

**The Ancient Library of Alexandria.
A Model for Classical Scholarship
in the Age of Million Book Libraries¹**

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Prologue: the phoenix-library

Like the tower of Babel, Atlantis, or the Holy Grail, the library of Alexandria is one of the great archetypes of our civilization. Since antiquity², legions of scholars, novelists, poets, philosophers, artists, or mere dreamers, have fantasized about a blessed place where all human knowledge, all the books of the world, had been collected; have praised the learned men of the Museum for their conquests in every field of culture; have meditated on the tragic fate of that experience and, more in general, on the fragility of human achievements. The epopee of the Alexandrian library, in fact, had been short: already in the Severan age, a writer like Aulus Gellius could enthuse over its unthinkable dimensions³.

The *longue durée* of the Ptolemies' library in Western cultural tradition has materialized on different levels. Historiography, for example, has tried to elucidate the circumstances of its foundation, its influence on the other major libraries of Late Hellenism, the trustworthiness of the ancient accounts on its “destruction,” etc.; philology has investigated in composition of its collection

¹ This paper is dedicated to the memory of Ross Scaife (1960-2008), a pioneer in the application of digital technologies to classical scholarship. In his many brilliant and important contributions, he showed that today it is possible to recreate, in new forms, the collaborative environment that thirteen centuries ago characterized the Museum of Alexandria.

² As proof of the antiquity of the Alexandrian library's fame see, e.g., Athenaeus (*Deipnosophistae* V, 203e), who in the II century AD says that remembering the collections of books and the activities of the Museum is meaningless, since they are in the memory of all men.

³ *Noctes Atticae* VII, 17, 3: *ingens postea numerus librorum in Aegypto ab Ptolemaeis regibus uel conquisitus uel confectus est ad milia ferme uoluminum septingenta.*

and the Alexandrian role in the transmission of classical literature; hundreds of studies have underlined the nearly religious foundations of the Museum, as an expression of the human yearning towards the wholeness and the unity of knowledge. Like a karstic river, the library of Alexandria resurfaces time after time⁴, and not only in “high-culture”: in a recent best seller by Steve Berry, *The Alexandria link*, the library is hidden somewhere in the Sinai peninsula; in Clive Cussler’s *Treasure*, a rich collection of objects coming from the Museion is discovered near Rome, Texas, at the point where a Roman fleet escaping from political persecution, in the year 319 AD, reached the American continent; in Denis Guedj’s *Les cheveux de Bérénice*, Alexandria is the background of Eratosthenes’ research on a method to measure the circumference of earth; in Jean-Pierre Luminet’s *Le Bâton d’Euclide*, Johannes Philoponos vainly tries to dissuade ‘Amr Ibn al-‘Ās – the Arab commander who conquered Alexandria in the year 642 – from burning the books of the town, as caliph ‘Umar has ordered; in the initial shot of Oliver Stone’s *Alexander*, Ptolemy I Soter dictates to a scribe his memoirs to a scribe while, around him, in the huge halls filled with scrolls, the Alexandrian scholars are zealously at work. And we could continue.

An explanation of the durable fascination of the Alexandrian library on our culture has been attempted by Jorge Luis Borges, the famous Argentine writer that in the collection *Historia de la noche (History of the Night, 1977)* dedicates a lyric to the instant in which ‘Umar commands ‘Amr Ibn al-‘Ās to destroy the great library. The medieval legend from which Borges (like Jean-Pierre Luminet) takes inspiration gives a paradoxical motivation for the caliph’s order: “If the books of the faithless conform with the holy Qur’an, they are superfluous; if not, they are undesirable.” But Borges’ re-creation of the myth is – as usual for him – more surprising: “The faithless say that if it were to burn, / history would burn with it. They are wrong. / Unceasing human work gave birth to this / infinity of books. If of them all / not even one remained, man would again / beget each page and every line, / each work and every love of Hercules, / and every teaching of every manuscript. / (...) I, that Omar who subdued the Persians / and who imposes Islam on the Earth, / order my soldiers to destroy / by fire the abundant Library, / which will not perish”⁵. As long as man remains on the earth, Borges says, the Library – this inventory of all human creativity – will not perish; or better, the Library, as the mythical phoenix, can die over and over again: but every death will be followed by a resurrection, thanks to the work of new generations of authors that will reintegrate its lost pages. This is, of course, only a provocation; in reality, in the destiny of the library of Alexandria, and in

⁴ Especially significant is the inauguration in 2002 of the Bibliotheca Alexandrina (<http://www.bibalex.org>), the new library of modern Alexandria dedicated to recapture the spirit of the ancient library and promote studies on its early period; see, e.g., Youssef 2002 and Serageldin 2008.

⁵ See Borges 1999.

general of all the great books of the past that have gone lost, what strikes our consciousness is exactly the fact that the lost knowledge will never be recovered; and it is from this consciousness that in classical Antiquity, just in Ptolemaic Alexandria, philology arose – this science whose first purpose is to recapture the missing literary legacy of our predecessors.

Given the fortune of the traditions about the Alexandrian library, it can seem somewhat contradictory to point out that the historical sources on it are surprisingly scanty. But the truth is that we can say almost nothing certain about it: where and how the papyrus scrolls were stored; what dimensions its collections really had; what role the other public library of the town, the Serapeum library, had in Alexandrian cultural life; if books continued to be added with the same regularity after the death of Ptolemy III Euergetes, etc. Even the information about the end of the library refers to a space of six centuries, from the age of Caesar to the age, as we have seen, of the prophet Muhammad.

Despite that, modern studies on Alexandria and its library are countless⁶. In order to react to a flood of publications filled with conjectures and speculations, in recent years new studies have tried to emphasize – rather than hide or, worse, fill in – the immense gaps in the tradition. As Roger Bagnall writes in a recent paper,

The disparity between, on the one hand, the grandeur and importance of this library, both in its reality in antiquity and in its image both ancient and modern, and, on the other, our nearly total ignorance about it, has been unbearable. No one, least of all modern scholars, has been able to accept our lack of knowledge about a phenomenon that embodies so many human aspirations. In consequence, a whole literature of wishful thinking has grown up, in which scholars – even, I fear, the most rigorous – have cast aside the time-tested methods that normally constrain credulity, in order to be able to avoid confessing defeat.⁷

Our purpose, here, is not to add another example of “wishful thinking” to the already infinite bibliography on the Alexandrian library, nor to suggest new hypotheses on specific problems, but simply to recall a few points pertaining to the importance that the foundation of the Alexandrian library had for the history of scholarship and philology. This, however, is a very topical question, in

⁶ Other bibliography – in addition to the titles cited in this paper – can be found in Canfora 1990; Jacob-De Poulignac 1992; Canfora 1993; Ballet 1999; MacLeod 2000; Heller-Roazen 2002; El-Abbadi 2004; Pollard-Reid 2006; El-Abbadi-Fathallah 2008.

⁷ Bagnall 2002, 348.

the light of recent debates on digital libraries and their potential benefits⁸. The Alexandrian Museum, in fact, was the most famous scholarly center of classical antiquity and promoted a wide range of studies, gathering scholars from all over the world: in this sense, it can be considered a model for the emerging cyberinfrastructure in the humanities, whose aim is to develop a concept of digital technologies as a new way to study the past and conduct scholarly research in an international and collaborative environment⁹.

