What Happened to the Ancient Library of Alexandria?

What Happened to the Ancient Library of Alexandria?

Edited by

Mostafa El-Abbadi and Omnia Mounir Fathallah

With a Preface by Ismail Serageldin

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On the cover: Lecture hall (Auditorium K) of the educational complex at Kom el-Dikka, Alexandria (5th–6th century A.D.). © Excavations of the Polish-Egyptian Mission at Kom el-Dikka, Polish Centre of Mediterranean Archaeology in Cairo.

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PREFACE

Ismail Serageldin

Upon assuming my duties as Librarian of Alexandria in 2002, I was determined that the new Library of Alexandria would—like its great namesake, the Ancient Library of Alexandria—be a centre of excellence in the production and dissemination of knowledge, as well as a meeting place for the dialogue of peoples and cultures. The most obvious candidate for the focus of our research efforts would naturally be the Ancient Library and its period. A special project, the Alexandria Project (AP), was born to bring the best scholars to focus on that special early period of Alexandria's history. Much ground has been covered and the fruits of this serious effort will be available to the public in the years to come.

However, of all the topics that concern the public about that period, none is more intriguing than how did the Ancient Library disappear? Regretfully, some publications had created an uncertainty about the topic, which modern scholarship does not share. So it gives me great pleasure to introduce this volume to the reading public, as the first of the volumes to come out of the Alexandria Project, and appropriately dedicated to the topic *What Happened to the Ancient Library of Alexandria?*

Although there has recently been an ever-growing agreement among specialized scholars to accept that the Alexandria Library had long disappeared before the Arab conquest in the seventh century, yet the old controversy has cast its shadow on the minds of many non-specialists who continued to be unclear and remained undecided, to say the least. So we organized a major international Seminar in September 2004. The result was reassuring, as independently a high degree of similarity in opinion was observed among the participant scholars, concerning the fate of the Ancient Library.

The readers of the present volume can easily judge for themselves. For the purpose of this preface, a few examples may suffice to illustrate this fact. Dr. Cherf (USA), after a thorough analysis of Caesar's Alexandrian War in 48 B.C., concludes by endorsing Peter M. Fraser's statement that "we are justified in supposing that the contents of the

Royal Library, if not wholly destroyed, were at least seriously diminished in the fire of 48 B.C."

Professor El-Abbadi (Egypt) deals with the Daughter Library incorporated within the Serapeum. Employing an Alexandrian method of linguistic analysis of the relevant texts, he concludes that "there can hardly be any doubt that the attack on the Serapeum in 391 A.D. put an end to the temple and the Daughter Library."

Professor Dzielska (Poland) considers it as a fact of history that *Hypatia witnessed the destruction of the Serapeum and the Daughter Library*.

In the final section, both professors Qassem (Egypt) and Bernard Lewis (USA) deal with the Arab account of how the Great Library of Alexandria was destroyed by the Arabs after their conquest in 641 A.D. Both refute those accounts as fictitious. Fittingly, Professor Lewis subtitled his paper, *Anatomy of a Myth*. After analyzing modern criticism since the eighteenth century, by Father Renaudot, the distinguished French orientalist, and by the great historian Edward Gibbon, and other subsequent critics, Professor Lewis positively states, "It is surely time that the Caliph ʿUmar and ʿAmr ibn al-ʿĀs, were finally acquitted of this charge."

But if the fate of the Ancient Library is thus authoritatively explained in this volume, another important aspect of Alexandria's early history is also underlined by the scholars. That is the continuation of scholarship beyond the death of Hypatia in 415 A.D. Thus, Professor Dzielska is keen to emphasize that *scholarship in Alexandria did not die with Hypatia*.

Professor Leroux (Canada) traces back to Alexandria a manuscript known as the *Collectio Philosophica*, which has survived from the ninth century in Constantinople. He asserts that *Alexandria was a city of books and readers. Even after the destruction of the Serapeum Library in 391 A.D., each school—for teaching purposes—had its own collection completed and copied from originals from the Library before its final destruction*. He further adds that, "..., the preservation of the collection is a direct result of interaction between institutional and school libraries."

This last statement is corroborated by a conclusion reached by Professor Pearson (USA) about the newly discovered Nag Hammadi collection of Gnostic and non-Gnostic manuscripts, that they were *part of the Library of a Christian monastery of the network of Pachomius in the early fourth century*.

