

THE GREAT LIBRARY OF ALEXANDRIA

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In this article, Bill Anderson, FRC, presents the Great Library of Alexandria. During ancient times and today, the Library of Alexandria serves as “a center of excellence in the production and dissemination of knowledge and a place of dialogue, learning, and understanding between cultures and peoples” (the mission statement of the modern *Bibliotheca Alexandrina*).¹



Ancient Alexandria was the epitome of culture, elegance, and learning in the Mediterranean and European worlds for centuries; and the resonance of its intellectual might survives to present times. To the Romans it was *Alexandria ad Aegyptum*; Alexandria “near” not “in” Egypt. To them it was a bridge between mystical Egypt and the more pragmatic West.

In the fifth century BCE, the Golden Age of Classical Greece, book collecting was still very uncommon. As the fourth century went on, private scroll collections and libraries became more numerous. Works on a wide variety of subjects were collected, including drama and poetry. However, the first recorded public library wasn't until about the time of Alexander the Great. The philosopher Aristotle, a man of great learning, who was also Alexander's tutor, had amassed a large personal library encompassing all the arts and sciences of his age. Legend has it that when the Ptolemies constructed the Great Library at Alexandria, it was arranged according to Aristotle's model of his own personal library.

In 332 BCE, after defeating the Persian army at the battle of Issus, Alexander the Great turned south towards Egypt, where he was acknowledged as pharaoh. His cousin Ptolemy was with Alexander when he traveled to the oasis of Siwa in the Western Desert, to confer with the oracle of the god Amun, “the Hidden One.” This proved to be a life-changing moment for Alexander. Prior to the epiphany at Siwa, he was just a successful Greek general; after it, he acquired the vision of a universal empire of equals, a very un-Greek thought, as every petty city-state of the time was divided into citizens, non-citizens, and slaves. Alexander's vision was responsible for the creation of this marvelous city on the northwest coast of the Egyptian delta.

Alexandria was founded in 331 BCE and Alexander wanted his city to become a *megalopolis*, one of the great cities of the world. He took Aristotle's plans for an ideal city and put them into practice. Its walls were over 10 miles in circumference. Its streets were of exceptional width, 100 feet in the case of the two main streets, and 50 feet for the rest. This far exceeded anything that had been seen before. The rectangular grid of streets was designed to allow sea breezes to blow through the city. From the date of its foundation, Alexandria became the seat of government in Egypt, a situation that lasted for nearly 1,000 years until the Arab conquest in 640 CE.

Foundation of the Museum

After Alexander's death in the city of Babylon, his cousin Ptolemy hijacked the



body, which was on its way back to Greece, and diverted it to Alexandria, where he housed it in the showpiece building known as the *Soma*. Ptolemy ascended to the throne of the pharaohs as Ptolemy I Soter, the founder of the Ptolemaic dynasty. With his complex Mediterranean policy, there were good reasons why Ptolemy chose Alexandria as his capital, rather than the more traditional capital of Memphis.

In the context of the new Hellenistic world, Alexandria, as a port city, looked outwards to the world. Ptolemy felt that his new capital needed its own spiritual center of learning, as a counterweight to ancient Egyptian science and culture, and to that other Greek center of learning, Athens. To fulfill this need, he established the Museum (*Mouseion* in Greek) within the *Basileia* or royal precinct of the city, on the eastern side of Alexandria. In the *Brucheion* quarter of the city, it was a collection of palaces and parks like the Forbidden City in Beijing or the Kremlin in Moscow.

The Mouseion, a great complex of buildings, was erected on land adjacent to the royal palace and between it and the Mausoleum of Alexander in the *Soma*. It was designed to be a shrine of the Muses, the Greek goddesses of literature and the

arts. Strabo, the celebrated ancient traveler at the beginning of the Common Era, who lived from 64 BCE to 25 CE studied in Alexandria for a long time. In his *Geography* (Book 17) he mentions the Mouseion as a part of the royal palaces. It had a public walk, three porticoes around an exedra with seats where philosophers, rhetoricians, and others would go to listen to lectures and discussions.

Outside the large main building there were sleeping quarters and a refectory. The scholars held all property in common. The entire complex was richly endowed and contained lecture rooms, laboratories, a zoological, and a botanical garden. They started a project to classify the world's flora and fauna, following the example of Aristotle. Efforts were made to acclimatize plants from other parts of the world with the intention of growing them commercially. As a center for teaching and research, it became the first scholarly academy in the western sense of the word. In 297 BCE Demetrios of Phaleron, the ex-Athenian statesperson, peripatetic philosopher, legal scholar, and rhetorician, who had been driven out of Athens during the civil wars after the death of Alexander, arrived in Alexandria and was cordially received by Ptolemy I, who promoted him to royal councilor for cultural



Ancient Alexandria. Braun & Hogenberg, *Civitates Orbis Terrarum* (ca.1573).

affairs. Together they conceived of a place that would bring together all the learning of the world.