In their turn, the many analogies we can establish between the forms of organization of scientific research in Ptolemaic Alexandria and those in course of definition today, in the age of million book digital libraries, bring us back to an old but still crucial point: how solid, how “imperishable” are our ways of accumulating and storing knowledge? Can we confidently say that we have entered, to use an effective expression of Lucien Polastron¹⁰, in the age of flameproof knowledge? To try to formulate some answers we need, in the first place, to briefly recall what the Museum and its library were created for.

1. Aristotle, Demetrius of Phalerum, and the Ptolemies

After Alexander the Great’s death in 323 BC, his empire was divided into three parts: the Antigonids controlled Greece, the Seleucids ruled most of Asia Minor, Syria and Mesopotamia, and the Ptolemies dominated Egypt¹¹. After seizing control of the country, Ptolemy I needed a basis for his rule, and so he attempted to legitimize his position by providing himself with a tradition that placed great emphasis on his own links with Alexander: he stole Alexander’s body and brought it to Egypt, where it was buried first in Memphis, and later – when Ptolemy decided to move his court to a brand-new capital – he brought the body to Alexandria, the city that Alexander had founded in 331 and named after himself¹²; further stress on his relationship with the glorious son of Philip II was given by the publication of Ptolemy’s history about Alexander’s campaigns, now unfortunately lost and preserved only through later quotations¹³. Ptolemy was not only a valorous soldier and an astute ruler but

⁸ Crane 2006; Crane 2009.

⁹ Welshons 2006; see also Rosenzweig 2006, 119.

¹⁰ See Polastron 2004, chapter 10.

¹¹ For an overview of these events see, e.g., Rostovtzeff 1941 (for Ptolemaic Egypt especially 255-422); Erskine 2003 (part II); 2008 (part I); Will 2008¹; Will 2008²; Wheatley 2009.

¹² According to Strabo (XVII, 1, 8), Ptolemy I buried the body in Alexandria, while other sources affirm that he first brought it to Memphis: Marmor Parium, *FGrHist* 239 B11; Pausanias, *Graeciae descriptio* I, 6, 3; Curtius Rufus, *Historiae Alexandri Magni* X, 10, 20; *Historiae Alexandri Magni* III, 34, 4-6 Kroll. Pausanias (*Graeciae descriptio* I, 7, 1) writes that Ptolemy II was responsible for the transfer of the corpse to Alexandria. On the history of the kidnapping of Alexander’s body, see Saunders 2006, 33-48; on its significance, Erskine 2002.

¹³ Ptolemaeus Lagus, *FGrHist* 138 F1-35. See Pearson 1960, 188-211; Ellis 1994, 17-22.

also an intellectual, and he succeeded in promoting scholarly activity and patronizing creative artists on a measure never seen before. In this way, he provided himself with a political and dynastic link to Alexander and gave the Greek inhabitants of Egypt a cultural connection with their own Greek past.

In this context belongs the foundation at Alexandria of the Museum (“Temple of the Muses”), a cultural community gathering scholars from all over the world. Our sources say that “Ptolemy” provided them with a library containing a huge collection of papyrus scrolls, entrusting them with the mission of exploring every field of human knowledge. Now, it is uncertain whether it was founded by Ptolemy I (Soter) or Ptolemy II (Philadelphos), though it is likely that it was set up under Ptolemy the First and developed under his son¹⁴. In any case, the Museum and its library played a fundamental role in enhancing the prestige and influence of the royal house. From a certain point of view, the flowering of arts and science in Alexandria was intended to justify the rule of the Macedonian-Greek dynasty over Egypt: in fact, we can say that it was the expression of a cultural policy in the true sense of the word¹⁵.

The Museum was a typical product of Hellenistic culture, as it was also symptomatic of the competition that arose among the successors of Alexander. That is why its birth has to be understood in the cultural climate of that period, taking particular account of the personality of the philosopher Aristotle, who had been tutor of the young Alexander and so represented further evidence of the links between the Ptolemies and the great Macedonian king¹⁶.

Strabo, the geographer and historian who lived at the time of Augustus, writes that Aristotle “taught the kings of Egypt to organize their library”¹⁷. Athenaeus, an erudite author of the II century AD, after giving a list of famous book collectors of antiquity, says that Ptolemy Philadelphos acquired the library of Aristotle from Neleus, who was a student of the philosopher¹⁸. This testimony

¹⁴ Plutarchus, *Non posse suaviter vivi secundum Epicurum* 1095d; Athenaeus, *Deipnosophistae* V 203e; see also Vitruvius, *De architectura* pr. 4. On the question, see Parsons 1952, 88 (n. 2), 103-105; Fraser 1972, II, 469 n. 69.

¹⁵ Erskine 1995.

¹⁶ Plutarchus, *Alexander* 7-8.

¹⁷ Strabo, *Geographia* XIII, 1, 54: ὁ γοῦν Ἀριστοτέλης τὴν ἑαυτοῦ Θεοφράστῳ παρέδωκεν, ὥπερ καὶ τὴν σχολὴν ἀπέλιπε, πρῶτος ὧν ἴσμεν συναγαγὼν βιβλία καὶ διδάξας τοὺς ἐν Αἰγύπτῳ βασιλέας βιβλιοθήκης σύνταξιν.

¹⁸ Athenaeus, *Deipnosophistae* I 3a: ἦν δέ (...) καὶ βιβλίων κτήσις αὐτῶ ἀρχαίων Ἑλληνικῶν τοσαύτη ὡς ὑπερβάλλειν πάντας τοὺς ἐπὶ συναγωγῇ τεθραυμασμένους, Πολυκράτην τε τὸν Σάμιον καὶ (...) Ἀριστοτέλην τε τὸν φιλόσοφον καὶ Θεόφραστον καὶ τὸν τὰ τούτων διατηρήσαντα βιβλία Νηλέα· παρ’ οὗ πάντα (...) πριάμενος ὁ ἡμεδαπὸς βασιλεὺς Πτολεμαῖος, Φιλάδελφος δὲ ἐπὶ κλην, μετὰ τῶν Ἀθήνηθεν καὶ τῶν ἀπὸ Ῥόδου εἰς τὴν

cannot be proven, and the fate of Aristotle's library is a mystery. Strabo's words cannot be literally true because by the time Ptolemy gained control of Egypt Aristotle was dead. Nevertheless, both sources are important, because they mean that the organization of the material in the Alexandrian library was modelled on Aristotle's own private library, which can be considered the first research library systematically organized¹⁹.

As far as we know, Aristotle's school in Athens, the Lyceum, had a shrine of the Muses and a library and promoted a universal concept of studies, giving particular importance to community life²⁰. Moreover, there are strong connections between the early Ptolemies and Aristotle's successors in what became known as the Peripatos (the school founded by the disciples of Aristotle), and in fact the Peripatetic Straton of Lampsacus was the tutor of Ptolemy Philadelphos²¹.

