

TRAJAN'S MARKETS
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Art History

ATH 429: Special Topics

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Trajan's Markets and Trajan's Forum, which form one complex, are located in the center of ancient—and modern—Rome. Today, these second-century Markets are quiet and empty ruins of shops and storage units populated with curious tourists holding their guidebooks, as well as cats, which have made the Markets their home. Walking the streets of present-day Rome, which are noisy and crowded with shoppers doing their daily rounds in similar-looking shops located on the ground floor of residential buildings, one can easily imagine the hustle and bustle of second-century Romans at the Markets. This paper will explore and try to bring to life the Markets that were so successful when Trajan ruled the Roman Empire. It is divided into eight sections.

First, the role of the fora will be defined: why they were built; who built them; what historical events surrounded their development. This section of the paper will describe the similarities among the emperors who built them and point out the differences in the purposes of fora between Republican and Imperial Rome. The second section will examine the function of Trajan's Forum and the Markets in second-century Roman society with respect to Rome's population as well as to the living and housing conditions of the Romans. Considering Italy's declining economic conditions when Trajan came to power, his public buildings raise the question of where Trajan found the resources to finance the most expensive forum to date as well as making extensive public improvements. The third part of this paper will attempt to answer this question.

Factors that make the Markets innovative, even revolutionary, in architectural design, including building materials and methods, are covered in the next three sections. How and why the beautiful traditional and conservative structure of Trajan's Forum was built adjacent to the very different and architecturally innovative Markets as part of the same complex will be examined. One will be able to see how concrete in the hands of artistic and talented architects, such as Apollodorus, who designed Trajan's Forum and Markets, changed architecture forever. This section will also analyze some striking and deliberate similarities between Augustus' and Trajan's Forum. Other parallels between the two emperors will be made throughout the paper.

Finally, information on the type of goods sold at the Markets will be described. A section will be devoted to public assistance—its importance for emperors and for Roman society—and its location in the Markets.

FORUM DEFINED

Initially, the function of the fora was similar to that of the agoras in Greece, or town centers in the modern world. They were areas set aside to provide services (meetings, trade, business, administration of justice, ceremonies, cultural activities, markets, and temples) for societies as they became more urbanized (Cunliffe 124). The site of the original forum, the Roman Forum, was at the heart of Roman society, where much of the social life of Romans took place. Its buildings included the senate, law courts (basilicas), temples, and triumphal arches. It was a place for celebrations and festivals as well as for trade, business, and shopping.

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Rome's commanders and emperors used the fora for political propaganda to express their generosity and to reify the grandeur of their reign. One way to express largess was to distribute war booty and grain. Augustus maintained power and peace in part by gaining the people's confidence through donations in the form of money (congiaria) to his soldiers and grain (frumentations) to the population. This "generosity" came to be expected and continued throughout the imperial reigns (Naphthali p. 150). The more visibility an emperor had in this function, the more prestige he gained. Trajan did not ignore this fact, as will be seen in the discussion of the Market structure.

Caesar, Augustus, Nerva, and Trajan each extended the Roman Forum with additional fora. All four have the following similarities as rulers of Rome: they came to power during times of political and economical instability; they assumed sole power of the government; they were generous in providing for state reforms and social and economic improvements; and, with the exception of Nerva, they controlled the army, commanded military power, and waged victorious war campaigns. While Trajan had associated himself with Augustus, a popular and powerful ruler, so had Augustus aligned himself with his adoptive father, Julius Caesar. The associations were calculated to gain the confidence of the Roman population.

