

From Archaic Agora to Roman Forum: Urban Organization of Public Spaces in Ancient Alexandria

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ABSTRACT

The flourish of ancient Alexandria can be traced back to the time of its foundation in early Hellenistic period when it became the center of the Greek culture and the capital of Egypt. It was also considered one of the greatest powers of the ancient world till the time of its decline in 30 B.C and the appearance of the power of Rome. Historians imply that "*Forum*" or Public Space is the place where public events and affairs took place. The Forum initially acted primarily as a market place for daily purchases. As public events were held there throughout time, it developed into something that is far more spatial adaptation and useful as: Statues, arches, Basilicas and other vital buildings were added to accommodate the gathering. This research seeks to argue the architectural development of Alexandria during the Roman period and the sustainability in planning the city in this period.

The Research objectives are: to illustrate the idea of *Forum* according to classical historians' writings; clarify the various functions of *Forum* in the Roman period where elections, public speeches, criminal trials, religious ceremonies, social gatherings and business dealings, law courts, and gladiatorial combats) took place and trying to relocate the Roman *Forum* as for the location of the *Agora* supposing sustainability in use and function regardless the diversity of design and Plan. Ancient Forum can be considered as an important criterion in elevating the development and the growth of the city so the research draws on an analytical and historical study of the forum based on the original and the oldest Roman Forum, studying its design, appendixes, technologies, and architecture.

KEYWORDS: Forum - Greco Roman Egypt – Ancient Alexandria – Gathering places – Agora- Public places.

Introduction

The Agora as a scale of a Greek city

The agora served as the center of the ancient Greek city. Due to the small size of ancient Greek cities, there was typically no need for many centers because all public business, trade, administration, worship, and the law courts were merged there. However, few evidence of a second agora or autonomous city center is known to exist. There was no need for additional centers to service outlying neighborhoods because the main center could be reached on foot from anywhere in the city in less than 15 minutes¹.

¹ Constantinos .A. Doxladis (1964) *Ekistics*, v.18, no.108, November 1964, p. 346-364: 11 fig.P.353.

Most Greek Poleis² appear to have had a Council-house (*bouleuterion*) as a separate building where the Council (*boule*) held its meetings, as well as offices (*archaia*) for the top magistrates and boards of magistrates scattered throughout the city. Separate court buildings (*dikasteria*) are not frequently mentioned in sources for unknown reasons. Few poleis have a designated meeting spot. In the Archaic period, (*ekklesiasterion*) gatherings of the people were held in the marketplace (*agora*), while in the Classical and Hellenistic periods, they were held in the theatre³.

After determining the streets of the city and its directions, the places of the Temples and the agora must be organized according to Convenience and public interest. The Agora must be built in a place near the port if the city was located on the sea & in the middle of the city if the city doesn't have shores.⁴

The public buildings in the Greek city mostly are situated within the urban setting; represent its political, economic, social, and religious purposes. The agora is the main place where the city's political and administrative role is visible⁵. The streets connecting them to the rest of the city served as their individual cities' arteries. The agora like the acropolis, served as marker of a city's political and governmental independence, and they did so even during the height of the Roman Empire. The social hub of the town was also the agora until more specific structures were built, entertainment, contests, and other leisure activities were held inside their precincts.⁶ The size of open space in the agora was sufficient to enable the population to congregate there at any one time. In the center of the ancient Greek cities, there was an average of 1.12 square meters of open space per resident. Keep in mind that, at a big event, there might be as many as six people per square meter (at a church, at a demonstration, or among people gathered to listen to a public speaker). Even if the entire city's population gathered at one time, it will be evident that the average area per person, 1.12 square meters, allowed easy movement. But since children, the aged, and the sick made up 40% of the population, it seemed improbable that more than half would ever come together at one time. Therefore, each individual needs around two square meters of open area⁷.

Economic focus points were placed within the city itself in relation to harbors, gateways, the agora and other places where people could be found also the urban framework included temples, shrines, and other sacred sites. In order to preserve the purity of the city and its center, **Plato** suggested placing temples in a circle around the agora and throughout the rest of the city.⁸ The classical agora was the heart of the

² Before the Roman conquest, famous and well organized cities in the East had long been existed, while The earliest cities were established by the Romans in the western regions of the Roman empire

³ Hermann, H. M., (2006). *Polis an Introduction to the Ancient Greek City-State*, Oxford, P.103.

⁴ Vitruvius, (1914). *The Ten books of Architecture*, Morgan .M.H & Warren .H.L, Oxford

اعداد ياسر عابدين – عقبة فاكوش – ياسر الجاني ؛ جامعة دمشق – كلية الهندسة المعمارية ؛ ص 46.

⁵ Gates Charles, (2011), *Ancient Cities "The archaeology of urban life in the Ancient Near East and Egypt, Greece, and Rome*, Illustrations by Neslihan Yilmaz , Routledge , P. 358.

⁶ Owens .E.G (1992) *The city in the Greek and Roman world*, Routledge , P. 14.

⁷ Constantinos .A. Doxladis (1964) *Ekistics*, V.18, No.108, November 1964, p. 346-364: 11 fig.P.354.

⁸ Plato, *Leges* 778 a–d. see also Owens .E.G (1992) *The city* P. 16

classical Greek polis and, according to **Aristotle**; its supervision was the most fundamental service that a city provided:

" πρῶτον μὲν οὖν ἐπιμέλεια τῶν ἀναγκαίων ἢ περὶ τὴν ἀγοράν, ἐφ' ἧ δεῖ τινὰ ἀρχὴν εἶναι τὴν ἐφορῶσαν περὶ τε τὰ συμβόλαια καὶ τὴν εὐκοσμίαν"

"First among the indispensable services is the superintendence of the market, over which there must be an official to oversee contracts and good order"⁹.

The homes of government officials and the courts were considered sacred also supposed to be situated close to the temples safeguard the sanctity of the city and its core the plan of the city of Pompey describes this well (**Fig .1**).the city of Megara Hyblaea in Archaic Sicily which lay on a small Plateau by the sea the town had a regular plan allowing clear space for its agora¹⁰ (**Fig. 2**).

The Forum as a core of the Roman cities

The perfect design of a Roman city in the eyes of the Romans begins with The Forum, a public space with adjacent buildings, is located in the center surrounded by the capitol : the state religion temple , the Curia : the place of the decurions' meetings , the Basilica : court house , a theatre or amphitheatre , temples , baths , fountains , aqueducts , triumphal arches etc. if these buildings is not always similar in form with ancient cities but were at least analogous in function and purpose¹¹. In Roman architecture, a forum is an enclosed area, a series of structures for collective use, or a location of public usage. A location that is both, in Vitruvius' words, a "common place" and, in Pierre Gros' words, a "place of memory"

As a result, honorific inscriptions, memorial monuments, and buildings housing the legal, administrative, and religious sectors were all located in the same square¹² .

The General principles of Roman Forum planning¹³

*1- (Decumanus Maximus) & (Cardo Maximus)*¹⁴

⁹ Aristotle's Agoranomos had general supervision over the agora, including the numerous written contracts that would have been produced in this central market of a Greek city. Later he mentions another official, whose specific duty was to register , for more details see: Graham Claytor, W. (2014), Mechanics of Empire: the Karanis Register and the Writing Offices of Roman Egypt, un published PHD Thesis, University of Michigan, P. 40 & note 176

¹⁰ Boardman, J. (1980). The Greeks Overseas "Their only Colonies and trade", New and enlarged edition with 319 illustrations, Thames and Hudson, P.174 ff.

¹¹ Grimal .P(1983) Roman Cities : Les Villes Romaines , translated and edited by Woloch .G.M , the University of Wisconsin Press , P. 7

¹² Martins de Carvalho , M.(2019) Ichnography, Orthography and Scenography as forms of tracing the construction of the Roman Forum of Eboracae (York) : Cultural Landscape in Practice ; Lecture notes in Civil Engineering 26 , edited by Amoroso ,G. and Salerno .R., Springer Nature Switzerland AG 2019.P. 246.

¹³ حناشي محمد كريم (2017)، دراسة الساحة العامة لمدينة بورتوس ماغنوس، رسالة ماجستير غير منشورة (جامعة 8 ماي 1945 قالة، الجزائر): كلية العلوم الإنسانية والاجتماعية - قسم الآثار، ص 20 وما بعدها .

¹⁴ The term decumanus has an unclear meaning, but it definitely alludes to the number 10, but it is not easy to determine why. The cardo, on the other hand, signifies pivot or door hinge because it followed the perfect line on which the sky appeared to swing. See : Grimal .P (1983) Roman Cities , P. 11

The Roman also adopted the 2 main lines of the city which became 2 main roads from north to south and from east to west met in the middle of the four outside lines. Numerous findings indicate that these communities had a typical "chess-board" street layout. This town-planning approach has now firmly established itself in Europe. It appears that it was used by Alexander the Great, this style of the Greek city is known as "Hippodamus" after the name of the Greek architect, Dinocrates of Rhodes¹⁵.

2- *Basilica*

Was one of the constructions that had different functions. It was the center of the courts and disputes rather than a place for signing commercial deals. Vitruvius recommended building it around the forum in a place where it was easy to capture the heat of the sun in order not to make the comers feel the cold of winter on condition that its width wouldn't exceed the third of half of its length.

3- *Temple*

"The maintenance institutions", A building used for the worship of a god or gods who were live within their cult statues inside the temples' shrines and performing ritual sometimes they were considered a town inside the town.

4- *Curia* "the house of the Senate", was the center of city council where political, public, official or religious issues and important affairs were discussed and decided and where elections were held.¹⁶

5- *Fences*: Were an important feature of Roman cities surrounding the city and protecting it from foreign attacks, they also used to have square or circular towers and their doors were decorated with arches¹⁷.

Alexandria: The Capital city of Greco-Roman Egypt

Alexandria was the greatest city the Ancient world has ever known. Alexander found the suitable location for establishing his new city that would serve as link

¹⁵ according to Aristotle (Politics, II, V, 2) Hippodamus the Milesian, who was the first to apply this system, viewed the social synthesis of the town": His system was for a city with a population of ten thousand, divided into three classes; for he made one class of artisans, one of farmers and the third the class that fought for the state in war and was the armed class. He divided the land into three parts, one sacred, one public and one private: sacred land to supply the customary offerings to the gods, common land to provide the warrior class with food, and private land to be owned by the farmers". Aristotle, again (Politics, VII, X, 4) writes: "The arrangement of the private dwellings is thought to be more agreeable and more convenient for general purposes if they are laid out in straight streets, after the modern fashion, that is, the one introduced by Hippodamus; but is more suitable for security in war if it is on the contrary plan, as cities used to be in ancient times; for that arrangement is difficult for foreign troops to enter and to find their way about in when attacking. Hence, it is well to combine the advantages of both plans, and not to lay out the whole city in straight streets, but only certain parts and districts, for in this way it will combine security with beauty". Aristotle Politics: translated with introduction and notes by C.D.C.Reeve 1998 Hackett Publishing Company, Indianapolis / Cambridge

¹⁶ Vitruvius also describes it " if it is square, the height of its walls, must exceed one and half of its border but if it is rectangular add the length of its borders and take half of them to determine the height of the building while the inner walls should be covered with a fresco of wood or alabaster to avoid echos."