But a more important Peripatetic connection with the Ptolemies is attributed to Demetrius of Phalerum, an Athenian who is also thought to provide the link between Aristotle's school and the Museum in Alexandria. Demetrius was a pupil of Aristotle and Theophrastos. He ruled Athens for the Macedonian king Cassander from 317 to 307 BC. After the death of his patron Demetrius fled to Egypt, where he joined the court of Ptolemy I and contributed to the metamorphosis of Alexandria into the most important cultural center of the Hellenistic age²².

According to the Byzantine scholar Tzetzes, who wrote a commentary on Aristophanes, in collecting books Ptolemy II was assisted by Demetrius²³. The same testimony appears in the so-called *Letter of Aristeas*, by a Jewish scholar of uncertain date who reports the story of the translation into Greek of the first five books of *the Bible* (the Pentateuch). Aristeas writes that Demetrius was responsible for collecting books for the Alexandrian library, and credits him with the initiative of the Greek translation of the Hebrew law²⁴.

καλὴν Ἀλεξάνδρειαν μετήγαγε.

¹⁹ On the Aristotelian library and its fate, see Blum 1991, 52-64.

²⁰ Lynch 1972, 16-31, 68-96.

²¹ Diogenes Laertius, *Vitae philosophorum* V, 37; 58.

²² On the activities and the literary production of Demetrius in the Aristotelian school, see Diogenes Laertius, *Vitae philosophorum* V, 80-81. As far as concerns the complex events that led to the end of Demetrius' rule on Athens and to his exile in Egypt, see Errington 2008, 25, 47. According to Plutarch (*Regum et imperatorum apophthegmata* 189d) and Aelianus (*Varia Historia* III, 17), Demetrius gave Ptolemy advice on books pertaining to monarchy and hegemony, and also lessons on "lawmaking": Fraser 1972, vol. I, 114, 315.

²³ Joannes Tzetzes, *Prolegomena de comoedia Aristophanis* 1. See Parsons 1952, 106 ff.; Blum 1991, 104 ff. On the *Letter of Aristeas*, see Honigman 2003, with further bibliography.

²⁴ *Aristeae epistula* 9-11; 28-32; 301-302; 308-309; 312-317.

From a chronological point of view, we cannot accept the testimony of these two sources, because Demetrius was banished by Ptolemy II and thus could not have been a collaborator with him. We can assume this discrepancy is due to the propagandistic need to praise the most famous Ptolemy (i.e., Philadelphos), by connecting him to the foundation of the Alexandrian library. However, it is not implausible that Demetrius was entrusted with the organization of the library under Ptolemy I and had at his disposal large sums for the purchase or copying of Greek writings, and occasionally even for the acquisition and translation of important works in foreign languages²⁵.

Demetrius' activity confirms the strong influence of the Aristotelian tradition on Ptolemaic cultural programs, which is evident if we remember the amazing variety of studies promoted by the Peripatetic school in Athens, where Aristotle and his pupils devoted their efforts not only to philosophy and science, but also to literary history and philology, anticipating and contributing to what would have been developed in the Alexandrian Museum²⁶.

2. *The Museum and its library*

As we have seen, the date of birth of the Museum – and consequently of its library – is controversial, since a part of modern scholarship attributes these two institutions to Ptolemy I Soter, the general of Alexander who ruled over Egypt from 304 to 282 BC, while other scholars assign them to his son, Ptolemy II Philadelphos. A few writers, like – again – Aulus Gellius, avoid the problem of the foundation by describing the progressive accumulation of books as a dynamic process, achieved by multiple generations²⁷. It is astonishing that already in the Imperial age there was so much uncertainty about the creation of the great Library: given that it is impossible that the Library did not store documents or papers about its own foundation, we can safely assume that already a few decades after its opening, at least the oldest part of its collections was virtually lost.

As far as concerns the Museum, we have only a brief note by Strabo, who stayed in Egypt from 24 to 19 BC as a follower of the prefect Aelius Gallus and could see Alexandria with his own eyes. Strabo writes that the Museum “is also a part of the royal palaces; it has a public walk, an exedra with seats, and a large house, in which is the common mess-hall of the men of learning who share the Museum.

²⁵ Parsons 1952, 131-138.

²⁶ Blum 1991, 14 ff.

²⁷ Gellius, *Noctes Atticae* VII, 17, 3: *Ingens postea numerus librorum in Aegypto ab Ptolemaeis regibus uel conquisitus uel confectus est.*

This group of men not only hold property in common, but also have a priest in charge of the Museum, who formerly was appointed by the kings, but is now appointed by Caesar”²⁸. Aside from this, we have only the testimony of the rethor Synesius, according to which there were statues of Diogenes, Socrates and other philosophers in the Museum²⁹.

What was the relationship between the Museum and the Library? It is quite widely assumed that the great Library was reserved for the scholars of the Museum – just as many modern research libraries are closed to people not affiliated to a scientific or academic institution. This is only a hypothesis, based on the fact that according to Epiphanius from Cyprus (a Christian writer of the IV century AD), in addition to the great Library, located in the Bruchion district, there was a smaller library – called “sister” – that still existed at the time of Caesar and was situated “down” in the city, inside the temple of Serapis³⁰. The Byzantine scholar Tzetzes asserts that the sister library also had been founded by Ptolemy Philadelphos and that it contained 42,800 rolls, probably copies of the writings shelved in the bigger library. In the Serapeion, as indirectly stated by Callimachus, “the old man who invented the ancient Panchaeon Zeus,” that is Euhemerus of Messene, would have written his impious books³¹: this is a sound argument that the great Library, that of the Bruchion, was barred also to famous authors – like Euhemerus – who had not been co-opted onto the synod of the Museum.

Now let’s consider another important question: how was the major library designed, and how many books were stored in it? Ancient figures vary in a disconcerting manner: Seneca speaks of 40,000 books, referring to those burnt during the fire of the time of Caesar; Epiphanius writes that Demetrius of Phalerum acquired 54,800 books; Tzetzes goes as far as 490,000 books; the *Letter of Aristeeas* speaks of 500,000 books; finally, in Aulus Gellius and Marcellinus the figure reaches 700,000 books. It sounds curious, but these numbers, including the higher ones, have been accepted by many modern scholars, in spite of the fact that – as rightly pointed by Diana Delia – “lacking modern inventory

²⁸ Strabo, *Geographia* XVII, 1, 8: τῶν δὲ βασιλείων μέρος ἐστὶ καὶ τὸ Μουσεῖον, ἔχον περίπατον καὶ ἐξέδραν καὶ οἶκον μέγαν ἐν ᾧ τὸ συσσίτιον τῶν μετεχόντων τοῦ Μουσείου φιλολόγων ἀνδρῶν. ἔστι δὲ τῆ συνόδῳ ταύτῃ καὶ χρήματα κοινὰ καὶ ἱερεὺς ὁ ἐπὶ τῷ Μουσείῳ τεταγμένος τότε μὲν ὑπὸ τῶν βασιλέων νῦν δ’ ὑπὸ Καίσαρος. (English transl. by Horace Leonard Jones).

²⁹ Synesius, *Calvitii encomium* 6.