Julius Caesar (100–44 B.C.), the remarkable and brilliant military dictator who had expanded the Roman Empire, stabilized the Republic and instituted social reforms, was the first to expand the Roman Forum. As a public space, it could no longer accommodate Rome's large population. The Forum's expansion continued with Gaius Julius Caesar Octavianus (63 B.C.–A.D. 14) who was given the title (then used as a name) Augustus (meaning "the revered one") in 27 B.C. He was Caesar's great nephew, but as adoptive son and heir, he gained sole power after assassinating Antony in 30 B.C. His reign was marked by a gain in territory, an end to a decade of civil wars, a time of peace (known as Pax Romana), and urban renewal. Imperial Rome began with his rule, giving him power over the Senate for the first time. Whereas the Senate had had to give approval of public buildings during the Republic, Augustus could now build as he wished and use architecture and art as propaganda for the state and himself. He gained popularity with Romans by affiliating himself with Caesar. He finished projects begun by Caesar and built his Forum as an extension of Caesar's. He also instituted reforms in moral codes, national duty, and religion. Nerva's two-year reign (96–98) followed the brutal dictatorial rule of Domitian. During his rule, rights such as free speech were reintroduced; the persecution of intellectuals, Christians, and Jews ended; and economic measures were instituted to improve the economy. Trajan (98–117) was above all a military emperor who came to power during Italy's economic decline. He too waged successful military campaigns that benefited the Roman Empire and extended the boundaries to their greatest dimension. He affiliated himself with the much-admired Augustus, who had become known as the emperor of peace, prosperity, and national unity.

These four extensions of the Roman Forum are known as the Imperial Fora, and were adjacent to each other. Trajan's Forum, which includes the Markets, was the last of the extensions, and the grandest of them all. They will be discussed in detail in separate sections of this paper.

LIVING AND HOUSING CONDITIONS

Second-century Rome was a crowded city with a population of around 1,200,000 (Carcopino 65). Traffic was noisy, dangerous, and heavy. Romans, rich and poor, lived

in the upper floors of the tenement blocks (insulae) which lined the narrow streets, allowing for very little sunlight. The street floor of these tenements was a continuous row of shops (tabernae), which shopkeepers often extended beyond the threshold, causing even more crowding (Gorlin 227). After the fire of 64, an attempt was made to restrict the height of tenements, widen streets, and impose sturdier construction using fireproof stone and less timber. But even with these regulations,

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streets remained narrow and housing crowded (Grant 264-265). Second-century Roman housing also lacked some basic needs: neither heat nor plumbing was available. Public baths and bathrooms, which were common by the first century, were heated and clean. Romans usually bathed once a day, in the late afternoon. Public baths also included areas for exercise and socializing (Boethius 137). Trajan's Forum fulfilled administrative and public needs for this urbanized and highly populated city. Judicial services were available in the basilica; libraries were open to intellectuals; the huge central spaces of the forum allowed the population to congregate and socialize (or celebrate in festivities) in a safe area, away from noise and traffic. Commercial transactions took place in Trajan's Markets, the area designated for shopping and collecting public assistance. The upper levels of the Markets also provided a beautiful view of Trajan's Forum and Column.

TRAJAN'S FORUM – FUNDING

Trajan's Forum (including the Markets) was extensive and expensive, the most glorious and extravagant of all fora. The financial resources and the manpower Trajan used to build came from his victorious campaigns against Dacia, a country he ultimately destroyed. In 85, when Rome was under the reign of Domitian, Decebalus of Dacia (now Romania) led his troops to the southern province of Moesia. In spite of great loss of their forces, the Romans restored control.

In 101, Trajan, who had spent most of his life waging campaigns, did not hesitate to launch his first hard-hitting campaign against Decebalus, which lasted three years. His motives were military glory and Dacia's gold and silver. In 103, Trajan declared victory, and Decebalus conceded western Dacia, which received a permanent Roman garrison in the capital.

By 105, Decebalus had been able to rebuild his army, even welcoming Roman deserters. He raided his neighbors to the south, captured the Roman commander, and held him for ransom in return for territory he had lost. In 106, Trajan took two forces and headed straight for the capital of Dacia, where he won. This time he took over the existing structures of Dacia, which had a highly civilized culture with sophisticated buildings. Most of the population was removed, and he imposed Roman rule. Thousands became Roman slaves or prisoners. Ten thousand alone died in the arena. Many more thousands had to settle in provinces south of the Danube. Trajan had succeeded in destroying the Dacian civilization. Decebalus committed suicide. Dacian gold, silver, and slaves paid for the construction of Trajan's Forum and Markets, or, put another way, the death and annihilation of a civilization paid for his Forum and Markets. Trajan acquired the title of Dacius after this military victory and depicted his conquest over the Dacians in relief on Trajan's Column, which he placed in his Forum.