¹⁷ حناشي محمد كريم، (2017)، دراسة الساحة العامة لمدينة بورتوس ماغنوس. ص 22-25

between Egypt, Europe, and Asia and became the great emporium of the Ancient world.¹⁸ (Dio. Chrys. 32.36) describes Alexandria:

"is situated, as it were, at the uniting centre of the whole earth, of even its most far away nations, as if the whole city is an agora, bringing together all men into one place, displaying them to one another and, as far as possible, making them one people".¹⁹

The Ancient sources tell that Alexander himself choose the sites of the Greek and Egyptian temples as well even if he wouldn't have been personally in charge of every aspect, the king dreamed his new capital to have all the aspects of a Greek city²⁰.

"Therefore he (Alexander) was seized by an ardent desire to undertake the enterprise and himself marked out the place where the Agora was to be constructed, where the temples to be built, stating how many there were to be and to what Greek gods they were to be dedicated".²¹

The urban design of Alexandria and the positioning of its religious sites are further examples of the Greeks' dominance As a result, Alexandria had every characteristic feature of a Greek city, including an agora (Arrian, Anab. 3.1.5), a theater, βουλευτήριον, a council hall, law courts, a gymnasium, an armory (Philo, Flacc. 92), a hippodrome, and a vast number of temples. Various sanctuaries for Greek Gods dominated the religious landscape of the city²².

The shape of ancient Alexandria was roughly rectangular, Strabo²³ calls it "an outspread chlamys"²⁴—the cloak like garment favored by Greek travelers and

¹⁸ Niebuhr, B. G., (1852). *Lectures on Ancient history from earliest times to the taking of Alexandria by Octavius, comprising the History of the Asiatic nations, the Egypti, Greeks, Macedonians and Carthaginians*, translated from the German edition by Leonhard Schmitz, Vol.2, P. 401

¹⁹ Dio. Chrys. 32.36. see: Gispen, W. H. (2007). *The Hellenistic Royal Court. Court Culture, Ceremonial and Ideology in Greece, Egypt and the Near East, 336-30 BCE*, unpublished master thesis, P. 88& note 79.

²⁰ Worthington, I. (2016). *Ptolemy I "King and Pharaoh of Egypt"*, Oxford, P. 135.

²¹ Arr. Anab.: P. A. Brunt 1976. Arrian, *Anabasis of Alexander*, Books I-IV, the Loeb Classical Library, Cambridge, Mass; Diod. Sic., *Library of History*: C. H. Oldfather 1933. Diodorus of Sicily, the Loeb Classical Library, London. 17.52. 1-4; see also: Empereur J. Yves (2018). *New Data concerning the foundation of Alexandria in Hellenistic Alexandria, Celebrating 24 centuries, Papers presented at the conference held on December 13-15, 2017, at Acropolis Museum, Athens, Archaeo Press Archaeology*, P.4 & note 2

²² According to Strabo (Geogr. 17.1.9–10), Poseidon had a temple set above the harbor, close to the theater. Another temple to the god of the sea supposedly stood on the island of Pharos. Polybius gives record to Demeter for more details see: Rügge-meier, J. (2021). *Alexandria: Hub of the Hellenistic World*. In *Alexandria* edited by Benjamin Schliesser, Jan Rügge-meier, Thomas J. Kraus, and Jörg Frey with the assistance of Daniel Herrmann, Mohr Siebeck.

²³ Antony built a royal lodge, which he called the Timonium...Then one comes to the Caesareum and the Emporium and the ware-houses; and after these to the ship-houses, which extend as far as the Heptastadium...The city contains the most beautiful public precincts and also the royal palaces, which constitute one-fourth or even one-third of the whole circuit of the city...The Museum is also a part of the royal palaces; it has a public walk, an exedra, and a large house in which is the common mess-hall of the men of learning who share the Museum ...The Sema [or the *Soma*], as it is called, is a part of

soldiers. He says it was built along the sea and extended for 30 stadia (1 stade = 185 m) in length (5.55 km) and seven to eight in width (1.29–1.48 km), with indentations on the long sides caused by the harbors on the north, and Lake Mareotis on the south. The key to the city's layout was its two major streets, which intersected at right angles, and were "particularly wide, being more than a plethron (30 m) in width".²⁵ The seafront, which was lined with mansions and shaded groves with public structures, must have been particularly wonderful in this planned urban community²⁶.

Aside from residential homes and fortress walls, sites were allotted for Alexander's royal palace, temples to Greek and Egyptian gods, a conventional agora a marketplace and gathering place for the community as well as other important structures located in the Broucheion Quarter.²⁷ To provide the wealthy with a regular supply of fresh water, canals were constructed through the Nile, and rivulets were redirected beneath the main streets. However, its roadways were oriented to promote the circulation of the cooling air from the sea, and its structures quickly combined the greatest features of western and eastern architecture.²⁸ Planning roads in city has become one of the bases for classifying the types of plans for modern and ancient cities equally.²⁹ In 60-56 BC, Diodorus Siculus states that

"He [Alexander the Great] laid out the site and traced the streets skillfully and ordered that the city should be called after him Alexandria. It was conveniently situated near the harbour of Pharos, and by selecting the right angle of the streets, Alexander made the city breath with the etesian winds."³⁰

The orientation of the streets was oriented to catch the north-west winds of summer according to Strabo earliest description of the city:

the royal palaces. This was the enclosure which contained the burial-places of the kings [the Ptolemies] and that of Alexander [the Great]. See: Strabo, 17.1.8-9; 17.1.10.

²⁴ Strabo , Geography , XVII.I.6-12 : H. L. Jones (1969) , The Alexandria of Strabo's Geography in Alexandria , Third Century B.C, The Knowledge of the World in a single city , edited by Jacob .C and De Polignac .F , translated by Clement Colin , English language edition Harpocrates Publishing 2000, P. 136 – 138.

²⁵ Strabo, Geography: H. L. Jones (1932). *The Geography of Strabo VIII*, the Loeb Classical Library, London, p. 33

²⁶ Schwartz, S.A. & Edgerton, H.E. (2021). A Preliminary Survey of the Eastern Harbor, Alexandria, Egypt, Including a Comparison of Side Scan Sonar and Remote Viewing, in *Journal of Scientific Exploration*, 35 (3): 485–541.

²⁷ عزت زكي حامد قادوس، (2000)، *أثار الاسكندرية القديمة، منشأة المعارف بالاسكندرية*. ص 83 .

²⁸ Shenker, J. (2016). *The story of cities, part 1: how Alexandria laid foundations for the modern world*, P. 2-6.

²⁹ سحر محمد القطري (2010). "الاستبدال و دوره في التطور العمراني لمدينة الاسكندرية دراسة أثرية عمرانية وثائقية". مجلة الاتحاد العام للثواربين العرب (11). القاهرة . ص. 73.

³⁰ Diod. Sic. 17.52. 1-4.

"Intersected by streets practicable for horses and chariots, and by two that are very broad, extending to more than a plethron in breadth, which cut one another into two sections and at right angles."³¹

Alexander's new metropolis was to be built by one of the most talented architects of the day, a Greek named Deinocrates. Alpha, Beta, Gamma, Delta, and Epsilon were the names of the first five Greek letters that were used to name Alexandria's five quarters. The streets were laid out in a curving style. There were two long, broad avenues with marble columns on either side. While one ran from north to south, the other, known as the Canopic Way, they had pavement like the other streets, but only since the Roman era. A water pipe was located beneath both of them³², cut across Alexandria from east to west. The Gate of the Sun was located at its eastern end, and the Gate of the Moon was located at its western end see (Fig .3)³³.

The Caesareum and the Quest for the Alexandrian Forum

It was the first Egyptian temple dedicated to the imperial religion, the Caesareum, famous for the placement of two obelisks in front of it, facing the Great Harbor³⁴. Cleopatra originally began construction on the temple either for Mark Antony or Julius Caesar. It was finished and rededicated to Augustus following the conquest of Egypt. It was located in the great harbor's emporium area. According to Philo, there were porticoes (στοαῖς), libraries (βιβλιοθήκαις), banqueting-halls (ἀνδρῶσι), sacred groves (ἄλσεσι), gateways (προπυλαίοις), open terraces (εὐρυχωρίαίς), and courtyards (ὑπαίθροις) inside the precinct³⁵ by 38 A.D, Philo referred to the Caesareum as Sebasteum³⁶ which was particularly beloved by him during one of his speeches he said "*I turn down a side street that leads back to the Great Harbour and enter the Forum, passing the Caesarium³⁷ on my left as I do so*"³⁸

³¹ Strabo, 17.1.8.

³² Sparavigna, A. C. (2021). *Alexandria of Egypt and the Archaeo astronomy*, Department of Applied Science and Technology, Politecnico di Torino, Torino, Italy, P. 13-15.

³³ Scheidel, W. (2004). *Creating a Metropolis: A Comparative Demographic Perspective* in Harris .W.V., Ruffini. G. *Ancient Alexandria between Egypt and Greece*, Leiden & Boston: Brill, P. 4 ff.

³⁴ Abdel waheed Youssri, (2012). *Egyptian cultural Identity in the architecture of Roman Egypt (30 B.C – A.D 325)*, (PhD Thesis), University of Durham, P.52ff.

³⁵ Pfeiffer, S. (2021). Who intited the building of the temples for Augustus in Alexandria? in *Alexandria the Hub of the Hellenistic world* .P.113.

³⁶ Philo, *Legatio ad Gaium (Delegation to Gaius Caligula)*, F. H. Colson 1962. Philo X, the Loeb Classical Library, Cambridge, Mass., and London. *Plato, Leges 778 a–d.XXII*. 151.