³⁰ Epiphanius, *De mensuris et ponderibus* 324-329: αἱ οὕτως αἱ βίβλοι εἰς ἑλληνίδα μετενεχθεῖσαι ἀπετέθησαν ἐν τῇ πρώτῃ βιβλιοθήκῃ τῇ ἐν τῷ Βρουχίῳ οἰκοδομηθείσῃ, ὡς ἤδη ἔφην. Ἐγένετο δὲ αὐτῇ τῇ βιβλιοθήκῃ ἑτέρα, ἡ θυγάτηρ αὐτῆς ὀνομασθεῖσα ἄνω ἐν τῷ Σεραπεῖῳ. Καὶ παρῆλθεν ὁ χρόνος τῶν δέκα Πτολεμαίων καὶ Κλεοπάτρας ἐτῶν διακοσίων καὶ πεντήκοντα καὶ ἑννέα.

³¹ Callimachus, *Jambi* I, fr. 191 ll. 9-11 Pfeiffer.

systems, ancient librarians, even if they cared to, scarcely had the time or means to count their collections”³². Probably some ancient tales about Ptolemaic book avidity, regarding in particular Ptolemy III Euergetes (246-221), have contributed to the acceptance of these figures; Galenus, for example, narrates that Ptolemy II give orders for his agents to rummage through every ship landing at Alexandria, to copy the books discovered in this way, and to give the copies back to the owners, while keeping the originals for the library at Alexandria³³; Galenus also reports that when a heavy famine affected Athens, Philadelphos helped the city only on condition that the Athenians lend him their official texts of the tragedies of Aeschylus, Sophocles and Euripides. The Athenians tried to insure themselves by asking him for 15 talents as a guarantee of the texts’ safe return, but the originals were never given back³⁴.

The problem of the size of the Alexandrian library has been newly tackled from the ground up by Bagnall in his previously mentioned paper of 2002. He asks how many writers could have existed in the early Hellenistic period, when the library was founded. In short, his conclusion is that if we suppose that an average writer filled fifty rolls (a high estimate!), all the authors known to us to the end of the third century would have produced 31,250 rolls: thus, to save the ancient figures for the contents of the Library, we must assume either that more than ninety percent of classical authors are not even quoted in our surviving Greek literature, or that the Ptolemies acquired a dozen copies of everything, or some combination of these unlikely hypotheses. Moreover, Bagnall stresses, major modern libraries have reached a total of a million books only in the middle of the XIX century, when old book-form catalogues were replaced by card catalogues, unknown in antiquity.

³² Delia 1992, 1459.

³³ Galenus, *In Hippocratis librum iii epidemiarum commentarii* 3, 17a, 605-606: φιλότιμον δὲ περὶ βιβλία τὸν τότε βασιλέα τῆς Αἰγύπτου Πτολεμαῖον οὕτω γενέσθαι φασίν, ὡς καὶ τῶν καταπλεόντων ἀπάντων τὰ βιβλία κελεῦσαι πρὸς αὐτὸν κομίζεσθαι καὶ ταῦτ’ εἰς καινοὺς χάρτας γράψαντα διδόναι μὲν τὰ γραφέντα τοῖς δεσπόταις, ὧν καταπλευσάντων ἐκομίσθησαν αἱ βίβλοι πρὸς αὐτόν, εἰς δὲ τὰς βιβλιοθήκας ἀποτίθεσθαι τὰ κομισθέντα, καὶ εἶναι τὴν ἐπιγραφὴν αὐτοῖς τῶν ἐκ πλοίων.

³⁴ *Ibidem*, 607-608: ὅτι δ’ οὕτως ἐσπούδαζε περὶ τὴν ἀπάντων τῶν παλαιῶν βιβλίων κτῆσιν ὁ Πτολεμαῖος ἐκεῖνος, οὐ μικρὸν εἶναι μαρτύριον φασίν ὃ πρὸς Ἀθηναίους ἔπραξεν. δοῦς γὰρ αὐτοῖς ἐνέχυρα πεντεκαίδεκα τάλαντ’ ἀργυρίου καὶ λαβὼν τὰ Σοφοκλέους καὶ Εὐριπίδου καὶ Αἰσχύλου βιβλία χάριν τοῦ γράψαι μόνον ἐξ αὐτῶν, εἴτ’ εὐθέως ἀποδοῦναι σῶα, κατασκευάσας πολυτελῶς ἐν χάρταις καλλίστοις, ἃ μὲν ἔλαβε παρ’ Ἀθηναίων κατέσχευεν, ἃ δ’ αὐτὸς κατασκεύασεν ἔπεμψεν αὐτοῖς παρακαλῶν κατασχεῖν τε τὰ πεντεκαίδεκα τάλαντα καὶ λαβεῖν ἀνθ’ ὧν ἔδοσαν βιβλίων παλαιῶν τὰ καινά. τοῖς μὲν οὖν Ἀθηναίοις, εἰ καὶ μὴ καινὰς ἐπεπόμφει βίβλους, ἀλλὰ κατεσχῆκε τὰς παλαιὰς, οὐδὲν ἐνήν ἄλλο ποιεῖν, εἰληφόσι γε τὸ ἀργύριον ἐπὶ συνθήκαις τοιαύταις, ὡς αὐτοὺς αὐτὸ κατασχεῖν, εἰ κάκεινος κατάσχοι τὰ βιβλία, καὶ διὰ τοῦτ’ ἔλαβόν τε τὰ καινὰ καὶ κατέσχευον καὶ τὸ ἀργύριον.

Even if we reduce drastically the holdings of the Bruchion library, its size was probably greater than any other in the ancient world, including the famous library of Pergamum (which, according to Lionel Casson, had 30,000 rolls). But, of course, this is not sufficient to explain why only the Alexandrian library turned into a myth already in antiquity. We will discuss this point later. Now it is time to say a few words about one of the most influential personalities who worked in the Museum, contributing in a decisive way to the prestige of the library: Callimachus of Cyrene.

3. *Callimachus and the Pinakes*

The first Ptolemies acquired and stored lots of papyrus scrolls in the Museum. In order to manage this huge and increasing collection of texts, scholars devised a way to classify and order them according to various criteria, the most important evidence for which is represented by the work of Callimachus of Cyrene, who was a leading figure not only in the history of the library of Alexandria, but also in the the tradition of Greek scholarship.

Our main source for the Callimachus' life is an entry in the Byzantine lexicon *Suda*, which gives some biographical data and a selective bibliography³⁵. Callimachus was a native of Cyrene in Libya, but he spent the greatest part of his life at the Ptolemaic court in Alexandria. His lifetime coincided more or less with that of his patron, Ptolemy II, and extended into the era of Ptolemy III, who reigned from 246 to 222 BC. He worked in the Museum, but we do not know whether he became general director (προστάτης) of the library³⁶.

According to the *Suda*, Callimachus was a grammarian (γραμματικός) and wrote more than 800 books in verse and prose. Ancient authors regard Callimachus as one of the greatest Hellenistic poets, and it is in this sense that we have to read the term γραμματικός. Like other learned poets of his age, he was interested in every field of literature and science, and these interests were of fundamental importance for his approach to the vast patrimony of the Alexandrian library and for his contribution as a scholar and a librarian.

As we can see from the *Suda* list, Callimachus – a typical representative of the antiquarian researcher of Hellenism – wrote many, many works on a great variety of subjects. His fame as a scholar, however, rests primarily on the *Pinakes* (Tables), whose full title was *Tables of those who distinguished themselves in all branches of learning and their writings* (Πίνακες τῶν ἐν πάσῃ παιδείᾳ διαλαμψάντων). This impressive work, which was divided into 120

³⁵ *Suda* [K 227] s.v. Καλλίμαχος.