It is thanks to the continuation of many school and monastic libraries that "Alexandrian academic life did not end with the destruction of the

Library," as stated by Dr. Majcherek (Poland) in his study of the newly discovered lecture halls at Kom el-Dikka, dated in Late Antiquity.

Thus, Alexandria was never short of books, and continued to be a renowned seat of learning in Late Antiquity and the Middle Ages as established by the contents of our volume. We hope that this and other volumes to come will help link back to that great Alexandrian tradition of scholarship and publication.

Ismail Serageldin
Librarian of Alexandria
Director of the Bibliotheca Alexandrina
Alexandria, April 2007

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We also take this opportunity to express our appreciation and gratitude for the help and cooperation of the following individuals at the various stages of producing the present volume:

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Editors
Mostafa El-Abbadi
Omnia M. Fathallah

LIST OF ILLUSTRATIONS

ABBREVIATIONS

ÄAT	Ägypten und Altes Testament
AP	Alexandria Project. Bibliotheca Alexandrina, Alexandria
APDCA	Association pour la promotion et la diffusion des connaissances archéologiques
ASAE	*Annales du service des antiquités de l'Égypte*
BA	Bibliotheca Alexandrina, Alexandria
BAR	British Archaeological Reports
BASP	*Bulletin of the American Society of Papyrologists*
BCH	*Bulletin de correspondance hellénique*
BG	Berlin Gnostic Codex
BiEtud	Bibliothèque d'études. Cairo: IFAO
BIFAO	*Bulletin de l'Institut Français d'Archéologie Orientale*
BiGen	Bibliothèque générale. Cairo: IFAO
BIU LSH Lyon	Bibliothèque Interuniversitaire de Lettres et Sciences Humaines, Lyon
BSAA	*Bulletin de la société archéologique d'Alexandrie*
CAH	Cambridge Ancient History
CEDOPAL	Centre de Documentation de Papyrologie Littéraire, Département des sciences de l'antiquité, Université de Liège
CNWS	Centre of Non-Western Studies, Leiden University
CNRS	Centre national de la recherche scientifique, Paris
DPA	*Dictionnaire des philosophes antiques*. Publié sous la direction de Richard Goulet. Paris: Editions du CNRS, 1989–
EtudAlex	Études alexandrines. Cairo: IFAO
GM	*Göttinger Miszellen*. Göttingen, 1972–
IACS	International Association for Coptic Studies
IFAO	Institut Français d'Archéologie Orientale, Cairo
IG	*Inscriptiones Graecae*, 1873–
Syll^3	Dittenberger, Wilhelm. *Sylloge inscriptionum graecarum*. 3rd ed. 4 vols. in 5. Lipsiae: apud S. Hirzelium, 1915–24
JAOS	*Journal of the American Oriental Society*
JDAI	*Jahrbuch des Deutschen Archäologischen Instituts*
JEA	*Journal of Egyptian Archaeology*

JHS	*Journal of Hellenic Studies*
JRS	*Journal of Roman Studies*
MIFAO	Mémoires publiés par les membres de l'Institut français d'archéologie orientale. Cairo: IFAO
NAWG	Nachrichten der Akademie der Wissenschaften in Göttingen
NHC	Nag Hammadi Codices
OCD[3]	*The Oxford Classical Dictionary*. Edited by Simon Hornblower and Antony Spawforth. 3rd ed. Oxford: Oxford University Press, 1996.
P. Oxy.	Oxyrhynchus Papyri
PAM	*Polish Archaeology in the Mediterranean*. Warsaw: Polish Centre of Mediterranean Archaeology of Warsaw University
Pap.	Papyrus
PH	Damascius: *The Philosophical History*. Translated by Polymnia Athanassiadi. Athens: Apamea, 1999.
PLRE	Jones, A. H. M., J. R. Martindale, and J. Morris. *The Prosopography of the Later Roman Empire*. 3 vols. Cambridge: Cambridge University Press, 1971–1992.
Pyr.	Pyramid Texts
RAPH	Recherches d'archéologie, de philologie et d'histoire. Cairo: IFAO
RE	*Real-Encyclopädie der classischen altertumswissenschaft*. Edited by A. Pauly, G. Wissowa, and W. Kroll. Stuttgart, 1893–
REG	*Revue des études grecques*
SUNY	State University of New York
Wb.	Erman, Adolf and Hermann Grapow. *Wörterbuch der ägyptischen Sprache*. 6 vols. Berlin, 1926–31
Wb. Belegstellen	Erman, Adolf and Hermann Grapow. *Wörterbuch der ägyptischen Sprache: Die Belegstellen*. 5 vols. Leipzig, 1935–53
WWR	World Weather Reports. Washington, D.C.
ZÄS	*Zeitschrift für ägyptische Sprache und Altertumskunde*. Leipzig & Berlin

