Ancient Egypt in Medieval Moslem/Arabic Writings

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God made inherent in us the need for knowledge of the histories of our predecessors, just as was the need of our predecessors for histories of their predecessors, and just as will be the need of those who shall come after us for our histories.

Al-Jahiz (d. 771 CE) Al-Haywan 1: 42.

Abstract

This thesis researches a neglected period in the history of Egyptology. The impetus was my own training in Egyptology in which no mention was ever made of any medieval Arab contribution. My upbringing as an Egyptian had made me aware of some of the sources which could fill the gap between the classical sources and the European Renaissance.

The first chapter discusses the sources available to medieval Moslem/Arabs to learn about Ancient Egypt, and the various elements that contributed to the making of an Interpretatio Arabica of Ancient Egypt.

As Egyptian monuments have always been perceived as hiding great treasures, the second chapter discusses treasure hunters, their manuals and state regulation, and the economics of the profession. I give examples of these manuals and their relevance to current archaeological work.

Chapter three covers medieval Arab archaeological methods and descriptions of ancient sites and objects.

Chapter four shows how interest in ancient Egyptian scripts continued and the attempts by some Medieval Moslem/Arab scholars to decipher hieroglyphs, having realised that it has an alphabet. I give examples of Egyptian scripts correctly deciphered.

Chapter five discusses the Medieval Moslem/Arab concepts of Ancient Egyptian religion and how they interpreted the many intact temples. It covers the role of magic, the nature of royal cults, animal cults and holy sites.

Chapter six discusses Egyptian Mummia, Mummification and Burial Practices of both humans and animals as well as the medicinal use of mummia in Arabic medicine.

Chapter seven shows that Egypt was thought to be the land of science par excellence and gives examples of different scientific *Mirabilia* attributed to scientists of Pre-Islamic Egypt.

Chapter eight discusses the Moslem/Arab concept of Egyptian Kingship and State Administration. It shows the survival of some ancient Egyptian institutions such as "Children of the Room" into the medieval period. I include a case study of Queen Cleopatra showing how the Arabic Romance of this queen differs significantly from its Western counterpart.

Chapter nine gives the biographies of the main Arab writers whose works have formed the basis of my thesis.

The last chapter contains my conclusions and recommendations for further work that I hope others may pursue.

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8.4 Education, Children of the Room

Abbreviations and notes

- d. died.
- d.b. died before
- d.a. died after
- d. ca. died circa
- EI² Encyclopedia of Islam 2nd edition Leiden: Brill, 1960-.
- PM B. Porter and R. Moss, Topographical Bibliography of Ancient Egyptian

 Hieroglyphic Texts, Reliefs, and Paintings. 1st edition 7 volumes Oxford 1927-ff.

 2nd edition. ed. by J. Malek, Oxford: Griffith Institute 1960-ff.
- WB A. Erman and H. Grapow, Wörterbuch der Ägyptische Sprache, 7 volumes Berlin: Akademie-Verlag 1971.

Note:

- 1- Primary Arabic sources are referred to as follows: the surname of the author followed by the first word of the title of the book inside brackets and underlined e.g. Al-Baghdadi (Al-Ifadah: 26). Titles of many Arabic books start with the word Kitab which means 'Book' so this is disregarded. In cases where a book is widely known under a word other than the first word in its title, I use the generally accepted title e.g. Al-Maqrizi's book Al-Mawa'iz wa Al-I'tibar is cited here as Khitat as it is commonly known.
- 2- All dates for Moslem/Arabic materials are in CE.

	Conventions of T	ransliteration	
¢	,	ن	n
	a	٥	h
1	a	و	o, u, w
ب	b	ى	i, e, ee, iy
ت	t	5	ah, t
ث	th		
E	j, g		
ζ	ķ		
Ċ	kh		
د	d		
?	dh		
J	r		
ز	Z		
س <u></u>	S		
ش <u></u>	sh		
ص ض	Ş		
ض	ģ		
ط	ţ		
ظ	Ż		
٤	С		
غ	gh		
ف	f		
ق	q		
এ	k		
J	1		
م	m		

NB: For Ancient Egyptian letter a = 3 is used here.

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Introduction

Egyptology has been built up by the efforts of scholars of all nations and has been a truly international science, with the exception that the Egyptian contribution has been nil

(British Egyptologist H. W. Fairman in a letter dated April 23, 1942 as quoted in Reid 1985: 244).

1. The missing link in Egyptology

The discipline we call Egyptology, the study of Egyptian archaeology, is held to be a product of modern Western scholarship. It is also held that it was only when Champollion and his European predecessors succeeded in deciphering Egyptian hieroglyphs and reading texts that Egyptology was born. Those concerned with the sources for the study of Ancient Egypt, usually list them in this order:

- 1- Ancient Egyptian sources, basically the remains of the material culture
- 2- Classical sources
- 3- Renaissance sources from 15th century onwards
- 4- Modern Egyptology, excavation and studies

(See for example Baines and Malek (1980: 22-29). Such standard studies of sources normally include accounts of European travellers to Egypt but nowhere do we find any reference of any kind to the medieval Egyptian/Arab scholarly contribution to these studies. Even when one reference is made in these studies to one medieval Arabic traveller to Egypt, Al-Baghdadi, this comes after the author has already reached the conclusion that there was "little interest in Egypt's ancient past" (David 2000: 51-61). So we have a gap in our sources of more than a thousand years, between those of the Classical period and those of the Renaissance. My research is an attempt to narrow this gap and show the value of the contributions during that thousand years, in particular those of medieval Egyptian writers.

My research is also an inquiry into the image and interpretations of the culture of Ancient Egypt in medieval Moslem/Arab sources from the Moslem annexation of Egypt in the seventh century CE until the Ottoman conquest in the sixteenth century.

2. The current view

Until the late 18th century, little was known in the West about Ancient Egypt as illustrated by quotations such as the following:

In the late eighteenth century almost nothing was known about the ancient civilization of Egypt and the Near East except what had been recorded in the Bible and by the ancient Greeks and Romans

(Trigger 1989: 39)

The long period of ignorance, during which scholars floundered in a morass of esoteric theories, came to an end with the discovery of the Rosetta Stone (James 1997: 30).

It has also been asserted that continuity from Ancient Egypt to the present was totally absent:

Si la confrontation entre l'Egypte traditionnelle et les cultures grecque et romaine qui s'y sont développées est à la fois un tournant dans l'histoire de l'Egypte et l'occasion d'un renouveau culturel authentique, l'ère chrétienne et, plus tard, l'ère islamique éloignent irrémédiablement l'Egypte de son passé pharaonique.

(Valbelle 1994: 38)

In spite of this assertion of discontinuity, Valbelle followed *this fact* immediately by her recognition that many ancient Egyptian popular practices are still alive today, apparently without seeing any contradiction in her statements.

The same can be said of a similar assertion made by Haarmann:

Any continuity from ancient to Islamic Egypt was irretrievably and doubly cut off, first by the adoption of Christianity in Egypt in the fourth century and then, three centuries later, by the Islamic conquest. Memories of the world of the pharaohs had long since been forgotten by Egyptians who had been incorporated into the Greek, the Roman, the Byzantine, and, by the seventh century CE, the expanding Islamic world (Haarmann 2001: 191).

These quotations reflect the views widely held by scholars involved in Egyptology, that there was no knowledge of Ancient Egypt, outside the context of European literature from the Classical to the Enlightenment periods. The quotation from Haarmann is surprising from a scholar of medieval Islamic/Arabic studies. The quotations illustrate a general Euro-centric view that sees the culture of Ancient Egypt only through a Western prism. However, such views are not limited to scholars in the West. Even among modern Egyptian scholars, we encounter a similar view, for example El-Shayyal, (1962) concluded that before the writings on the history of Ancient Egypt by the 19th century Egyptian scholar, Rifa^ca Al-Tahtawi:

Ancient Egyptian history was never given its due appreciation by Muslim historians. First because they knew very little about it, and secondly because that period represented, in their opinion, a period of idolatry which stood in direct contradiction to the monotheism of Islam (El-Shayyal 1962:32).

Another eminent Egyptologist "Abd Al-"Aziz Saleh (1990: 39-46) made no mention of any medieval Moslem/Arab contribution in his massive work on the history of Egypt and Iraq. While citing his sources for the study of Ancient Egypt, he referred to Classical sources and then went straight to the French Expedition at the end of the 18th century. In an earlier book, Saleh (1962: 244) dismissed medieval Moslem/Arab writers in one single phrase, referring to post-classical writers on Egyptian civilisation as "only associated with myths, magic and fantasies of which they had a greater share than their predecessors".

This was echoed by Crone and Cook (1977: 114) and Cook (1983), who suggested that medieval Egyptians were not as interested in their ancient heritage as were their counterparts in Iran. It is true that medieval Egyptians do not seem to have displayed a chauvinist nationalism, but they seem no less proud of their past, as can be seen from the list of Egyptian historians who wrote almost exclusively on the history of Egypt from as early as the first century of Islam (Enan 1969, 1991; Donner 1998: 225). They wrote national history without nationalism and this was deeply rooted in the Egyptian mind, which has, as Redford (1986: xvii) put it, "a strong sense of its own past". This Egyptian consciousness of national longevity was displayed to Herodotus by the priests of the temple of Ptah at Memphis, who read to their visitor

from a papyrus a long king-list from the first human king Mena onwards (Herodotus II: 100; Moyer 2002: 70). This interest in the past continued into medieval Egypt.

While Haarmann (1980) suggested that medieval Egyptians had indeed some interest in Ancient Egypt, he summarised their general attitude towards Egyptian antiquities as destroyers, treasure hunters and curious tourists (Haarmann 1996: 622). This is not the case with all medieval Egyptians, as many displayed great pride in the country and its antiquities as can be seen, for example, in the writings of Ibn Al-Kindi (Fadail), Al-Idrisi (Anwar), and Al-Qalqashandi (Subh 3: 304ff and especially 310).

It was the norm in medieval Moslem/Arab sources on the history of Egypt, to start the subject with a chapter on the virtues and excellences of Egypt, as indeed was the case with their treatment of other countries (Gottheil 1907: 258).

This same attitude of pride in Egypt and its past can even be seen in accounts of the most religiously pious Moslem/Arab writers. One example is that of the tenth-century geographer/traveller, Al-Muqadasi who starts his account of Egypt with this sentence:

This is the region of which the pharaoh took pride above all humankind and at the hand of Joseph, maintained the entire world...., It is one of the [two] wings of the world and its glories are countless.

(Al-Muqadasi Ahsan: 193).

This was not a romantic conception of Egypt since on the same page and also later Al-Muqadasi is aware of the country's shortcomings:

When this region is fortunate, then you need not ask about its richness and low prices; but when it [suffers] drought, then Allah is the [only] refuge from its famine, which lasts seven years so that they (the people) eat dogs and are afflicted with most terrible epidemics

(Al-Muqadasi Ahsan: 202).

This is a truer reflection of the attitude among medieval Moslem/Arab writers in regard to the glories past and present of Egypt, as well as its disadvantages.

3. Obstacles that faced the development of indigenous Egyptology

It is perhaps as a result of the views quoted above that the study of Egyptology, which since Napoleonic times has been led by European and American scholars and institutions, has almost totally ignored the vast medieval Arabic sources and other contributions in Arabic between the seventh and sixteenth centuries. But it is quite clear that the study, by medieval Egyptians and Arabs, of Ancient Egypt, its language, religion, monuments and general history flourished long before the earliest European Renaissance contact. Contrary to the prevailing view that Moslems/Arabs/Egyptians had no interest in Ancient Egypt, the sources show not only a keen interest, but also serious scholarship that seeks to understand and benefit from the study of Ancient Egypt. I hope to demonstrate this.

But this process of study was discontinued and obstacles were placed in the way of the development of a later indigenous school of Egyptology for reasons which have been discussed by Mokhtar (1965), Reid (1985, 1990, 2002) and Wood (1998). The main reason for this, was the desire of early Western Egyptologists and others to keep Egyptians out of Egyptology by discouraging them from participation and study, thus leading to their marginalisation and to inevitable western dominance of the subject. Yet Reid (2002) was able to show in his painstakingly researched recent work, that modern Egyptians are proud of their pharaonic as well as their post-pharaonic heritage.

It must be recognised that there was a trend among some Westerners to object to the teaching or promoting of native Egyptians, which was not limited to Egyptology, as sciences such as medicine suffered a similar fate (Sonbol 2000: 58). Even today, Arab scholars still bitterly complain about the lack of native schools dedicated to writing history from a native viewpoint rather than merely reproducing Western texts (Saidan 1988: 184ff). The same complaint is made by young Egyptian scholars who complain bitterly about the Western dominance of Egyptology (Saied: 1999).

The situation was made worse by the colonial education authorities which excluded Egyptian history from the curriculum. For example in 1905 secondary school history courses were almost exclusively about European history with text books bearing the following titles:

'Outlines of General History' by Renouf.

'Landmarks of European History' by MacDougal.

'General Sketch of European History' by Freeman.

(Salamah 1966: 288).

Unfortunately, the effect of this focus on European history lasted long after the end of colonialism, as noted by the Egyptian scholar of the history of science ^cAbd Al-Halim Muntaser who could not recall ever hearing the name of any Arab scholar in any science during his primary, secondary or university education, but only the names of European scholars (Muntaser 1973: 80). Sadly, this has also been my own experience in studying Egyptology.

An additional problem during the British Mandate was that teaching took place mainly in English under the instructions of a leading missionary, Mr. Dunlop, who was in charge of Egyptian education, and who excluded native Arabic-speaking teachers (Marlowe 1970: 290-292). In addition to all this, the British High Commissioner, Lord Cromer, insisted that Egyptians would have to be christianised if they were to have any hope of being civilized (Cromer 1908 2: 535ff). Under Lord Cromer and his colleagues, the sole aim of the education policy was to produce Egyptians who would be suitable only for the lower jobs in the government bureaucracy (Lloyd 1933 1: 162).

Another reason for the exclusion of Egyptians may have been the desire to claim ancient Egyptians as proto-Europeans (Fletcher & Montserrat 1998: 402) by showing that only Europeans were interested in the study of their history. Such a view was not limited to Europeans. Ismael Pasha, the ruler of Egypt between 1863 and 1879, aspired to make Egypt "European", styling himself as a "European ruler", at least in appearance (Vatikiotis 1980: 73; Reid 2002: 96). Prominent native Egyptian scholars, such as Taha Husayn and Ahmad Lutfy Al-Sayyid voiced similar views, and attempted to set out the foundations for closer cultural and historical links with Europe by teaching Egyptian history with an emphasis on the Greco-Roman period at the expense of its Pharaonic past (Reid 2002: 211). Indeed, in 1938, Husayn wrote a still widely respected book entitled the "Future of Culture in Egypt" in which he said it was "utter nonsense to consider Egypt as part of the East" (Husayn 1938: 24), though he was in fact referring to the Orient, China, Japan and India, which he suggested had nothing in common with Egypt. This may have been a result of his French education with its Hellenistic influence (Barbulesco 2002: 297).

It was in this atmosphere that Ahmad Kamal, one of the first native Egyptians in modern Egyptology (Sallam 1998), explored the historical and linguistic links between Egypt and Arabia, as a contribution to the pan-Arabism/nationalist movement and to the debate about Egypt's identity (Reid 2002: 212). His massive

unpublished work "Dictionary of Ancient Egyptian Language", in 22 volumes, aimed to establish the linguistic links between Egyptian and Arabic (Al-Ma^cluf 1923: 306). But Kamal's attempts to publish this dictionary were frustrated by the French and British Egyptologists in charge of Egyptian Antiquities and of university education at that time (Mokhtar 1965; Reid 1985). After his death, promises to publish, by the Ministry of Education and Al-Muqtataf Journal, were never realised (Al-Ma^cluf 1923: 301), though recently volume one, covering the letter A, has been published in Cairo (Kamal 2002).

Kamal tried in many of his works to show that the links between Egypt and Arabia were not just linguistic but also cultural and religious. For example he discussed (e.g. Kamal 1902) the worship and origin of the same deities in Egypt and Arabia.

The question of the nature of the links between Egypt and its Arabic circle are part of a wider debate about Egypt's cultural identity. The Literati often present the argument as a dichotomy, sharpening the contrast between Egypt's pharaonic heritage and its contemporary Islamic one. In resolving such conflicts, the obvious solution is to appeal to a common origin that transcends divisive issues of creed or political loyalties, as was successfully achieved until the Ottoman invasion of Egypt in the early 16th century. This debate has continued to dominate Egypt during the 19th and 20th centuries (Gershoni and Jankowski 1998; Haarmann 1991) and are still relevant even today (Hassan 1999).

4. Previous relevant works

Although no systematic research seems ever to have been carried out on the medieval Arabic sources in order to inform the study of ancient Egypt, there have been a few attempts by scholars who have taken an interest in some aspects of the Moslem/Arab contribution to our knowledge of ancient Egypt. They are mainly but not exclusively "orientalists" who, with few exceptions, had a limited knowledge of Egyptology. The interest seems to have started with some of the early European pioneers of modern Egyptology. For example the Jesuit priest Kircher in the mid 17th century, using Arabic sources brought to Europe by others, produced several works on ancient Egyptian themes and was known particularly for his work on the Coptic language (On his life and works see Godwin 1979). The English astronomer Greaves visited the Giza Pyramids, and in 1646 published a thorough study relying both on his

own observation and on medieval Arabic sources (Baines and Malek 1980: 24). Blochet produced a series of articles (1907-1915) in which he showed the medieval Arab interest in Egyptian hieroglyphs and how Moslem artists drew on some hieroglyphs as motifs in Islamic art. Reitemeyer (1903) studied some descriptions of medieval Egyptians by Arab geographers. Graefe (1911) studied and translated into German, the section on the pyramids in Al-Magrizi's book 'Khitat'. Toussoun (1922-3; 1936) used a number of Arabic sources in his study of the branches of the Nile and of the Lighthouse of Alexandria. Prince Yousouf Kamal (1926-51) edited a large selection of Arabic descriptions of Egyptian monuments and early Arabic maps of Egypt. Nemoy (1939) studied and translated into English, Al-Suyuti's treatise on the pyramids included in the latter's book 'Husn'. Wiet studied and edited several medieval Arabic works and translated some into French. His particular interest in Arabic descriptions of Egyptian antiquities can be seen in his introduction to Fr. Vattier's French translation (1666) of a lost major Arabic work on Ancient Egypt by an Arab writer called Murtadi (Wiet 1953). Gawad (1947) drew attention to the value to archaeologists of the work on the pyramids by Al-Idrisi, 'Anwar', a theme echoed by Sezgin (1988) in her introduction to the facsimile edition of this book.

Al-Manawi (1966) produced an excellent survey of the Nile, its economic and social impact, in medieval Arabic sources which reveal names and locations of various branches most of which disappeared later.

Fodor (1970) studied the Arabic legend of King Surid, builder of the Great Pyramid at Giza, and also (1970) traced Egyptian elements in some Arabic love spells. Fr. Vantini (1975) made available in English most known references to Nubia in Arabic sources. Haarmann (1978-) dedicated several papers to the study of the medieval Moslem response to certain pharaonic monuments, in particular the Sphinx and the pyramids. Until his sudden death recently, he, more than anyone, had shown the importance of studying medieval Moslem/Arab sources and their attitudes to the pharaonic past. Abbas (1992) studied the accounts of medieval Arab travellers of their visits to the Egyptian tourist attractions and found them on the whole reliable sources of information. Jakeman (1993) gave a detailed survey of ancient Egyptian monuments reused in medieval buildings of Cairo, commenting on the response of some Moslem sources to the hieroglyphic inscriptions.

Other attempts have been made by Egyptologists who, with a few exceptions, had limited knowledge of the medieval Arabic sources (e.g. Kamal 1896; 1902; 1903;

Maspero 1899; Stricker 1939, 1942; Habachi 1940; Sauneron 1952; Giorgini 1965; De Meulenaere & Mackay 1976; Wildung 1977b; and more recently Kuhlmann 1983; Jeffreys 1985; 1999; and Hassan 1993). Maspero in particular was appreciative of some medieval Arabic works relevant to the study of Ancient Egypt, such as the book Akhbar Al-Zaman, believing that some of the ideas contained therein have been shown by modern archaeological work to be reliable. On the whole, these studies have been addressing certain specific issues, such as the use of medieval Arabic descriptions of a particular pharaonic monument, or the use of data from Arabic sources to enlighten their study of an individual issue. But there has been no comprehensive study that has attempted to establish the wide treatment of Ancient Egypt in the Arabic sources.

5. Objectives of this research

My objectives are threefold:

Firstly, to show that medieval Moslem/Arabs were interested in, had knowledge of, and attempted to interpret the material culture of Ancient Egypt.

Secondly, to show the relevance of these materials to the study of Ancient Egypt by bridging the gap between the works of the classical writers and those of later Europeans.

Thirdly, to encourage further study of the medieval Arabic material available, some of which could help archaeologists with descriptions, excavation and interpretation of sites and perhaps even to reconstruct monuments which have long since disappeared.

6. Method and problems of study

I collected as many Arabic sources as possible, mainly from the 7th-16th centuries. Some of these sources have already been published but just as many are manuscripts from various Arabic collections around the world. I searched relevant catalogues to identify manuscripts that seemed most relevant, and obtained microfilm copies of many of these. It is a serious obstacle to research that Arabic manuscripts are scattered around the world, many of them difficult to access, and certainly time-consuming to find, as well as expensive to copy. Worse still is what Khalidi (1994: xi) calls "the daunting obstacle of the size of the historiographic corpus... which amounts to several hundered thousand volumes" for the period under study.

In the Arabic sources I succeeded in accessing I searched for references to Ancient Egypt to establish the interest of the writer in issues relating to Ancient Egypt, and the level of understanding of these issues. This corpus on Ancient Egypt was then analysed for evidence of a reliable understanding of ancient Egyptian themes and materials in the light of our current knowledge in Egyptology. From these I have identified and attempted to reconstruct medieval Arabic concepts of pre-Islamic Egypt.

A further problem facing research in this area lies in the Arabic sources themselves. Of those which have been published, few have been translated, edited or commented on in any meaningful way. Medieval Arabic manuscripts on natural sciences, for example medicine, chemistry and mechanics, have been better acknowledged in academia, but the treatment of the chronicles and antiquities of ancient nations have, on the whole, been deemed fantastical and mere esoteric stories devoid of historical value (Saleh 1990: 39-46; James 1997: 30).

In selecting source material and deciding on its relevance to my objectives I was guided by my upbringing as an Egyptian as well as my training in Egyptology. My views on the issue of relevance have been expressed much more ably and more fully by Edward Said (1995). I have selected mostly writers who are recognised scholars in their fields, and who have a profound interest in Ancient Egypt. I have also used some reliable narratives of stories/epics, which reveal perceptions of Egypt's past.

Medieval Arabic can be difficult to translate because of the variety of meanings deriving from the same root, and I have come across many serious errors in previous English translations, widely used without awareness of their pitfalls. The task of translating such Arabic texts into English, for someone whose mother tongue is not English, is even more daunting as commented upon long ago by no less an authority than Sachau, the translator of Al-Biruni, who called this task "an act of temerity" (Sachau 1888 1: xlviii). With this in mind, I have therefore relied on my own translations of the Arabic sources unless otherwise stated.

7. Sources used

The sources used in this work were all written in Arabic with a few exceptions of material written in Persian and translated into Arabic (e.g. Nașir-e Khisraw sefernama).

I concentrate on Moslem writers, again with a few exceptions, regardless of their ethnic background, as it is usually Islam which incurs blame for cutting Egyptians off from their ancient heritage and Pharaonic past.

With the spread of Islam, Arabic became for some centuries the *lingua franca* of science and knowledge, used by Moslems and non-Moslems and Arabs and non-Arabs alike.

These sources may be classified as:

- 1- Accounts of travellers and geographers.
- 2- Historical and hagiographic writings.
- 3- Books on deciphering ancient scripts.
- 4- Accounts and manuals of treasure hunters.
- 5- Books on alchemy.

Chapter 1. The Making of Interpretatio Arabica of Ancient Egypt

1.1 Introduction

This chapter aims to show the medieval Arab writers' approach to Ancient Egypt in comparison to the approach of their later Western colleagues. It will also show how the medieval Arab approach was informed by contacts between Egypt and Arabia before Islam. It will then show how The Qur'an and Ḥadith set the adherents of Islam on a quest for more detailed historical materials and knowledge of Ancient Egypt. I then describe how the Moslem annexation of Egypt brought Moslem/Arabs within the physical reality of the country's pharaonic past, and the nature of their direct contact with its monuments. This direct contact drew the attention of some Moslem/Arab writers to the need to explore Classical sources in order to satisfy their growing appetite for greater knowledge; this same process can be seen in the exegeses of The Qur'an which had to draw on Jewish sources, Judaica, in order to furnish their works with detail. These are the main factors that have shaped the medieval Moslem/Arab discourse on Ancient Egypt.

1.2 The Moslem/Arab approach to the study of Ancient Egypt

The study of histories of ancient nations occupies a prominent place in the extant Arabic historiography and was embedded in pre-Islamic poetry that glorified the past of tribes and groups and gave a detailed genealogy of each (Khalidi 1994: 1-5). Much of this poetry is now lost to us as it depended basically on oral tradition and probably only a small fraction of it has survived (Khalidi 1994: 6). A sense of common origin may have been behind early attempts during the first two centuries of Islam to collect historical materials on pre-Islamic Arab kings, as seen in the works of Wahb Ibn Munabbih (d. 732) and Al-Asma^ci (d. 828) (Khalidi 1994: 6-7). From within this rich tradition of Arabia, Islam emerged with its own vision of history as displayed in The Qur'an, one that treats historical narrative as eternally present (Khalidi 1994: 8) thereby forming the foundation which distinguishes Arabic historiography, that is, its universality, which is to be understood within the concepts of the oneness of humanity as well as within the valued diversity of its ways. Some early Moslem/Arab scholars regarded history as a human necessity:

God made inherent in us the need for knowledge of the histories of

our predecessors, just as was the need of our predecessors for histories of their predecessors, and just as will be the need of those who shall come after us for our histories

Al-Jahiz (d. 771 CE) Al-Haywan 1: 42.

It is often assumed that Moslems were bent on destroying *pagan* monuments of pre-Islamic cultures, but the reality was different and such destruction was exceptional. Al-Baghdadi in the twelfth century (Al-Ifadah: 110) was well aware of the value of these monuments for studying the past and expressed his admiration for Moslem kings for having looked after and protected the monuments as this had a number of benefits:

- 1- Monuments are useful historical evidence for chronologies.
- 2- They furnish evidence for Holy Scriptures, as The Qur'an mentions them and their people.
- 3- They are reminders of endurance and fate.
- 4- They show, to a degree, the states and histories of ancestors, the richness of their sciences, and the genius of their thought.

On a more mundane level, many Moslems were aware of the economic value of some of these monuments and even during military action would save items for selling as war spoils, even including idols, as we know from the case of a shipload of figurines sent by the Caliph Mu^cawiyah Ibn Abi Sufyan to be sold in India (Al-Baladhuri Ansab: 4:1: 130; Yasin 1950: 230).

The history of pre-Islamic Egypt, like all other histories, was divided into two main parts: pre-Flood and post-Flood. The Flood is calculated to have taken place, according to Abu Ma°shar (ninth century) in his book on Historical Astrology (Al-Milal 1: 22-23), 3671 years before Islam, or approximately 3100 BCE. This is interesting as it coincides with the founding of the first dynasty in Egypt, with minor variations (e.g. Kitchen 1982: 238, has it c. 3200 BC and Grimal 1992: 49, has it 3150 BC).

The post Flood period extended for a Moslem/Arab writer, to his own time. One good example is the book of Al-Maqrizi, <u>Khitat</u>, which covered Egyptian history from pre-Flood until his own time and which dedicated long sections to Jewish as well as

Christian materials. In fact these two sections were weighty enough to warrant their separate well-edited publication (Diab 1997, 1998. cf. Wüstenfeld 1979).

This may help to explain the widely differing interests in Ancient Egypt to be found among the medieval Arab writers. Some were eager to understand Egyptian religious thought and practices, seeing in them one origin of Islamic teachings and even a source of inspiration (see chapter 5 below), in contrast to most Egyptologists of today who still treat Egyptian religion as "almost exclusively keyed to the state beyond death and had precious little this-worldly relevance" (DuQuesne 2002b: 40). While the main interest among early Western Egyptologists focused on philological studies and on collecting as many Egyptian antiquities as possible to form the basis for a detailed art-historical study, the medieval Arab sources were more interested in discovering ancient Egyptian sciences, particularly alchemical knowledge.

Though the ancient Egyptians were, for some in 18th century Europe, "marginal to sacred history and thus worth little more than the Confucians" (Gerbi 1973: 153), most early Western travellers and Egyptologists had their conceptions of Ancient Egypt formed by Biblical texts. This was also true of learned societies such as The Egypt Exploration (Fund) Society. The first archaeologist it funded to work in Egypt, Édouard Naville, was specially chosen for his religious conservatism, perhaps because the Society was donated funds specifically to excavate biblical sites (Wortham 1971: 110). The society published the results of his work in 1888 under the evocative title "The Store-City of Pithom and the Route of the Exodus", and new members of the Society were promised, for the annual subscription of £1, a free copy of the excavator's report and a "genuine Hebrew-made mud brick" from Pithom (Hobson 1987: 40). This is perhaps not surprising in view of the fact that the list of distinguished sponsors included the Archbishop of Canterbury, several bishops and the Chief Rabbi (Drower 1982: 9). This Biblical inspiration was, more than any other consideration, behind the Society's first choice of sites to excavate in the Delta (Spencer 1982: 37).

Even today the articles governing the Society's work still include among the objects for which it was established (3:B): "elucidating or illustrating the Old Testament narrative, or any part thereof, insofar as the same is in any way connected with Egypt, or any country adjacent or near thereto" (See the Memorandum and Articles of Associations of The Egypt Exploration Society, The Companies Acts 1948 to 1981: 1). However, the next archaeologist to be employed by the Fund to work in

Egypt, Flinders Petrie, accompanied by his wife Hilda (Drower 1985), seems to have adopted a more scientific method in archaeology, but was still conscious of the need to retain the financial support of religious groups, as can be seen for example in the titles used for his reports (e.g. Petrie 1906, 1911, 1934. Cf. Bierbrier 1995: 331) and in those of Hilda who dedicated her book to "the donors who valiantly support our digging" (n.d. but after 1933. Introduction). At the end of the book by Hilda, as well as in those of Flinders (e.g. 1934), donations are requested to further the work, to be sent to Lady Petrie either at University College, London or to her "Biblical Research Account" in Jerusalem. Some demands made by Petrie's employers were unreasonable, such as the request from Miss Amelia Edwards "to bring back a thousand bricks from Tell el Maskhuta, for distribution to subscribers, who, she felt sure, would treasure a genuine brick, made, as the Book of Exodus relates, "without straw, by an Israelite in bondage" (Drower 1985: 99-100). It is perhaps less known that Petrie took a close interest in Islamic monuments to judge from the number of his paintings of them, particularly in Cairo's medieval cemeteries; these were accomplished in such detail that they can be used to reconstruct any that may have been demolished since then. A good representative example of these paintings can be seen in Plate 1. He also collected thousands of Islamic art objects and Arabic papyri now housed at Petrie Museum, UCL, which are beginning to receive scholarly attention. Moreover, Petrie published many of these Islamic/Arabic materials in his study of glass stamps and weights (Petrie 1926). In addition Petrie, the Father of modern Egyptology, took an interest in other parts of the Arab world in order to establish early contact routes with Egypt and arranged for his colleague Ernest Mackay (Mackay et al 1929) to excavate in Bahrain in 1925 (Drower 1985: 320-1). It is to be lamented that this did not start a trend for Egyptologists generally to take an interest in working in other Arab countries (particularly Yemen), though there are a few exceptions (e.g. Caton Thompson 1944; (cf. de Maigret 1996: 117; Bierbrier 1995: 87); Fakhry 1952; and Kitchen 1994, 2000).

The Scripture-based view may help to explain why Egyptology, for many, is still concerned solely with "Egypt of the Pharaohs", and even when their interests go beyond the *Pharaonic* they will still not include the archaeology of *Islamic Egypt*. This is well illustrated by the title of a recent proposal to establish a "Pre-Islamic Egyptian Archaeological Database" (Weeks 1996). Apart from the obvious failure to perceive the intrinsic relationship between pharaonic material culture remains and

those of Islamic Egypt as can be seen, to cite but one example, in the amount of reused material from the former in the building of the latter, the evidence gathered from Islamic archaeology presents a brilliant opportunity, according to the eminent American Egyptologist John Wilson, who, more than fifty years ago, warned Western scholars against neglecting Islamic archaeology (Wilson 1954: 5).

This is not to make a value judgement on the Scripture-based approach to Egyptian archaeology; it was by no means limited to early Western Egyptologists as it can also be seen in many Moslem/Arab sources. Yet, in spite of various references made to The Qur'an or Ḥadith in the works of Moslem/Arab writers, it is apparent that neither The Qur'an nor Ḥadith stopped them from forming their own understanding of the past. This point is best illustrated by quoting from Al-Idrisi (d. 1251), an Egyptian historian who, in answering the criticism made by Al-Baghdadi (d. 1231) that the pyramids were not mentioned in The Qur'an, said:

The Revealed Books were revealed to show the intellect and remind the forgetful, and to make clear the path of righteousness and prevent people from falling into the flames, and to impress with evidences those who are stubborn, and demonstrate all the interests in the living world as well as the hereafter. They are not to tell about what will happen in the future or happened in the past which is what people often want to know of the epics of kings and marvels of land and sea. Where these are mentioned, it is generally only with enough detail to give examples to those with insight. (If these Revealed Books mention historical places) it is only an addition to the main story, not for their own significance. The mention of ^cAin Shams (Heliopolis) called in the Old Testament R'misis, occurred only as a consequence of the mention of the Israelites when the Pharaoh summoned them to corvée to repair what had been damaged and fallen. (The Pharaoh) evacuated to it from Memphis. ^cAin Shams at that time was the Shrine of the Sun where the Egyptian Sabaeans perform their religious duties and traditions. It is one of the Seven Holy Temples of the world. With this (story), God reminded the Israelites so that they remember his beautiful favours in rescuing them from the servitude of the

Pharaoh and thank Him Al-Idrisi (Anwar: 79-80).

This statement is not an isolated illustration of a rationalist historian, but belongs to a well established Islamic tradition which dates from the formative period of Islam and forms an integral part of its teachings, based on elements in The Qur'an (Hourani 1971: 147; Huff 1993: 111 and notes 81-2).

Finally, it is important to note that most medieval Moslem/Arab writers took a more comprehensive approach to Egypt as they covered its past and present, its monuments and its inhabitants, its landscape including its flora, fauna and geology. In one case the writer Ibn Basam (ca. 12/13th century) gives us, in addition to the historical/archaeological description of Tinnis (Tinnis Island, to the northeast of Al-Manzalah Lake, and west of Port Said), a detailed name-list of more than a hundred of its birds and sixty-three of its fish, as well as names for the different types of local fishing boats (Ibn Basam Anis: 186f [editor's introduction on page 177]). Al-Bakwi (15th century) described the same place and referred to the presence of over one hundred and thirty different birds and over seventy-eight fishes, probably based on the account of Ibn Basam (Al-Bakwi Talkhis: fol. 20a. For recent archaeological work on this island see Gascoigne 2003).

These issues were not always treated equally even by the same writer, but the general attitude among the medieval Moslem/Arab writers was that Egypt was not just a place where antiquities decorated the landscape, but was a living culture which had produced the antiquities, among other products. Moreover, they stated that the material remains of this culture were the result of the hard work of highly talented people who lived under the threat of natural calamities and famine, as described by Al-Muqadasi (Ahsan: 193, 202), Al-Baghdadi (Al-Ifadah: 132ff) and Al-Maqrizi (Ighathat).

1.3 Early contacts between Egypt and Arabia

Egyptian presence in and trade relationships with neighbouring countries date back to the Pre-dynastic period, and perhaps earlier, with mutual influences (Wilkinson 1999: 150ff; Zarins 1989). Foreigners appear in almost every class of Egyptian document, showing the rich and mixed racial fabric of society (Bresciani 1990; Johnson 1999) as seen in the population of a city such as Memphis (Thompson 1988; Smith 1992). Egypt was not a strange or distant place to the Arabs, who had

long been trading with and working in Egypt (Muhammad 1977). They appear in ancient Egyptian Demotic records under the name <u>ALBY</u> or <u>ARBY</u>, citing events that took place during the twelfth Dynasty (Zauzich 1991: 6), and possibly much earlier (Hitti 1970: 32ff; Ahmad 1987; Al-Ghonimi 1993). Some contacts are of a military nature as we can see from another Demotic papyrus which mentions an Arab prince writing to a hostile Egyptian pharaoh who was threatening to invade his land (Collombert 2002). But the extant military texts and campaigns of the various states in the ancient Near East should not blind us to the long peaceful and cordial periods that also existed between Egypt and its neighbours.

Arab, attested in Arabic as well as other Semitic languages names, are frequent in Egyptian records from the Middle Kingdom (Posener 1957), throughout the New Kingdom (Saleh 1972, 1978; Schneider 1992, 1993; Ward 1994; Hoch 1994: 567) and up to and including the Greco-Roman period (Altheim and Stiehl 1964: 386-391; Pestman et al 1981: 306ff; 136ff; Abd El-Ghany 1989; Hanson 1992). A Greek papyrus from the second century BCE mentions Αραβων κωμη "kom 'Arab", an Arab village/town in the area of Lycopolis, Asyut, in Upper Egypt (Petrie 1907: 30). The presence of such villages/towns may be a result of migrations or of the resettlement of Arabs who may have been brought to Egypt at the end of victorious military campaigns of the pharaohs. One single Asiatic campaign by Amenhotep II (ca 1425-1401 BCE) brought back to Egypt 89,600 captives from a very wide range of social and ethnic origin (Janssen 1963: 142). Long before the arrival of Islam, South Arabian tribes migrated to Egypt, in particular the tribe of Luata, some of whom travelled further along the coast of North Africa (Rizkana 1971: 92), and this pattern of Arabian tribal migration into Egypt and North Africa as well as Palestine continued after the advent of Islam (Al-Magrizi Al-Bayan) as can be seen from the famous Arabian epic of Banu Hilal (Lyons 1995 1: 13f).

Another interesting aspect of names are those that are considered typically Pharaonic, such as Ahmos, which is also found in early Moslem/Arab histories as a name of an ancient Yemeni warrior called Aḥmos (احسس) Ibn Iuf Ibn Anmar (Al-Aṣma^ci <u>Tarikh</u>: 70). Conversely the famous old Arabic name Khensa' (خنساء) is also the name of the wife/sister of the 25th dynasty Egyptian/Nubian king Piye (Kitchen 1986 table 11; Morkot 2000: 174).

Arabs established their own cult centres in Egypt and also participated in the worship of Egyptian deities (Rabinowitz 1956; Grelot 1972: 338ff). Some even

entered the Egyptian temple service; for example a trader from South Arabia (Yemen) named Zaydil (Zaidullah) Ibn Zayd seems to have worked as a w^cb priest for a temple in Memphis, where he died around 263 BCE during the reign of Ptolemy II (Saleh 1992: 94; Kitchen 1994: 47; Swiggers 1995; Vittmann 1998: 1241ff). This South Arabian working in Egypt was only one in a long established tradition of Egyptian acceptance of foreigners in various high offices of government and society (Kitchen 1982: 70; Murnane 2000: 109). South Arabian traders were familiar participants in Alexandrian festivals well into the Hellenistic period (Saleh 1992: 84).

That there was a two way traffic can be seen from the examples of ancient South Arabian sculptures, (ca third century BCE), which show an obvious Egyptian influence (Deblauwe 1991:135). Another example is in the reported presence of an Egyptian-style obelisk in the Oasis of Tayma, Saudi Arabia, dedicated by a local priest whose name was derived from the god Osiris (Yousef 2002: 77).

The two way traffic is also illustrated by the many names of Egyptians in Mi'naean records (Müller and Vittmann 1993), by the many references to Egypt in South Arabian records (Robin 1994) and from what Fakhry (1952 1: 136) calls a "rather astonishing" number of Egyptian antiquities found in Yemen.

These early contacts might also help to explain the strong similarities between many of the stories in Arab folk literature in its formative pre-Islamic period, for example the "Arabian Nights," and ancient Egyptian stories (Golenischeff 1906; Horovitz 1927; Kákosy 1982: 75). The stories of the Arabian Nights and Arabian epics with their rich descriptions of monuments and old towns are yet to be exploited by archaeologists and deserve some study.

Contacts between Egypt and various parts of the Levant certainly date back to the formative period of Egyptian culture (Wilkinson 1999: index). One textual illustration of later contacts with Syria and Palestine comes from the well known story of Sinuhe, an Egyptian official at the begining of the Twelfth Dynasty who fled there from Egypt upon hearing the news of the assassination of the dynasty's founder, King Amenemhat I (ca 1962 BCE). Sinuhe speaks of being recognised by a local chief who had once been to Egypt, and of how well he was treated by the Syrians during his travels (Parkinson 1997: 29). Even if the detail of this story is not accurate, the perception of the storyteller remains relevant.

In addition to the documented links between Egypt and Mesopotamia, there are episodes, not apparent from the archaeological record, the historicity of which may

be supported by some of the medieval Moslem/Arab sources. For example it was suggested that a Babylonian king, Nebuchadnezzar, conquered Egypt and killed her lame pharaoh (fir un al-a rai) (Al-Mas udi Murui: 1: 61) then took back with him thousands of Egyptians who settled in Babylon. If this is true, then currently, archaeological data regarding this event is still lacking as this "Babylonian incursion left no mark on Egyptian tradition" (Kitchen 1986: 407 n. 969). We have only the Arabic tradition to help explain what was regarded as a natural phenomenon in Arab sources, namely the many place names common to both Egypt and Babylon/Iraq such as Waset, the name of a city in central Iraq, as well as the native name of Thebes, capital city of New Kingdom Egypt (Burnett forthcoming), and the Nile, a river and place name in Iraq, as well as the river of Egypt (For more such names see Yaqut Al-Moshtarik). This is also true in the case of some royal names such as that of Queen Nitocris, the name of an Egyptian queen at the end of the 6th dynasty (Manetho Fr. 20), and also of a daughter of the 26th dynasty king Psammetichus I (664-610 BCE) which was either a name or an epithet of a Babylonian queen (Herodotus I: 185, II: 100). Incidentally, the name Thebes (which could be in Egyptian T3 ipt, and in Arabic Taiba) is also the name of "Al-Medina Al-Munawarah" (the Luminous City) where Prophet Muhammad is buried and where his mosque is regarded by Moslems as the second most holy, after the one at Mecca.

The well-established relationship between South Arabia and Ancient Egypt was maintained and even developed after the advent of Islam, as a number of Yemenite tribes migrated to Egypt, seeing common bonds between the two countries as centres of ancient civilisations, and regarding themselves, as did Egyptians, as heirs of these civilisations (Fodor and Foti 1976: 160 and n. 13).

1.4 Influence of The Qur'an and Hadith

The impetus for Moslem/Arab study of the sciences including history originated in their religious beliefs and in The Qur'an in particular (Nasr 1968: 65, 94). The same can be said of their study of Ancient Egypt which follows the same process. Moslems start from the Qur'anic concepts of the unity and common origin of humanity combined with the natural diversity of human beings, which should act as an incentive for different peoples to seek out and get to know others:

O human beings, We (God) created you of a male and a female (from a single pair) and made you into (different) nations and tribes that you may (seek to) know each other (Q 49: 13).

The study of the universal history based on this principal views history as a source of knowledge and guidance (Al-Ahsan 1999: 71). Religious as well as ethnic differences were seen as part of the natural order of the world, and this attitude filtered down to the masses as seen for example in the popular culture of medieval Cairo (Staffa 1974: 338) and was not limited only to scholars.

For a scholar such as Ṣacid Al-Andalusi (d. 1168) these ideas are clearly expressed in his writings where he says that people in all corners of the universe have a common origin but differ in certain aspects: ethics, appearance, landscape and language (Tabaqat: 3). His writings, like most Moslem/Arab sources, treat Egyptian history as part of the universal history of all humanity. These sources also link Egypt and Sudan to the history of the Arabs through a common ancestry (Akhbar Al-Zaman: 80).

Links were also claimed between Egypt and Islam through Hajar, the Egyptian wife of Abraham. The Prophet of Islam was himself married to an Egyptian named Maria who was sent to him from Egypt, accompanied by her sister and a servant, carrying with them various gifts. About a dozen of the Prophet's Ḥadith (sayings attributed to him) are reported as being in praise of Egypt itself, its produce and its people (Ibn Ḥahira Maḥasin: 74f). According to this tradition, the Copts had kinship, (silat raḥim), with the Arabs and hence enjoyed a close relationship with the new regime (Bashear 1997: 69). The Prophet's Ḥadith in regard to Egypt and its inhabitants probably played an important role in forming the Moslem view of the country and its people.

The number of Ḥadith relating to Egypt and attributed to the Prophet varies from one authority to another. Ibn Ḥadita (Maḥasin: 75-77) narrated ten Ḥadith on the virtues of Egypt. A good example to illustrate this point says:

You are going to enter Egypt a land where <u>qirat</u> (money unit) is used. Be extremely good to them as they have with us close ties and marriage relationships (dhimah wa raḥim).

The Prophet is here referring to old ties between Arabs and Egyptians that go back to the marriage of the Prophet Ibrahim (Abraham) to the Egyptian women Hajar, the mother of Ismael, who is regarded as Father of the Arabs, whilst Hajar is regarded

as Mother of the Arabs. It was Ismael and his father who were credited with building the Ka^caba, the most holy place in Islam (Q 2: 127) and Moslem sources mentioned Egyptian craftsmen rebuilding it (Al-Kindi Faḍail: 12). Prophet Muhammad is widely quoted in Moslem sources (e.g. Al-Kindi Faḍail: 14; Cf. Gottheil 1907) as having said these five Hadiths:

- 1- When you enter Egypt after my death, recruit many soldiers from among the Egyptians because they are the best soldiers on earth as they and their wives are permanently on duty until the Day of Resurrection.
- 2- Be good to the Copts of Egypt, you shall take them over, but they shall be your instrument and help.
- 3- Egypt has the best soil on earth and its people are the most generous of all people.
- 4- Blessing (al-baraka), was divided into ten parts, nine for Egypt and one part for the other lands. There will be always manifold baraka in Egypt more than in all other lands.
- 5- Be Righteous to Allah about the Copts (<u>itaqu Allah fi al-qibt</u>).

The Moslem/Arabs' respect for and appreciation of these ties with the Copts was not merely an emotional response to the Prophet's praise, but certainly this very early interest in Egypt on the part of no less an authority than the Prophet, would have encouraged writers and travellers not only to observe its monuments, but also to study its history, and, additionally, contemporary knowledge and practice. This is often explained by the writers themselves in the introduction to their works (e.g. Ibn cAbd Al-Ḥakam Futuh; Al-Idrisi Anwar; Al-Suyuṭi Ḥusn).

In addition to these personal links with Egypt, another major spur to Moslem/Arab interest in Ancient Egypt, and other ancient civilisations, is the advice in The Qur'an which urges Moslems to study and visit other lands, cultures and languages, and

specifically to study ancient civilisations such as Egypt. A few examples from The Qur'an illustrate this:

Do they not travel through the land, so that their hearts (minds) may thus learn wisdom and their ears may thus learn to hear? For it is not the eyes which are blind, but the heart in the breast.

(Q22: 46).

Say: Travel through the earth and see how creation started.

(Q29: 20).

Do they not travel through the earth and see what was the end of those before them (who) were more numerous and superior in strength and monuments in the land. (Q40: 82).

These Qur'anic verses (cf. Q 11: 50, 61; Q 26: 70-71) do not form a body of historical knowledge in themselves but they surely indicate the significance of historical consciousness for early Moslems, and by naming specific ancient civilisations, The Qur'an encouraged its adherents to further their interest in historical knowledge of these civilisations. Egypt is named, or clearly alluded to, some 30 times in The Qur'an (e.g. Q 2: 61; 10: 87; 12: 21, 99; 43: 51. For a complete list of all verses see Al-Suyuţi Husn 1: 10)); as a result, many medieval commentators on The Qur'an researched and interpreted these references, a number of them being in the context of the stories of Joseph, and of Moses and the Israelites (Youssef 1991: 27ff). It should not be forgotten that whilst Egypt is referred to in The Qur'an some 30 times, it is also mentioned in the Bible some 680 times (Youssef 1991: 6).

The Egyptian scholar Abu Ja^cfar Al-Idrisi (d. 1251 CE) dedicated the first chapter of his book (Anwar: 5-11) to citing Qur'anic verses that would motivate Moslems to study monuments and histories of ancient peoples. He also tells the story of the Moroccan man who went on pilgrimage to Mecca and on his return home, hastened to attend the lessons of his master, the Sage Shaikh Abu Zakaria Al-Biyasi who taught medicine and other sciences. His teacher warmly welcomed him back, then said:

Tell me about what you have seen of the pyramids of Egypt but not what you were told.

The student replied:

O teacher, I have nothing of direct sightseeing to tell you.

To this the teacher responded angrily:

Despicable is the student of knowledge and wisdom whose endeavour does not arouse his determination to see the like [of the pyramids], nor stirs his eagerness and passion to see whatever can be seen of marvels. There was nothing to prevent you from informing [us] about them and from [speaking] as a witness here of what you saw, but a swift ride, or a push of a boat. The sluggish one does not deserve to be adorned with the essences of wisdom.

The student immediately departed back to Egypt for no other reason than to see the pyramids (Al-Idrisi <u>Anwar</u>: 15).

This is a good example of genuine interest in the heritage of Ancient Egypt following the guidance of the Prophet to seek knowledge wherever it may be found. The Prophet did not in any way qualify nor specify where the search for wisdom and science should take place. The result of this may be seen in books on the "quest for knowledge" such as that of Abu Hilal Al-cAskari (d. 1009) where he speaks of seeking knowledge without limiting it to religious knowledge. In fact, nowhere in his book do we find any reference to religious knowledge per se; his was a quest for all knowledge. The Prophet himself went even further, making it "incumbent upon every Moslem man and Moslem woman to seek knowledge" (Soliman 1985: 3-4; Nasr 1968: 65), thus encouraging the search for and appreciation of wisdom for its own sake, and allowing Moslems to form their own understanding of the past.

There has also been a view, still widely held, that Moslems regard anything before Islam as pagan, (jahliyah), invalid and opposing Islam, and therefore of no interest for them (Cf. Djahiliyya in EI² 2: 383-4). This is an oversimplification since The Qur'an does not treat all pre-Islamic people in the same way but distinguishes between those who believe in god and those who do not, and makes it clear that Moslems must believe in and treat equally all previous religions and their prophets without

distinction (Q2: 285). The Prophet also made it clear that his role was to complete the task started by the many prophets before him saying:

My position and that of the prophets before me is like that of a man who built a home with great care and beauty but a brick in a corner was missing. So people walk around it, admiring it, but saying: there is a gap, there is a brick missing. So I am this brick and I am the last of the prophets.

(Al-Bukhari Sahih: kitab al-manaqib, No. 3535).

This clearly indicates the position of Islam in the overall scheme of human history, seen from the Moslem viewpoint of the time, that Moslems were building on the existing foundations of their predecessors and completing a missing gap, which must surely have given them a sense of the enduring continuity of tradition. Moreover, the theme of continuity from antiquity was also in keeping with the views of some Moslem schools of thought that past and present are both part of an overall divine scheme (Khalidi 1994: 66). In fact, the medieval Moslem higher education curriculum embraced the accumulated knowledge of their previous and contemporary Hellenistic world as well as those of the Orient, India and China (Stanton 1990: 53). True knowledge regardless of its source was deemed compatible with Islamic thought since "nothing but good good could result from the proper use of knowledge and reason" (Stanton 1990: 95).

1.5 Moslem annexation of Egypt

It may be useful to give a brief description of what is known of the advent of Islam to Egypt. The Arabic word usually used to refer to this event is fath which means "opening", but in English the word has often been translated as "conquest" which is actually an entirely different word and does not at all represent the meaning of the original Arabic word. I therefore use the word "annexation" as it is closer to the original Arabic, though it too is not entirely satisfactory.

The annexation of Egypt took place during the Caliphate of ^cUmar (13 H/634 CE-23 H/644 CE), when an army of some four thousand Moslems of different ethnic origins arrived at Babylon, the Roman fort (Old Cairo), and started a process, which, after a number of battles, reinforcements and negotiations, mostly with the Byzantine

garrisons, ended with the Moslems taking over Egypt in 20 H/641 CE (For details see Butler 1978; and for recent literature EI² 7: 146-186). The Moslems had been dealing in the main with the Byzantines (rom/rum), at that time the masters of Egypt. Native Egyptians had not been as involved with the hostilities, and were therefore regarded by the Moslems as welcoming rather than as enemies. The implications of this were vital for Moslem jurists who had to decide whether Egypt had been taken over peacefully by treaty (fath sulh), or by military force (fath cunwah). necessary in order to settle the issues of land ownership and taxation. The issue was not entirely straightforward since parts of Egypt had been taken over in battle and other parts by treaty. Long debates ensued and the Caliph himself was asked for his legal opinion. Gradually a consensus emerged among most of the Moslem scholars and jurists that Egypt had been taken over by treaty. This meant that Egyptian land remained the property of Egyptians who were then accorded the rights of Ahl Al-<u>Dhimah</u>, (those under the protection of Moslems) in addition to being also of <u>Ahl Al-</u> Kitab, people who believe in a Revealed Holy Book, which includes Zoroastrians, Sabaeans, Jews, and Christians, who, according to Islam, are entitled to the same rights under Moslem rule as their fellow Moslem citizens, lahum ma lana wa ^caliyhim ma caliyna, which means 'They [Peoples of the Book] have the same rights and obligations as us [Moslems]'. This was not the case in those countries taken over by force, where the land was divided up amongst the victorious Moslems as spoils of war. (For details see Al-Baladhuri Futuh: 214-225; Ibn Abd Al-Hakam Futuh: 84: 90; Murad 1996: 19-70).

Moslem annexation did not seem to disrupt the daily life of the native Egyptians themselves as contemporary documents suggest a continuity of normal activity in the country (Allam 1992: 2), as was indeed the case with other Moslem annexations according to Cameron (1997: 14) who agrees with archaeologists currently working on this period that "that there was no sudden disruption in either urban or rural life at the time of the conquest". Evidence from early Arabic papyri also shows an uninterrupted contuinty of pre-Islamic styles of writing and adminstration for long after Moslem annexation (El-Daly 1983: 34; Frantz-Murphy 1991: 11).