The defeat of the Dacians was well timed for Trajan as emperor, and for Italy, whose economy and agricultural prosperity were declining from lack of capital and manpower. The influx of riches and slaves from Dacia allowed Trajan to build roads, enlarge the port of Ostia, and embellish Rome with projects that included the new and glorious Forum and Markets (Cunliffe 124).

TRAJAN'S FORUM – ARCHITECTURE

Trajan's Forum, built by Apollodorus of Damascus, a very talented Greco-Syrian town-planner, engineer, and architect, was dedicated in 113. It was the most spectacular of the fora in size. The space and buildings were in perfect relation to each other, creating architectural harmony and order, for which the Romans were renowned. Apart from its size, the arrangement and materials of the forum proper were traditional—stone, marble, timber, and granite columns extracted from Egypt. It copied many features (exedrae, porticoes, moldings, and colored marble) of the Augustan Forum of the first century, which had been considered glorious at the time. Pliny had praised Augustus' Forum as "one of the most beautiful constructions the Text Box: Trajan's Forum diagram (Packer)earth ever saw"

(Meneghini and Ungaro 12).

Trajan's Forum was located between the Quirinal (which Trajan cut back 125 feet) and Capitoline hills. It consisted of a rectangular space 660 feet long and 390 feet wide,

with three porticoed sides. Three-fifths of the area was left open. A gilded statue of Trajan in a six-horse gilded-bronze chariot surmounted the entrance, located at the curved wall on the south side of the forum. A gigantic equestrian statue of Trajan stood at the center of the open space of the forum. The outer walls formed semicircular exedrae at their center. There were many statues throughout, some gilded, celebrating Trajan's victory over the Dacians. At the north end was the largest and most lavishly decorated of the forum's buildings, the Basilica Ulpia (named after the emperor's family name—Ulpian) (Boethius 243). It was 400 feet long and 200 feet wide, and had yellow marble steps, raising it three feet above the forum proper (Carcopino 3-9). Three porches projected from the basilica and were surmounted with gilded statues of Trajan on chariots (Packer 34). The central nave (within two ambulatory colonnades) spanned 80 feet and was 260 feet long. There was an apse on either end, which was not visible from inside the forum proper nor from inside the basilica. It had a timber roof and the coffered ceiling was sheathed with gilded bronze. Colored marbles were used extensively in its rich decoration and the columns were of Egyptian granite.

This basilica epitomized the grandeur of Imperial Rome and was still standing during the time of Constantine, who chose the basilica as the architectural type for Christian worship (Boethius 244). The basilica blocked the view of an additional courtyard to the north, containing two libraries, the column of Trajan, and the Temple of the deified Trajan. The libraries were raised three feet higher than the basilica to symbolize their importance and were built of brick to protect against fire and humidity. They contained Greek and Latin manuscripts and were placed 78 feet apart with the column of Trajan in the middle. The column is 125 feet high (equal to the footage excavated from the Quirinal hill), with a relief spiral (to be read as a scroll) containing over 2,500 figures, forming a detailed marble record of the two Dacian wars (Carcopino 9). In Imperial Rome, it was popular for emperors to depict themselves as commanding and authoritative figures in relief on public monuments (Ramage 14). Trajan's Forum thus served as propaganda for the emperor. It was an instant success and tourist attraction (Packer 34). Behind the east wall and separate from the forum were Trajan's Markets, a complex of shops and social assistance offices.

TRAJAN'S MARKETS-- STRUCTURE AND MATERIALS

Although Trajan's Forum and Markets were a part of the same complex, they were separate in accessibility, visibility, materials, and architectural style. The use of concrete and undecorated brick with vaulted ceilings in the Markets was in sharp contrast to the Forum's traditional and conservative plan, employing stone, timber, marbles and decorative statues. That both styles were used simultaneously demonstrates that this is an age of transition in architecture (Boethius 243) when innovative techniques using concrete became fully realized.

