The House of Books
The Metamorphosis of the Library Space
(Antiquity)

Gheorghe VAIS
Technical University Cluj
Faculty of Architecture and Urbanism

Abstract: One of the longest prevailing building types in history were library buildings. The need for such buildings emerged in parallel with the appearance of writing, when the emission of various documents raised the problem of their preservation, storage, and accessibility. This need occasioned the construction of particular sites for this purpose, which have extended and changed in time until they reached the sophisticated and functional structures built today.

E-mail: gheorghe.vais@arch.utcluj.ro

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Libraries[1] have been connected to books from the earliest times, or more precisely, to the written information they had to preserve in optimal circumstances and allow comfortable access to it at the same time. The value of these written documents[2] may have resulted from their administrative-economical importance, as most of them were drawn up by the scribes of the administration. Due to the importance of these documents, the writings had to be kept safe, and this need led to the appearance of the first building with archival and library functions.

Writings is said to have been created in Mesopotamia in the mid-4th millennium BCE; the oldest documents of Mesopotamian writing were found in the Sumerian period, in ideographic pre-cuneiform signs on clay tablets.[3] The necessity of their safekeeping makes it plausible to hypothesize about the construction of the first sites for preserving these tablets with cuneiform writing.

Beginning with the 18th century BCE, the great Sumerian-Babylonian schools had very well organized and equipped library archives attached to them. It is known that around the 8th century BCE the cities of Nineveh and Mari contained such libraries, with a collection of about 20,000 tablets each.[4] These have not

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[1] The Latin word for library (bibliotheca) comes from Ancient Greek, by the association of biblyon (book) with theke (a closet, a storage place).
[2] Accounts, sale and purchase agreements, rental agreements, contracts, etc.
[3] Constantin Daniel, Civilizaţia sumeriană (Sumerian civilization) (Bucharest: Sport-Turism, 1983), 100.
[4] Ovidiu Drîmbă, Istoria culturii şi civilizaţiei (The history of culture and civilization), vol. 1, (Bucharest: Editura Ştiinţifică şi Enciclopedică, 1985), 99.

survived because of their perishable material (wood and brick), therefore their functional assessment is as yet impossible.

Along the banks of the Nile the ancient Egyptians kept their books in burnt clay vessels and sometimes in chests very much like coffers, anticipating the later bookcases. The books stored in these places were actually papyrus scrolls, *volumina*,[1] with an *ex libris* (a label) attached to the rolling sticks.

Information on the ancient Egyptian libraries is chiefly found in tombs. This is how we now know of a minor sacerdotal library in the small settlement of Tebtunis in Faiyum oasis, a storage place for scientific and religious treatises as well as literary works. The remains of several private libraries have been found on the left bank of the Nile at Thebes, one belonging to a priest or scholar (in Egyptian: "the one who carries the scrolls"), who lived in the period of the Middle Kingdom. He was the "savant" who knew the forms and order of rites. He organized the ceremonies and supervised the fulfilment of the liturgical ceremony.[2]

Very little is known about Egyptian library buildings, which were most likely restricted to one or a few simple rooms included into the functional structure of palaces, temples, or scribe schools. Their traceless disappearance alongside most of the secular constructions was mainly due to the easily degradable material they had been made of.

The first concrete building plans come from ancient Greece, as a confirmation of the appearance and structure of the first versions of library building types. This comes as no surprise, given the remarkable appetite of the ancient Greeks for culture, resulting in the large-scale dissemination of books (scrolls). Therefore the building of functional spaces for the storage of written materials, as well as the recommendations as to the norms of their accomplishment emerges as a natural consequence of this interest. The concept of closed spaces for book storage, usually in the form of monumental layout compositions placed in the central areas of ancient Greek city-castles, was created at that time.

The Athenian schools – Plato's (427–347 BC) Academy and Aristotle's (348–322 BC) Lyceum – had their own libraries, but due to their quasi-"private" character, they could not be compared to the great public libraries of the Hellenistic period. The first public library of Athens opened seven years after the death of Alexander the Great (around 330 BC), with its collections largely comprising the works of Aeschylus, Empedocles, and Sophocles.[3]

The Hellenistic period is one of the most prolific ages in the history of libraries thanks to the great number of buildings then completed. The increasing need for such places is accounted for by the significant development of bureaucratic apparatus, emitting an ever increasing number of written documents, as well as by a

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[1] Volumen (pl. volumina): scrolls; ancient manuscript in the form of a strip, the edges of which are tied to two sticks and rolled over one of them. They were read by unrolling the strip from one stick and rolling over the other.