1.5.1 The Copts

Medieval Moslem/Arab writers used the word <u>qipt</u> or <u>gypt</u>, (Copt) to denote both ancient and contemporary indigenous Egyptians, thereby reflecting their perception of

the connection and the continuity between the past and the present. The word gipti or giphti was a name for Egyptians in the Talmud, long before the Moslem annexation of Egypt (Krause 1980: 731; Fontinoy 1989: 91. For other variations of the word see Aufrère and Bosson 2000: 8). The Moslem/Arabs continued to use it, often as a designation for all Egyptians, regardless of religious belief (Diab 1998: 14) well into the Mamluk Period (1249-1517) as can be seen from biographies in which many Moslems are called Copts, though some may have been recorded thus because they were descendants of native Christians (Petry 1991: 618). Since then the word has been used mainly for Egyptian Christians.

Some Moslem/Arab genealogists (e.g. Al-Mas^cudi Muruj: 1: 357) speculated that Qift/Copt was the name of the eldest son of Miṣr, grandson of Noah, after whom the country was named. Miṣr divided the land between his four sons, Ṣa, Atrib, Ashmun, and Qiftim after whom were named the towns of Sais, Athribis, Ashmunein and Qift. King Miṣr put Qiftim in overall charge and gradually he and his descendants dominated the land of his brothers, thereby giving the name Qifti/Copts to all the inhabitants. There seems to be no knowledge among Arab writers of the association with hwt-k3-pth, the name of the main temple of Ptah at Memphis, which is now widely held to be the origin of the word Aïγυπτος / Aegiptus / Egypt (for a recent survey see Aufrère and Bosson 2000). But the origin of the latter was more plausibly thought to be in the Egyptian word 3gabt used of both the Nile and the land (Neville 1917: 230; Saleh 1962: 11).

The native Egyptians seem to have carried on with their way of life unchanged under the new rulers. Moslem/Arab travellers, such as Al-Muqadasi (Ahsan: 193) visiting Egypt at the end of the tenth century, after almost four hundred years of Islam, noted that "The customs of the Copts prevail" and that they were still conversing in Coptic (Al-Muqadasi Ahsan: 203). The Coptic community may well have faced troubles at various periods at the hands of some Moslem rulers but so did their fellow Moslem compatriots to judge from the names of those who lead rebellions against such rulers. Finneran (2002: 66) noted that "the real threat to their survival [of the Egyptian Copts] came from fellow Christians" and from their rivals, the Chalcedonian Melkites and other Christian schisms (Cf. Winkler 1997: 91ff). When the Moslems arrived in Egypt, the Coptic Patriarch Benjamin was already in hiding after the sustained efforts of the Byzantine Emperors to enforce their orthodoxy on the so-called nonconforming Copts (Butler 1978: 3, 176f). Benjamin was restored as the

head of the "weakened and almost lifeless" Coptic Church by the Moslem campaign leader "Amr Ibn Al-"Aş (Butler 1978: 439ff).

1.5.2 The country

For Moslem/Arab geographers, the world was divided into seven zones as illustrated by Al-Biruni (d. 1048) (Nasr 1978: fig.8) (**Plate 2**) and this map was copied later by Yaqut (d. 1228) (<u>Mu^cjam</u> 1: 24-32) (**Plate 3**). The third zone, in the South West, includes Egypt, The Levant, Sudan, Morocco and lands in between and adjacent to them. For Al-Maqrizi (<u>Khitat</u> 1: 31) Upper Egypt is situated in the second zone while Lower Egypt is in the third zone.

The name used in the Arabic sources for Egypt is Miṣr, which in Arabic means 'country, urban centre and border' and may be of ancient Egyptian derivation from the Egyptian word mdr with a wide range of meanings including 'protected border', or 'walled in' (Saleh 1962: 7ff; Faulkner 1962: 123). This name Miṣr is known also in other ancient languages of the Near East long before the advent of Islam (Altheim and Stiehl 1964 1: 74ff; Bosworth 1993: 146). Ibn Al-Faqih (d. 902) in his book Al-Buldan (115), after citing the meaning of Egypt as above, added that "Egypt was called Maqdunia (Macedonia) in Greek" which may be a confusion resulting from the name of the founder of Alexandria, Alexander of Macedon. We find the same name Maqdunia also used by Al-Mascudi (Muruj 1: 304) as a name for Egypt, including Alexandria, during the reign of Cleopatra and her consort Marcus Antonius.

There seems to be general agreement in the medieval Arabic sources that Miṣr is the name of the country, but Al-Maqrizi (Khitat 1:46ff) in his chapter titled "Derivations of Miṣr, its meaning and different names", said that its name in the "First time (Al-Dahr Al-Awal) before the Flood" was "Jizla" which may be from the ancient Egyptian word, Dsrt (may also be pronounced JisralJizla), which means 'Holy [Land]'. It is also possible that this name is derived from the Egyptian Dšrt with the meaning 'Red Land' which designated the uncultivated land (Otto 1975: 76) and also Egypt (WB 4: 494).

The measurements of the land of Egypt were calculated, in keeping with the Greek tradition of giving distances in the number of days needed to cover them. Ibn Al-Faqih (Al-Buldan: 115) said that Egypt was 40 nights in length and the same in width.

As for the borders of Egypt, according to Al-Istakhari (Al-Masalik: 39), Egypt stretched from the Sea of the Rom (The Mediterranean which was also called by some

medieval Arab writers, the Green Sea e.g. Al-Qazwini <u>Ajaib</u>: 93) between Alexandria and Barqa, down to Nubia at Aswan, and then to the land of the Beja beyond Aswan ending across at the Sea of Al-Qulzum (i.e. Red Sea), then crossing it at Al-Qulzum (Clysma, Suez) into Sinai until reaching the Mediterranean again beyond Al-Arish and Rafah. These are standard descriptions of the Egyptian borders in the medieval Moslem/Arabic sources (see for examples the maps from Al-Iştakhari: Plate 4, Ibn Ḥawqal Plate 5, and Al-Muqadasi (Ahsan): Plate 6).

One of the questions that occupied the mind of some medieval Moslem/Arab writers was how the land of Egypt came about, and we are given some hints of a vague knowledge of a concept of prehistory, knowledge of which was lost to Egyptians in the Medieval Period. Al-Mas^cudi citing the opinions of "the specialists" said:

The land of Egypt was under the water of the Nile, which spread from Upper Egypt down to the Low Land, ...until some obstacles blocked the water, and the soil which the current moved from one place to another, then [the Nile] went to certain parts... Water gradually receded enabling people to settle and build and they channelled the water, dug canals and put up dams but this [knowledge] was lost from its people, because the length of time took away [from them] knowledge of how [their ancestors] lived.

(Al-Mas^cudi Muruj 1: 346).

Al-Mas^cudi's suggestion that a very long time had passed since this formative period and that his contemporary Egyptians had lost all knowledge of such [prehistoric] events is of great significance. If we add to this what he wrote of the length of time of life on earth which he estimated, according to Indian sources, to be hundreds of millions of years made up of cycles of 36,000 years each (Al-Mas^cudi Muruj 1: 77), we can appreciate that he had an awareness of the early times of human existence on earth which we call prehistory.

In spite of the common depiction of Egypt in Arab sources as a mirror of heaven on earth, lush and pleasant, some writers were well aware that some components of this actually came from outside the country. For example Ibn Fadl Allah said:

Most merits (mahasin) of Egypt are brought to her, so much so that

someone even said that the four elements are brought to her: water which is the Nile is brought from the south, the soil is brought in the water otherwise it is only sand that does not grow plants, fire from wood which is imported into it and air/wind blows from one of the two seas, the Rumi and the Qulzum [Mediterranean and Red Sea]

(Ibn Faḍl Allah Masalik: 16).

Ibn Fadl Allah is indeed correct in identifying the external source of Egyptian soil as being carried to the country by the Nile which as Said (1990: 9) noted "has shaped not only the physical traits of the country but also its history and the nature of its human settlement".

1.6 Sources available to medieval Moslem/Arab writers

Moslem/Arabs, who established themselves in Egypt and found the country and its people amicable, soon merged with the local population and sent for their families and tribes to join them. This brought to Egypt thousands of new Arabs from the new lands of Islam including particularly Yemen and Iraq (Al-Maqrizi Al-Bayan). They were able to see for themselves the pharaonic antiquities, having already known of the wealth of its ancient pharaohs from The Qur'an and from earlier travellers. The reality of living and interacting with native Egyptians gave many Moslem/Arabs an impetus to learn more about the country's past. Reasons for this interest were firstly, as explained above, for the sake of knowledge itself, and secondly from a realisation that the present affairs of Egypt had emerged from its past. One clear example of this in one vital area was taxation, which continued to depend annually on the level of the Nile flood.

Moslems/Arabs acquired their knowledge of Egypt's past through several routes, which I summarise below.

1.6.1 Direct observation and native folktales

As Moslem/Arab travellers flocked into the Nile Valley, and saw the spectacular monuments about which they probably knew little, they immediately started to collect the traditions and folktales circulating among the population (e.g. Ibn ^cAbd Al-Ḥakam Futuh). From the tenth century onwards material was collected more critically, and was sifted and arranged, as can be seen in Al-Mas^cudi and Ibn Wasif Shah (^cAbd Al-

Hamid 1954: 98). It is important to remember that Egypt had a long tradition of oral transmission of historical knowledge as can be seen in the ancient Egyptian phrase r3 nr3 'mouth to mouth' which was also an important teaching method (Morenz 1996: 28; Saleh 1966: 293f; Assmann 2002: 123). These folktales in their written forms were very popular in Demotic/Greek materials (Tait 1994) and continued in medieval Islam in the form of Qiṣah/Sirah and Wacz 'story/biography telling' and 'preaching for admonition' (Berkey 2001: 14), and their popularity has continued until the present day (Reynolds 1995).

Another important source was direct observation, made during travel, of the life of the people, of the flora and fauna, and of the landscape, scattered with the impressive remains of the past. Many of the Moslem/Arab travellers were also keen observers of ethnographic material. One of these is Al-Muqadasi (Ahsan), regarded by Fahim (1989: 52) as an excellent but not unique example of Arab ethnographers with a wide interest in local language, customs, and economy as well as geography, history and archaeology. This material also includes oral transmission of folk tales of native heroism and of a distant past as evidenced by the presence of motifs, and even whole episodes from Demotic literature, which found their way in to early Arabic epics.

1.6.2 Discourses with Egyptian savants

Another major source of information for Moslem/Arab writers was the Coptic monasteries and their monks. Whilst travelling, Moslem visitors regularly stayed in monasteries and many befriended their monks. It was not just convenience that caused them to stay at monasteries during their desert travels (El Daly 2000: 29) as many flocked to them, especially those by the Nile, to enjoy the natural beauty spots and the solitude as well as the hospitality of the monks who were well known for their good wine (Diab 1998: 150ff). Even some of the rulers of Egypt, notably Ahmad Ibn Tulun (d. 884), used to spend a few days at a time for a contemplative retreat in the monastery of Al- Quşir, on the Muqaṭam Mountain near Tura, south of Cairo (Al-Balawi Sirat: 118). During the first century of Islam, close ties were established between Moslems and the Coptic monasteries (Abdel Tawab 1986), and by the tenth century CE Moslem writers had developed a keen interest in the monasteries, an interest described as "a siginficant feature" of the century (Farag 1964: 43).

It was during such visits and normal social intercourse that debates took place as a way of learning more about the Copts and their festivals and traditions, including popular history. It is possible that Coptic monks had at their disposal written records which they were prepared to give to their Moslem guests, as we are told by Al-Dawadari (Kanz: 3: 214f) about being given a Coptic book on history from the White Monastery at Suhaj in Upper Egypt. Al-Dawadari also (Kanz 3: 219) said that such a book was used by Al-Mascudi and that he himself had compared the texts of Al-Mascudi with the Coptic Book. It became important for writers to cite such antique books among their sources (Radtke 1992: 178).

Such Coptic books were still in use in the time of Al-Maqrizi as he cited "The Coptic Book, written in Ṣaicdic dialect and translated into Arabic, on the taxation of Egypt" (kitab qibiti bi'l-lughat al-ṣacidyah mima nuqila ila al-lughat al-carabyah fikharaj Miṣr) (see this and other similar titles in Haridi 1984 2: 96). Some of these Coptic sources were also available in Arabic and were among the first to be translated into Arabic for the Umayyad Prince Khaled Ibn Yazid in the seventh century (Al-Nadim Al-Fihrist: 303).

It is often reported that whenever an ancient Egyptian text was found that needed to be read, a monk from a nearby monastery would be sought out to help. For example, a book written in Al-Qibitiyah Al-Ula (the first Egyptian language) was found at Giza near the pyramids and was sent to a monk at the monastery of Qalmun in Fayum to be read (Al-Idrisi Anwar: 100; the same story is repeated by Al-Bakwi Talkhis: fol. 31b-32a).

A good example of the accurate knowledge of these linguistic materials among medieval Moslem/Arabs, is the account of Al-Maqrizi of Coptic monasteries in Asyut (Khitat 4 [forthcoming]; Diab 1998:170) which includes an important linguistic observation about the local dialect. He noted that in the early 15th century, while Upper Egyptian Copts conversed in Ṣai°dic Coptic, they also had a perfect knowledge of Greek. He also said that they knew the Boharic dialect but that Ṣai°dic was the original Coptic.

This seems to have been a natural part of the general Moslem/Arab attitude that the Copts "as inhabitants of Egypt, were knowledgeable about the temples and their inscriptions and the sciences contained in them" (Al-Magriti [attributed to] Ghayat: 310).

1.6.3 Classical sources

The other major source used by Moslem/Arab writers was the extant Greek and Latin sources on Ancient Egypt which were widely available in their original languages and also in translations either into Arabic or Syriac and perhaps Aramaic and Persian.

A glance at the index of Al-Nadim (Al-Fihrist) shows that many Classical sources were already known and quoted in Arabic writings in the tenth century and we have the Arabic versions of many of the Classical sources, for example Josephus, (Pines 1971) who was quoted extensively by Moslem/Arab writers such as Al-Shahrastani.

It was perhaps these sources which were being referred to by Al-Biruni (Al-Athar: 84) when he said that he acquired "Books which had the periods of reigns of the kings of Ashur of Mosul, and the periods of the kings of the Copts who were in Egypt, and the Ptolemaic kings ...".

1.6.4 Jewish sources: "Judaica"

The Qur'an and Hadith refer to several past civilisations and historical events but with little detail. Moslem believers eager for detail had to search among the "People of the Book" i.e. adherents of other religions with divinely revealed holy books, mainly but not exclusively, Jews and Christians. Qur'anic references to pre-Islam prophets, encouraged Moslems to study the history of those earlier prophets, thereby creating a body of historical writings known in Islamic literature as Qisas/Tarikh Al-Anbiya' "Stories/History of the Prophets" some written by the well-known commentators on The Qur'an such as Ibn Kathir and Al-Tha^calabi (Nagel 1986). The work of the latter, Qisas Al-Anbiya' was even more popular than his Qur'anic exegesis (Watendonk 1976: 343). Knowledge of these histories is an essential part of the duties of the believer (Ferro 1984: 53). It also led to the creation of universal histories in which Moslem historians treated pre-Islamic materials with respect, and made extensive use of them, for example in what is known in the field of Islamic studies as Judaica (Al-Israeliyat). These relate Jewish stories circulating among Moslems as a result of contact with the Jews living among them, especially those who converted to Islam, such as Ka^cb Al-Aḥbar (Schmitz 1978: 316-7). interpreters of The Qur'an, chroniclers and historians, often relied on the Judaica for details of certain historical events, such as the creation of Adam and Eve, which are

cited in The Qur'an with little detail. Arabic translations of various Biblical texts and other religious texts were already circulating among people of Arabia which presented a rich source for details for Moslem writers (Rabi^c 2001: 49-54). The Judaica enriched the Qur'anic exegeses but also alarmed some Moslem scholars who regarded them as myths and called for them to be re-edited and purged from the Judaica (Rabi^c 2001: 382). But this goes against the Islamic view which treats the history of humanity as one universal history in which each group or people has its place (Radtke 1992: 544). Moreover, the medieval Moslem/Arab extensive use of Judaica to reconstruct the history of ancient Egypt must have been due in part to the hundreds of Biblical references to Egypt and it was natural therefore to compare the Hebrew data with the Egyptian realities.

1.6.5 Arabic sources

As interest in learning about Ancient Egypt expanded and demand for books on the subject increased, a corpus of texts was soon available in Arabic, written by Moslem/Arabs, and these became the basis for later studies. That the study of Ancient Egypt was popular among medieval Moslem/Arab scholars can be seen from the list of books quoted by Al-Idrisi (d. 1251) in his study of the pyramids (Anwar: 251ff) relating to Ancient Egypt, many written by native Egyptians. Just a few of their titles illustrate the point:

"Secrets of the temples and the ancient sciences of the Egyptian sages".

"Chronicles of Egypt, its treasures and pharaohs".

"The unique jewel on the chronicles of Ancient Egypt".

"Priestly talismans (statues)".

"The sciences of hidden treasures".

(See the full list of Arabic books on Ancient Egypt used by Al-Idrisi in Appendix 1).

The same can be said of Al-Maqrizi (d. 1440) who cited dozens of previous works which he had used on the history of Egypt, many on its pharaonic past (Guest 1902; Haridi 1983-4). Extensive citations added to the authority of the writer and showed his vast knowledge of earlier sources.

This interest of native Egyptians in their own history continued during Ottoman rule and even under the French occupation, as can be seen from the books of a number of historians such as Ibn Zunbul, Al-Bakri, Al-Isḥaqi and Al-Sharqawi (Holt 1968;

^cAbd Allah 1991: 83f, 175ff). Most of these books are on the history of Islamic Egypt but start with descriptions of its Pharaonic past.

It was from this long tradition that early modern Egyptian historians, Rifa^ca Al-Tahtawi and Ali Mubarak drew their inspiration (on these 19th century Egyptian historians see El-Shayyal 1962; Crabbs 1984; Reid 2002: 93ff). They were among some 300 students sent by Muhammad Ali Pasha (originally from Kavalla, now in Greece) to Europe at the beginning of the 19th century, to acquire an up-to-date knowledge of western sciences which would be useful in building a modern military force (Cf. Fahmy 1997). Rifa^ca, a graduate of Al-Azhar, accompanied the Egyptian students to France as their Imam, to lead prayers and give religious counselling. Once back in Egypt he published a book on his impressions of Paris, but more importantly, over the following three decades, he wrote several historical and literary works. In 1868 he published a book on the history of Ancient Egypt that started with its pharaonic past and ended with the Moslem annexation under the title "Anwar Tawfiq Al-Jalil fi Akhbar Misr wa Tawthiq Bani Ismael" (El-Shayyal 1962: 32). This title may be translated as "Glorious light on the chronicles of Egypt and documentation of the descendants of Ismael". The book was well received by scholars from different backgrounds, including those of Al-Azhar, in spite of its glorification of pharaonic Egypt (Reid 2002: 109f). Rifa^ca Al-Tahtawi is regarded in modern Arabic literature as the pioneer who ushered in a new period of Arab Renaissance (Mustafa 2002: 76-80. Cf. Sorman 2003).

Ali Mubarak was also greatly interested in the history of Ancient Egypt, and produced an encyclopaedia on the topography of the country, Al-Khitat Al-Tawfiqiya, looking systemically at ancient sites (Cf. Dykstra 1999). His main sources were medieval Arabic works on topography, such as that of Al-Maqrizi, in addition to contemporary sources and his own studies (Baer 1968). He had the potential, with help from his fellow historian Rifa^ca Al-Ṭahṭawi, based on their schooling in both native and French education, to develop a modern native Egyptology school that looked to medieval Egyptian scholars for inspiration. Unfortunately, this opportunity was lost, for the reasons discussed in section three of the introduction above, and Egyptology came to be widely regarded until today as a European/Western study.

1.7 Summary

Peaceful and productive contact between ancient Egyptians and peoples of the Near East and Southern Arabia, as well as further afield, were well established by the formative period of Egyptian history.

The Moslem/Arab approach to the study of Ancient Egypt differs from the initial approach in the West in that it was not seeking to validate the Scriptures, but was part of a general and genuine interest in the universal history of humanity, the study of which was seen both as a need and as a duty. In the case of Egypt, early contacts between Egypt and the lands of Arabia served as a foundation for understanding Egyptian culture. For Moslems, a new impetus came from Qur'anic and Hadith guidance but which did not in themselves serve as historical or archaeological records that needed validation. The Moslem annexation of Egypt lifted the yoke of the Byzantines, and the newcomers were eventually absorbed into the melting pot of the ancient dominant culture of the Nile Valley. This created great opportunities for Moslem/Arab writers to learn about the ancient culture through direct contact with learned Copts and by observing its monuments and artefacts. They added to the native sources, the extant written and oral materials available from Classical and Jewish sources, as well as earlier Arabic sources. These all contributed to a very rich corpus of Moslem/Arab material on Egyptian culture that has remained largely unexplored in modern Egyptology.

Chapter 2. Treasure Hunting

In the land of Egypt, there are great treasures and it is said that most of its land is [made of] buried gold, it is even said that there is no place [in Egypt] which is not full of treasures.

(Ibn Al-Wardi Kharidat: 31-2).

2.1 Introduction

The search for hidden treasure to exploit is perhaps one of the oldest of pursuits. Much of it is carried out with the hope of personal gain, some perhaps for scholarship and reputation, some for personal enjoyment, and some to sell illegally for financial gain. The medieval Moslem/Arab sources show great interest in finding ancient treasure, some for personal gain, but some for the benefit of the state and its people, and some for study purposes.

2.2 Treasure hunting in Ancient Egypt

In ancient Egypt with its vast treasure of great antiquity, treasure hunting became a fulltime profession and at times was even under state patronage. The tradition of exploiting ancient treasure certainly goes back to Pharaonic Egypt as is seen in the "Admonitions of Ipuwer" who lamented that even the royal treasury had been completely robbed during the so-called First Intermediate Period (Parkinson 1997:166 ff).

Records of police investigations into tomb robbers in the New Kingdom show the spread of the practice (Breasted 1927 4: 246 ff). At the end of the New Kingdom treasure hunting was officially instigated and sanctioned to help the ailing economy (Reeves and Wilkinson 1996: 204f). The same process was also noted during the Ptolemaic Period. According to Strabo (Geography 17.1.8-9), a Ptolemaic king stole the gold coffin from the tomb of Alexander the Great and replaced it with one made from alabaster or glass.

Treasure attracted hunters not only in Egypt but wherever ancient civilisations had flourished as is seen in Wahb (Al-Tijan: 87, 209f, 220f) describing hidden treasures in South Arabia, and in the anonymous folk-tales Al-Hikayat Al-cAjiba (57 ff) describing those of Iraq and Persia. But even when the medieval Moslem/Arab sources narrate tales of treasure hunting in countries other than Egypt, they often use

recognisable Pharaonic motifs, showing the influence of Egypt as the land of treasures par excellence. Al-Qalqashandi (Subh 3: 310) quoted earlier Arabic sources stating that Egypt had countless treasures saying that "It is said that it has no place without a treasure".

There is a wealth of material in Moslem/Arab writings which not only describes excavations and finds, throwing light on the methodology and beliefs of the period, but also provides some continuity to the present day, when illegal searches for 'Pharaohs' Treasures' are a daily occurrence (°Abd Al-Bar 2000: 70ff). As an indication of the growing illegal search for such treasure, current demand for the material known in Arabic as "Z'ibaq aḥmar", 'red mercury', has increased greatly because of the belief among today's treasure hunters that its use in the magic formula performed to open up the treasures, makes it more effective. (°Abd Al-Bar 2000: 73)

The continuation of treasure hunting into modern Egypt, was of great concern to early archaeologists. Maspero, who was familiar with the circulating Arabic manuals for treasure hunters, asked Ahmed Kamal to publish one such manual. His idea was, that by making widely available what is perceived to be secret knowledge at the disposal of only a small elite, such books would be discredited and would become less effective for instigating illegal excavations. So in 1910 Kamal published the text titled "Al-Dur Al-Maknuz fi Kashf Al-Dalayal wa Al-Kunuz", 'Book of the Hidden Pearls on Uncovering Indications of Treasures'. Whether this initiative was as successful as Maspero hoped is debatable (Daressy 1917: 175). But the work also drew attention to its possible value for archaeologists interested in the topographical study of Egyptian place names and other geographical information (Daressy *Ibid*). In spite of expressing doubts as to the value of such an endeavour, Daressy (*Ibid*: 176ff.) himself managed to extract some useful information on place names from it. It may be that the full potential of these manuals to archaeologists has not yet been realised.

The manuals I have studied give many names of sites unknown to present day archaeologists, particularly in the Delta where the sites have disappeared under recent urban development.

2.3 Impetus for Moslem/Arab treasure hunters

Medieval Moslem/Arab fascination with Egypt as the land of hidden treasure was reinforced by The Qur'an in the story of the Pharaoh and Moses. There are several

references to the wealth and treasures of Pharaoh (Q10: 88; Q26: 57-8;). Great treasures also belonged to Qarun, a member of Moses' tribe (Q28: 76-83) whose wealth was said to be so vast that it required a team of strong men to carry even its keys. The treasures of Qarun were sunk into the earth by God, as punishment, and were presumably hidden in the land of Egypt (Cf. the story of Korah and his group in the Old Testament, Numbers 16: 1-35). This was also the fate of the treasures of Pharaoh for disobeying God. His throne was said to have reappeared whenever the Nile level dropped very low, possibly at the island of Giza known as Jazirat al-dhahab (Island of Gold) (Al-Wahrani Manamat: 184-186).

For medieval treasure hunters, proof of ancient wealth was still evident in their own time from the vast wealth commanded by local Egyptians (Copts). Many wealthy Copts enjoyed showing off their riches and status to visiting Rulers and Caliphs, and gave them huge amounts of money as gifts, as recorded during the visits of °Abd Al-Malik Ibn Marwan in the year 709 CE, and Al-Ma'moun in the year 833 CE (Al-Qaddumi 1996: 119f and 128f). These stories of vast wealth in the hands of contemporary Copts, seen and described by Moslem/Arab writers, were indications that the tales of their ancestors' vast hidden treasures must be true, adding more fuel to the passion for treasure hunting, if indeed such were needed.

It was also known that the ruling classes of Islamic Egypt had accumulated vast wealth, some of which was carefully hidden, particularly in times of political or economic trouble. According to Al-Suyuţi (Al-Kanz: 54) a Mamluk called Saif Al-Din Ibn Salar, originally a Tartar slave, was arrested and his wealth confiscated by Sulṭan Qalaun (ruled 1280-1290). Even after his arrest, a servant informed the authorities that they had missed gold treasures plastered behind two walls and underneath a fountain. Gossip about events such as this, even hundreds of years later, must have encouraged many others to seek out treasures, and this still continues.

2.4 Economics of treasure hunting in Islamic Egypt

Medieval Arabic sources (e.g. <u>Akhbar Al-Zaman</u>: 243) describe the ancient Egyptian exploitation of hidden treasure for the national economic benefit of the country, citing for example the deeds of a king called "Zalma" who "exploited some treasures and spent them on building towns and housing, and dug many canals". This has an echo of a true ancient Egyptian practice.

In Islamic Egypt the economic benefits of finding treasure continued to play a

significant role in maintaining interest in ancient Egyptian sites, as the State, at times, came to be largely dependent on exploiting gold from pharaonic tombs. During the ninth century, Ibn Ţulun discovered huge amounts of pharaonic gold which he spent on building a hospital, his famous mosque and other state projects (Al-Balawi *Sirat*: 76). This gold was estimated to be more than four thousand kilograms (Al-Shurbagi 1994: 106).

2.5 State regulation of treasure hunting

Having realized the economic potential for the state treasury, Ibn Ţulun made the exploitation of these gold resources a state monopoly (Rabie 1972: 169) and decreed that nobody was to be allowed to dig anywhere without first seeking permission from the authorities and then being accompanied by a state official (Al-Balawi Sirat: 195). This is perhaps the oldest official attempt to organise the profession of "Treasure Hunters", or "Al-Matalibeien" 'seekers', under the supervision of a senior official close to the ruler.

The profession reached its zenith under the Fatimid Dynasty (10th-12th centuries) perhaps partly due to their interest in the ancient sciences of alchemy, magic and astrology which were all associated with Ancient Egypt and were also useful to treasure hunters. During the reign of Al-Mustanşir (mid 11th century), some 18,000 books on these "Ancient Sciences" were found in the palace library which had, according to some accounts, more that 600,000 books (Ibn Al-Tuwayr Nuzhat: 127; Al-Maqrizi It^caz 2: 294; Halm 1997: 77). In addition to being a profession, tresure hunting was also an occult science (Irwin 1994: 187-8). Al-Mustanşir appointed a senior confidant to head the profession, titled "Emir Al-Matalibeien", (Overseer of Treasure Hunters). As well as being in charge of the treasure hunters he collected the dues for the Caliph. So considerable was the wealth and importance of this Emir that the traveller Naşir-e Khisraw who visited Egypt in mid 11th century said of him:

While I was in Egypt (in the year 1050), news arrived that the king of Aleppo, whose ancestors had been kings of Aleppo, had rebelled against the Sulṭan, his overlord (Caliph Al-Mustanṣir) The Sulṭan had a servant called "Omdat Al-Dawla" who was the Emir of the Matalibeien and enormously rich and propertied. Matalibi is what they call the people who dig for buried treasure in the graves of

Egypt. From the Maghreb (Morocco) and the lands of Egypt and Syria come people who endure many hardships and spend a lot of (their own) money in those graves and rock piles. Many a time buried treasure is discovered, although often much outlay is made without anything being found. They say that in those places the wealth of the pharaohs is buried. Whenever anyone does find something, one fifth is given to the Sultan and the rest belongs to the finder.

At any rate the Sultan dispatched this "Omdat al-Dawla" to that province with great pomp and circumstance, outfitting him with all the trappings of kings, such as canopies, pavilions, and so on. When he reached Aleppo he waged war and was killed. He had so much wealth that it took two months for it to be transferred from his treasury to the Sultan's.

(Nașir-e Khisraw Sefernama: 129 Eng. tr. 62).

This royal servant, named Rafq in Al-Maqrizi (Itcaz 2: 137 and 209ff) must have had a very high status with the title 'cOmdat al-Dawla' which means 'Doyen or Pillar of the State' (Al-Pasha 1989: 407ff). The tithe of one-fifth required by the Sultan is in keeping with contemporary interpretation of Islamic law which allowed the finder to keep his find provided he gave one-fifth to the Sultan (cAbd Al-Bar 2000: 89).

The supervision of treasure hunters which started under Ibn Ţulun developed, under the Fatimids, into a guild with its head known as Naqeeb Al-Matalibeien "Chairman of the Guild". Al-Maqrizi (It 2: 88) regarded the death of one such chairman as an event important enough to be noted in his historical annals, in this case, a man named Abu Al-Ḥassan Ali ibn Ibrahim Al-Nursi (d. 1010 CE).

Treasure hunters from North Africa and Greater Syria, as well as from Egypt, were encouraged to search for hidden treasures at their own expense under the supervision of the government (Al-Shurbagi 1994: 107).

As well as being a career, treasure hunting was also a popular hobby. Ibn Qadi Shuhba listing the death of Sheikh Muhammad Ibn Mubarak Al-Athari (The Antiquarian), Keeper of the Relics of the Prophet, among the events of the year 1403 CE, said of him that:

He was obsessed with treasure hunting, spending all his earnings on

the search, but never gained any (Ibn Qadi Shuhba Tarikh 4: 391).

The hobby was likened to a plague by Al-Baghdadi (Al-Ifadah: 111) who noted that even poor people took up treasure hunting and would go to rich people to borrow the money needed, giving false assurances and claiming to have acquired esoteric knowledge that would guide the hunter to treasures. Remarkably, the same phenomenon of this quest for treasure beneath Egyptian antiquities has continued since the medieval period (Najib 1895: 77; Bachatly 1931; Wainwright 1931; Isma'il 1934: 82-85) and it is still regularly reported in Egyptian newspapers that rich businessmen are being conned by treasure hunters who normally disappear with the large amounts of money extracted from their sponsors, who are usually too embarrassed to report the tricksters to police as, of course, the whole endeavour is illegal (e.g. Al-Ahram 6 September 2001, 10 December 2001).

2.6 Manuals of treasure hunters

This new industry needed sources which people could utilize in their search for treasure. So practitioners from a variety of groups, such as alchemists, magicians and experienced treasure hunters wrote many guide books which proved to be best sellers. These books, which usually have in their titles a reference to treasure hunting, became holy books for the hunters. Practitioners of magic produced a different type of material, as the treasures were supposed to be protected by ancient magical talismans which had to be neutralised using specific spells before one could enter and find the treasure. These were already popular in the 10th century when Al-Nadim (Al-Fihrist: 379) wrote of them. Most of the standard books on magic include a few such spells (e.g. Al-Buni Shams: 399f, 408f; Al-Maghrabi Shumus: 39ff). Al-Maghrabi gives one of the longest spells, titled fi fath al-kunuz 'On Opening the Treasures'. It required 21 days of contemplative solitude in a remote area. At the end of this period would appear:

a tall dark servant with large head, riding a horse and has a huge lion. He will speak to you but do not answer him. After 35 days, a person will appear, with a dog face and human body. He will greet you, do not answer him and he will go away. On day 42, seventy men wearing green shall greet you and you shall answer their greeting.

They will say that whatever you demand, they have. Then you will say: 'I ask from Allah and then from you that you gather me with the Prince, your Sulṭan, the successor of Dimryat the hero, called Al-Taous'. They will say yes and they will leave you. On day 47, a white city will appear to you. It has a great army of cavaliers occupying the valley and the mountain and their noise reaches the horizons. Then, tents will be set up at the gate of this city. The first tent is a dome of green silk and a red ruby on top, and inside it a golden throne inlaid with pearls and rubies. There you will see an army dressed in white and among them is the Imam (Leader) called Al-Taous (Peacock) dressed in a garment that blinds eyes with its brilliance, and above his head are the Spirits and the Leader of the pious jinns and the Ruler of the cifrits and treasure guardians.

After hearing welcoming words, you shall offer incense of <u>liban</u> dhakar (olibanum), red <u>sandal</u> (sandalwood) and <u>sant</u> (acacia). When the king burns this incense, you shall say: 'O King Al-Taous, I request from you the secret of turning rocks and opening caves and homes and whatever more I want'. The king then will call the heads of his court and all will gather around the burning incense which is their food. When the smoke stops, he will order his vizier who in turn will order his jinns and ^cifrits to open whatever you want whenever you read the spell. They all answer yes and disappear immediately. Now you can continue your contemplation for a while longer and be grateful to Allah, as from now on you will be able to open anything you want by reciting the spell and burning the incense.

(Al-Maghrabi Shumus: 39ff).

This is followed by the text of the spell which invokes all kinds of spirits and even prophets like Akhnukh, Soliman and Muhammad. As with most spells it is not intended to be easily understood.

Another spell by the same magician (Al-Maghrabi Shumus: 43f) is titled 'On Lowering the Water' (fi taghwir al-miyah), and explains how many ancient treasures were protected by magic water. Then follows a spell in the form of a Table with 47 squares. Each square holds a word and a whole line forms a Qur'anic verse (Q 67: 30)

which says: "Say. See ye! If your stream be some morning lost [in the ground], who then can supply you with clear flowing water?"

Treasure hunters were not interested only in gold. Throughout their manuals, references are made to look out for medicines such as kohl, which heals blindness, and medicine for leprosy (Ms Arabe 1765 Bibliothèque Nationale, Paris: fol.38a). Not all treasure hunters were after gold or medicines. Some were seeking ancient Egyptian books of wisdom and sciences, especially magic (Al-Idrisi Anwar: 100). In the Arabic epic of the pre-Islam Yemeni king Saif Ibn Dhi Yazan, he travelled through Egypt's pharaonic landscape searching for "The Book of the Nile" (Lyons 1995 1: 11, 2: 241f). This followed much earlier traditions as told in the Demotic story of Setne searching in ancient tombs for the magic book of Thoth (Lichtheim 1980: 127). It was common for alchemists to claim to have found hidden books on alchemy, written by Hermes, in underground passages of Egyptian temples.

Some treasure hunters were also reliable sources of information for scholars of Egyptian history as we read in Al-Idrisi (Anwar: 75f), who was told by Sheikh Abu Al-Futuḥ Al-Maṭalibi (the head of treasure hunters), of an expedition with a group of his colleagues in the area east of Ḥelwan. Al-Idrisi collated this account with that of another head of treasure hunters who brought to him a book on the subject that refers to about seventy pyramids on Muqaṭam Mountain:

Walk east until you pass by the area with lots of black roots like wood (Petrified Forest) till you find a cave and till you get to a high mountain leading to the tombs. Look down the valley and you will see a mound stretched in the valley of a mountain, near by seventy pyramids of black stones. Measure from the front of each pyramid seventy one feet and dig. Go down seventy steps cut out in the mountain, you will find closed houses to right and left. Open carefully, you will find money, gems and inlaid jewellery

(Al-Idrisi Anwar: 76).

At least some features of this landscape can be recognised, in particular his reference to the Petrified Forest which is in the vicinity of the area now called Qaṭamiyah in the desert east of Macadi. It has only recently been made a Nature Reserve Area, after much petrified wood had been carried off with the sand supplied

as a building material for the people of Cairo. The rest of his account is yet to be investigated.

In the manuals, the way to treasure is often via churches or monasteries and, in fewer cases, mosques, which surely indicates a knowledge, or at least an expectation, among treasure hunters that they were built on top of ancient sites. This is not an unreasonable expectation as many Christian and Moslem places of worship were indeed built within or on top of earlier pharaonic buildings (e.g. the Mosque of Abu Al-Hajjaj on top of Luxor Temple, the churches in the temples of Philae and El-Sebou^c, the Monastery of Jeremias in Saqqara and the Monasteries that once topped the Hatshepsut Temple in Deir Al-Bahri, Luxor. For Coptic sites within Pharaonic sites see Meinardus 1965 specially pp 313ff).

The treasure hunters were already attracting unwanted attention in the 13th century. Al-Jobri wrote a book exposing deceptions in various trades and professions in which he dedicated a whole chapter to the tricks of the treasure hunters (Al-Jobri Al-Mukhtar: 81f). He lamented that the temptations of treasure hunting cut across all classes of society from lowest to highest. But the purpose of writing manuals for treasure hunters was not always personal gain. The author of MS Arabe 2765 Bibliothèque Nationale, Paris (fol. 64b) states that his motive in encouraging treasure hunting was to raise funds for charitable causes. This reason was not accepted by a leading Moslem Jurist Ibn Al-Haj (d. 1337). In his book (Al-Madkhal 3: 138-144) he judged treasure hunting to be incompatible with the teaching of Islam and called it an illness. It seems from his work (Ibid 142) that treasure hunting in his day reached a dangerous level and was carried out not in secret but in daylight and in public, leading to the demolition of many public and private buildings. If one wanted to have someone's property destroyed, all one had to do was to produce a false paper, making the forgery look ancient by passing it over incense, referring to an antique treasure under that property, and leave it where treasure hunters would find it. Ibn Al-Haj also commented on the spread of treasure-hunting manuals saying they too were forgeries to make money from the poor. Perhaps the most important legal judgment he handed down was that any treasure found in Egypt, a country which was "annexed by peaceful agreement" (ahl sulh), belonged to its people and their descendants collectively (Al-Madkhal 3: 143).

2.6.1 Examples of manuals

I have studied in depth three examples of these manuals in the Arabic collection of the Bibliothèque Nationale, Paris. These are MSS Arabe 2764, 2765, 2767. They are unascribed and are likely to have been selections copied from a master manual of an older author, as most of the text is repeated between these three manuscripts. It is difficult to assign a date to these but MS 2765 was copied in 17th century (De Slane 1883-1895: 498). In MS Arabe 2764 fol. 89a, the writer says he copied it from "Kitab Al-Umm Al-Akbar fi Kashf Macadin Misr Babylun min Tarikh Al-Mulk" (The Grand Original Book on Discovering the Minerals of Egypt, of Babylon from the [beginning of its] History of Kingship). There are also repetitions within the same manuscript which did not escape the watchful eyes of a reader/owner who left a note with his observation on the margin of the page (MS Arabe 2764 Bibliothèque Nationale, Paris: fol. 84a). Other similar books on the subject are sometimes attributed to Al-Buni (13th century) (e.g. Ms Arabe 2763 in the same library. Cf. De Slane *Ibid* 498).

Throughout these manuscripts are pseudo-ancient Egyptian scripts, and some in Coptic, inserted here and there, probably to reassure the reader of the authenticity and credibility of the book.

The first manuscript (MS Arabe 2764) has a title page which is signed by several owners and someone has added above the title "Had this been named treasure of treasures, it would be more apt". The actual title is "Ghayat Al-Ma'arib fi Al-Manaya wa Al-Khabaya wa Al-Matalib" which may be translated as 'The Ultimate Desires on Precious and Hidden Treasures'. There is no introduction in spite of two words at the top of fol. 1b saying "Introduction to the Book". It starts straight off with instructions for finding treasure in Wadi Digla (Maadi, Cairo).

Ms Arabe 2765 lacks its title page but starts with a statement that this is the book of 'Collection of Directions or Indicators' "Majmu Al-Dalayal". Ms Arabe 2767 lacks an opening but has a title, "Dalayal Al-Kunuz" 'Indicators of Treasures'.

In MS Arabe 2764 Bibliothèque Nationale, Paris (fol. 88a, b) and repeated in MS Arabe 2765 (fol. 82a, b), is a description of the road to the oases from Esna to the west that eventually leads off to Wadi Al-Muluk (Valley of the Kings). This road to the oases via the Valley of the Kings was still known and used as noted by the Egyptian archaeologist Najib (1895: 323) at the end of the 19th century.

In the same manuscript, MS Arabe 2764 fol. 8b and 9a there is reference to hundreds of crocodiles and a turtle visible at Bahnasa. In fol. 16b, he referred to the

Deir Abu Hermes (Monastery of Jeremias in Saqqara) and, close by, the Tariq Al-'Ijl (Road of the Bull), which may be a reference to the *mit rhnt*, (present day Mit Rahineh, Memphis) the ancient causeway on which the procession of the dead bull travelled for burial in the Serapeum at Saqqara. This *mit rhnt/rhneh* was one of the names used for Memphis (Nureldin 1998: 242) and it is made up of the word *mit* which means 'way, road' (Badawi and Kees 1958: 95) and *rhni* meaning 'Rams', in particular the Sacred Rams of Amon (Badawi and Kees 1958: 141; WB 2: 441) which adorned the procession avenue. In fol. 15a, the writer referred to a road in the area as Mijar Al-'Ijl (Tug-way of the bull), suggesting possible knowledge of the ancient Egyptian sacred way of the burial procession of the Sacred Apis Bulls, which were embalmed in the temple at Memphis and then carried for burial at Saqqara (Smith 1974: 13, 79-82; Dimick 1959)

In fol. 49a, the author describes the Magharit Al-Qitat (Cave of Cats) where thousands of cats are laid on shelves cut out of the rock. In fol. 58b he describes Manahat Al-Qitat (Cat Burial/Funeral) at the Saqqara/Abu Sir necropolis. Cats were sacred in Ancient Egypt and, like humans, were identified after their death with the God Osiris and likewise received dignified burials, which have indeed been found at Saqqara as well as many other parts of Egypt (Malek 1993: 124, 127f). In fol. 63a Tel Basta (Bubastis) is mentioned. Interestingly, in fols. 66a, b and 70b the author claims to decipher several scripts including Egyptian, Greek and Pahlavi (Old Persian), but none seems to have been correctly written or identified. The manuscript has many naive drawings of statues and images encountered inside ancient tombs and in several places the text is accompanied by drawings of the sites, where local landmarks are recorded. One very good example of these drawings is of the Lahun pyramid area in fol. 71a (Plate 7).

Fol. 85a describes Dahshur and its seven tombs of mudbrick belonging to the Royal Harem (pyramid of Amenemhat II where De Morgan in the years 1894-5 found on its western side the tombs of a queen and four princesses).

In fols. 85b-86a we have descriptions of the Temple of Dendara and its underground parts. Fol. 86a also describes the temple of Qift with its ceiling decorated with a picture covering its whole length and representing "Mariam" (Mary). This is an interesting equation of the Egyptian goddess Nut and Mary. As none of the ceiling stones of this temple has survived, this script makes what may be the only eye-

witness account we have of it in Arabic sources. Another important reference is in fol. 86a describing Naqada and its many lined burial pits on the surface of the ground.

In fols. 86b and 87a, the writer refers to the Shama and Țama (the colossi of Memnon, Western Thebes), but while local legends have them as two lovers and the sounds they produce as whisperings of love (El-Hagagy 1997: 59), this author makes them a king, Shama, and his female cousin Ṭama. But what is clear from the medieval Moslem/Arab writings is that the sounds the colossi were famous for in antiquity were still audible. Al-Ṭarif and its many basin-like tombs is described in fol. 87a.

We encounter in some treasure hunter manuals (e.g. MS Arabe 2765 Bibliothèque Nationale, Paris: fol. 81b) instructions for removing entire ancient buildings, in this case a mastaba near the Sphinx. This manuscript (fol. 143b) repeats an instruction which is very common in the manuals – to look out for sherds as an indication that one has reached an ancient site. The manuals often warn their users against disturbing, or even touching, the dead unless it is absolutely unavoidable.

Al-Maqrizi is another important source on Treasure Hunting to which he devotes a whole chapter titled Hidden Treasures (Khitat 1: 106-109). He starts with a religious justification for digging up treasure by narrating an incident in which the Prophet Muhammad was reported to have passed by the tomb of Abu Righal near Al-Ta'if (Saudi Arabia). The Prophet told his companions the story of Abu Righal, a chief of the tribe of Thaqif and said that buried with him was camoud min dhahab (a gold bar/sceptre). His companions excavated the tomb and did indeed find the gold object. This has been taken by Al-Maqrizi as proof that digging up pre-Islamic tombs for treasure was sanctioned. He then refers to massive treasures hoarded by the rulers of Egypt, especially the Romans who were said to have hidden much treasure in Egypt before their departure, making detailed notes of the locations, and that they deposited these notes in the Grand Cathedral of Constantinople. Alternatively, he said that the Romans did not write these notes but collected books already written by the earlier Greeks, Chaldaeans and Egyptians. This may have been as a result of the story from the time of cAmr Ibn Al-cAs, the first Moslem ruler of Egypt, who decreed that Egyptians must turn over to him their hidden treasure and he thereby acquired many tons of gold (Ibn ^cAbd Al-Ḥakam <u>Futuh</u>: 87).

Stories of finding treasure moved between the world of reality where real objects were found and the world of myth where the ancient objects are endowed with magical powers. So Al-Idrisi (Anwar: 138-9) cited a story of two Egyptians from

Cairo who became destitute and decided to travel to Upper Egypt in search of work. As soon as they started the journey, they found a scroll with instructions to go to Giza and dig at a certain spot where a glass box would be found which would enrich them. They followed the instructions and found inside the box, a jar of 'pharaonic glass' which contained one dinar which in spite of their disappointment they took to exchange in the market, only to realise as they did so, that they had found another dinar still in their hand together with the money received for the first one. So they realised that this dinar was a magic one. As for the jar which contained it, it too turned out to be a magic one which turned water into wine.

Belief in stories of finding treasure was not limited to commoners. Al-Maqrizi (Khitat 1: 107) tells the story of cAbd Al-cAziz Ibn Marwan, Ruler of Egypt (685-705 CE), without giving us his source, but which is in fact Al-Mascudi (Muruj 1: 366f). This ruler is said to have spent a huge amount of money on costly but unsuccessful attempts to recover ancient treasures, as a result of which a thousand men lost their lives.

The same source (Al-Mas^cudi Muruj: 368) also gives a detailed account of searching for treasure in the time of Al-Ikhshid (ruled 935-946). In this case, an ancient book written in an ancient language was found by treasure hunters. The book described a place beside the pyramids, containing amazing treasures. When Al-Ikhshid was told of this, he allowed the treasure hunters to excavate it. They dug deep until they found tunnels and standing wooden coffins set in niches cut into the rock. The wooden coffins were covered in a paint that prevented decay. The images were varied, old and young, men, women and children. Their eyes were inlaid with jewels and some had gold and silver masks. When some of the coffins were broken into by the treasure hunters, they found inside them dead bodies, and next to each statue were stone jars full of the same paint material used against decay. This paint was believed to be medicine which was powdered and mixed with other odourless substances. When placed on fire, it produced wonderful scents, the like of which had never been known. Every wooden coffin was made in the image of its occupant, and next to each one, was an inscribed alabaster statue. The exact date of this find as given by Al-Mas^cudi is year 940.

This particular account became very popular and was quoted in its entirety by Al-Bakri Al-Maslik 1: §. 877) who in turn was quoted by Al-Idrisi (Anwar: 142f) who gives Al-Bakri as its source without referring to the original Al-Mas^cudi source.

According to Al-Maqrizi (Khitat 1: 110), some of the finds during the governorship of "Abd Al-"Aziz Ibn Marwan, were sent to the Umayyad Caliph in Damascus. When "Umar Ibn "Abd Al-"Aziz became Caliph (ruled 717-720), he was delighted to display his Egyptian collection to his guests. This was a group of stone model offerings of the type commonly found in Egyptian tombs (D'Auria et al 1988: 93f). It is interesting to note how the Caliph interpreted this material. He thought that these offerings were fossilised, or transformed into stone, as a punishment by God of the Pharaoh of Moses. But more interesting is that this is a rare account of ancient Egyptian objects being kept by a Moslem Caliph, not in Egypt, and sometimes being put on display for his visitors. Al-Maqrizi also (Khitat 1: 110) quotes a description by a visitor to Egypt called Al-Muḍarib, of what seem to be wooden workshop models, familiar to Egyptologists as funerary equipment from ancient tombs (D'Auria et al. *Ibid*: 102, 113ff.).

2.7 Exploitation and demolition of monuments

Damage to ancient Egyptian monuments increased as entire monuments were sometimes demolished and removed for their stones. Columns in particular were in great demand for building churches and mosques as can still be seen today. Al-Baghdadi (Al-Ifadah: 102) saw in Alexandria more than 400 pillars similar to the 'Pompey's Pillar', which came from the area around it, and which were broken up and piled on the beach to protect the coastline against the waves and to prevent the enemy's ships from beaching. This destruction was said by Al-Baghdadi to have been committed by Qraga (Qaraqush?), the Governor of Alexandria during the reign of the Ayyubid Sultan Salah Al-Din Yousuf Ibn Ayub (Saladin) 1169-93. Al-Baghdadi found unacceptable the use of pillars to protect the shore as the reason for demolishing the archaeological material, calling this act "a work of childish folly committed by those who do not distinguish between a beneficial act and a heinous one". Al-Baghdadi (Al-Ifadah: 105) directed much of his anger at those who were busy in Memphis demolishing all sorts of ancient buildings in search, not so much for stones, but for the metal (copper) which he suggested was used by ancient Egyptians to "bond the stones together". The use of copper dovetail clamps to bond stones is indeed attested in ancient Egyptian masonry (Arnold 1991: 124).

Al-Idrisi (Anwar: 39) laments the demolition of several small pyramids in Giza and the removal of their stones for building Cairo walls and bridges by Qaraqush, the

vizier of Saladin. In the time of Saladin, a man named Ibn Al-Shahrzuri, with a group of treasure hunters, worked their way into a cave known as the Magharat Al-Judhu^c 'Cave of the [date? tree] trunks' close to Al-Haram Al-Muwazar 'the Pyramid of Khafra^c/Chephren' where they found "very many unusual marvels". This identification of Al-Muwazar pyramid as that of Chephren is confirmed by Al-Idrisi himself (Anwar: 58). The exploitation of stones from the Giza pyramids was not a new phenomenon even then, as many such stones were reused by king Amenemhet I of the 12th dynasty in building his own pyramid at Lisht (Goedicke 1971).

Al-Idrisi (Anwar: 33f), quoting among others Abu Al-Şalat Ummayya Al-Andalusi (d. 1134) (Al-Risalah: 27) tells the story of the Caliph Al-Ma'moun (Ruled 813-817) who came to Egypt in 816 to quell an uprising. He was enthusiastic about reading books on sciences and wisdom. During his visit to Egypt he searched in vain for someone to tell him about the pyramids, so he ordered an excavation. When the pyramid of Khufu was finally opened after long struggles using fire and vinegar (Al-Idrisi Anwar: 128) they found behind the opening a green water jar full of gold, one thousand dinars (i.e the jar held about four kilos of gold), which turned out to be exactly the amount of gold spent on breaking into the pyramid. The jar was said to be made of zabarjad 'chrysolite' and Al-Ma'moun took it home with him to Baghdad together with all the other things he had collected from Egypt (Al-Idrisi Anwar: 129). Once inside the pyramid they found ascending and descending corridors. At the top they found a cubic room, the length of each side being eight cubits. In the middle was a sealed marble container, and when its lid was broken open they found a decayed body. Al-Ma'moun, curiosity satisfied, prevented them from exploring further. This description is reasonably correct in spite of its confusion of burial chambers. The top room referred to here may be the second burial chamber known also as the Queen's Chamber as its measurements are almost correspondent with this account (5.80 x 5.30 m, height 6 m) (For recent measurements see Lehner 1997: 112).

According to Al-Idrisi (Anwar: 36, 124f), the first time that the Moslems/Arabs were said to have been able to understand the nature and history of the pyramids, was during the rule of Khumarawayh (884-896). It was he who searched for the original entrances to the pyramids, and his workers spent two years excavating before they found a standing marble stela which looked like a door (false door). When they removed it they found on the back writing in hieroglyphs, qalam al-barabi. This was read, translated, Arabised and turned into a poem:

Some of what exists reached my knowledge, but I have no knowledge of the Unknown which Allah knows. I excelled in the craftsmanship of whatever I wished to endure, And I perfected it, but Allah is Stronger and Mightier. Sixty months I spent travelling around, Surrounded by a devastating army. Until I passed by all humans and dinis, And was stopped by waves of the great dark sea. I became certain that there is no thoroughfare Beyond my place and no further travel. I returned to my kingdom and rested in Egypt, For days bring miseries as well joys. I am the owner of all the pyramids in Egypt, And the first builder of its temples. I left in them, signs of my efficiency and wisdom. Which shall never decay or disappear. They hold great treasures and wonders, Time is sometimes kind and sometimes harsh. My seals shall be opened and my wonders uncovered, By a follower of a prophet coming at the end of Time, In the House of Allah, who guides his affairs, So he rises and is begged by those who glorify him. Eight, nine, two, four and ninety,

This is known to astrologers.

Afterwards, seventy years will pass,

And then the temples shall be abused and destroyed.

Inside them are all my treasures,

But I see they shall be covered in blood.

I carved my speech in rocks that I cut,

Which shall remain long after I perish.

Al-Idrisi goes on to say that when this text was interpreted and read to Khumarawayh, he no longer desired to reach what was inside the pyramids. He was curious about the calculations of the period referred to, but nobody was able work this out.