This new style allowed for construction that traded trabeation for arches and "the vaulted style answered many contemporary architectural needs." (MacDonald "Study" 75). Concrete (mortar mixed with aggregate) offered ease in making and combining curves, arches, vaults, and continuous walls with no joints as was seen in the

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artistic construction of the Domus Aurea built for Nero (MacDonald "Study" 43)

It is important to consider the materials used for the construction in order to understand these innovations. Although the Greeks and the Romans had used mortar in previous centuries (for instance, to level stone that had not been evenly cut), mixing it with aggregate to form concrete was new (MacDonald "Study" 152). In addition, Rome was situated in an area where special earth called pozzolana was easily available. A clean, sandy, finely pulverized volcanic product, pozzolana (chocolate and red in color) got its name from its location in thick strata at Puteoli, a Roman colony in the Bay of Pozzolana. This type of earth was also available north and east of Rome.

LEAD Technologies Inc. V1.01Text Box: Concrete facings (Sear)LEAD Technologies Inc. V1.01Pozzolana was mixed in a kiln with limestone, the heat turning it into what is called quick lime. This was the best building material available until the nineteenth century, when Portland Cement (containing oxides of calcium, aluminum, iron, and silicon in addition to the clay and limestone) was developed. Pozzolana is superior to sand, commonly used in making mortar, because it contains a vitreous element, which, when mixed with lime becomes very cohesive and hard. It will even harden under water, which was very convenient for building bridges. The pozzolana-lime mortar was combined with an aggregate (caementa) to give the concrete structure (Grant 265-271). It was added to the mortar at the time of construction and consisted of waste from polished facing blocks, broken stone, brick and even marble and pumice stone, when lighter weight was a consideration, as in vaulting. Depending on the mass needed, it would be blended differently.

Roman architects were aware of the need for sound foundations. Foundation walls were poured between boards, known as shutterings, with a minimum depth of two meters. For Trajan's projects, stones were laid by hand in regular rows for even weight bearing and then completely covered with mortar.

Bricks served an important function in the innovation of the new technology available with concrete. They were used for forming walls and arches, and once dried, became part of the structure. Used as facing, they provided weatherproofing for the wall.

After the foundations were poured and dry, the next phase was wall building. Walls were built one layer at a time, without shutterings. Facing bricks were sawn or broken into triangles, laid, and joined perfectly, providing the form to pour the concrete. When the concrete was dry, the process was repeated with a new layer of bricks. Scaffolding was used as the height increased until the wall was finished. The work was continuous and perfectly timed so as not to dry too quickly. While one part of a wall was drying, another would be worked on (MacDonald "Study" 158).

When the wall was finished, the carpenters would make the vault formwork, using either all timbers, or, as was common at this time, with tiles placed on top. Concrete was then carried up in baskets and poured over wood frame. In building the Markets, the vault forms did not need to be totally dismantled because the modules were duplicated. It is also possible that the scaffolding used for forming the walls was also used in placing the vaulted ceiling formwork (MacDonald "Study" 155 - 160).

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Diagrams of vaults and domes and vault formwork using tiles (Sear)

Trajan's Markets (Cunliffe)

File written by Adobe Photoshop® 4.0 The fact that the Markets are constructed of inexpensive material is a great factor in their remaining nearly intact up to now. On the other hand, very little remains of Trajan's Forum: most of its marble and granite columns were pillaged and "recycled" into other buildings. There were other advantages to having concrete construction: it was economical because it was readily available; building took less time as less equipment and skilled labor were required; and it allowed for new designs in building. Traditional Imperial construction with stone, columns, and marble required skilled labor for shaping and cutting. The material then had to be transported to the site by ship and cart. Lifting these heavy materials into place required precision and was also time-consuming because it required that all activity stop while manpower was used to turn the wheel of the crane that lifted them into position. The use of concrete allowed architects to shape and mold the material in a way that was impossible with traditional stone. While maintaining Rome's sense of order and harmony with the individual rows of rooms in Trajan's Markets, concrete also allowed for the lines to be contoured and fluid (MacDonald "Study" 179).