[2] Claire, Laluette, Civilizaţia Egiptului Antic (Ancient Egyptian civilization) (Bucharest: Meridiane, 1987), 229.

[3] Olivier Poivre D'Arvor, Biblion-theke, in Histoires de bibliothèques. Ministère des Affaires Étrangères (Paris: Eric Koehler, 1992), 11.

cultural effervescence apparent from the overwhelming number of philosophical and literary texts.[1]

Many of the Hellenistic libraries were organized together with a *mouseion*,[2] in a fortunate completion of the functional scheme of these cultural institutions of Antiquity, which usually comprised: an academy, a research centre, and a library.[3] Most famous of these was the *Library of the Mouseion* in Alexandria, established by Ptolemy I Soter in 288 BCE. Two centuries later it was shelter to around 200,000 to 700,000 volumes, as the largest library of the Antiquity in the Mediterranean.[4]

According to Ismail Serageldin, Director of the present Library of Alexandria, the Ancient Library was located in at least three buildings: the Mouseion (in the royal district of the city), in an additional building used for book storage (in the harbour), and the so-called "daughter Library" in the Serapeum (the temple for Serapis, cult god of Alexandria).[5]

As for its functional organization, the various rooms sheltered the collections of papyrus scrolls, arranged and classified on shelves or bookcases by the walls, following a logical (disciplinary), as well as alphabetical order, with *catalogues* (*pinakes*) for the orientation of readers. It was a cultural sanctuary by offering protection to everything that Antiquity produced in Greek thinking and literature.

The *Bibliotheca Alexandrina* was famous due to its frequent politization as a result of its being considered an instrument of power. The mastering of as much written information as possible, as well as the possession of the largest number of books became a passion and also a criterion of assessing the power of Hellenistic leaders, which initiated a real "war for scrolls" among the libraries of the age, due to the competition on the book market of the Mediterranean.

The decline of the *Bibliotheca* was a long process starting with a fire which burnt down part of the harbour building in 48 BCE, during the Alexandrian war of Julius Cesar. It continued then with the devastation of the Mouseion and the entire royal district in 272 CE, in the campaign of Emperor Aurelius. It received the final stroke in 391 CE when the Christian mob of Bishop Theophilus set the Serapeum afire, marking the end of the Ancient Library as a public institution.[6]

The great rival of the *Bibliotheca Alexandrina* was the Public Library of Pergamon, one of the most flourishing Greek cities of Ionia, the capital of the similarly called Hellenistic kingdom. It was founded by King Eumenes II (197–159

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[1] François Chamoux, Civilizația elenistică (Hellenistic civilization) (Bucharest: Meridiane, 1985), 526.

[2] Mouseion (Greek): the temple of all the muses of various creative activities; it was the meeting place of scholars, philosophers, and poets who were meeting, working, debating, and teaching lessons there.

[3] Ismail Serageldin, The Ancient Library, http://www.serageldin.com/ancient_Library.htm

[4] Nikolaus Pevsner, A history of buildings types (London: Thames and Hudson, 1999), 91.

[5] Ismail Serageldin, The Ancient Library.

[6] Ibid.

BCE) who decided to transform the city into a powerful cultural centre, and built a library, a theatre, gymnasiums, altars, and temples to this end.[1]

The library was located within the complex of the Sanctuary of Athena, occupying the central part of the Acropolis (Fig. 2), where it neighboured the area of the royal palaces and the theatre. The main buildings of the sanctuary were the Temple of Athena to the west, and a two-level high portico, placed on the other three sides of the rectangular marketplace, which was the centre of the building complex. The library building was attached to the exterior wall of the northern portico, connected to it by doors and windows.

From the point of view of the layout, the *Atheneum* (as the library was called at that time) comprised six rooms placed in a pseudo-enfilade along the external wall of the portico, a layout starting from the portico of the entrance and ending in the great hall with the statue of Athena, patron of the library. (Fig. 3). The main room was the largest (13.5 x 15.9 m),[2] and it functioned as a reading room for the citizens and the pupils of the neighbouring schools. The scrolls were kept there in bookcases placed along three sides of the room, and on the walls there were marble plates with inscriptions for the pupils. The other three rooms were smaller than the first, and probably served as storage rooms for 17,000–20,000 more scrolls.[3]

The functional and utilitarian disposition of the layout and shape of the buildings of this library is worth noting, since one finds nothing here of the pompousness of symmetrical and monumental compositions characteristic for late Hellenism and Roman libraries. This remark makes me think that, at least in Pergamon, the content of the library and its public role was more important then its architectural design and expression.