Al-Idrisi (<u>Anwar</u>: 141f) also quotes Jabir Ibn Ḥayan's book <u>Al-Naqd</u>, that Egypt and its pyramids are the most precious treasures on earth. Jaber is quoted describing the unique nature of some of the hidden treasures of the pyramids. One pyramid had thirty pharaonic glass jars full of red elixir, each one containing a pound in weight. The other pyramid contained fine gems of different colours so old that they were no longer recognisable. Al-Idrisi (<u>Anwar</u>: 72-73) also tells about the treasure hunters who recently (ca early 13th century) opened a hole in the northern facade of the third pyramid (Menkaure). It took them six months and all they found inside was a dead man with inscribed gold leaf in an unknown script. An eyewitness who took part in this event relayed this account to Al-Idrisi.

Al-Idrisi (Anwar: 75) was told by Abu Al-Futuḥ Ibn Abi Al-Ḥassan Al-Matalibi, the chief of the treasure hunters, that he went out with a group to the "Mountain of Al-Qena near Ḥelwan"? They crossed a lake surrounded with rushes and reeds and walked for about two miles to the east until they saw a mountain with five stone statues of horses. At the base of the eastern side of the mountain was a small pyramid, the height of two persons, built of white stone. He was told by another chief of treasure hunters that there were seventy pyramids in the area.

Al-Idrisi (Anwar: 141) also tells the story of a group of treasure hunters who entered a pyramid during the reign of Al-Afḍal (ruled 1186-1196). They lost one of the group and as they were giving up on him after three days, his head appeared out of a wall and he was red and was shouting in a loud voice which was not in Arabic: "alṣabkh tabkh biriṣamah tulul". They fled and a search was started for someone who could interpret this kalam kahini (priestly speech, Hieratic). After a long search in all the monasteries, a monk was found who interpreted it as "This is the fate of those who violate the sanctity of kings in their homes". This is a further piece of evidence that Moslems/Arabs believed that they could have ancient Egyptian deciphered by monks in monasteries though in this case the decipherment itself is doubtful.

2.8 Summary

Egypt was, and still is, held as the land of hidden treasures, a perception encouraged in Arabic writings by the Qur'anic descriptions of the fabulous wealth of the Pharaoh and of Qarun from the tribe of Moses. Ancient Egyptian pyramids,

temples, tombs and their surroundings were perceived as depositories of vast wealth protected by magic. This is not a naïve perception as modern archaeological work has also shown that such precious materials were in fact deposited by ancient Egyptians, a prime example being the tomb of King Tutankhamun. Temples were also depositories of treasures, for example Dendara Temple (Cauville 1990: 16) and Tod Temple (Vandier 1937). In the case of Dendara, it must always have been a place famed for its treasure as it was reported by Al-Dimishqi (d. 1328) (Nukhbat: 328) that a hoard of precious metals including gold was found by a stranger, digging illegally, who was caught and handed over to the authorities in Cairo together with a hundred sacks full of the treasure. This treasure hunter was imprisoned.

For treasure hunters, it was fatal to attempt to reach these treasures without the appropriate skills and tools, yet thousands lost their lives and money in the quest. As the state came to depend on the financial yields of the treasure, the profession of treasure hunters was organised by the state from the time of Ibn Ţulun in the ninth century. From then on, permits to excavate ancient sites were required, in addition to the presence at all times of an official representing the ruler.

Materials collected from Egyptian sites, in particular those which did not at the time have monetary value, were sometime kept by rulers as curiosities.

Ongoing attempts, from medieval times to the present day, to curb the illegal quest for treasures have always failed in spite of regulation and severe penalties, as can be seen today from frequent present-day newspaper reports.

Chapter 3. Medieval Arab Archaeological Methods and Descriptions

3.1 Introduction

Egyptian monuments were visited regularly by Moslems and non-Moslems alike, to judge from the number of travel accounts and the amount and variety of graffiti (Vachala and Ondráš 2000: 76). Arab poets were much inspired by these monuments where they used to spend some of their leisure time (Badawi 1965). Al-Mas^cudi, Al-Suyuṭi and Al-Maqrizi are examples of writers presenting comprehensive coverage of Egypt from "Before the Flood" to their own time. Medieval Moslem/Arab interest in history and archaeology was not limited to Egypt but covered other known ancient cultures as well.

3.2 Medieval methodology

From observing the many archaeological sites around them, some Moslem/Arab scholars developed a deep interest in archaeological exploration and described attending the opening of ancient tombs or the uncovering of other ancient sites.

An outstanding example of scholarship is Abu Al-Ḥassan Al-Hamadani of Yemen (d. 945), a distinguished geographer who wrote one of the earliest and most complete sources on the geography of Arabia (Faris 1938: 1). He also wrote an encyclopaedic work on the archaeology and history of South Arabia titled Al-Iklil. Unfortunately much of it is lost, but of the remaining volumes, number eight is dedicated to his own archaeological works or those carried out by people whom he knew in Yemen. His archaeological methodology can be summarised as follows:

- Observing and describing the site;
- Excavating and recording of finds with exact provenance, descriptions and measurements;
- Using knowledge of ancient writings to read ancient Himyarite inscriptions;
- Analysing the finds in light of religious and historical texts and oral history.

Al-Hamadani also set out to write a palaeography manual which may be the first such manual ever attempted. Palaeography does not seem to have been known in the West before the early 18th century when it was first introduced by Bernard

Montfaucon in 1708 in his seminal work Palaeographia Graeca (Coulmas 1999: 384). Al-Hamadani cited the reason for writing his palaeography as follows:

Most of the disagreement among people with regard to Himyarite inscriptions centres on the variations in the forms of the character [of its alphabet]. A character or letter may have four or five forms, while the person who reads it is familiar with only one form. Since, as a result, mistakes have crept in, we have decided to record underneath each letter in the alphabet the various forms of its Himyarite equivalent (English tr. in Faris 1938:72).

Another important work of archaeological methodology is that of Al-Idrisi (d.1251), an Egyptian historian whose extensive study on the pyramids can readily be accepted as serious Egyptological and archaeological study. His methods and interests included:

- Reasons for the importance of the study of the pyramids;
- Description of the route to the site;
- Description of the pyramids and their inscriptions;
- Measuring, and checking previous measurements;
- Analysis of the form of the pyramid and reasons for building, with a critical review of literature (more than 22 authorities quoted) on the subject (Haarmann 1996: 608);
- Study of sediments as an indication of the flood level (Haarmann 1996: 609);
- Chemical analysis of clay in building material, by studying its mineral content in order to check place of origin (Anwar: 118);
- Regular visits to the site to see it in different conditions, and to recheck measurements.
- Noting stones reused at Jeremias Monastery, Saqqara as evidence of earlier dates (*Ibid* 108), an observation confirmed by modern research (Martin 1994).

To these can be added the widespread practice of giving the exact pronunciation of names of places, people and things, particularly according to local tradition (e.g. Yaqut Mu^cjam).

The manuals of treasure hunters described above include some remarkable hints as some of their authors developed personal skills in locating and identifying ancient tombs. One author (MS Arabe 2765 Bibliothèque Nationale, Paris: fol. 143b) advised his readers to look out for areas where the surface is covered by broken pottery as an indication of ancient tombs. In another manual titled "Ghayat Al-Ma'rib" (MS Arabe 2764 Bibliothèque Nationale, Paris: fols. 54b), the author indicated that the presence of bones of saluki dogs was a certain sign of royal tombs. This is attested in Egyptian royal burials (e.g. Emery 1961: pl. 26).

An important aspect of establishing a methodology was to search unopened tombs to answer specific questions as is seen in Al-Baghdadi (Al-Ifadah: 115) in his quest for an answer to the problem of the absence of camel, horse and donkey burials, having first questioned the local people who could not provide him with a convincing answer. He also examined hundreds of ancient Egyptian mummies to settle medical and anatomical questions (Al-Ifadah: 150).

Al-Baghdadi (<u>Al-Ifadah</u>: 110f) also demonstrates another important method, that is his ethno-historical approach based on observing contemporary practices and tracing them back to the past. Of equal importance to him was the obtaining of information from the local peasants in the countryside and not only from the educated city dwellers (e.g. Al-Qazwini <u>Athar</u>: 138).

In medieval Moslem/Arab descriptions of countries maps came to play an important role in illustrating the country under study. Examples are to be found in the books of Al-Iṣtakhari, Ibn Ḥawqal and Al-Muqadasi (Aḥsan) where their accounts of Egypt are accompanied by national maps with varied details of its landscape as mentioned above. In the case of Al-Iṣtakhari the map of the country (Plate 4) actually forms the basis of his study. These maps are often in different colours that distinguish different features of the landscape. Al-Muqadasi coloured his maps according to a standard colour code schemes in of countries in which he used red for the main roads, yellow for sand, green for seas, blue for rivers, dust-colour for famous mountains "to enable the specialist as well as lay people to understand them" (Al-Muqadasi (Aḥsan: 9). This high regard for the value of regional maps was not known in medieval Europe before much later (Harvey 1987: 464).

3.3 Descriptions of sites

The works of some of the early Arab writers and travellers contain detailed descriptions of actual monuments which they visited but which have long since disappeared. Such descriptions were sometimes accompanied by a drawing of the

monument. Descriptions of still-standing monuments are certainly accurate and this would suggest that we can reasonably rely on descriptions of monuments no longer visible today.

3.3.1 The Pyramids

Probably the most visited monuments in Egypt have always been the pyramids of Giza and much poetry has been composed in their shadow. Al-Suyuṭi (d. 1505) wrote a treatise on the pyramids in his book <u>Husn</u>, translated by Nemoy (1939), in which he copies an older poem.

One of the fullest descriptions is found in Al-Baghdadi who was greatly impressed with the pyramids of Giza, viewing them as evidence for the great and brilliant past of the Egyptians saying:

If you reflected upon them you find that the most noble intellects were put into them and the highest minds were behind them.

The most enlightened souls had given them their utmost efforts.

The engineering skills brought them to realisation as an example of their best endeavour.

They [the pyramids] are almost capable of talking of their people and telling of their status and speak of their sciences and intellects and expose their biographies and chronicles

(Al-Baghdadi Al-Ifadah: 96).

Al-Baghdadi explained their shape as the form:

which has its central weight point in its middle and thus its parts/stones support each other by leaning inward on each other. Also the choice of design of the four corners/angles to face the four winds diverts the winds away from the surfaces of the four facades (Al-Baghdadi Al-Ifadah: 96-97).

Al-Baghdadi (*Ibid* 96) noted that the three pyramids were in a straight alignment, and even produced speculative reasons for their protection and conservation, such as that two of the Companions of the Prophet who settled and died in Egypt had visited these pyramids and had written pious graffiti on them.

Al-Baghdadi tried to explain why the Pyramids are not mentioned in The Qur'an, and placed them in a historical and religious context, taking up an on-going debate as to whether they were built before or after the Flood, and even entertaining the idea that they could be pre-Adam, thus implying the presence of earlier forms of life and activity on earth.

Wishing to check on measurements that he had previously taken, he asked a local person to climb up the pyramid to carry out a fresh measurement on his behalf, hoping to be able to do this again himself in the future. He then entered the pyramid noting that this was not the original entrance, and admired the size and quality of the stones, noting how tightly cut and built they were and that it was impossible to pass a needle or a hair between them. He also noted that there was some kind of clay mortar as thin as paper between the stones. He described the extensive writings on the pyramid that "could fill ten thousand pages". He speculated that the pyramids were the burial place of two great prophets, Hermes and Agathodaimon, and said that the site was a pilgrimage centre. He recorded that to the east of the pyramids were countless numbers of deep interconnected caves, some with three storeys (*Ibid* 99) and that this place was known as The Town- Al-Madinah. Al-Baghdadi assumed this to be the quarry for the pyramid stones, saying the quarry for the granite was either at Al-Qulzum area (Suez) or at Aswan. Around and between the pyramids, he noted many tombs and the writings on their walls.

Al-Suyuți (<u>Husn</u> 1: 70) referred to the pyramidions that once adorned the top of the pyramids noting that winds had blown them down, an observation made about the Giza pyramids. At that time the pyramidions must still have been visible lying on the ground next to the pyramids as recent archaeological work in the area found one such pyramidion to the east of the pyramid of Khufu/Cheops. Today visitors to the Red/North pyramid of Dahshour can still see its pyramidion on the ground to the east of the pyramid.

Describing the Great Pyramid of Giza, Al-Suyuţi used the phrase (wa yuqal: inahu kan calyih ḥajar shibih al-mikabah) which means: "It is said: it was topped by a stone similar to al-mikabah". Nemoy, who edited and translated the text of Al-Suyuţi on the pyramid, translated this as "a ball of thread" (Nemoy 1939: 28). But the word mikabah has the meaning "inverted bowl" which is how the pyramidions appeared to Al-Suyuţi.

3.3.2 Sphinxes

Al-Maqrizi (Khitat 1: 323) reported that the Sphinx had, standing in front of it, a small human figure (wa fi hijrih mawlud) claimed by people to be a concubine of the Sphinx. It is not clear from Al-Maqrizi's text whether this is a description of the Sphinx of Giza or of a similar one reported on the East Bank of the Nile, on a direct alignment with the one at Giza, also facing East with his back to the Nile. But if true it will be the only Arabic description we have of the royal figure that once stood below the head of the Giza Sphinx. This account from Al-Maqrizi may also have been as a result of seeing any of the stelae set up in the area by Prince Amenhotep (later King Amenhotep II) which show a small standing figure below the head of the Sphinx (Plate 8). This has been supported by recent archaeological research on the Sphinx (Lehner 1997: 130-2) (Plate 9).

A long paragraph in Al-Baghdadi's account of the pyramid area is devoted to describing the Sphinx (Al-Ifadah: 100). He noted its size and its handsome, almost smiling, face which had on it red paint still shining as if fresh. He admired in particular the perfect and harmonious proportions of the different elements of the face, nose, eyes and ears. He marvelled at the skill of the ancient Egyptian sculptors who produced such a perfect statue without a natural model to copy.

At the end of this section he noted the presence of two sphinxes in Memphis facing each other, and which were broken and buried in soil. This is of particular note as we now of course have only one left while the other sphinx, of granite, found by Petrie (Engelbach et al. 1915: 33 and figs. 19,20) is now in Philadelphia. He also noted that a section of the ancient wall that surrounded Memphis was still standing, that its mud-bricks were dry and elongated, and that their size was half that of those in ancient Iraq where bricks had continued to be unchanged in size until his own day (Al-Ifadah: 107).

Moslem/Arab sources widely reported a connection between ancient monuments such as the pyramids and the Sphinx, and the stars. Al-Idrisi (Anwar: 151) reported alignments between the sun as it rises and a special spot between the eyes of the Sphinx because the statue was considered to be a major manifestation/idol of the sun.

3.3.3 Temples

Temples were the most visible monuments in Egypt after the pyramids. Many were still intact and regularly visited by medieval travellers and some temples continued to be used either as religious sanctuaries or for habitation. Medieval Moslems/Arabs use the word <u>birba</u> or <u>barba</u>, (pl. <u>barabi</u>) for an Egyptian temple. It is an ancient Egyptian word <u>p3-r3-pr</u> meaning "the temple", used also in Coptic (Spencer 1984: 37ff; Vergote 1964). Occasionally in the medieval sources <u>birba</u> was also used to denote pyramids, as can be seen in the twelfth century book <u>Al-Istibsar</u> (53); in which case the sources may have associated the pyramids with royal cult functions and thus viewed them as temples. The medieval perception that the <u>birba</u> is also a pyramid would accord with the Coptic word <u>brbr</u>, which means "pointed top of a pyramid or obelisk" derived from the ancient Egyptian <u>bnbn</u> (Černy 1976: 26).

In Ancient Egypt, there is a connection between the pyramid, the obelisk and magical power (Garven 1993: 14). A typical description of the <u>birba</u> is that of the 10th century writer Al-Nadim:

In Egypt there are buildings called barabi made of immensely large great stones. The <u>birba</u> are [sic] temples of different designs, and have places for grinding, pounding, dissolving, assembling and distilling, showing that they are built for the craft of alchemy. In these buildings are reliefs and inscriptions in Chaldean and Coptic; their meanings are not knownthe known <u>barabi</u> are the temples of Wisdom (Al-Fihrist: 418, 425).

According to Al-Qazwini (d.1283), a birba is:

a temple in which a tree or talisman was established. The <u>birba</u> of Akhmim is a temple which has images depicted in the stones sticking out [reliefs] still visible until now (<u>Athar</u>: 139).

Yaqut (d. 1228) (Mu^cjam 1: 362) gives a somewhat different account, namely that birba or barba, pl. barabi is:

a Coptic word, I think it to be the name of the place of worship or the well-ordered closed building, or the place of magic There is another word which seems to denote the concept of a temple where idols were worshipped, <u>al-azon</u>, (Yaqut, <u>Mu^cjam</u> 3:159; Al-Kalbi, <u>Al-Aṣnam</u>: 109). The shrines of Isis were known as Iseion (Plutarch, Moralia, tr. Babbit, V, pp10-11). Shrines for Isis were erected in Arabia under the Arabic name <u>Al-cuza</u>. This word can also mean idol and survived in the old Arabic proverb "<u>aḥsan mn al-zon</u>" which means "Better than the Idol" (Abdul-Rahman 1986: 72).

As we know, Egyptian temples did indeed contain numerous workshops and were hives of commercial activity (Drenkhahn 1976: 154-5; Derchain 1990; DuQuesne 1999: 33; cf. Nock 1944: 24). Many medieval Moslem/Arabs were familiar with Egyptian temples, which dotted the landscape around them; some were regular visitors and one at least even took up residence in them.

Ibn Umail (10th Cent. CE), an Egyptian alchemist, was a regular visitor to ancient Egyptian sites as is seen in his account of his visits with friends to a chapel at Abu Sir (Stricker 1942). In his book Al-Ma' Al-Waraqi: 1, Ibn Umail said:

I and Abu Al-Qasim 'Abd Al-Rahman, brother of Abu Al-Faḍl Ja'far Al- Naḥawi went once before into [a chapel], and later on I went [into it] once more together with Abu Al-Ḥassan 'Ali Ibn Ahmad Ibn 'Umar known as Al- 'Adawi

(For a full translation of the text see Stapleton et al 1933:119 ff; and for a recent study Ronca 1995).

It is clear from this introductory note that he had been at least twice, in different company, to visit this monument in Abu Sir. Following this introduction he gives a detailed description of the chapel, and from this Stricker (1942) was able to study, identify and reconstruct it, assigning it to the cult of Imhotep whose cult was very popular in the area (Wildung 1977a: 31ff).

Some ancient Egyptian temples were used for residency by Moslems, as indeed was the case before the advent of Islam. It was widely reported that Dhu Al-Nun Al-Miṣri of Akhmim in Upper Egypt (d. 861) actually lived most of his life inside the birba of Akhmim where he studied its ancient script. It was he who established the links between ancient Egyptian religious ideas and Moslem Sufism. The temple of

Akhmim was a popular destination for travellers in Upper Egypt as well as being popular with local people because of a famous statue of its god Min. The temple was still there and almost intact when visited and described by the Andalusian traveller Ibn Jubayr in May 1183. His detailed description enabled Sauneron (1952) to study it and calculate its dimensions to be 115 by 85 metres based on a cubit that is 52 cm. The account of Ibn Jubayr, of this temple, serves as a good example of the reliability of some medieval Moslem/Arab accounts and is worthy of full quotation here:

The most remarkable of the temples of the world talked of for their wonder is the great temple east of the city and below its walls. Its length is two hundred and twenty cubits, and its breadth one hundred and sixty. The people of these parts know it as birba, and thus too are known all their temples and ancient constructions. This great temple is supported by forty columns, beside its walls, the circumference of each column being fifty spans and the distance between them thirty spans. Their capitals are of great size and perfection, cut in an unwonted fashion and angulated in ornate style as if done by turners. The whole is embellished with many colours, lapis lazuli and others. The columns are carved in low relief from top to bottom. Over the capital of each column and stretching to its neighbour is a great slab of carved stone, the biggest of which we measured and found to be fifty six spans in length, ten in width, and eight in depth. The ceiling of this temple is wholly formed of slabs of stone so wonderfully joined as to seem to be one single piece; and over it all are disposed rare paintings and uncommon colours, so that the beholder conceives the roof to be of carved wood. Each slab has a different painting. Some are adorned with comely pictures of birds with outstretched wings making the beholder believe they are about to fly away; others are embellished with human images, very beautiful to look upon and of elegant form, each image having a distinctive shape, for example holding a statue or a weapon, or a bird, or a chalice, or making a hand sign to someone, together with other forms it would take too long to describe and which words are

not adequate to express.

Within and without this great temple, both in its upper and its lower parts, are pictures, all of varied form and description. Some are of dreadful, inhuman forms that terrify the beholder and fill him with wonder and amazement. There was hardly the space of an awl or needle-hole which did not have an image or engraving or some script which is not understood. This remarkable decoration which can be wrought from hard stone where it cannot be worked in soft wood, covers the whole of this vast and splendid temple, in wonder at which the beholder might conceive that all of time spent in its adornment, embellishment, and beautifying would be too short.

(Broadhurst 1952: 53-55. The underlined words are my translation of the original Arabic which is 'taṣawir adamiyah' translated by Broadhurst as 'images of men')

A century and a half or so later Akhmim temple was again described in detail by Al-Tujibi (d.1329) (Mustafad: 169-171). His description reinforces that of Ibn Jubayr. He described it as having seven halls, showing that the main part was still complete. He was particularly amazed at the size of the blocks of stone of the ceiling which he measured as 47 hand-spans in length, 10 in width and 7 in height. He counted 38 columns in the first hall, whereas Ibn Jubayr had found forty. He was particularly impressed by the painted reliefs on the walls, noting their human and animal forms. He said it was claimed by "ignorant people" locally that these figures could perform magical acts if one made offerings to them and was patient enough, as it took a long time for magic to be effected, but Al-Tujibi was scornful of this story. This may explain the popularity of the temple of Akhmim as can be seen from a medieval Arabic manuscript where an offering of incense is shown in a book on astronomy/astrology under the heading "On the Description of the Temple of Akhmim" (Plate 10), perhaps to gain Hermetic knowledge (Cf. Carboni 1988: 70f).

Al-Tujibi then tells us that he read in the works of the masters of his teachers (i.e. an early book) that the temples of Egypt were built by a King called Aq who lived in an Upper Egyptian city known as Aqsur, named after him. There was indeed an Upper Egyptian king of similar name about whom little is known (Dodson 1981) but

we cannot as yet find in Egyptological records a linkage between him and any known temples.

3.3.4 The Lighthouse of Alexandria.

A good example of an apparently accurate drawing based on personal observation is the sketch of the famous Lighthouse of Alexandria by the Andalusian traveller, Abu Hamid Al-Gharnați. He first visited Alexandria in 1110 and again in 1117. He described the lighthouse as having three tiers:

The first tier is a square built on a platform. The second is octagonal and the third is round. All are built of hewn stone.

On the top was a mirror of Chinese iron of seven cubits wide (364 cm.) used to watch the movement of ships on the other side of the Mediterranean. If the ships were those of enemies, then watchmen in the Lighthouse waited until they came close to Alexandria, and when the sun started to set, they moved the mirror to face the sun and directed it onto the enemy ships to burn them in the sea. In the lower part of the Lighthouse, a gate about 20 cubits above the ground level; one climbs to it through an archway ramp of hewn stone.

Here Al-Gharnați refers the reader to a sketch he made (Plate 11) (Al-Gharnați Tuhfat: 99-100. cf. Hamarneh 1971: 86 and 87. For other detailed medieval Arabic accounts of the Lighthouse with various measurements and other monuments of Alexandria see Toussoun 1936; Hamarneh 1971). This drawing of Al-Gharnați can be shown to be reliable in the light of recent research (compare this with a modern reconstruction: Plate 12).

The lighthouse was particularly admired and was often visited and described by Arab writers, much more so than by their Greek/Roman predecessors, mainly because of its mighty size but perhaps also because of the interest in its technology as seen in the function of its mirrors (see Chapter 7 on Science). The reference to a mirror of Chinese iron is not a fantasy but reflects the fact that medieval Arab authors were familiar with Chinese sciences and the popularity of Chinese products, in particular the so called "kharsini" in Arabic which means "Chinese iron", or perhaps "steel"

from which mirrors were made (Needham 1980: 429-30). As for the military use of these mirrors to burn attacking enemies, stories about this are also known from pre-Islamic literature (Temple 2000: 218ff) and may have played a part in the Arab perceptions of the function of the lighthouse mirror.

3.4 Descriptions of Artefacts

With all these Egyptian antiquities scattered around them, many Moslem/Arabs, whether native Egyptians or not, were curious about their functions and possible hidden meanings. In spite of the limited available information on the objects, many tried to see in them secrets of ancient Egyptian sciences and magic. In particular, alchemists speculated that Egyptian objects represented lost alchemical knowledge and a process to recover such valuable lost knowledge was established among Moslem/Arab alchemists following in the footsteps of their fellow alchemists in the Greco-Roman/ Coptic tradition.

One such alchemist was Ibn Umail who presented in one of his works (<u>Kitab Al-Ashkal wa Al-Taṣawir</u>, MS Arabe 2609, Bibliothèque Nationale, Paris: fol. 32b ff.), an account of meetings held with colleagues to discuss ancient Egyptian objects obtained from a temple and presumed to hold the secrets of alchemy. In this work, he included a poem inspired by these ancient objects, and his poem reveals his intellectual curiosity about the statues of the temples and of pursuing scientific knowledge about them. In the poem, he also described reliefs and paintings from the temples, which he associated with alchemical symbols.

Ibn Umail explained that he was moved to write this poem because he once attended a meeting at the house of Abu Al-Ḥassan 'Ali Ibn Ahmad where he found two colleagues, Sa'adah Ibn Rakan Al-Shu'abi and Abu Al-Qasim Al-Nahawandi, discussing an ancient Egyptian temple stela (surah barbawiyah). These colleagues had asked for his opinion of the stela, informing him that a group of astronomers, with knowledge of the functions of the stars, had previously suggested that the stela depicted images of planets. The colleagues of Ibn Umail complained that they could not comprehend the mysterious language used by those astronomers. Ibn Umail suggested the reason for interpreting the images as planets was a picture on the stela of a person holding a sword and about to strike the neck of another person whose head he is holding (presumably a tied prisoner). These are images traditionally associated with astrological symbols. When Ibn Umail gave an alchemical explanation they

asked for evidence to support his claim, which they doubted. Ibn Umail then said:

Our friend Abu Al-Ḥassan Al-Ṣiqili (of Sicily) brought that book which has the paintings and statues from Upper Egypt, where he found it in the possession of a Byzantine monk – (rahib min al-rom) – and he took it from him.

Ibn Umail departed and returned the following day with his poem.

His account demonstrates that:

- a group of like-minded scholars were interested in ancient Egyptian temples and objects.
- some of these scholars were hoping to further their knowledge of alchemy by studying Egyptian materials.

Indeed Arabic alchemists generally, but particularly those who lived in Egypt, found in ancient Egyptian monuments a limitless source of illustrations for their works as can be seen in the many manuscripts of the alchemist Abu Al-Qasim Al^cIraqi.

Al-Baghdadi described the perfection of some of the artefacts he saw. He expressed wonder at the "colossal statues" of Memphis where he also noted that the ancient gate of the city was still standing. He wrote in detail about the perfection of the statues from the stance of an expert on anatomy, explaining how meticulous were the ancient artists in the details, even down to wrinkles and skin appearance in particular poses (Al-Ifadah: 106-7). He may be the first Arab art historian to have noted that Egyptian artists had been following a particular canon of measurement to maintain a perfect harmony of proportion in the parts of the statue. He has given us a detailed account of the size and measurement of each part of the body according to the Egyptian artists. He referred to Aristotle's study of human anatomy, comparing it to the work he was observing of the Egyptian sculptors, but he makes no mention of other Greek writers such as Pythagoras and Plato on the subject of an Egyptian 'golden mean' (Cf. Davis 1989: 48f.; Robins 1994). But Al-Baghdadi did say that he wanted this book to be limited to what he personally had observed.

There is no evidence that museums were built to house pharaonic artefacts, but there is evidence that the idea a museum housing belongings of dead rulers was known in medieval Egypt. The Mamluk Queen Shajarat Al-Durr built one to house the personal belongings of her late husband Sultan Al-Salih Najm Al-Din Ayyub (d. 1250). Sultan Qalawun (d. 1290) built one in his own complex in Cairo which included in addition to his tomb, a school, a library and the museum (°Abd Al-Wahab 1994: 119, 316).

3.5 Summary

Moslem/Arab writings show a breadth of interest in all the buildings and artefacts that they saw around them dating from ancient Egypt. Their descriptions of the Lighthouse of Alexandria, few of them known to current archaeologists, are in fact closely matched by recent reconstructions.

Of great importance too are the pictures given of Egyptian temples which can be summed up as:

- 1-They are large buildings of different designs.
- 2-They are well-built and enclosed.
- 3-They had workshops for various crafts.
- 4-They had inscriptions in what was believed to be Chaldean (the writing of Mesopotamia) and Coptic (Egyptian).
- 5-They are Houses of Wisdom.
- 6-The pyramids are regarded as temples.
- 7-They had sacred trees.
- 8-They had talismans.
- 9-They had bas-reliefs.
- 10- They were places of worship.
- 11- They were places of magic.
- 12- They were pure and clean places only to be entered in a state of purity.

Chapter 4. Medieval Arab Attempts to Decipher Ancient Egyptian Scripts

4.1 Introduction

This chapter demonstrates medieval Moslem/Arab interest in ancient Egyptian scripts and investigates their attempts to decipher the scripts. To this end I survey the Arabic sources, the probable motivations behind their interest and the degrees of their success.

Nowhere in recently published Egyptological literature do we see any recognition or investigation of the contributions made by medieval Arabic scholars to the history of decipherment of Egyptian scripts. Yet these contributions were recognised long ago by European scholars in the field of Arabic studies. In 1806 the orientalist Joseph von Hammer published in London the full Arabic text and English translation of Ibn Waḥshiyah's book on deciphering ancient scripts (ca 900 CE). From 1909 Blochet published a series of studies on Moslem Gnosticism in which he too maintained that some medieval Arabic writers had succeeded in identifying some hieroglyphic letters.

4.2 Continuity of interest in Egyptian scripts

Greco-Roman writers' interest in the scripts of ancient Egypt is well documented (e.g. Budge 1929; Iversen 1993; Parkinson 1999; Pope 1999; Solé & Valbelle 1999). In general it seems that the classical commentators believed that hieroglyphic signs were symbols, each representing a single concept. The same could be said of the history of early European attempts to decipher Egyptian scripts (For the most recent surveys of this history Parkinson 1999. Cf. Gauthier 1906; Dawson 1932; Vercoutter 1992; Aufrère & Bosson 1998).

Arabic manuscripts from the twelfth century, and perhaps earlier, containing Coptic grammars and vocabularies, (e.g. "Scala Magna" by Abu Al-Barakat, also known as Ibn Kepir (Ibn Kabr): MS Orient 1350 British Library; cf. Budge 1928 79-81; MS Add. 24, 050, British Library), were brought to the West by Della Valle, and first studied by Thomas Obicini (Thomaso di Nova) in the early seventeenth century (Shore 1971: 418 ff: Pope 1999: 37).

The view that each hieroglyph represented a single concept prevailed in Europe until the work of Athanasius Kircher in the mid-seventeenth century, when he started to question the belief of the classical commentators that hieroglyphic signs were merely symbols. He suggested that hieroglyphs might represent sounds as well as

ideas, and his work began to influence other European scholars culminating in the work of Young and Champollion. The debt owed to Kircher in this process has been acknowledged by Allen:

Only with the work of Athanasius Kircher, in the mid-seventeenth century, did scholars begin to think that hieroglyphs could represent sounds as well as ideas. It was not until the discovery of the Rosetta Stone, in 1799, that scholars were able to make practical use of Kircher's ideas.

(Allen 2000: 8).

We should not underestimate the importance of Kircher's Arabic sources nor the importance of a good knowledge of Coptic which enabled him to produce the first Coptic Grammar in a European language. This led in turn to the later success of Champollion (Pope 1999: 39) whose excellent knowledge of Coptic enabled him to beat Thomas Young to the trophy of deciphering the Egyptian script (Shore 1971: 419). Kircher's study, in Latin, "Lingua Aegyptiaca restituta" (Rome 1643), was an enlargement on his first essay on Coptic, "Prodromus coptus sive aegyptiacus" (Rome 1636) (Iversen 1993: 92-3).

In his vast work of some 2000 large pages, "Oedipus Aegyptiacus", (1652-1654) Kircher quotes over 40 different Arabic sources, on subjects as varied as religion, monuments including obelisks, and mummia, in addition to Egyptian scripts. I have not been able to identify all of the Arabic writers he quotes. It may be that he had a problem with the transliteration of some of the oriental names. Some manuscripts may have perished, and it is also possible that there are some scripts still to be identified in Europe, for example in the Vatican. It is however quite clear that the medieval writings of, among many others, Gelaledden, Aben Regal and Aben Vahschia (Ibn Waḥshiyah), formed the basis for his studies on Hieroglyphs.

Iversen (1993, 161 n.32) ignores these Arabic sources of Kircher, and refers in this note to only one Arabic writer, named Barachias Albebenephi who is quoted extensively by Kircher but who has not yet been certainly identified. I believe he may be the well-known Egyptian/Coptic scholar Abu Al-Barakat Ibn Kepir (Ibn Kabr) referred to above, who wrote several treatises on the Coptic language including the Coptic/Arabic Scalae - 'dictionary/name-lists' (Plate 13).

4.3 Artistic and Religious Reasons for Moslem/Arab interest in Ancient Scripts

Jakeman (1993 1: 123 ff) has discussed a number of reasons for the interest on the part of Moslem/Arabs in the ancient scripts. She suggests two main reasons: the esoteric quality of the Egyptian script, and the alchemical meanings attached to the characters. This view of the esoteric association of Egyptian letters was not limited to Arabic writers as it became popular later in Europe (Dornseiff 1925: 52ff). Alchemists closely associated with Sufism took a great interest in Egyptian scripts. Also of account is the Ṣufi interest in beautiful lettering, for which Egyptian Hieroglyphs met all the criteria laid out in Sufi circles (Abi Khuzam 1995: 65-80):

- Proportion in lettering, which should have balance, symmetry and similarity.
- Parallelism, where the forms of letters face in the same direction, and are the same distance apart, like Arabic *Kufic*.
- Straightness of Arrangement, which in Arabic calligraphy means the harmony between the diversity of letter forms and the unity of the overall work, and the creation of lines of texts facing each other, also a common feature of Egyptian Hieroglyphs.
- Graceful Regularity, by keeping the order and form of the letter throughout the text.
- Aesthetics of "Enigma", which is the challenge posed by the unknown script. It also invites the viewer to think and inspires his sense of curiosity.
- Surpassing the "Horror of the Void", where every available space is filled.

To these criteria I would add the vividness of the colours that distinguishes Islamic calligraphy and which is also seen in Egyptian hieroglyphs.

There is a widely held misconception that Islamic rules of art disapprove of the representation of the human form and because of this, many hieroglyphs would be unacceptable to Moslem artists/calligraphists. This is untrue, as a visit to any Islamic art collection shows, and it is clear that the ancient Egyptian arts were major sources of inspiration for Moslem artists (Grube 1962). I have not been able to trace any Islamic injunction against appreciation of the aesthetics of hieroglyphs. Moreover, in textiles from the Fatimid period (909-1171), there are many examples of Arabic script clearly emulating hieroglyphs (plate 14). The copyists of many of the Arabic

manuscripts on deciphering hieroglyphs were themselves most pious Moslems, to judge from their own statements. The copyist of the unique manuscript of Dhu Al-Nun Al-Miṣri signed the cover of his copy as Sheikh ^cAli Al-Hamawi Al-Khalwati and dated it 1130 H = 1718 CE (plate 15).

From an Islamic viewpoint it is easy to see why Egyptian Hieroglyphs would be attractive to Moslem Şufis. Moreover, the passion of Şufis for metaphor (Abou-Bakr 1992) would encourage them to feast on hieroglyphic, known for its rich metaphor (Goldwasser 1995), and Şufi alchemists such as Jabir Ibn Ḥayan wrote treatises on the subject of the forms of letters (see below) as did the prominent Ṣufi Ibn Al-cArabi (Fouad 1992).

But perhaps a more important reason for the study of Egyptian language and scripts is the curiosity of intellectuals that manifested itself in study seminars held by medieval Moslem/Arab scholars to discuss ancient Egyptian materials and inscriptions (Ibn Umail, MS Arabe 2609 Bibliothèque Nationale, Paris: fol. 32b and 33a). Also, in the introduction to various ancient scripts, the writer of the Arabic manuscript attributed to Ayub Ibn Masalama (see below), echoed this idea of learning the ancient scripts to acquire knowledge and wisdom:

And keep what had reached you of the science of these scripts. For even if the virtues of this science was limited to its carrier, the one who deals in it is able to reach the secrets of the Sages and Philosophers and what they wrote to the Kings and Caliphs, which they kept from the ordinary and ignorant, and he does not miss out on any of their affairs, for this is the science that must be passed on and only kept from those who are not worthy of it.

(Ayub Ibn Masalama Aglam fol. 3).

4.4 Sources available to Moslem/Arab scholars

Moslem/Arab studies of ancient scripts started as early as the first century of Islam, (seventh century CE) (Sezgin 1967 1: 934). In some cases, the medieval Arab writers studying such scripts succeeded in achieving the correct identification of a number of the Egyptian signs.

Some Arab scholars recognized that the ancient Egyptian language was written in three different scripts. One of the earliest to do so was Ibn Fatik (10/11th century),

who wrote of Pythagoras' quest for knowledge during his stay in Egypt:

He attached himself to the priests in Egypt and learned wisdom from them. He excelled in the language of the Egyptians with the three types of scripts: the script of the commoners, the script of the elite which is the cursive one of the priests, and the script of the kings

(Ibn Fatik Mukhtar: 54).

This was copied by later scholars such as Ibn Abi Uşaybi^cah, (d. 1270) (<u>Tabaqat</u>: 53).

It is therefore clear that some Moslem/Arab scholars were able to describe correctly the scripts of Demotic, Hieratic and Hieroglyphic. One important source for this, besides personal observation, may have been Clement of Alexandria (d. 220 CE) who stated that the Egyptians used three kinds of writing, Demotic, Hieratic which he calls the writing of the priests, and Hieroglyphic (Cory 1840: 169). Ibn Fatik follows the same order and uses the same terminology.

The Coptic language played an important part in this process. Coptic is the Egyptian language written in a script of twenty-four Greek and seven Egyptian demotic letters. Some of the language and script is still in use today in some of the services of the Coptic Church though perhaps not understood by most worshipers. The adoption of new alphabets (Greek and Latin) to replace Egyptian was initially resisted by the Copts, but gradually Coptic established itself in its many dialects as the vehicle of liturgy, literature, and sciences such as alchemy and mathematics (Roccati 1992: 292). Much Demotic material was preserved in Coptic since the relationship between these two scripts/languages is so close that, as Roccati (*Ibid*) put it: "late Demotic and early Coptic are so similar that they should not be treated as two distinct languages". This Egyptian resistance to Greek may lie behind attempts to reconcile the two languages by producing Egyptian hieroglyphic texts, phonetically transcribed into Greek characters (e.g. Crum 1942).

When Arabic eventually started to replace Coptic, concerned Coptic scholars maintained the survival of their script/language by producing Coptic grammars in Arabic together with Coptic/Arabic dictionaries often with Greek as well (Sidarus 2000) thus transmitting much Demotic/Coptic material into Arabic thereby making them available to a wider readership.

Fascination with ancient Egyptian scripts even among the Copts, can be seen in

the Coptic Gnostic materials of Nag^c Hammadi, where Hermes advised his disciple to write his teachings on "a stela of turquoise, in hieroglyphic characters". (Discourse on the eighth and ninth VI, 6. in Robinson 1996: 326). This idea that connects Hermes and hieroglyphs was popular in medieval Arabic sources especially in the works of alchemy so Abu Al-Qasim Al-cIraqi (Al-Aqalim: fol. 11b) used a hieroglyphic text "copied from writings found in the hall of Hermes who is thrice endowed with wisdom [Trismegistus] and crowned with blessing" (Plate 16).

It has been suggested that knowledge of hieroglyphic writing survived among the Copts till at least the seventh century (Amélineau 1888: xxxix, 1887: 140). This interest must have continued, and perhaps even expanded, so much so that it was at times a cause of concern for some in the church hierarchy. In a work ascribed to the Coptic monk Shenoute (d. mid fifth century CE), there is a monastic invective against hieroglyphs:

And if previously it is a prescription for murdering man's soul that are therein, written with blood and not with ink alone- there is nothing else portrayed for them except the likeness of the snakes and scorpions, the dogs and cats, the crocodiles and frogs, the foxes, the other reptiles, the beasts and birds, the cattle etc; furthermore, the likeness of the sun and the moon and all the rest, all their things being nonsense and humbug.....and where these are it is the soulsaving scriptures of life that will henceforth come to be therein, fulfilling the word of God, with His name inscribed for them and His son Jesus Christ (Young 1981; Thissen 1994: 256).

This continuing Coptic interest in ancient Egyptian, may explain why in medieval Arabic writings, Coptic monks were perceived as the keepers of the wisdom and knowledge of the ancient priests. Al-Jobry, a Syrian who wrote a number of books on astrology, visited Egypt several times in the first half of the 13th century, and was a regular visitor to Coptic monasteries. On one visit to a monastery in Al-Bahnasa in middle Egypt, he encountered a monk named Ashmonit, and wrote of him:

This Elder (monk) is a brilliant philosopher who knows the secrets of the ancient priests, and uncovered their symbols and understood their sciences

(Al-Jobry Al-Mukhtar: 144).

The role of the Coptic monk/priest as a keeper of knowledge, of libraries and even of Nilometers is similar to that of the Egyptian priest in pre-Christian Egypt, as evidenced by the content of the vast hoards of papyri found in temples and the associated priests' houses in various parts of the country, e.g. the Fayum (Tait 1996: 179). Temple libraries contained books covering the various branches of religious and secular knowledge (Redford 1986: 215ff; Haiying 1998: 517).

There is no doubt that much Pharaonic/Coptic magic passed into Arabic with the result that many of the ancient Egyptian symbols used were known to a wide Arab audience (Bilabel et al. 1934; Haarmann 1980: 65; Fodor 1992).

Coptic magic spells invoked ancient Egyptian deities (DuQuesne 1991; Meyer & Smith 1994: 22-5), and Coptic scribes can also be seen to reflect some continuity with ancient Egyptian temple culture (Meyer & Smith 1994: 260). It is probable that many of the Coptic magic texts were translations of more ancient Egyptian ones and indeed, in some cases, Demotic parallels to these Coptic texts have been established (DuQuesne 1991: 11). There are numerous claims for pre-Christian survivals of some of the ritual and magic practices of ancient Egypt into Coptic Egypt as can be seen in the works of a selection of scholars which is by no means exhaustive (e. g. Zimmermann 1915; Lexa 1925, I: 139-153; Viaud 1978: 13; Vycichl 1991: 1503; Scholz: 1993; Behlmer 1996; Kákosy 1989b, 1990, 1999: 33 ff). Even outside Egypt, in Iraq for example, there is evidence for magical use of Egyptian symbols as displayed in some of the Ṣabaean magic talismans which seem to show Egyptian hieroglyphic signs (McCullough 1967: 43).

Another source of knowledge of ancient Egyptian came from the Arabic translations of many of the classical writers whose works included references to ancient Egyptian language and scripts. These included Homer, Herodotus, Plutarch, Chaeremon, Plotinus, Porphyry and Iamblichus (Budge 1929: 179 ff; Iversen 1993: 38 ff;). These classical writers were widely quoted by Al-Nadim (Al-Fihrist: 315), Ibn Fatik (Mukhtar: 54), and Ibn Abi Uṣaybicah (Tabaqat: 50).

Among the early important contributions on Egyptian Language is the now lost work on hieroglyphs of the Egyptian priest, Chaeremon (first century CE) (Budge 1893: 113 ff; Van der Horst 1984). He was widely quoted by later Classical writers such as Clement of Alexandria (flourished 191-220 CE), and Porphyry (d.ca 305 CE), both of whom were well known to medieval scholars.

Many documents from pre-Islamic Egypt were written in more than one language,

often a text with its translation into another language or its transcription into another script, the best known example being the Rosetta Stone. The obelisks of Philae are inscribed in Hieroglyphic and Greek (Briere 1935-8: 451). There are also mummy labels and various other documents in Demotic and Greek or in Hieroglyphic, Demotic and Greek (Clarysse 1978; Pezin 1978; Depauw 1997: 42). There are many such combinations of scripts, making it possible for an Arab scholar versed in Greek or Coptic to be able, with some application, to read bilingual texts. A visiting Arab scholar could also draw on local knowledge, since among native Egyptians there were those who used Greek and Coptic and perhaps also Latin (Clarysse 1983: 56).

Dioskouros, a native Egyptian from the latter part of the six century CE, composed a Greek-Coptic glossary which undoubtedly served as a manual for bilingual work (Clarysse 1983: 57). Demotic texts from the library of Dioskuros suggest that he may have been able to use Demotic as well (Clarysse 1983: 59). The papyrus Casati for instance is in Demotic characters with a Greek translation. There are a few texts, which combine more than three languages, in which we have Demotic, Greek and Latin in addition to an as yet unidentified language (Coles 1981). Another good example of multi-language material including Egyptian hieroglyphs is a statue of the Persian King Darius I from Susa, Iran (Plates 17-20) which has a text in four languages; Akkadian, Elamite, Old Persian and Egyptian Hieroglyphs (Kervran 1972, Yoyotte 1972; Myśliwiec 2000: 146-155). We also find Latin, Greek and Coptic conversation manuals, as well as Greek-Coptic wordlists (Diethart & Satzinger 1983). Texts showing a mixture of two languages or scripts are also known, for example, Hebrew and Hieratic (Aharoni 1966; Kaufman 1967; Yeiven 1969); Old Coptic and Greek (Satzinger 1994); and Aramaic texts in Demotic script (Bowman 1944).

Many of the Copts who converted to Islam were likely to be able to converse in both Coptic and Arabic (Sobhy 1950: 3) and some Copts wrote Arabic texts in Coptic characters (Blau 1979: 216 and his bibliography for other works).

It is also possible that some of the Moslem/Arab scholars learned Coptic in their general quest for knowledge (°Abdeen 1964: 90). Ibn Al-Dawadari (14th century) (Kanz 3: 214, 215) referred to the "The Coptic Book" (Al-Kitab Al-Qibti), widely available for those interested in the history of Egypt, and said that Al-Mascudi had used it, as had he himself (*Ibid* 36; Haarmann 1982b: 207). There was indeed such a book in existence dealing with some of the biblical events, for example the creation

story (Schenke 1999) which was a major topic of interest for most medieval Moslem/Arab writers. It is also possible that some of the Coptic prophecies which referred to the Arabs and the Moslem prophet Muhammad (Martinez 1990: 248) were circulated by the native Copts to impress Moslem readers and interest them in Coptic literature.

Coptic was known not only in Egypt but also, for example in Syria, according to the medieval Coptic legend of Apa Jeremias who conversed with the Syrian king in Coptic (Esbroeck 1998: 3, 19). Even if allowance is made for the perhaps legendary nature of this story, the perception that Coptic was known outside Egypt is an indication that it was indeed not limited to Egypt. It was also the language of religious services and thus used wherever a Coptic mission was established or a Coptic service took place, one obvious example being Ethiopia.

During the first two centuries of the Roman Empire there was some occasional demand for translating Latin or Greek into hieroglyphs for obelisks and other monuments (Roccati 1992:292) thus maintaining some knowledge and use of hieroglyphs, albeit in a limited way.

Many of the Moslem/Arab scholars learned Coptic in their general quest for knowledge (cAbdeen 1964: 90). Some native Egyptian writers were conversant with Coptic, Greek and Arabic (Atiya 1986: 92). This process was undoubtedly helped by the fact that the ancient Egyptian and Arabic languages have so many roots and features in common that it has even been suggested that ancient Egyptian was the basis of Arabic (Kamal 1917: 331). That Ancient Egyptian and Arabic are related should not be more surprising than Egyptian and Hittite being related as Ray suggested: "it is becoming more and more likely that the Semitic, Hamitic, and Indo-European languages were originally one" (Ray 1992: 132) a view supported by an earlier extensive research on the relationship of Arabic to other language groups (Ismail 1989). The nature of the relationship between Egyptian and Semitic languages including Arabic is a complex one as can be see in the recent discussion by Takács (1999: 1ff, 333ff) but it is clear that roots of most Egyptian words can be traced in Arabic as is demonstrated in the dictionary of Egyptian by Kamal (2002).

4.5 Arabic names of Egyptian scripts

From the many Moslem/Arab sources I have studied I have identified a number of different names used to refer to Egyptian scripts.

1- Al-Qalam Al-Barbawi - The Pen of the Temples.

2- Qalam Al-Ṭayer - Pen of the Birds.

3- Al-Qalam Al-Kahini - The Priestly Pen (Hieratic?).

4- Al-Qalam Al-Musnad - The Pen of South Arabia/Yemen.

5- Al-Qalam Al-Himiyari - The Pen of South Arabia/Yemen.

6- Al-Qalam Al-Qibti - The Coptic Pen.

7- Qalam Hermes - Pen of Hermes.

8- Qalam Al-Simiya - Pen of Natural Magic.

9- Qalam Al-Nirinjat - Pen of the Magical Incantations.

10- Qalam Al-Talismat - Pen of the Talismans.

11- Qalam Al-Qalfaitriat - Pen of Magical Spells?

12- Al-Lisan Al-Mișri - The Egyptian Tongue.

13- Al-Qalam Al-Laqmi - (?).

4.6 Moslem/Arab works on decipherment

The interest of medieval Moslem/Arabs in ancient scripts was not limited to those of the lands of the Islamic Empire, as can be seen particularly in Al-Nadim (d. 920). A number of scholars refer to and attempt to decipher old scripts as far apart as Chinese, Old Persian and Anglo-Saxon.

The Moslem/Arab sources show that Egyptian hieroglyphs were thought to have two aspects: they were letters of a language with phonetic value and they were also used as symbols representing ideas. In this they were perhaps influenced by the Egyptian philosopher Plotinus (d. 270 CE) who suggested this in his Enneads (V 8.6). These different levels of understanding of hieroglyphic signs are common to the way ancient Egyptians themselves thought of them, according to Lacau (1913: 1) whose words deserve to be quoted in full:

Aux yeux d'un Égyptien, toute image est un être vivant, une réalité agissante qui jouit d'un pouvoir magique et d'une efficacité propre. Or tous les signes de l'écriture hiéroglyphique sont des images. Ils ont, en tant que lettres, une valeur de son, mais comme ils conservent avec netteté leur forme precise et définie, ils gardent également leur pouvoir d'image.

Al-Nadim (Al-Fihrst: 423) said he saw books by Ibn Waḥshiyah written in the latter's own hand, containing ancient scripts, and also saw them copied by Abu Al-Ḥassan Ibn Al-Kufi who collected them from the library of Ibn Al-Furat. Al-Nadim was impressed with that copy. He then referred to two different scripts which are called "Letters of the Copts?" or "Letters of the Alphabet?" (huruf alfaqitus/alphabetus) and "Letters of South Arabia/Hieroglyphs" (huruf al-musnad), plus a third one, huruf al canbath which he suggested were the letters that should be used as keys to decipher the [other two] ancient scripts (Al-Nadim Al-Fihrist: 423-4 and Dodge 1970 2: 864 with notes 185-6). Al-Nadim's idea that one language could be used as a key to decipher another is the same principle on which the later European decipherment of Egyptian scripts was based, using a known language, in this case Greek, to help decipher the unknown hieroglyphic and demotic signs.

Others such as Al-Idrisi (Anwar: 100f) and Al-Qalqashandi (Subh 3: 20) knew that the ancient Egyptians, whom they call al-qibt al-awal, had 32 to 36 letters in their alphabet. They both referred also to the fact that Coptic was linked to the ancient Egyptian language by calling the latter al-qibitiyah al-ula (The First Coptic [language]).

This link was made as a result of observing that some Coptic monks were able to read old texts, or were at least perceived to have such knowledge. Al-Minufi (d. 1524) (Al-Fayd: fol. 49b) quotes the 10th century account by Al-Mas^cudi (Muruj 1: 347 ff) of the story of the Old Copt hosted by Ibn Ţulun in the ninth century to help to quench his thirst for knowledge of the past of Egypt. The Old Copt told him that:

Coptic script is a mixture of the ancient native letters and those of Greek (Al-Mas^cudi Muruj 1: 350-1).

So at least some of the mediaeval Moslem/Arab scholars were aware of the connection between the Coptic language and its ancient Egyptian predecessor and were able to pass this knowledge on from one generation to another.

It became fashionable on the part of some Moslem/Arab writers to include in their descriptions of ancient Egyptian matters either a few lines of an Egyptian script, or what was perceived as an Egyptian alphabet, with its phonetic value in Arabic. This can be seen in the 13th century anonymous book <u>Al-Istibsar</u> (58-9). In this case many of the letters resemble Hieratic/Demotic (**Plate 21**).

The medieval Moslem/Arab use of hieroglyphic signs spread to other areas, as scientists found them inspirational as symbols in designing alchemical tools and equipment (Plate 22), or useful as signs for their drawings of mechanical devices (Blochet 1907: 210) such as the automated devices designed by Al-Jazari (12/13th century) (Plate 23). Hieroglyphic signs were also used in Islamic arts for their symbolism as well as for their asthetic value and, according to Blochet (1907: 222), with full understanding of their original meaning, a view also supported by later scholars (Mayer 1933: 13) (Plate 24). The ones shown in this plate resemble the ancient Egyptian symbols of Nb M3^ct R^c and perhaps also T3wy, all very significant royal epithets which denote in ancient Egypt a range of meanings; The Sun, Lord of Justice, Lord of the Two Lands. These all fit well with the Mamluk views of themselves as rulers as exemplified by Baybars I for instance.

But my main interest here is with the attempts to decipher the scripts and to this end I have succeeded in obtaining and studying most of the known manuscripts on this subject. These are:

- 1- Ayub ibn Masalama (Attributed) (first half of the 9th century) <u>Kitab Aqlam</u>

 <u>Al-Mutaqadimeen.</u> MS 10244 in Al-Assad Library (Formerly known as Al-Zahiriyah) Damascus, Syria.
- 2- Dhu Al-Nun Al-Mişri. (first half of the 9th century) <u>Kitab Ḥall Al-Rumuz wa</u> <u>Bari Al-Arqam fi Kashf Uşul Al-Lughat wa Al-Qlam.</u> MS Muallim Cevdet K. 290 in Ataturk Kitapligi, Istanbul.
- 3- Ibn Waḥshiyah. (second half of the 10th century) <u>Kitab Shauq Al-Mustaham</u> <u>fi Ma^cirfat Rumuz Al-Aqlam</u>. MS Arabe 6805, Bibliothèque Nationale, Paris.
- 4- Abu Al-Qasim Al-carqi. (13/14th century) <u>Kitab Al-Aqalim Al-Sabcah</u>. MS Add. 25,724 British Library.
- 5-Abu Al-Qasim Al- ^cIraqi. <u>Kitab Hall Al-Rumuz wa Fak Al-Aqlam.</u>? MS Arabe 2676, Bibliothèque Nationale, Paris. (Cf. MSS Arabe 2657 and Arabe 2703 in the same library and British Library Add. 23, 420. and MS 10244 Al-Assad Library, Damascus cited above. I comment further on this below).

