

## Hellenistic Alexandria

Greek scientists benefited greatly from the knowledge and applications of the Egyptians accrued over the years. The Greeks brought thought and reflection to the observations that were widely carried out by the Egyptians, and drew theories and laws from the observed phenomena.

In the History of Science Museum you will be introduced to the great Alexandrian scientists who changed the course history of science.

Presented in chronological order are:

### Mathematicians:

Euclid, Aristarchus of Samos, Ktesibius, Archimedes, Eratosthenes, Phylion of Byzantium, Apollonius of Perga, Hipparchus, Hero of Alexandria, Ptolemy, Diophantus and commentators on their works.

### Physicians and naturalists:

Herophilus, Erasistratus, Galen and Paul of Aegina.



Owing to their conquests in the VII<sup>th</sup> and VIII<sup>th</sup> centuries, the Arabs gained access to the scientific texts, the majority of which were Greek, the rest were Syriac, Sanskrit and Persian.

## Arab-Islamic Middle Ages

A great translation movement accompanied these conquests. Scientific correspondences and travels developed, Arabic science became universal and Arabic soon became the language of all sciences. Under the patronage of caliphs, who erected hospitals, observatories, mosques and schools, scientists and physicians embarked on making significant scientific progress.

The History of Science Museum presents great Arabian scientists including their huge achievements

### Presented in chronological order are:

**Mathematicians:**  
Al-Khwarizmi, Banu-Musa, Thabit bin-Qurra, Abo-Kamil, Ibn Yunus, Ibn al-Haytham, al-Muradi, al-Jazari, Ibn al-Shatir, al-Zarqali, al-Ibrisi.

**Physicians and Naturalists:**  
Al-Razi, al-Zahrawi, Ibn Ridwan, Ibn Butlan, Ibn al-Baytar, Ibn al-Nafis.



## Frame-freezes

### Between the Pharaonic and Hellenistic periods

An evocation of Ptolemaic Alexandria, the palaces, the Library, the Mouseion, etc.

### Between the Hellenistic and Arab-Islamic periods

A tribute to the translators whose relentless efforts were an essential element in the transmission of knowledge.

### At the end of the Arab-Islamic period

Heralding the Renaissance through the evocation of three west-European scientists, whose researches were extensions of earlier ones: Leonardo da Vinci, Copernicus and Harvey.

Around 200 years ago stood the most famous library in antiquity. Next to it was a museum that gathered elite intellectuals of that era, not only poets and philosophers but also scientists, astronomers, geographers, mathematicians and physicians. The main objective of the History of Science Museum is to point out the scientists whose work, imagination and studies had enriched scientific knowledge.

The Museum presents science and scientists chronologically across three different eras:

- Pharaonic Egypt
- Hellenistic Alexandria
- Arab-Muslim Middle Ages



## Pharaonic Egypt

In order to know the techniques used by ancient Egyptians about arithmetic, geography, anatomy and construction, the papyri should be regarded with more than an aesthetic eye.

We shall then discover a high degree of skill and knowledge in multiple fields: the ancient Egyptians were regarded as architects, masons, surveyors, astronomers, geographers, mathematicians, physicians, engineers, and so on.

Mathematical sciences: Calendar, agriculture, arithmetic, construction and war.

Medicine: The person, disease, treatment and hygiene.