The Hellenistic period was known as one of the foremost periods in flourishing Greek culture, then in full process of fusion with Oriental cultures. Under these conditions the special interest in building libraries to store the great number of literary and scientific works is easily understandable. The growing quantity of "books" as well as their increasing diversity made access to them increasingly difficult, and significantly disturbed the functioning of libraries. The problem was solved by catalogues created according to various categories, reflecting the storage method of scrolls, and ensuring fast access to the desired title. The large-scale adoption of this procedure brought about the appearance of the first elements of library ergonomics, without which the subsequent development of libraries would have been very difficult to imagine.

Another important feature of Greek libraries was the fact that besides their function of storage place for scrolls, they also yielded a framework for research programmes. These took place in rooms attached to the library or even in small

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[1] Eric M. Bradley, History of Libraries. Indiana University School of Library and Information Science,
www.ericbradley.com/07-04-08%20Pergamum%20Library%20Presentation. pdf
[2] Ion Lucăcel, Ionia, oraşele antice în Asia Mică, (Ionia, the ancient cities of Asia Minor) (Bucharest: Ed.Tehnică, 1973), 166.
[3] Ibid.

groups of spaces neighbouring the library, meant for study, discussions, lectures, or where the scrolls of the library were copied.

The special prestige that Greek culture enjoyed within Roman society caused these institutions to be easily adopted by Rome. The Roman library took over many elements from the Greek, and developed a functional programme in which the central hall was a rectangular room with walls containing niches with several shelves where scrolls were deposited.[1] On the wall opposite to the entrance usually there was a larger niche containing the statue of Minerva (equivalent of Athena), goddess of wisdom and protector of culture.

The great majority of libraries in the republican age were private, owned by the leaders of that time. The separation of the book collections into Greek and Latin[2] dated to this period, and was reflected later in the space configuration of public libraries.

The imperial age marked the beginning of the appearance of public libraries, since several emperors undertook the patronage of these institutions, inspired by the sovereigns of the Hellenistic age, and motivated by gains in politics and populism. The first imperial public library was created by Augustus by the name of *Bibliotheca Octaviana*, housed by two impressive buildings for Greek and Latin language writings, respectively. The first one was built in 33 BCE in the *Porticus Octavia* and was considered for a long time the most beautiful building of the city. The second building was erected in 28 BCE, next to the Temple of Apollo on the Palatine Hill.[3]

The most important library of Rome was built during the reign of Emperor Trajan, in the forum bearing his name. Designed by Apollodorus of Damascus, the *Bibliotheca Ulpia* was erected in 113 CE in the form of two symmetrical buildings (Greek and Latin) flanking Trajan's Column. (Fig. 4).

Attached to the north-western wall of the *Basilica Ulpia*, each of the two buildings contained a rectangular room (approx. 25 x 16 m), and a staircase for access to the upper floor. This was the location of the books and readers, organized on two levels, with circulation along the walls on the upper floor, allowing access to the shelves on this level. The scrolls were stored on the shelves in the niches of the walls. Books were classified according to the shelves (*pegmata*) used for storing them. The empty shelves were called *nidi*, and were divided by a hexagonal structure (honeycomb-like) with individual boxes (*foruli* or *locumenta*) for scrolls, which were archived according to *nidi*, *foruli*, and *locumenta*.[4]

The private libraries of the *Villa Hadriana* at Tivoli, situated at 28 km from Rome, are a particular case. This summer residence, a large complex of buildings erected by Emperor Hadrian starting with 118 CE, comprised two libraries located somewhere in the north-east of the main peristyle of the complex, called the Court of libraries (Fig. 5). The Greek Library and the Latin Library sheltered the

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[1] The book bound of papyrus or parchment leafs, known as codex, only appeared in the 4th century CE.
[2] Javier Rodriguez, A Brief History of Roman Libraries,
www.roman-empire.net/articles/article-005.html
[3] Ibid.
[4] Ibid.

manuscript collection of the Emperor, known as an erudite man and a passionate collector.

From a compositional point of view both constructions had a similar organization scheme: a pair of large vaulted rooms, positioned in a sequence, on the axes of each library, and functionally associated with some much smaller rooms, possibly used by scribes copying manuscripts. The main halls of the libraries had niches along their sides, probably employed as more comfortable spaces for reading. The difference in size between the two buildings in terms of composition is obvious; the Greek Library was much larger than the Latin one, clearly expressing the Emperor's cultural preferences.