It must of course be said that many of these manuscripts are not in the original handwriting of their authors; some are copies made sometimes centuries later. Sometimes the copyist was not familiar with the shape of the ancient scripts and unwittingly distorted them. There are a few other Arabic manuscripts which are

reputed to contain hieroglyphs but I have not been able to study them as yet, due to inaccessibility.

The first Moslem/Arab scholar known to take an interest in Egyptian scripts is Jabir Ibn Hayan who lived between the mid seventh and mid eighth centuries CE. His study of Egyptian scripts was so widely known that later writers (e.g. Dhu Al-Nun, Hall fol. 78; Ibn Wahshiyah, Shauq fols. 47-8) ascribed to him an ancient script assumed to be Egyptian and called it "The Script of Jabir Ibn Ḥayan" (Qalam Jabir Ibn Hayan). And indeed Ibn Wahshiyah (*Ibid*) referred his own readers who wanted to learn more about ancient scripts to a much more detailed work of Jabir on this subject. Unfortunately, any work of Jabir on Egyptian scripts is yet to be located. But it is clear from his other writings that he knew several ancient languages. He cited several languages in his book Al-Hasil while discussing alchemical terminology in these languages (Ryding 1997: 236). These languages are Arabic, Greek, Alexandrian, Persian and Himiyarite (South Arabian). The Alexandrian script (Al-Khat Al-Iskandarani) is certainly not Greek since the latter is listed as such beside it (Kraus 1986: 261). Jabir developed what may be termed a 'philosophy of letters' which he called Balance of Letters, (Mizan Al-Huruf). He believed that the forms of letters are indications of the nature of things, therefore the forms are of equal importance to the ideas and meanings they denote. This is one reason why he took so much interest in Egyptian scripts with their very rich and varied forms. For him, the letters of the alphabet were designated figures for the denotation of sounds and the ordered composition of these figures signified meanings. (Haq 1994: 85). This is indeed a major aspect of Egyptian hieroglyphs (Goldwasser 1995).

Another early scholar whose main interest was in ancient scripts is Ayub ibn Masalama described by Al-Idrisi (Anwar: 61) as an Egyptian scholar with great knowledge of ancient Egyptian scripts, and said to have translated various texts inscribed on the pyramids and other places for the Caliph Al-Ma'moun during his visit to Egypt in the year 831 CE. We are not told how Ayub translated these texts other than that he had "knowledge of deciphering the letters of the hieroglyphs" (Macrifat Hall Ishkal Ashkal [sic] Huruf Al-Aqlam Al-Birbawiyah). Al-Idrisi also noted that if these writings on the pyramids had been in Greek or Syriac, then the Caliph would not have needed to seek out Ayub since he already had with him translators of these languages.

Al-Idrisi also describes an old, badly damaged book by Ayub ibn Masalama titled

"Priestly Talismans" (Al-Talismat Al-Kahiniya) which contained translations of many ancient Egyptian inscriptions. The book itself cannot be traced. The manuscript in Damascus cited above, Aqlam Al-Mutaqadmeen 'Pens/Scripts of the Ancients' and attributed to Ayub ibn Masalama by Sezgin is, I believe, not his work. On studying MSS Arabe 2676, Arabe 2657, Arabe 2703 Bibliothèque Nationale, Paris and MS Add. 23, 420 British Library, it became clear to me that they are copies of the same document, and should certainly be attributed to the alchemist Abu Al-Qasim Al-'Iraqi as his name is cited in MSS Arabe 2676 foll. 45a and Arabe 2703 fol. 23b Bibliothèque Nationale, Paris, and elsewhere in the same manuscripts, as the author.

The next author credited with a knowledge of Egyptian scripts and books on the subject is Dhu Al-Nun Al-Miṣri who was probably a contemporary of Ayub ibn Masalama or perhaps slightly later. The book Kitab Hall Al-Rumuz, attributed to Dhu Al-Nun Al-Miṣri, is known only from a unique manuscript in Istanbul. On fol. 96a, is stated "this book called Ḥall Al-Rumuz of Dhu Al-Nun Al-Miṣri" 'Deciphering Symbols/Signs' so the attribution of the book here confirms that on the title page to Dhu Al-Nun but it is possible that copyists added sections to his original material as a script is named after him in the book (e.g. fol. 67a). It contains at least 112 folios, but unfortunately the copy I obtained from the library in Istanbul seems to lack some folios as the last one, folio 112 does not seem to be a normal ending. It is possible that the manuscript was much longer.

Between folios 3a and 9b there are 14 pages, each containing two tables, each headed by a letter of the Arabic alphabet with its phonetic value. Below the Arabic letter are 28 squares containing the form of that letter in 28 different scripts. (Plate 25). All the tables include signs which have a close resemblance to the equivalent Egyptian scripts. There are in addition to Egyptian scripts, South Arabian Himyarite, Persian, Old Greek and Old Latin to name but a few, but it would be a major research project to try to identify the languages and all the symbols as the book contains more than 300 scripts.

The next major work on Egyptian scripts known to date is that of Ibn Waḥshiyah. Al-Nadim (Al-Fihrist: 423f) mentioned that he saw works in the handwriting of Ibn Waḥshiyah and that the latter had corresponded with a disciple of Dhu Al-Nun called 'Uthman Ibn Suwaid Al-Akhmimi (Cf. Fück 1951: 105f).

This work of Ibn Waḥshiyah is now known from two copies. The one in Paris cited above, MS Arabe 6805 which was bought in Malta and used by Kircher, and the

one used by J. Hammer, bought by him in Cairo. Hammer published its Arabic text together with his English translation in London in 1806 under the title "Science Alphabets and Hieroglyphic Characters Explained; with an Account of the Egyptian Priests, their Classes, Initiation, and Sacrifices, in the Arabic Language by Ahmad Bin Abubekerr Bin Wahshih; and in English by Joseph Hammer, Secretary to the Imperial Legation at Constantinople. London: Printed by W. Bulmer and Co. Cleveland Row; and sold by G. and W. Nicol, Booksellers to His Majesty, Pall-Mall 1806". The whereabouts now of Hammer's Arabic manuscript is unknown, and it was not easy to find a copy of the English translation. In the introduction, under the title "Translator's Preface" (p.xvii ff., specially xix), Hammer referred to the other copy used by Kircher, which is the one now in the Bibliothèque Nationale, Paris. The latter is the one used by me here and it is also the more complete one.

Hammer's work deserves some attention. His introduction starts with how his copy had:

escaped the researches of the French Savans, who, though successful in collecting many valuable Oriental books and manuscripts, failed in their endeavours to produce a satisfactory explanation of the Hieroglyphics.

This shows his awareness that French scholars were searching for Arabic manuscripts that might shed light on deciphering hieroglyphs. Hammer (*Ibid*) had problems trying to establish the date of Ibn Waḥshiyah. But it is clear that he was still alive in 903 CE when he dictated his famous book Nabaṭaean Agriculture (Al-Filaḥa Al-Nabaṭiyah) (Fahd 1971 and 1993 1: 5; Al-Zerekly 1999 1: 170-1).

Ibn Waḥshiyah's work on ancient scripts covers more than 80 different scripts, including the Egyptian ones. Following the introduction he gives the name of each script, generally named after kings, priests or philosophers. He then gives a list of hieroglyphic signs with their meanings, and it is quite probable that he was here using works such as Horapollo since he followed the same pattern.

These books on the decipherment of ancient scripts may have been a source used by later writers attempting to give translations of various ancient texts. For example, Al-Maqrizi (Khitat 2: 425-429) gave an account of the demolition of some old walls and gates of Cairo during which ancient objects with inscriptions were found. He described these objects and left us a translation of the texts. His description is fairly

detailed and probably accurate but he does not claim that the translation was his own. He refers to "Script Readers" being called upon to read it.

The account of demolishing the gate "Bab Al-Baḥr" (Gate of the River) of the Fatimid palace in Cairo, built by Al-Ḥakim Bi-Amr Allah at the end of the 10th century and demolished in 1273 CE during the reign of Al-Ḥakir Rukn Al-Din Baybars, has been recalled by Al-Maqrizi (*Ibid* 2: 425-427) as follows:

While demolishing this gate to take away some of its columns for some Sultanate building, they uncovered a box in a wall built around it and immediately witnesses and a large crowd came and the box was opened. A statue was found in it. It is hollow yellow copper on a seat similar to the pyramid, its height is about a hand span with four legs supporting the seat. The idol sat-cross legged with his hand raised high. He holds a roll (sahifah) about three handspans wide and in this document are standing figures. In the middle there is a picture of a head without a body encircled with writing in Coptic and Oalfeteriat (magical signs?).

(For the translation of Qalfeteriat as "signes magiques", magical signs, see Henein and Bianquis, 1975: 29 of the French text, and p.16 of the Arabic text. Cf. Ibn Waḥshiyah, MS: fol. 112 where one of the ancient Egyptian scripts is called Script of the Sage Qalfeterius - Qalam Al-Hakeem Qalfetrius).

Next to it in the document is a figure in the shape of an ear of wheat bearing two horns. On the other side is a figure with a cross on his head, and another with a walking stick in his hand and a cross on his head. Under their feet are figures of birds. Above the heads of the figures, is some script. Also found in the box with this idol, was a boy's writing palette of the type used for writing in the Makatib (plural; small classes to teach children The Qur'an with lessons in reading, writing and reciting poetry). One of its sides was painted white and the other red, from which most of the writing has fallen off because of the long passage of time. The palette has deteriorated and so has the writing, hence I am leaving spaces of lacunae free

where writing has disappeared.

The white side was written in the same Coptic script as the written remains on the red side, in the following order [of lines]:

- 1st line- Alexander...
- 2nd line- the land he gave to him...
- 3rd line- he tried for all...
- 4th line- companions...
- 5th line- and he guards...
- 6th line- and his strong holding...
- 7th line- the king is begged and gates...
- 8th line- changed his house seven...
- 9th line- a wise scholar knowledgeable in his mind...
- 10th line- its description [so do] not spoil...
- 11th line- remover of every evil and the one who shaped it/them [are] women...
- 12th line- walled also all Lion's antiquities of Baybars and it is one...
- 13th line- Baybars king of all time and wisdom, the Word of Allah, the Glorious.

This was the picture of what was found on the palette.

It was said that this palette is in the handwriting of Caliph Al-Ḥakim. The most peculiar thing about it is that it contains the name of Sultan Baybars, who saw it and ordered it to be read, so it was shown to the Readers of the Scripts (qura' al-aqlam) and was read. It is in the Coptic script and its content is a talisman made for Al-Zahir son of Al-Ḥakim, in which his mother's name was written together with names of angels, spells (cazaim), incantations (ruqi) spirits' names (asma' ruḥaniya) and images of angels most of which were for the protection of the land of Egypt and its ports and to repel enemies. This talisman was carried to the Sulṭan and remained among his treasures. It was also seen in an old book called by its writer 'The will of The Imam Al-cAziz Bi-Allah, father of the Imam Al-Ḥakim Bi-Amr Allah for his above mentioned son'. He mentioned in it the talismans made on the

palace gates to give power to the Sun King (al-shams al-malik) over his enemies.

Al-Maqrizi (Khitat 2: 427-429) also narrates what was found during the demolition of another gate of the same palace, "Bab Al-Rih" (Gate of the Wind):

A statue of a person was found and when that news reached me I went to the Emir in charge of the demolition, Emir Jamal Al-Din Yosef Al-Istadar, and asked him to bring it. He told me that he was brought a person of stone, short, with one eye smaller than the other. I said, I have to see it, so he ordered the man in charge of constructions to bring it while I was with him at the site of the gate, after the demolition of the whole building. The man said he had thrown it into the building stones and that it broke and was mixed up with the rest of the stones and that he could not distinguish it. The Emir pressed the man hard but they failed to bring it, so I asked the man to describe it. The man said that they found a circle with writing in it, and in the middle was a short person with one of his eyes smaller than the other. This sounds very much like the Emir Jamal Al-Din just mentioned.

These quotations from Al-Maqrizi show his awareness of the many issues that an archaeologist nowadays will take into account: provenance and context of the find, description of the object, offering an interpretation, and postulating reasons, purpose and function for the object. Al-Maqrizi's analysis is attempted within the framework of the then available understanding of magic and angels. His limited historical knowledge did not stop him from sharing his interest with his readers. The most important feature of his description of the palette is his attempt at accuracy in recording the words in every line and noticing the breaks, lacunae and damage. There is also an attempt at internal textual criticism if only in the form of wondering at the supposed existence of the current ruler's name on the palette "wa acjab mafih ism al-Sultan Baybars". It may be that Baybars's fascination with things ancient Egyptian such as sphinxes, as lions were his emblem (see below 5.6.1), caused him to commission the addition of his name to already existing ancient objects. Baybars also

became the hero of one of the most popular folktales in medieval Egypt known as "Sirat Al-Zahir Baybars" which remained popular well into the 20 century as see in the account of Taha Ḥusayn (Reynolds 1995: 23).

4.7 Egyptian scripts correctly deciphered

Here for reasons of simplicity reference will be made to the folios/plates which show Egyptian signs correctly identified as letters or determinatives.

Correctly cited Coptic with the correct phonetic values can be seen in the work of Dhu Al-Nun in <u>Hall</u> fols. 12a, b (**Plate 26**). For comparison with the arrangement of Coptic letters and phonetic values as known today see **Plate 27**.

In the work of Ibn Wahshiyah, Shauq (MS Arabe 6805 Bibliothèque Nationale, Paris), he distinguished certain hieroglyphic signs as phonetic symbols, with several letters correctly identified in fols. 92b, 93a (Plate 28) and 93b (Plate 29 right). Ibn Wahshiyah talks of the Egyptian alphabets according to the Hermeses (ra'i alharamisah), in which there are a total of 38 letters (Arabic has 28 letters), and he then gives the hieroglyphic sign with its phonetic value below it. All 38 of the signs are correctly copied and twelve of these are indeed used in the Egyptian alphabet, perhaps more, if we assume that he was using the hieroglyphs of the Greco-Roman period, as almost all the still intact temples accessed by medieval Arabs belonged to this period, for example Dendara, Esna and Edfu. On fols. 94a (Plates 29 left), 94b (Plate 30 right) he gives the names of these letters and this shows the need for a separate, detailed study which may help Egyptologists to establish the correct sound of the ancient alphabets, notwithstanding the natural changes to the phonetic value of letters over such a long period of time.

In an earlier section of his book, Ibn Waḥshiyah gives long lists of words, which are written with hieroglyphic signs, each representing an epithet. Fols 56-57 (**Plates 31**, 32) give some good examples where he correctly identified determinatives, which he distinguished from alphabetic letters. When compared to the Gardiner sign list (1957: 438-548), it is clear that Ibn Waḥshiyah had indeed studied genuine Egyptian sources and perhaps also studied works such as Horapollo's Hieroglyphica as he emulates its style. For example on fol. 56a (**Plate 31**, left side) the sign in the middle of the top line, is identified as <u>al-cadl</u>, "Justice", a correct identification according to Gardiner (1957: 493-5) as sign lists O 9 and O 20 are both associated with temples/shrines where justice was dispensed to local communities (van den Boorn

1985; Derchain 1995). The sign in the middle of the bottom line of the same folio shows a forearm with two signs of the letter *t*, with the meaning <u>al-tadbir</u>, 'provisions, preparations...etc'. Again this compares correctly with Gardiner's (*Ibid* 454f) sign list D 36 ff.

On fol. 56b (**Plate 32** right side), the first sign on the right of the second line, shows a seated figure with a flagellum with the meaning authority, <u>al-saltanah</u>. Again, when compared with Gardiner (*Ibid* 446) sign list A 42, it is a correct identification.

Finally the works of Abu Al-Qasim Al-Traqi show several correctly copied and sometimes also correctly identified hieroglyphs. In his manuscript Al-Aqalim, Add 25,724 British Library. On fols. 21b (Plate 33) and 22a (Plate 34) he gives a list of hieroglyphic signs with their phonetic values below in a different colour. It is possible to establish that he identified four hieroglyphic letters correctly. Plate 33, top line, shows the sign for h is correct and the last sign on this line may well be the letter k, written in Egyptian as a basket with a handle. On the bottom line of the same plate the sign for a/i is given as a stroke, which is also correct. On Plate 34, the top hieroglyphic line shows the letter \underline{sh} correctly identified. Abu Al-Qasim gives us in his MS Arabe 2676, fol. 18b, Bibliothèque Nationale, Paris, a table with the whole hieroglyphic alphabet (Plate 35). It is clear that he identified correctly the first three signs on the top line, a, b and t. On the second line, the third sign from the right is correct - \underline{kh} . On line three, the third sign from the right, that for z is correct.

Abu Al-Qasim (*Ibid* fol. 50a) also copied an entire stella from which it is easy to identify the name and titles of King Amenemhat II of the Twelfth Dynasty (**Plate** 36).

Among the hundreds of scripts cited by Dhu Al-Nun (Hall fol. 36b top), one is named after Jabir Ibn Ḥayan and many of its signs may be identified as Demotic. On comparing the script of Jabir (Plate 37) to the Demotic letters from a recent work (Plate 38) many signs can be seen to have been correctly written and identified by Dhu Al-Nun. In spite of the number of changes the original handwriting must have gone through during the process of copying over hundreds of years, we still can see that these are the letters a, b/p, t, g, h/h, kh, d, r, sh, q/k l, m, n, w, i/y, showing that they have, on the whole, been correctly written and deciphered.

4.8 Summary

This brief survey of the available materials shows wide use of Egyptian hieroglyphs by medieval Moslem/Arab scholars and artists. They also show a continuous process of attempting to decipher Egyptian scripts, sometimes through a medium script in the same way as did later European scholars. The material shows that several scholars succeeded in deciphering at least half of the Egyptian alphabet.

Demotic must have been much easier for medieval Arabs, as materials in more than one script/language, Coptic/Greek/Demotic, were still available and readable. It is interesting that nearly all the sources used in this chapter were alchemists, many also called Sufis or Mystics (e.g. Jabir, Dhu Al-Nun). This may be due to the fame of Egypt as the land of both science and wisdom.

Chapter 5. Medieval Arabic Concepts of Ancient Egyptian Religion

5.1 Introduction

Pre-Islamic religions received extensive coverage in medieval Moslem/Arabic sources, prompted no doubt by the prominence given to the subject in The Qur'an and Hadith on the one hand and the continued visible presence of many practitioners of these religions on the other. This is evidenced from works on these religions by prominent Moslem scholars such as Al-Nadim, Ibn Hazm and Al-Shahrastani.

The word for religion in Arabic, din, نين has a very wide spectrum of meanings and covers a wide area of human activities that may at first seem unconnected. In the Arabic dictionary Al-Mu^cjam Al-Waṣeeṭ under the word din we find: a name for all worship of God, biography, custom, state, affair, piety, account, kingship, authority, ruling, jurisdiction, management, (Cf. Al-Fakhri Talkhis: 35). These varied uses and meanings of din may explain the wide interests in the subject among these writers.

In their study of ancient Egyptian religion the Moslem/Arab writers had a wealth of sources to draw upon:

- Jewish sources 'Al-Israiliyat' (Judaica), especially appreciated by some commentators on The Qur'an 'Al-Mufasrun' (Al-Dhahabi 1976 1: 169ff). A measure of the extensive use of this Judaica by Moslem scholars can be seen in the exegesis of Al-Tabari (d. 922) (Rabi^c 2001).
- Greco-Roman sources which gave extensive coverage of Egyptian religion in both Greek and Latin (Hopfner 1922-25) by many authors familiar to Moslem/Arab writers, such as Herodotus, Pliny, Josephus Flavius, Clement of Alexandria, Porphyrius and Plotinus, to name just a few examples.
- Egyptian/Coptic sources.
- Observations of contemporary Egyptian practices, which were perceived by some Moslem/Arab writers to originate in Ancient Egypt.

So we find one writer, Al-Baghdadi (Al-Ifadah: 110), who lived in Egypt for a number of years and, having observed the manners and customs of his contemporary Egyptians, described religious practices and representations of deity among Egyptian Christians as being sourced in their ancient ancestors (sunat aba'ihim al-qadeemah). Another writer and contemporary of Al-Baghdadi, Al-Makhzumi (d. 1189), who wrote a detailed study on Egyptian agriculture and the collection of taxes (kharaj),

tells us that in the month of Tut, the Nile reached its highest level and canals were opened on day 17, and that during this month "Ancient Egyptians did not lay foundations of any building." (Al-Makhzumi Al-Minhaj: 6). He also tells us (*Ibid* 7) that Hator was the month when Ancient Egyptians did lay their building foundations. He was citing this in the context of the contemporary Egyptian practices of the timetables of agriculture, building works and religious ceremonies, thus linking past and contemporary practices.

5.2 Temple domain

In section 3.3.3, it was shown that the Arabic sources called the temples <u>birba</u>, and visited them often and associated them with science, wisdom, magic and alchemy.

As houses of worship they were the abodes of idols of deities, which were the focus of veneration. As such, ancient Egyptian temples were places where the concept of purity and cleanliness was significant. Arab descriptions often refer to this concept; for example, according to the author of <u>Akhbar Al-Zaman</u>, an ancient Egyptian king called Ashmoun, built a temple to the east of his town, which had four gates decorated with faces talking to each other and:

Whoever enters that temple impure, (these faces) blow at him, afflicting him with an illness that stays with him until death. It is said that in the middle (of this temple), there is a constant column of light and whoever embraces it never fails to see and hear the spirits

(Akhbar Al-Zaman: 176).

Herodotus (2: 64) made a similar comment, recording that the Egyptians were the only people to avoid copulating in places of worship, and would not enter them without washing after such an act (Budge 1898: 191; Manniche 1987: 10). Moslems may have taken a special interest in this subject as they too are commanded not to enter places of worship unless cleansed (Q2: 187, Q4: 43).

It is clear also that Moslem/Arab writers were aware of the function of offerings and of burning incense in the temples for the benefit of the gods.

Another function associated with temples in the Arabic sources is their oracular aspect, based perhaps on the fame of many ancient Egyptian rulers as magician/astrologers who are often depicted in the sources. For example Al-Mas^cudi

wrote about an ancient Egyptian Queen who built:

temples and equipped them with magic tools and pictures of whoever may come from any direction and their animals, camels or horses, and the ships that may come from the sea of Morocco or Al-Sham (Syria), and she assembled in these great, glorious monumental temples, the secrets of nature, the properties of stones, plants and animals.... All was done at certain times of astronomical movements and contacts with higher influences. If an army invaded, she damaged their picture on the temple wall so those who are in that army are wounded. This is why the kings and nations feared and respected Egypt (Al-Mas^cudi Muruj 1: 359).

Al-Mas^cudi's reference to camels may have been a confusion as this animal is almost totally absent from such Egyptian scenes, but walls of ancient Egyptian temples are frequently covered with scenes of pharaohs battling foreign enemies so we cannot identify with certainty the site described here, but it is a very good description of similar scenes at the temple of Queen Hatshepsut at Deir El-Bahri, where boats, animals, soldiers and the people of Punt are represented. It is known that many of them had been disfigured long before Al-Mas^cudi would have seen them in the tenth century. Another good example of ritual magic against the enemies of Egypt is to be found on the walls of Chapelle Rouge of Queen Hatshepsut at Karnak where effigies of the enemies are destroyed by fire (Lacau and Chevrier 1977 1: 321-2). This magical destruction by fire of the figures representing the enemies of Egypt was an established magical ritual (Étienne 2000: 21).

5.3 The role of magic

Magic was treated in Moslem/Arab sources as a scientific discipline that was a fundamental part of ancient Egyptian religion. Modern Egyptological studies have tended to treat magic as a marginal subject with common disagreement among scholars as to its definition (Ritner 1993: 7ff) in spite of the fact that medieval Europeans, just like their Arab counterparts, treated it as a science (Burnett 1996: 2). The ancient Egyptians did not make a distinction between religion and magic, and both were the responsibility of the ruler as well as of the priests. Moslem/Arab

writers seem to have had a deep understanding of ancient Egyptian magic and saw its connection with the role of the ruler as well as with that of the temple and the priest. In the sources, magic (sihr) is the word most often used to refer to the arts and sciences, which were part of the duties of kings, priests and priestesses in the service of society. In the 15th century, Ibn Khaldun defined sihr as follows:

These [magical practices] are sciences showing how human souls may become prepared to exercise an influence upon the world of the elements, either without any aid or with the aid of celestial matters. The first kind is sorcery. The second kind is talismans.

(Ibn Khaldun, <u>Muqaddimah</u> Trans. by Rosenthal, 3: 156. For other definitions in Arabic and for Qur'anic references to <u>sihr</u> see Yakan 1994: 17ff; Al-Sha^crawi 1995: 16ff; Ittig 1982: 79 and Pielow 1995: 23ff)

In ancient Egyptian, the word for magic, hk3, looks, and possibly sounds, very similar to the word hq3 "to rule", and "ruler". This may have been one reason for Moslem/Arab writers making a connection between magic and kingship, often describing ancient Egyptian rulers as magicians and healers (e.g. Akhbar Al-Zaman).

A similar link is also found in Arabic. The root hkm حكم means "rule or govern"; its derivatives hakim حاكم means "ruler", and hakeem حكم means "sage, philosopher, and healer". This linkage in Arabic suggests an understanding of the wide role of magic. (Khasheem 1998 1: 104). Ritner's views on the subject of religion and magic are also helpful here. He argues for a rethinking of the current view of magic in Egyptological studies and puts forward a new evaluation of its role, suggesting that the

Egyptian hk3 was a most complex theological concept; only the superimposition of Christian theology demoted it to 'magic'.

(Ritner 1992: 197).

A similar view has also been expressed by Goelet (in Faulkner et al. 1994: 145). There are many examples in the Moslem/Arab sources of the role of magic in the administration of justice in Ancient Egypt. One of these is the story from the book Akhbar Al-Zaman of an ancient Egyptian priestess, Qunia, acting as a judge:

She sits in her court on a throne of fire. If a person seeking her judgment was truthful, he would walk through the fire unaffected. She built a palace with hollow walls of copper, and on each of its pillars wrote the name of a specific craft on which people would seek her advice. People will come to the pillar and speak their mind, asking questions, and they will be answered.

(Akhbar Al-Zaman: 104).

Many elements in this account are familiar from ancient Egyptian materials on the performance of oracles; for example the Lady's oracle as attested in the cult of Queen Ahmose Nefertari, written requests for oracles to the gods who hear them, prayers made outside the rear walls of temples, and the 'Ear Stelae' which were sometimes decorated only with ears to emphasise this aspect of the hearing deity (Morsy 1986: 244ff; Sadek 1987: 16ff; and his plates I-II; Pinch 1993: 251). Listening to or calling for the deity is also known from chapels at the back of Egyptian temples such as that of Hathor at Dendara (Derchain 1972: 11, 17). As for walking through fire, presumably those who are guilty, will be burnt by it, another attested punishment in Ancient Egypt (Leahy 1984).

Some of the writers also knew of specific functions of certain idols, some of which were used to pass judgments to disputants who were to:

stand before a statue of black stone (basalt?) called ^cAbd Afroys which means Servant of Zuḥal (Saturn); if the disputant strayed from the truth he got stuck in the place and could not move.

(Akhbar Al-Zaman: 105).

This shows a perception on the part of the author of <u>Akhbar Al-Zaman</u> that a link did exist in Ancient Egypt between oracles and astronomy, and indeed such connections are attested in Ancient Egypt (von Lieven 1999: 99 ff).

Using similar objects, this same ancient magic/oracle seems to have continued to be practised by various medieval Egyptian Caliphs and Sultans. For example, Ibn Iyas, quoting Ibn Khalkan, gave this account of Al-Ḥakim, the most famous of the Fatimid Caliphs who ruled from 996 to 1020 CE:

The Al-Ḥakim Bi-Amr Allah was a star worshipper like his grandfather, Al-Mu^cizz, and he was involved in hunting treasures. He obtained an idol, it is hollow and inside it is the spirit (*ruḥani*) who looks after it. It spoke like humans, and this statue used to recover lost objects by telling where they were....

Then people who lost objects were called to Al-Ḥakim, the idol was brought out and everyone who had lost anything stood before it and said: 'O Abu Al-Haul (Sphinx) I have lost such and such a thing', the spirit inside the statue then says: 'Your lost object was taken by X and it is in such and such place in such and such address'. So Al-Ḥakim sent his servants to the place, they brought back the lost item and all the thieves were then hanged. From then on nothing was ever stolen (Ibn Iyas Badic 1/1:202).

The Fatimid dynasty was particularly interested in astronomy and astrology and many of its rulers were themselves practioners of these sciences.

The Moslem/Arab writers recognized at least some of the ancient Egyptian beliefs of the relationship between Egyptian deities and the healing of illness, good health and, most importantly, the connection between magic and childbirth, in addition to being the source of creation. All of this is based on the central ancient Egyptian theme of creation, birth, and the importance of good health to maintain order (Hassan 1999).

In Akhbar Al-Zaman, we read of a King whom the Moslem/Arabs called 'Shadat' who built new towns on the East Bank of the Nile. In one of them he erected what was presumably a statue of the god Min, the symbol of sexual potency, who was Lord of the Eastern Desert and Protector of the Road to Arabia (Saleh 1981: 116); his main cult centres were on the east bank of the Nile at Qift and Akhmim, north of Luxor (Gundlach 1982: 136ff). According to the author of Akhbar Al-Zaman, Min was well known to medieval Arab writers and he gives this description of him and attributes to him a healing function:

a standing statue with an erect phallus; if one who is impotent and cannot have an erection for any reason, came to this statue and held it with both hands, he will recover and obtain the desired erection and the strength to copulate (Akhbar Al-Zaman: 166).

Al-Maqrizi (d. 1442) quoted a description of this statue as:

Standing on one leg and has only one arm which is raised high.

There are inscriptions on his forehead and around the body. He has a prominent phallus

(Al-Magrizi Khitat 1: 651).

He then referred to the popular use of this stone phallus for treating male impotence provided the petitioner succeeded in removing it from the statue without damaging it and in wearing it around his waist. This may be also a reference to the images of Min carved on the walls of the temple.

The same king, Shadat also erected in another town:

A (statue of a) cow with two large udders; if a woman whose milk has decreased or dried up touches it, her milk will flow.

(Akhbar Al-Zaman: 167).

According to the same book, another ruler who appears often in medieval Arabic sources, King Menqaus:

built a House with statues that cure all illnesses, and wrote on top of the shrine of every statue what it would cure, so people benefited from this House for a time until some kings spoiled it.

(Akhbar Al-Zaman: 169)

Also in Akhbar Al-Zaman, we encounter another ancient Egyptian ruler, King Shasta who shows his care for the mental health of his people by erecting in his city a stone statue of a woman for people suffering from depressions to visit for healing:

As soon as a depressed person sees it, he smiles and forgets his care. People hold it and circumambulate it. At a later date they worshipped her (Akhbar Al-Zaman: 169).

All the above citations show that for some medieval Moslem/Arab writers, ancient Egyptian kings were concerned with the social aspect of the function of

magic, within Egyptian religion, as a tool to heal and improve the health of the population. But there is another important role for magic in which it was put at the service of the state, king and country in order to ward off enemeies; this perception is supported by evidence from ancient Egypt particularly in Demotic literature. For example, Imhotep is depicted in some late Demotic papyri using magic in a campaign with King Zoser against an Assyrian queen (Wildung 1977a: 54).

To summarise, the main ideas of Egyptian magic, as seen in the above Arabic sources, are:

- 1- Magic was associated with kings and queens, priests, priestesses and sages.
- 2- Idols were used in magical practices.
- 3- Magic was used in healing both physical and mental illnesses.
- 4- The Moslem/Arab writers also commented on the use and survival of ancient Egyptian objects in medieval magic.
- 5- Magic was a discipline put to the service of the state.

5.4 Superstitious beliefs related to Ancient Egypt

Closely connected with magic is the belief in superstitions. A number of Arab sources suggest that at least some of the writers discoursed not only with rulers and savants, but also with the fellaheen in the countryside, and that their views of the temples and idols were also seriously recorded. Interest in the ancient idols shows a strong element of superstition and is sometimes the result of fear. For example Al-Qazwini. (d.1283 CE), tells us in (Athar: 138):

In the village of Absoug on the west bank of the Nile, there is a Bai^cah, (بيعة a place of worship or temple), its door has a picture of a mouse on a stone which keeps the mice out. People take a clay imprint of this to their homes to keep mice away

Yaqut, (<u>Mu^cjam</u>: 1:73), has a similar story of the mouse but locates the site between Al-Qys and Al-Bahnasa in middle Egypt and puts it in a Dai^ca, meaning an estate, rather than in a Bai^cah.

The author of <u>Akhbar Al-Zaman</u> (171) quotes the people of Akhmim talking about a man from the East who visited the temple every day bringing incense and perfumes

to an image on the door frame and who in return daily collected a dinar from beneath its feet. He did this for a long time until he was arrested.

Al-Minufi (d. 1524) quotes a story told him by a certain Yosef Ibn ^cAbd-Allah that looking at the Sphinx reverses one's fortune so that:

if seen by a person in command, he loses his command, and if a person lacks ability he becomes (ably) in charge.

(Al-Minufi, Al-Fayd: 52).

Ibn Duqmaq (d.1406) talks of an alley in Cairo named <u>zuqaq al-ṣanam</u> (alley of the idol) after an idol known as Sariyat Fir^cun 'Pharaoh's concubine' which was regarded as:

A talisman to keep the Nile within its banks. It is said that the statue known as Abu Al-Haul (the Sphinx) at the pyramids, is aligned with the above idol, both facing east.

(Ibn Duqmaq Al-Intisar 4: 21).

This idol was likened by Ibn Duqmaq to the Sphinx on the West Bank and both were facing east. He then described the demolition of this idol in the year 711 H (1311 CE) and said that the search underneath it uncovered large blocks of stones. These have all been reused as foundations for the granite pillars in the Nasiri mosque in Cairo (*Ibid* 22). Unusually for a medieval Egyptian writer, he seemed to have no qualms about this vandalism saying that the Roms, perhaps meaning the non-Moslem population, were of the belief that these statues were for the protection of Egypt perhaps in the vain hope that they would be left undisturbed by quarrymen or treasure hunters.

Such medieval superstitious beliefs have been common in Egypt at all times and there has always been a belief that divine images have magical and protective powers as can be seen both in ancient Egyptian materials and in modern Egypt alike (Cf. Blackman 1927).

In Alexandria, two fallen pillars were used by visitors in the medieval period for treatment of illness and were known as "Amuda Al-I" 'Pillars of Illness' (Al-Qalqashandi Subh 3: 357). According to the account of Al-Qalqashandi, patients

would come to the two fallen pillars (obelisks?), each bringing seven pebbles, and would lie down on one of the pillars and throw the seven pebbles behind him; he would then leave without looking backwards and this would cure him.

5.5 Deities and Prophets

A number of the medieval Moslem/Arab writers describe a relationship between ancient Egyptian religion and its deities, and the religious practices and deities of pre-Islamic Arabs. Some even suggested that ancient Egyptian deities were still being worshipped. For example, during his travels in Egypt, Al-Ya^equbi (Al-Buldan: 337), reported that a tribe of Beja in the south was still worshipping an idol called "Heḥakhua". This idol may be the one described by Al-Baladhuri (Futuh: 241) as a stone idol in the form of a boy carried by his company for the chief of Beja to pray to during his visit to Baghdad in the year 865 CE. A Nubian chief praying to an idol in Baghdad may have been an unusual sight in the city but not out of place in the countryside with its various temples of other religions, for example in nearby Harran. Al-Hamadani, the Yemeni tenth-century scholar, recognised (Sifat: 42-49) that Amun was worshipped in the Western Desert between Egypt and Libya (Siwa). The fame of the cult of Amun in the Western Desert may have been known as far west as the Atlas Mountains (Camps 1994). Al-Hamadani also noted that Isis was widely worshipped in southwest Asia. He may also have been stressing the antiquity of these cults as he states at the outset (Ibid 37) that he was citing as his main source Ptolemy, the wellknown geographer from Alexandria.

Isis was particularly popular in Arabia (Wagner 1976; Donner 1995; Hoyland 2001: 142f), and her worship continued in various guises even after the advent of Islam. Other deities common to Egypt and Arabia include, according to the Arabic Dictionary of Al-Fayruzabadi (Taj under bs and hr), Bes and Horus who were well known in Arabia where they were believed to have originated (Brugsch 1902: 54; Kamal 1902). Bes had a cult centre in South Arabia similar to the Ka°ba of Mecca (Yaqut Mu°jam 1: 412). Beeston (1962:13-14; and MS Bodleian, OX. Arab d.221) noted that the name of Horus was common in Arabia, and his figure appears in medieval Arabic manuscripts clearly copied from an Egyptian context (Plate 39). In fact the Arabic word for falcon is hwr/hor > , the same word as in ancient Egyptian, and there are other words in Arabic for falcons such as saqr and bazi which may be found in Egyptian as well (Loret 1903: 10ff). Names of Egyptian deities formed parts

of many Nabataean names reflecting the influence of Egyptian religion, for example "bd hwr" servant of Horus" and "bd'sy" servant of Isis" (Graf 1997: 70-72).

Various Egyptian deities such as Osiris and Isis found their way into Arabic folklore and popular magic (Fodor 1992; Ray 1994). In the Arabian epic of Al-Zir, his sister saved his body by floating him out to sea in a wooden chest, as did Isis with the tree coffin of Osiris (Lyons 1995 1: 97). Similarly, Baudy (1986: 15f) has argued for the survival of practices relating to Osiris in medieval Arabic traditions as described by Al-Biruni (Al-Athar: 368f), where Egyptians celebrated a combination of the resurrection of Osiris and of foretelling the future by sowing seeds, on the night of ca 25 July, on a plate and watching their growth; this ritual is still celebrated in the same manner by present-day Egyptians and some still believe that trees grow from the bodies of saints. The tombs of most saints are in fact associated with sacred trees (Hassan 1936: 10-13; Nazeer 1967: 31). The present writer, as a child, together with friends and neighbours, used to celebrate this occasion by planting fenugreek seeds in a pot then left in the open. This image of the dead being resurrected like growing plants is familiar to Moslems through a Hadith of the Prophet which describes the Day of Resurrection when "Water will fall from the sky and they [the dead] shall sprout like greens (Al-Baql)" (Ewais 1966: 113).

The Egyptian influence found its way through medieval Arabic carried by Islam into epic folklore as far away as Azerbaijan where studies show the presence of ancient Egyptian words in their famous epic of "Dada Ququrd [sic]" (Ḥamidov 2002: 100). (For this epic, known in the West as Dede Korkut, see Lewis 1974).

The influence of some aspects of Egyptian religion on Islamic ritual has been noted by Stetkevych (1996). In fact Islamic Sufism is firmly rooted in Egyptian religion but this is a major subject which requires a separate study.

In some cases Egyptian deities were translated into prophets or angels, in order to ally them more closely to Islam, Christianity and Judaism. A good example is the explanation given by Ibn Al-Wardi of the creation of earth:

Following the rule of the theory of the ancients, there must be a sky under the earth like the one above it. It is said that when glorious God created the earth, it was tilting like a ship so God sent an angel who went down until he was underneath the earth and carried it upon his shoulders. Then he put his hands out, one towards the east

and the other towards the west and held the seven earths (Earth and its spheres) and restrained it [until it] was stable. But the angel's feet did not have a platform [to stand on] so God sent a bull from heaven for the angel to stand on.

(Ibn Al-Wardi Kharidat: 14-15).

In this text, we see a melange of ancient Egyptian iconography relating to the primeval god Nun and the common image of him carrying the ship of the Sun God at the beginning of creation, and of attempts to explain the disappearance of the feet of Nun into the earth (**Plate 40**). There are ancient Egyptian texts referring to the creator, the Sun-god, in one of his manifestations as one "who fixed the sky on his head" (Assmann 1997: 202). Such texts show a familiarity with ancient Egyptian religious scenes encountered during visits to tombs, chapels and temples, as well illustrated above by Ibn Umail.

Another early Arab scholar to remark on the continuous thread that connected the different phases of Egyptian religion was Al-Baghdadi:

And as for the idols, they were very common in the ancient world even with the Christians, most of whom, Copts and Ṣabaeans [of Ḥarran] were inclined towards their origin in the old tradition of their ancestors of adopting icons in their places of worship. They can even go as far as depicting their god surrounded by angels. All these are remains of the traditions of their predecessors, although the predecessors elevated god beyond any logical or physical reach or comprehension, let alone depiction.

(Al-Baghdadi Al-Ifadah: 109-110).

The writer of <u>Akhbar Al-Zaman</u> also seeks to bring the Ancient Egyptians closer to Islam claiming that the Ancient Egyptians:

believe in the Oneness of God, and their praise of functionary mediums (like stars), does not affect their Creator for they glorify these mediums to worship God and get nearer to him as do the Indians, the Arabs and many other nations.

(Akhbar Al-Zaman: 166).

Al-Shahrastani in keeping with his preferred style of writing, records a dialogue between the Sabaean and the Hanifeen (Followers of primordial religion) then says:

It was in my mind to (cover) other angles and dictate them, still in my heart, hardly hidden, (but) I left (them) out to talk about the wisdom of Hermes the Great, not as one of the Ṣabaeans, far be it from him but because his wisdom shows what the sect of the Ḥanifeen say of perfection in human beings, and the necessity of following the divine ordinance, contrary to the Ṣabaean sects.

(Al-Shahrastani Al-Milal part 2: 345).

This text shows the awareness of Al-Shahrastani of the existence of different sects within the Ṣabaean and is yet another attempt to bring Hermes into the fold of Islam as a natural believer - <u>hanif</u>. This Arabic word is derived from the root <u>haf</u> meaning someone who has a natural/innate belief in, and submits to, god and it is used several times in The Qur'an in this sense (e.g. Q2: 135, Q3: 67, Q30: 30). There were groups in Arabia before Islam, known as Aḥnaf, who had diverse practices but share this belief in the unity of the deity (Al-Ṣabagh 1998: 63). The word is also attested in Egyptian with a similar meaning of 'veneration/submission' (Badawi and Kees 1958: 161).

5.5.1 Hermes/Idris

Almost all Moslem/Arabic sources link Hermes [Thoth] in any one of his forms, - Hermes The First, or the Second or the Thrice Great/Endowed with Wisdom, known also as Trismegistus, with the Qur'anic Prophet Idris (Q19: 57) who is highly praised in The Qur'an and credited with great honour (Q19: 56-57). A good example of this from the Moslem/Arab sources is in Al-Mas^cudi (Muruj 1:39-40) who had a good knowledge of different cultures and creeds, and who also made the link between Idris, known also by his Hebrew name Enoch/Akhnukh, and Hermes. He says of Akhnukh ibn Anush ibn Shith ibn Adam:

then came his son Akhnukh who is Idris the Prophet, peace be upon

him. The Ṣabaeans claim that he is Hermes; the meaning of Hermes is Mercury (cAṭarid). It was he of whom Allah Most Glorious, said in his Book. that he "elevated him to a higher place". He was the first tailor, the first to sew with needles. And thirty Books of Scriptures (sahifah) were revealed to him.

As seen from these examples from Al-Shahrastani and Al-Mas^oudi, at least some of the Moslem/Arab writers saw close ties between Islamic teachings and ancient Egyptian ideas and sought to explain these ties by tracing the origin of the earliest messengers of God back to Ancient Egypt. Thus Idris was born in Egypt and is identified with Enoch, one of the earliest, if not the earliest of prophets, and the originator of prophethood (Q19: 56; Al-Sayyar 1995: 154), who conveyed the message of God to the Egyptians. Through such connections, Hermes and writings attributed to him exercised great influence on both Jewish thought (Doresse 1960: 13; Mussies 1982), Moslem thought (Affifi 1951; Gilis 1984) and beyond these to the African culture of the Dogan people (Lambert 1988).

This Hermetic influence on Islamic thought can be traced through medieval Arabic sources as illustrated for example by Al-Ya^cqubi (<u>Tarikh</u> 1: 11) who says that Akhnukh/Idris, "was the first to write", just as the Egyptian origin of this figure, Thoth, was believed by ancient Egyptians to have been the first to write and teach writing, as Lord of the Divine Words who founded the hieroglyphs (Boylan 1922: 92-93)

Al-Ya^cqubi also gives a detailed account of this figure:

The Sage (Hakeem) of the Copts is Hermes the Copt. They are the builders of the temples who write in the script of the temples (khat al-barabi/Hieroglyphs) and here is how it looks. (No hieroglyphs are shown in the edited work).

And in our time, nobody knows how to read it, because only the elite among them were writing in it; they would not allow the common people to do so. The ones in charge of it were their sages and priests. It had the secrets of their religion and the origins of sciences which nobody was allowed to see but their priests, who did not teach it to anyone unless ordered to do

so by the king. ... Their religion was the worship of planets/stars. From their sayings: The souls are old and were in Upper Paradise (al-firdaus al-a^cla) and every thirty six thousand years, all that is in the world will perish either from dust (turab) meaning the earth, its earthquakes and eclipses, or from fire and burning, destructive poisons, or from a great and noxious wind, in which animals, plants and humans shall perish. Then nature will bring back to life from every kind and the world will return after its demise. They had of these spirits, deities who descend into the idols, causing the idols to speak, but that is how they used to deceive their commoners, and hide what causes the idols to speak, which was a craft made by the priests and the drugs they use; tricks they utilize until it whistles and screams as if the idol was indeed a bird or an animal. Then the priests translate that sound of the idol according to whatever they like to judge, according to their astronomical signs and physiognomy. They tell that when souls depart, they go to these deities who are the planets, so they wash them and purify them if they had sins. The souls then go up to paradise where they belong. They say that their prophets were spoken to by the planets which informed them that the Spirits descend into the idols and take residence inside, and foretell events before they happen. They had such precise and wondrous astuteness with which they instilled into the common people the illusion that they were conversing with the planets, which then foretell to them what will happen. This was possible only because of the perfection of their knowledge of the secrets of the signs of the zodiac, and their exact physiognomy. They were seldom wrong and they claim to have acquired this knowledge from the planets which tell them whatever happens

(Al-Ya^cqubi Tarikh 1: 187-8).

Al-Ya^cqubi, who is one of the few writers to comment critically on ritual practices, said that such beliefs are "false and irrational" in an attempt to convey to the reader that he himself does not share such beliefs, in spite of his apparent admiration for the

knowledge of the ancient priests. The passage quoted, however, suggests that he did in fact believe the knowledge and beliefs to be valid; it was the trickery in the use of the idols that he was exposing as false.

This text reflects a number of themes of ancient Egyptian belief:

- 1- The keeping of sacred knowledge within certain circles mainly of learned priests.
- 2- The cycle of creation which is the basis of the Egyptian genesis.
- 3- Priests using mechanical devices to make divine statues move and talk during oracles, which has been demonstrated by current research (DuQuesne 2001a: 16 n. 67).
- 4- The concept of the souls of the dead united with the stars in the heavens.

Al-Ya^cqubi also apparently admired the knowledge and beliefs of the ancient Egyptian priests. He, like many other Moslem/Arab writers, was familiar with Hermetic and Gnostic literature and ideas, which had a long tradition in Islam (Corbin 1986: 1) and was a great influence on the Moslem/Arabs (Plessner 1954; Fodor 1974; Massignon 1981; Scott 1985 4: 248 ff.).

5.6 Pilgrimage Sites

Medieval Moslem/Arabs regarded many ancient Egyptian sites as holy places, some of which continued as pilgrimage sites during the medieval period. Feasts and ceremonies were celebrated by medieval Egyptians and others at and around these ancient holy sites. Contemporary writers described many of these festivals and suggested they originated in Ancient Egypt. The Nile has a special place in the Egyptian calendar and continued to be celebrated as a holy river in medieval Egypt (Lutfi 1998).

5.6.1 The Pyramid area at Giza and the Memphite Necropolis

This is the most revered site in medieval Arabic sources for a number of reasons. Al-Idrisi (Anwar: 28) was told by Al-Sharif Ibn ^cIsa Al-Ḥusani, a friend of his, that he found in various books on and by ancient Egyptians that the pyramid site was known as The Holy Land, and that it was because of its sacred nature that the Egyptians had chosen it as a burial site for their greatest kings and noblemen.

Al-Mas^cudi (<u>Muruj</u> 2: 243) refers to Egyptian pyramids as among the three most sacred sites or temples of the Greeks because, according to Al-Idrisi (<u>Anwar</u>: 89) quoting Ibn Krion, the Greek philosopher Aristotle was buried in one of them while the one next to it was prepared for Alexander. Even though Alexander was in fact known not to be buried there, both pyramids became pilgrimage centres for the Greeks.

There is a long tradition about the pyramid builders in medieval Arabic that perhaps became available to Moslem/Arab writers from Greek and Coptic sources (Fodor 1970: 350), but direct observation and personal enquiry seem to have played a larger role in the Arabic legends. It is also common in these medieval Arab stories about the pyramids to cite a guardian spirit in the shape of a woman who protects the pyramids against ill-intentioned visitors (e.g. Al-Idrisi Anwar: 133, 136) and this may be a memory from a distant past when a shrine was erected beside the pyramid for Isis, Mistress of the Pyramids, which was popular with visitors to the area during the Saite period ca. 672-525 (Peden 2001: 279).

Just as the pyramids of Giza were popular with ancient Egyptian visitors, they continued to attract them no less in medieval Egypt. The Scribe of Saladin, Al-cImad Al-Isfahani (latter part of the 12th century) (Sana: 118), tells of a leisure trip spent in the pyramid area at the invitation of the Chief Judge Diau' Al-Din Al-Shahruzuri, where they toured the pyramids and debated, among other issues, the identity of their builders and their functions. On their way to the site, Al-Işfahani saw a group of people dressed in the manner of Iraqis and Syrians, wearing headscarves, and he thought they were students, from the manner of their gathering in a circle, but as his company approached them, they fled. It is possible that these may have been Sabaean (from Harran, Iraq) worshippers, of whom Al-Magrizi (Khitat 1: 334) much later, says that they did not cease to worship Abu Al-Hul (Sphinx) to whom they sacrificed white roosters and burned incense of sandarac-wood, a recognised ritual among the Şabaeans (Scott 1985 4: 254 n. 4). White roosters were also used in ancient Egyptian magic (Betz 1992: PGM III. 633-731 and PGM IV. 26-51). These Sabaeans must not be confused with the people of the ancient South Arabian Kingdom of Saba. The former are mentioned in The Qur'an among "Believers in God" who are respected in Islam as we can see from the following verse:

Those who believe (in The Qur'an), and those who are Jews, and the Christians and the Ṣabaeans, anyone who believes in God and the Day of Judgment, and works righteousness, shall have their reward with their Lord. And on them shall be no fear, nor shall they grieve.

(Q2: 62).

The Sabaeans are the subject of endless debates as to their origin, the meaning and definition of their name, and their worship and sects, as is exemplified in one of the longest chapters in Al-Shahrastani (Al-Milal part 289-363) (Cf. Tardieu 1986). In Moslem/Arab sources, their name is usually said to be derived from the Arabic root saba' with the meaning 'deviated from the orthodox path/belief' (e.g. Al-Shahrastani Ibid 289). But others took it to mean 'philosophers', and according to Al-Sayyar (1995: 208f) the name is derived from the Egyptian word sb3 which is written with the determinative of a star with the meaning 'Star', and with the additional determinative of a man carrying a stick meaning 'teach, teaching'; sb3 also means 'pupil' and sb3yt means 'instructions of wisdom, guiding to the right path' (Badawi Kees 1958: 216; Faulkner 1962: 219; Saleh 1966: 343f). This Egyptian origin of their name Şab'a is plausible in view of the fact that these Şabaeans regarded themselves as descendants of the Egyptians (Al-Mas^cudi Al-Tanbih: 161) and certainly until quite recently, they have claimed links with ancient Egyptians, asserting that they were coreligionists and that they originally came from Egypt (Drower 1937: 10, 261). Moreover, they commemorate the souls of Egyptians who were said to have drowned during the Exodus - "for these Egyptians are thought to have been Mandaean by creed" (Drower 1956: 234-5). This echoes some medieval Arab examples (e.g. Akhbar Al-Zaman: 126), where the Egyptian priests were presumed to teach people their religion which was that of "the first Sabaeans".

This medieval continuity of veneration was also extended to the Sphinx, venerated as a god by the ancient Egyptians, and the area was known as a place of pilgrimage well into the fourth century CE (Hassan 1951: 10). Some foreigners living in Memphis saw in the Sphinx their god Hurun/Horon and worshipped it under this name (Wildung 1977a: 19). Urn-burials, which may have belonged to Babylonians, were found around the Sphinx by Hassan (1951: 33) who also found that many of the offerings presented to the Sphinx were from foreign worshippers who lived in the

vicinity, in the area now known now as Ḥarrania (Hassan 1951: 96). This may well have been the place where Ṣabaeans from Ḥarran gathered during their pilgrimage and the present name alludes to such a connection. Hermes was of great importance for Ṣabaean thought (Yates 2002: 52f.; Al-Ḥamd 1999) and it was therefore natural for them to believe that he was buried in a holy area such as the Giza Pyramids/Sphinx.

A Babylonian presence and worship is attested also in other parts of Egypt, a testimony to the religious tolerance and multicultural nature of ancient Egyptian society (Horn 1969: 39, 42). Horon was widely worshipped in the ancient Near East and traces of his cult may be found in the Phoenician god of healing named Eshmun (Gray 1949: 31; Gese et al 1970: 145f), who may well be associated in the minds of medieval Moslem/Arabs with Eshmun/Ashmun of Egypt where the god Thoth resided (Hermopolis).