³⁶ See Parsons 1952, 141-45; Blum 1991, 124 f.

books, was a detailed bio-bibliographical survey of the most important Greek writings. Modern scholars often say that the *Pinakes* were no doubt based on the catalogue of the Alexandrian library compiled under the direction of Callimachus and his pupils. But this assertion is based on very poor evidence, and in fact we have to ask the following questions: what exactly does the word *Pinakes* mean? Were the *Pinakes* simply a catalogue? Were they based on the catalogue of the library? When was this catalogue compiled? As for the Museum and the Alexandrian Library, our sources are very meager and have often been misunderstood.

First of all, why *Pinakes*? The Greek word πίναξ (pl. πίνακες) means, in general, a “board” or “plank” made of various materials, such as wood or metal. The term is also used for plates with anything drawn or engraved on them (drawing or writing tablets). The term soon acquired the meaning of “picture” or “map,” and “register,” “list,” or “catalogue” (we can recall the πίναξ ἐκκλησιαστικός, the register of the Athenian citizens who participated in the assembly)³⁷. Probably πίναξ was the name, also, of the tablets placed above the library cases or shelves registering classes of authors and works on the rolls stored there³⁸.

In the sense of “list” or “register” the term is often used as a synonym of ἀναγραφή, and can be referred to lists of historical and literary material, which form a well attested “pinakographic” genre deriving from archival documents such as lists of priests, victors, dramatists, and so on. For the 5th century, we can cite two similar works by Hellanicus of Lesbos, the *Priestesses of Hera in Argos* (Ἱερεῖαι τῆς Ἥρας αἱ ἐν Ἄργει)³⁹ and the *List of the winners in the Carnean contests at Sparta* (Καρνεονίκαί)⁴⁰. His younger contemporary Hippias of Elis composed a *List of the winners at the games at Olympia* (Ὀλυμπιονικῶν ἀναγραφή)⁴¹. Aristotle too wrote various works in the form of lists, *pinakes*, that have not come down to us, but they are more or less known from quotations by later scholars: *Winners at the Olympic games* (Ὀλυμπιονίκαί), *Winners at the Delphic games* (Πυθιονίκαί), *Victories in the dramatic contests of the Dionysia at Athens* (Νίκαί Διονυσιακαί), and *Dramatic plays* (Διδασκαλίαι). The latter lists were very important for the history of Attic drama, because they listed all tragedies, satyr plays, and comedies performed in Athens during the 5th and 4th centuries at the most important Dionysian festivals⁴².

³⁷ *LSJ*⁹, s.v. πίναξ.

³⁸ See Casson 2001, 39 ill. 3.1.

³⁹ *FGrHist* 4 F74-84.

⁴⁰ *FGrHist* 4 F85-86.

⁴¹ *FGrHist* 6 F2.

⁴² Blum 1991, 20 ff.

The *Pinakes* of Callimachus therefore form part of a well-established tradition, to which a great stimulus was given by the Aristotelian school. But unfortunately, out of the 825 extant fragments of Callimachus' works, only 25 fragments of the *Pinakes* survive (collected by Pfeiffer in his Callimachean edition), most of which are merely oblique references and not actual quotations by ancient authors; we do not even know if the *Pinakes* were edited, and perhaps they were never finished⁴³.

Even if the fragments are very few, we can reconstruct some general principles that guided Callimachus in his work: 1) he divided Greek authors into classes and – if necessary – into sub-classes; 2) within the classes and sub-classes, he arranged them alphabetically; 3) whenever possible, he added brief biographical data to the names; 4) under an author's name he listed the titles of his works, arranging them in categories; 5) he cited the first words of each work and its extent, i.e. its number of lines. According to the preserved fragments, the following categories were represented in the *Pinakes*: oratory, history, laws, philosophy, miscellaneous literature (comprising also works on cooking and dining), medicine, lyric poetry, and tragedy⁴⁴. The *Suda* lists two other titles beginning with the word *pinax*: a *pinax* of the tragedians in chronological order, and a *pinax* of Democritus' glosses and compositions⁴⁵.

The *Pinakes* cannot be merely considered a catalogue of the Alexandrian library, if only from the full title, which indicates a selection and refers, specifically, not to *all* Greek writers, but only to those who distinguished themselves in the field of culture. Moreover the fragments show that Callimachus not only registered names and titles, but also discussed biographical data and works' paternity and authenticity, revealing a profound knowledge of literature and science and an admirable effort in literary criticism. We do not know how many categories – and therefore πίνακες or ἀναγραφαί – were originally conceived by Callimachus, but we can presume that for the very first time he tried to categorize every field of human knowledge.

Callimachus did not begin the work of arrangement of the Alexandrian library; this task had already been accomplished by Zenodotos, who was the first to arrange authors, and partially also works, in alphabetical order⁴⁶. Rather, Callimachus tried to provide complete and reliable access to the library holdings, and that work consisted essentially of literary criticism.

⁴³ Pfeiffer 1959, fr. 429-453.

⁴⁴ Witty 1958; Witty 1973; Blum 1991, 153.

⁴⁵ Blum 1991, 137 ff.

⁴⁶ Parsons 1952, 138; Pfeiffer 1968, 105-122.

Lists of writings of one or another kind had been drawn up before, but Callimachus' tables were the very first to be comprehensive. Thanks to his immense work and his pupils' assistance, he provided a systematic presentation of all writings in the Greek language – literary, scientific, even practical, such as cookbooks – conceiving a sort of scholarly catalogue. He was able to fulfil this task because he could consult almost all of these works in Alexandria's library. In turn, he furnished a key to the vast collection. He created a vital reference tool, thanks to which users could determine the existence of any particular work and its location.

This repertory of the works of Greek literature was used by later scholars, as can be deduced from the fact that Aristophanes of Byzantium, perhaps the greatest Alexandrine grammarian, published corrections and supplements to the *Pinakes*⁴⁷. The catalogue of the Museum library was of course continued, because the collection grew steadily, new books had to be catalogued, and the inventory of old books had to be improved. Not only librarians, but also other scholars, especially biographers, made good use of the *Pinakes* of Callimachus, and we can find traces of this work in later *lexica*, like that of Hesychius and the *Suda*.

4. *Final remarks*

Now we want to consider more explicitly the question hidden in the title of this paper, “a model for classical scholarship in the age of million book libraries.” As said above, recent studies have shown that the Alexandrian library definitely did not store millions of books, not even the 500,000 or 700,000 rolls mentioned by certain sources, but plausibly at most a total of 30/40,000 rolls. According to an authoritative specialist on ancient libraries, Lionel Casson, even if we assume this drastic numerical reduction, the institution founded by the Ptolemies remains at least two times bigger than the greatest libraries of the Roman Empire; but this perhaps would not have been sufficient to nourish its myth (a myth born, as we saw, already in antiquity), and it is not correct either that it was the first public library of the ancient world: this assumption, in fact, finds no confirmation in our sources, and seems disproved by the Callimachean verses on Euhemerus. We need to search in other directions.