The greatest number of library buildings of the Roman Empire was definitely found in the capital, where towards the end of Antiquity there were 28–30 functional libraries. The example of the sovereigns was also followed in the provinces, where local high officials or leaders built public libraries to strengthen their public image. The best known of these were the libraries of Ephesus, in Asia Minor, and Timgad, in North Africa.

The *Library of Celsus* in Ephesus (Fig. 6) was built by Julius Aquila in 110 CE, in memory of his father, Gaius Julius Celsus Polemaeanus, Roman senator and proconsul of Asia. The building was subsequently modified on repeated occasions by the descendents of the family, being eventually completed in 135 CE.[1]

The library was built on a platform in the centre of the city, at the spot where the main artery of the city, the Marble Road changed its course towards the north, leading to the entry in Agora Tetragonos, the main trade area of the city, to the theatre and beyond, until the stadium. More precisely, the library was attached to the southern exterior wall of the Agora.

As a composition, the layout was simple and symmetrical, the main element was the library hall[2] built as a vaulted structure, approached by a set of exterior stairs. The periphery was built as a set of double walls meant to keep constant humidity by continuous air circulation. The corridors thus created were accessible from the entrance area and led to the crypt[3] under the semicircular niche of the hall's back wall. The hall had a rectangular shape (10.9 x 16.7 m) with a colonnade on three sides, behind which there were the ten niches and bookcases in the walls, with shelves for storing manuscripts.

Preserved until today, the façade of the library displayed an elaborate architectural design, dominated by four pairs of Corinthian columns on two levels, ensuring its remarkable monumentality. Behind the colonnade, three monumental doors allowed access to the building, flanked by niches for statues.

Another remarkable example of provincial Roman libraries was the *Library of Timgad* (Fig. 6), built in the early 2nd century CE in a city (actually a military colony) founded in 100 CE by Emperor Trajan in North-Africa, on the present territory of Alger. The city's layout was typical to newly built cities during the rule

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[1] Ion Lucăcel, Ionia, 133.

[2] Ibid., 116.

[3] The crypt was the burial vault where the marble sarcophagus of Julius Celsus Polemaeanus was deposited.

of Trajan: a fortified, square-shaped enclosure, with edges of 335 m, divided into 144 *insulae* with edges of 20 m each, generating a perfectly rectangular street grid.[1]

The library occupied by itself a very central *insula*, located on the *cardo maximus*, reflecting the importance of this institution in the life of the city. The building design was based on a centred, symmetrical composition, specific for monumental buildings, although its size was quite modest. The main element was the semicircular central space (the manuscripts room), containing niches with shelves for the storage of scrolls, and a niche with the altar of Goddess Minerva. This room could be reached through an open vestibule used as a buffer area between the tumult of the street and the silence of the library. The vestibule was surrounded on three sides by a portico with columns, leading to the six reading rooms placed along the sides of the building. This library is distinct from the other Roman buildings of this type by the unusual shape of its main hall, where the otherwise customary rectangular shape was exchanged for a half-vaulted semicircular one, creating thus a space more dynamic and monumental. This major change could have been the result of a need for extra architectural expressiveness to compensate for the structural monotony of a city-castrum, and the enhancement of the prestige of the Roman state at its apogee during Trajan's reign. For this reason most outstanding buildings of this military colony considered to be the Pompeii of Northern Africa had to be important instances for the image of Roman grandeur in an outpost of the Empire right at the edge of the Sahara.

Greek and Roman Antiquity was the historical period when the library as a building type was shaped as a *place of encounter between man and the book*. This relationship, decisive for human culture, was translated in the way of organization of the rooms for manuscripts, permitting the readers' direct access to the shelves or bookcases, loaded with "books". This system had been preserved during the whole period, although the libraries employed staff for ensuring their operation and maintenance.

The layouts were simple, some of the libraries contained only a manuscript room, while still many of the Roman libraries were divided into two buildings for Greek and Latin literature, respectively. In time, the amount of scrolls increased considerably, which led to the extension of the building types by adding an extra level to the manuscript rooms and completing the functional scheme with the attachment of further rooms for reading, manuscript copying, and the storage of volumes of outstanding value.

The age of ancient libraries ended in the period of agitations in the 3rd-4th century, when their great majority disappeared due to the destructions caused by the political instability all over Europe, as well as the advance of Christianity, whose followers vandalized pagan libraries, considering them to be obstacles in the way of the triumph of Christianity.