According to some writers (e.g. Ibn Al-Kindi Fadail Misr: 66; Al-Idrisi Anwar: 28; Al-Suyuţi Husn 1: 71;) the pyramids were regarded as a pilgrimage centre by the Sabaeans (of Harran), because they were the tombs of their prophets Agathodaimon and Hermes (Al-Baghdadi (Al-Ifadah: 98. Scott 4: 256). Al-Kindi (Ibid 48) said he actually met Sabaeans who performed their rituals at the pyramids. The people of Harran spread the veneration of Hermes beyond their city making him popular among various Moslem groups (Peters 1990). As for Agathodaimon, a Graeco-Egyptian god, he was regarded in Arabic sources as an ancient Egyptian sage or prophet and some even regarded him as the teacher of Hermes (Plessner 1960). The traditional image of Agathodaimon is as a guardian whose name means 'The Good Spirit'; in Greco-Egyptian sources he is a bearded serpent with the Atef crown of Osiris on its head (see plate and description in Hassan 2002: 168). His origin may be sought in the ancient Egyptian Ouroboros, the serpent with its tail in its mouth, called Min in Egyptian, and which represented protection and eternal regeneration (Kákosy 1995; Hornung 1999: 38, 78f,) (Plate 41). Mhn was a god closely associated with recondite knowledge, protection of the sun god and resurrection (Piccione 1990: 43) which may explain his visible presence and popularity in medieval Arabic alchemy with its interest in the mystery, the sun and in alchemical transmutation and resurrection. His image there is clearly copied with hieroglyphs from ancient Egyptian sources (Plate 42).

It is clear from the above cited Moslem/Arab sources that this veneration continued

throughout the medieval period (Haarmann 1978).

The pyramid shape itself remained a favourite form for a tomb and we know of one medieval Moslem Sheikh, a scholar of Islamic jurisprudence and Ḥadith, named Nasir Al-Din who chose this form for his tomb at Al-Qarafah Al-Kubra "The Great Necropolis", east of Cairo but within sight of the great pyramid of Giza (Al-Sakhawi Tuḥfat: 163).

Al-Idrisi (Anwar: 151) informs us that the Sphinx:

has a certain day of the year when visitors who aspire to senior jobs with the Sultan offer incense to the Sphinx.

It may have been this popular practice of ordinary people venerating, as did their ancestors, what was perceived by others as a pagan symbol, that angered a certain pious Sheikh from a Sufi establishment, Khangah Sacid Al-Sucada who went up to the Sphinx and disfigured his face. Shortly afterwards, Alexandria was sacked for a week in October 1365 CE by the Crusader ruler of Cyprus, Pierre I of Lusignan, an event described by Al-Minufi (d. 1524) (Al-Fayd fol. 52a) as a divine retribution for the desecration of the Sphinx. Al-Minufi went on to remind his readers that monuments should be left intact, following the guiding example of the Companions of the Prophet who had visited the area and had not objected to any of its monuments, in spite of their religious piety, thus echoing the same sentiments as expressed by Al-Idrisi (Anwar: 45f). Al-Minufi does not give us the name of this Sufi Sheikh but Al-Maqrizi (Khitat 1: 333) gave his name as Saiem Al-Dahr, reporting the views of the local people that the sand had taken over their land as a punishment for the disfigurement of the statue. More detail of this Sufi Sheikh is given by Ibn Qadi Shuhba (d. 1448) who recorded his name among notables who died in the year 1384, as Muhammad Ibn Sidiq Ibn Muhammad Al-Tibrizi Al-Mişri, also known as Şaiem Al-Dahr. According to Ibn Qadi Shuhba, he disfigured the sphinxes of Qanatir Al-Siba^c, and he may well also have been responsible for disfiguring the one at Giza. The Qanatir Al-Siba^c was actually an avenue decorated with sculptured lions (like a row of Sphinxes) set up by order of Sultan Al-Zahir Baybars (known also as Babars I, reigned 1260-1277) (Sayyid 1995: 16 n. 2) as lions were his emblem and feature prominently on all his monuments (Creswell 1926: 147, 150f, and plates VIII-XII). The lions cited in Creswell are carved on the sides of a another bridge also built by Baybars, while the

lions of Qanațir Al-Siba^c must have been actual sphinx-form ones which were regarded as offensive by a later Sulțan, Al-Nașir Muhammad (d. 1309) who had destroyed them, but they must have been reinstated as they were disfigured again by the above mentioned Şufi Sheikh Şaiem Al-Dahr (Al-Shishtawi 1999: 199). We do not know where these lions/sphinxes came from but they were likely to have been brought from nearby Heliopolis. It is interesting that a Moslem Sulțan should be so enamoured of the Sphinx, but this particular Sulțan, was associated by Al-Maqrizi (Khiṭaṭ 2: 426) with several stories in which the name of Baybars I was found on ancient Egyptian idols and talismans.

Qanațir Al-Siba^c (in what is now Saydah Zaynab Square) was very popular as a place for leisure outings for the people of Cairo (Al-Shishtawi 1999: 198-200).

The site of the Sphinx at Giza was popular with many of the rulers of Egypt, such as Ibn Țulun (ruled 868-884) who was said to be a regular and frequent visitor (Al-Balawi Sirat: 194; Al-Idrisi Anwar: 35f), Al-Ḥakim (ruled 996-1021), (Al-Maqrizi (It az 2: 45); Qaitbay (ruled 1468-1496) and Al-Ghouri (ruled 1501-1516) (Ibn Iyas Badai 3: 55 and 4: 290-2). During the Fatimid dynasty, at the national celebration known as Night of Fire, the ceremony was started by setting alight a huge fire on the top of the pyramid (Al-Idrisi Anwar: 38).

Pilgrimage and national celebrations at venerated sites where eminent holy persons or animals were buried was seen by some Moslem/Arab writers as dating back to Ancient Egypt. For example, the writer of <u>Akhbar Al-Zaman</u> reported that once the cow/bull cultic rite had been established, its tomb also became a pilgrimage site:

later on after the Holy Bull was buried people from all over Egypt and neighbouring areas flocked to his shrine with offerings to his statue and he would tell them whatever they wanted.

(Akhbar Al-Zaman: 174).

Such ceremonies accompanying burial are well known from Ancient Egypt where they included large processions of people gathering to consult the oracle. The Serapeum in Saqqara was just one such site (Smith 1974; Sadek 1987: 270-273). This particular pilgrimage may well have continued until the author's time in the twelfth century and even beyond.

In the Memphite necropolis we have the site of <u>Sijn Yousuf</u> 'The Prison of Joseph' at Abu Sir, named after the Biblical/Qur'anic prophet Joseph because of the

belief that he received divine revelations while imprisoned there. The site became in medieval times a pilgrimage centre with annual ceremonies lasting for three days (Ibn Iyas Badai^c: 1/1: 35). It was very popular among Moslems in general as a holy place where God would answer requests favourably (Al-Qalqashandi Subh 3: 307). This site has been identified by Stricker (1942) as a cult centre of Imhotep who was perceived throughout Egyptian history as a symbol of wisdom, and was associated with oracular practices as well as being venerated as a healer (Wildung 1977a: 44-46; Allen 1999. Cf. Smith 1974: 28). Joseph also foretold future events and interpreted dreams. The common features in the veneration of these two characters made it possible for medieval pilgrims to continue using the ancient cult of Imhotep under The surrounding area was also associated with the Oracle of the name of Joseph. Hermes Trismegistus (Skeat and Turner 1968), a very popular figure in Moslem/Arab writings (Massignon 1981; Plessner 1954). All these medieval practices, assimilating different venerated figures, stem from ancient Egyptian practice, as Egyptians made no differentiation between these divinities (Wildung 1977a: 47).

5.6.2 Heliopolis

Another important holy site was the "Grand Shrine at Heliopolis" which, according to Al-Idrisi (Anwar: 109-10), was venerated by both Sabaeans (of Harran) and Egyptians. Al-Maqrizi (Khitat 1: 617) also referred to it as a pilgrimage centre not only for ancient Egyptians, but also for people from all over the world. He records that the Shrine was dedicated to seven deities associated with seven heavenly bodies, headed by the Sun God called Lord of the Gods. Al-Magrizi (Khitat 1: 618) quoted earlier Moslem/Arab sources, then presented an account of the daily service which included prayers performed three times a day: the first at sunrise, the second at midday and the third at sunset. He also quoted (Khitat 1: 623) from a lost book by Ibn Al-Kalbi (not his <u>Kitab Al-Asnam</u>) that the Arabic name of the city <u>In Shams</u> (which in Arabic means Eye of the Sun) was derived from the old Sun God. Ibn Al-Kalbi (d. 820 CE), an early Moslem/Arab historian of religions who wrote several books on different aspects of pre-Islamic Arabia, was clearly aware of the sun cult at Heliopolis. These writers also commented on the ancient Egyptian royal visits to perform religious duties at the Grand Shrine of the city, staying there for seven days. Some Egyptian kings were said to have ordered private chapels to be built at the Grand Shrine especially for their visit (Al-Maqrizi Khitat 1: 619). (For this Grand

Shrine and the sun cult see Quirke 2001). The notion of the holiness of this area has continued up to the present day, as can be seen from pilgrims flocking to The Holy Tree of Mary (Shajarat Maryam) at Matariah to the south of the walls of Heliopolis.

5.6.3 Al-Muqatam

A further site connected with Heliopolis is <u>Jabal Al-Muqatam</u> 'Muqattam Mountain' to the east of Cairo. According to Ibn cAbd Al-Ḥakam (<u>Futuh</u>: 157f), the Copts told Amr Ibn Al-As, who led the Moslem campaign and became the first Moslem ruler of Egypt, that Muqatam was their holy site and so Moslems treated it with reverence, and even came up with reasons of their own to justify its sanctity (Al-Maqrizi Khitat 1: 335ff and the sources cited there). This mountain was regarded as so holy by Moslems that it became the most desired burial ground for their dead including Amr Ibn Al-As himself and a number of the Companions of the Prophet (Ibn Abd Al-Ḥakam Futuh: 253). Its soil was used to treat diseases after a woman with a severe eye problem alleged that Prophet Muhammad had recommended it to her in a dream (Ibn Qadi Shuhba Tarikh 1: 522).

According to Ibn ^cAbd Al-Ḥakam (Futuḥ: 253) and Al-Maqrizi (Khiṭaṭ 1: 335), Egyptian kings had built a rest-station on the top of this mountain en-route between their palace at Memphis and the cult centre at Heliopolis. This way-station was also used to announce the arrival and departure of the pharaohs for their regular visits to Heliopolis. These accounts show a knowledge of the lines of vision connecting Memphis, the Muqaṭam Mountain and Heliopolis as well as of the religious ties; this too is in accordance with recent archaeological work (e.g. Jeffreys 1998; Verner 2000: 600) (Plate 43). When the Nubian King Pi(ankh)y (reigned 747-716 BCE) visited Heliopolis for pilgrimage during his campaign in Egypt, he took this traditional route from Memphis via the area known now as Old Cairo and Muqaṭam Mountain (Hamza 1937; Grimal 1981: 130; Goedicke 1998: 113-122). It is worth pointing out here that for some Arab geographers, the Muqaṭam Mountain stretched along the Eastern Desert all the way to Nubia (e.g. Ibn Ḥawqal, Plate 5 here).

Stone was quarried in this area by ancient Egyptians for building and sculpture, and unfinished monuments are still visible there today.

In general, many of the ancient Egyptian holy sites continued to be treated as such by Moslems even if new myths had to be woven to explain their sanctity. A well-known example is the Temple of Luxor, part of which later served as a church, and

where later still the Mosque and Tomb of Abu Al-Hagag, a Moslem Sheikh (Saint) was built. A special festival, still held every year for this Sheikh, recalls the Opet Festival of pharaonic Egypt. This Egyptian reverence for their immortal ancestors was rooted in Ancient Egypt (Malek 2000) and was still attested in the Greco-Roman period (McCleary 1992). The same process can still be seen in Egypt today, where ancient tombs or temples may still serve as shrines for local saints (e.g. The tomb of Sheikh Al-Saman on the Giza Plateau was originally an Old Kingdom tomb, Porter and Moss (1974) 3:1: 235. For other examples see Yamani 2001: 395).

5.7 Royal cults

A description of Royal Cult Chapels and Royal Processions is to be found in in the book Akhbar Al-Zaman: 171-2):

It is said that King Menqaus built a shrine for the priests on the Mountain of the Moon, headed by one of them called Mustuhmus; they did not allow wind to the departing ships without them paying a due... Whenever the king rode out, they made before him colossal statues; people would gather to marvel at their works. He ordered a cult chapel built especially for himself and had in it images of the sun and planets. He surrounded it with idols and marvels. The king used to ride out to it and he would stay there for seven days and then leave. He erected two columns in it with the date of their erection; they are still there in the place called ^cAin <u>Sh</u>ams (Heliopolis).

King Menqaus reigned for 71 years and died of the plague, though it is also said that his food was poisoned. A tomb (<u>naous</u>) was made for him in the desert of the Copts, to the west of Quṣ. (Possibly the Valley of the Kings in Luxor?).

The author then went on to say that a maiden, who was the most favoured of the king and whom he greatly loved, died before him and so the king, in an act recalling the well established New Kingdom burial practice where either Nut or Isis is depicted at either end of the sarcophagus or on the lid:

ordered her image to be placed in all the chapels. A statue was made of her with two ringlets of black, gold- dressed in ordered jewels seated on a golden chair, and was placed before him wherever he sat to give him solace. Her image was buried at his feet as if he is speaking to her (Akhbar Al-Zaman: 172).

Attempts were made by some Moslem/Arabs to see in pre-Islamic materials prophecies of their own later prophets, as if one of the functions of the artefacts was to foretell the coming of the three related religions. For example, Ibn Khurdadhiba tells us that he was told a story about:

The journey of the scribe of Ahmad Ibn Ţulun, (reigned 868-884 CE), to the pyramids of Giza accompanied by some workers who then opened one of the ten small pyramids there. They found a basalt or black granite sarcophagus. They had to set fire to it and when they opened it they found a dead old man. Under his head was a white alabaster stela which had cracked in the fire. It had two golden images on one side, one of a man with a serpent on his hand; the other an image of a man on a donkey, with a walking stick in his hand. On the other side of the stela an image of a man on a she-camel with a stave in his hand. This was taken to Ahmed ibn Ţulun, where the people present all agreed that the images were those of Moses, Jesus and Muhammad.

(Ibn Khurdadhiba Al-Masalik: 160).

Some writers were aware that the ancient Egyptian royal cults survived and were still popular. For example, Al-Nuwairi (Nihayat 1: 395), who is likely to have visited the South tomb of the Step Pyramid complex in Saqqara as he described the lapis lazuli decorated vault (hinyat al-lazaward) and the large court with a high building which had a black granite door inscribed with thirty lines of hieroglyphs, correctly identified it as the tomb of Zosara [Zoser/Djoser], "a king who was a wise ruler of Egypt". He tells us that the Copts had a feast in honour of this king called the Vine Festival, which recalls perhaps the Osiris/Dionysus festivals. The lapis lazuli he describes in the South tomb is in fact the blue faience tiles which were found covering

its walls (PM 3:2: 400, 408). Such festivals were perhaps held throughout the history of Ancient Egypt when visitors might come to Saqqara to honour the memory of ancient kings such as Zoser, leaving behind graffiti expressing their adulation of Zoser and his pyramid, some describing it even then as a "wonder" where petitioners asked the king to intercede with god on their behalf (Peden 2001: 61-63, 96ff, 279f). Zoser was a popular hero in late Demotic literature as can be seen from the Michaelides papyri in Copenhagen where he is shown conducting campaigns to protect the country (Wildung 1969: 57-93, 91ff; 1977a: 54).

These sites of royal monuments, especially those at Saqqara, became pilgrimage centres and pleasure-walks for ordinary people throughout Egyptian history as can be seen from the visitors' graffiti and what has been described as "enthusiasm for Old Kingdom monuments" (Peden 2001: 96, 100).

5.8 Animal Cults

One of the oldest forms of worship was that of animals, in particular that of the cow and the bull. Some medieval Arab writers show a good understanding of these cults and how they developed. The medieval Moslem/Arab attitude to the subject shows a marked difference to that of the Roman writers, many of whom were scornful of the idea of worshipping animals (Juvenal xvi) stemming perhaps from the general incomprehension of Roman authors of the subject of Egyptian animal worship (Smelik and Hemelrijk 1984:1859).

In contrast to the general Roman attitude, Medieval Arabic accounts are more sympathetic. For example, the author of <u>Akhbar Al-Zaman</u>, in spite of his treatment of cows and bulls as one, illustrates some ideas which are familiar from Egyptian religion. For example he related the case of King Menaus, whom he regarded as the first Pharaoh to worship Cows, and then went on to cite the reasons that caused this king to establish the cult of the Cow:

The reason for this was that he became ill and despaired. He saw in his sleep a great Spirit speaking to him thus: Nothing will cure you but your worship of cows, because the zodiac at the time was in the sign of the Bull which is in the image of a bull with two horns. When the king awoke he gave orders and they got a handsome piebald bull and made a shrine for it in his palace with a gilded dome... and he worshipped him secretly and he was

cured. Later on, a bull talked to the King and directed him to worship and look after the bull and in return the bull will look after the King's interests and strengthen him and cure him. So the king established a shrine for the bull and arranged servants to care for it and hold the service of its cult. According to some of their books, that bull, after they worshipped him for some time, ordered them to make his image of gold, a hollow one and take some hair from his head and tail, and a scraping of his horn and hooves, and put all in the statue. And he informed them that he will join his (heavenly) world and that they were to place his body in a stone sarcophagus and establish it in the shrine with his statue on top, when the planet Saturn was in his sign and the sun was looking upon him in trine (tathlith). And the statue was to be inscribed with the signs of the images of the seven planets and they did that.

Later on after the Holy Bull was buried people from all over Egypt and neighbouring areas flocked to his shrine with offerings to his statue and he would tell them whatever they wanted.

(Akhbar Al-Zaman 172-4).

This is a good example of Moslem/Arab interpretations of ancient Egyptian material about the burial of the Bull and the origins of its cult and are based on sound knowledge as attested from our current archaeological record (e.g. Davies and Smith 1997).

5.9 Summary

It would seem that the Moslem/Arab writers found affinities between their own beliefs and those they perceived to be ancient Egyptian, and that they put this down to a common origin or source of religious ideas in the form of the Prophet Idris/Hermes/Thoth. Magic was seen as an integral part of Egyptian religion and much ancient Egyptian magical material remained widely in use throughout the medieval period, not only inside Egypt but also beyond it. The Moslem/Arab sources were familiar with Egyptian deities, particularly Osiris, Isis, Horus, Min and Amoun. They also show serious attempts to understand the concepts and origin of oracles, healing,

and the royal and animal cults of ancient Egypt. Awaiting a separate study is the influence of Egyptian religion on the development of Islamic Sufism through Egyptian masters like Dhu Al-Nun Al-Miṣri.

Chapter 6. Egyptian Mummia, Mummification and Burial Practices in Medieval Arabic Sources

6.1 Introduction

The word *mummy* has gone into many languages of the world, first to describe the ancient Egyptian corpses preserved by active human intervention, and later to more recent discoveries of bodies preserved naturally in dry desert conditions or in ice. But the word *mummia* was originally used for a substance used for the embalming process.

In this chapter, I start by describing the different types of mummia and the interest of some of the medieval Arabic writers who observed Egyptian mummies and described the different uses to which they were being put. I then describe the medicinal uses to which mummies or the remains of the mummification material were being put during this period. I also cover animal mummies and burial practices. I conclude by looking at the derivation of the word mummia.

6.2 Types of mummia

The word mom or mummia is used in Arabic writings to describe "honeybee wax" but more often for the pissasphalt which oozes from the rocks in certain places such as Persia and Yemen. The same word is also used for the natural bitumen from the Dead Sea, as well as for the resin from cedar and pine trees. The tenth century anonymous writer of Akhbar Al-Zaman (66), describing the "Kingdoms of the Black", south of Egypt, tells that in the kingdom of Twan, possibly the southern part of Sudan, were wells which contain mummia that moves like quicksilver and was used by the local people, though we are not told for what. This area of wells was surrounded by fortifications (see Hopkins and Levtzion 1981: 36. For location of Twan in the Fezzan Oasis, Libya, and translation of mummia as sodium salt see Vantini 1975: 142).

In early Moslem/Arabic sources there are five different materials that are similar to each other in appearance and use and all are associated with <u>mummia</u>:

1- mom. produced by honeybees in two colours, white and black, which can be used as medication and as a preservative (Al-Kindi <u>Aqrabadhin</u> 294-295; Ibn Al-Bayṭar <u>Al- Jami</u>^c 2: 90-91 under the name <u>sham</u>^c, meaning beeswax. Cf. Majino 1975: 117-118).

- 2- mummia which is a natural mineral product from Persia, Yemen, North Africa and other places (Al-Ḥosni 1986: 129). It comes in two colours; black and white. The latter is said to be of better quality (Ibn Al-Faqih Al-Buldan 407). This mummia was widely used in Arab medicine. I shall call it natural mummia to avoid confusion with Egyptian mummia derived from corpses. The latter is referred to by Ibn Al-Bayṭar (Al-Jami^c 2: 463) as al-mummia al-quburi meaning mummia of the tombs.
 - qifr al-yahod (known also as red <u>mummia</u>) means bitumen Judaicum and is so called either because it was extracted from the Dead Sea (Ibn Al- Bayṭar <u>Al-jami^c</u> 2:274; Reichman 1997: 31) or, according to the 13th century Egyptian herbalist Cohen Al-Haroni (ak. Al-^cAṭar) in his book <u>Minhaj Al-Dukan</u> (130):

Qifr is derived from the Hebrew word *kifar* which means estate/small village and this product is also known as red mummia.

Classical writers such as Dioscordes described the medicinal use of the natural bitumen for treating various illnesses, and early medieval Arabic writers followed Dioscordes (cf. Ibn Al-Baytar Al-Jami^c 2: 463; Dietrich 1991: 61). Ibn Al-Baytar (*Ibid*) also suggested that the people of Bilad Al-Sham (Greater Syria) used this qifr mixed with oil to protect their vines from insects, hence they called it qifr al-khamr meaning wine bitumen.

Bitumen was found at Maadi, Egypt, from the fifth millennium BC (Serpico and White 2000: 456) but we are not certain what it was used for. Bitumen from the Dead Sea was still popular for mummification in Egypt in the Greco-Roman Period (Altheim and Stiehl 1964 1: 34). (For other sources see Aufrère 1984).

- 4- <u>qiṭran</u> which is cedar-pitch, a black aromatic resin extracted from the tree.
 Among its varied uses is the embalming of the dead (Ibn Sina <u>Al-Qanun</u> 1: 419;
 Ibn Al-Bayṭar <u>Al-Jami</u>° 2: 80-82 under the name <u>shirbib</u>).
- 5- zift a resin that is found in the sea or extracted from various kinds of trees such as pine. (Ibn Sina Al-Qanun 1: 306; Ibn Al-Bayṭar Al-Jami^c 1: 470-471).

The above sources are all medical, but natural <u>mummia</u> was also referred to in other Arabic sources, such as accounts of geographers. Ibn Al-Faqih (d. ca 902) left

perhaps the most detailed account of the Persian <u>mummia</u> and the method of extracting it by using a naked man supervised by a number of public officials (Ibn Al-Faqih <u>Al-Buldan</u> 407-408. For a similar but much later account by a European traveller from 17th century, see Carrubba 1981: 464ff). Al-Iṣtakhari (d. ca 934) in his book <u>Al-Masalik</u> (93) gives a brief account of this <u>mummia</u> and his account is copied later by Ibn Ḥawqal (d. 988) in his book (<u>Surat Al-Arad</u>: 262). Other Arab travellers wrote about the same substance in varying detail (e.g. Al-Muqadasi (d. 985) <u>Aḥsan</u>: 438; Al-Idrisi <u>Nuzhat</u> 1: 408).

The oldest reference that I have found so far in Arabic sources which associates mummia with Egyptian bodies, dates from the mid-tenth century and is by Ibn Wahshiyah (Shauq: fol. 77a). In a list of Egyptian signs indicating names of materials grouped together by subject, such as fruits, herbs and minerals, he includes ladin (laudanum), zift, napht and mummia. The latter is written with a human upper body showing that already by then, the material was extracted from human bodies (Plate 44). Eventually Egyptian mummies became the main if not the only source of mummia with an international growing trade. Many Arabic sources give detailed accounts of this trade.

The account given by Al-Baghdadi is the most detailed and worth quoting in full:

As for that which is inside their bodies and heads which is called mummia, there is a lot of it. The people of the countryside bring it to the city and is sold for very little, I bought three heads full of it with half a derhem. The seller showed me a sack full of this with a breast and belly with a filling of this mummia, and I saw that it was inside the bones which absorbed it until they became part of it. I also saw on the back of the head traces of the shroud and the imprint of its fabric inscribed upon it, like drawing on wax if you stamped it on cloth. This mummia is black like tar, and I saw that if the summer temperature gets very hot, it runs and sticks on what ever comes near it, and if thrown into fire it boils and produces a smell of tar; it is most likely pitch, and myrrh. The real mummia is something that comes down from the top of the mountains with water, then dries like tar that produces a smell of pitch, mixed with myrrh (Al-Baghdadi Al-Ifadah: 112-3).

The <u>mummia</u> obtained from the heads of Egyptian mummies was considered by some "better than the Persian mineral one" (Al-Harawi, (d. 1215 CE) <u>Al-Isharat</u>: 42). Al-Bakri (d. 1094) (<u>Masalik</u>: 2: §1030) in his description of Quş in Upper Egypt, mentioned rock-cut tombs (<u>ghiran manhouta</u>) in the mountains between Quş and Aswan where the finest <u>mummia</u> was obtained from the dead buried there. This was repeated by the 12th century anonymous author of <u>Kitab Al-Istibşar</u> (85) (Cf. Garcin 1976 12 and n.2; Al-Idrisi <u>Nuzhat</u> 1: 129).

The high reputation of Egyptian mummies as a source of good <u>mummia</u> was behind the massive demand which even led to local merchants fabricating mummies to satisfy the market. Ibn Iyas (<u>Badai</u>^c 2: 91-92) recalled a trial that had taken place under Sultan Al-Ashraf Barsbay (reigned 1422-1437), in which the accused had been found mummifying the recently dead and selling them to Europeans as <u>mummia</u> at the price of 25 dinar per qintar. In this case the men had their hands cut off and hung around their necks and were marched through the streets of Cairo before being imprisoned by the Sultan in the hope of putting a stop to such trade. But the <u>mummia</u> trade clearly continued, as Ibn Iyas (<u>Badai</u>^c 4: 275) reported that in the year 1513, a man was arrested for desecrating ancient tombs and selling the dead to foreigners from Europe for <u>mummia</u>. In this case the accused was sentenced to death.

In summary, there are many and varied sources detailing the different substances, looking and smelling alike, which in Arabic and Persian are called <u>mummia</u>.

6.3 Descriptions of mummies

Some Moslem/Arab writers dwell in great detail on the vast number of Mummies to be seen, and endeavor to date them and to identify the substances and plants used in the mummification process. Reading these accounts leads one to question just how many humans and animals must have been mummified in Ancient Egypt, as hundreds of thousands must have been destroyed by the exploitation of interested medieval traders.

Al-Mas^cudi saw in the town of Tinnis (9 km. South west of Port Said (Ramzi 1993 1: 197-8):

Well arranged mounds of (dead) people, young and old, males and females like great mountains, known as Abu Al-Kuom. And there are also in Egypt stacked (dead) people on top of each other inside caves, grottoes and tombs and many sites in the land;

it is not known from what peoples they are. Neither Christians mention them as their ancestors nor Jews speak of them as their predecessors nor do Moslems know who they are. No history to tell about their affairs; with their clothes on, and often their jewellery is found in these hills and mountains.

(Al-Mas^cudi Muruj 1:361).

Al-Iştakhari (d. ca 934) who also visited the Tinnis mummy mound gives the name of the mound as "Boton/Botom", then attempts to date it:

It is likely to date back to (an era) before Moses, peace be upon him, because the land of Egypt in the time of Moses had the custom of burial then it became Christian and they too had burials, then it became Moslem [who did likewise]. (Al-Iṣṭakhari Al-Masalik: 42).

Al-Iştakhari means by *burial* just burying the dead without mummification explaining that since neither Jews nor Christians nor Moslems practiced mummification, the mummy mound of Tinnis must predate them. Al-Iştakhari's account and dating method is repeated by his student Ibn Hawqal (Surat: 149-150).

Al-Baghdadi was so impressed by the state of preservation of Egyptian mummies that he wrote:

I saw some human bones so old, they had turned white like loofah. Yet most of the bodies I saw were very firm and looked more fresh than those who died in the famine of year 597 H. (i.e. just recently 1200/1 CE), and specially those bodies dyed by naphtha and tar, you find them in the colour of iron and equally solid and heavy.

(Al-Baghdadi Al-Ifadah: 115).

6.4 Mummification and burial practices

Ibn Khurdadhiba, one of the earliest Moslem Geographers/Travellers (d. ca 885 CE) is the earliest Arabic source known to date to mention <u>mummia</u> in an Egyptian context. He says he heard this from a man who was involved in the event:

In the time of Ahmed Ibn Tulun, his scribe went into one of the ten

small pyramids at Giza accompanied by some workers. They found an onyx/alabaster jar (<u>jarat jazi'</u>), with a top of the same material in the shape of a pig, full of mummia. There were three more but with different tops (Ibn Khurdadhiba <u>Al-Masalik</u>: 159-60).

As Ahmed Ibn Ţulun ruled between 868-884, this must be the oldest, and possibly the only, known description of Canopic jars in medieval Arabic. When the Scribe took one of the jars home, he emptied out its contents and found:

Pieces of cloth folded together and when he unfolded them all he found was a piece of bull skin and a drop of clotted blood [?] (cabeet) fell.

This puzzled the Scribe because of the complex wrapping which had led him to expect something more precious.

The traveller and historian Al-Mas^cudi (d. 952) described the finding of coffins in the pyramid area of Giza in the time of the ruler Al-Ikhshid (between 935-946) noting that next to each coffin:

was a jar, along with other equipment of marble and alabaster, which contained a substance used for painting the dead in their coffin. The rest of the substance was left in that jar. This paint (al-talaa) is a powdered drug and mixture which is odourless and when burnt it produces different beautiful smells not known from any of the usual perfumes

(Al-Mas^cudi Muruj 1: 368).

Najib Effendi, an Egyptian archaeologist who worked with De Morgan at Dahshour, described a similar experience when a large jar was discovered in one of the tombs, and when some of its content was burned to establish whether it was incense, it turned out to be the tar material known as mummia used for embalming. Najib commented that this was the substance described in Arab sources (Najib 1893-4: 469).

Another very early account in Arabic of ancient Egyptian mummification and a description of the alchemical properties of mummia is that found in the book Akhbar Al-Zaman, when an Egyptian King named Piqrawis (?) died:

They anointed his body with preserving medicines and placed him in a sarcophagus of gold and made for him a <u>naos</u> plaited with gold and buried him in it with endless treasures and plenty of the Elixir of the Alchemical craft and gold. Then they inscribed on the tomb his date of death and placed on top talismans against harmful insects.

(Akhbar Al-Zaman: 113).

In the same book Akhbar Al-Zaman (155) we find names for some of the materials used to preserve the body: marmar (lit. marble but may be natron or travertine?), camphor and mummia. In addition, to the grave goods described above, placed in one royal burial (Akhbar Al-Zaman: 163) were a hundred and seventy Scriptures and seven tables made of precious materials laden with vases of the same materials. This is a most interesting text, since it may refer to spells of the Book of the Dead which was divided by Lepsius into 165 chapters. (Faulkner et al 1994:18). It is also important to note that the number of the tables carrying vases were seven, as this may relate to the ancient Egyptian seven holy oils used in the service and in embalming. (Wilknson 1994: 136; Ikram & Dodson 1998: 106; Cf. Sandison 1975: 613).

Al-Baghdadi gives us many accounts of the mummification and burial customs:

People find underground tombs with lots of the dead of the ancients, wrapped in shrouds of linen cloth, which may be of a thousand arms-length; each limb is wrapped separately, hand, leg, and the finger in fine pieces, then the body is wrapped as a whole.

(Al-Baghdadi Al-Ifadah: 112ff).

This description is accurate and shows that Al-Baghdadi must have carried out his investigation helped by his knowledge as a physician, because we know that the practice of modelling the limbs separately during mummification is known from Ancient Egypt (Taylor 2001: 80).

He was told of an incident by a treasure hunter at the Pyramid area who had found a sealed jar. When they opened it, they found honey, so they started eating it. Suddenly someone's finger caught in hair, he pulled it and a small boy appeared:

with firm limbs and tender body on which was some jewellery. These dead may have on their foreheads, eyes and noses, leaves of gold;

there may be some also on a woman's vagina; leaves of gold may also cover all the body like a skin, and may be accompanied by gold and jewellery. The deceased may be accompanied by his tools which he worked with while alive; a trustworthy person told me that he found by one of them an implement for a beautician, a sharpener and a razor, and by another the tool for blood letting, and by another the tools for sewing. And it appears from their state that it was traditional to bury with the man his tools and money.

Al-Baghdadi also describes the custom of burying gold with the dead:

I heard of some groups of Abyssinians that this was their tradition and they believed evil will befall them (if they keep) the goods of the dead; they will not touch it or change it. And we had a relative who went to Abyssinia and earned money, 200 ounces of gold. When he died they forced an Egyptian man who was with him to take his money, so he gratefully took it.

It was the tradition of Egyptians to place some gold with the dead. Some judges from Abuşir (who live) next to their tombs told me that they excavated graves and found on every corpse very thin leaves of gold, and in each one a band of gold. He collected the three bands and they measured nine mithiqal (ca 42 gm., Hinz 1955: 2) These are very common stories (sic).

All these observations by Al-Baghdadi are attested in archaeological works in this area and indeed elsewhere in Egypt.

6.5 Animal mummies

Moslem/Arab writers were equally fascinated by the discovery of animal mummies and gave many detailed accounts of their burials and varieties.

Al-Harawi, (d. 1215) tells us that in Upper Egypt and its mountains (possibly Assiut, see *Ibid* 44, line 14):

Grottoes full of dead people, birds, cats, and dogs, all still in their shrouds till now. The shroud is like the infant's garment; on it there

are drugs in order that it does not disintegrate, so if you unwrap the shrouds from the animal you find that nothing had changed.

(Al-Harawi Al-Isharat: 42).

Al-Baghdadi gives the most detailed and learned account of animal mummies from his lenthy visit to the Memphite Necropolis:

Among the wonders found in their tombs are all kinds of animals, birds, beasts and insects; each one is shrouded in many cloths, wrapped tightly around it. A trustworthy person told me that they found a building (a house) well sealed underground. When they opened it they found rolls of hemp cloth which had become very solid. They removed it in spite of its great size and found underneath it a complete bull, really solid. Another told me they found a falcon and when they unfolded the many cloth rolls until they tired they found not a single feather had dropped, and similar was narrated to me about a cat, a sparrow and a beetle...etc.

I was told by the Al-Amir Al-Sadiq that while he was in Qus, some treasure hunters came to him and mentioned that they had fallen in a hole, suggesting that it has treasure, so he went out with them accompanied by an armed group and they dug down and found a large pitcher, its top sealed with gesso. With some effort they opened it and found finger-like things shrouded in rags. When they unwrapped one, they found sir, a small fish, which turned into dust. The pitcher was then transported to the governor of Qus, where about a hundred men gathered and unwrapped them all, but it was all the same, wrapped fish and nothing else. Later on I saw in their tombs in Abu Sir too many wonders to be included in this book. For example, I found in these tombs, grottoes well built underground which have wrapped bodies. There is a countless number in each grotto; some of the grottoes are full of bodies of dogs, some are full of cows, some have cats, and all are wrapped in shrouds of hemp wrapping; thus it dyes the flesh and preserves it, and wherever it reaches the bones, it dyes them

with red and black.

I saw a vast number of skulls of cows as well as sheep, and
I distinguished between the heads of goats and lambs from those
of cows and bulls. I found the flesh of cows stuck to the shrouds
so that they became one piece which is more black than red, beneath
which the bones appear white, some red, and some black; likewise
with the bones of humans. There is no doubt that some shrouds were
wet with aloe and tar, and were saturated with it......

I found in many places, mounds of bodies of dogs which may have a hundred thousand dogs' heads or more, which are turned over by treasure hunters, for there is a group which makes its livelihood from these tombs taking whatever they find of wood and rags and other things.

I searched through all the closed places but never found any head of a horse, camel or donkey which puzzled me. I then asked the sheikhs of Abu Sir and they hastened to inform me that they too thought about that and queried it but never found any. Most of their sarcophagi are made of sycamore wood; some of them are strong and solid, and others became ashes. The Judges of Abu Sir told me wonders, one of which is that they found a stone naos, They opened it and found another naos, they opened it where they found a sarcophagus (tabut). They opened it and found a lizard, a wall gecko, very carefully wrapped and sealed.

(Al-Baghdadi Al-Ifadah: 111-116).

The puzzlement expressed about the lack of donkey, horse and camel mummies is particularly interesting. There must have been, by the time Al-Baghdadi was writing, no cognition that in Pharaonic Egypt the donkey was sometimes associated with the god Seth who later represented evil, though this was also a popular belief among Moslems, as Satan 'Iblis' had smuggled himself into Noah's Ark inside a donkey. The Ancient Egyptians may not have wished to preserve for eternity an animal which was associated with evil, in spite of their wide use of donkeys in daily life as seen in wall paintings and also the fact that he was worshipped as a symbol of the god Seth. Very few donkey burials have been found so far in Egypt (e.g. in the Hyksos city of Avaris,

see Bietak 1996: plates 10A, 10B. Cf. Houlihan 1996: 31). Horses and camels were not represented in Old Kingdom Egypt and camels are said to have been introduced into Egypt much later than horses, though evidence for the presence of camels has been uncovered in various parts of the country, associated with dates as far back as the Predynastic Period (Free 1944: 191). In the ninth century BCE, camels with two humps were counted by the Assyrian King Shalamaneser amongst the tributes brought by the people of 'Musri'-Egypt-, and seen on the so-called Black Obelisk at the British Museum (Kitchen 1986: 327. Cf. Kuhrt 1999).

As for horse burials, there are few but these are mostly in the south (Nibbi 1979: 160; Houlihan 1996: 35) and none has been found in the Memphite Necropolis as yet.

In his account of the animal burials at Saqqara, Al-Baghdadi makes it clear that they were a major attraction for visitors just as they were throughout the history of Egypt and are still today (Smith 1974; Martin 1981: 3).

6.6 Medicinal use of mummies

The literature on the medicinal use of Egyptian mummies in Western sources is readily available (e.g. Pettigrew 1834; Wiedemann 1906; Dawson 1927; Zimmels 1952: 126ff.; Patai 1964; Dannenfeldt 1985; Reichman 1997; Ikram & Dodson 1998; Camille 1999). These works are mainly concerned with the origin of the word mummia and the various bituminous substances called mummia, and their uses as medicinal remedies in the West. Bitumen was regarded in Classical and Medieval medicine as a potent cure. According to medieval European alchemists mummia was the "arcanum and secret of the microcosm" (Thorndike 1958 8: 106). It was also stated that the common mummia was "the spirit of life for all men" (*Ibid* 355).

These Western works also list the medical conditions treated by <u>mummia</u> in the West well into the 19th century (Patai 1964: 7-8) and show its persistence in spite of the opposition of well known medieval medical authorities such as Ambroise Paré (d. 1590) and others (Dannenfeldt 1985: 174ff). Paré wrote a treatise refuting the use of mummia (Paré 1951: 143-146).

The same substance was called <u>mummia</u> in Arabic, to denote the embalming materials used by the ancient Egyptians. In medieval literature the extensive consumption of Egyptian mummies crossed all secular and religious barriers. The trade was mostly dominated by Jewish merchants (Reichman 1997: 30 & 51; Patai 1964: 8) some of whom were *kohanim*, priests, (Reichman 1997: 50) which led some

worried individuals involved in the trade to seek religious clarification and permission from the Jewish religious authorities, sending questions to the Chief Rabbis in Egypt and elsewhere asking whether it was *halakhic* (permitted) to eat and trade in the Egyptian <u>mummia</u> (*Ibid* 47). The answer varied from one authority to another.

The earliest physician in Arabic sources to refer to the medicinal use of natural mummia is Girgios. He attended the Abbasid Caliph Al-Manṣur who ruled from Baghdad between 754-775. This physician prescribed it as a plaster, and for problems of the lungs, general weakness of body, penile ulcers, the bladder (as quoted in Ibn Al-Bayṭar Al-Jamic 2: 464) and for convulsion of head nerves (facial paralysis) (as quoted in Al-Razi Al-Ḥawi 1: 113). The next physician to prescribe the natural mummia is Ibn Ribn Al-Ṭabari (lived between 770-850) who used it for haemoptysis (as quoted in Ibn 2: 464). The next Arabic source is a woman physician called Al-Khuz cited by Ibn Al-Bayṭar (*Ibid*) as having prescribed it also for haemoptysis. Then we have Ibn cAbdous, a physician who treated the Abbasid Caliph Al-Muctadid (ruled 892-902). Al-Razi (d. 925) related that Ibn Abdous prescribed, in his medical book Al-Tadhkirah fi Al-Ṭib, the natural mummia for facial paralysis (Al-Razi Al-Ḥawi 1: 168). Al-Razi himself prescribed it for migraine (*Ibid* 1: 263) and also for conditions of the lung (Al-Razi Tabib: 80).

Ibn Sina (Avicenna, d. 1037) prescribed it for a wide variety of diseases: tumours, ulcers, phlegmatic tumours, dislocated and fractured bones, haemiplegia, convulsion of head nerves, migraine, chronic and simple headache, epilepsy, vertigo, ear problems such as otitis, haemoptysis, slow tongue, angina, throat pain, cough, palpitations, disorders of spleen, lungs, stomach, liver and bladder, penile ulcers, and as an antidote for poisoning (Dannenfeldt 1985: 173). Ibn Sina makes no mention of Egyptian mummia.

From then on <u>mummia</u> appears regularly in Arabic medical prescriptions. Among those who prescribed it were: Al-Biruni (d. 1051) who gave a description of it and ways of testing its quality (Al-Biruni <u>Al-Sydanah</u> 2: 311), and also referred to the <u>mummia</u> and its sources in his book on precious stones, <u>Al-Jamahir</u> (331-335). It was also prescribed by Moses Ibn Maimun (Maimonides) who died in Cairo in 1204 (Rosner 1995: 182-183; Reichman 1997: 38-40); by Ibn Zohr (Avenzoar) (d. 1162) in his book <u>Al-Taisir</u> (index 535); by Ibn Al-Quff (d. 1286) (Ḥamarneh 1989: 630); by Ibn Al-Khatib (camal: 34, 77 & 84); and by Dawoud Al-Antaki (d. 1599) (Al-Hosni

1986: 129).

The most direct and earliest Arabic source that specifically describes Egyptian mummia and its use as a drug is by the Andalusian geographer Al-Zohri (d. b. 1161). He described the ancient burials of Alexandria where:

In each tomb there is a dead body of a human being, still looking as on the day he died, nothing changed in him. Some had their skin dried on their bones with his oil leaked into the sarcophagus. From these sarcophagi, mummia, which is the oil of those dead, is extracted and this the physicians give to the sick and fractured patients, so this fat is most beneficial to him (the patient) and he heals with Allah's grace.

(Al-Zohri Al-Jughrafyiah: 47).

Egyptian mummies were put to other uses as well. An interesting argument about the anatomy of the human lower jaw was settled by Al-Baghdadi who examined hundreds of Egyptian burials to prove that the lower jaw is composed of one single bone contrary to the view of Galen (second century CE Greek physician) that there were two bones (Al-Baghdadi Al-Ifadah: 150). Whilst Galen was using apes for anatomical lessons, Al-Baghdadi had the benefit of studying humans (Al-Baghdadi *Ibid* 153-188, a comment made by the editor Ghalioungui). In doing so Al-Baghdadi followed a recommendation he attributed to Galen that anybody studying bone structure should go to Alexandria and observe the ancient dead (Al-Baghdadi Al-Ifadah: 116). This educational use of Egyptian mummies is indeed one of the observations made by Galen who himself went to Alexandria to study (Galen; On Anatomical Procedure: xiv, 2-3).

Al Baghdadi (*Ibid*) quoted Galen who said: "Mummia comes out of springs like tar and naphtha". He (*Ibid*) also quoted unnamed "others" saying:

It is a kind of tar and called menstruation of the mountains. and this which is in the bodies of the dead in Egypt is not far from the natural <u>mummia</u>, and is used instead when (the latter is) not available.

This last remark is interesting as Al-Baghdadi puts the use of Egyptian mummia

down to the lack of the natural one, while Al-Harawi (Al-Isharat: 42) a few years earlier had suggested that it was the better quality of the Egyptian <u>mummia</u> that was behind the demand. The latter may well be true, if only for the magical power which people frequently attach to the ancient dead. This may have originated in the ancient Egyptian idea of the mysterious and sacred nature of mummification (Goyon 1988).

A belief in the qualities and healing power of ancient bodies is well known in the West as well as in the East, especially the powers of the relics of saints (Ball 1989: xxiv). This belief in sacred relics in the medieval West encouraged the wide spread trade in them as a commercial commodity and as such became targets of theft (Geary 2001: 184f), just as happened to Egyptian relics. In Coptic Egypt, veneration of human remains of saints as sacred relics was so common that St. Shenoute (fifth century CE) wrote a treatise against what he called "those who honour bones of skeletons" (O'Leary 1937: 254-5). Places where such relics were kept were regarded as holy (MacCoull 1991: 127). Even dead Copts were thought to benefit from having amulets around their neck containing a small bone or even dust made from a saint's bones (Budge 1930: 15). The same phenomenon continued in medieval Egypt, where magical powers were attached to the bodies and to the tombs of the ancient dead. Ibn Rusta (d. a. 913) refers to the village of Badrsanah Al-cAra (modern Badrashien to the east of Memphis, on the west bank of the Nile) where in a room below the church there was a bed on which lay stretched a dead body which generated an endless flow of oil. If a woman wanted to check whether she was pregnant, she laid the dead body on her lap. If she were pregnant, her child would move in her womb (Ibn Rusta Al- A^{c} laq: 81-82).

Al-Maqrizi (d. 1442), in his encyclopaedic Khitat (1: 183-185) gives an account of a Coptic festival called Festival of the Martyr during which a finger from a saint was placed in a sarcophagus and thrown in the Nile to ensure a good annual flood (Diab 1998: 250; Lutfi 1998: 263 ff). Such use and veneration of the ancient dead continued into modern Egypt (Blackman 1927: 98- 99) as seen from the numerous accounts of women, concerned about conception, using bones of ancient Egyptian mummies and performing rituals at the ancient tombs. This use of the dead is still to be found in contemporary Egypt especially for love charms (Fodor 1992: 174). In medieval Arabic books of magic, mum/mummia was used to cause love or hatred between men and women (Al-Ghalani Al-Dur 2: 73, 112).

It seems that a belief in the power of the dead from beyond the grave was always

present in Egypt to judge from the letters to the dead in Ancient Egypt (Gardiner & Sethe 1928; Wente 1990: 210 ff), a custom which can still be seen in modern Egypt where people still write letters to the dead seeking help with all sorts of social, economic and political problems, including legal disputes as well as daily life matters (Ewais 1978). Such interaction between the living and the dead was not a one-way process in which the living sought the help of the dead, as the dead also asked help from the living, so we see ancient Egyptian funerary texts appeal to the living for a prayer, or even to weep for the deceased, a tradition which survived into Coptic times (Behlmer 1996: 574). Also from Coptic literature we have a seventh century story of a Coptic Bishop, Piscentios, who, while living in an ancient Egyptian tomb, experienced a mummy leaving its case and demanding the Bishop's intercession (Butler 1978: 86f).

Egyptians consciously kept alive a belief in the power of the dead by recalling ancient Egyptian practices, as seen for example in the book <u>Akhbar Al-Zaman</u> (123), in a reference to an ancient Egyptian case:

when the Queen Mother, who was also a magician, died, she used to tell them from her grave about marvels and answer all their questions

This is a reference to oracles, e.g. to that of Queen Ahmos Nefertari, mother of King Amenhotep I of the 18th dynasty (1526-1506 BCE). Both these rulers played an important role as patrons of the workmen's village of Deir El-Medina on the West Bank at Thebes. They spoke oracles, and solved disputes among the villagers from beyond the grave (on this oracle at Deir El-Medina, see McDowell 1990; Sadek 1987: 131ff).

The idea of making use of holy or dead bodies can be traced back to the Pyramid Texts of the 5th Dynasty and appeared for the first time during the reign of King Wenis ca 2351 BCE. In Pyramid Text (PT) Utterances 273-4, we read:

The King has appeared again in the sky,
He is crowned as Lord of the Horizon;
He has broken the back-bones
And has taken the hearts of the gods;

He has eaten the Red Crown,

He has swallowed the Green One.

The King feeds on the lungs of the Wise Ones,

And is satisfied to live on hearts and their magic;

He enjoys himself when their magic is in his belly;

The King's dignities shall not be taken away from him,

For he has swallowed the intelligence of every god.

(Faulkner 1969: 82. For a recent translation and study see Eyre 2002).

It is the idea that we eat of the gods to become like them, powerful and eternal, that lies behind this text. This is surely what was in the mind of those who were excavating ancient Egyptian bodies for use as medicine, believing that they were endowed with powerful magical spells written among the wrappings, and that the effect would be as powerful on those who consumed them. Moreover, the ancient Egyptians themselves associated human mummies with divine corpses of gods, using the same words for both (Yahuda 1944: 195) and this may in turn may have led to the veneration of human bodies. There may also be a connection with ancient Egyptian ideas of the deification of certain members of the body (DuQuesne 2002a). Since every part of the body was protected by its own deity, special protection can be gained by eating these parts, in whatever form. Such beliefs in the benefits of eating human bodies found its way into late medieval Arabic books of magic as seen in the long chapter by Al-Ghalani (Al-Dur 2: 174-186) on the specific benefits of every part of the body in magical and medical treatments.

This knowledge, based on ancient practice, was still evident as late as the 17th century when an Egyptian rabbi, Abraham Halevi, showed an extensive knowledge of the embalming process and the different uses of the mummy (Zimmels 1952: 127). He attributed medicinal value to the corpse itself, making the body the actual medicine with the embalming materials having been used solely to preserve the otherwise temporary medicinal value of the flesh (Reichman 1997: 48-9). Rabbi Halevi recommended only the upper parts of the mummy for medicinal use, as the flesh from below the hips is worthless (Zimmels *Ibid*; Patai 1964: 9). His reasons for this recommendation are, firstly, the upper parts absorb more balsamic drugs than the lower parts and secondly, the upper parts have more sympathetic power, and are therefore more effective (Zimmels *Ibid*). The Rabbi also thought that "in any case

there is an enjoyment and usefulness in the mummy itself" (Patai *Ibid*). Patai links to this the practice by barren Sephardi women in Seattle during the 19th century, of swallowing foreskins in order to conceive, saying there was a possible confusion with mummia. This could be compared with the ancient Egyptian practice in which a mother who had given birth to a weak baby checked whether it was going to survive by mixing the placenta with her milk to feed to the baby. If the baby swallowed it s/he would live, but if the mixture were vomited up, the baby would die. (Lexa 1925 1: 73). Lexa explained this on the grounds that the placenta is of prime importance in keeping the baby alive in the mother's womb, therefore if s/he vomits it up, this was a rejection of life. The ancient Egyptians certainly regarded the placenta as a twin or ghost of the person (Blackman 1916). Among the Egyptian words for placenta, *mwt-rmt* literally means "Mother of Mankind" (Nunn 1996: 149), which may help explain the importance attached to it by ancient Egyptians who regarded it as the origin of human beings.

6.7 Etymology of the word mummia

I have referred above to the fact that the Arabic and Persian word mom/mummia means "honeybee wax" and also "pissasphalt". This word was also used sometimes in Arab poetry as a compliment when, for example, likening a physician who is most kind with his treatment to the mummia which heals broken bones (Ibn Khalikan Wafiyat 3: 599).

However, I believe that the ancient Egyptian word *mnnn*, *mnn*, *mnrw* or *mnni* is quite possibly the origin of the word <u>mummia</u> (for its various forms see WB 2: 82; Chassinat 1955: 65ff) with the meaning "bitumen, natural asphalt and balsam" (Loret 1894: 161; Charpentier 1981: 332 no. 520 & 336-7 no. 527; Sternberg 1982: 213; Aufrère 1984: 1-2; Hannig 1995: 339). In suggesting this I do heed the warning made by Quirke (1998: viii) of the danger of translating words out of context. But there is no word in either Egyptian or Arabic with three *n* following *m*. The Egyptian word could just as well be pronounced *mnmw* or *mmw* and, by adding vowel sounds, we arrive at the Persian/Arabic <u>mum</u> and <u>mummia</u>, bearing in mind that the letters *m* and *n* are interchangeable in both Egyptian and Arabic and often *n* is assimilated into *m*. (e.g. WB 5: 132; Brockelmann 1938: 383). In Egyptian, cases where *nw/nnw* is pronounced *mw* and not *n* or *nw* are known (Fairman 1943: 278 n. LXV).

A similar process exists in Arabic, for example <u>natar</u> and <u>matar</u> (rain); and <u>canbar</u> and <u>cambar</u> (amber) (Ibn Manzur <u>lisan</u> 14: 135). Often when a word has several consecutive n, one or two may disappear if only in script e.g.: mnnw and mnw "fortress" (Badawi and Kees 1958: 98-9; Faulkner 1962: 108-9). The Egyptian n can also become l and r in Coptic and Arabic (Vycichl 1990 1: 56). The Coptic word for mummia, (miolwn), derived from the Egyptian mnnn, means "bitumen extracted from embalmed corpses" (Loret 1900: 58; Crum 1939: 165; Westendorf 1977: 89). Wilson (1997: 431) suggested that this Egyptian word mnnn is the origin of the

Wilson (1997: 431) suggested that this Egyptian word *mnnn* is the origin of the Arabic, saying the latter "is the word thought to have become Arabic *mwmia* and thus 'mummy'". Here I have offered a development of the word which supports Wilson's suggestion.

6.8 Summary

It was the idea of consuming mummia for cure and protection that led to the widespread trade in the West. Whether as a result of linguistic confusion between the names of the substance and the Egyptian bodies, or a conscious quest for the magical power of Egyptian mummies as *holy relics*, thousands of ancient Egyptian mummies have been lost to us through their use for medicine and magic. The Arabic sources show an awarness of the difference between mummia from natual sources and that obtained from Egyptian mummies and give a range of its medical uses to treat various conditions in contemporary medicine. The Moslem/Arab sources show keen interest in mummification and burial practices of both animals and humans. On the whole the Arabic sources display an accurate knowledge of the subject through direct observation, supplemented by earlier classical sources.

Chapter 7. Egyptian Science in Medieval Arabic Sources

7.1 Introduction

The Moslem/Arab scholars were generous in their praise of the sciences of ancient nations. Almost all medieval Moslem/Arab books on any science start with a chapter on previous scientists in the field and so establish a long continuous chain of knowledge. Ancient scientists, regardless of their origin or creed, were regarded as ancestors by the Moslem/Arab scientists who recognised scientific achievement as a universal process to which every nation contributed its share in its own time. This is clear from the examples of Al-Nadim (Al-Fihrist), Ṣacid Al-Andalusi (Tabaqat) and Ibn Abi Uṣaybicah (Tabaqat). In these books, Pre-Islamic Egyptian scientists are portrayed as being masters of science and wisdom who belonged to the land where science and wisdom originated. Two examples may serve to illustrate this point; Al-Nadim (Al-Fihrist: 425) said that:

the origin of alchemy was in Egypt which produced many writers and scientists who obtained the knowledge from the temples of Egypt.