³⁷ Was a Roman style podium-temple that was originally built in dedication to Caesar and located at the harbour, with the obelisks known as 'Cleopatra's needles' in front of it. The temple precinct also included "porticoes, libraries banqueting rooms, chambers, groves, monumental gates and wide open spaces and unroofed structures" to which subsidiary shrines were added before 94 AD.65 It was probably located adjacent to the forum Augusti. See: Van de Water .A (?). *The imperial statues of Roman Egypt: Is there a connection between their style, placement and function?*, Leiden University Faculty of Humanities, Master Thesis Classics and ancient civilizations: Egyptology Supervisor: Prof. Dr. O.E. Kaper Second reader: Prof. Dr. J van der Vliet, P. 12

³⁸ Macelo, R. (2010). *The Library of Alexandria Centre of learning in the Ancient World*, I.B.Tauris. P.42.

Strabo's description of the Caesareum's placement matches that of Cleopatra's Needles³⁹, which were situated in front of it with their backs to the harbor (**Fig. 4**) The inscription on the bronze crabs (**Fig. 5**) that held them up, documents related their erection by the architect Pontius and the prefect Bar-barus in year 18 of the emperor (13/12 B.C). In the same year that Augustus assumed the role of Pontifex Maximus, the Augustus temple at Philae located in the opposite part of Egypt was consecrated.

A bronze copy of a soldier's discharge certificate was found "lodged in the Great Caesareum, as you mount the second stairs, within the right-hand portico, near the temple of the Marble Venus, fastened on the wall" by AD 94, when the enclosure also housed subsidiary shrines and served as a public area where signs can be displayed

The forum appears to have stood south of the Caesareum (**Fig .6**). The prefect Maximus carried the massive obelisk from the temple of Arsinoe to the forum, according to Pliny the Elder⁴⁰, about AD 12–14/15. Since Pliny doesn't clarify which forum, it's likely that there was only one major forum in existence when he wrote in the middle of the first century AD. The Forum Augusti, which was used in in A.D 110 and 128 for displaying notices, like an Alexandrian birth certificate (BGU IV 1907) is assumed to be the Sebaste Agora, which is mentioned in A.D 41 and is the Greek version of the term⁴¹.

The Architecture of Ancient Forum at Caerwent⁴² as a prototype to the Forum of Ancient Alexandria

The Centre insula of Venta (Insula VIII) is located halfway between the eastern and western gates on the Decumanus' northern side. 54.5 meters long from east to west and about 80 meters long from north to south. The forum's open piazza, which was surrounded on three sides by colonnaded porticos in front of ranges of primarily small apartments, was accessible from the Decumanus by a massive doorway. Situated across from the majestic entrance on the fourth side of the forum, the basilica building comprised a hall with several rooms connected to its northern side.

The forum piazza at Venta was paved with stone slabs, on market days; this was the open plaza where the populace and merchants would have set up their stalls. It was also the location of honorific and commemorative statues to notable individuals such as governors, emperors, and others. A base statue of Tiberius Claudius would have most likely been on the forum piazza, where everyone might have seen the council's appreciation for their patron. Opus Signinum flooring adorned the piazza's porticos, while tiled roofs supported by columns shielded the area from bad weather (**Fig. 7**)⁴³.

³⁹ The standing obelisk, which is currently located in Central Park, New York [301], and the fallen obelisk, which is currently located on the Thames Embankment in London [303], are orientated at an angle to the city grid plan, indicating that they were not placed on it. This implies that the temple was positioned at this angle to the grid even though its enclosure was on the grid.

⁴⁰ Pliny, Natural History 36.14.69.

⁴¹ McKenzie, J. S. (2007). *The Architecture of Alexandria and Egypt (c. 300 BC to AD 700)*, New Haven and London. P.176ff.

⁴² Caerwent, the site of the Romano-British city of Venta Silurum in Southeast Wales

Towards a Hypothetical reconstruction of the Alexandria Forum

In his discussion of the ideal layout and planning of a new town or city, Vitruvius outlines the location of the forum⁴⁴ as well as the other public buildings that should be located inside or close to it.

- 1) The Greeks designed their forums as a square encircled by large double colonnades. They embellished these with stone or marble entablatures and relatively tightly spaced columns, as well as with walkways built above the upper floor⁴⁵.
- 2) Therefore, the banker's offices are located in the colonnades surrounding the exhibition area, which has quite large intercolumniations. The top story balconies are positioned in a practical manner and to bring in some public revenue.
- 3) The forum's size should be commensurate with the population to avoid being too small to be of any use or appearing to be a desert wasteland due to a lack of people. Divide the length of the object in half, and then designate two of the halves as the breadth. Its ground layout will then be conveniently matched to the requirements of displays, and its shape will be oblong.
- 4) The upper tier's columns should be one-fourth smaller than the lower tier's because, in order to support the weight, what is below should be stronger than what is above, and because, when it comes to the nature of growing plants⁴⁶.
- 5) The basilica, Vitruvius recommends, should be "on the warmest side" of the forum so that during the winter months, when the weather was unsuitable for outdoor marketplaces, vendors and stallholders could take refuge inside. The forum included the curia, which was the council members' meeting room, the treasury, and the prison; their sizes may have been proportionate to those of the forum.⁴⁷

Residential quarters were distributed around these public spaces in a grid system. The primary highway at Roman Ephesus can be compared to Alexandria's major longitudinal street, which ran from the Gate of the Sun on the east to the Gate of the Moon on the west. This highway connected the State Agora, Tetragonos Agora, theatre, stadium, fountains, and bath buildings in a curved pattern between the

⁴³ Guest .P (2022) Forum-Basilica at Caerwent (Venta Silurum): A History of the Roman Silures , *Britannia* 53 (2022), 227–267

⁴⁴ He points out that the forum served as a marketplace and that significant Roman gods' temples were located there.

⁴⁵ In the cities of Italy the same method cannot be followed for the reason that it is a custom handed down for our ancestors gladiatorial shows should be given in the forum

⁴⁶ for example , in round smooth –stemmed trees , like the Fir , Cypress, and Pine , every one of which is rather thick just above the roots and then as it goes on increasing on height , tapers off naturally and symmetrically in growing up to the top. Hence, if nature requires this in things growing it is the right arrangement that what is above should be less in height and thickness than what is below.

⁴⁷ Vitruvius (1914) *The Ten Books on Architecture*, translated by Hicky Morgan .M, with illustrations and original designs prepared under the direction of Langford Warren. H., A.M. Nelson Bominson, Cambridge , Harvard University Press, P. 131 ff

Coressian Gate on the north and the Magnesian Gate on the south, serving as the city's principal thoroughfare. (**Fig. 8**)

The Hippodameian system places significant emphasis on the street's orientation. Nearly all of the blocks are the same size and have a similar form throughout the size. Unlike former times, the Agora and houses of worship are no longer passed by the roadways. One block, or more, surrounded by roadways, is home to all of these buildings. Shops are frequently located on both sides of the main avenue, particularly in the agora area. This creates a functional extension of the agora center into the residential areas⁴⁸. The site's primary attraction is Temple Podium (**Fig. 9**) which has an altar to its west and a fountain to its east, is located in the middle of the forum.

The life surrounding it is also significant, especially when combined with the altar, aside from filling in the architecture that is still lacking. All three have been completely excavated; nevertheless, all that remains are the foundations, providing little clue as to their general form. The altar and the fountain also add complimentary features to the Temple's overall design.

Remains of Doric and Podium temples, Odeon, baths, Stadion, nymphaeum, Decumanus (**Fig.10**) main street, theatre, waterway, port, and portions of the city walls are all visible today, albeit most of them are in very poor condition. Consequently, neither providing a comprehensive understanding of themselves nor the forum in its whole⁴⁹.

Archaeological evidence: Searching for the lost Alexandrian Agora

The Alexandrian commercial agora as in other Greek cities was the focal point for civic life besides being a market–Centre but the Hellenistic Agoras had a commercial Aspect more than those of classical city–states. The exact location of the agora still in dispute⁵⁰. According to a papyrus that documents Alexandria's city code in the middle of the third century BC. It also suggests that there was just one major agora and mentions the swearing of oaths during the agora. Compared to the commercial market, this was different.

Strabo subsequently noted Emporium as being close to the harbors and dockyards. At this early stage, the agora's location is not indicated. The recommendations rely on the potential site of the Forum, the Roman replacement for it, which was reportedly located on the north side of the major east-west thoroughfare, south of the Caesareum. It is thought that in a city where life was constant, it would not have been likely to have migrated⁵¹.

⁴⁸ Constantinos .A. Doxladis (1964) Ekistics, v.18, no.108, November 1964, p. 346-364: 11 fig.P.356.

⁴⁹ Hakan Anaya .H,Öztenb Ü, Ünalç .M, Özteped .E (2022), Augmented experiences in archeological sites: Presentation of Alexandria Troas Podium Temple to visitor experience, Journal of Design for resilience in Architecture and Planning , Volume 3, Issue 1, 2022, P. 24-40

⁵⁰ Tomlinson, R. (1992). From Mycenae to Constantinople: the Evolution of the ancient City, Routledge, P.99.

⁵¹ McKenzie (2007), The Architecture of Alexandria , P. 47/8

According to the inscription on the Vatican⁵² obelisk⁵³ (**Fig. 11**) the agora was apparently known as Forum Iulium during the early Roman era. By the year (41), this agora was known as **σεβαστη ἀγορά** when the Caesareum was referred to as Sebasteum, the name change had most likely taken place in 38 B.C.⁵⁴ This is most likely the same location that **Pliny** refers to as the forum, where the huge obelisk⁵⁵ from the temple of Arsinoe was moved.⁵⁶

Ptolemaeus (II) Philadelphus had one (obelisk⁵⁷) erected at Alexandria, eighty cubits, which had been prepared by order of the king Necthebis (Hellenized from Nectanebo I: 380-362BC, or? II: 360-343BC).....this obelisk was placed by the king abovementioned in Arsinoeum, in testimony of his affection for his wife and sister Arsinoe (II). at a later period (ca.AD12-14),as it was found to be an inconvenience to the docks, Maximus, the then Praefectus of Egypt, had it transferred to the Forum (romanum) there after removing the summit for the purpose of substituting a gilded point; an intention which was ultimately abandoned.⁵⁸

This idea meets with the suggestion of **Fraser** that the **σεβαστη ἀγορά** is identical with the Forum Augusti. The Roman Agora in Athens and the Forum Augusti were both used in the second century to post significant notifications⁵⁹. **Achilles Tatius** also makes reference to the intersection of the two streets, which supports its designation as the city's geographic and cardinal core. One would be inclined to place the Agora there⁶⁰. Tracing the previous description of the Caesareum by **Philo** it can be said that Augustus' sacred precinct was more than just a single temple; it was a massive complex of structures that included numerous other places of worship and leisure, which compare well with the Urban Roman precinct porticos, so "*the whole*

⁵² The so-called Vatican Obelisk was first built in Egypt during the year of the Roman invasion and is located in front of St. Peter's Basilica in Rome, lasted in Egypt only until AD 37, when the emperor Caligula transported it to the Vatican Circus in Rome.