The central place of the Alexandrian library in Western cultural memory derives, in our opinion, from a combination of several factors: the foundation project; the connection between the library and the Museum; the capability of the Alexandrian library to generate knowledge, and not only to accumulate it; and its violent and sudden destruction, a symbol of countless similar tragedies

⁴⁷ Slater 1976.

that have happened in the course of history. Each of these elements concerns the present and future of our civilization, no less than its ancient roots.

1. — *The foundation project.* The ancient world did not attribute any chronological primacy to the Alexandrian library. Athenaeus of Naukratis, for instance, listing the predecessors of the Alexandrian institution, cites the libraries of Polycrates at Samos, Pisistratus and Euclides at Athens, Nikokrates at Cyprus, Euripides again at Athens, and then the book collections of Aristoteles, Theophrastus, and Neleus. In this context, he adds that Neleus, having inherited the books of Aristoteles and Theophrastus, would have sold them to Ptolemy II, and that these volumes – with others acquired at Athens and Rhodes by the Ptolemies – would have formed the first nucleus of the library of Alexandria⁴⁸.

If the “libraries” of Pisistratus or Euripides probably are a figment of Athenaeus’ imagination, the part of this story concerning Neleus is also very suspicious, since Strabo narrates that he, having been frustrated in his hope to succeed Theophrastus, abandoned the Lyceum and retired to his hometown, Skepsis in the Troades, with all the books of the school. There the volumes supposedly remained for two centuries, forgotten in a damp hole, until the grammarian Apellicon of Teus, in the age of Sylla, rescued them already in disrepair⁴⁹.

On the composition of the collection rescued by Apellicon modern scholars disagree, but this is for us of little account, since the *fil rouge* between the Lyceum and the library of Alexandria is confirmed both by the tradition (actually rather late) according to which the first nucleus of the Alexandrian collections would have been created by a pupil of Aristotle, Demetrius of Phalerum, and by the fact that the Ptolemies’ ambition to gather at Alexandria all the books of the world seems in direct continuity with the universalism and cultural eclecticism that are so typical of the first Peripatos. In addition, the *Letter of Aristeeas* – a source that probably reflects beliefs and aspirations circulating in the Jewish community of Alexandria around the 1st century BC – reports that Demetrius, having been informed that the “laws of the Jews” deserved to be included in the Alexandrian library, asked king Ptolemy Soter for permission to translate them into Greek. This tremendous undertaking would be performed by seventy-two Jewish scholars, under the leadership of Eleazar, high priest of Jerusalem: and, as the tradition has it, that version of the Hebrew Bible, still known as “the Septuagint,” would remain the standard Greek translation of the Old Testament until two centuries ago. Whatever we think of this tradition, its very existence shows that a perceived hallmark of the Alexandrian library was its universality: a universality already intrinsic in the foundation project,

⁴⁸ Athenaeus, *Deipnosophistae* I 3a-b.

⁴⁹ Strabo, *Geographia* XIII, 1, 54.

that overcoming at a stroke the limits of the old Hellenocentrism, expanded as far as trying to embrace the best of other foreign cultures.

According to the *Letter of Aristeas*, the Ptolemies founded the Alexandrian library with the aim of collecting not “many” or “very many” books, but *all the books in the world*: “Demetrius of Phalerum, the director of the king’s library, received vast sums of money, for the purpose of collecting together, as far as he possibly could, all the books in the world”⁵⁰. The historical genuineness of this passage has no relevance here; what really matters is that it so deeply influenced the ancient imagination that we find the same statement in various Christian writers. Moreover, as appears clearly from the decision to translate the Hebrew law into Greek, the cultural horizons of the Lagids, the “world” which Demetrius and Ptolemy discussed, encompassed not merely Hellenism, but indeed covered the whole οἰκουμένη; and this is not at all strange for a dynasty strictly linked with Alexander and ruling over a population for the most part not Greek.

Alexandria would have therefore gathered all peoples’ books. Now, at the origin of many cultural or religious traditions there is the idea that an ancient wisdom, originally coherent in its structure, at a certain point disappears: just think, for example, about the tower of Babel, a fracture in the progress of civilization after which every nation begins to speak different languages; or, to remain in the Greek world, about the myth of Atlantis. We can also recall the famous passage of Plato’s *Timaeus*, where an old Egyptian priest tells Solon:

Whereas just when you and other nations are beginning to be provided with letters and the other requisites of civilized life, after the usual interval, the stream from heaven, like a pestilence, comes pouring down, and leaves only those of you who are destitute of letters and education; and so you have to begin all over again like children, and know nothing of what happened in ancient times.⁵¹

By gathering in Alexandria writings from all over the world, the Ptolemies made the most ambitious attempt ever known to recapture the unity of knowledge:

⁵⁰ *Aristeae epistula* 9: Κατασταθείς ἐπὶ τῆς τοῦ βασιλέως βιβλιοθήκης Δημήτριος ὁ Φαληρεὺς ἐ χρηματίσθη πολλὰ διάφορα πρὸς τὸ συναγαγεῖν, εἰ δυνατόν, ἅπαντα τὰ κατὰ τὴν οἰκουμένην βιβλία· καὶ ποιούμενος ἀγορασμοὺς καὶ μεταγραφὰς ἐπὶ τέλος ἤγαγεν, ὅσον ἐφ’ ἑαυτῷ, τὴν τοῦ βασιλέως πρόθεσιν.

⁵¹ Plato, *Timaeus* 23a-b: τὰ δὲ παρ’ ὑμῖν καὶ τοῖς ἄλλοις ἄρτι κατεσκευασμένα ἐκάστοτε τυγχάνει γράμμασι καὶ ἅπασιν ὁπόσων πόλεις δέονται, καὶ πάλιν δι’ εἰωθότων ἐτών ὥσπερ νόσημα ἤκει φερόμενον αὐτοῖς ῥεῦμα οὐράνιον καὶ τοὺς ἀγραμμάτους τε καὶ ἀμούσους ἔλιπεν ὑμῶν, ὥστε πάλιν ἐξ ἀρχῆς οἷον νέοι γίγνεσθε, οὐδὲν εἰδότες οὔτε τῶν τῆδε οὔτε τῶν παρ’ ὑμῖν, ὅσα ἦν ἐν τοῖς παλαιοῖς χρόνοις. (English transl. by Benjamin Jowett).

and the fact that this knowledge, after being reunified, was lost again, contributed in its turn to increasing the legend of a place where, if only for a few centuries, the heritage of human wisdom was stored and made accessible. Still, this great cultural program had its detractors: one was Seneca the Younger, who blamed Livy for writing that the Alexandrian library was a “wonderful testimony of the Ptolemies’ opulence” (*pulcherrimum regiae opulentiae monumentum*) and an “admirable work of those kings’ elegance and interests” (*elegantiae regum curaeque egregium opus*). Seneca, on the contrary, says that Livy should not have spoken of elegance, but of the waste of money, and not even an erudite one, since the Ptolemies would have acquired the books not to study them but only to show them off, *quoniam non in studium sed in spectaculum comparauerant*⁵².