And Al-Nuwairi quoting Al-Hassan Ibn Ibrahim [Ibn Zulaq] said that:

In antiquity, Egypt was the destination for students of science and scholars of exact science in order that they sharpen their brains, intellect and intuition (Al-Nuwairi Nihayat 1: 353).

This acclaim may be partly due to the obvious remains of the material culture of Ancient Egypt which dominated the country's landscape, and it was logical for medieval Moslem/Arab writers to assume that ancient Egyptians had had advanced knowledge in the many fields required for erecting such magnificent buildings as the pyramids and for sculpting great statues such as the sphinx. The precision with which Egyptians engineered their works, their orientation and the astronomical connections of their monuments, as well as the materials used for colours, were amongst the scientific achievements that most impressed the medieval Moslem/Arabs. But what did Moslem/Arab writers mean by Science?

7.2 Definition of science in Moslem/Arab sources

Science <u>cilm</u> and wisdom <u>Hikmah</u> were interlinked in Moslem/Arab thought and both related to knowledge. The Arabic word <u>cilm</u> and its derivations appear more than seven hundred times in The Qur'an giving it a profound significance in Moslem/Arab culture. The word has a wide spectrum of meaning, including knowledge, learning, reasoning and wisdom, and defies all attempts to define it in a nutshell (on this problem see Rosenthal 1966). Any attempt to narrow the meaning of <u>cilm</u> is artificial (Article cilm in EI² 3: 1133-4).

For Moslem/Arab writers it seems to have been difficult to isolate the concept of science from concepts of philosophy, knowledge and general wisdom. Seeking knowledge is equivalent to an act of worship in Islam and it is therefore incumbent on every Moslem to seek out knowledge that is useful, not harmful, and almost everything worth learning is called "ilm." (For a recent discussion on Moslem classification of knowledge see Jolivet 1996: 1008ff; Bakar 1998). A considerable number of medieval Moslem/Arab writers produced a large body of work on the divisions of knowledge, and this has been well-studied and commented on (e.g. Al-Tahanawi Kashaf 1: 5-70; Nasr 1968: 60ff; Rosenthal 1966, 1975: 52ff). Such was its importance that a scholar such as Al-Ghazali (d. 1111) devoted several works to the definitions and divisions of the sciences and started his most famous work Iḥya' "Ulum Al-Din with a chapter, the longest in the book, on this subject (Iḥya' 1: 14-118; Faris 1966).

In summary, sciences may be divided into two main types (Mahdi 1994):

- 1. manqul means transmitted sciences. It includes knowledge which is understood through study and by going back to the founder of the science and his/her followers through a recognised chain of transmission. It includes religious science, for example, °Ilm Al-Ḥadith, the Science of the Ḥadith.
- 2. ma^cqul is the rational or natural sciences which are learned through innate reason and intellect for example, logic, physics and mathematics.

It is not suggested that the <u>manqul</u> sciences are irrational or devoid of reason, because this is certainly not the case. But it does mean that the natural sciences have more of a universal nature, transcending linguistic, national or religious barriers (Mahdi 1994: 249).

This is an oversimplified summary of a complex issue but it demonstrates the lack of religious prohibition on Moslems from seeking scientific knowledge as a universal

quest, wherever it was to be found. One of the ways in which early Moslem scholars categorised scientific knowledge was on the basis of its necessity to humanity. So, for example, Al-Jaḥiẓ (d. 771) in one of his treatises (Rasail 4: 51) recalled the instruction of his teacher, Abu Isḥaq Ibrahim Ibn Sayar Al-Niẓam (d. ca 741) who divided knowledge into eight kinds. One was optional (ikhtiyar) — that of the knowledge of God, his prophets and exegeses of the Holy Books. Today it would be considered very radical thinking to include in optional knowledge the religious studies of God and his prophets, yet it was widely and amicably discussed during the eighth century as demonstrated for example by Al-Jaḥiẓ. The other seven sciences were obligatory (iditrar), and included the study of chronicles, histories of ancient countries, biographies and monuments (al-siyar wa al-athar). Generally but not exclusively, the word athar was used in medieval Arabic to mean "Traditions of the Prophets", but it was also used to mean traditions and relics/monuments.

7.3 Sources for medieval Moslem/Arab study of ancient Egyptian science

Pre-Islamic Egypt was perceived in medieval Moslem/Arab writings, as the land where science and wisdom originated as see in the above cited example of Al-Nadim (Al-Fihrist: 425).

In many medieval Arabic sources, scientists from pre-Islamic Egypt are described at length, including their achievements. These pre-Islamic scholars from Egypt were thought of as Egyptians but wrote in Greek, and were thus often designated as Greek. These included Meton and Euctemon, from Alexandria, both of whom flourished in the fifth century BCE, Aristarchus the astronomer, who around 200 BC devised the first heliocentric model of the universe, and Eratosthenes who measured the size of the earth and calculated its diameter (Salem and Kumar 1991: 95 n. 11). Another scientist well known from the Arab sources is Zosimus (c. 300 CE), the alchemist from Akhmim in Upper Egypt (Holmyard 1957: 27; Mertens 1995, 2002; Stolzenberg 1999).

Al-Nadim (Al-Fihrist: 328) and Al-Qifti (Ikhbar: 53) refer to the scientist Hero (1st century CE), designated "Heron the Egyptian, the Rumi, the Alexandrian". Hero's book on Pneumatics, cited by Al-Qifti, survived only in its medieval Arabic translation (Farmer 1931: 159ff; Hall 1971: x). This book, dealing with mechanical devices, was very popular among medieval Moslem/Arab scholars and was a main source for Mechanics ("Ilm Al-Hayal) in the Moslem world (Hill 1993: 123).

A famous Egyptian scientist was Apollinus the Carpenter (Apollonius of Perga) of the second century BCE (Ṣa°id <u>Tabaqat</u> 26), a mathematician who wrote a book <u>Al-Makhrutat</u>, - Conics. He was from Alexandria, the city in which Euclid (Father of Geometry) flourished much later (Al-Qifti <u>Ikhbar</u>: 44-48).

Another important Egyptian scientist was Ptolemy, (2nd century CE) astronomer and geographer whose book 'Almagest' was the foundation for the mathematical astronomy and geography of Moslem/Arab scholars (Hill 1993 index).

Most of these pre-Islamic Egyptian scientists belonged to and flourished in the Alexandrian school which was still there and still widely renowned when the Moslems arrived in Egypt in the seventh century (Meyerhof 1930: 389). Even if this Alexandrian school was longer functioning when Moslems arrived, its scholarship, as well as others, formed the foundation upon which the famed scientific knowledge of Ḥarran and Baghdad was built (Lameer 1997: 182).

The fame of ancient Egyptian science was also in part due to the many classical writers such as Herodotus, (mid-5th century BCE), Plato, (c. 427-347 BCE), and Iamblichus (c. 300 CE), who wrote extensively about Ancient Egypt and were all admirers of its science and wisdom. Much is also recorded of famous Greek scholars who went to Egypt in search of knowledge. Not least of these was Pythagoras (c. 582-500 BCE) who appears in almost all the Arabic sources on the history of science and scholarship. His fame was credited to his stay and study in Egypt where, in particular, he studied geometry under the tutelage of Egyptian masters (Ṣacid Tabaqat: 21; Iamblichus, Life of Pythagoras IV). Many of the Classical sources praising ancient Egyptian sciences were well known to medieval Moslem/Arab writers such as Al-Nadim, Ṣacid Al-Andalusi, Ibn Fatik, Al-Qifti and Ibn Abi Uşaybicah.

This may explain why key figures in Islamic alchemy such as Jabir Ibn Ḥayan, Dhu Al-Nun and Ibn Umail all claim to have spent time in ancient Egyptian temples where they received their knowledge of alchemy. There is a clearly established chain of lineage from the alchemy of ancient Egypt to Islam.

Al-Nadim (Al-Fihrist: 303) tells us that the first Arabic translations of science books, which took place in Damascus in the second half of the seventh century, were of Egyptian books written in Greek and Coptic. This task of translation, instigated by the Umayyad prince, Khaled Ibn Yazid (660-704), represents perhaps the earliest recognition of pre-Islamic Egyptian scholarship and advanced scientific knowledge (cf. the detailed study of Khaled by Ibrahim 1984).

The Andalusian judge and scholar Ṣacid (d. 1068), in his book on the 'Categories of Nations' which dwells in particular on those ancient nations known for their sciences, gave an account of the eight nations which had contributed to scientific knowledge. These were the Indians, Persians, Chaldaeans, Greeks, Romans, Egyptians, Arabs and Banu Israel.

7.4 The Hermetic tradition in Arabic science

The Egyptian Hermes, known as Hermes the Copt (Al-Ya^cqubi <u>Tarikh</u> 1: 187), was perceived as the source of science. This followed from earlier sources that treated the Egyptian Thoth/Hermes as the origin of many of the sciences (Kákosy 1981: 42).

Some Arab writers, for example Al-Nadim (<u>Al-Fihrist</u>: 345), quoting Isḥaq Ibn Ḥunain (<u>Tarikh</u>: 150), attributed the invention of certain sciences to ancient Egyptians or to Hermes:

Some say it was the Egyptians who invented medicine. Others say Hermes invented all crafts and philosophy and medicine.

In keeping with earlier Arab sources, Ṣacid (<u>Tabaqat</u>: 35-37) spoke highly of ancient Egyptian science and tells that Hermes, a resident of Upper Egypt before the Flood, was the source of all science. Hermes was said to be the first astronomer, builder, doctor and poet. He was also:

the first to predict the Flood and to foretell that a celestial catastrophe of water and fire would strike the earth, and he became concerned that science and other forms of knowledge would be lost; so he built the pyramids that can still be found in Upper Egypt. On the wall of the pyramids he drew all forms of technical equipment and devices and described all aspects of science, intending to preserve them for future generations, because he was afraid that they might be lost to the world.

This Egyptian Hermes was very popular in medieval Moslem/Arab sources (Scott 1985 4: 248ff; Massignon in Festugière 1981 1: 384ff; Siggel 1937 and Plessner 1954). He was claimed as a native by almost every country including Yemen, Iraq,

and Lebanon (Sabanu 1982: 11; Blanco 1984: 2254). He was also associated with the Hebrew prophet Enoch and the Qur'anic prophet, Idris, (Q 19: 57-58, Q 21: 85-86) who was said (Al-Qifti Ikhbar: 229) to have taught the Greek Asklepios who travelled from Greece to Egypt especially to learn and transfer scientific knowledge back to Greece. Al-Qifti seems to have been aware of the nature of the relationship between the Greek Asklepios, the Egyptian Imhotep, and Hermes (Fodor 1974: 156). In other words, Hermes was identified in Arabic sources with Imhotep as well as with Thoth following the Greek tradition (Fowden 1986: 22, 32, 216). Ibn Fatik (Mukhtar: 10) alluded to this through his description of the physical appearance of Hermes. Among many features he was:

dark coloured (adam al-lun) complete body, bald, handsome, with thick beard, broad shouldered, large boned with little flesh, bright eyes painted with kohl, gently spoken, with long silences, unmoving limbs. When walking, often focuses his eyes on the ground mostly in deep thought. He is very serious and moves his index finger during talking. He lived on earth for 82 years.

Moslem alchemists regarded this Hermes as one the founders of the science of alchemy (Holmyard 1957: 82, 98-100). They claimed that he was the source of their own material and knowledge as did Abu Al-Qasim Al-'Iraqi (see above eg. 84, 94). It was Hermes who wrote the famous "Tabula Smaragdina" (Emerald Tablet) which contained the key to all the secrets of the universe (for literature on this tablet see Kahn 1995 and the references there). The name of this tablet in Arabic is al-lawh almahfouz which has a profound meaning for Moslems as it is mentioned in The Qur'an (Q 85: 21-22): "This is a glorious The Qur'an, (inscribed) in an (eternally) preserved tablet" meaning that the most revered book for Moslems has been in eternal existence. It has already been noted that Hermes was Islamicised in these Arab sources and that alchemists elevated his tablet to a revered status as the origin of their sacred knowledge. This idea is rooted in ancient Egyptian materials as can be seen in the rubrics in the Book of the Dead where magical spells were believed to be found on tablet of "real lapis lazuli" (Allen 1936: 151).

Ṣa^cid described another Hermes who lived in Egypt after the Flood whom he called "Hermes the Second", a travelling philosopher, geographer and alchemist.

This Hermes is often referred to (e.g. Ibn Juljul <u>Tabaqat</u>: 8) as Hermes the Babylonian. There is yet another Hermes, "Hermes the Third", who also lived in Egypt (<u>Tabaqat</u>: 19, 90 n.5-6).

The main source in almost all Arabic materials for these various Hermes is Abu Ma^cshar Al-Balkhi (d. 885) in his book the Thousands on Houses of Worship (Al-Uluf fi Byut Al-cIbadat) (Burnett 1976) which is now lost, only small fragments of it having been collected and edited by Pingree (1968). Long quotations from Abu Ma^cshar are found in many Arab books when referring to Hermes, for example in Ibn Juljul (d. a. 994) (<u>Tabaqat</u>: 1-100) and in Al-Qifți (<u>Ikhbar</u>: 2-6, 227-229) who said that:

Hermes the Third, the Egyptian, is known as Trismegistus because he is the third of the three sages. He was from Egypt after the Flood, a travelling philosopher, an ancient one who knew the countries very well, their cults and their people's characters. He wrote an excellent book on alchemy and another on poisonous animals. He was a native scientist of Egypt, a country among the esteemed ones. It had a great kingdom and ancient fame in old times as evidenced from their monuments, buildings, sanctuaries and science centres, most of which still stand in the country to this day and all of which, as agreed by all people, are unique on earth.

Knowledge of Hermes and his books was essential for the medieval Moslem/Arab scholar as can be seen in Al-Jaḥiz (Rasail 3: 72) who taunted one of his critics for not knowing the writings of Hermes (Netton 1991: 50ff). As Al- Jaḥiz died 771 CE, knowledge of Hermes must have been already common among Arab scholars well before the ninth century, the earliest date given by Blanco (1984: 2255) for Arab knowledge of Hermes.

After the Flood, highly esteemed ancient Egyptian scientists were said to be knowledgeable in all science and philosophy, including mathematics, the physical sciences and theology. Sacid tells us that the Ancient Egyptians dealt with the most

complex of problems. He quoted a widely used source named Al-Wasyfi on one such problem, the "Theory of Creation":

The ancient Egyptians believed that prior to the birth of the human race, the earth was populated by species of animals having strange forms and extraordinary appearances.

Then came the human race, which fought and defeated all the other species until they were annihilated or dispersed in the wilderness and deserts. Among these animals were the ogres and the ghouls and others as mentioned by al-Wasyfi in his book on the history of Egypt.

Recent translators of the <u>Tabaqat</u>, Salem and Kumar (1991: 94 n. 5), have suggested that this quotation from Al-Waṣyfi may have been a later addition to the work of Ṣacid, by a copyist, since Al-Waṣyfi died in 1202 some hundred and thirty years after the death of Ṣacid (Kaḥalah 1957 1: 125). But we do not know the exact dates for Al-Waṣyfi and whether he might be the same person as Ibn Waṣif Shah who is believed to have lived in the tenth century (Ferré 1991), or perhaps even Ibn Waṣif Al-Ṣabi' (Sezgin 1994). The quotation above seems to have been particularly popular since it is often repeated, and sourced, to Al-Waṣyfi (e. g. Abu Al-Ṣalat <u>Al-Risalah</u>: 24; Al-Qifṭi <u>Ikhbar</u>: 228).

Moslem/Arab thoughts on the origin and conflict of species and on natural selection leading to the evolution of humans can be seen in the works of Jabir (d. ca 815), for example in his book <u>Tadbir Al-Iksir</u> (8-9) where he even hints at an evolutionary connection between fish and humans warning his readers "not to be surprised at such a connection" (*Ibid* 9). These discussions on evolution had became common knowledge by the ninth/tenth centuries as can be seen in the works of Ikhwan Al-Ṣafaa (Kruk 1996: 79 and n. 55), of Al-Muqadasi (d. 950) (<u>Al-Bad'</u>: 2: 75f), and of Miskawaih (d. 1030) (<u>Tahdhib</u>: 64ff). The suggestion of Salem and Kumar about the quoted passage of Al-Waṣyfi that it is a later addition may be supported by the comment on it, attributed to Ṣacid, which questioned the intellect of the ancient Egyptians if they had truly been the advocates of such a theory of evolution. He said:

If true, this will make them [the ancient Egyptians] as far as they could be from the discipline of wisdom and the laws of philosophy

This quotation of Ṣacid is in contrast to his obvious admiration for Egyptian scientific knowledge seen in his accounts of the many eminent Greek scientists who studied under Egyptian masters.

7.5 The natural sciences

Medieval Arab sources were well aware of their debt to pre-Islamic scientists, particularly in the area of the natural sciences which included physics and mechanics. Of those pre-Islamic scientists particular mention is made of Archimedes, (c. 287-212 BCE) originally a native of Syracuse, Sicily, but known in medieval Moslem/Arab sources as Archimedes of Alexandria, an Egyptian Greek who according to Al-Qifti (Ikhbar: 48-49) was behind the building of dykes, dams and new villages in Egypt to alleviate the effects of the Nile floods:

the reason was that most villages in Egypt when the Nile flooded, the inhabitants left them and went up the nearby mountains where they stayed until the Nile receded, for fear of drowning. As the Nile started to recede, people began going down to their fields and started cultivation but they were prevented from reaching the higher fields because the lower ones would still be filled with water, so they had to wait until the water dried up completely, thus missing a lot of produce. Archimedes surveyed all the villages at the highest possible level of the Nile and filled in much land and built villages connected by bridges and dykes that allowed water to flow from one village to another so that they all benefit from the water and all are cultivated. He set up endowments, the income of which was designated exclusively for the upkeep of these bridges and dykes. This system is still in place even now and it has a separate Diwan known as <u>Diwan fidn al-jisur</u> (Department of Dykes Lands) which still receives special care, and I knew it since I was a child as it has been under my father's supervision with many deputies and a large staff. The work in this Diwan was harder than all others.

However effective the work of Archimedes in trying to manage the effects of the annual Nile flood, it was obviously still causing problems some twelve centuries later when Al-Baghdadi devoted much of his time to scientific observation and record-keeping to try to find a solution to the damaging effects of varying flood levels. He started his own observations in the year 1200, but included in his book details of flood levels from 622 CE. He tells us that the minimum level of the flood was 16 cubits, referred to as Sulṭan (Royal) Cubit – "dhirac al-sulṭan" (c. 66,5 cm.) which would trigger the taxation system. His records show that between the years 622 and 1200 the flood failed to reach this level in only 26 of these years. The level of flood for taxation purposes that he quotes may well have remained unchanged since Pharaonic times.

Moslem/Arab fascination with pre-Islamic Egyptian sciences and scholars was not limited to past Egyptians but included their contemporaries as well. For example, while Al-Mas^cudi's narrative on ancient Egyptian wonders is mainly concerned with marvels and the advanced scientific knowledge of the past (Muruj 1: 360), he also observed and admired contemporary Egyptian innovations:

We mentioned the production in Upper Egypt, close to Abyssinia, where they produced crossbreeds from bulls and she-asses, and also from donkeys on cows.... We gave account of their genetic [?] engineering, (droup al-tawlidat), in animals and plants in our book titled 'Book of Matters and Experiments'.

(Al-Mas^cudi Muruj 1: 363).

Al-Baghdadi (Al-Ifadah: 118f) too, described with admiration Egyptian technology, for example the water system serving the public baths and also that of the artificial breeding of chickens in what was called chicken-breeding factory (ma^cmal al-firuj), where eggs were stacked in thousands in heated sealed rooms with floors furnished with papyrus mats (Al-Baghdadi Al-Ifadah: 87-90).

7.6 Mirabilia of Egyptian sciences

Moslem/Arab sources attributed to pre-Islamic Egyptian scientists many scientific innovations that can be called *Mirabilia* and attributed to them the following the inventions and displines:

- 1- Medicine, alchemy, magic and astronomy which were taught for the first time by Hermes the Copt who preserved these sciences on the walls of Egyptian temples.
- 2- The Burning Mirror on the top of the Alexandria lighthouse which, in addition to guiding ships into harbour, had two other functions: the first an early-warning system enabling watchers to see ships long before arrival at the Egyptian coast; the second utilised in cases where ships turned out to be hostile, by directing the mirror at a certain angle to reflect and intensify the sun's rays and focus them on the incoming enemy ships to set them alight at sea (Akhbar Al-Zaman: 154; Al-Harawi Al-Isharat: 48; Yaqut Mucjam 1: 188; Al-Qalqashandi Subh 3: 356).

 Ibn Ḥawqal (Surat: 142) disagreed that those were the functions of the mirror believing the whole structure to be an observatory to study astronomy. (on the Burning Mirrors see Toomer 1976).
- 3- Mechanical devices such as water-clocks, water-wheels, and automated devices used in the temples such those seen in the work of Hero of Alexandria (e.g. **Plates** 45-8).
- 4- Metal cannon that fired sulphur to protect Egypt against enemies (Akhbar al-Zaman: 113).
- 5- A glass planetarium made for King Tosidon/Tomidon (Ibid 123).
- 6- Decoration of tombs and ceilings with astronomical scenes (*Ibid* 133).
- 7 Glass that bent without breaking 'flexi-glass' (al-<u>zujaj al-lazi yotwa fa-yantawi wa la yankasir</u>) (*Ibid* 136).
- 8- An automatic public clock that sounded every hour (*Ibid* 136).
- 9- A city lighthouse with a dome on top painted with a special chemical which, when the sun sets, illuminated most of the city. Neither wind nor rain affected this light which only faded when the sun shone (*Ibid* 145).
- 1- The Egyptian Hermes cut a new Nile and redistributed its water more evenly (*Ibid* 159).
- 11- A dome was erected to announce the New Year with smoke of different colours rising from it. If the smoke was green, it indicated that the New Year would be a

good one for building, fertility, and good harvest. If the smoke was white, it would be a lean year. Red smoke meant bloodshed, wars and the arrival of enemies. If it was black, it meant great rains and flash floods and damage to some of the land. If the smoke was yellow, it meant fires and cosmological disasters. If the colours came out mixed, it meant strife amongst the people and neglect of duty on the part of their rulers (*Ibid* 159).

- 12- Sand attacking the western side of Egypt was stopped by erecting a statue with an inscribed body holding a basket and a hoe (*Ibid* 160-1).
- 13- State monopoly of alchemy to enrich the kingdom of Egypt (*Ibid* 169).
- 14- Production of healing statues to cure all kinds of ailments (*Ibid* 169)
- 15- A statue of a woman, the seeing of which cured misery and depression (Ibid 171).
- 16- A lighthouse that flooded the city with a different coloured light each day of the week. The lighthouse was in the middle of a pond with coloured fish. The city was protected by talismans with human bodies and baboon heads. Nearby, a special new city had in its centre a dome which had above it a permanent cloud which always rained lightly. Also at this city's gates were statues of priests holding scrolls of the sciences, and whoever wanted to learn a science went to its particular statue, stroked it with his hand and then stroked his own breast, thus transferring the knowledge of the science to himself. These two cities were named after Hermes (*Ibid* 175-6).
 - This is clearly a description of what was left of Ashmunein, the centre of Thoth/Hermes and an attempt to explain the remaining monuments based on the ancient fame of this centre.
- 17- King Ashmun built under the Nile a tunnel connecting the city of Ashmunein on the West Bank to the East Bank for the use of his women when they went to visit the Sun Temple. The tunnel was paved and its walls were covered in coloured glass (*Ibid* 176-7). This may be mainly a fantasy but there are some related historical facts. Across the Nile from Ashmunein, is the city of King Akhenaton and his Sun Temple. His city also had outlying areas on the West Bank. On both banks there are stelae depicting the king, his wife and daughters worshipping the sun. These were visible to passers by and very clearly indicate a sun cult with the distinguishing sun disk extending its rays over the royal family. It would be interesting to test the possibility of the existence of the tunnel, though the story may just be the medieval Arab attempt to explain the existence of the same

type of stelae on both banks (Cf. Murnane and Van Siclen III 1993: plates 1, 18 there).

- 18- Inventions of advanced technology by Egyptian kings (*Ibid* 197).
- 19- An oven that cooked without fire (Ibid 241).
- 20- A blade that automatically slaughtered animals (Ibid 241).
- 21- A system that converted water into air (*Ibid* 241).

Many Arab writers said that the ancient Egyptians designed their mounuments with astronomical functions in mind. For example according to Al-Maqrizi (Khitat 1: 633) the temple of Dendara was said to have 180 niches and that the sun entered the temple each day through one of them in succession until it reached the last niche when it started again from the beginning for the second half of the year. This is an important observation as indeed the journey of the sun throughout the year is depicted on the ceiling of the Dendara temple which is divided into two halves, with 180 days to each.

In his account of Heliopolis, Al-Maqrizi quoted Al-Quda^ci who said that the two obelisks there were connected to the solar calendar:

When the sun enters a minute of Capricorn which is the shortest day of the year, it reaches the southern [obelisk] and appears on its top. Then when it [the sun] enters a minute of Cancer, which is the longest day of the year, it reaches the northern [obelisk] and appears on its top; and these are the end declination (wa humma muntaha al-milayn), and the Equator is between them (Al-Maqrizi (Khitat 1: 622)

This idea that Egyptian monuments were built with astronomical orientations and functions in mind is indeed supported by modern research (Zaba 1953). Hawkins (1971-2: 175) noted that the obelisks in the chapel of Re-Horakhti at Abu Simbel, together with other elements, pointed towards the rising of the midwinter sun (On this obelisk, now in Cairo Museum, see Habachi 1984: 7, 98f). In recent experimental work, the use of the Egyptian obelisk as a gnomon was shown to work in practice (Isler 2001: 13ff, 135ff).

Furthermore, the medieval Arabic idea that monuments, in particular the pyramids, not only had surviving astronomical functions but could also be used as tools for working out chronologies, is now being taken seriously by Egyptologists (Spence 2000). Medieval Moslem/Arab works on astronomy display a direct knowledge and

use of ancient Egyptian sources as can be seen, for example, in the Arabic names for many astronomical bodies, which on closer investigation have been shown to be of Egyptian origin (Casanova 1902; Goebs 1995).

7.7 Summary

Classical sources portray the image of Egypt as a source of all sciences (Hornung 2001). This, added to their personal experience, helped to shape the medieval Moslem/Arab view of Ancient Egypt as the land of wisdom and science. Since the Classical sources were available in Arabic as early as the seventh century, the first century of Islam, their influence on the public as well as on learned circles of scholars must have been great. It was common to quote long passages from Classical writers such as Homer, Herodotus, Iamblichus, Plato, and Plotinus even in Arab literary works, for example in the writings of Al-Sajistani and of Ibn Fatik.

Surprise at these early Arabic translations on the part of highly respected modern scholars seems to stem from a misleading presumption that Moslem/Arabs translated only what was of direct practical use to them, such as medical books. For example, the eminent orientalist C.H. Becker (1931: 14-15) specifically commented on the enthusiasm of the Caliph Al-Ma'moun (early ninth century) whom he refers to as an "enlightened despot" questioning his motives for translating a large number of books of Greek philosophers. Becker found such enthusiasm "unknown and abnormal in the Orientals", suggesting that the Arab translations were not:

as a result of an abstract desire to acquire science and knowledge, because if this had been the case then Homer or the Tragedies would have been translated as well, but the reality was that people did not take any interest in nor feel any need for them.

(Becker 1931: 14-15. Translated from German).

This assertion of Becker that the Arabs did not translate Homer is easily disproved by looking at the long quotations from Homer by Al-Sajistani (Siwan: 68ff) who referred to an Arabic translation of Homer produced by Stephanus (Ostanes) the Elder. This is likely to be the Greek/Byzantine Alexandrian Ostanes, the philosopher

and alchemist who, according to Al-Nadim (Al-Fihrist: 303f), also translated alchemical works for Prince Khaled Ibn Yazid (d. 704) in the first century of Islam.

Chapter 8: Egyptian Kingship and State Administration

8.1 Introduction

Royal chronicles (akhbar al-muluk) were a popular genre in the Arabic sources, and issues relating to Egyptian kingship were part of these writings. Ancient Egyptian kings received wide coverage in the Moslem/Arab sources for three main reasons:

- 1- Qur'anic references to Egyptian royal deeds, in particular those of the Pharaoh of Moses.
- 2- Moslem rulers who instigated writings on the histories of pre-Islamic Nations were deeply interested in the deeds of ancient kings and Moslem/Arab historians were fulfilling their patrons' wishes by focusing on royal chronicles. A good example is Al-Asma'i who makes clear in the introduction to his History of Arabs before Islam that his patron Harun Al-Rashid asked him to write a book on "Chronicles of the kings of the most ancient Arabs" (Akhbar Muluk aAl-cArab Al-Ba'idah Al-Awaliyah) (Al-Asmaci Tarikh: 3).
- 3- Surviving stories of royal deeds from Late Period Egypt were still vivid among native Egyptians, serving as an endless source for early Moslem/Arab historians writing on ancient Egyptian kings and queens. These stories were also interwoven into the oral epic traditions of pre-Islamic kings and queens, which were written down after the advent of Islam.

Yet, in spite of the extant materials, often most favourable to Egyptian pharaohs, Haarmann (1980: 56) noted as a serious obstacle facing Moslems who wanted to develop a deeper interest in the history of ancient Egypt, "the undeniably sombre image of pharaonic Egypt in the The Qur'an and in Islamic tradition." It is true that some Moslem exegeses of Qur'anic references to a particular pharaoh portray the word as synonymous with tyranny and arrogance (Wensinck [Vajda] 1965: 917; Wood 1998: 186f.).

But this may be a result of a one-sided personal interpretation of The Qur'an since the Islamic tradition is too varied to be summarized so simply. Haarmann and others are in fact referring to the limited Qur'anic portrayal of a certain pharaoh who is depicted as having oppressed an Israelite community, as The Qur'an uses the word

fir un only for this particular king. In spite of the common perception of this pharaoh's image, there are also Qur'anic verses referring to his dialogue with Moses that give an impression of the Egyptian king's willingness to resolve the dispute with Moses by non-violent means (Q 26: 23-35). This Pharaoh is also shown seeking the opinion of his people as to what to do about Moses (Q 7: 109-112) and even gave Moses the choice of date for the showdown between himself and the Pharaoh's magicians (Q 20: 58-9). On the appointed day, Moses was given the option to start or not. (Q 7: 115).

In his dialogue with Moses, the Pharaoh comes across as an eloquent speaker who consults his people and even when tired of Moses, he asked the people around for permission to kill him (Q 40: 26) something a Pharaoh did not have to do. The Pharaoh originally threatened Moses with imprisonment if he insisted on worshipping a god other than himself, (Q 26 29) hoping that the threat would persuade Moses to change his mind. Finally as Pharaoh, in pursuit of the Israelites, was drowning in the sea, he decided to give in to Moses and to accept his God:

We took the Israelites across the sea: Pharaoh and his solders in pursuit, in insolence and spite. When overwhelmed by the water, he said: I believe that there is no god but the One in whom the Israelites believe and I am one of the Moslems (Q 10: 90).

This last verse became the subject of endless debate amongst The Qur'an commentators as to whether the Pharaoh should or should not be regarded as a Moslem having professed so on his drowning. The debate did not change the perception among lay Moslems of this Pharaoh as a model of tyranny. The medieval Moslem/Arab sources on the whole interpret this image in The Qur'an as representing only one particular king of Egypt; and even this pharaoh, according to some, became a Moslem, a view widely held and appreciated in some Ṣufi circles (Wensinck [Vajda] 1965: 918; Gril 1978).

Other writers tried to reconcile the image of this Pharaoh as depicted in The Qur'an with their views of ancient Egyptians as believers in God. One example of this is Al-Shahrastani (d.1188) whoe says that the Egyptian Pharaoh of Moses was:

formerly of the Sabaean Sect [of Harran] but left it and claimed he

Again the connection is clearly made between Ancient Egyptians and the Ṣabaean. The pharaoh's claim to being a god, regardless of his actual identity, is known from ancient Egyptian sources, for example King Ramesses II, who is shown on his monuments deified while still alive (Habachi 1969; Kitchen 1982: 225f).

As part of the Moslem/Arab rehabilitation process of the image of the pharaoh of Moses, the historian Abu Al-Fida (d. 1331) (Al-Mukhtasar 1: 57) cited a dialogue between God and Moses in which the latter complained that the "infidel pharaoh" was treated favourably by God and granted a long life, and God had replied: "I did so because he [the pharaoh] has two characteristics typical of piety; generosity and modesty" (li-an fihi khiṣlatin min khilal al-iman; al-jud wa al-haya'). With tales like these, it is clear that for many Moslems, the pharaoh of Moses was not representative of all rulers of Egypt, and that even he could somehow be rehabilitated into the fold of Islam. This was not a unique case as many medieval Arab writers sought to bring other pharaohs into the fold of Islam, for example the author of the book Akhbar Al-Zaman (190) suggested another Pharaoh was "indeed a monotheist".

8.2 Images of the pharaoh

The attempts to understand the nature of ancient Egyptian kingship beyond the stereotype of pharaoh/tyrant, are clear in the writings of native Egyptian historians such as Ibn Zahirah (Maḥasin: 121f.) and Al-Suyuṭi (Husn: 1: 44f.) who portray the kings of pharaonic Egypt as models of efficiency and kindness, dedicated to the well-being of their people. This Moslem/Arab image of the pharaohs is supported by the ancient Egyptian sources (Badawy 1967). So the perceived image of the pharaoh as the archetype of tyranny is not founded on either Qur'anic portrayal of Egyptian kingship nor on a common medieval Moslem view but on a narrow interpretation of the Qur'anic story of a single king. This is further complicated by the continued willingness on the part of some researchers to give in to old prejudices that see Egyptian kings through the prism of oriental despotism. If such tyranny had been the norm in Ancient Egypt, then the pharaohs would not have stressed continually that their kingship was based on Ma't, the goddess of Justice and that the king's mouth was indeed her temple (El-Saaddy 1999: 136). Nor would a king such as Horemheb have said that he was awake at all times working for the good of Egypt and studying

cases of injustice throughout the land (Labib and Abu Talib 1972: 40; Kruchten 1981:21).

The Moslem/Arab fascination with the pharaohs of Ancient Egypt is also displayed in various Arabic stories relating to pharaohs, illustrating their private as well as their public lives. This fascination led to the assimilation of narratives of Arab epics, such as that of the pre-Islamic Yemeni king Saif Ibn Dhi Yazan, which encompassed most of the motifs known in Arab epics (Yaqtin 1994: 8-9). This ancient Yemeni king travelled throughout pharaonic Egypt observing the styles of its architecture and religious rituals, and throughout the tale we find descriptions of ancient Egyptian motifs such as searching for the Book of the Nile (Lyons 1995 1: 11, 2: 241f), and words and names such as that of the sky goddess Nut (Sirat Saif Ibn Dhi Yazan e.g. 3: 117ff, 153ff, 207ff, 319ff; 4: 4f, 96f.; 4: 276).

In the sources the most common epithet for an Egyptian pharaoh is "Lord of the Pillars" (Dhu Al-Awtad) following the Qur'anic use of this epithet for the pharaoh of Moses (Q 38: 12; 89: 10). This recalls the ancient Egyptian epithet of some pharaohs, for example Amenhotep II, Tutankamon and Ramsis III as hq3 iwnw, the Lord of Iwnw, the city of Heliopolis, which is written with the sign for pillar, also called iwnw, in plural (Faulkner 1962: 13). The wife of the pharaoh of Moses was held in high regard in Moslem/Arab sources and was named "Asia" (likely to be the ancient Egyptian 3st/3sa i.e Isis). Her tomb was said to be near the Ibn Tulun Mosque in Cairo and was one of the holy sites sought out by visitors to Cairo (Al-Sakhawi <u>Tuhfat</u>: 115). This district has been a rich source for the study of reused pharaonic antiquities including the sarcophagus of Hepmin now in the British Museum EA 23 (Cf. Jakeman 1993 2: 165). An ancient building, known locally as Mastabat Fircun, which has not survived, but is described as being built of massive mud brick walls almost identical to ancient Egyptian temple walls (e.g. at Dendara), may have been the remains of pharaonic buildings (For this building and other pharaonic remains in the area see Salmon 1902: 70-95 and plates II: 1,2 there; Sayyid 1988: 307f). It is worth noting that the local name of this whole area, Qal^cat Al-Kabsh, meaning 'Fort/House of the Ram' was thought to originate in a Medieval Arab tradition according to which an ancient Egyptian priestess had a statue of a ram erected on top of a pillar in the area in order to protect Egypt (Salmon 1902: 78). This may indicate either that the area had been in Pharaonic times a part of an avenue of rams leading to Heliopolis, the main cult centre of the sun god whose symbol was the ram, or that

there was a local chapel for his worship in this area which ensured its continued sanctity down the ages.

Medieval Moslem/Arab stories of pharaohs in Persia and elsewhere are also common and may have some historical foundation as the writers may well have seen Persian royal figures with Egyptian motifs, such as that of King Darius I standing on a typical Egyptian pedestal inscribed with hieroglyphs (Plates 17, 20). This Persian reverence for Egyptian tradition (Myśliwiec 2000: 154) must have spread the fame of the pharaohs throughout the Persian Empire including their Arab subjects.

One of the most important roles of the pharaoh in medieval Moslem/Arab sources, is that of the pharaoh as a magician who employs the science of magic for the well being of his people as well as for the destruction of his enemies. There are various sources for such imagery in Demotic/Coptic and in Greco-Roman literature where memories of Egyptian kings of older times survived (Depauw and Clarysse 2002).

Demotic romances of ancient Egyptian rulers such as Zoser, Inaros (on the latter see Lichtheim 1980: 151ff; Kitchen 1986: 455ff; Ryholt 1998) and Nectanebu (Perry 1966) also became popular in the medieval Arabic sources which show them as heroes, with their names and deeds well recognised by the writers. Other pharaohs are perceived in Arabic sources not only as protectors of their own people but also as protectors of foreigners fleeing atrocities. One example is found in Ibn ^cAbd Al-Ḥakam (Futuḥ: 31) who gives an account of a pharaoh whom he called Qumis Ibn Luqlis, a contemporary of the Babylonian king Nebuchadnezzar [II]. After the latter had destroyed Bayt Al-Maqds (Jerusalem) in March 597 BCE, many of its inhabitants were said to have escaped to Egypt where they were welcomed by pharaoh Qumis who refused to turn them over to the Babylonian king in spite of his threats and his eventual conquest and destruction of Egypt and enslavement of its people for forty years according, for example, to Ibn ^cAbd Al-Ḥakam (Cf. Kitchen 1986: 407 §369 with note 969).

The image of a godly pharaoh with deep spirituality was also known in medieval Arabic sources. For example the writer of <u>Akhbar Al-Zaman</u> portrays an Egyptian king whom he called Budshir:

It was found in some of their symbols and holy books of their priests that King Budshir bin Qfitwim exhausted himself in the worship of the Supreme Luminous (bodies) and realised that their spirits entered him. He became infatuated with them, and starved himself; his body gave up food and drink. When he became ecstatic, the Supreme Luminous desired him as he desired them, so they raised him up to their place and purified him of all the painful evils of earth and made him a Luminous, floating within their luminosity and he could do as they could.

(Akhbar Al-Zaman: 166).

So fascinated were medieval Arab epic narrators and writers by the ancient Egyptian rulers that their deeds were incorporated into new epics of the heroic deeds of contemporary rulers, as illustrated by the Sirat Al-Sultan Baybars I which was and still one of the most popular epics (Lyons 1995).

8.3 State administration

Some of the medieval Moslem/Arab writers I have used as sources were themselves senior officials in various administration departments, for example Ibn Faḍl Allah, Al-Qalqashandi and Al-Maqrizi, and it was only natural that they would devote some of their writings to the subject of state administration under the pharaohs.

But earlier than these, writers such as the author of <u>Akhbar Al-Zaman</u> (125), attributes to one Egyptian king the organisation of the state into seven classes, indicating the high status of the priests in the Egyptian hierarchy. At the top of this social system was:

the king, his son, the one in charge of Justice, the High Priest, the Grand Vizier, the Seal Bearer of the king and his Treasurer

The account, which best sums up the medieval Arabic knowledge of ancient Egyptian administration, is that of Ibn Zahirah (Maḥasin: 121-125). He quoted Ibn Zulaq and Al-Maqrizi and unnamed others saying that the pharaoh collected taxes which amounted to 90 [sic] million dinars. This revenue was divided into four as follows:

- Ten million for the upkeep of the people.
- Ten million for governors, soldiers and scribes.
- Ten million for the upkeep of the royal household.

- Fifty million reserved for pharaoh.

This amount of some 80 million dinars was calculated by Toussoun (1931: 8) as equivalent to 162 million LE (i.e. Egyptian pounds) in his own time. When the pharaoh wished to increase the revenue, he ordered the construction of housing, the repair of dykes and increased land reclamation.

Ibn Zahirah (Maḥasin: 122) quoting unnamed sources gave a slightly different division of revenue according to which it was divided into four quarters as follows:

- One for the royal household.
- One for the government, viziers, noblemen, solders and scribes.
- One saved for future needs of people.
- One to dig canals and build dykes and whatever else the land needed.

The revenue savings became vital for the years of famine. In one famine, said by Ibn Zahirah (*Ibid*) to have lasted for three years, the king was able to waive all taxes and use the savings to keep government going. He made up for this later by collecting double taxes when the famine had ended and life had returned to normal. This was the custom of the pharaohs who according to Ibn Zahirah "filled the land and built it with justice and generosity".

The pharaoh was also said by Ibn Zahirah to send every year two of his administrators, one to Upper Egypt and the other to Lower Egypt, carrying grain seeds. They were to inspect the agricultural land and if any was found lying fallow the king would order the local official in charge to be executed and his wealth and that of his family to be confiscated.

Another thing admired by Ibn Zahirah was that the pharaohs left estates in the hands of their owners for a set rent which was reviewed only every four years, taking into account the state of the land, so some who had problems would pay less and others would pay more, without there being an undue burden on anyone.

This picture portraying the kings of Egypt in charge of an overall administrative system and working tirelessly for a fair distribution of the country's wealth may be based on folktales current among contemporary Egyptians, but it seems to reflect some ancient Egyptian reality as detected in royal decrees such as that of Horemheb cited above. The contemporary view may have also been sourced in some of the classical writings, such as that of Diodorus (I: 64; Murphy 1990: 81), in which a pharaoh "aspired to a life free from blame and dedicated to the good of his people".

It should be noted that the ancient Egyptian expression *l.m.f.* translated as "His Majesty" could also be used for "slave/servant" (Hornung 1990b: 286) which suggests an understanding of the role of the king within society as being to give service, reflecting a well known Arabic proverb "Sayd Al-Qawm Khadimahum" meaning "The master of a community is [also] its servant". The designation *l.m.f.* also came to be used by non-royals from the time of the transition period between the Old and Middle Kingdoms, and thereafter (Hofmann 2001).

It may be also the case that in the face of some tyrannical contemporary rulers, medieval writers sought to inflate the good qualities of the ancient pharaohs by way of drawing these to the attention of their own rulers, thereby encouraging them to aspire to emulate the model rulers of the past.

8.4 Education, "Children of the Room"

Arabic sources do not display direct knowledge on the subject of ancient Egyptian education or schooling. However there are scattered references to kings instructing priests to make knowledge in the general sense available to people in vernacular accessible forms.

For example the writer of the book, Akhbar Al-Zaman said of an Egyptian king:

He designated for every group of people (a specific) type of priest to teach them religion, which was at that time the religion of the First Sabaean. Each group was to send a detailed report to the king every Day

(Akhbar Al-Zaman: 126)

Many medieval Arab writers believed that the pharaohs and their priests were concerned with education as part of the well being of their subjects. According to the information cited in Akhbar Al-Zaman, a royal interest in the teaching of their subjects is said of various Kings. King "Minqawis", yet to be identified, ordered the holy books of wisdom to be studied and commanded that books of wisdom be written:

He produced the Scriptures of Wisdom and commanded that they are studied and written in the script of the common people so that they could understand them, and (he also) restored the priests to their ranks This function of the priests is known from various studies. Van der Horst noted that among the many functions of the Hierogrammateis priests, the scholarly class of priests in the Egyptian temple-service, was the cultivation of knowledge of the ancient Egyptian script (Van der Horst 1982: 63, 70 n.79).

One very important ancient Egyptian educational institution which appears to have survived across the ages well into the Medieval Period is "k3p" which is still in Egyptological studies, a subject of conjecture among scholars trying to identify the exact nature of the institution often referred to in ancient Egyptian biographies. It is believed to be an educational establishment with close links to the royal palace, and its graduates were called "<u>hrdw</u> n k3p" with the meaning 'Children of the Room' (Feucht 1995 266-304).

We have in medieval Moslem/Arab sources, a number of references by Egyptian writers (e.g. Ibn Al-Ṭuwayr (d. 1220) Nuzhat: 57f; Ibn cAbd Al-Ṭahir (d. 1293) Al-rawda: 51; Al-Qalqashandi (d. 1418) Subh 3: 477; Al-Maqrizi (d. 1440) Khitat 2: 453-455) to a contemporary establishment with the same name and apparently the same associations. They called it "Al-Ṣibyan Al-Ḥujaryah", 'Children of the Room,' in which, from their descriptions, it would seem that an ancient Egyptian institution had survived almost unchanged to medieval times.

The medieval Arabic sources describe a building, close to the royal palace of Cairo, next to Bab Al-Nasr (Victory Gate), one of the main entrances into the city, and say that this building as well as others was dedicated to young people. These were youths (shabab), who were selected from among the sons of "Wujaha' Al-Nass" 'Notables', and, according to Ibn 'Abd Al-Zahir, also supported by Al-Maqrizi, numbered about five thousand. They received special education and military training within the school, and students distinguished either by intellect or bravery went on to become leaders and even princes. Each one had his own room with its own distinguishing name, such as "Al-Manṣurah" meaning 'Victorious', "Al-Fatḥ" meaning 'Annexation/Conquest', and "Al-Jadidah" meaning 'The New'. Each had his own weapons and his own servants. They were kept under supervision so that their time was spent positively in acquiring skills. They were always at the ready to answer the call to battle. According to Ibn Al-Ṭuwayr, they were also taught different crafts and sciences. They had their own stable situated next to their dwellings.

Both Ibn Al-Țuwayr and Al-Maqrizi describe how this institution was run. The King Al-Afdal (reigned 1186-1196) built seven "Rooms" and selected from the

children of the soldiery, some 3000 young men. All were under the charge of a prince, and each hundred was under the supervision of two senior officials.

Al-Maqrizi, quoting Ibn Abi Ṭay, described the situation under the Fatimid Caliph Al-Mu^cizz li-Din Allah (reigned 953-975) who provided a special "Room" for those who excelled in crafts, including scribes, and had announcements made around the country that local governors were to look out for talented youths and send them to Cairo where they were accommodated in the "Rooms" which, according to Al-Maqrizi were several storeys high.

This medieval description certainly seems to mirror the ancient Egyptian k3p which, in the light of our current knowledge, would seem to have been established on much the same basis. It had certainly been a special institution with a special relationship to the royal palace. Those brought up in it were of higher status, and had been carefully selected by the most senior officials, in some cases by the king himself.

The establishment which flourished under the Fatimids (909-1171) underwent changes after their demise and the quarters were abandoned, but the idea itself survived into the Mamluk period according to Al-Maqrizi (Khitat 2: 453) who noted the similarity between the Fatimid establishment and what was known in his day as "Al-Mamalik Al-Sultaniyah" meaning 'Mamluks of the Sultan' who were usually foreign-born youths bought by the Sultan and given strict military training and education, so that as adults they formed the upper echelons of Egyptian society. Again this recalls cases in ancient Egypt where those selected for the k3p included youths from foreign lands (Saleh 1966: 210).

It seems clear that this establishment had survived from Ancient Egypt through its different historical phases until the medieval period. The Arabic sources have furnished us with details that have until now been missing from the archaeological record, thus providing us with a better understanding of the probable nature and extent of the establishment during the Pharaonic period where such palace schools flourished certainly from the fourth dynasty onwards (Berlev 1990: 98).

8.5 Kings and queens

Ancient Egyptian rulers with various stories attached to them were cited in Classical sources such as Herodotus (II: 99-182) who referred to 20 different Egyptian rulers and Diodorus (I:) who referred to 29 of whom 23 have been certainly identified (Burstein 1992: 47).

The works of Josephus were also known and widely used by medieval Moslem/Arab scholars (Pines 1971) and would no doubt have included his version of Manetho.

The writings of the Egyptian historian Manetho (third century BCE) were certainly known to medieval Moslem/Arab scholars (Altheim & Stiehl 1966 3: 11 ff). He is cited by Agapius (ca 940 CE) who referred to him as "The Egyptian Sage, the Astrologer" (Agapius Al-^cUnwan: 16) and cited his book "On The Stars". Agapius also noted that the Harraneans, who worshipped idols, cherished Manetho's work. Manetho's work was used also by Al-Biruni (Al-Athar: 90ff) to compose a kinglist of the Egyptian dynasties from the 21st dynasty until the last native pharaoh Nectanebo II of the 30th dynasty, giving a total period of 894 years for 34 native Egyptian kings in addition to the Persian rulers of Egypt whom he did not name. This figure is almost in agreement with present-day chronology if we take the starting point of the 21st dynasty to be 1069 BCE (Kitchen 1986: 465). This was followed with accurate years for the reigns of the Ptolemaic dynasty up to the death of Cleopatra who reigned for 19 years according to Al-Biruni (Ibid 92; Hölbl 2001: 231). Al-Biruni does not give reasons for why he chose to start his Egyptian king list with the name of Diospalta, attributing to him a reign of 26 years which raises the question as to whether he was in fact King Pedubastis I, founder of the 23rd dynasty and who, according to Kitchen (1986: 97f), reigned for 25 years. But Pedubastis is actually cited by Al-Biruni in the correct place in the list. It may be that Al-Biruni misread the name of the City Diospolis where, according to Manetho, the kings of the 20th dynasty originated (Manetho Fr. 57). All the succeding names on Al-Biruni's list follow the same order for dynasties 21-30 as Manetho. Al-Biruni made only a brief reference to Persian rule by saying "Persians until Darius [II]" giving them a total period of 111 years as against the known 120 years of their rule.

Events of this later period of Egyptian history must have remained vivid in the collective memory of Egyptians to the extent that they influenced Al-Biruni into thinking that it was all the known history of Egypt. These memories may be evidenced by the survival of epics depicting the lives of some notable figures of this period, Psammetichus, Amasis, Inaros, and Nectanebu, as well as Cambyses, Alexander the Great and Cleopatra.

Kamal (1903) collected and studied the names of ancient Egyptian rulers as cited in medieval Arab sources. These were divided into two groups: 19 kings who reigned

before the Flood and 106 kings and queens who reigned after the Food ending with king Nectanebu. Most of the Egyptian names used in the Arabic sources can be traced back to the list in Manetho. The name of the well-known king Ramsis does not appear in Kamal's list but it was cited by Al-Idrisi (Anwar: 80) as the name of the city of Heliopolis which according to him is cited in the Old Testament (Genesis 47:11) and it is also the name of a Delta town called by the Arab authors 'Kurat Ramsis' which is in present day Menufiyah (e.g. Yaqut Mucjam 5: 216; Al-Qalqashandi Subh 3: 462).

Certain kings and queens were singled out in the Arabic sources for lengthy accounts, for example those who built the pyramids (Fodor A. 1970; Fodor S. 1970). This is also true of the queens who fought for Egypt or built walls to protect the country, such as Daluka and Qarupa (see below). But the most detailed accounts are those about Alexander the Great as medieval Moslem/Arab sources had a special regard for him and for Queen Cleopatra. Many speak with passionate admiration of Alexander (Christides 2000; Mazzaoui 1991; Wheeler 1998), and a great many volumes were produced in what could be termed 'Alexanderomania Arabica', no doubt continuing the older Egyptian and Greek traditions of the Alexander Romance (EI² 4: 127 ff; Jasnow 1997). Christides (2000: 166) put the idea that Alexander was buried under a pyramid down to "certain absurd figments of the imagination of Arab authors like al-Idrisi who states that Alexander was buried under a pyramid". In fact, Al-Idrisi in the reference given (Anwar: 89) was merely retelling earlier accounts by other authors and, in this particular case, was quoting Ibn Krion whose account ends with this sentence: "Aristotle was buried in one of them [the two pyramids in Giza] and Alexander was not buried in the other". Such misunderstanding and mistranslation of Arabic texts is unfortunately very common.

As for Cleopatra, Arab sources focussed on her many talents but made not one reference to sexuality or seductive power; they admired her scientific knowledge as a scholar, and her administrative ability. In these sources she is seen holding scholarly seminars with fellow scholars on the subjects on which she was held to be an expert: alchemy, medicine, and mathematics (Ullmann 1972a).

8.6 Cleopatra: a case study

8.6.1 Introduction

Pre-Islamic Arab history saw several strong queens exercising power in different kingdoms that flourished in Arabia (Cf. royal name list in Kitchen 2000: 741ff) as well as women occupying the highest religious offices as High Priestess (Al-Asma^ci Tarikh: 124f; ^cAjinah 1994 2: 293ff).

Medieval Moslem/Arab historians were just as fascinated by the personality of Cleopatra as have been many others since. The image of the queen in the medieval Moslem/Arab sources is that of a strong and able monarch who was very protective of Egypt. But a more interesting aspect of her image in these sources is that of a scholar who made significant contributions in the fields of alchemy, medicine and mathematics. The queen is shown conducting courtly seminars attended by scientists from different fields, at which she contributed to the discussions as a polymath scientist.

Arabic sources often refer to Cleopatra as "The Virtuous Scholar" and cite scientific books written by her as the definitive works in their field. One of the sources drawn on by the Arabs was the "Dialogue of the Philosophers" from Greek sources, which were translations from ancient Egyptian texts.

8.6.2 Arabic Names of Cleopatra

It has to be admitted that in the Arabic sources, just as in the Greek alchemical texts, it is sometimes unclear just who is the Cleopatra being referred to, but in general Arab writers knew that this Cleopatra was the last ruler of the Ptolemaic dynasty of Egypt. Some of the confusion is in the names. Her original Greek/Egyptian names and titles most commonly used on contemporary monuments were:

- 1- Cleopatra
- 2- Thea (Eg. Netret) = The Divine (also the Sage).
- 3- Philopator (Eg. Mer it es) = She who loves her father/ Beloved of her father.
- 4- Sat Geb = Daughter of the God Geb (For this title see Troy 1986: 179).