⁵³ IUSSU IMP (ERATORIS) CAESARIS DIVI F(ILII) C(AIUS) CORNELIUS CN(AEI) F(ILIIUS) GALLUS PRAEF(ECTUS) FABR(UM) CAESARIS DIVI F(ILII) FORUM IULIUM FECIT. See: Gambetti, S. (2009). *The Alexandrian Riots of 38 C.E. and the Persecution of the Jews: A Historical Reconstruction*, Leiden, Boston, P. 277 & note 3.

⁵⁴ Abdel waheed Yousri, (2012), *Egyptian cultural*, P. 55

⁵⁵ This obelisk was brought to the Forum in Alexandria in AD 12–14 because it was blocking the dockyards (navalia). The altar and sacred enclosure (temenos) of the deified Arsinoe Philadelphus were located near the commercial market, according to an ancient commentator on Callimachus' Apotheosis of Arsinoe. This would be plausible as the obelisk being in their way, as Strabo later cites the Emporium was next to the dockyards. See: McKenzie (2007), *The Architecture of Alexandria*, P. 51/2

⁵⁶ Plin. (The Elder), HN: D. E. Eichholz 1962. *Pliny, Natural History X*, the Loeb Classical Library, Cambridge, Mass., and London: XXXVI. 14.13-17.

⁵⁷ Second Ptolemy In the Arsinoeion built an obelisk. Pliny details in detail the plan of action used to move this obelisk, which was 80 cubits (about 42 metres) high.148. Standing at almost the same height as the incomplete obelisk at Aswan, which measures 41.75 metres in length, it was among the highest obelisks ever constructed.

⁵⁸ Abdo, A. (2019). *Alexandria*, P. 307.

⁵⁹ Fraser, P. M. (1972). *Ptolemaic Alexandria*, Vol. II, Oxford, P. 96-7 & note 218.

⁶⁰ Sparavigna, A. C. (2021). *Alexandria of Egypt and the Archaeo astronomy*, Department of Applied Science and Technology, Politecnico di Torino, Torino, Italy, P. 15.

precinct in Alexandria may have looked like a Roman forum of imperial times"⁶¹ .In Strabo's time, the former Ptolemaic precinct of the ruler cult was consecrated to the worship of Augustus and was called (Σεβαστή ἀγορά)⁶² .

Furthermore, the temple of Augustus was a rededication of a temple that Cleopatra had originally started, it is quite likely that the forum Iulium was built in relation to this temple and, in truth; it marked the completion of an earlier building site. According to Alföldy ⁶³, it is furthermore plausible that the Forum Iulium was renamed into forum Augustum, the well-known Alexandrian Σεβαστή ἀγορά, as refereed in BGU IV 1079, l. 39 (41 CE): [ἀπόδος εἰς] Ἀλεξά(νδρειαν) εἰς Σεβα(στήν) Ἀγορά(ν); (P.Mich. 7.433; 3.166), but after 27 BCE and Octavian's assumption of the title of Augustus. Since the forum was in Alexandria, it should therefore either be identified with the Augustus precinct or with a place in front of it ⁶⁴, with identical analysis offered by Fraser.⁶⁵ The Agora would have located in the same area of its imperial successors (south of the Caesareum, within el- Falaki's insula "L1, L2 – R4, R5" see el Falaki map (**Fig.12**)). The Ptolemaic Agora's location is predicated on the idea that it would be unlikely to move the heart of civic life to a congested metropolis that had been continuously inhabited for the duration of classical Antiquity⁶⁶ .While laying the foundation for the current Alexandria Opera House (Mohammed Aly: Sayed Darwish: the former Zizinia Theatre), A white marble statue of Marcus Aurelius (**Fig.13**) was accidentally found. It should be compared to the 1880 excavation of the Forum Romanum and its predecessor, the Hellenistic Agora, which featured a large peristyle and imperial statuary. In fact, both sites are located within the el Falaki Insula "L1, L2 - R4, R5".⁶⁷

In a trial to explain the sustainable use of both Greek Agora and Roman Forum, each of them would have planned, maintained, engaged with, and internalized the universe of town planning of Greco-Roman era to a different extent. The agora of the Ptolemaic Alexandria was in the center of the city while the Public buildings & the residential quarters were divided around it (**Fig. 14**) , in Roman Egypt it was

⁶¹ Pfeiffer, S. (2021). Who intited the building of the temples for Augusts in Alexandria? in Alexandria the Hub of the Hellenstic world, P.113.

⁶² Fraser, II 33-4 n. 81

⁶³ In the case of the "Caesareum" ("Kaisareion," "Sebasteion," "Augusteum"), with its large-scale parks, porticos, propylaia, and libraries, we do know of its dimensions and of its position near the "Great Harbor" thanks to "Cleopatra's Needles". For in the year 13/12 BC Augustus had these two obelisks removed from Heliopolis to Alexandria, where they were re-erected in front of the Caesareum. This allows us to approximate the dimensions of the "Caesareum," which must have taken up almost a complete insula, thus hardly leaving enough room for the sundial in the Forum Iulium (Forum Augusti, Σεβαστή ἀγορά), see: Alexandria and Alexandrianism, (1996). Papers Delivered at a Symposium Organized by The J. Paul Getty Museum and The Getty Center for the History of Art and the Humanities, held at the Museum April 22-25, 1993 The J. Paul Getty Museum Malibu, California, P. 66 & note 57.

⁶⁴ Alföldy, G. (1990). Der Obelisk auf dem Petersplatz in Rom Ein historisches Monument der Antike, Heidelberg, P. 40-42.

⁶⁵ Fraser, P.M. (1972). Ptolemaic Alexandria Oxford: Clarendon Press, 2:96–97, n. 218.

⁶⁶ Abdo, A. (2019). Alexandria in late Antiquity, A Topographical reconstruction, (Phd thesis), Universtat Autonoma, Barcelona.

⁶⁷ Abdo, A. (2019) Alexandria, P. 203.

converted to the Roman Forum they were both alike in use to somehow, both of them were areas dedicated for the gathering of people, the Agora was used as a market place while the first job of the Forum is court for religion and law, the Agora had side entrances while the entrances of the forum were axis penetrating the city from north to south and from east to west.

Finally with putting all these into account, in fact the researchers are of the opinion that in a city with unstopped life activities and naturally bordered size, the Forum would not have been easy to be moved away from the Agora as Alexandria lasted to be the capital in both Greek and Roman periods.

The court of Agora/ Forum as a meeting zone for human rights & community Discussions

- 1) Its significance for judicial life. For example the case that held in the court of the agora.⁶⁸ Papyrus Oxyrhynchus 237 (P. Oxy. 237 or P. Oxy. II 237) consists of a fragment of Petition of Dionysia to the Praefect, written in Greek. The manuscript was written on papyrus in the form of a roll. It was written after 27 June 186.⁶⁹
- 2) The people of Alexandria frequently flocked to this major meeting spot and focal point. The only existent or known example on exhibit in the Forum Augusti is Herennia Gemella's birth certificate. Three other birth certificates were discovered, each inscribed in Latin on a wax or wooden tablet, and they were on display in the Atrium Magnum (the birth certificate of M. Corenlius Justus (*quae tabula proposita erat in Atrio Magno*)).⁷⁰ which had a tribunal used for court cases by year 63.⁷¹ Unfortunately, nobody knows where the Great Atrium is. However, the dearth of surviving proof that other organizations used the Forum and the Great Atrium to exhibit birth certificates provides inadequate evidence to imply that these buildings were the only places where Romans could express their civic and personal identities. The Forum and the Great Atrium likely served the city's residents as a whole rather than a specific legal class.⁷²
- 3) The story of the assassination of the famous philosopher Hypatia is offered by John of Nikiu⁷³, after determining her place in the city while she was giving a public lecture of philosophy in a lecture hall situated near the Agora in the midst of the city "*proceeded to her and found her seated on the {lofty} chair*", she was

⁶⁸ Abdel waheed Youssri, (2012), Egyptian cultural, P. 55.

⁶⁹ Dolganov, A. (2019). Reichsrecht and Volksrecht in Theory and Practice: Roman Justice in the Province of Egypt (P.Oxy. II 237, P.Oxy. IV 706, SB XII 10929) in Tyche (band 34): Beiträge zur Alten Geschichte Papyrologie und Epigraphik, Holzhausen .P. 27 ff

⁷⁰ Abdel waheed Youssri (2012) Egyptian cultural, P. 55 & note 200.

⁷¹ The papyrus is complete apart from some damage to its left side, l. 6 and below. The text starts with a list of the committee before which the discharged soldiers would appear, and then continues with the ruling they received.

⁷² Abdel waheed Youssri (2012), Egyptian cultural, P. 55.

⁷³ John, Bishop of Nikiu.(1916). The Chronicle of John, Bishop of Nikiu. Translated from Zotenberg's Ethiopic text by R. H. Charles. London: Pub. for the Text and Translation Society by William & Norgate, P. 102

dragged through the streets of the Caesarion so she was dragged from the city center to the place of Caesarion.⁷⁴

- 4) Gallus erected the obelisk at Alexandria's "Forum Iulium" or possibly in the recently established Nikopolis. Reconstructed from the nail holes left behind, the inscription was written in bronze letters and attached to the base of the obelisk.. It read: "On the order of the emperor Caesar, son of a *divus*, C. Cornelus Gallus son of Gnaeus, *praefectus fabrum* of Caesar son of a *divus*, made the Forum Iulium." The monument may be the same as that referred to as the (Σεβαστὴ ἀγορὰ) in papyri⁷⁵, afterwards transported to Rome by Caligula to be erected in the Circus Vaticanus, has been clearly visible from this re-erection until today.⁷⁶
- 5) Theophilus, the patriarch of Alexandria, intended to suppress paganism in Alexandria and demanded that Christianity be strictly enforced as the official religion of the empire. His attempts to interfere with the Serapeum's operations resulted in a number of violent clashes; Pagan statues were also a part of the incident that ultimately resulted in the demolition of the Serapeum, his cult statues. From a subterranean chamber, items from a pagan cult were retrieved. These items included some "ridiculous" statues that were brought in an unplanned procession to the Agora of the city.⁷⁷
- 6) In Alexandria's Graeco-Roman museum, a sizable marble statue of Emperor Marcus Aurelius that was discovered in the theater's foundations is now on display. Looking at the theatre's location within the old city walls, one can see that it may have once been part of the forum of Augustus and the Caesareum. One of the largest statues of the corpus examined in this essay, at two metres and fifteen centimeters, is this one. Marcus Aurelius is dressed in a short tunic and an imperial breastplate that is adorned with griffons, gorgon heads, and other symbols. An eagle may have formerly graced the abdomen, but Christians have replaced it with a cross. There is a cloak fastened to the left shoulder. In a striding pose, the sculpture has its right leg in front of its left. The right leg of the statue bears the statue's weight.⁷⁸

⁷⁴ Dzielska, M. (2008) Learned Women in the Alexandrian Scholarship and Society of Late Hellenism in "What Happened to the Ancient Library of Alexandria? Edited by Mostafa El-Abbadi and Omnia Mounir Fathallah With a Preface by Ismail Serag eldin, Leiden, Boston, P. 140-1.