CONTRIBUTORS

Authors

William J. Cherf, Project Manager and senior consultant for BORN—a leading business information services consultancy. He is a graduate of Indiana University, Bloomington (B.A., 1974) and Loyola University Chicago (M.A., 1978 and Ph.D., 1984). His specialization is in physical anthropology, ancient Egyptian archaeology and ancient history, respectively. Therefore, his publications range from the forked snake-sticks of Tutankhamen to the carbon-14 dating of Late Roman frontier architecture. He taught at several universities in the USA and performed archaeological excavations in Israel, Greece and Egypt.

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Kavafy Award in Ancient Greek Studies, in 1998, the Egyptian National Award of Merit in Social Sciences, and, in 2005, the Université du Québec à Montréal, Canada granted him Doctorat Honoris Causa. He is the author of several books and articles, including *Life and Fate of the Ancient Library of Alexandria* (Paris, 1990), which was translated into several languages.

Jean-Yves Empereur, Director of Research at the Centre National de la Recherche Scientifique (CNRS), founder and Director of the Centre d'Études Alexandrines (CEAlex). He obtained Ph.D. in Archaeology from the University of Paris-IV Sorbonne, France. Under his direction the CEAlex conducts excavation research both underwater and on land. He is the author of several books and articles most of which focus on Alexandrian archaeology and history.

Fayza M. Haikal, Professor of Egyptology at the American University in Cairo, Egypt, the former President of the International Association of Egyptologists. Haikal was the first Egyptian woman to work on the salvage of the monuments of Nubia in 1961. She is the author of several studies in Egyptology, especially editions and publications of ancient Egyptian texts.

Georges Leroux, Professor of Greek Philosophy at the Université du Québec à Montréal. He is the author of numerous books and articles on various topics of ancient philosophy, mainly on the Neoplatonic tradition. Among his valuable publications, a translation of Plato's Republic with introduction and notes (Paris, 2004).

Bernard Lewis, Professor Emeritus of Near Eastern Studies at the Department of Near Eastern Studies, Princeton University. He received his Ph.D. in the History of Islam at the School of Oriental and African Studies, University of London. His research, teaching and publications cover the period from the advent of Islam until the present day.

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reports on various topics ranging from pottery, architecture to Roman archaeology in general.

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Birger A. Pearson, Professor Emeritus of Religious Studies at University of California, Santa Barbra. He participated in work sessions on the Nag Hammadi papyri in the Coptic Museum in Old Cairo and contributed in the preparation of the facsimile edition of the Nag Hammadi Codices published under the auspices of UNESCO (1972–1977). He became Director of a Research project at Claremont devoted to the study of the history of Christianity in Egypt from its beginnings up to the Arab conquest. He is the author of several books and articles concerning the subject of his interest.

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THE ALEXANDRIA PROJECT

The 'Alexandria Project' (AP) is one of the major research projects undertaken by the Bibliotheca Alexandrina since its inception. The Project is designed primarily to serve researchers whose main area of study focuses on the Ancient Library of Alexandria and Alexandrian scholarship as well as other relevant topics. The Project seeks to achieve its goals through stimulating scholarship, promoting research, organizing scholarly workshops, seminars, and conferences as well as developing extensive collections on related topics. It also aims at publishing series of comprehensive studies of which the present volume is the first.

INTRODUCTION

Mostafa El-Abbadi

What Happened to the Ancient Library of Alexandria? is the outcome of an International Seminar organized by the Alexandria Project at the Bibliotheca Alexandrina (26–28 September 2004).

The subject was originally suggested by Dr. Ismail Serageldin, the Director of the Library, with the intention of inviting international scholars of different cultural backgrounds to reconsider afresh, at the start of the twenty first century, the long disputed question concerning the fate of the Ancient Library. The final plan developed into a study of the cultural context of the Alexandria Library with special emphasis on the still less explored Late Antiquity. The whole work finally crystallized into four main sections:

1. The evolution of the library institution in Ancient Egypt, covered by two contributors, Mounir Megally and Fayza Haikal.
2. The Alexandria Library under threat in late Ptolemaic and Roman times, treated by W. J. Cherf, J.-Y. Empereur, M. El-Abbadi and L. Polastron.
3. The intellectual milieu in Alexandria in Late Antiquity, dealt with by B. A. Pearson, Maria Dzielska, D. Y. Dimitrov, G. Leroux and Gr. Majcherek.
4. The Arabs and the Alexandria Library, treated by Qassem A. Qassem and Bernard Lewis.