Some of these had undergone natural changes by the time they reached the medieval Arabic writers, with the result that there seem to be a number of very different names for the same queen. Cleopatra appears in the Arabic sources under the following names:

- قلوباطرا Qilopatra
- 2- Qilpatra قلبطرة
- قالوبطرى Qalupatri -3
- 4- Qilawfatra قلاوفطرة
- 5- Qulfidar قلفدار
- 6- Qarupa قروبة
- 7- Kilapatra كلابطرة
- 7- Elawpatra ايلاوبطرة
- 8- Elawatra ايلاويطرة
- 9- Aklaupatr اكلاوبطر

In addition to these, there are various forms or modifications of the above names. Often the P in the name changes into F or N. Medieval Arab writers were interested in the meaning of names, so they explained the name of Cleopatra as meaning: "The Weeping Rock" or "The Weeping Women" (Sayyid 1985: 30). The oldest Arabic source to suggest this meaning is Agapius in the early tenth century CE in his book Al-Cunwan (128) and the same meaning was adopted by later writers such as Al-Makeen (Sayyid *Ibid*).

8.6.3 Cleopatra, the great builder

The Egyptian Bishop, John of Nikiou, who was contemporary with the Moslem annexation of Egypt in the seventh century CE and who wrote a history of Egypt, included a section on Cleopatra that became the basis for the study and interest of the Moslem/Arab writers. According to a new study by 'Abd Al-Galil (2000: 260-2), the Bishop's book, now lost and known only from an Ethiopian translation, was written in Arabic and not in Coptic or Greek. If this is so, it is the oldest book in Arabic to mention Cleopatra. The book has been translated into French (Zotenberg 1883) and into English (Charles 1916).

Bishop John of Nikiou (Charles 1916: 48-50) gives an account of Cleopatra that starts with the meeting between her, "a pretty young virgin," and Caesar who fell in love, married her and had with her a son. Caesar then gave her the throne of Egypt.

The Bishop goes on to describe her building projects in Alexandria, "the like of which had never been seen before". Among these projects was the digging of a canal to supply the city with Nile water. Also included was a great royal palace on an island (Pharos) to the north west of the city, and a causeway (the Heptastadeion) across the water (Hughes-Hallett 1990: 100). All these projects were commented upon by later Moslem/Arab writers such as Ibn 'Abd Al-Ḥakam (Futuh: 40-1), Agapius (al-'unwan: 128) and Yaqut (Mucjam 1: 187).

The first known reference to Cleopatra by a Moslem/Arab historian is found in Ibn ^cAbd Al-Ḥakam (<u>Futuh</u>: 40-1) who wrote his history of the Moslem annexation of Egypt in the early ninth century CE. There he refers to the Lighthouse of Alexandria saying that:

It was built by DalukaIt is also said that the builder of the Lighthouse of Alexandria was Qulpatra, the queen who dug the canal/gulf into Alexandria and paved its bottom.

In these words we encounter an early possible confusion between two queens; Daluka (also called Zulaikha) and Cleopatra. We do not know the historicity of Queen Daluka but her name is almost always used synonymously with that of Cleopatra. Both are said to have built the Lighthouse and a massive wall around all of Egypt to protect it against invasion and Daluka was said to have built a Nilometerr at Memphis. Though Cleopatra did not build the lighthouse, her fame as a builder of great monuments gave rise to such claims in the medieval Arabic sources.

Among Cleopatra's buildings in Alexandria, is a great temple described by Philo as "a piece incomparably above all others" (Butler 1978: 371-2). This great temple was converted later into a Christian church by Emperor Constantine the Great (Butler 1978: 374, n. 1). All the medieval Moslem/Arab writers who spoke of Cleopatra were greatly impressed by her great building projects; amongst these were Al-Bakri, Yaqut, Ibn Al-'Ibri, Ibn Duqmaq, and Al-Maqrizi.

But the most admired quality in the Queen was her political skill and courage (Bishop John of Nikiou *Ibid*; Gughes-Hallett 1990: 103. Hazzard 2000: 149) and she was also written about as a very able administrator (Agapius Al-Unwan: 129).

8.6.4 Cleopatra the alchemist, scholar and philosopher

The traveller and historian Al-Mas^cudi (died 956) was the first Arab writer to give us any details of the Queen's interests in science and scientists. In his book (<u>Muruj</u> 1: 304) he says of Cleopatra:

She was a sage, a philosopher who elevated the ranks of scholars and enjoyed their company. She also wrote books on medicine, charms and cosmetics in addition to many other books ascribed to her which are known to those who practice medicine.

(Cf. Hughes-Hallet 1990: 99; Fraser 1972: 1: 312).

Al-Mas^cudi also counted her among the great alchemists together with Maria (Muruj 4: 257. Cf. Lunde & Stone 1989: 358). Al-Nadim in his book (Al-Fihrist: 420) credited Queen Cleopatra with a book on alchemy named after herself "The Book of Queen Cleopatra". This is also known as Risalah 'Epistle of Cleopatra' presented in the form of a dialogue between a group of scholars and Cleopatra (Holmyard 1937: 50; Ullmann 1972b: 366; Anawati 1996: 861).

Al-Nadim (Al-Fihrist: 420) also refers to Maria and her book on alchemy, now lost, ascribing the Dialogue of Philosophers to Maria. This might suggest that some confusion between these two women alchemists already existed in the tenth century. In fact this confusion seems to have continued, compounded by the presence of another woman whom the same sources call "Maria the Copt" (i.e. the Egyptian), sometimes called Maria the Jewess (Anawati 1996: 861). As though this alchemical mix up between Cleopatra and these two Marias were not enough, we have yet another Maria of popular legend, St. Mary the Egyptian (Stevenson 1996: 21 & 80ff) who was thought to have appeared in Palestine in the sixth century CE, where we find again the two main associations of Maria the Alchemist; Master Teacher Zosimos, and the Divine Vision (Patai 1994: 74ff). Zosimos was the third century CE grand master of alchemy who taught and corresponded with his student disciples Cleopatra/Maria/Theosebia/Euthasia. The Divine Vision is claimed by every alchemist to have led them to the sacred knowledge and to god.

In the Greek and Arabic alchemical texts, we see a queen addressed as one of the alchemists with the name "Theosebia" (Vereno 1992: 246ff. Fowden 1986: index; Patai 1994: index). Vereno (*Ibid*) associates this name, Theosebia, with the Goddess

Isis. Cleopatra regarded herself as, and assumed the character of, Isis (Witt 1997: 19, 222; Hazzard 2000: 153-4) to legitimise and cement her claim to the throne of Egypt. From the variations of these names, I believe that the name Theosebia, written also as Euthasia, is more likely to be an Arabic corruption of parts of Cleopatra's titles, *Thea* and *Sat Geb*.

Other books credited to Queen Cleopatra include one on mathematics, possibly written by an Alexandrian mathematician called Cato who dedicated his books to her. This book was said to be widely known as "Katon's Book to Cleopatra". Another book also dedicated to the Queen by Cato but which she is usually credited with having written, is "The Abridged Law of Cleopatra" described as "a simple law that is easy to understand" by Ibn Juljul in the 10th century CE (Sayyid 1985: 38), a description repeated by Ibn Al-'Ibri (63) in the 13th century.

Also attributed to Queen Cleopatra were the invention of certain devices and symbols used in alchemical works (Anawati 1996: 861; Berthelot 1888 132 fig. 11. Taylor 1949: 51ff).

8.6.5 Cleopatra, the Physician

Cleopatra was apparently interested in and wrote on drugs, cosmetics, and metrology (Fraser 1972 1: 372, 2: 548 n. 306). It may have been as a result of her fame and interest in drugs that medieval Arabic biographies of Galen (second century CE), mention a female medical doctor called Cleopatra as one of his teachers, but no link to our Queen can be proved. Moreover there is no mention of a woman of this name among Galen's teachers in his biography by Sarton (1954 esp. appendix 1).

In medieval Arabic sources, Galen's teacher was a female gynaecologist who was credited with teaching him all he knew of medical knowledge and the treatment of women. Among these sources are Ibn Hunain in the 9th century (Sayyid 1985: 163), Ibn Fatik in the 10/11th century (Mukhtar: 289; Rosenthal 1975: 34) and Ibn Uṣaybi^cah in the 13th century (Tabaqat: 109).

It may have been the fame of Queen Cleopatra, either as an author of medical books or her patronage of such works which Galen consulted, that gave rise to this claim in Moslem/Arab sources of a connection between him and Cleopatra as his teacher. There may have been a Greek healer called Cleopatra, a gynaecologist, whose work on obstetrics was long consulted by medical practioners. This is supported by Talmudic writings where there are references to Queen Cleopatra being

involved in medical experiments to determine the stages of development of the foetus (Rosner 1994: 41).

8.6.6 Cleopatra's dialogue with the philosophers

The Dialogue is known from Greek texts (Berthelot 1888 289ff.; Luck 1985: 372ff; Stavenhagen 1974: 61). It was also known in Arabic texts e.g. the 14th century alchemist Al-Jildaki quoted it in his book <u>Kitab Al- Shams Al-Akbar</u> "The Great Book of the Sun" (Anawati 1996: 861). In this text, a dialogue takes place between Cleopatra and fellow philosophers and alchemists in which they invite her to illuminate them with her knowledge on alchemical matters.

In his study of the two Arabic alchemical texts cited above, Vereno (1992: 246ff) noted its links with ancient Egyptian ideas, a view shared by Roberts (2000; 68) who traced the main ideas of resurrection, rebirth and renewal of life through divine water back to ancient Egyptian beliefs and ideas of the hereafter as seen in the Osirian mysteries.

Another aspect of Queen Cleopatra's many talents, was that she apparently knew and spoke several languages fluently and was the first Ptolemaic monarch to speak Egyptian and officiate at Egyptian religious ceremonies (Hazzard 2000; 148). Such active participation must have required at least a working knowledge of Egyptian religion which may explain the presence of ancient Egyptian thought in this Dialogue of Cleopatra.

8.6.7 Arab Romance of Cleopatra

Cleopatra appears in almost all medieval Arab sources on Ancient Egypt, often covered in a long chapter as for example in Al-Murtadi (French trans. 130ff.). As discussed above, a major problem is the corruption of the name of the queen. Another problem is that we are unable to associate Cleopatra with any Islamic story, as we can with Alexander the Great, who was assimilated into medieval Arabic sources as the Qur'anic figure of Dhu Al-Qarneen.

Yet the Cleopatra of the Romance is a shrewd, cool-headed woman with great political ambitions. The central figure of the Romance is a queen called Qaruba (Charupet), the daughter of a tyrant who ruled with an iron fist and was hated by his people. Qaruba, a young woman of mild manner and disposition but also of great wit, poisoned her father. In the disputes that followed, an Ibrahimi (son of Ibrahim,

meaning a Jew) was aspiring to become the next king, but the Vizier made a speech to the populace asking them to support Qaruba, to which they agreed. After she was installed on the throne she doubled the salaries of soldiers and elevated the ranks of priests, scholars, nobles and magicians. She restored and enlarged the temples.

A foreign general called "Gabirus" or "Gabinus" came to Egypt on the advice of his doctor to recover from some illness. He wished to pay the queen a visit, having in mind to marry her and so become the King of Egypt. When the queen heard of this she sent her trusted lady-in-waiting to report on him. It was clear that he was too strong to enter into battle with. The lady-in-waiting took valuable gifts to Gabinus and told him that her mistress was indeed in love with him and desired to marry him but that she wished that first he build for her a great city on the coast of the Mediterranean Sea. His soldiers spent great effort on the project but no sooner did a wall go up than mysterious creatures came out of the sea during the night and pulled the work down. The queen's aim was to exhaust the resources of Gabinus and his troops. Eventually, Gabinus built the town but rather than giving him his reward of marriage, the queen trod on a serpent and died.

As can be seen from this story we have the main elements of the life and death of Cleopatra as known. The story was popular enough to have it repeated with slight variations in Al-Nuwairi (Nihayat 15: 254f). Interestingly the name in this story, Qaruba or Charupet, is very similar to the name of Queen Serpot of the Demotic story-cycle of King Petubastis (Lichtheim 1980: 151ff.).

The memory of this brave queen Cleopatra may have been behind the attempts of some Arabic sources to associate her with other famous Arab queens like Al-Zabaa (Zenobia) of Tadmur, Syria who died 285 CE and was regarded as a descendent of Cleopatra (Al-Zerekly 1999 3: 41). Zenobia too preferred to kill herself rather than be taken prisoner by her enemy, King 'Amr. She took poison saying: "bi-yadi la bi-yad 'Amr' ([die] by my own hand, not that of 'Amr) which became a widely quoted Arab proverb.

One remarkable omission from all the medieval Arabic sources that I have studied is any reference to Cleopatra's seductive physical beauty. This absence perhaps emphasises that the fascination on the part of the Arab writers was with the conduct and achievements of the Queen rather than with her appearance.

8.6.8 What was left of Cleopatra?

Cleopatra's fame and reputation three centuries after her death were such that Queen Zenobia styled herself as Cleopatra the New in 270 CE when she brought Egypt under her control (Hölbl 2001: 310).

The Cleopatra cult continued to flourish well into the fourth century CE (Al-Zerekly 1999 3: 41). It was perhaps one of her cult centres in Alexandria that survives to this day and is known locally as Ḥamamat Cleopatra – "Cleopatra's Baths". A similar case can be made for a place in Al-Ashmunein in middle Egypt called Cleopatra, in the history by Abu Al-Makarim (<u>Tarikh</u>: 221; Kramers 1954: 171). Various places around Egypt are still named after Cleopatra (see index of the Blue Guide, Egypt).

8.7 Summary

Moslem/Arab sources show a varied and rich representation of images of Egyptian kingship or what we may call *Pharaohship*. Their understanding went beyond the image of the oppressive pharaoh which was only one facet of a particular pharaoh but could by no means be applied to all of them. The sources also describe Egyptian monarchs leading their nation in a prosperous and well-managed system of governance. Some of the interest of the writers was perhaps in showing their current ruler, a better model from the past of just and efficient rulers.

It is certain that the tax system in Egypt has always been linked to the Nile, surviving, probably unchanged, across the ages. Most important is the Arabic evidence for survival of the ancient Egyptian institution of <u>hrd_n k3p</u> in all its known detail, well into medieval Egypt.

Memories of ancient Egyptian monarchs survived with their deeds interwoven with those of current monarchs. Knowledge of many ancient monarchs survived into medieval times under their correct names, such as Zoser and others particularly from the Late Period such as Inaros. Moslem/Arab sources were enamoured with the personality and deeds attributed to Alexander the Great and Cleopatra. The latter was shown by Moslem/Arab writers as an able monarch and a scholar comfortable among philosophers and scientists, and regarded as an accomplished mathematician, alchemist and medical doctor as well as a great builder. The Moslem/Arab Romance of Cleopatra is as rich as that of the Alexander Romance and should be seen with the

context of both Egyptian and Arab cultural environments which viewed the power of women as normal as that of men.

Chapter 9: Biographies of Moslem/Arab Writers

9.1 Introduction

I commend you not to learn your sciences from books unaided, even though you may trust your ability to understand. Resort to professors for each science you seek to acquire; and should your professor be limited in his knowledge take all that he can offer, until you find another more accomplished than he. You must venerate and respect him; and if you can render him assistance from your worldly goods, do so; if not, then do so by word of mouth, singing his praises. You should read histories, study biographies and the experiences of nations. By doing this, it will be as though, in his short life span, he (the student of history) lived contemporaneously with peoples of the past, was on intimate terms with, them, and knew the good and the bad among them.

This was Al-Baghdadi's advice to students as quoted in Ibn Abi Uṣaybi^cah's Tabaqat: 643 and translated by Makdisi (1981: 89).

For several centuries, between the break-up of the Holy Roman Empire and the start of the European Renaissance, the Moslem/Arab sciences were the most advanced in the world (Huff 1993: 52) and were truly universal having inherited many of their theories from preexisting traditions, Hellenistic as well as Syriac, Indian, Chinese and Persian (Nasr 1968: 25; Rashid 2002: 303). In the cultural milieu of the Moslem/Arab period scholars from different ethnic, religious and linguistic backgrounds travelled freely and mingled with fellow scholars in other areas where they were sometimes even offered residences and teaching jobs with generous stipends. Such an atmosphere could only have encouraged open exchange and debate between scholars, without fear of prosecution or poverty, except in very exceptional circumstances.

This was helped by free accommodation available to travellers to who often made use of hospitality provided by Sufi institutions, (Khanqah and Zawiya), so the cost of travel would not have been a major problem as free board and lodging were provided (Hillenbrand 1994: 219f).

Since Arabic was the *lingua franca* of the Moslem world, travellers were generally able to converse with local people without the distortion of translation. Even in periods when the political and military power of the Moslem states was in decline or being demolished, for example during the Mongol invasion, scholars seem to have been able to continue to travel, study and write.

Moslem/Arab scholars knew of and learned from pre-Islamic sources. Many actually knew several other languages such as Hebrew, Coptic, and Greek in addition to their native tongue, which may have been, for example, Arabic, Syriac or Persian. In the writings I have studied most seem to have been meticulous in quoting their sources. Of course some of the sources may have been unreliable, or misinterpreted, or overtaken by later development, making unreliable any work not based on direct observation. There is also a close link between history and religious studies in some of the writings but this is not a problem limited to the Arabic histories; it is a problem in medieval historical writings in both East and West.

In the course of studying literature and grammars, pre-Islamic poetry provided a rich source of examples and materials. The subject matter of this poetry covered the diverse aspects of life; religious, social, archaeological and historical. Most rulers were interested in pre-Islamic history and many invited historians of the day either to narrate historical events during evening sessions, as Al-Mas^cudi (Muruj 3: 40-1) tells us of the Umayyad Caliph Mu'awiyah Ibn Abi Sufyan (ruled 661-680) spending his evenings listening to the ancient histories of Arabs and non Arabs alike and having this narrative recorded in writing. Al-Asma^ci (d. 832) says in his introduction to his "History of the Arabs before Islam" (Tarikh: 3) that the Abbasid Caliph Harun Al-Rashid (ruled 786-809) ordered the collection of this ancient history. A similar attitude to ancient history was shown by Ibn Ţulun in Egypt, as reported by Al-Mas^cudi (Muruj 1: 347 ff). This royal patronage played a significant role in encouraging a non-religious interest in historical writings.

The writers I have selected for discussion in this chapter are chosen because their works reflect a wide interest in Ancient Egypt, but more specifically in those areas I cover in this work. Some were native Egyptians; others were visitors who came for various purposes such as trade, study, or on their way to the pilgrimage in Arabia. Many visited Egypt specifically to seek knowledge in Egyptian centres of learning such as Alexandria, Cairo and Quṣ. Some visited as part of a world tour. Some writers, particularly geographers such as Al-Iṣtakhari, Ibn Ḥawqal and Al-Muqadasi

(Ahsan), furbished their accounts, including Egypt, with geographical maps with details of the landscape.

Many of these writers seem to have had a sense of the continuity between contemporary Egyptians and their ancestors in Pharaonic Egypt, often expressing this as natural and to be expected. Al-Sakhawi (d. 1482), wrote a guide book to visiting Cairo's funerary landmarks, tombs of the saints and holy places, and started his book with a visit to Heliopolis and the pyramids of Giza with a clear message connecting the past and present and assuming continuity in the Egyptian heritage from ancient Egyptian to contemporary Moslem sites (Al-Sakhawi Tuhfat: 16-20).

9.2 Biographies of the writers

I cover here the writers, who are my main sources, in chronological order, but in some cases there is a total lack of biographical details. All dates cited are in CE, current era.

(1) Ayub ibn Masalama (ninth century)

He was an early writer whose main interest was in ancient scripts. He is later described by Al-Idrisi (Anwar: 61) as an Egyptian scholar with great knowledge of ancient Egyptian scripts, who was said to have deciphered various texts inscribed on the pyramids and other places for the Caliph Al-Ma'moun during his visit to Egypt in the year 831.

Al-Idrisi also describes an old, badly damaged book by Ayub Ibn Masalama titled Al-Talismat Al-Kahinya (Priestly Talismans) which he said contained translations of many ancient Egyptian inscriptions. The book itself has not been traced. There is, in the manuscript collection in Damascus, in the Al-Asad Library (formerly known as Al-Zahiriyah), a book attributed to him by Sezgin (1967 1:934) but I believe this is not his work (see chapter 3).

There is no other known bibliographical information for Ayub Ibn Masalama.

(2) Dhu Al-Nun Al-Mişri (d. 861).

He was born in 796 in Akhmim in Upper Egypt, the son of a Nubian slave. He lived for much of his life either in, or next to, one of the famous temples of Akhmim. This city was the capital of the Ninth Nome in Upper Egypt and was known in the Greco-Roman period as Panopolis. It was a major centre for the cult of Min, the God

of fertility and protector of the deserts. It was also known during that period as a centre for the study of alchemy, producing such famous practioners as Zosimos of Panopolis. The city of Akhmim maintained its fame for the study of alchemy well into the medieval period. Egyptian temples had been centres of alchemy and were perceived as such by Moslem/Arab writers.

The connection between Dhu Al-Nun and the town of Akhmim is interesting as Hermes is also said to have lived there, teaching the science of alchemy in its temple (Plessner 1954:50-1). In later times the temple was believed to have two of Christ's disciples buried there, though according to Al-Yacqubi they were buried in the monastery of Abu Shenuda nearby. (Al-Yacqubi Al-Buldan: 332).

Al-Bakri (d. 1094) said of Dhu Al-Nun:

It is said that Dhu Al-Nun of Akhmim, was able to comprehend as much as he could of the sciences of the *birba* (temple), so much so that he mastered the craft, made diamonds, and was carried to Iraq in one night; as well, he mastered other sciences, because in his youth he served a monk called Ṣaṣ who was at Akhmim, who taught him the script and showed him (how to make) the offering, the incense, and the name of the Spirit and commended him to keep that (to himself). When Dhu Al-Nun learnt what he learnt, he plastered the "House of Wisdom" with the clay of wisdom which cannot be removed unless the stone is removed with it, and if removed, (this) will damage the script used for the symbols.

(Al-Bakri Al-Masalik 2: §. 901)

The study (chapter 4 above) of the manuscripts ascribed to Dhu Al-Nun, shows his interest in and knowledge of ancient Egyptian as well as other scripts.

He was certainly a key figure in the lineage of transmission of alchemy. He was widely believed to have acquired the secrets of ancient Egyptian knowledge and wisdom from the inscriptions and reliefs of the temple where he lived. (Al-Mas^cudi Muruj 1:360; Al-Qifti Ikhbar: 185; ^cAbdeen 1964: 164). He is also credited with introducing into Islam the idea of Gnosis "Ma^crifa" which is the inner knowledge received as revelation while in ecstasy, and which differs from the intellectual and

traditional knowledge obtained through study and reason. Dhu Al-Nun said of this Gnosis:

Everything which the eyes see is related to knowledge, and that which the heart knows is related to certainty.

(Al-Kalabadhi Al-Ta^caruf: 73).

It would appear that Dhu Al-Nun tried to use his knowledge to bridge the gap between ancient Egyptian Wisdom and Islamic Sufism. Şufi masters of Islam acknowledged his influence, for example Ibn Al-cArabi (d. 1240) who wrote a book on the virtues of Dhu Al-Nun Al-Miṣri (Al-Kawkab) and Al-Rumi (d. 1273) who counted Dhu Al-Nun among his masters (Nasr 1987:136). A disciple of Dhu Al-Nun named cUthman Ibn Suwaid Al-Akhmimi, also a noted alchemist, wrote a book about his master under the title "Kitab Sarf Al-Tawhum can Dhi Al-Nun Al-Miṣri" (Dispersion of Illusion about Dhu Al-Nun Al-Miṣri) (Al-Nadim Al-Fihrist: 424). Some centuries later, Al-Suyuṭi wrote a treatise on Dhu Al-Nun "Al-Maknun fi Manaqib Dhi Al-Nun".

Dhu Al-Nun was also a noted poet. Among the works ascribed to him is a long poem of 151 verses, known as Al-Qasida fi Al-Şan^cah Al-Karimah (Poem on the Noble Craft). This is still unpublished (MS. Add. 7590 British Library "Shadhrat Al-Dhahab", fol. 85-90). In several verses he shows that he clearly understands the value of the knowledge and the sciences inherited from the Egyptian priests and still visible on the stone walls of the temples (Verse 39). He states moreover that he was their student (wa kanu min qabl ashiyakhia) (Verse 45).

In addition to these ancient Egyptian teachings, Dhu Al-Nun counted several contemporary teachers who influenced him including several women, but singled out a women scholar of The Qur'an and a Ṣufi called Fatima Al-Nisabouriyah (d. 838) whom he desribed as "my teacher" (wa hiya ustadhi) (Al-Sulami Dhkr: 62).

At Akhmim a Ṣufi Zawiya (where Ṣufis live and travellers are given free accommodation) was named after Dhu Al-Nun (El-Hagagy 1968: 108) and this may be the one described and praised by Ibn Jubayr (Rihlah: 33) in the 12th century as the Mosque of Dhu Al-Nun which he said was a place full of grace (barakah). He was also regarded as the patron saint of physicians (Behrens-Abouseif 1998: 209).

When he died, it was said that his funeral procession was accompanied by green birds and his tomb below the Muqatam Hills in Cairo became a popular destination for visitors where their prayers would be answered (Al-Sakhawi <u>Tuhfat</u>: 366f).

Bibliography of Dhu Al-Nun Al-Mișri:

Ibn Khalikan <u>Wafiyat</u>: 1: 291-294. Ibn Al-^cArabi <u>Al-Kawkab</u>. Al-Suyuţi <u>Al-Maknun</u>. Smith (1965). Nurbakhsh (1999).

Al-Ṭayb (2002).

(3) Ibn ^cAbd Al-Hakam, ^cAbd Al-Rahman Ibn ^cAbd Allah. (d. 871).

He was an Egyptian historian born in the year 803 at Fustat (Old Cairo) to a distinguished family of scholars of Islamic religious studies. As he was born less than a century and half after the Moslem annexation of Egypt, he was able to collect many of the oral traditions of that event, still alive and therefore easier to authenticate, using the same methods as other Moslem historians (Khalidi 1994: 17) had used for the authentication of the Hadith of the Prophet Mohammad. The sources of Ibn ^cAbd Al-Hakam were mainly a group of distinguished Egyptian scholars such as Al-Layth Ibn Sa^cd and Ibn Lahi^cah who had established a native school of Islamic studies. His own work was first orally transmitted and later written down under the title Futuh Misr "Conquest or annexation of Egypt" which has been edited and studied by Torrey and published in 1921. This book, the first written by an a native Egyptian, shows him as a nationalist historian which may be a reaction to the harsh treatment of his family at the hands of the Abbasid Caliph Al-Mutawakil in Baghdad, but it can also be seen within the context of the struggle between proud native Egyptians and the central Abbasid caliphate in Iraq (Khalidi 1994: 65). This may partly explain why Ibn ^cAbd Al-Hakam started his book with a chapter on the commendations of the Prophet Muhammad of the Copts and the virtues of Egypt, which, like the rest of his book became the standard to be followed by almost all later writers on Egypt. His book displays good knowledge of native traditions and of the ancient history and monuments of Egypt.

Bibliography of Ibn °Abd Al-Ḥakam:

Torrey (1921), the English introduction.

Rosenthal (1971).

Enan (1991: 8-20).

^cAși (1992a).

(4) Al-Ya^cqubi, Ahmad Ibn Abi Ya^cqub Isḥaq Ibn Ja^cfar Ibn Wahb Ibn Waḍiḥ. (d. ca 905).

He was born in Baghdad to a noble family with close ties to the Abbasid Caliphs. His great grandfather Wadih was the ruler of Egypt for a short while during the reign of Caliph Al-Mahdi. Al-Yacqubi left Baghdad at a young age and travelled widely, acquiring new titles reflecting both his knowledge and his long stay in certain places. He was known variously as Al-Ikhbari meaning the Historian, Al-Isfahani (from Isfahan), and Al-Misri (the Egyptian). He wrote several books two of which I have used here. These are a two-volume study of universal history, Tarikh Al-Ya^cqubi, which starts with Adam, and displays a deep knowledge of and interest in the various religions of nations and peoples, making him perhaps the first historian of world culture in the Islamic period (Khalidi 1994: 2, 115ff). The second book is a work of geography titled Al-Buldan "The Countries". This is a study of the countries he visited, both in and beyond the Moslem world, in which he covered natural, human and economic geographies as well as giving cultural, historical and topographic information. His method is primarily personal observation, or interviewing trusted acquaintances for what he could not see for himself. He also quotes earlier writers and uses official documents such as tax records.

Bibliography of Al-Ya'qubi:

^cAși (1992b).

Khalidi (1994: 115ff)

Al-Zerekly (1999 1: 95)

Zaman (2002).

(5) Ibn Al-Faqih Al-Hamadhani. Ahmad Ibn Muhammad (ninth/tenth century).

Little is known of his life but he may have been born in Hamadhan, Iran, as his surname suggests. His work <u>Kitab Al-Buldan</u> is more of a literary nature than a

detailed geographic description but it gives some idea of the literary interests common in the Arabic culture of his time. He clearly used the works of earlier geographers, often without giving their names. His book includes a chapter on Egypt and its Nile, starting with the reason for it being called Miṣr, and gives its name in Greek as Macedon (maqduniya). In this book (Al-Buldan: 130) he gives the names of the god worshiped by the Beja of Nubia in several local languages: baḥir in Beja; lamkaluglu in Zinjiya (Negroit); abunuda in Coptic and mazikish in Berber.

Bibliography of Ibn Al-Faqih:

Massé (1971).

Al-Hadi (1996: 9-43).

(6) Ibn Khurdadhiba, Abu Al-Qasim ^cUbayd Allah (d. ca 912).

He was born in Khurasan, Persia about 820 to a rich and highly educated family. His father was a local governor who sent his son to study music and literature. Ibn Khurdadhiba then entered the inner circle of the Abbasid Caliph Al-Mu^ctamid (ruled 870-892 CE) and became the head of the department of post and intelligence (sahib al-barid wa al-akhbar) in another Persian province. He wrote many books on literary themes, the pleasures of life, the genealogy of the Persians, and a history of pre-Islamic nations which was regarded by Al-Mas^cudi as the most comprehensive book on its subject. His job entailed a great deal of travel and his book on geography Al-Masalik wa Al-Mamalik reads like a road guide book for travellers, with detailed distances and economic observations. It is regarded as the first book of descriptive geography in Arabic. He used the book of the Alexandrian astronomer/geographer Ptolemy, either from a Greek text or from a Syriac translation. His descriptions of monuments is realistic and detailed, often noting inscriptions on ancient buildings. His work became the foundation for almost all later Arab geographers. He called the Mediterranean Sea, the Green Sea "Al-Bahr Al-Akhdar" which might be of interest to Egyptologists still trying to identify what ancient Egyptians called w3j wr. This sea is normally known in Arab sources as Bahr Al-Rom, the Roman Sea but Roman here means Byzantine/Greek.

Bibliography of Ibn Khurdadhiba:

Krachkovski (1957: 147-150 [ar. 167-171]).

Hadj-Şadok (1971).

(7) Al-Razi, Abu Bakr Muhammad Ibn Zakariya (d. 925).

He was born in Rayy, Iran about 854 but spent most of his life in Baghdad where he headed its medical school and hospital. He was well versed in several languages including Greek, in which he distinguished himself as a physician, philosopher and alchemist. In total he wrote more than two hundred works on these subjects in addition to others which included logic. He is also known as an independent free-thinker who advocated a rational empirical methodology. More than eighty of his works are on philosophy, including debates on the nature of theology which earned him in some fundamentalist circles the accusation of being a heretic, though what he opposed in fact was the ritualisation of religion and its obsession with and mystification of the founders. His fame rests mainly on his medical writings which were widely translated into Latin and regarded as standard textbooks of medicine.

Bibliography of Al-Razi:

Goodman (1995).

Stroumsa (1999:87-120).

(8) Al-Istakhari, Abu Ishaq Ibrahim Ibn Muhammad (d. ca 934).

He was perhaps a native of Iran born about 850. He was one of the earliest Moslem geographers to use maps as a basic element of geographies and illustrated his text with carefully prepared national maps, thus creating a descriptive atlas of each country he visited. His book Al-Masalik wa Al-Mamalik has the standard title of many of the Arab geographies, conveying the idea of a guide to the roads to countries and kingdoms, but because of his new approach to the detail and accuracy of his maps, his work was widely quoted by his successors, and, in the case of his student Ibn Ḥawqal imitated faithfully.

His map of Egypt shows two pyramids at Giza as the only historical landmark (Plate 4) and it was reproduced by his student Ibn Ḥawqal with more detail (Plate 5).

Bibliography of Al-Iştakhari:

Krachkovski (1957: 196-198 [ar. 214-216]).

Miquel (1978).

(9) Ibn Waḥshiyah, Abu Bakr Ahmad Ibn ^cAli Ibn Qays Al-Kasdani Al-Qusayni Al-Ṣufi (9th/10th century).

Little is known about this writer though he is referred to by many others. His apparent contemporary, Al-Nadim (Al-Fihrist: 372, 423) said that Ibn Waḥshiyah was from Qusayn near Kufa in Iraq, and listed many books on magic, statues, offerings, agriculture, alchemy, physics, and medicine that were either authored, or translated from old books, by Ibn Waḥshiyah. Ibn Waḥshiyah (Shauq fol. 87a) certainly visited Egypt but we do not know the exact purpose or duration of his stay, though Al-Nadim (Al-Fihrist: 372, 424) hinted at the purpose when he mentioned written debates taking place between Ibn Waḥshiyah and some Egyptian alchemists from Akhmim.

Al-Nadim tells us that he saw a book on deciphering ancient scripts in Ibn Waḥshiyah's own handwriting. This is a reference to the work Shauq Al-Mustaham which covers 93 scripts (see Chapter 4). In his book on Nabataean Agriculture Al-Filaḥaa Al-Nabaṭaiya (1: 5ff), Ibn Waḥshiyah spoke of his search for science books of his ancient ancestors until he finally found some kept hidden with descendents of the old Kasadean people (Chaldaeans?) written in Old Syriac. He was admonished by the Elder of this people for attempting to translate their ancient sciences thus revealing their secret knowledge to outsiders. But Ibn Waḥshiyah argued that their ancestors prohibited revealing religious secrets but not universal sciences which they should be proud to share with outsiders, even if this seemed at first sight to be against the instructions of their ancestors. He insisted that their secrets be revealed for the benefit of their fellow human beings, but also to show the great scientific achievements of his ancestors.

Bibliography of Ibn Wahshiyah:

Fahd (1971, 1993).

Fück (1951:105-106).

Al-Zerekly (1999 1: 170-171).

(10) Ibn Umail, Muhammad (tenth century).

Ibn Umail was an Egyptian alchemist and a regular visitor to ancient Egyptian sites as can be seen in his account of his visits with friends to a chapel at Abu Sir (Stricker

1942). It was from his very full description of this site in his book <u>Al-Ma' Al-Waraqi</u> that Stricker was later able to reconstruct the details of the chapel (see 3.3.3 above).

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Bibliography of Ibn Umail:
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Ruska (1935).

Strohmaier, G. (1971) and the bibliography there.

Ronca (1995).

Anawati (1996: 870-872).

(11) Al-Mascudi, Abu Al-Ḥassan Ali Ibn Al-Ḥusain (d. ca. 956).

He was born in Baghdad to a family that traced its origins to a well-known companion of the Prophet Muhammad named ^cAbd Allah Ibn Mas^cud. After travelling for 33 years around the world, possibly including Europe, he took up residence in Fustat, Egypt, where he later died and was buried. In the two of his books published to date, we find descriptions of Egyptian antiquities and of contemporary practices which resulted from direct observation in addition to his use of earlier sources. He was particularly interested in comparative religion and seemed at ease debating the subject with contemporary scholars in the field.

Bibliography of Al-Mas^cudi:

Khalidi (1974).

Shboul (1979) see pages 305-329 there for early works on Al-Mas^cudi.

Lunde and Stone (1989: 11ff).

Pellat (1991).

(12) Akhbar Al-Zaman (tenth century?).

This book is a valuable source on Ancient Egypt titled "Chronicles of Time." It describes Genesis and the countries to which Adam and his descendents travelled and so contains sections on India, China, Greece, Persia and Africa, though more than half is dedicated to Egypt. There has been much learned discussion over the years as to who might be the author of the book of some two hundred pages, and whether it might be a collection of the work of several writers. Most of it was translated into French by the orientalist Baron Carra de Vaux and published in Paris in 1898. The section on Egypt was the subject of a study review by Maspero (1899). De Vaux suggests,

and Maspero agrees, that the writer is an arm-chair scholar. Much of the script repeats whole pages of texts which are also found in Al-Mas^cudi, Al-Maqrizi, and Al-Murtaḍi. Maspero suggested that they were all using the same older texts, as the writer of Akhbar Al-Zaman refers frequently to having taken them directly from the storage chests of the priests, and from the writings of the Egyptians/Copts. The latter source for the book may help to explain its tendency towards a nationalistic bias. Maspero thought very highly of the work and had no problem in relating it to his own knowledge of Egyptology. Ferré (1991) found the style of the book not incompatible with that of Al-Mas^cudi and thought that it may therefore be one of his works, while Khalidi (1974: 154f) reached the conclusion that Akhbar Al-Zaman's style is quite different to that of Al-Mas^cudi and therefore cannot be his. This last view agrees with the one reached much earlier by Krachkovski (1957: 184 [ar. tr. 202]).

In spite of the lack of agreement among scholars as to the identity of the author or the date of the book, I have found it particularly useful for its descriptions of royal rituals and details of the lives of Pharaohs, descriptions of magic practices and descriptions of monuments. Much of the information in the book is supported by evidence from modern Egyptological studies.

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Bibliography:
Ferré (1991).
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Sezgin (1994, 1997, 2002).

(13) Al-Hamadani, Ibn Al-Hai'k. Al-Ḥassan Ibn Ahmad Ibn Ya^cqub (d. 945).

He was born and brought up in San^ca', Yemen, and travelled widely around Arabia. He wrote a ten volume work called <u>Al-Iklil</u> on the history and ancient kings of Himyar and a book on the history and description of Arabia, <u>Sifat Jazirat Al-cArab</u>. In these books he translated texts from the ancient Himyraite script. He also wrote on alchemy, geology and zoology, and was a prolific poet.

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Bibliography of Al-Hamadani:
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Faris (1938).
Krachkovski (1957 166-170 [ar. 186-189]).
Al-Zerekly (1999 2: 179).
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(14) Al-Biruni, Abu Al-Rihan Muhammad Ibn Ahmad (d. ca 1050).

Born to an Iranian family in Khwarizm on the southern shores of the Aral Sea, he studied several sciences in his homeland, particularly mathematics. He was soon to become one of the greatest scholars of the medieval world, known as a distinguished mathematician, astronomer, physicist, geographer, historian, chronologist, ethnographer, linguist and translator. His works covering all these fields and more, total 180 including his translations from and to Sanskrit, for example his translation of the Elements of Euclid, and Al-Magast of Ptolemy into Sanskrit.

In spite of his fluency in different languages, including his native Persian, he wrote in Arabic. His well-known book on the chronology of nations (Al-Athar Al-Baqiya ^can Al-Qurun Al-Khaliya) has a chapter on Egypt in which he gives the chronology of nine centuries of its later history with a kinglist of the Egyptian dynasties from the 21st dynasty until the last native pharaoh (see under 8.5 above).

His knowledge of several languages including Syriac, Greek and Turkish make it likely that he read an earlier accurate account of Egyptian history, such as that of Manetho. He also wrote highly regarded scientific works on mineralogy and medicinal drugs where he often cited the name of the material in several languages.

Bibliography on Al-Biruni:

Boilot (1960).

Nasr (1978: 107-116).

Al-Taba^c and Al-Hashimi (1993).

(15) Al-Shahrastani, Abu Al-Fath Muhammad Ibn ^cAbd Al-Karim (d. 1153).

He was born in Shahrastan (currently in the Republic of Turkmenistan) in 1086 and later moved to Baghdad after studying various Islamic religious sciences. In Baghdad, he taught religion in its prestigious school, Nizamiya. He is known as a historian of religions and philosophical doctrines. His most famous work, Al-Milal wa Al-Niḥal aimed to be the most authoritative history of all religious creeds from the beginning of humanity to his own time. It covers the many sects and sub-sects of Islam but perhaps its most useful section is the one covering other religions, past and contemporary, for example those of ancient Arabian cults, in addition to the Ṣabaeans (of Ḥarran), Hermeticists, Mazdaeans, Mannichaeans, Hindu sects, Jews and Christians. All of these received unbiased and detailed equal treatment with a high

standard of scholarship drawn from the original sources of the various creeds. Nowhere did he intentionally misrepresent non-Islamic materials, and to make them more easily understood he almost always presented them in the form of a lively dialogue between two disputants arguing on behalf of their creeds. This type of comparative universal studies of religions, sects, philosophies was original to Islam and was not known in Greco-Roman sources (Goitein 1963: 429f). As a measure of its impact, there are medieval translations of this book into Persian and Turkish, and also later into German and French.

Bibliography of Al-Shahrastani:

Monnot (1997).

Al-Zerekly (1999 6: 215).

(16) Al-Harawi, Taqi Al-Din Abu Al-Ḥassan cAli (Al-Sa'iḥ) (d. 1215).

He was born in Mosul, Iraq and spent most of his life travelling before settling at Aleppo, Syria where he died. He was known as Al-Sa'ih Al-Zahid, the Ascetic Traveller, as he spent his travelling years visiting cenotaphs of saints which puts his book with its accounts of these visits into a category that could be called spiritual geography. He wrote on subjects as varied as military tactics, history, descriptions of ancient monuments and the occult. His account of his visit to Egypt sometime before the end of the 12th century is in his book "Indicators/guides to knowledge of [holy] visits", Al-Isharat ila Ma^crifat Al-Ziyarat). During his travels in Egypt he made a habit of inscribing his name and date of visit on many of the monuments. This book was written from memory since his notes were lost during his travels, yet it was considered by Yaqut as a reliable source of information and quoted extensively in his book Mu^cjam.

Biblography of Al-Harawi:

Krachkovski (1957: 318-320 [ar. 345-347]).

Sourdel-Thomine (1971).

(17) Yaqut Al-Ḥamawi Al-Rumi (d. 1229).

He was sold as a child-slave to a merchant from Hama, Syria, who resided in Baghdad, hence the name adopted by Yaqut. The merchant gave him a good education and used him as a scribe and as a commercial assistant travelling with him. These travels and later those on his own account enabled him to collect the material for a work "Dictionary of Countries" (Mucjam Al-Buldan), which is the most important of his many works. He also worked as a copyist and trader in books, a job which undoubtedly gave him access to many written sources. He illustrated many of his entries with simple drawings such as that of the Lighthouse of Alexandria, but his sketch does not have great value when compared with that of Al-Gharnati. Yaqut starts his entries with the exact pronunciation of the place name according to its local people followed by the different pronunciations often giving the etymology of the name. He then gives the exact location and places elsewhere with the same name. Throughout, his text is dotted with biographies of notable people who belong to the place, with historical events and with poetry.

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Bibliography of Yaqut:
Al-Shami (1981).
Al-Sa<sup>c</sup>di (1992).
Gilliot (2002).
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(18) Al-Baghdadi, Muwafaq Al-Din ^cAbd Al-Laṭif Ibn Yousuf Ibn Muhammad Ibn ^cAli, also known as Ibn Al-Labad, Ibn Nuqṭa and Al-Muttajan but often quoted as ^cAbd Al-Laṭif (d. 1231).

He was a physician, historian and philosopher, born in Baghdad in 1161, to a family of scholars who were well versed in different disciplines, in particular, Islamic religious studies and the books of pre-Islamic scholars, particularly the Greeks. He is highly acclaimed by the biographer Ibn Abi Uṣaybi^cah (d. 1270) who dedicated to him a chapter in his famous book on biographies of physicians (<u>Tabaqat</u>: 634-648). Many times in his youth Ibn Abi Uṣaybi^cah had met Al-Baghdadi, a friend of his grandfather and a teacher to both his father and uncle.

Al-Baghdadi was taught first by his father and later by eminent teachers in Baghdad. He obtained certificates of approval as a scholar of Ḥadith from several masters in Iraq, Iran, Syria and Egypt. He also excelled in The Qur'an, Fiqh (jurisprudence) and language studies as well as literature, particularly poetry and narrative assemblies —maqamat. In Baghdad he had also studied alchemy with a distinguished scholar from Morocco which led him to be deeply interested in the

craft of alchemy and the writings of, among others, Jabir, Ibn Waḥshiyah and Ibn Sina. He later decided it was too mystical, repudiating its teachers and practitioners and calling it an abhorrent craft.

At the age of 28, (1189) he spent a year in Mosul teaching religious studies and whilst there read the works of the famous Ṣufi of Illumination, Al-Sahrourdi, though he did not agree with his mystical approach. He enjoyed academic seminars in Damascus and had a short stay in Al-Quds (Jerusalem) before going on to Cairo (1191) where he was given a house, a monthly stipend and a job by officials of Sulṭan Salahdin. His main aim in Cairo was to meet eminent scholars and in particular Moses Maimonides (d. 1208) whom he found impressive as an honourable scholar "faḍil" but too obsessed with worldly ambitions. Another Egyptian scholar who left a great impression on him was Abu Al-Qasim Al-Sharici, who was well versed in the 'sciences of the ancients' and introduced Al-Baghdadi to ancient Greek/Egyptian philosophy.

In 1192 he returned to Al-Quds to visit Sultan Saladin and was impressed with his personality, humility and generous reception of scholars in spite of being very occupied by war. Back in Damascus he devoted himself to the study of the books of the ancients "kutub al-qudama". On his return to Egypt he took up a teaching post at Al-Azhar Mosque and University. His daily routine as described by himself was:

I teach people at Al-Azhar from morning until four o'clock pm.

Then mid- day the reading of medicine commences and at the end of the day I teach another session, perhaps on ancient sciences.

In the night I do my own research (Makdisi 1981: 87).

Some nine years later, in 1200, Al-Baghdadi returned again to Al-Quds where he taught, particularly Arabic grammar at Al-Aqsa Mosque until the year 1207 when he returned to Damascus, excelled in medicine and wrote a number of medical books. He visited Aleppo, Turkey and Afghanistan in 1229. Forty five years after he first left Baghdad, Al-Baghdadi returned but fell ill and died on Sunday, the ninth of November 1231.

Books by Al-Baghdadi:

Ibn Abi Uşaybi^cah (<u>Tabaqat</u>: 645-648) listed 173 titles of works by Al-Baghdadi covering a very wide range of subjects:

- 13 on linguistics
- 2 on jurisprudence
- 4 on literary criticism
- 53 on medicine
- 10 on flora and fauna
- 48 on philosophy, logic and psychology
- 3 on the Oneness of God
- 3 on history
- 3 on mathematics and physical sciences
- 4 on education
- 2 on magic and minerals
- 23 Varia. (see Badawi 1964: 17; Ghalioungui 1985: 44ff).

Sadly few of these works have survived but amongst those that do is his celebrated book about his journey and stay in Egypt titled "Al-Ifadah wa Al-Ictibar fi Al-'Umour Al-Mushahada wa Al-Hawadith Al-Mucayanah bi-Ard Misr" (Observations and reflections on things seen and events witnessed in the land of Egypt). This book Akhbar Misr is yet to be found, but Al-Baghdadi himself abridged it in Al-Ifadah, which is known from a copy in the author's handwriting in the Bodleian Library, Oxford and was studied and translated into Latin during the 18th century and later, in 1810, into French. It was only in 1964 that an English translation was produced but, sadly, it is full of mistakes.

The longest chapter in the book, Chapter 4, and the one which has received most attention from scholars is Al-Baghdadi's account of his visits to and studies of ancient Egyptian monuments. It is comprehensive and accurate on the whole (Rizkana 1964: 65). He described the pyramids, the Sphinx, tombs, temples, statues and the mummification of both humans and animals. He focused on special sites, for example Memphis, Abusir and Alexandria. When writing of a monument, Al-Baghdadi gave its name, location, material, measurements and its distance from other monuments. He also showed remarkable insight into the influence of ancient Egypt on the religious practices of contemporary Egyptians, in particular their obsession with icons

representing god and angels (*Ibid* 110). Al-Baghdadi put this obsession down to the influence of their ancient ancestors, but was quick to suggest that the ancient Egyptians had indeed known that god was beyond human rational understanding let alone representation.

As a scientist himself, Al-Baghdadi admired the scientific achievements of the ancient Egyptians, disparaging those members of the public who thought that the ancient people lived to a very old age, had huge bodies and utilised magic to move stones, suggesting instead that the reason the ancient works were so excellent was because of advanced engineering knowledge and skills, under good administration, with patient hard work, perfect knowledge and use of tools, and total dedication. (*Ibid* 107).

Al-Baghdadi (*Ibid* 117ff) also commended contemporary architecture, engineering and the layout of houses, built under an architect's supervision, where people lived in the higher parts of the buildings with windows facing to the north wind, and he singled out for special comment the air shafts of the houses. Most important of all he said, were their drainage channels, so well built that they remained long after the house itself had gone. He also admired the markets and wide streets. He gave a detailed account of public baths, admiring their design and interior decoration, with plenty of light and colour, so that those who went to bathe liked to linger. The book also includes descriptions of produce grown and its preparation for meals.

In part two (*Ibid* 127), he sets out to examine the laws of nature governing the Nile flood, his stated aim being to produce a chart to establish a pattern to help to predict future levels.

Very important as well as interesting is his lengthy and detailed eye-witness account of the effects of the drought of 1200 –1201, which included the resort to cannibalism, followed by the devastation and plague caused by the major earthquake of May 19th 1202. Al-Baghdadi's opening sentence is remarkable for its drama and poetry:- "the year has arrived ravaging the means of life", "wa dakhalat sanat sab" muftarisat asbab al-ḥayiah). Few medieval sources refer to the calamities brought on by drought, and those which do spare only a line or two. His description is important, though referring to contemporary times, as we have very little in the way of references from Pharaonic times to what must have been a regular if not frequent occurrence. One very important reference is to be found in the tomb of Ankhtifi at Al-Mo'ala

from the First Intermediate Period (Vandier 1950: 220ff; Schenkel 1965: 45ff), and a second in the Dialogue of Ipuur (Parkinson 1997: 166-199).

Al-Baghdadi wrote as a scientist well aware of the natural laws of physics and the cycles of nature. He recorded what he had personally observed with very few references to previous books or other people's accounts. And, importantly he had the courage to criticise, in spite of their icon status, the likes of Galen and Ibn Sina (Avicenna) when he thought they were wrong.

Al-Baghdadi was certainly a scholar of great originality and independence of thought who strove passionately for what was known to be right (Ullmann 1997: 48). This would suggest that his accounts of his Egyptian sojourns were as reliable and as accurate as could be expected from a scholar (Ghalioungui 1985: 153-5).

Bibliography of Al-Baghdadi:

Ibn Abi Uṣaybi^cah (<u>Tabaqat</u>: 634-648).

De Sacy 1810

Stern (1960). EI² 1: 74.

Ṣadiq (1964).

Enan (1969: 130-140).

Makdisi (1981: 84-91).

Sabanu (1983).

Ghalioungui 1985

Al-Zerekly (1999 4: 61).

(19) Ibn Al-Baytar, Abu Muhammad ^cAbd Allah (d. 1248).

He was born in Malaga towards the end of the 12th century and studied botany and pharmacology in Seville before travelling to North Africa and beyond, collecting and studying plants. When he arrived in Egypt, he was appointed head of the Herbiary. He later travelled to Damascus, still in pursuit of plants, and died there. His books show a vast knowledge based on personal observation as well as on his studies of the works on drugs and plants of his predecessors, in particular the works of Dioscorides.

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Bibliography of Ibn Al-Baytar: Vernet (1971).
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(20) Al-Idrisi, Abu Ja^cfar Muhammad Ibn ^cAbd Al-^cAziz (d.1251).

He was born in Upper Egypt of a Moroccan family residing in Egypt. He studied in Egypt both literature and Islamic studies, the latter with a famous woman scholar, Fatima bint Sa^cd Al Khayr, originally from Andalusia, who later lived in Iraq before settling in Egypt. One of his most useful works is a six chapter volume on the Pyramids of Giza, which took him five years to complete and which is distinguished from others, earlier and later, by its systematic and concise structure, and his rigorous scholarly approach. He gave detailed architectural descriptions, not only of the Giza site, but of the route there from the south of the Fatimid city, and also described contemporary activities taking place around the Pyramids. He mentionned the Sphinx only in passing complaining that too many stories were already circulating about it. He also wrote a book on the history of Upper Egypt, and another on the general history of Egypt.

Bibliography of Al-Idrisi Haarmann (1982a, 1991b). Al-Idfui Al-Tali^c: 534-536. Gawad (1947). Al-Zerekly (1999 6: 208).

(21) Al-Qazwini, Zakariya Ibn Muhammad (d. 1283).

He was born in Qazwin about 1203. At some point in his life he served as a judge in Iraq which suggests that he must have studied Islamic jurisprudence. Shortly after the Mongol destruction of Baghdad in 1258, he retired from public duties and devoted himself entirely to scientific pursuits. His fame and popularity among medieval readers, to judge from the extant copies and translations into Persian and Turkish, reflected perhaps the appeal of his style of writing which simplified complex scientific questions for the public rather than describing the originality of new theories. His works were mosaics of the previous and current knowledge of his day. His book on cosmography 'Wonders of creatures and marvels of the [things] created' "Aajaib Al-Makhluqat wa Gharaib Al-Mawjudat deals first with questions of celestial phenomena and issues relating to the stars such as chronology and calendars. He then deals with natural phenomena relating to the earth, for example the elements and climate, earthquakes and other geological questions, with some interesting

observations about changes in landscape such as mountains becoming valleys or lands that disappear and reappear in some kind of geological cycle. All this had already been discussed in the works on geology by the group Ikhwan Al-Ṣafaa (Said 1950) and in several other medieval Arab geological writings (El Sokkary 1973: 18ff), but Al-Qazwini succeeded in explaining it in lay language. Copies of his cosmography are usually illustrated with geometrical tables and vividly coloured pictures of plants and animals.

His other book on geography titled 'Monuments of the countries and histories of [their] peoples', Athar Al-Bilad wa Akhbar Al-'Ibad was also very popular and was abridged and translated into Persian and Turkish, though over half of the material was borrowed from Yaqut's Mu'jam.

Al-Qazwini wrote on astronomy, geography, geology, geomorphology, mineralogy, botany, zoology and ethnography and in the process has preserved for us some texts which are otherwise lost to us. It was he who kept alive the theory that the earth was in the form of a ball revolving around its centre.