⁷⁵ Swetnam-Burland, M. (2015), Egypt in Italy Visions of Egypt in Roman Imperial Culture, Cambridge , P. 76/7 & note 52.

⁷⁶ Versluys, M.J. (2002), *Aegyptiaca Romana*. Nilotic Scenes and the Roman Views of Egypt, Brill, Leiden, Boston, P. 325.

⁷⁷ Hinge .G and. Krasilnikoff .J.A . (1990), Alexandria A Cultural and Religious Melting Pot, Aarhus University Press, P. 163.

⁷⁸ Van de Water, A. (2016), The imperial statues of Roman Egypt: Is there a connection between their style, placement and function, P. 30.

Was the Agora an equivalent of Forum?

Both terms used to acknowledge public spaces, were opened to public where great events were held as previously mentioned ,as their function was quietly in different context, the Agora was a mainly commercial place while the forum was more close to be governmental organization and sharing information they are also some how different in design & plan (Table 1⁷⁹)

Forum building elements		Spatial aspects				Visual and beauty aspects			Functional Aspects			
Social influences	Increase social connections	Shape and type of space	Space volume	space ratios and scale	Gradient and spatial sequence	Feeling of space	Realize visual element	Separating people from vehicles	Temple or Basilicas	Link Forum with temples	Linking functional ties with forum	Physical and moral ties
	sense of ownership of the place	Irregular space with practicing activities	Huge spaces Agora	Consideration of Human standard	Appear of entertainment spaces	Control and safety	Space formation of the dominant buildings	Movement for people and animals	Control of temples and fences	Connecting temples with corridors	The increase of religious and public buildings	Not found
	Social class	Regular spaces or forum	Huge spaces or forum	Different and Un organized	Gradual, different, and defined by a fence	Lockdown and control	Formation of Symmetrical internal space/ forum	Movement of people and carriages	Control and isolation of palaces	Connecting the forum with service corridors	The existence of ties	Not found
Complete Control	Lack of social and economic justice											
	The emergence of social classes and social isolation											

⁷⁹ سحر اسماعيل محمد عبد الهادي (2018). الابعاد الاجتماعية و التكنولوجية و تأثيرها علي تشكيل الفراغات العمرانية بالمدن (دراسة حالة الفراغات العمرانية بالاسكان الحكومي). Journal of Urban Research, Vol. 28 , Apr. 2018.

Conclusion

Urban spaces served as locations for ceremonial festivities and religious ceremonies. They act as a venue for relaxation, the realization of artistic concepts, and a conduit for public discourse. Public areas facilitate trade, which brings people together for cooperative activities, political talks, or power symbolism. The famous men of the city were honored with statues and monuments there.

That is to say, it is a piece of real estate that the government owns or controls and "consists of public property that the state has opened for use by the public as a place for expressive activity".

More complete and accurate trial of the documentation of the place and function of the forum of ancient Alexandria discussed in this research will facilitate easier comparison of both Agora and Forum for more than 6 centuries Alexandria was the Capital of Greco-roman Egypt.

At this early stage, the agora's location is not indicated. The recommendations rely on the potential site of the Forum, the Roman replacement for it, which was reportedly located south of the Caesareum on the north side of the main east-west thoroughfare. It is thought that in a city with unstopped life activities, it would not have been easy to be moved

Building forums are important in promoting sustainable Practices as Urban spaces play a major role in the urban architecture of any residential plan and always have direct and indirect effects on the efficiency of city plan. Throughout history, city squares have served as public areas that mirror the aesthetics of their surroundings and have come to represent both political and religious authority. This is because these areas are frequently home to religious buildings, theatres, restaurants, banks and business institutions.

Sustainability Element in building the Agora / Forum of Ancient Alexandria

The Sustainable Development Strategy (SDS): Egypt Vision 2030, which links the present to the future and draws inspiration from the ancient Egyptian civilization, provides a starting point for equitable development.

Urban spaces play a major role in the urban architecture of any residential plan and always have direct and indirect effects on the efficiency of these plans. Because of its everlasting connection to residential use, it is greatly affected and influenced by it, The need for urban spaces is an instinctive human requirement Because it gives a sense of selfhood and the exercise of personal freedoms . the researchers aim to the design of the square for intensive use at events comparing its elements with those of the Greek Agora and roman Forum (**Fig. 15**), which use was differed somehow discussed in the table below (**Table. 2**)

The Egyptian standard for Urban organization of city centers. Supreme Council for Urban Planning according to law N: 119 / Year 2008	Alexandrian Agora/Ptolemaic period	Alexandrian Forum/ Roman period
First : Foundations and standards for urban coordination of city centers⁸⁰		
Most of the road intersections in city centers are squares	√	√
Squares are the surfaces in the middle of buildings that work to disrupt and empty the urban environment	Doubtful case?	√
The squares are used as parks and are open to street vendors	√	√
The squares are graduated from a main square in the center to sub-squares and secondary ones	Doubtful case?	Doubtful case?
The shape, area and size of the square are integrated with its Usual use	√	√
It is preferable to place the important buildings as a distinctive landmark for the square	√	√
It is preferable that the entrances and exits of movement in the squares do not exceed four entrances	Doubtful case?	√
The size and height of the statue must be proportional to the size of the surrounding space	Doubtful case?	√
For squares, it is preferable that the entrances and exits used by people do not exceed 3	√	√
Areas and lands use the space as service or green areas	Doubtful case?	Doubtful case?
Second: Planning standards for open areas⁸¹		
The spaces allocated for open areas should be suitable with the size of the population they serve	√	√
The location of the open area must be suitable according to the purpose of use	√	√
Taking into account the benefit of the land's topography and preserving the nature of the general site	√	Doubtful case?
Taking into account the provision of entertainment l elements in gardens and public parks	√	√

⁸⁰ أسس و معليير التنسيق الحضاري لمراكز المدن . المعتمدة من المجلس الأعلى للتخطيط و التنمية العمرانية طبقا للقانون رقم 119 لسنة 2008 ولائحته التنفيذية . جمهورية مصر العربية وزارة الثقافة . الجهاز القومي للتنسيق الحضاري 2010 ص 20 وما بعدها

⁸¹ أسس ومعايير التنسيق الحضاري للمناطق المفتوحة والمساحات الخضراء. المعتمدة من المجلس الأعلى للتخطيط و التنمية العمرانية طبقا للقانون رقم 119 لسنة 2008 ولائحته التنفيذية . جمهورية مصر العربية وزارة الثقافة . الجهاز القومي للتنسيق الحضاري 2010 ص . 27 .

Bibliography

Sources

- Aristotle Politics: translated with introduction and notes by C.D.C.Reeve 1998
Hackett Publishing Company, Indianapolis / Cambridge
- Arr. Anab.: P. A. Brunt 1976. Arrian, Anabasis of Alexander, Books I-IV, the Loeb
Classical Library, Cambridge, Mass. Diod .Sic. 17.52. 1-4.
- Diod. Sic., Library of History: C. H. Oldfather 1933. Diodorus of Sicily, the Loeb
Classical Library, London.
- John of Nikiu, Chronicle: R. H. Charles 1916. The Chronicle of John, Bishop of
Nikiu, London.
- Philo, Leg.: F. H. Colson 1962. Philo X, the Loeb Classical Library, Cambridge,
Mass., and London. Plato, Leges 778 a-d.
- Plin. (The Elder), HN: D. E. Eichholz 1962. Pliny, Natural History X, the Loeb
Classical Library, Cambridge, Mass., and London.: XXXVI. 14.13-17.
- Strabo, Geographica: H. L. Jones 1932. The Geography of Strabo VIII, the Loeb
Classical Library, London.
- Vitruvius (1914)The Ten Books on Architecture , translated by Hicky Morgan .M,
with illustrations and original designs prepared under the direction of Langford
Warren . H., A.M. Nelson Bominson , Cambridge , Harvard University Press
- Vitruvius (1914) the Ten books of Architecture , Morgan .M.H & Warren .H.L,
Oxford اعداد يسار عابدين – عقبة فاكوش – ياسر الجابي ؛ جامعة دمشق – كلية الهندسة المعمارية

References

- Abdel waheed Yousri, (2012). Egyptian cultural Identity in the architecture of
Roman Egypt (30 B.C – A.D 325), (PhD Thesis), University of Durham.
- Abdo Amr, (2019). Alexandria in late Antiquity, A Topographical reconstruction,
(Phd thesis), Universtat Autonoma, Barcelona.
- Alföldy, G. (1990). Der Obelisk auf dem Petersplatz in Rom Ein Historisches
Monument der Antike, Heidelberg.
- Boardman, J. (1980). The Greeks Overseas " Their only Colonies and trade , New and
enlarged edition with 319 illustrations ,Thames and Hudson .
- Constantinos .A. Doxladis (1964) Ekistics, v.18, no.108, November 1964
p. 346-364: 11 figs.