In the first section, Professor Mounir Megally expounds the natural and socio-economic foundation of the cultural and scientific development in Ancient Egypt. He traces the interaction between man and nature, the prevailing geophysical conditions—especially the peculiar phenomenon of the annual Nile flood every summer—and the growth of Learning; in other words, the systematization of Knowledge and the passage from the concrete to the abstract. He surveys the beginnings of several branches of science and technology: the invention of papyrus, the evolution of systems of numbers, of writing, of measuring time, the study of astronomy, the awareness of history,... etc.

Next in the same section, Professor Fayza Haikal discusses the phenomenon of private collections and temple libraries in Ancient Egypt. She distinguishes between archives and libraries in the light of the different technical words used in hieratic: *archives of documents, the house of papyrus rolls and house of life.*

Haikal discusses several points connected with the institution of libraries: divinities, personnel, organization and role in society. She further describes the differences between private, temple and royal libraries, by giving examples of each type; and she finally concludes with an assessment of the Alexandria Library in an Egyptian context.

In the second section, Dr. Cherf presents an original approach to the consequence of Julius Caesar's setting afire the Egyptian fleet in the Eastern Harbour during the Bellum Alexandrinum in 48 B.C. Cherf's main purpose is to prove whether, if given available conditions, the fire of 48 B.C. could have reached fire-storm proportions? He therefore calculated that the date of Caesar's Alexandrian War must have taken place towards the end of August of that year, when meteorological conditions were warm and windy due to the Etesian northern winds. Given the proximity of the granary warehouses to the shore within the harbour area—if ignited by so much as a spark—they would have exploded and escalated the massive harbour blaze to fire-storm proportions. Following the famous passage of Lucan's description of Caesar's fire, Cherf concludes that the Alexandria fire did take place and did spread inland.

Finally, Cherf endorses Peter Fraser's statement that "we are justified in supposing that the contents of the Royal Library, if not wholly destroyed, were at least seriously diminished in the fire of 48 B.C."

Professor J.-Y. Empereur next considers the evidence of archaeology. He chiefly presents the evidence of two Roman villas recently uncovered in Alexandria. One of them with the head of Medusa mosaic was discovered by Empereur himself in the city centre and the other, known as the Villa of the Birds, excavated by the Polish-Egyptian mission at Kom el-Dikka. Their dates extend between A.D. 150 and the second half of the third century A.D.

Empereur gives an account of the devastations suffered by the city in the second half of the third century at the hands of Zenobia, Aurelian, Domitius Domitianus and Diocletian, as well as the earthquake that destroyed the top of the Lighthouse and other monuments. In the words of Ammianus Marcellinus (mid-fourth century), "the town lost the greatest part of the quarter called *Bruccheion*." It was in that district

that the Mouseion and the Library were situated, and they may very easily have suffered the same fate as other monuments. Yet Empereur rightly asserts that the destruction of the Library did not signify the disappearance of books.

The Daughter Library within the Serapeum complex survived into Roman times and became, as the present writer (M. El-Abbadi) asserts, the hub of scholars after the destruction of the Royal Library in 48 B.C. The same fate that befell the Serapeum in A.D. 391, following the decree of Emperor Theodosius to abolish all pagan cults in the empire, also put an end to the Daughter Library.

Accounts of contemporary eye-witnesses (e.g. Theodoret, Eunapius, Aphthonius, Rufinus) testify to the fact that the destruction of the Serapeum was almost complete and that it had been transformed into a church. A crucial argument is the testimony of Aphthonius who had visited the temple before 391 and wrote a *Description* of it afterwards. In his words, he claims to have seen "rooms, some…served as bookstores…, some others were set up for the worship of the old gods." The use of the past tense indicates that those "rooms…" no longer existed at the time of writing. It would also be unthinkable to mention "the worship of the old gods" in the new church.

Mr. Lucien Polastron, who is interested in the History of vanished libraries, compares the circumstances detrimental to books and to libraries in both Alexandria and China. After briefly surveying the events that threatened the Alexandria Library, he presents the case of China that witnessed an early period of intellectual enlightenment between the fifth and third centuries B.C., *when a hundred philosophers or rather a hundred schools* flourished. This was the peak of Chinese *Classics*. This development terminated in 213 B.C., when it was decreed that the possession of books was an exclusive Royal prerogative. Gradually, kings disposed of archives and instructed their subordinates *to burn all writings in order to rule free of risk or constraints*.