The culturally receptive environment cultivated by Ptolemy I, who was a historian himself, drew scholars, writers, and philosophers to his court from all over the Greek world. In the realm of cultural history, the greatest contribution of the Ptolemaic rulers was the establishment and development of Alexandria as an intellectual center. More importantly, the literary and intellectual heritage of ancient Greece was collected and edited in the Mouseion and ultimately prepared for transmission to posterity. The Hellenistic rulers realized that if they were to rule all their new subjects, they must understand them; and to understand them, they must collect their scrolls and have them translated into Greek. Knowledge was power, and they wanted the knowledge of the world under their control. The Ptolemies, who were the rivals of the Attalid Dynasty of Pergamon, forbade the export of papyrus. Egypt was the habitat, par excellence, of the papyrus plant. This ensured its rulers a monopoly on the world's prime writing material. But it was in vain, as the Attalids invented a new writing material called *parchment*.

Ancient Egypt had always had libraries, attached to the main temples, and available only to the clergy. This was perhaps not as exclusive as it may at first appear, since many people took a turn at being a clergy person in a temple for three months at a time. But the books were not available to the public in general. The temple records and books were however made available, so it has been related, to the members of the Mystery Schools attached to the main temples in Memphis, Thebes, and particularly in Heliopolis, today a suburb of Cairo.

The Great Library

Members of the Mouseion were paid by the treasury and had to dedicate

themselves primarily to scholarship, but also to education. Apart from research into all the sciences, they also studied literature and philology. It was Ptolemy II Philadelphos who was mainly responsible for Alexandria's library collection.

The Mouseion was a crucible where the ideas of Hellenic civilization interacted with the mathematical and astronomical knowledge of ancient Egyptian civilization, jealously preserved over the millennia by the Egyptian clergy, but which the Greeks held in high regard. Alexandria and the Mouseion were responsible for a whole series of discoveries, some of which were lost in the following centuries.

The library was not open to the public. It was reserved only for the scholars attached to the Mouseion (like a modern research institute). The very first problem that the Ptolemies faced was acquisitions. Egypt boasted a long and distinguished history and there were many scrolls in the Egyptian language scattered throughout the land. They could buy Greek scrolls in "book markets" in Athens, Rhodes, and other centers of Greek culture. But the Ptolemies had wealth and single-minded determination. They sent agents out with well-filled purses and orders to buy whatever scrolls they could on every kind of subject—the older the copy the better. Older books were preferred because they were likely to have suffered less recopying and were less likely to have errors. Their agents did this so energetically that they spawned a new industry, the forging of old copies. The Ptolemies also confiscated books found on ships that docked at Alexandria. The owners were given copies while the originals went to the Great Library.

Special attention was paid to the classics of Greek literature. They collected together copies of Homer from every part of the Greek world in order to compile a definitive version. Thus they established a standard text for the most cherished books in Greek literature.



Newly acquired books were stacked in warehouses while they went through a preliminary procedure. Rolls usually had a tab attached to one end bearing the author's name and ethnicity.

The ethnicity was essential because the Greeks had only one name and different people often had the same name. Some rolls were also marked with their provenance. The policy was to acquire everything from exalted epic poetry to cookbooks. The Ptolemies aimed to make the collection not only a comprehensive repository of Greek writings, but also a tool for research.

They also included translations in Greek of important works in other languages. Large numbers of Jews had been encouraged to come to Alexandria. They became thoroughly Hellenized and spoke only Greek, and could no longer understand the original Hebrew or Aramaic, so Ptolemy II gave seventy rabbis the task of translating the Pentateuch, the first five books of the Old Testament, known as the Septuagint. This first Greek version of the Hebrew Bible was completed around 130 BCE. Rolls of papyrus were collected in every tongue: Hebrew, Aramaic, Nabataean, Arabic, Indian, and ancient Egyptian. All were translated into Greek. The translations of the Persian writings attributed to Zoroaster alone came to over two million lines of verse. They also translated the Egyptian History of the famous priest Manetho, who worked at Heliopolis, and from which we obtained the list of dynasties we use today. It must have seemed as if the Ptolemies aimed to collect every book in the world.

The Daughter Library

To complement the Great Library, Ptolemy III Euergetes had a second library built in the newly erected *Serapeion*, the

temple of the deities Serapis, Isis, and their son Harpocrates that stood on one of the few hills in the city. A flight of one hundred steps led up to this "daughter library," so called because it contained copies of works held in the Great Library. It was a temple library very much like the library of Pergamon, which was located in the precinct of the temple of Athena Polias, and it reflected the long-standing tradition of temple libraries in Egypt.