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[1] Gheorghe Curinschi Vorona, Istoria universală a arhitecturii (The universal history of architecture), vol. 3, (Bucharest: Ed.Tehnică, 1986), 98,99.
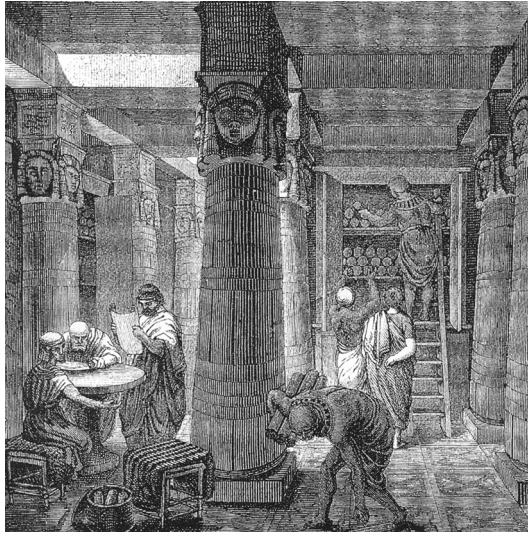
Illustrations:

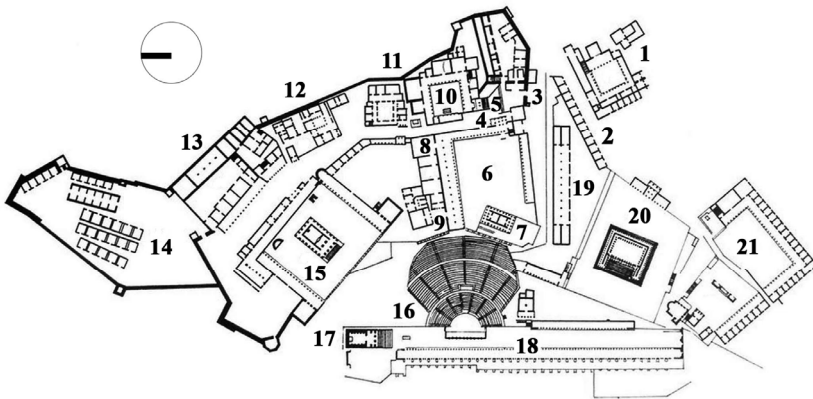Fig. 1 - Artistic Rendering of "The Great Library of Alexandria."
by O. Von Corven

Fig. 2 - Pergamon, plan of Acropolis:
1, Sanctuary of the Ruler Cult, 2, Shops, 3. Gate, 4. Propilon; 5, 6. Athena sanctuary, 7. Temple of Athena temenos, 8. Library (Atheneum), 9. Banqueting Hall, 10,11,12. Royal palaces, 13. Barracks, 14. Arsenal, 15. Temple of Trajan (Trajaneum), 16. Theatre, 17. Temple of Dionysius, 18. Theatre Stoa, 19. Stoa, 20. Altar of Zeus, 21. Upper Agora;
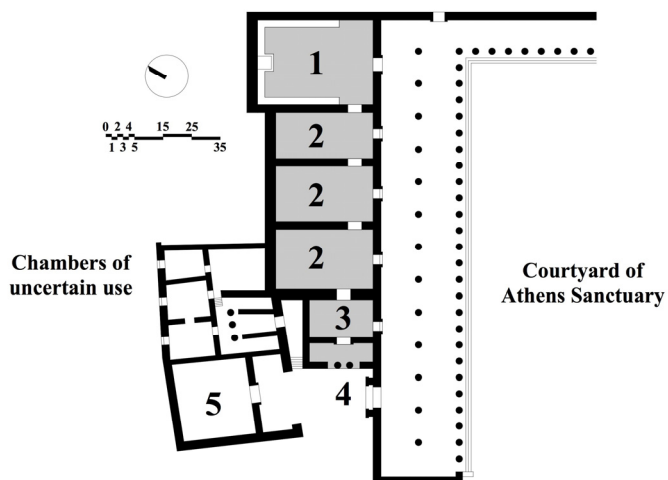
Fig.3 – Pergamon, The Library (Atheneum), cca. 200 AD:
*1. Main Hall with bookcases, 2. Side rooms (Storerooms), 3. Vestibule,
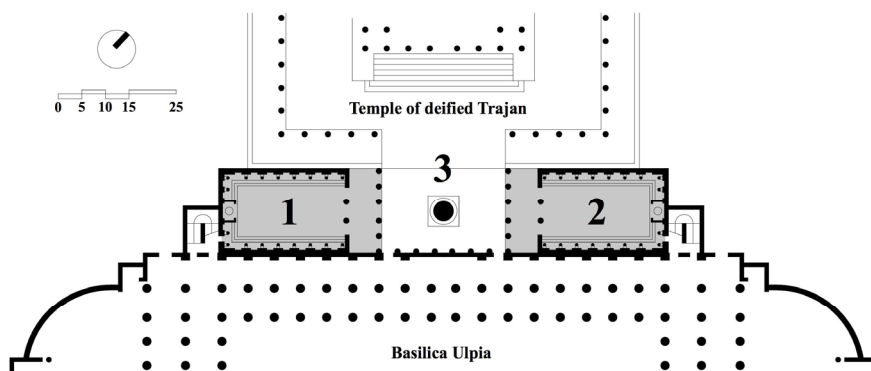4. Entrance, 5. Banqueting hall;*