However, the decree was subsequently abolished in 191 B.C. and the following decades witnessed reconstruction campaigns of the collection of books under the Han dynasty. Still, the cycles of destruction and reconstruction recurred repeatedly with the change of dynasties.

The third section dealing with the intellectual milieu in Late Antiquity Alexandria is of special interest. It was in Alexandria that we can distinctly feel the pulse of events in the whole then known world. Against a background of intense activity, high feelings and dramatic transformations, international trade thrived and sciences flourished. We have

in this section five contributions of unusual interest. They compliment one another, and each one sheds fresh light from a different angle.

Professor Birger Pearson discusses the accidental mid-twentieth century discovery of the great Coptic papyrus Library of Nag Hammadi. He meticulously analyses the religious content of the Codices and their significance which contain evidence of a variety of Christian Gnosticism, of Hermetic texts as well as miscellaneous non-Gnostic texts. He convincingly argues that the discovered manuscripts were part of the library of a Christian monastery of the network of Pachomius (290–346) in the early fourth century.

As they were of a Gnostic nature, they were meant to be destroyed when *apocryphal* and *heretical* books were proscribed in the monasteries. It is thanks to a few monks who hid their favourite books in the monastic burial site that they still survive.

In the following paper entitled *Learned Women in Alexandrian Scholarship*, Professor Maria Dzielska takes us to another exciting aspect of intellectual life in Alexandria between the fourth and fifth centuries. A major part of the paper is devoted to Hypatia who witnessed and survived 'the destruction of the Serapeum and the Daughter Library.' Following the example of her father and mentor Theon, the well known mathematician, Hypatia believed that it was of prime importance to uphold the scientific heritage of Hellenism. She was very versatile and her contributions to science included, astronomy, mathematics and philosophy. Though herself a pagan, her circle of disciples included both pagan and Christians alike.

Dzielska suggests that Hypatia probably gave her lectures in the recently discovered *lecture halls*. As she enjoyed great popularity with her pupils and high esteem among the city governors, she became involved in the power conflict (412–415) between Bishop Cyril and the imperial prefect Orestes, with whom she was on friendly terms. It was this involvement that provoked Cyril's followers to attack and kill her.

A point Dzielska is keen to emphasize, is that scholarship in Alexandria did not die with Hypatia, as is sometimes tendentiously alleged; on the contrary it remained strong.

Dr. Dimitar Dimitrov, in the following paper, examines the dilemma of another contemporary intellectual, Synesius of Cyrene who was a pupil of Hypatia and later on was appointed Bishop of Ptolemais in Cyrene by Theophilus, Bishop of Alexandria. If Hypatia was wholeheartedly committed to philosophy, Synesius appears to have felt the internal embarrassment between a philosophic mind and a Christian

heart. On his appointment as bishop, Synesius felt the urge to give expression of his inner conflict in writing *Letter 105*, which is the subject of Dimitrov's paper.

Through painstaking analysis of *Letter 105* and its comparison with other writings of Synesius, especially the *Hymns* and *On Dreams*, Dimitrov attempts to reconcile the seemingly conflicting philosophic objections and Synesius' own concept of the Christian faith as he understood it in the early fifth century.

Professor Georges Leroux, in his contribution Damascius *and the Collectio Philosophica*, which has survived in a manuscript of the ninth century in Constantinople, he chose the Neoplatonist philosopher, Damascius as his guide because: (a) Damascius' career took him from Damascus (where he was born c. A.D. 460) to Alexandria, Athens, Persia and back to Alexandria. (b) The fact that two of his major works were transmitted as part of the *Collectio Philosophica*.

Leroux accepts Westerink's argument with regard to the Alexandrian origin of the collection:

> Alexandria was a city of books and reading, it was also a city of debate and learning and the later period cannot be understood without a constant reference to the role of the Library before 391 A.D. It is altogether wholly improbable that the work being done inside the philosophical circles would have been totally disconnected from the activities of the main Library, whatever that institution had become during the fourth century.

Leroux concludes that Damascius himself assembled the *Collectio Philosophica* in Alexandria in preparation for his long stay as a *scholarch* in Athens. Later on, a copy of it was taken to Constantinople. Thus the preservation of the collection is an outcome of interaction between institutional and school libraries.

