  
attention!**