We know almost nothing about the physical arrangements. The main library likely consisted of a colonnade with rooms behind. The rooms would serve for shelving the rolls and the colonnade provided space for readers. It is estimated that there were 490,000 rolls in the main library and 42,800 in the daughter library. But many rolls held more than one work. At the head of the library was the Director appointed by the court, an intellectual luminary who often served as tutor to the royal children.

Who Was Who?

The Director, or Priest of the Muses, which was a very influential position, was appointed by the Ptolemaic rulers, then by the Roman emperors.

The first Director of the Great Library was Zenodotos of Ephesus. His successor was Apollonius of Rhodes, who composed the famous epic the *Argonautica* and was the tutor of Ptolemy III. Being raised in this intellectual environment ensured that the kings made efforts to seek out talented minds from all over the Greek world and invite them to Alexandria.

Zenodotus's first step was the classification system according to the nature of their contents: verse or prose, literary or scientific. The next step was to assign rooms or part of rooms to the various categories

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of writings. The works were then arranged in alphabetical order by author on the shelves. This brings us to one of the great contributions that we owe to the scholars of the library of Alexandria: alphabetical order as a means of organization. Zenodotus was also the first to compile a glossary of rare words. He needed staff as well: sorters, checkers, clerks, pages, copyists, and repairers—and it is likely that a great many of them were slaves.

It was Callimachus of Cyrene, a towering figure in the history of the library and in the field of scholarship, who rose to become one of the most influential figures of intellectual life in Alexandria. During the reign of Ptolemy II, he compiled an index of books listing all the titles in the Great Library. However, his greatest achievement was entitled *Tables of Persons in Every Branch of Learning, together with a List of Their Writings* or just *Pinakes*, meaning “Tables.” It was a detailed bibliographical survey of all Greek writings, occupying over 120 books. He made the initial basic division into poetry and prose, and broke down each into subdivisions. For poetry there was a table of dramatic poets, with a breakdown into writers of tragedy and another of writers of comedy; a table of epic poets; one of lyric poets; for prose there was a table of philosophers, of orators, historians, writers on medicine, and even a miscellaneous table. Each table contained a list of authors with a brief biographical sketch, father’s name, birthplace, and also a nickname if they had one.

And so, a vital reference tool was created.

The universal scholar Eratosthenes of Cyrene came from Athens and became Director of the library (245–205 BCE) after Apollonius of Rhodes. He was also the tutor of Ptolemy IV Philopator. Skilled

in astronomy and geography, he calculated the circumference of Earth. He was also a historian and poet.

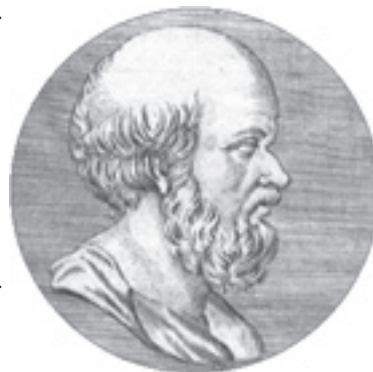
Aristophanes of Byzantium was Director from 205–185 BCE, and Aristarchus of Samos from 175–145 BCE. He calculated the distance from Earth to the Moon and became famous for postulating a heliocentric system where Earth and planets went round the Sun, 1,500 years before Copernicus. Together they brought the focus back to literature and language, and made this half-century a golden age for research in those fields.

Many other great minds came to Alexandria. The first physician to come was Praxagoras of Kos, who brought the Hippocratic tradition to Alexandria. His student, Herophilos of Chalkedon, was one of the most important doctors in Alexandria. He made dissection a regular practice and accomplished groundbreaking work in medical terminology. He deduced that the brain, not the heart, was the seat of intelligence, and isolated both the nervous systems and the arterial system.

Euclid, the famous mathematician and geometer, came from the Platonic Academy in Athens to teach in Alexandria. Archimedes of Syracuse spent some time at Alexandria, as did Konon of Samos who is credited with the theory of conic sections. Apollonius of Perge, another great mathematician and geometer also spent time here.

In the first century CE, Heron of Alexandria published various works such as the *Pneumatica*,

where he explained how to boil water and channel steam into a pipe, long before James Watt. The *Dioptra* described the principles of magnifying lenses. In the *Hydraulica* he demonstrated the mechanism of a hydraulic lifting device. In the *Mechanics*, he discussed



Eratosthenes of Cyrene.



the number of pulleys needed to lift a weight of so many tons to a given height.