To complete the literary image of Alexandria in Late Antiquity as represented in the last four papers, Professor Grzegorz Majcherek presents his recent discovery of *lecture halls* (auditoria) at Kom el-Dikka in a paper entitled *Academic Life of Late Antique Alexandria: A View from the Field*. The discovery of the *lecture halls* has definitely thrown an entirely new light on the nature of academic life in late Antique Alexandria. They date from the fifth century and seem to have continued to function until the early eighth century. The combined evidence of archaeological and literary sources leaves little doubt that Alexandria in Late Antiquity, continued to be one of the great centers of education in the fields of philosophy, law and medicine, attracting students and professors from all over the ancient world.

It is remarkable that the sixth century author, Elias describes lecture-rooms to be "in similarity to theatres, are often rounded in plan so that the students can see one another as well as the teacher." Majcherek comments that Elias appears to have been "describing one of the lecture-halls on our site where, in theory, he could even have been teaching." He concludes by asserting that "quite obviously, Alexandrian science did not end with the destruction of the Library."

The final section of our volume—which deals with the Arab period—presents two papers by the medievalist, Professor Qassem Abdou Qassem and the well-known orientalist, Professor Bernard Lewis. Both follow similar, but not identical, ways of thinking. Qassem analyses the basic two *Arab accounts of the destruction of the Library of Alexandria*; one is that of al-Baghdādī who visited Egypt c. 595 A.H./A.D. 1200, the other one by Ibn al-Qiftī (d. 646 H./A.D. 1248) Both authors reported that it was ʿAmr ibn al-ʿĀs who had destroyed the Library at the order of Caliph ʿUmar.

Qassem refutes both reports for several reasons: (a) Their late, sudden appearance after some six centuries of total silence by earlier historians, Arabs and non-Arabs alike. (b) Discrepancies and errors in al-Baghdādī. (c) The fictitious nature of al-Qiftī's account.

Qassem concludes that the Arab story of the destruction of the Alexandria Library is a fabrication and an example of the abuse of history for political purposes.

A fitting conclusion to the entire volume is Professor Bernard Lewis' paper entitled *The Arab Destruction of the Library of Alexandria: Anatomy of a Myth*. Lewis starts his presentation with the definite statement: "Despite the overwhelming evidence to the contrary, some writers are still disposed to believe and even repeat the story of how the Great Library of Alexandria was destroyed by the Arabs after their conquest of the city in A.D. 641, by order of the Caliph ʿUmar."

He shows that as early as 1713, Father Renaudot, Eusèbe, the distinguished French orientalist cast doubt on the story of Barhebraeus. He was followed by the great English historian, Edward Gibbon who outrightly denies "both the facts and the consequences." Lewis continues to enumerate a succession of other Western scholars who carefully analyzed and demolished the story. The very fact that it still survives and is repeated, is a clear testimony to the enduring power of a myth.

After analyzing the nature and circumstances of this and other historical myths (Christian and Jewish), Lewis declares, "It is surely time that the Caliph ʿUmar and ʿAmr ibn al-ʿĀs, were finally acquitted of

this charge which their admirers and later their detractors conspired to bring against them."

After the above survey of the contents of our volume, it is I feel, justifiable to conclude that the various contributors have offered two responses to the query raised by the title: *What Happened to the Ancient Library of Alexandria?*

The first is the prevailing agreement among the participant scholars, that the two principal components of the Alexandria Library, i.e. the Royal Library within the Royal Palaces' area (*Bruccheion*) and the Daughter Library within the Serapeum, had practically met their end more than two centuries before the Arabs came to Egypt.

The second response is of particular significance and great consequence, as it asserts that in spite of the disappearance of the institutional Library, Alexandria continued as one of the great centres of learning in Late Antiquity, thanks to collections—in the individual schools—of books that had been made of copies from originals that were in the Great Library.

À LA RECHERCHE DE LA SYSTÉMATISATION DES CONNAISSANCES ET DU PASSAGE DU CONCRET À L'ABSTRAIT DANS L'EGYPTE ANCIENNE

Mounir H. Megally

Ce n'est point un hasard si, à un moment important de l'histoire de l'Antiquité, la cristallisation des connaissances par la création de la première Grande Bibliothèque du monde s'est faite à Alexandrie, en Egypte. À moins que, par leurs réalisations novatrices, les civilisations actives, et celle de l'Egypte ancienne en était une, n'engendrent elles-mêmes ce genre de hasard heureux; la création de cette Bibliothèque apparaît alors comme l'aboutissement d'un long enchaînement irréversible d'étapes positives dans cette voie. Ce long cheminement fait d'essais, d'échecs, d'améliorations, d'acquis peut sembler modeste ou hors de propos au regard de l'éclat de cette prestigieuse Bibliothèque, mais fort heureusement l'histoire millénaire de l'Egypte ancienne nous révèle les jalons qui marquent son parcours sur la voie menant à l'instauration et à l'élaboration de ce qu'on appelle archives et bibliothèques.