TRAJAN'S MARKETS – LOCATION – DESIGN

Trajan's Markets were a commercial area built against the Quirinal hill that replaced the many shops (tabernae) which had been destroyed for the construction of his Forum and Markets. The Markets were the first to be built in such a monumental frame (Gorlin 232). They were made of brick-faced concrete with travertine framing, and consisted of at least 170 vaulted rooms on five stories linked by stairs and streets and accessible from three levels. The rock of the Quirinal hill is visible in certain areas of the Markets.

Trajan's Markets (MacDonald)

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The Markets, however, were not visible from within the Forum. Between the hemicycle and the eastern exedra of the Forum was a high wall made of tufa blocks. The Markets, therefore, were not meant to be seen frontally or from a distance. This is important when considering the shallow brick and terracotta pediment decorations along the arched windows of the Markets' hemicycle facade. These decorations were emphasized by the shadows created when the sunlight hit them and were meant to be seen as one approached from the sides. The facade's arched windows and doors were framed within pilasters and capitals of travertine. The minimal decoration emphasized its functional purpose and exposed the new techniques in concrete construction, while the use of a reddish brick exterior, the emphasis of curves in the layout, and the vaulting of each space gave the markets a utilitarian feeling.

Apollodorus designed the Markets to create a sense of continuous movement. The floors varied, creating an irregular skyline; the street was on an incline and curved; there were few straight axes; the view from each level changed; some rooms were connected, others not; and there were no courts for people to congregate (MacDonald 90). Each element of the complex was like a new experience for the shoppers, whose curiosity as to what lay ahead, below, or around the corner, kept them moving.

TRAJAN'S MARKETS – USE

Trajan's Markets resemble both the shops (tabernae) and storehouses (horrea) of that time (i.e. single-roomed, vaulted units, with wide doors facing the street and repeated in uninterrupted rows). Most likely they were used for both purposes, and many of them had a mezzanine gallery lit by a window above the door. This gave the space versatility in use, and the large door allowed for light and air circulation.

(MacDonald)

LEAD Technologies Inc. V1.01 According to MacDonald, the Forum level may have housed the imperial treasury (arcarii caesariani), while Carcopino states that fruit and flowers were probably sold on the ground floor. There is very little literature on the specific use of the individual rooms in the Markets (MacDonald "Study" 76). Moreover, the rooms are replicated, it is impossible to know what specific use each room had, unless there is a variation, such as drains for fish shops (MacDonald "Study" 78) or storage vessels (amphorae) for oil and wine. Pepper and spices were sold on the second and third floors, as the street name, via Biberatica, indicates. Via Biberatica was given its name in the Middle Ages and comes from the word "pipera" meaning spice. To the north on via Biberatica, there was an independent row of six shops, with steps leading to the next story, the fourth floor, where the main market hall (aula) was located. It is a vaulted rectangular space, 92 feet by 32 feet with two rows of six rooms opening on either side on two levels. The upper level is a gallery-like corridor with openings corresponding to the six bays of the central vault. The main hall was reserved for the public distribution of food (discussed below), and perhaps for auctions (Boethius 241). The public assistance offices were also located on this floor. The fish market was at the top of Quirinal hill, on the fifth floor. Fresh fish were put in ponds fed by two aqueducts, one with fresh water and the other with seawater (Carcopino 7).
File written by Adobe Photoshop® 4.0 WHAT WAS SOLD AT THE MARKET

The contents of the Markets discussed above (spaces for fruit, flowers, wine, oil, fish, spices, grain, offices, public assistance, and storage areas) certainly did not fill 170 rooms. In trying to get an idea of other shops and services the Markets may have contained, we can explore the port of Ostia to see what was imported, exported, and stored. We can also examine a typical Roman diet to suggest foodstuffs sold at the Markets.

Corn, cured meats, and dates were among the food products imported to Ostia.

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Non-food imports included barrels and jars, marbles and porphyries, ivory, lead, silver and copper, candles, papyrus, glass, incense, wool, coral, gems, and silks. There could have been tradesmen as well, such as shoemakers, and silver and goldsmiths (Carcopino 176-80). Wool, which was woven by slave women, was sold as togas, tunics, blankets, and carpets.