An End and a Beginning

The date of the library's destruction has long been a matter of debate. Was it when Julius Caesar set fire to the warehouses during the civil war in Egypt? Or perhaps it happened during the civil disturbances in the second half of the third century under the Emperor Aurelian (270-275)? Or perhaps it was during the religious disturbances in the fifth century, when the Serapeion library was destroyed by Christian fanatics? Or was it when the Arabs conquered the city in 640? There is no clear answer, though present scholarship suggests that most of the library was destroyed or dispersed in 272 CE during the civil war, when the Brucheion quarter of the city was destroyed by Aurelian.

The library was the first and greatest of its kind in ancient times. It was

comprehensive, collected books from all over the known world, and it was public, in the sense that it was open to anyone with scholarly or literary qualifications. It was the ancient version of a think tank.

In 1974 it was decided to build a new library in the city, the *Bibliotheca Alexandrina*. With UNESCO backing, the work of creating the new library was started in 1988 and the complex was officially inaugurated in 2002. This new building, with its highly original design, occupies part of the Ancient Palaces section of the city, not far, it is thought, from where the original Great Library actually stood. It is a circular structure, evoking the rising Sun. Throughout the day, sunlight highlights incised letters in scripts from all over the world. Inside, there is a single vast reading room with six hundred columns evoking the papyriform columns of ancient Egyptian temples.

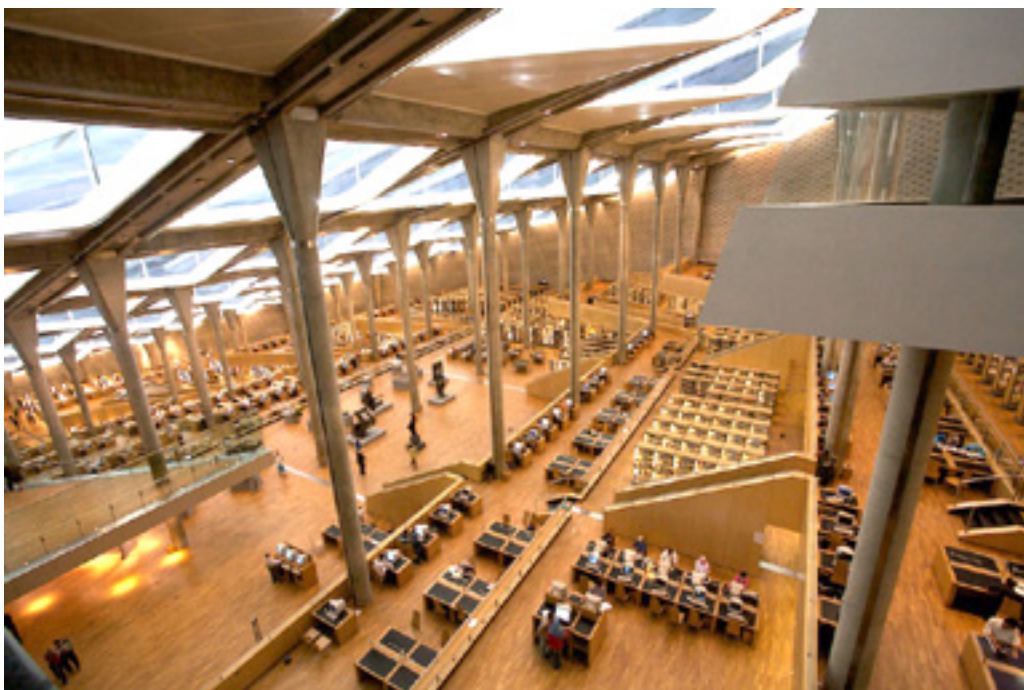


The Ancient Library of Alexandria.

THE MODERN BIBLIOTHECA ALEXANDRINA



Today's Library of Alexandria features inscriptions set in a dynamic work of architecture, a building that seems in motion rising toward the Sun as if in orbit.



The collection of the modern Bibliotheca Alexandrina includes: the *Rose+Croix Code of Life* (translated into 24 languages); *So Mote It Be* by Imperator Christian Bernard; *Rosicrucian History and Mysteries* by Frater Christian Rebisse; *Master of the Rose Cross: A Collection of Essays By and About Harvey Spencer Lewis*; *Treasures of the Rosicrucian Egyptian Museum: A Catalogue*; *Spiritual Laws that Govern Humanity and the Universe* by Frater Lonnie Edwards, M.D., and other Rosicrucian titles.

ENDNOTES

¹Bibliotheca Alexandrina, The New Library of Alexandria, "Mission Statement," http://www.bibalex.org/aboutus/mission_en.aspx.