- Dolganov, A. (2019). *Reichsrecht and Volksrecht in Theory and Practice: Roman Justice in the Province of Egypt*, Beiträge zur Alten Geschichte Papyrologie und Epigraphik, Holzhausen.
- Dzielska, M. (2008). *Learned Women in the Alexandrian Scholarship and Society of Late Hellenism in What Happened to the Ancient Library of Alexandria?* Edited by Mostafa El-Abbadi and Omnia Mounir Fathallah With a Preface by Ismail Serag eldin, Leiden, Boston.
- Empereur J. Yves, (2018). *New Data concerning the foundation of Alexandria in Hellenistic Alexandria, Celebrating 24 centuries*, Papers presented at the conference held on December 13-15, 2017, at Acropolis Museum, Athens, Archaeo Press Archaeology.
- Fraser, P. M. (1972). *Ptolemaic Alexandria*, Vol. II, Oxford.
- Gambetti, S. (2009). *The Alexandrian Riots of 38 C.E. and the Persecution of the Jews: A Historical Reconstruction*, Leiden & Boston.
- Gates Charles, (2011). *Ancient Cities: The archaeology of urban life in the Ancient Near East and Egypt, Greece, and Rome*, Illustrations by Neslihan Yılmaz , Routledge.
- Grimal .P (1983) *Roman Cities : Les Villes Romaines* , translated and edited by Woloch .G.M , the University of Wisconsin Press
- Guest .P (2022) *Forum-Basilica at Caerwent (Venta Silurum): A History of the Roman Silures* , Britannia 53.
- Hakan Anaya .H,Öztenb Ü, Ünalç .M, Özteped .E (2022) , *Augmented experiences in archeological sites: Presentation of Alexandria Troas Podium Temple to visitor experience*, Journal of Design for resilience in Architecture and Planning , Volume 3, Issue 1, 2022.
- Harris, W.V. & Ruffini, G. (2004). *Ancient Alexandria between Egypt and Greece* Brill, Leiden & Boston.
- Hermann, H.M. (2006). *Polis: An Introduction to the Ancient Greek City-State*, Oxford.
- Hinge, G. and Krasilnikoff, J.A. (1990). *Alexandria A Cultural and Religious Melting Pot*, Aarhus University Press.
- Kalas, G. (2015). *The restoration of Forum in late Antiquity, transforming Public space*, University of Texas Press.
- McKenzie, J. S. (2007). *The Architecture of Alexandria and Egypt (300 BC to AD 700)*, New Haven and London.
- Niebuhr, B.G. (1852). *Lectures on Ancient history from earliest times to the taking of Alexandria by Octavius*, comprising the History of the Asiatic nations, the

- Egypti, Greeks, Macedonians and Carthaginians, translated from the German edition by Leonhard Schmitz, Vol.2.
- Martins de Carvalho , M.(2019) Ichnography, Orthography and Scenography as forms of tracing the construction of the Roman Forum of Ebora Liberalitas Julia : Cultural Landscape in Practice ; Lecture notes in Civil Engineering 26 , edited by Amoruso ,G. and Salerno .R., Springer Nature Switzerland AG 2019.
- Macelo, R. (2010). The Library of Alexandria Centre of learning in the Ancient World, I.B.Tauris.
- Owens, E.G. (1992). The city in the Greek and Roman world, Routledge.
- Pfeiffer, S. (2021) Who initiated the building of the temples for Augustus in Alexandria? in Alexandria the Hub of the Hellenistic world.
- Rüggemeier, J. (2021). Alexandria: Hub of the Hellenistic World. In Alexandria edited by Benjamin Schliesser, Jan Rüggemeier, Thomas J. Kraus, and Jörg Frey with the assistance of Daniel Herrmann, Mohr Siebeck.
- Schwartz, S. A. & Edgerton, H. E. (2021). A Preliminary Survey of the Eastern Harbor, Alexandria, Egypt, Including a Comparison of Side Scan Sonar and Remote Viewing, in *Journal of Scientific Exploration*, 35 (3).
- Scheidel, W. (2004). Creating a Metropolis: A Comparative Demographic Perspective in Harris W.V., Ruffini. G. Ancient Alexandria between Egypt and Greece, Brill, Leiden & Boston.
- Shenker, J. (2016). The story of cities, part 1: how Alexandria laid foundations for the modern world.
- Sparavigna, A. C. (2021). Alexandria of Egypt and the Archaeo astronomy, Department of Applied Science and Technology, Politecnico di Torino, Torino, Italy.
- Swetnam-Burland, M. (2015). Egypt in Italy Visions of Egypt in Roman Imperial Culture, Cambridge.
- Tomlinson, R. (1992). From Mycenae to Constantinople : the Evolution of the ancient City, Routledge.
- Van de Water, A. (2016). The imperial statues of Roman Egypt: Is there a connection between their style, placement and function.
- Versluys, M. J. (2002). AEGYPTIACA ROMANA. Nilotic Scenes and the Roman Views of Egypt, Brill, Leiden & Boston.
- Worthington, I. (2016). Ptolemy I "King and Pharaoh of Egypt", Oxford.

Arabic references

- حناشي محمد كريم، (2017)، دراسة الساحة العامة لمدينة بورتوس ماغنوس . رسالة ماجستير غير منشورة (جامعة 8 ماي قالمه، الجزائر): كلية العلوم الإنسانية والاجتماعية -قسم الآثار.
- سحر اسماعيل محمد عبد الهادي (2018). الابعاد الاجتماعية و التكنولوجية و تأثيرها علي تشكيل الفراغات العمرانية بالمدن (دراسة حالة الفراغات العمرانية بالاسكان الحكومي) Journal of Urban Research, Vol. 28 , Apr. 2018.
- سحر محمد القطري (2010). الاستبدال و دوره في التطور العمراني لمدينة الاسكندرية دراسة أثرية عمرانية وثائقية . مجلة الاتحاد العام للآثار بين العرب (11) . القاهرة .
- عزت زكي حامد قادوس (2000) . آثار الاسكندرية القديمة . منشأة المعارف بالاسكندرية

من الاجورا القديمة الي الفورم الروماني: التنظيم الحضري للمساحات العامة في الإسكندرية القديمة

الملخص العربي

شكلت الفورم (المنتدي حديثا) مركزاً إدارياً ودينياً وتجارياً في الدولة، بحيث إنها كانت بمثابة تطور للمكان العمومي الذي كانت تُتخذ فيه القرارات الأساسية في المجتمع الإغريقي (اليوناني) منطقة الأجورا بمعنى "السوق" ، التي تروي قصة شوارع الإسكندرية وميدانها الرئيسي و الحياة العامة بها.

أن منطقة الفورم أو الميدان العام ، منطقة للبيع و الشراء و الحياة السياسية والمعابد ونوافير الماء وتمثيل الشخصيات المهمة وتاريخها والقرارات الإمبراطورية تعرض فيها . و تطورت الحياة فيها و أصبحت تمارس فيها (الانتخابات - لقاء الخطب العامة- الاحتفالات الدينية - حلقات القضاء و حتي الاغتيالات السياسية . الخ)

يسعي هذا البحث الي تقديم دراسة تحليلية وتاريخية للفورم الرومانية اعتمادا على الأساس الذي يشير إلى أصل المنطقة استشهدا بعناصر أقدم منتدى روماني، بالإضافة الي تحديد مكان الفورم وملحقاته ، و الإشارة الي عنصر الاستدامة فيه .

الكلمات الدالة

(الفورم - الاجورا - الاسكندرية القديمة - اماكن التجمعات العامة - الميدان العام - الحياة الاجتماعية)

Figures:

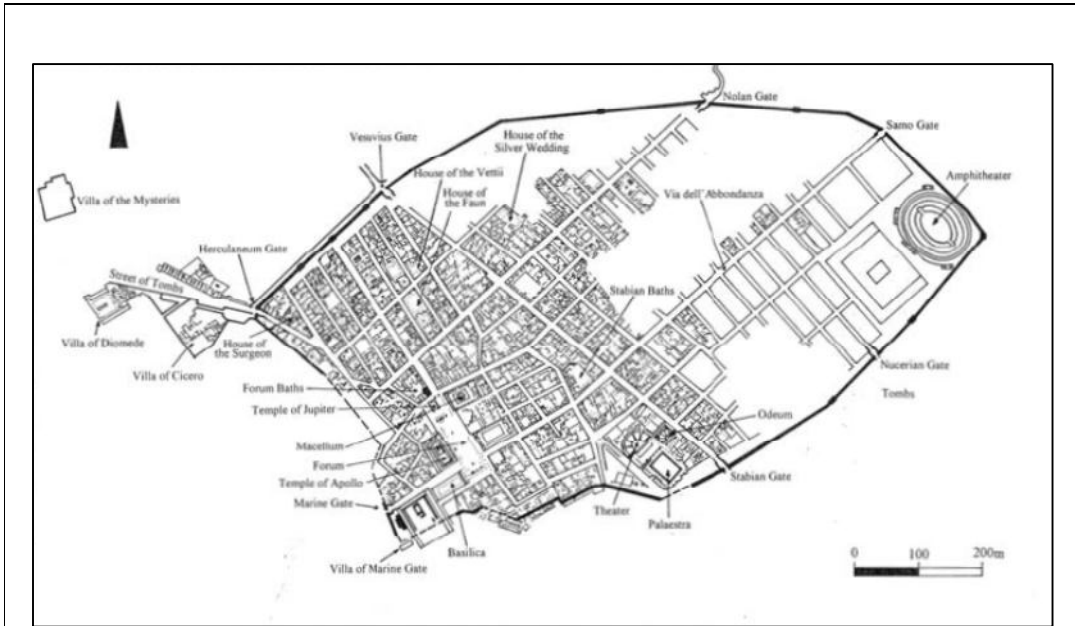


Fig. 1. Plan of the city of Pompeii, after Gates Charles, (2011), Ancient Cities "The archaeology of urban life in the Ancient Near East and Egypt, Greece, and Rome, Illustrations by Neslihan Yılmaz , Routledge, P. 358

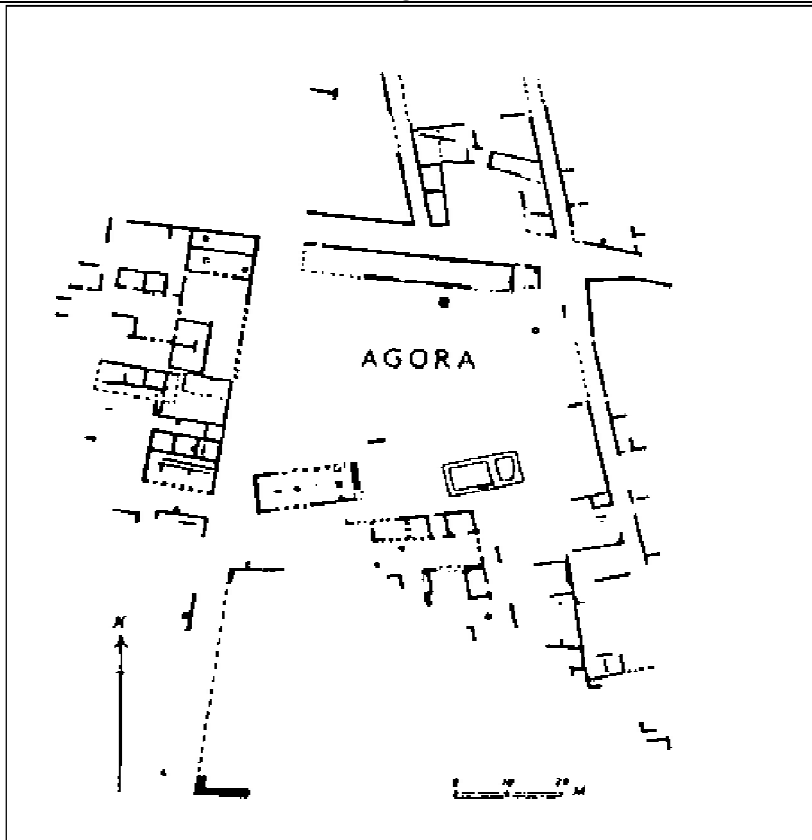


Fig. 2 . Plan of the Archaic Agora, Megara Hyblaea, after Boardman .J (1980) The Greeks Overseas , their early colonies and trade , Thames & Hudson , P. 176.