L'enchaînement de l'histoire millénaire de l'Egypte et sa richesse en faits historiques offrent à l'historien un large contexte qui lui permet en général d'avoir une connaissance approfondie des faits et une vue d'ensemble de leur genèse, de leur déroulement et de leur constance à travers l'histoire ou, au contraire, et leur sort final quand ils disparaissent à un moment donné ou se manifestent sous une autre forme. Il peut les insérer, forme aussi bien que contenu, dans des courants cohérents de pérennité ou de métamorphoses historiques, contexte où les probabilités de l'émergence d'un fait, de sa continuité ou de son éclipse apparaissent comme des événements rationnels répondant à des facteurs intelligibles. Il en est de même pour leurs modalités. Ceci permet également d'adopter éventuellement une approche épistémologique qui situe ces faits dans un processus d'acquisition de connaissances, une 'expérience du savoir' qui clarifie certaines conditions de son émergence, de sa signification réelle, de son impact sur la vie de l'homme et de sa transmission, un des domaines des 'sciences sociales' qui explorent les 'faits humains collectifs.' Le parcours vers la systématisation des

connaissances, dont nous essayerons d'évoquer ici les grandes lignes, en est un bon exemple.[1]

Ce parcours a commencé véritablement par la recherche d'un ensemble d'idéogrammes capables de signifier d'une façon constante un contenu intelligible et précis, le même pour celui qui les trace que pour ceux qui les liront, avant d'arriver à établir un système d'écriture complet et cohérent qui peut à la fois exprimer des choses concrètes et des concepts abstraits. Ce système graphique, qui mène une société au seuil de l'époque historique, marque, en fait, une des phases importantes d'un changement social profond. Il est certain que la mise au point d'un système graphique cohérent, et le système égyptien employant idéogrammes et phonogrammes en est bel et bien un exemple performant, ne se remarque que dans des sociétés qui ont atteint une certaine complexité créative, sociétés urbaines dotées d'un gouvernement centralisé, c'est-à-dire un Etat. L'écriture joue, en effet, un rôle essentiel et surtout accélérateur dans l'intensification du travail humain et l'adoption sur une grande échelle d'un ensemble de plans organisationnels d'ordre socio-économique, permettant à une société de devenir cumulative, facteur qui nous intéresse ici vu son action stimulatrice sur l'acquisition de la connaissance.

L'émergence de ce système graphique est ainsi à chercher dans son contexte originel, celui d'une recherche d'amélioration de la performance des activités économiques dans des conditions déterminées. Très tôt il y eut une recherche de ce genre en Egypte, recherche poussée par des exigences bien réelles, qui étaient associées dans ce pays, comme d'ailleurs dans toute société ancienne ou moderne, aux fonctions normales de production et d'échange essentielles pour son développement. À la lumière de ces contingences contraignantes, le processus de ce système devient intelligible.

Ces circonstances sociales de la connaissance, pratiques ou abstraites, ont favorisé un processus irréversible d'accomplissement que l'Egypte

[1] Nous sommes convaincus de l'intérêt, pour les études historiques, de la recherche de schémas des processus d'actions élémentaires et directes qui sous-tendent les décisions pragmatiques prises pour gérer l'activité économique et l'action politique d'un peuple. Ces schémas rendent plus intelligibles bien de faits historiques et plus aisée la possibilité de saisir les relations existantes entre eux; dans ce cas, ces faits se distinguent plus facilement comme des éléments qui concourent à un même effet d'ensemble. De ce point de vue, l'histoire de l'Égypte ancienne est un bon exemple du rôle de l'interaction de facteurs socio-économiques dans son remarquable développement et *surtout en ce qui concerne le sujet qui nous préoccupe aujourd'hui, la systématisation du savoir et le passage du concret vers l'abstrait.*

a connu tôt dans sa longue histoire, et qui s'est réalisé à travers de multiples enchaînements de procédures et d'essais. Comme tout système, il a dû nécessiter un long apprentissage par un groupe social qui le pratique régulièrement et par la création, par la suite, d'une des institutions les plus importantes de la société, l'école, étape décisive sur la voie de la systématisation des connaissances. À l'origine, ce développement était principalement limité aux milieux des fonctionnaires de l'Administration, les scribes, et la connaissance qu'ils disséminaient était essentiellement en rapport avec leur activité, leur rôle social.