2. — *The connection between the library and the Museum.* Whatever the tutor of Nero thought, the Alexandrian library was not merely a giant books storehouse. The Ptolemies founded the Museum in a very delicate juncture of Greek culture, during the passage from an old way of transmitting knowledge, orality, to a new one, the book. A great scholar of Hellenistic culture, Rudolf Pfeiffer, wrote:

The whole literary past, the heritage of centuries, was in danger of slipping away in spite of the learned labours of Aristotle’s pupils; the imaginative enthusiasm of the generation living towards the end of the fourth and the beginning of the third century did everything to keep it alive.⁵³

The scholars gathered in the Museum by the Ptolemies performed this miracle. The names of a few of them are known to us: we heard before about Callimachus; Zenodotos, the first director of the library, laid the foundations of Homeric philology, and probably worked with more acuteness than generally admitted nowadays; Eratosthenes from Cyrene, director of the library under Ptolemy III Euergetes, ranged from literary criticism to mythography, from philosophy to poetry, from chronology to geography and mathematics (as is well known, he devised methods to find prime numbers and to measure the earth’s circumference); Aristarchus of Samothrace, the greatest grammarian of the ancient world, invented conventional signs nowadays used in critical

⁵² Seneca, *De tranquillitate animi* 9, 5: *quadraginta milia librorum Alexandriae arserunt; pulcherrimum regiae opulentiae monumentum alius laudauerit, sicut T. Liuius, qui elegantiae regum curaeque egregium id opus ait fuisse: non fuit elegantia illud aut cura, sed studiosa luxuria, immo ne studiosa quidem, quoniam non in studium sed in spectaculum comparauerant, sicut plerisque ignaris etiam puerilium litterarum libri non studiorum instrumenta sed cenationum ornamenta sunt.*

⁵³ Pfeiffer 1968, 102.

editions; Didymos of Alexandria, called βιβλιολάθας (“Book-Forgetting”) or Χαλκέντερος (“Brazen Bowels”), composed more than 4,000 commentaries on classical authors.

The position of these scholars, entirely devoted to study and free from daily care, was denigrated – but at the same time envied – by their contemporaries: for example, Timon of Phlius, disciple of the sceptic philosopher Pyrrho, compared them to “birds in the cage of the Muses,” always taken up with scribbling on papyri and quarrelling with one another⁵⁴; still, the first great poet and grammarian of the Museum, Philitas of Cos (330-328 BC), was maliciously depicted as fragile and sickly since youth⁵⁵. Pfeiffer observes that in every age, grammarians have never been disturbed at being compared to “birds in cages” or “mummies”; sometimes they have reacted with equal brashness, writing – as Ulrich von Wilamowitz does in his *History of Classical Scholarship* – that scholars of the ancient world take particular pleasure from being aware that their science is accessible to very few people. The members of the Museum were certainly devoted to abstruse activities, but thanks to their seemingly esoteric efforts today we can still read Homer and the tragedians.

The modernity of the problems they coped with is truly astonishing. Consider, e.g., the problem of knowledge exploitation, which is a topical question in the light of modern projects of digitization of the world book heritage. How can we hope to consult, *truly*, a million book library? How can we avoid drowning in the infinite ocean of knowledge? As the Gospels say, only God knows how many hairs each of us has on his head, meaning that only God can dominate the complex infinity of reality; on the contrary, human beings, to understand, have to reduce, subdivide, arrange in order. In that regard, Callimachus is one of the most important personalities of the ancient world because he was the first to catalogue and put in a rational order the literary heritage of the Greeks from the beginnings to his era.

But in order to preserve the past it is also crucial to produce something new, as did Callimachus by sketching a new concept of poetry. In the Museum the study of tradition and the exploration of new paths, both in literature and science, proceeded in parallel (and we cannot forget that Alexandria was the center of a scientific activity only surpassed in modern times). In the first novel of a well-known science-fiction series, *Foundation* (1951), Isaac Asimov depicts an humanity that an environmental crisis on the Earth has spread to all our galaxy;

⁵⁴ Timon Flasius, ap. Athenaeus, *Deipnosophistae* I 41 (= Timon, fr. 12 Diels = 60 Wachsmuth): πολλοὶ μὲν βόσκονται ἐν Αἰγύπτῳ πολυφύλῳ / βιβλιακοὶ χαρακίται ἀπείριτα δηριώωντες / Μουσέων ἐν ταλάρῳ.

⁵⁵ Plutarchus, *An seni gerenda sit res publica* 791e.

when the galactic empire starts to decline, a group of scholars, to facilitate the resumption of civilization after the centuries of barbarism that loom large, withdraws to an isolated planet, at the edge of the galaxy, and there they begin to write a colossal encyclopaedia, a sort of universal library of humankind. Everything around them collapses, but they think that their duty is to compile this encyclopaedia. At a certain moment a politician – significantly, not a scientist – zeroes in on the weak point of their project:

Your bunch here is a perfect example of what's been wrong with the entire Galaxy for thousands of years. What kind of science is it to be stuck out here for centuries classifying the work of scientists of the last millennium? Have you ever thought of working onward, extending their knowledge and improving upon it? No! You're quite happy to stagnate.

What is especially important for the future of classical scholarship is that scientists, poets, historians, grammarians etc. worked every day side by side in Early Ptolemaic Alexandria; some of them, like Eratosthenes, were at the same time scientists, poets, historians, and grammarians, following once more the supreme model of the great Aristotle. The “secret” of Alexandrine culture, of its extraordinary contribution to ancient science, technology, and literature, lies exactly in the daily interaction between these apparently distant domains. The fate of ancient science after the closure of the Museum clearly shows that a collaborative environment is not only desirable, but constitutes an essential condition to maintain a high level of studies. Only a few years ago, the path breaking essay *The forgotten revolution* by Lucio Russo⁵⁶, an Italian historian of science, showed that when the forms of cultural production changed around the 1st century BC, the outstanding accomplishments of Hellenistic science in mathematics, engineering, astronomy etc. became gradually lost for the simple reason that the new generations of scholars, who had started again to work individually, were no longer able to understand the writings of the ancient masters.

To sum up, we can say that the myth of the Alexandrian library is also the myth of a very strict circle of scholars that made it come alive; a circle of scholars who created, in a collaborative framework, an immense book of knowledge that gave birth to other books.

3. — How, when and why did the Alexandrian library perish? Once more, our sources are ambiguous and unreliable, as Luciano Canfora has clearly shown in *The Vanished Library*, a small but fascinating book that has been strongly attacked for some of its arguments. Roman and Byzantine authors tend to

⁵⁶ See Russo 2004.

impute the dissolution of the library to chance events (fire, or sieges that Alexandria had to withstand during its late history), while Arab sources narrate the above mentioned story about Caliph ‘Umar⁵⁷. Diana Delia, in a paper entitled “From Romance to Rhetoric”, has strongly underlined the literary and romantic character of these traditions⁵⁸, which are not more reliable, from a historical point of view, than the novel *The Name of the Rose* by Umberto Eco, in which he tells the story of the collapse by fire of the library of a great medieval abbey. That library – Eco writes – had plenty of inestimable treasures, like the second book (in reality lost) of Aristotle’s *Poetics*. Many years after the fire, a monk who had been an assistant there goes back to the place where the abbey once stood, speaking in a way that clearly alludes to the Alexandrian library, to its fate and its permanence in the memory of humankind:

Along one stretch of wall I found a bookcase, still miraculously erect, having come through the fire I cannot say how (...). Other remnants I found by rummaging in the ruins below. Mine was a poor harvest, but I spent a whole day reaping it, as if from those disiecta membra of the library a message might reach me. Some fragments of parchment had faded, others permitted the glimpse of an image’s shadow, or the ghost of one or more words. (...) I spent many, many hours trying to decipher those remains. Often from a word or a surviving image I could recognize what the work had been. (...) At the end of my patient reconstruction, I had before me a kind of lesser library, a symbol of the greater, vanished one: a library made up of fragments, quotations, unfinished sentences, amputated stumps of books.