In the Roman diet, grain was the mainstay of life and was eaten in large quantities throughout the year for the greater part of daily calories. Wheat, particularly the spelt variety, and barley were the most popular (Rickman 4-5). This is why doles of grain were so important for Roman citizens. Olives were an essential source of fat for Romans. They were sold fresh, pickled, or processed into olive oil for cooking, lamp fuel, and detergent. Honey was the primary sweetener. Beans and peas were important mainstays for the poor and could be sold dry. Onions and other root vegetables like turnips and radishes were eaten, along with green vegetables, such as broccoli, artichokes, asparagus, and leeks. Popular fruit were apples, pears, figs, grapes, quinces, and pomegranates. Cheese and sour milk were available. Meat was scarce but the most available were chicken and sausages (kept without refrigeration). A very popular seasoning was called garum, a fish sauce consisting of fish partially dried in the sun and fermented with salt (Stambaugh 147). In the second century, the following foods were not sold at the markets, as they had not yet been introduced to Italy: tomatoes, potatoes, bananas, peanuts, rice, cane sugar, maize, chocolate, and coffee.

PUBLIC ASSISTANCE – ANNONA

[Annona= Annona Augustus is the Divinity of Imperial Supplies, i.e., the mythological personification of the year's food supply (Carcopino 174).]

Grain, especially millet and wheat, was an essential item in Roman nutrition. Prior to the third century B.C., it was grown in the vicinity of Rome and sold in open markets. There was no shortage until Italian farm production changed from grain to vines and olives. State intervention was required initially (second century B.C.) to control the supply and high prices that grain now commanded. Imports from Sicily, Sardinia, and Africa began to fill the needs of Rome's growing population. It was stored in horrae and continued to be monitored by the state, which subsidized the price. Eventually, emperors recognized doles as a significant means of gaining popularity, and distribution became free to Roman citizens (Stambaugh 146). Slaves were not considered citizens. Although the rich Roman citizens (senators, knights, magistrates, soldiers, and veterans) were entitled to public assistance, the dole was intended for the poor Romans who made up one-half to two-thirds of the population, or 400,000 to 600,000 (Carcopino 65). Given the number of people on public assistance, it is likely that some of the Markets' rooms were used as horrae.

Trajan must have calculated the political importance of the annona, and placed the offices for public administrators and the distribution area in the main hall, the aula located on the fourth floor of the Markets. These administrators were responsible for managing the distribution of grain, arranging contracts with private shippers, inspecting, measuring, and sampling the grain, and arranging for storage. Citizens (usually men as heads of households) lined up on their appointed day of the month, presented their wooden tokens (tesserae), and received their ration of grain—for a typical family of five. The aula might also have provided space for specific auctions of estates or slaves, who were considered commodities (Stambaugh 146-151).

SUMMARY

Trajan took advantage of his military skill, power, and timing—when Italy needed an economic boost and manpower—and his good fortune to build a new image for Rome and elevate his status with Romans.

Looking at Trajan's Forum and Markets as a complex today, a visitor sees little left

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of the Forum other than Trajan's column. Yet the Markets remain nearly intact. As mentioned above, this is largely due to the difference in construction materials used. Many of the expensive marbles and columns of Trajan's Forum were reused to construct and adorn buildings and monuments that followed and are still visible in present-day Rome.

Concrete allowed for the elevation, setting, and curves of the Markets giving them a sense of excitement and beauty that today's modern malls lack. In spite of their age (1890 years), they are still used for exhibitions (e.g. the colored marble exhibit of 2002-2003) and fashion shows.

After finishing this paper, however, I was left with the very sad thought that empires were made through slavery, genocide, and the destruction of cultures. Trajan's Forum was filled with motifs describing Trajan's victory over the Dacians. Sadder still is the high probability that the Dacian slaves were forced to erect statues honoring the man who had killed their leader and their people. That we admire the art and construction of buildings that were developed through the death and suffering of so many thousands of people suddenly dulls even the most lavish and polished of marbles.

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