On peut facilement comprendre que ce même processus aboutisse, pour de multiples raisons et grâce au système politico-économique favorable, à une rationalisation des connaissances remarquable par rapport aux normes de l'époque, que l'écriture a permis de matérialiser dans des textes. Il a également fait ressentir la nécessité de conserver dans des archives et, plus tard dans des bibliothèques, des documents importants jugés nécessaires pour maintenir et intensifier cette évolution générale, documents tenus disponibles pour des consultations ultérieures. De multiples indices historiques concrets indiquent l'existence de telles archives ou bibliothèques en Egypte, même si leurs bâtiments construits en briques crues ont disparu, à l'opposé de salles semblables qui faisaient partie de temples érigés en pierre.

Mais, plus que les bâtiments, l'existence d'archives et de bibliothèques nous intéresse ici comme l'aboutissement d'une longue recherche de systématisation des connaissances dans plusieurs domaines, processus dont on peut retracer certaines étapes et motivations. Il est important de noter que mis à part le domaine théologique, ce processus mène, in fine, à un pas fondamental: le passage d'une connaissance de ce qui est matériel, sensible, réel, bref d'une connaissance technique, à une connaissance plus systématisée qui en est la conséquence logique. Par exemple, l'analyse du système de l'écriture, on va le voir, montre comment on abstrait des choses leur propriété essentielle, on constate les relations entre leurs caractéristiques structurelles et on isole par abstraction ce qui les unit, les rassemble ou les oppose: il s'agit bien là d'exercices d'abstraction. Ce passage du concret à l'abstrait caractérise la recherche positive du savoir ainsi que la dissémination organisée des connaissances.

On peut ne pas s'accorder à attribuer à ce savoir un caractère 'scientifique' jugé d'après les normes actuelles, propriété qu'on accorde, par exemple, au savoir grec, proche de nous et dont nous partageons bien des caractéristiques et surtout des approches. On peut, également, penser que ce savoir était resté au niveau de l'expérience spontanée

ou commune, c'est-à-dire, sans une conceptualisation systématisée ou poussée, ou uniquement au stade empirique d'une science,[2] opinion qui risque d'injecter une dimension anachronique dans le débat. Bref, c'est une question ouverte. Néanmoins, c'est un savoir qui témoigne d'une véritable unicité d'approches, de formes, et de procédures de connaissance conformes à une certaine exigence de précision, d'objectivité, de méthode et d'abstraction, même si les principes n'en sont pas clairement formulés ou pleinement exprimés. Par exemple, il est vrai que les textes mathématiques que nous avons de l'Egypte ancienne ne présentent pas une formulation clairement énoncée de règles mathématiques, mais cette absence est-elle, en elle-même, un argument certain ou le seul argument? On voit, par contre, dans ces textes l'application d'une règle mathématique non énoncée, celle du rapport constant de la conférence d'un cercle à son diamètre, π, et on peut se demander, dans ce cas, si la modélisation retenue dans les spécimens d'exercices mathématiques modèles, conservés parmi les textes didactiques égyptiens, n'a pas rendu inutile l'énonciation de règles vu, peut-être, que les étudiants en avaient connaissance. D'ailleurs, mis à part quelques compositions littéraires, on constate, en général, dans les textes, un laconisme parfois très poussé, sobriété qui ne caractérise pas uniquement les textes religieux comme les Textes des Pyramides ou les Textes des Sarcophages, par exemple, mais également les sapiences, etc. En effet, l'esprit oriental, nous le pensons, est, en général, peu enclin à être explicite. Il opte plutôt pour le contenu virtuel des propositions. Il est superflu, à ses yeux, de formellement exprimer ce qui est jugé connu, courant, évident, présupposé ou axiomatique.

I. *La recherche des connaissances découle de la gestion socio-économique du pays*

I.1. *Cadre géophysique et son impact*

À l'origine, cette recherche d'acquisition de connaissances s'inscrit en Egypte dans un cadre socio-économique et fait partie d'une gestion poli-

[2] Il n'est pas aisé en général, vue la formulation bien concise, de saisir certaines structures conceptuelles dans les mathématiques égyptiennes, cf., par exemple, Toomer, "Mathematics and Astronomy," 44–45.