Along the path of human history hundreds, if not thousands, of libraries have been devastated by fire; to recall only a few cases from modern history, the French revolution led to the destruction of dozens of religious or private libraries throughout France; on July 12, 1880 the German scholar Theodor Mommsen, badly handling a candle, destroyed his private library and nearly to die himself; in 1014, the splendid library of the Catholic University of Leuven, Belgium, was destroyed by the German army; rebuilt after the first world war from the reparations imposed to Germany, it was burnt again by the Nazi armies at the beginning of the second world conflict (May 16-17, 1940)⁵⁹.

⁵⁷ The story was divulged in Western culture through the *Compendious History of the Dynasties* of Barhebraeus (Abu al-Faraj in Arabic), a Syrian-Christian author who lived from 1226 and 1289. Before him, it is quoted only – as far as we know – by two Arab sources of the beginnings of the 13th century. On the fictitious character of this tradition see Lewis 1990, and especially Delia 1992 and Lewis 2008, with further bibliography.

⁵⁸ See again Delia 1992.

⁵⁹ On the destruction of libraries and books along history, see Battles 2003, 156-191; Polastron 2004; Raven 2004; Knuth 2006. On Mommsen’s library see, e.g., Diliberto 1995.

But in the case of Alexandria the unreliability of our sources forces us to consider an alternative hypothesis. Every book – also those achieving universal popularity – has a limited life, as is well known by those who have had the opportunity to go around the rooms not accessible to the public in an old library. Even in today’s libraries, where temperature and humidity are strictly controlled, it is easy to discover precious books, from two or three hundred centuries ago, in very bad condition and even repellent to the touch; many of them still have expensive bindings and at the time of their publication were no doubt greatly desired, but probably the last person to open them died decades ago.

In all probability, at Alexandria the loss of so inestimable a cultural heritage had a cause more trivial than fire, negligence, or dullness – and at the same time more disturbing. Roger Bagnall, again, has rightly pointed out that

the disappearance of the Library is the inevitable result of the end of the impetus and interest that brought it into being and of the lack of the kind of sustained management and maintenance that would have seen it through successive transitions in the physical media by means of which the texts could have been transmitted.

To come to the point, every library – and in particular the ancient ones, that did not have modern systems of conservation or reproduction of books – are like living organisms, in which new acquisitions first complement, then substitute for old volumes, especially those that no one reads any more. Here is an example from Greek Hellenistic historiography. Philochoros of Athens (*circa* 340-262 BC) was an Athenian historian very renowned in antiquity, for his *Atthis* (Ἀτθίς, “History of Attic country”) in seventeen books, from the beginnings of Athens to the middle of III century BC. This large work was certainly shelved in the Alexandrian library (since an Alexandrian erudite of the 1st century BC, Didymos, quotes *verbatim* long excerpts of it in a commentary on Demosthenes), but because of its dimensions was soon summarized: according to Byzantine sources, in fact, the first ἐπιτομή (summary) of the *Atthis* was compiled by Philochoros himself⁶⁰; two centuries after, a Greek scholar who lived at Rome, Asinius Pollio of Tralles, wrote another summary of the *Atthis* for the Italian book market⁶¹. Apart from these direct summaries, we also know that Philochoros’ *Atthis* was used, and probably summarized, by Istros, a pupil of Callimachos who wrote, in the second middle of 3rd century BC, a *Συναγωγή*

⁶⁰ *Suda* [Φ 441] s.v. Φιλόχορος (= *FGrHist* 328 T1).

⁶¹ *Suda* [Π 2165] s.v. Πολίων (= *FGrHist* 328 T8). On the history of the text of Philochoros’ *Atthis*, see Costa 2007, 10-21.

τῶν Ἀτθίδων (“Collection of the Atthides”)⁶². When interest in Attic antiquities declined – Attic antiquities were of course the core of Philochoros’ work – what would have happened to the unabridged version? When in the first century BC the cost of papyrus had an exponential rise, how many readers could still afford to order copies of a work in seventeen books? And in the technological transition from roll to codex, how many papyri disappeared for lack of interest in making new copies? And in fact Harpocration – who probably lived precisely in 2nd century AD Alexandria – in his *Lexicon of Ten Orators* frequently quotes the *Atthis* of Philochoros, but always indirectly: even in Alexandria, therefore, the masterpiece of the most important Athenian historian after Thucydides was unavailable by this point in time.

Libraries, we already noted, are living places in which knowledge is continuously recast, correlated, and reinvented. The not obvious consequence of this, however, is that they often die neither by unpremeditated nor indeed even premeditated homicide, but simply by consumption. The library of Alexandria began to disappear when the community of scholars for which it had been created was broken up; or when, as Bagnall says, the generative impetus of the first centuries ended. But coming to the present day, what if the same fate should affect a major digital library? And in a future without paper books, what are the circumstances that could cause the loss of one or more great digital libraries? Could we risk to lose, in a single second, *every memory* of a given event or tradition, with in addition the certainty that nowhere in the world we could hope to find other fragments of that event or tradition?

Cinema has often given shape to these problems: in *Star Wars Episode II: Attack of the Clones*, for example, the Jedi knight Obi-Wan Kenobi goes to the galactic library in search of information about Kamino, a planet where – he has heard – a tremendous conspiracy is in preparation. But in the library, where of course all the collections are digitally stored, someone has stolen the files concerning Kamino, which thus becomes untraceable. Confused, the Jedi knight asks the chief librarian for help, and after a brief check of the computers she observes, kindly: “I hate to say this, but it looks like if the system you are searching for doesn’t exist.” Obi-Wan Kenobi tries to insist: “Impossible: perhaps the archives are incomplete”; and she, now peremptorily: “If an item doesn’t appear in our records, *it does not exist*.” The digital cathedrals we are building are fragile, exposed as they are to political censorship, economic troubles, managerial problems, and to hostility from those who in good faith refuse to abandon the traditional ways in which knowledge has been exploited so far.

⁶² The fragments of Istros’ *Συναγωγή*, after Jacoby’s classical edition (see Jacoby 1956, nr. 334), are now available in a new critical edition, with historical commentary, in Berti 2009. For Istros’ life and works, see also Wellmann 1886; Jackson 2000.

Every book – perhaps with the exception of the so called “classics” – lives and dies with the generations that have written, loved, and preserved them. Nowadays information technology is producing apparently immortal digital libraries, because the preservation of books no longer depends on the materiality of their physical components (papyrus, paper, etc.). But a book, in every form, is mainly a creation of mind and of culture, and thus perishable like every human thing. Only time will tell if the digital Alexandrian libraries of our age will have a better fate than did the library dreamed of by Demetrius.

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