Fig.3 Alexandria according to Strabo, after Alexandria: Hub of the Hellenistic World. In Alexandria edited by Benjamin Schliesser, Jan Rügemeier, Thomas J. Kraus, and Jörg Frey with the assistance of Daniel Herrmann , Mohr Siebeck , P. 11



Fig.4 Cleopatra's Needle

McKenzie, J. S. (2007). The Architecture of Alexandria and Egypt (300 BC to AD 700), New Haven and London.P.176.

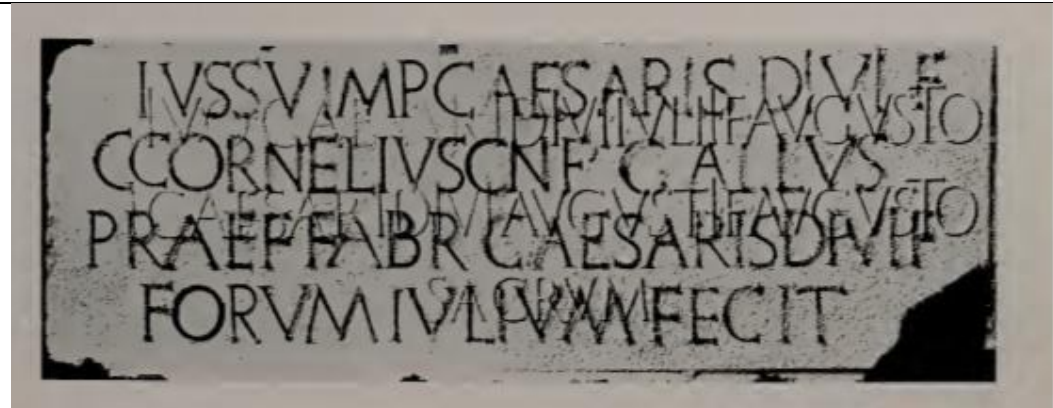


Fig . 5. Rome, inscriptions at base of Vatican Obelisk. The original inscription recording its erection in the Forum Julium by Cornelius Gallus, Roman ruler of Egypt, in 30 bc was in bronze letters which can be reconstructed from the holes for them

McKenzie, J. S. (2007). *The Architecture of Alexandria and Egypt (300 BC to AD 700)*, New Haven and London.P.79



Fig . 6. Alexandria, plan showing possible orientation of Caesareum and the location of the forum from position of Cleopatra's Needles

McKenzie, J. S. (2007). *The Architecture of Alexandria and Egypt (300 BC to AD 700)*, New Haven and London.P.178.

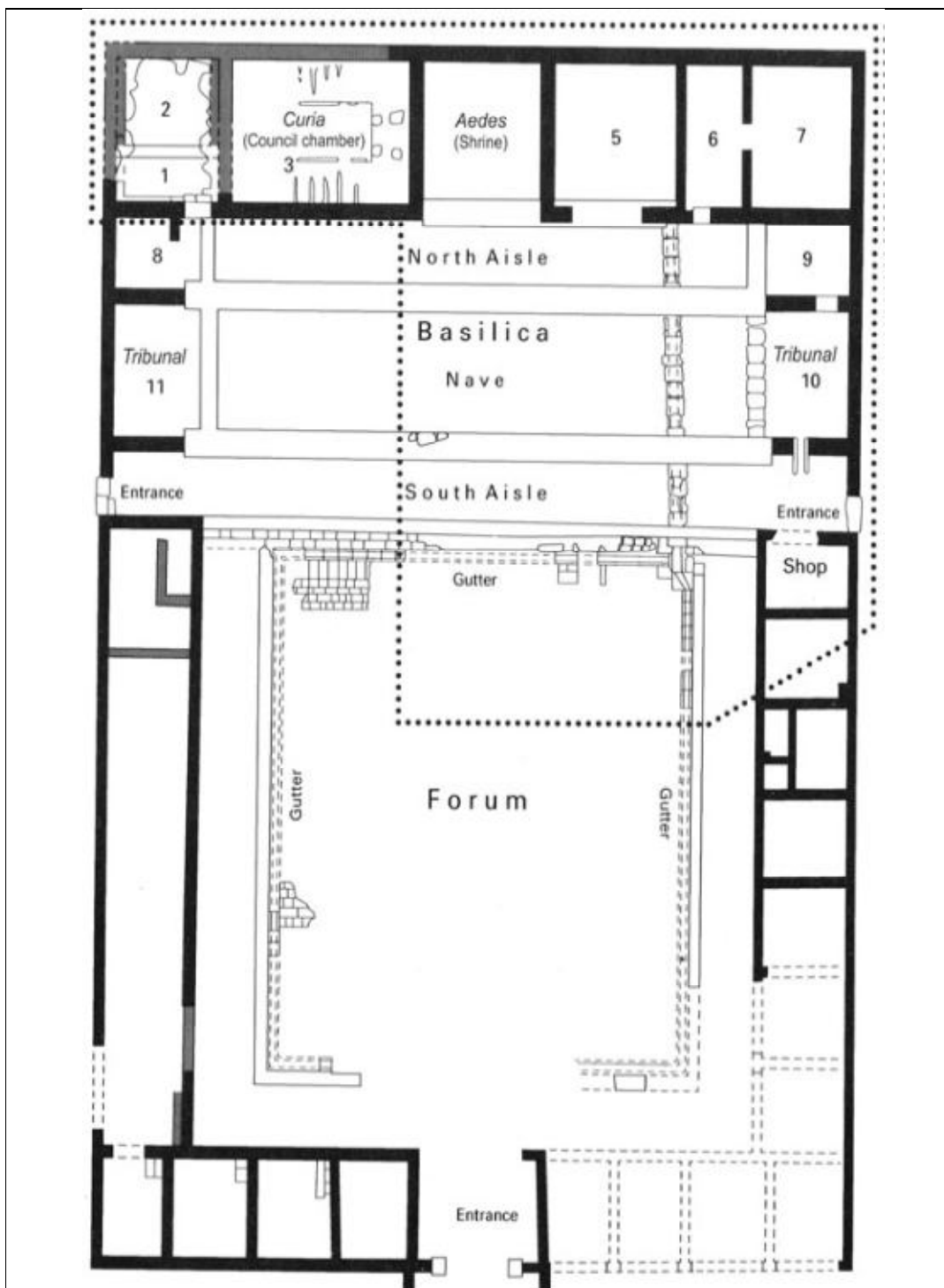


FIG. 7. Plan of the forum-basilica at Caerwent. (© Amgueddfa Cymru – National Museum Wales)
Guest .P (2022) Forum-Basilica at Caerwent Venta Silurum): A History of the Roman Silures ,
Britannia 53. P. 234

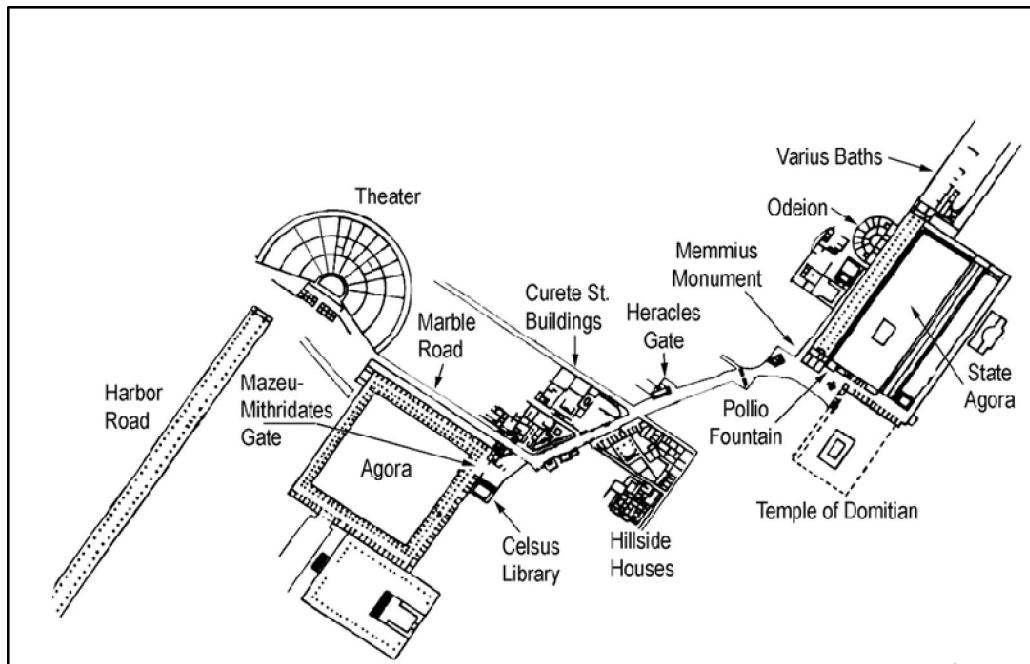


Fig .8. Agora of Roman Ephesus

<https://www.google.com/search?q=plan+of+roman+ephesus&tbm=isch&ved=2ahUKEwi0t4Xsv-2BAxUStUwKHSBRD9AQ2->



Fig .9 . Thematic reanimation of temple podium and altar

Hakan Anaya .H,Öztenb Ü, Ünalç .M, Özteped .E (2022) , Augmented experiences in archeological sites: Presentation of Alexandria Troas Podium Temple to visitor experience, Journal of Design for resilience in Architecture and Planning , Volume 3, Issue 1, 2022. P. 33