Fig. 4 - Rome, Forum of Trajan, The Library, 113 CE:
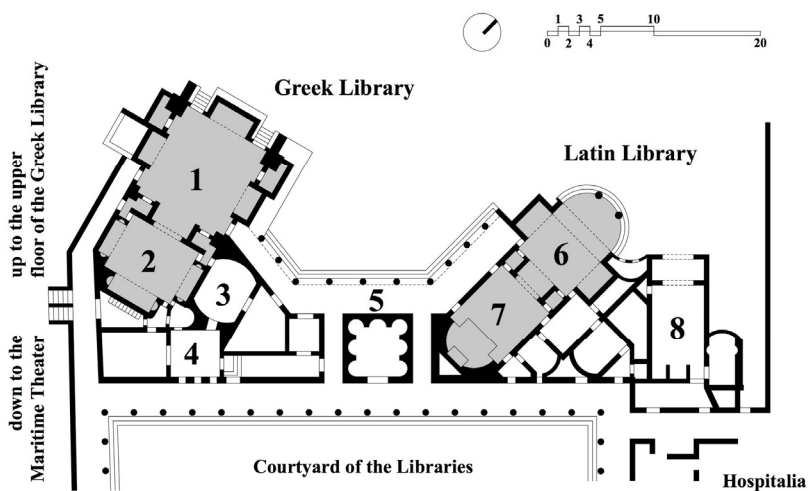*1.   Greek Library, 2. Latin Library, 3. Column of Trajan;*

Fig. 5 - Tivoli, The Libraries of Hadrian's Villa 118–135 A.D.
1. First hall with alcoves, 2. Large inner hall with alcoves, 3. Inner apsed hall,
4. Vestibule, 5. Porch, 6. Entrance hall with alcoves, 7. Main apsed hall,
8. Large rectangular hall;

Fig. 6 - Ephesus, The Library of Celsus 110–156 AD.

Fig. 7 – The Library of Timgad, 2nd century CE
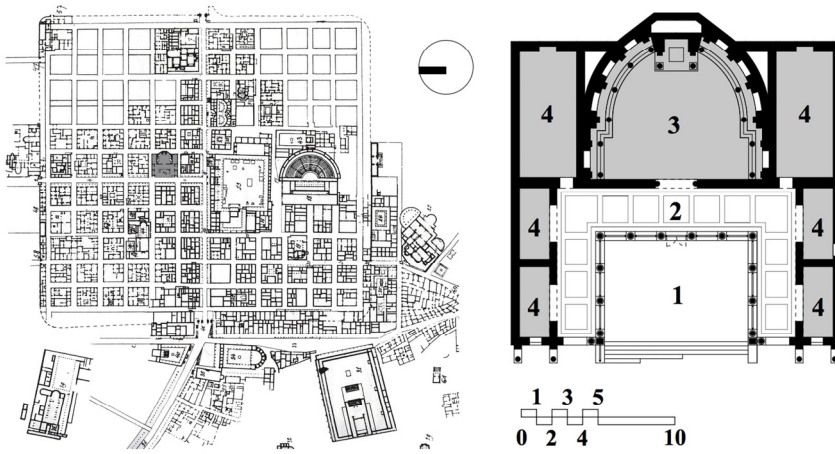*1. Vestibule, 2. Porch, 3. Main hall, 4. Reading rooms.*

Translated by Emese G. Czintos