Fig . 10. Thematic reanimation of Decumanus

Hakan Anaya .H,Öztenb Ü, Ünalç .M, Özteped .E (2022) , Augmented experiences in archeological sites: Presentation of Alexandria Troas Podium Temple to visitor experience, *Journal of Design for resilience in Architecture and Planning* , Volume 3, Issue 1, 2022. P. 33



Fig . 11. Rome, Vatican Obelisk in front of St Peter's basilica, originally erected in the Forum Julium of Alexandria

McKenzie, J. S. (2007). *The Architecture of Alexandria and Egypt (300 BC to AD 700)*, New Haven and London. P. 78

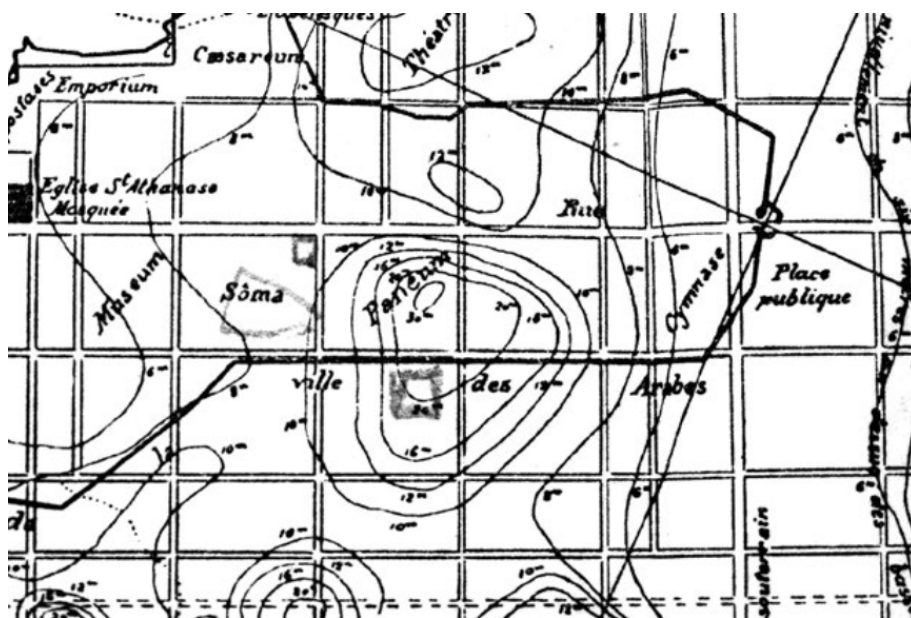


Fig 12. El Falaki map after:
عزت زكي حامد قادوس (2000). آثار الاسكندرية القديمة . منشأة المعارف بالاسكندرية



Fig. 13
Statue of Marcus Aurelius
Alexandria Greco-Roman Museum

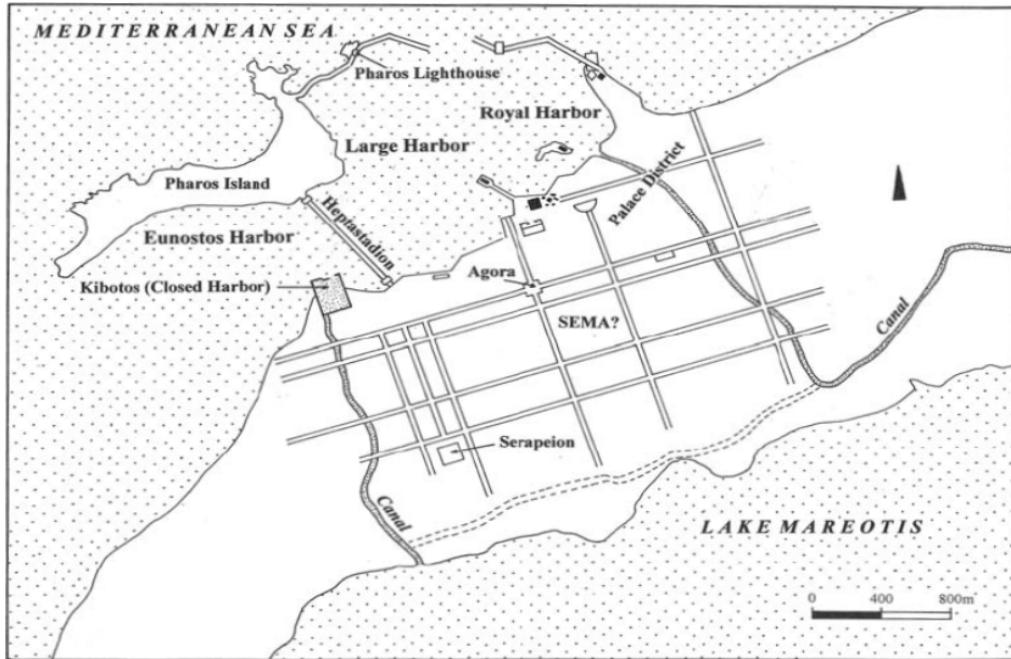


Fig. 14. Agora of Ancient Alexandria After: Gates Charles (2011), *Ancient Cities "The archaeology of urban life in the Ancient Near East and Egypt, Greece, and Rome, Illustrations by Neslihan Yılmaz , Routledge, P. 298.*



Fig . 15. Digital Reconstruction of the central area of the Roman Forum, showing the column monuments on three sides of the central plaza . Kalas .G (2015) ,*The restoration of Forum in late Antiquity, transforming Public space, University of Texas Press .*

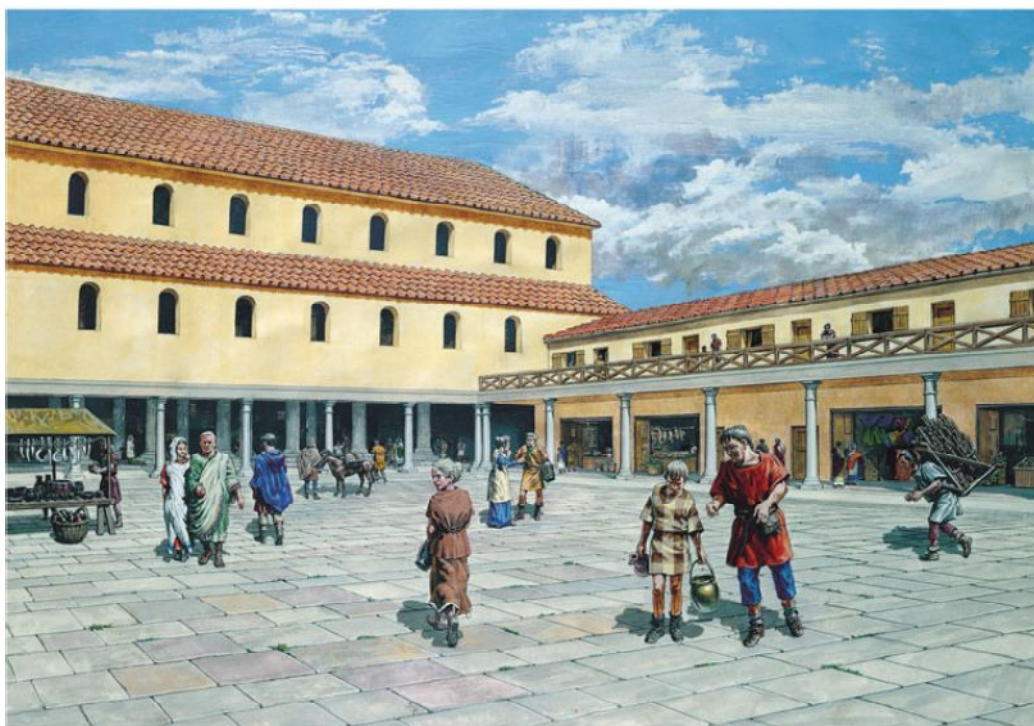
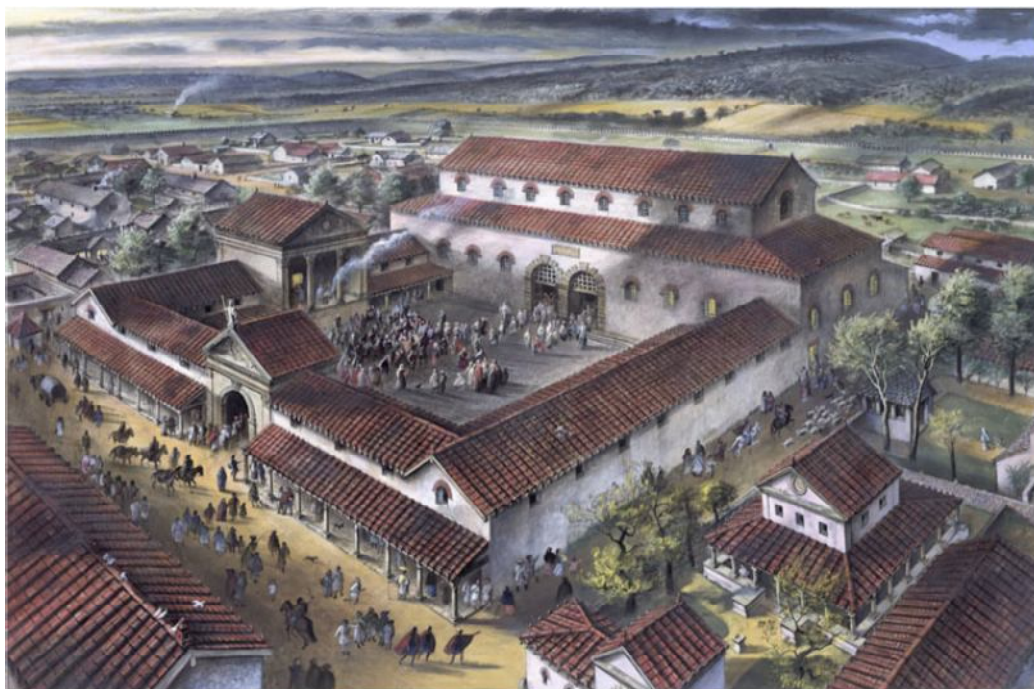


Fig 16.. Reconstructions of the forum-basilica at Venta Silurum by Alan Sorrell (top) and John Banbury (bottom). (© Amgueddfa Cymru – National Museum Wales and Crown copyright (2020) Cadw)

Guest .P (2022) Forum-Basilica at Caerwent Venta Silurum): A History of the Roman Silures , Britannia 53. P. 259