Bibliography of Al-Qazwini:

Krachkovski (1957: 358-366 [ar. 387-397]).

Lewicki (1978).

Badiee (1978)/

(22) Abu Al-Qasim Al-cIraqi (d. 1341)

He was an alchemist who may have come originally from Iraq as his surname suggests, but he lived in Egypt where he died. His books on alchemy drew on his predecessors, particularly Ibn Umail. Like other alchemists before him, believing that Egypt was the origin of alchemy, he used Egyptian antiquities to illustrate his books. In the source used here titled <u>Kitab Al-Aqalim Al-Sabicah</u>, 'The Seven Spheres', (MS Add. 25, 724 British Library) he drew many Egyptian objects and signs as alchemical apparatus (e.g. **Plate 22**).

He was familiar with Egyptian scripts and drew an ancient Egyptian stela, its signs correctly copied and easily identified (Plate 36). He also used the motif of an Egyptian obelisk as a conduit of alchemical knowledge (Plates 49, 50). A clear reference is made on Plate 49 to "Misalat Fir'un", 'Obelisk of Pharaoh' at Heliopolis, and authentic Egyptian motifs are depicted such as the bird on top, normally the

falcon god Horus, and immediately below it the sun, and on the base of the obelisk, is written "This base and the pillar have the science of earth treasures, and their keys with measurements/weights "awzan" of their natures and what is inside them of heat, dryness, coolness and humidity and the total is 16. And the entire secret is in dissolving and binding "al-ḥal wa al-caqd). So the body of the obelisk is here used for transmitting knowledge of the nature of minerals, and for alchemists this was closely connected with Hermetic traditions. This connection seems to have an ancient Egyptian origin as Kákosy (1989a) pointed out that the obelisks of king Nectanebu at the British Museum have indeed a connection with Thoth/Hermes and his wisdom and this may have been known to disciples of Thoth/Hermes.

The same precision is applied to his knowledge of Coptic icons from which he also copied correctly, in beautiful script, the names of the archangels Michael and Gabriel (Plate 51). All the plates in this manuscript are in vivid colours. A testimony to his popularity is the number of extant copies of his books in different manuscript collections.

Like other alchemists, he concerned himself with the question of the creation of Adam and Eve as a metaphor for all things. In Al-Aqalim (fol 55a) he says that they were created as a result of combining certain materials mixed together at a certain temperature and humidity, and exposed to high speed, suggesting the same process applied to all creatures and hinting at the possibility of repeating this process with the same results. This may be echoing some ancient Egyptian ideas, traces of which remain in the well-known myth of Shu and Tefnut and the part they played in the Egyptian myth of creation.

Bibliography of Abu Al-Qasim Al-Traqi:

Holmyard (1926).

Ullmann (1972b: 236).

Anawati (1996: 874).

(23) Al-Qalqashandi, Ahmad Ibn ^cAli (d. 1418).

He was born in a village in the Delta in 1355 and studied literature and jurisprudence at Cairo and Alexandria where he also excelled in linguistics, eulogy and composition. These skills ensured him a good job in the Chancery, the <u>Diwan Al-Insha</u>' (lit. the Department of Composition), responsible, amongst many other jobs,

for correspondence between the rulers of Egypt and their foreign counterparts. It was normally staffed by highly educated people with a deep knowledge of history, geography and political and diplomatic protocols. It was during his employment there that Al-Qalqashandi wrote his encyclopaedic work "Illumination for the Dim-Sighted," Subh Al-Acsha. This was the age of encyclopaedic works and Al-Qalqashandi was following in the footsteps of and copying from the works of Ibn Fad Allah Al-°Umari such as Masalik Al-Absar, amongst others. Al-Qalqashandi praised all these previous works pointing out their individual advantages, and explained that his aim was to write a new one that would bring all those advantages together. It took him about ten years to complete and, like other similar works of the period, he collated in it all known knowledge relevant to the work in that Diwan. These included literature, foreign languages, religious studies, economics, sociology, geography and history, in addition to some knowledge of the natural sciences such as medicine, astronomy and agriculture as well as the mechanical and physical sciences, and books on the sciences of ethics and politics, jurisprudence and genealogy.

Among his admirable achievements was his interest in studying the meanings of topographical names, Onomastica, as can be seen from his chapter on world geography (Subh 3: 228ff). His direct observations on the Egyptian landscape and the administrative divisions of the country are reliable and have already been studied by Wüstenfeld (1879) and Jeffreys (1985, 1999).

His main sources are:

- 1-Direct observations of phenomena or events where he says "I saw or witnessed".
- 2-Enquiring from specialist and scholars "I asked so and so about...".
- 3-Direct oral transmission of knowledge "I was told by so and so...".
- 4-Official documents in his charge. Due to his free access to the official archives of the Egyptian government, he shed great light on some very important administrative and political documents and on Egypt's relations with other countries
 5-Previous books by Arabs and non-Arabs, Moslems and non Moslems alike.

He is accurate in his sourcing of information and always cites the title and author of his source, or at least the title or the author of the book assuming they were generally known. There are a few mistakes in the authorship of books he cited which may be due to his using copies abridged by other authors and assigning the book to

the abridger e.g. the book of ^cAjaib Al-Makhluqat by Al-Qazwini which is cited by Al-Qalqashandi as authored by Ibn Al-Athir (e.g. Subh 3: 309, 310).

Bibliography of Al-Qalqashandi:

Wüstenfeld (1879)

Bosworth (1978).

Enan (1991: 76-84).

^cIz Al-Din (1990)

(24) Al-Maqrizi, Taqi Al-Din Ahmad Ibn ^cAli Ibn ^cAbd Al-Qadir (d. 1440).

He was born in Cairo in 1364 where his father had moved from Syria to take up a number of senior jobs as a Mufti, a judge and a teacher. So Al-Maqrizi was brought up in a highly learned environment, in which his teachers were said to number six hundred. The most important of these teachers was the renowned scholar Ibn Khaldun. He also travelled outside Egypt, spending ten years in Damascus and five years in Mecca where he taught religious studies.

Al-Maqrizi was a prolific writer, his works exceeding two hundred, varying in length from a few pages to multi volume-works. His main interest was in the history of Egypt and in the biographies of its distinguished people. As he grew older, he revised his books, rewriting, amending or adding to many of them. He used extensive sources for his writing. The main book that I have used for this work, Khitat, on the history and topography of Cairo in particular and Egypt in general, quotes 140 sources from 128 authors. He has been accused of being careless in his citations of sources, an accusation which has been thoroughly investigated by Enan (1991: 97-104) and considered groundless. There are indeed a few cases in Al-Maqriziz's works where he quotes someone without giving the source but in works of this nature, one of them of a hundred volumes, such errors may be forgiven. It is also worth noting that his most widely quoted book Khitat has been published in partial editions and translations using an un-revised draft of Al-Maqrizi and it is only very recently that an accurate edition of this work by A. F. Sayyid (2002-) has started to come out, three volumes thus far.

Al-Maqrizi, in spite of his family's non-Egyptian origin, spoke passionately of the country and sought every opportunity to show his love of study of its history, explained in his introduction to Khitat. He was fascinated by its people across the

ages, its pharaonic as well as its Coptic pre-Islamic heritage, dedicating eight chapters of his book to the history of the Coptic church and its patriarchs (Diab 1998). He wrote on geology, observing seashells on top of mountains and suggesting that Egypt was originally under water, which gradually receded from south to north. In making this observation, he was perhaps following, in addition to his personal observations, the classical and earlier Arabic writers, such as Herodotus (II: 5, 10, 12) and Ibn Sina (El-Sokkary 1973: 48). He said that he spent many years collecting material for the book, from which he distilled the history of Egypt's remaining antiquities. His book also gives a detailed picture of urban, social and artistic developments in medieval Egypt, with detailed accounts of the affairs of ordinary people, and their interaction with natural processes and with the authorities, showing the active role played by the common people, and that history was not just the result of the actions of rulers and the elite. This book can be summed up as a political, economic, cultural and social history of Egypt and its people. He had the courage to speak out about the effects of official corruption, especially during times of famine, in his short but valuable book Ighathat in which he deals with the attitudes that lead to the suffering and poverty that he himself witnessed. His material on the population of Egypt has been a very useful source (Hassan 1993).

He may not be known as a critical writer of history but he has preserved for us some valuable sources which would otherwise have been lost and, more importantly, has painted for us a vivid picture of the people of Egypt, their manners, customs, and their different creeds and religious practices.

Bibliography of Al-Maqrizi

Rosenthal (1991) and references there on p. 194.

Sayyid (1995 35ff, 2002).

(25) Ibn Al-Wardi, Siraj Al-Din Abu Hafş ^cUmar (d. 1457).

He was perhaps born in Egypt but is often confused with another Ibn Al-Wardi, a Syrian historian who died a century earlier. He wrote Kharidat Al-cAjaib wa Faridat Al-Gharaib in response to a request by the local governor (of Aleppo?) who asked him also to make a globe of the world showing longitudes, latitudes, heights and depressions. At the outset, the author expressed his fear that he was not up to the task

and so started by consulting renowned books in the field such as those of the astronomers Ptolemy and Nasr Al-Din Al-Tusi, as well as Al-Mas^cudi and others.

The title of his book immediately draws the attention of the reader to it - 'Wonders and Marvels'- though it is primarily a work of cosmography and eschatology, but written in a popular style to entertain the reader. It is clear that Ibn Al-Wardi was very well read and familiar with many sources, as he claimed in his introduction. This work was so popular that it was translated into Persian and Turkish, its Turkish copies being extant in many manuscript collections. The section on Egypt received the attention of Fraehn (1804) who translated and commented on it.

Bibliography of Ibn Al-Wardi:

Krachkovski (1957: 490- 496 [ar. 539-546]).

Al-Zerekly (1999 5: 67, column 3 note 1).

(26) Al-Suyuti, Jalal Al-Din ^cAbd Al-Rahman Ibn Abi Bakr (d. 1505).

He was born in Cairo, in 1445 to a highly learned family. Before the age of eight he had memorised and was able to recite the entire The Qur'an. He learned various Islamic religious sciences, particularly the Ḥadith, at the hands of hundreds of teachers whom he listed in one of his books. Among them were a dozen or so well known women scholars specialising in the science of Ḥadith. In spite of being a contemporary of no less than eleven sulṭans/kings of Egypt, he declined not only their job offers but even their company, devoting his life to study, teaching and writing, producing about six hundred works in seven main areas of knowledge: The Qur'an, Ḥadith, Fiqh (jurisprudence), Arabic linguistics, history, biographies and literature, and in addition a score or so on such diverse subjects as sufism, medicine, food, flora and sexology.

Before he was thirty years old, his works were being sought after throughout the Near East. He was also consulted on religious matters by Moslems from as far afield as Takrur (in modern day Chad), perhaps as a result of his travels to that country, as well as by others from Arabia, the Levant, India and North Africa (Husn 1: 291). The last forty years of his life were spent in near total isolation from public life, perhaps as a reaction to the wide spread corruption in academia colluding with the corrupt rulers of the country. This was towards the end of the Mamluk reign in Egypt, a period of general cultural decline and political instability.

Though known mainly for his religious and linguistic works, he was also a historian with over fifty works including several on Egypt. The most important for my purposes is <u>Husn Al-Muḥaḍarah</u> which he started with the 'Virtues of Egypt' before and after Islam, covering monuments, particularly the pyramids of Giza, and the Nile, citing much poetry in their praise and description. It is true that he reproduced many contemporary myths about the Pharaonic past of Egypt but he is also precise in quoting and naming his sources, an act which in itself saved many texts from oblivion, and he did so with an open but critical mind making it one of his most important works.

Bibliography of Al-SuyuțI:

Al-Suyuți (<u>Husn</u> 1: 289-297).

Nemoy (1939).

Enan (1991: 142-151).

Al-Shak^cah (1994).

Geoffroy (1997).

9.3 Summary

There can be no doubt that medieval Moslem/Arab scholars and writers have transmitted much from their own observation, enquiry and interpretation, and that they were in many cases aware of and had studied in depth the works of previous scholars, both Classical and later. There is much repetition in many of these medieval writings as scholars drew from the same sources but this is not entirely negative as it has often led to the preservation of otherwise lost sources.

It is also clear that the medieval Islamic world had no internal frontiers creating barriers to travel and settlement, notwithstanding customs and excise, and that in many cases the reputation of scholars had gone before them so that they were offered hospitality and work in many of the places they travelled to.

In those cases where it is possible to do so I have tried to give a rounded picture of my sources, against which their interest, scholarship and interpretation might be judged.

Chapter 10: Conclusions

It is clear from Moslem/Arabic sources that the study of ancient cultures was genuinely valued for knowledge and guidance, showing that all human history was seen as one history of different people living in different places but essentially sharing a common origin and destiny. The Moslem/Arab study of Egyptian culture is part of this universal historical approach rather than aiming at the validation of holy Scriptures.

Close ties between pre-Islamic Arabs and ancient Egyptians ensured a sense of continuity and of belonging to this ancient culture among the new comers under Islam from the seventh century onwards.

Moslem/Arab writers drew on rich and varied sources both pre-Islamic and contemporary. Their approach to their written sources is at times critical, but not always so, but the mere fact that many writers repeated verbatim, accounts of their predecessors, suggests a continuous interest in the subject matter of these accounts. Visiting sites and talking to local people also feature as a major source of information. But even previous eyewitness accounts were not always accepted uncritically, as Al-Baghdadi's writings in particular have shown.

The exploitation of Egyptian sites for treasure continued from Ancient Egypt, sadly some of it still being with us today. But this exploitation became an established profession in medieval Egypt and was organised by the state. Treasure hunting manuals produced to meet public demand, were often forgeries with fantastic claims, but some may prove to be useful for current archaeological work and as shown above have contributed some of the earliest known drawings of archaeological sites. The extant copies of these manuals in manuscript collections is a testimony to their popularity among different classes of medieval society, encouraged by folklore about Egypt as the land of treasure.

For the more scholarly writers, ancient sites and materials provided them with opportunities to study the past and bring its people back to life. Many writers had an approach to and appreciation of the archaeological processes that are almost identical to the most recent approaches in the field (e.g. Al-Hamadani in Yemen, and Al-Idrisi in Egypt).

Serious Moslem/Arab works on local archaeologies and cultures have been shown to contain accurate accounts of antiquities and a scholarly approach to understanding their function as well as their symbolism.

Egyptian scripts intrigued Moslem/Arab writers, and were for many the key to profound knowledge and wisdom. The fact that spoken Egyptian was still alive in its Coptic phase made it possible, in conjunction with knowledge of other languages and scripts to reach a correct understanding of the nature of ancient Egyptian language. Whatever the motives for medieval Arabic interest in Egyptian scripts, they undoubtedly succeeded in realising that ancient Egyptian was linked to Coptic, that Egyptian signs have phonetic values and that some were grouped as an alphabet. In addition, a few were able to distinguish between signs used as alphabet and those used as determinatives. The whole process of decipherment of ancient Egyptian hieroglyphics was undoubtedly assisted by the view that the ancient Egyptian and Arabic languages had so many features in common as to indicate a common origin.

There is a large corpus of material for a future study and survey of ancient scripts in the medieval Arabic sources, as they included hundreds of scripts in their studies. It is clear that in the case of Egyptian scripts, those medieval Arab writers who concerned themselves with decipherment, were mainly alchemists and often Ṣufis as well, which suggests that a detailed study is required to establish the connection between ancient Egyptian alchemy, religious philosophy, Moslem alchemists and Ṣufis. Studies of the sources of Moslem Sufism tend to focus on its Indian and Persian roots with an almost total absence of any consideration of an Egyptian source or input (among exceptions are Witteveen 1997: 1-4; Roberts 2000: 201-225; and DuQuesne 2001b).

It was perhaps the access to ancient Egyptian texts written in Demotic and Coptic, often with Greek translations, that helped Moslem/Arab writers to better understand the complexity of Egyptian religion. But to understand the religious practices of the ancient Egyptians, many Moslem/Arab writers resorted to contemporary observations as well as accounts from earlier sources, in particular Greek sources. In this process, attempts were made to accommodate ancient Egyptian religion within the rich mosaic of Islamic teachings and even to bring some eminent figures from the past, for example Thoth/Hermes, into the fold of Islam.

This approach was greatly helped by the fact that the fabric of many of the ancient Egyptian temples was still almost intact in medieval times, displaying their

very rich iconography, with scenes of prayers, offering, and other rituals, many of which were correctly understood. These temples were perceived by Moslem/Arab writers as institutions of wisdom and learning, and that magic played an important part in their religious practices. Egyptian magic for Arab writers was a 'science' practised by kings, queens and priests, as part of the formal structure of Egyptian religion.

The medieval writers also recognized the sanctity of Egyptian religious sites, particularly the pyramid area. Not only did they describe the survival of some ancient Egyptian practices among medieval Egyptians, but also, as seen above, many tried to find common ground between Islamic teachings and ancient Egyptian religion, as have also some modern scholars (e. g. Kamal 1909: 51ff; Al-Sayyar 1995:153ff). Most place names in Egypt still show their ancient origin, and modern Egyptians like their medieval forebears, Moslems and Christians alike, regard as holy, places which their ancient ancestors sanctified.

Another subject which might be filled in more fully by further study of the medieval sources is the cult practices of the earlier Egyptian kings. Many popular practices of the royal cults are covered in some detail in the medieval sources, and certainly merit further study, which might help Egyptologists understand the effects of cult practices on the general populace, and the folk traditions which arise from them. The same can be said of the Arabic appreciation and study of animal cults and oracles which are much valued for their sympathetic treatment as well as giving an indication of the survival of some of these practices well into the medieval period.

Popular and scholarly interests in the subject of Mummia and mummification, of both humans and animals, and their medicinal uses, were common in the medieval Arabic sources and some scholars actually studied Egyptian mummies to settle anatomical questions. Questions were raised about burial contexts, and the types and reasons for animals mummified were raised with some accurate insights based on direct observation. It is also clear that the trade in Egyptian mummia and its exportation to the West was rampant much earlier than has been previously thought.

Like their Classical predecessors, Moslem/Arab writers believed that Egypt was the land of sciences and wisdom originating with Hermes the Egyptian, to whom they attributed the invention of writing as well as the sciences of alchemy and medicine among others. This created a corpus of writings in which accounts of Egyptian scientific mirabilia became very popular, but they should not be dismissed out of

hand in modern scholarship because they sound too fantastic. The fact is we still have a lot of evidence buried in the land of Egypt and buried even in our museums, awaiting serious investigation and it is possible that evidence for some of the scientific inventions reported above will be uncovered.

Many Moslem/Arab writers believed that the Egyptian kings had been concerned with the well being of their subjects and had utilized all available sources, including magic, to achieve this. They knew that the attributes of the pharaoh of Moses as portrayed in traditions, represented but one single monarch who was not a typical representative of Egyptian pharaohship. The Moslem/Arab sources depict Egyptian rulers as highly learned and often pious figures, as well as efficient administrators who are mainly concerned with their nations' welfare. Medieval Arab sources also describe institutions which appear to have survived without interruption from pre-Islamic Egypt and which continued to function, offering potential for this information to fill in some of the detail missing from ancient Egyptian records. The example shown here, that of the "Children of the Room" could serve as a model for further research.

The medieval Arab epics kept alive the memories of long gone pharaohs of Egypt often reproducing their Romances interwoven with those of known Arabian figures such as Saif Ibn Dhi Yazan or current monarchs such as Sultan Baybars I. Certain ancient Egyptian rulers still appear under their names, known to us from archaeological records, for example Zoser, Amasis, Inaros, Nectanebu and Cleopatra. Reasons for this survival, as well as Coptic and Greek sources must surely be in the Demotic sources, much of which rest still unstudied in museum cupboards.

Cleopatra was chosen as a case study not because there is not enough material in the Arabic sources about others, but to show how very differently her image appears in the Arabic sources compared to her more usual portrayal in some classical as well as modern sources. She is shown in medieval Moslem/Arab sources as a philosopher and scholar with no reference to her physical attributes. But this may also be seen as a reflection of the Moslem/Arab cultural environment which views the powerful, intellectual women as normal, based on the well recorded history of such women from pre-Islamic Arabia and Egypt up until the medieval period in which many of these writers worked.

The brief background of many of these writers as given in chapter nine, is intended to give a cursory glimpse of their serious intellectual and knowledge, which characterises most of medieval Moslem scholarship. It is also important to note the range of backgrounds of these scholars who treated Egypt's past and present with utmost respect and appreciation; from scholars of traditions, such as Ibn 'Abd Al-Ḥakam, historians such as Al-Idrisi, Ṣufi masters such as Dhu Al-Nun Al-Miṣri, a scientist such as al-Biruni and alchemists such as Ibn Umail and Abu Al-Qasim Al-ʿIraqi. Also important is the range of their places of origin; as well as native Egyptians, Moslem and non-Moslems, they came from countries as far apart as Spain in the West to Iran and beyond in the East. Almost all spoke and wrote in Arabic, the lingua franca of their day.

If I may end this conclusion on a personal note, it is to say that I started this journey as an Egyptologist in search of a missing link in the history of our discipline, but of no less importance to me as an Egyptian is the light that this study has shed on the continuous links the Egyptians maintained with their ancient heritage throughout the medieval period. It has highlighted for me the need to revive this collective interest as a nation so that it is encouraged to take a more active role in the study and preservation of its heritage. This may be difficult after two and a half centuries where the study of Egyptology has been dominated by a Euro-centred view that has virtually ignored more than a thousand years of Arabic scholarship and exploration. Archaeologists working in other parts of the Near East are beginning, as a result of local concerns, to be aware of and to address this problem of Western dominance of their fields (Matthews 2003: 200), something that their colleagues in Egyptian archaeology are yet to address seriously. In this same time, we should acknowledge our immense debt to our Western colleagues for their valuable contributions.

I hope that by affording a glimpse of the richness of medieval Arabic sources and the breadth and depth of their interest in Ancient Egypt, a gap in the history of the study of Ancient Egypt is at least narrowed, though certainly not exhausted.

Apendix 1

A list of books on Ancient Egypt cited by Al-Idrisi (d. 1251) in his book on the pyramids (Anwar: 251-253).

- ١- المسعودي أخبار الزمان
- ٢- --- الاستذكار لما مر في سالف الأعمار
 - ٣- --- التبيه والاشراف
- ٤ -- ذخائر العلوم في ما كان في سالف الدهور
 - ٥- --- مروج الذهب ومعادن الجوهر
- ٦- أبو زيد البلخى التاريخ المختص بأخبار مصر وعجائبها ودفائنها وفراعنتها
 - ٧- --- صفة الأرض والأقاليم
 - ٨- أبو جعفر الادريسي الأدوار والفترات
 - ٩- --- الجوهرة اليتيمة في أخبار مصر القديمة
 - ١٠ --- مطلع الطالع السعيد في أخبار الصعيد
 - ١١-الوصيفي اسرار البرابي وعلوم الأولين من حكماء المصريين
 - ١٢-البغدادي الإفادة والاعتبار
 - ١٣-أبو معشر البلخي الألوف في بيوت العبادات
 - ١٤-الجاحظ البلدان
 - ١٥-قسطنطين السرياني تاريخ قسطنطين "العنوان"
 - ۱۹-یوسف ابن کریون الاسر انیلی تاریخ یوسف ابن کریون
 - ١٧ ـ التوراة
 - ١٨-القضاعي الخطط
 - ١٩-الكندى الخطط
 - ٢٠-أبو الصلت الرسالة
 - ٢١- تابت ابن قرة رسالة في ديانة الحرانيين
 - ٢٢- ابن الفرات رسالة في فضائل مصر
 - ٢٢- ابن وحشية سحر النبط
 - ٢٤- ابن جلجل طبقات الفلاسفة والأطباء
 - ٢٥ صاعد الأنداسى طبقات الفلاسفة والحكماء
 - ٢٦-أيوب ابن مسلمة الطلسمات الكاهنية
- ٢٧-كتاب العلم المخزون في علم الطلسمات وغيرها من أسرار علومهم الخفيات
 - ٢٨-كتاب في علوم المطالب
 - ٢٩-كتاب المختار من معرفة والأثار

٣٠<u>- كتاب مسيسون الراهب</u>

٣١- أبو عبيد البكرى المسالك والممالك

٣٢ ـــ معارف الجن

٣٣ ____ معجم ما استعجم

٣٤-المهابى المسالك والممالك

Primary Arabic Sources

- Surnames of medieval Moslem/Arab writers are in bold and are listed regardless to the definite article Al and the prefixes Abi, Abu and Ibn.
- All dates of death of writers cited here follow Christian clalendar and are basically after Al-Zerekly, Al-A^clam.
- Anonymous books are listed under their titles in **bold underlined italic**.
- Arabic names are cited according to the standard convention used here unless they are already cited in Latin alphabet on book covers which will be cited here accordingly.
- If there are more than one edition or translation of the same book, the one used in this thesis is followed by the words "used here".
- English translations of texts from The Qur'an used in the thesis are broadly those of "The Holy Qur'an: English translation of the meanings and commentary" Published by King Fahd Holy Qur'an Printing Complex, Al-Medina, Saudi Arabia 1410 H [1989].
- Anonymous manuscripts are cited in full detail in the text and are not listed here.
- Akhbar Al-Zaman. (Anonymous author 12th-12th century?). Ed. A. Al-Ṣawi, Cairo:
 ^cAbd Al-Hamid Hanafi 1938 used here. A French translation and study Carra de Vaux, L'Abrégé des Merveilles. Paris: C. Klinksieck, 1898. (Cf. Maspero 1899; Ferré 1991 and U. Sezgin 1994, 1997).
- Ibn Al-^cArabi, Muḥy Al-Din (d. 1240). <u>Kitab Al-Kawkab Al-Duri fi Manaqib Dhi</u>

 <u>Al-Nun Al-Miṣri</u>. French translation and study R. Deladriere, <u>La vie</u>

 <u>merveilleuse de Dhû-l-Nûn l'Égyptien</u>. Paris: Sindbad 1988 used here.
- Al-Aṣma^ci, ^cAbd Al-Malik Ibn Qurayb (d. 828). <u>Tarikh Al-^cArab Qabl Al-Islam</u>. Ed. M. Al-Yasin, Baghdad: Al-Maktabah Al-^cIlmiyah 1959.
- Ayub Ibn Masalama (Attributed) (first half of the ninth century). <u>Kitab Aqlam Al-Mutaqadimeen</u>. MS 10244 Al-Assad Library (Formerly known as Al-Zahiriyah) Damascus.
- Al-Baghdadi, ^cAbd Al-Lațif (d. 1232) <u>Kitab Al-Ifadah wa Al-I^ctibar fi Al-'Umour Al-Mushahadah wa Al-Hawadith Al-Mu^cayanah bi-Ard Mişr. Ed, with commentary P. Ghalioungui, Cairo: Al-Hay'ah Al-Mişriyah Al-^cAmah li-Al-</u>

- Kitab, 2nd edt. 1985 used here.
- French translation and study S. de Sacy, <u>Relation de l'Egypte par</u>

 <u>Abdallatif.</u> Paris 1810. English translation K. H. Zand, J. and I. Videan,

 <u>The Eastern Key.</u> London 1964 (This translation is not always accurate but is published with the Arabic text and has some explanatory notes).
- Al-Bakri, Abu 'Ubayd 'Abd-Allah Ibn 'Abd Al-'Aziz (d.1094). <u>Kitab Al-Masalik</u> wa Al-Mamalik. Ed. A. P. Van Leeuwen & A. Ferre, 2 volumes. Tunis: Al-Dar Al-'Arabiyah li-Al-Kitab 1992.
- Al-Baladhuri, Abu Al-Ḥassan Ahmad Ibn Yaḥiya (d. 892). Futuḥ Al-Buldan. Ed. R. Radwan. Reprinted 1983, Beirut: Dar Al-Kutub Al-cIlmiyah used here.

 Translated into English with a study in 2 vols. The Origins of the Islamic State New York: Columbia University. Vol. I by by P. Ḥitti in 1916 and vol. II by F. Murgotten in 1924.
- --- Ansab Al-Ashraf, Ed. I. Abbas. Beirut: Catholic Press 1978.
- Al-Balawi, Abu Muhammad ^cAbd Allah (tenth century) <u>Sirat Ahmad Ibn Tulun.</u> Ed. M. K. ^cAli. Damascus: Al-Maktabah Al-^cArabiyah 1939.
- Ibn Basam, Muhammad Ibn Ahmad Al-Muḥtasib (d. ca 1225) Anis Al-Jalis fi
 Akhbar Tinnis. Ed. G. El-Shayyal, Majalat Al-Majmac Al-Ilmi Al-Iraqi,
 Baghdad: 14 (1967) 151-189.
- Ibn Al-Bayṭar, Diau Al-Din Abi Muhammad ^cAbd Allah Ibn Ahmad Al-Andalusi (d. 1248). Al-Jami ^c li-Mufradat Al-Adwiya wa Al-Aghdhiya. 2 volumes. Beirut 1992 used here. French translation L. Leclerc, <u>Traité des simples par Ibn el-Beitar</u>. 3 volumes, Paris. 1883-7. German study by A. Dietrich, <u>Die Dioskurides-Erkärung des Ibn al-Baitar</u>. Göttingen: Vandenhoeck & Ruprecht 1991.
- Al-Biruni, Abu Al-Riḥan Muhammad Ibn Ahmad (d. 1048). Al-Athar Al-Baqiya ^can Al-Qurun Al-Khaliya. Ed. E. Sachau. Leipzig: Otto Harrassowitz. 1923. English translation by E. Sachau, <u>The Chronology of the Ancient Nations</u>. London: William Allen (for the Oriental Translation Fund of Great Britain and Ireland 1879. Reprinted in Frankfurt: Minerva 1969.
- --- Kitab Al-Saydanah. Ed. and translated into English S. Hamarneh, Al-

- Biruni's Book on Pharmacy and Materia Medica. 2 volumes. Karachi 1973.
- --- <u>Kitab Al-Jamahir fi Ma^crifat Al-Jawahir</u>. Ed. Y. Al-Hadi. Iran: Elmi va Farhangi 1995.
- Al-Bukhari, Mohammad Ibn Isma^cil (d. 870). <u>Saḥih Al-Bukhari</u>. Ed. T. Sa^cd. 4 volumes. Mansurah: Maktabat Al-Iman 1998.
- Al-Buni, Ahmad Ibn ^cAli (d. 1225). <u>Shams Al-Ma^carif Al-Kubra</u>. Beirut: Al-Maktabah Al-Thaqafiyah (n.d.).
- Cohen Al-Haroni, (Al-^cAṭar) (d. a. 1260). Minhaj Al-Dukan wa Dustur Al-A^ciyan fi A^cmal wa Trakib Al-Adwiyah Al-Nafi^cah li-Al-Abdan. Cairo: Al-Ḥalabi, 1971 used here.
- Ibn Al-Dawadari, Abu Bakr Ibn ^cAbd Allah Kanz Al-Durar wa Jami^c Al-Ghurar.

 Volume 3. Ed. M. A. Gamal Ad-Din. Cairo & Wiesbaden: Steiner 1981.
- Al-Dimishqi, Shams Al-Din Abu ^cAbd Allah Muhammad Ibn Shaikh Al-Ribwah (d. 1328). Nukhbat Al-Dahr fi ^cAjaib Al-Bar wa Al-Bahr. French translation by A. Mehren, Manuel de la cosmographie du moyen age. 1874. Reprint Amsterdam: Meridian 1964 used here.
- Ibn Duqmaq, Şarm Al-Din Ibrahim Ibn Muhammad Al-Mişri (d. 1406). <u>Al-Intişar li-Wasitat ^cAqd Al-Amşar</u>. Only vols. 4 and 5. Ed. C. Vollers, <u>Description de l'Egypte</u>. Cairo 1893.
- Ibn Fadl Allah, Shihab Al-Din Ahmad Al-^cUmari (d. 1349). Masalik Al-Abşar fi

 Mamalik Al-Amşar. Ed. A. Sayyid [secontions on Mişr, Al-Sham, Al-Hijaz and Al-Yemen]. Cairo: Institut Français d'Archéologie Orientale 1985.
- Al-Fakhri, ^cAli Ibn Muhammad Ibn ^cAbd-Allah (15th century). <u>Talkhiş Al-Bayan fi</u>
 Dhikr Firaq Ahl Al-Adyan. Ed. Rasheed Al-Bandar. London: Dar Al-Ḥikma
 1994.
- Ibn Al-Faqih Al-Hamadhani, Abu Bakr Ahmed Ibn Muhammad Ibn Isḥaq (9th/10th century). <u>Kitab Al-Buldan</u>. An abridged copy was ed. by De Goeje. Leiden: BGA 5, 1885. The complete text was found and ed. by Y. Al-Hadi, Beirut: ^cAlam Al-Kutub 1996 used here.
- Ibn Fatik, Abu Al-Wafa' Al-Mubashir (10th/11th century) <u>Kitab Mukhtar Al-Hikam</u>
 wa Maḥasin Al-Kalim. Ed. ^cA. Badawi. Madrid: Instituto Egipcio de Estudios
 Islamicos 1958.
- Al-Fayruzabadi, Muhammad Murtaḍa Al-Ḥusayni Al-Zabidi. (14th century) <u>Taj Al-</u>
 <u>°Arus min Jawahir Al-Qamus</u>. Ed °A. Shiri. 18 volumes. Beirut: Dar Al-Fikr

1994.

- Abu Al-Fida, ^cImad Al-Din Isma^cil (d. 1331) <u>Al-Mukhtaşar fi Akhbar Al-Bashar</u>. 4 parts in 2 volumes. Cairo: Maktabat Al-Mutanaby. (n.d.).
- Al-Ghalani, Muhammad Al-Kashnawi (d. 1741). Al-Dur Al-Manzum wa Khilasat

 Al-Sir Al-Maktum fi Al-Sihr wa Al-Talasim wa Al-Nujum. 2 volumes. Cairo:

 Al-Halabi 1961.
- Al-Gharnați, Abu Ḥamid cAbd Al-Raḥim Ibn Soliman (d. 1169) <u>Tuḥfat Al-Albab</u> wa Nukhbat Al-Icjab. Ed. I. Al-cArabi. Casablanca: Dar Al-Afaq Al-Jadidah 1993 used here. This edition does not include the illustrations, for which see Ferrand's edition in the <u>Journal Asiatique</u> 207(1925) 1-148 and 199-303. Also the Spanish translation by Ana Ramos, <u>Tuḥafa Al-Albab</u>. Madrid: Insituto de Cooperación con El Mundo Árabe1990.
- Al-Ghazali, Abu Hamid (d. 1111). <u>Ihya 'Ulum Al-Din</u>. Beirut: Dar Al-Ma'rifah, n.d. English translation used here by Maulana Fazul Karim, <u>Imam Ghazali's Ihya</u> '<u>Ulum-id-din</u>. 4 volumes. New Delhi: Kitab Bhavan 1982.
- Ibn Al-Ḥaj, Abu ^cAbd Allah Muhammad Ibn Muhammad Al-^cAbdari (d. 1337).

 Al-Madkhal. 4 volumes. Cairo: Maktabat Dar Al-Turath (n.d.).
- Ibn ^cAbd Al-Ḥakam, Abu Al-Qasim ^cAbd Al-Raḥman (d. 871). <u>Futuḥ Miṣr</u>. Ed. Ch. Torrey, New Haven: Yale Oriental Research Series III, 1922.
- Al-Hamadani, Al-Ḥasan Ibn Ahmad Ibn Ya^cqub, Ibn Al-Hai'k (d. 945). <u>Kitab Al-Iklil</u>. Volume 1 ed. M. Al-Akwa^c Al-Ḥawali, Cairo: Maṭba^cat Al-Sunna Al-Muḥammadiyah 1963. Volume 8 ed. A. Al-Karmali, Baghdad: Syrian-Catholic Press 1931 and see Faris 1938.
- --- <u>Şifat Jazirat Al-°Arab</u>. Ed. M. A. Al-Akwa° Al-Ḥawali and supervised by H. Al-Jasir. Riyad 1974.
- Al-Harawi, Abu Al-Ḥasan ^cAli Ibn Abi Bakr (d. 1214). <u>Kitab Al-Isharat ila</u>

 <u>Ma^crifat Al-Ziyarat</u>. Ed. J. Sourdel-Thomine. Beirut: Catholic Press 1953 used here. French translation by the editor, <u>Guide des lieux de pélerinage</u>. Damascus 1957.
- Ibn Ḥawqal, Abu Al-Qasim Muhammad Ibn ^cAli (d. 988). <u>Surat Al-Arad</u>. Ed. J. Kramers, Leiden 1938-9. Reprint, Cairo: Dar Al-Kitab Al-Islami used here, (n.d.). French translation J. Kramers and G. Wiet, <u>La Configuration de la Terre</u>. Paris Beirut: (UNESCO) 1965.
- Abu Hilal Al-^cAskari, Al-Ḥasan Ibn ^cAbd Allah Ibn Sahl (d. 1009). Al-Hath ^cala

- Talab Al-'Ilm. Ed. 'A. Diab. Cairo: Dar Al-Fadilah 1998.
- Al-Hikayat Al-^cAjiba wa Al-Akhbar Al-Ghariba (14th century) Ed. H. Wehr, Beirut 1956. Reprint Köln: Al-Kamel 1997.
- Ibn Al-^cIbri, Abu Al-Faraj Yuḥana Al-Malṭi [Bar Hebraeus] (d. 1286). <u>Tarikh</u>

 <u>Mukhtaṣar Al-Duwal</u>. Ed. A. Ṣaliḥani, Beirut: Catholic Press 1890.
- Al-Idfui, Abu Al-Fadl Kamal Al-Din (d. 1347). Al-Tali^c Al-Sa^cid Al-Jam^c Asma^r Nujaba^r Al-Ṣa^cid. Ed. S. M. Ḥassan and T. Al-Hajiri. Cairo: Al-Dar Al-Miṣriyah li Al-Talif wa Al-Tarjamah 1966.
- Al-Idrisi, Abu ^cAbd Allah Muhammad Ibn Muhammad (d.1165) Nuzhat Al-Mushtaq fi Ikhtraq Al-Afaq. Ed. E. Cerulli, F. Gabrieli, G. Levi Della Vida, L. Petech, G. Tucci, A. Bombaci, U. Rizzitano, R. Rubinacci and L. Veccia Vaglieri. 2 volumes, Naples-Rome: Istituto Universitario Orientale de Napoli, 1970-1 used here. French translation by P. A. Jaubert, Géographie d'Edrisi. 2 vols. Paris 1836-40.
- Al-Idrisi, Abu Ja°far Muhammad Ibn °Abd Al-°Aziz (d. 1251) Anwar °Ulwiyy Al-Ajram fi Al-Kashf °an Asrar Al-Ahram. First published as a facsimile edition by U. Sezgin, Light on the Voluminous Bodies to Reveal the Secrets of the Pyramids. Institute for the History of Arabic-Islamic Science, the Johann Wolfgang Goethe University, Frankfurt am Main 1988. New edition with an introduction in German U. Haarmann in Beiruter Texte and Studen, Bd. 38, Beirut and Stuttgart: Steiner 1991 used here.
- Al-Işfahani, El- Imad Al-Katib (d. 1201) <u>Sana Al-Barq Al-Shami</u>. (Abridged by Al-Fath Al-Bendari in 1224). Ed. F. Al-Nabarawi, Cairo: Al-Khangi 1979.
- Al-Iştakhari, Ibn Ishaq Ibrahim Ibn Muhammad (d. ca. 934) Al-Masalik wa Al-Masalik wa Al-Masalik wa Al-Masalik wa Al-Masalik Ed. M. Al-Ḥusaini and M. Ghurbal. Cairo: Wizarat Al-Thaqafah 1961.
- Al-Istibsar fi ^cAjaib Al-Amsar (Anonymous author 12th century). Ed. with French translation of the parts on Egypt by S. ^cAbd Al-Ḥamid. Alexandria, 1958, 2nd rev. edt. Casablanca: Dar Al-Nashr Al-Maghribyah 1985 used here. Cf. Levtzion 1979.
- Ibn Iyas, Abu Al-Barakat Muhammad Ibn Ahmad (d. 1542). <u>Badai^c Al-Zuhur fi</u>

 <u>Waqai^c Al-Duhur</u>. Ed. Muhammad Mustafa. 5 vols. Reprint of 2nd rev. edt.

 1982-4. Cairo: Al-Hay'ah Al-Misriyah Al-^cAmah li-Al-Kitab.
- Jabir Ibn Ḥayan (d. ca 815). <u>Tadbir Al-Iksir Al-A^czam</u>. Ed. P. Lory with an introduction, Damascus: Institut Français de Damas 1988.

- Al-Jaḥiz, ^cAmr Ibn Baḥr (d. 771). <u>Kitab Al-Ḥaywan</u>. Ed. ^cA. Harun. 7 vols. Cairo: Al-Khangi 1969. First published by Al-Ḥalabi 1947.
- --- Rasail Al-Jahiz. Ed. ^cA. Harun. 4 vols. Cairo. Reprint Beirut: Dar Al-Jil 1991.
- Al-Jazari, Badi^c Al-Zaman Abu Al-^zIz Isma^cil Ibn Al-Razaz (12th/13th century) <u>Kitab</u> fi Ma^crifat Al-Hayl Al-Handasiyah. Fascimile publication of the Arabic text in Topqapu Serai Library in Istanbul, No. 3472. Ankara: Kültür Bakanliği 1990. English translation by D. Hill, <u>The Book of Knowledge of the Ingenious</u> Mechanical Devices. Boston: Reidel 1974. (Cf. Coomaraswamy 1924).
- Al-Jildaki, Aidamur (14th century). <u>Kitab Al-Durr Al-Maknun fi Sharh Qasidat Dhi</u> Al-Nun Al-Misri. MS 4025, fols. 30R ff. Chester Beatty Library, Dublin.
- Al-Jobri, ^cAbd Al-Raḥim (d. a. 1264) <u>Al-Mukhtar fi Kashf Al-Asrar wa Hatk Al-Astar</u>. Ed. ^cIṣam Shaparo. Beirut: Dar Al-Taḍamun 1992.
- Ibn Jubayr, Abu Al-Ḥassan Muhammad Ibn Ahmad (d. 1217). Rihlat Ibn Jubayr.
 Beirut: Al-Hilal 1981 used here. Earlier edition by W. Wright revised by M. De Goeje, Leiden: Brill 1907, reprinted Warminster: Aris & Phillips for the E.J.W. Memorial Trust, 2001 English translation R. Broadhurst, The Travels of Ibn Jubayr. London: Jonathan Cape 1952.
- Ibn Juljul (d. a. 994) <u>Tabaqat Al-Atiba' wa Al-Ḥukama'</u>. Ed. by F. Sayyid. Cairo 1955. Reprint1985, Beirut in the same volume, Ibn Ḥunien, <u>Tarikh Al-Atiba' wa Al-Falasifah</u>.
- Al-Kalabadhi, Abu Bakr Muhammad Ibn Ishaq (d. 994). <u>Kitab Al-Tacarruf li-Madhhab Ahl Al-Tasawuf</u>. Ed. A. Arberry, Cairo 1933, rep. 1994 used here. English translation A. Arberry, <u>The Doctrine of the Sufis</u>. Cambridge: Cambridge University Press 1978.
- Ibn Al-Kalbi, Hisham Ibn Muhammad (d. 820). <u>Kitab Al-Asnam</u>. Ed A. Zaki. Cairo: Dar Al-Kutub 1924. 3rd reprint 1995 used here.
- Ibn Khaldun, ^cAbd Al-Raḥman Ibn Muhammad (d. 1406). <u>Al-Muqaddimah</u>. Ed. ^cA. Wafi, 4 volumes, Cairo: Lajnat Al-Bayan Al-^{cA}rabi 1960-67. English translation F. Rosenthal, <u>The Muqaddimah</u>: <u>An Introduction to History</u>. 3 volumes. Princeton: Princeton University Press. Second edition 1967 used here. First published in London: Routledge and Kegan Paul 1958.
- Ibn Khalikan, Ahmad Ibn Muhammad Ibn Ibrahim (d. 1281). Wafiyat Al-A^cyan wa Anba' Al-Zaman. Ed. I. ^cAbbas 6 volumes Beirut: Dar Sader. English translation De Slane, Ibn Khallkan's Biographical Dictionary. 4 volumes,

- London & Paris 1842-3. Reprinted Beirut Libraire du Liban 1970 used here.
- Ibn Al-Khaṭib, Lisan Al-Din Muhammad Ibn °Abd Allah (d. 1374) <u>Kitab °Amal</u>

 <u>man Ṭaba li-man Ḥaba</u>. Ed. M. Vazquez de Benito. Salamanca: University of
 Salamanca 1972.
- Ibn Khurdadhiba, Abu Al-Qasim 'Ubayd Allah Ibn 'Ali (d. ca 912).
 Al-Masalik wa Al-Mamalik. Ed. De Goeje, Leiden: BGA 6, 1889 used here.
 French translation C. Barbier de Menyard, La Livre des routes et des provinces,
 Paris 1865.
- Al-Kindi, Abu Yosuf Ya^cqub Ibn Isḥaq (d. 867). <u>Kitab Al-Aqrabadhin</u>. English translation with a study M. Levey, <u>The Medical Formulary or Aqrābādhin of Al-Kindi</u>. Milwaukee & London: University of Wisconsin Press 1966 used here.
- Ibn Al-Kindi, 'Umar Ibn Muhammad Ibn Yosuf (tenth century). Fadail Mişr Al-Mahrousah. Ed. 'A. 'Umar. Cairo: Al-Hay'ah Al-Mişriyah Al-'Amah li-Al-Kitab, new edt. 1997.
- Abu Ma^cshar Al-Balkhi, Ja^cfar Ibn Muhammad Ibn ^cUmar (d. 886) <u>Kitab al-Milal</u> wa al-Duwal. Ed. with English translation K. Yamamoto and C. Burnett, <u>Abu Ma^cšar on Historical Astrology</u>. 2 volumes, Leiden: Brill 2000.
- Al-Maghrabi, Ibn Al-Haj Al-Tilmsani (d. 1337). Shumus Al-Anwar wa Kunuz Al-Asrar. Unedited, Cairo: Al-Ḥalabi 1938.
- Al-Magriți, Abu Al-Qasim Muslamah Ibn Ahmad [attributed to] (d. ca 1007). <u>Kitab Ghayat Al-Hakim wa Ahaq Al-Natijatin bi-Al-Taqdim</u>. Ed. H. Ritter Leipzig/Berlin: Teubner 1933. German translation H. Ritter and M. Plessner "Picatrix" Das Das Ziel des Weisen von Pseudo-Mağriti. London: The Warburg Institute, University of London 1962.
- Maimonides (Musa Ibn Maimun) (d. 1204). Sharh Asma' Al-cAqaqir. French translation M. Meyerhof, Cairo 1940. English translation from French by F. Rosner, Moses Maimonides' Glossary of Drug Names. Haifa: The Maimonides Research Institute 1995 used here.
- Abu Al-Makarim, Sa^cd Allah (12th century). <u>Tarikh Al-Kanais wa Al-Adyrah</u>. Ed. Fr. Samuel Al-Suryani, 2 volumes Cairo 1984. First attributed to Abu Salih Al-Armani and edited with English translation by B. Evetts, <u>The Churches and Monasteries of Egypt</u>. Oxford: Clarendon Press 1895 used here. (This translation should be used with caution because of its many mistakes).

- Al-Maqrizi, Abu Al-c'Abbas Ahmed Ibn c'Abd Allah (d. 1440). <u>Kitab Al-Mawac'iz wa Al-Ic'tbar fi Dhikr Al-Khitat wa Al-Athar</u>. [Khitat] Cairo. [critical incomplete edition Wiet 1911-27 5 volumes (30, 33, 46, 49, 53) Cairo: MIFAO; French incomplete trans. Pouriant and Casanova 1893-1906]. New critical edition A. F. Sayyid, London: Al-Furqan 2002- used here.
- --- Al-Bayan wa Al-I^crab ^cAma bi-Ard Mişr mn Al-A^crab. Ed. with extensive study ^cA. ^cAbdeen, Alexandria: Dar Al-Ma^crifah Al-Jami^ciyah 1989.
- --- <u>It az Al-Hunafa bi-Akhbar Al-A'ima Al-Fatimeen Al-Khulafa</u>. 3 volumes:
 Volume 1 ed. by G. El-Shayyal, 1st edt. Cairo 1967.
 Volumes 2 and 3 ed. by M. Ahmad, 1st edt. Cairo 1971-73.
 2nd edt. 3 volumes Cairo: Al-Majils Al-A'laa li-Al-Shu'un Al-Islamiyah 1996.
- --- Ighathat Al-Umah bi-Kashf Al-Ghamah. Ed. M. Ziadah and G. El-Shayyal, Cairo 1957; Ed. B. Al-Sibaci, Hims 1957 used here. English translation and study by A. Allouche, Mamluk Economics: A Study and Translation of Al-Maqrizi's Ighathah. Salt Lake City: University of Utah Press 1994.
- Al-Mas^cudi, Abu Al-Ḥassan ^cAli Ibn Al-Ḥusain (d. ca. 956). <u>Al-Tanbih wa Al-Ishraf</u>.

 Ed. M. De Goeje, Leiden: Brill used here. French translation C. de Vaux, <u>Le</u>

 <u>Livre de l'avertissement et de la revision</u>. Paris 1938.
- Muruj Al-Dhahab wa Ma^cadin Al-Jawhar. Ed. M. ^cAbd Al-Ḥamid, Cairo.
 Reprint, Beirut: Al-Maktabah Al-'Asriyah 1988 used here. French translation by
 C. Barbier de Meynard and P. de Courteille, Les prairies d'or. Paris: Société
 Asiatique 1861-1877. Critical Arabic edition C. Pellat. 7 volumes, Beirut:
 University of Lebanon 1965-1979.
- Al-Minufi, Ahmad Ibn ^cAbd Al-Salam (d. 1524). Al-Fayd Al-Madid bi-Akhbar Al-Nil Al-Sa^ceed. MS 1639 48076 Marseille, Bibliotheque Municipale used here. For a partly edited text and French translation of the first 3 sections of chapter 1, see l'Abbé Bargès in Journal Asiatique, 3rd series, volume III, 1837: 97-164; volume IX, 1840: 101-131; volume XVI, 1846: 485-521.
- Miskawaih, Abu ^cAli Ahmad Ibn Muhammad (d. 1030). <u>Tahdhib Al-Akhlaq</u>. Ed. Constantine K. Zurayk. Beirut: The American University Press 1966.
- Al-Mu^cjam Al-Waseet 2 volumes. Cairo: Majma^c Al-Lughah Al-^cArabiyah 1985.
- Al-Muqadasi, Muṭahar Ibn Ṭahir (c. 950). <u>Kitab Al-Bad' wa Al-Tarikh</u>. Ed. and translated into French by C. Huart (attributed there to Abu Zaid Al-Balkhi). 3 vols. Paris 1899-1903.

- Al-Muqadasi, Shams Al-Din (d. 985) Aḥsan Al-Taqasim fi Ma^crifat Al-Aqalim.

 Ed. De Goeje, Leiden. 2nd edt. 1906 used here. English translation B. Collins and reviewed by M. H. Al-Taj, The Best Divisions for the Knowledge of the Regions. London: Centre for Muslim Contributions to Civilization, 1994.
- Al-Murtadi. French translation (of the Arabic text now lost) P. Vattier <u>L'Egypte</u>
 de Murtadi fils du Gaphiphe. Paris: 1666. Reprinted with a study by G. Wiet.
 Paris: L'École des langues orientales 1953. English translation from French
 J. Davies of Kidwolly, <u>The Egyptian History Treating of the Pyramids, the</u>
 Inundation of the Nile, and other Prodigies of Egypt According to the Opinions
 and Traditions of the Arabians. London: Printed by R. B for Thomas Basset, at
 the George near Cliffords Inn, Fleet Street 1672.
- Al-Nadim, Abu Al-Faraj Muhammad Ibn Abi Ya^cqub Isḥaq (d. 920) <u>Al-Fihrist</u>. Ed. Riḍa Tajaddud, 3rd edt. Tehran: Dar Al-Masirah 1988 used here. English translation B. Dodge, <u>The Fihrist of al-Nadim</u>. 2 volumes, New York & London: Columbia University Press 1970.
- Nașir-e Khisraw (d. a. 1087) <u>Sefernama</u>. Arabic translation by Y. Al-Khashab, Cairo 1943 used here. Translated from Persian into English W. Thackston Jr., <u>Book of Travels (Safarnama)</u>. New York: The Persian Heritage Foundation 1986.
- Dhu Al-Nun Al-Mişri, Abu Al-Fayd Thuban Ibn Ibrahim (d. ca 860). <u>Hall Al-Rumuz</u> wa Bari Al-Arqam fi Kashf Uşul Al-Lughat wa Al-^cAlam. MS Muallim Cevdet K. 290 Ataturk Kitapligi, Istanbul.
- --- Al-Qasidah fi Al-San^cah Al-Karimah. In MS, Add. 7590, Shuzur Al-Dhahab. fol. 85-90. British Library, London.
- Al-Nuwairi, Shihab Al-Din Ahmad Ibn ^cAbd Al-Wahab (d. 1331) Nihayat Al-Arb fi Funun Al-Adab. 31 volumes Cairo: Markaz Taḥiqiq Al-Turath 1923-1992.
- Ibn Qadi Shuhba (d. 1448) <u>Tarikh Ibn Qadi Shuhba</u>. Ed. A. Darwich, 4 volumes, Damascus: Institut Français de Damas 1977-1997.
- Al-Qalqashandi, Shihab Al-Din Abu Al-c'Abbas Ahmed Ibn c'Ali Al-Miṣri (d. 1418).

 Kitab Subh Al-Acsha fi Sinacat Al-Insha. 14 volumes, Cairo 1913-20. Ed. M. Shams Al-Din, 15 volumes, Beirut: Dar Al-Fikr used here. German study of the chapters on Egypt, F. Wüstenfeld, Die Geographie und Verwaltung von Agypten nach dem Arabischen des Abul c'Abbas Ahmed ben c'Ali el-Calcaschandi. Gottingen: Abhandlungen der Königlichen Akademie der

- Wissenschsten 1879.
- Abu Al-Qasim Al-^cIraqi. (d. 1341) <u>Kitab Al-Aqalim Al-Sab^cah</u>. MS Add. 25,724. British Library, London.
- Kitab Ḥall Al-Rumuz wa Fak Al-Aqlam [?] MS Arabe 2676 Bibliothèque
 Nationale, Paris. (cf. MSS Arabe 2657 and Arabe 2703 in the same library;
 MS Add. 23,420 British Library, London; MS 10244 Al-Assad Library,
 Damascus. they may be all by the same author and indeed even the samr book).
- Al-Qazwini, Zakaria Ibn Muhammad Ibn Yaḥya (d. 1274) <u>Kitab Athar Al-Bilad wa</u>
 Akhbar Al-cIbad. Beirut: Dar Sader 1960.
- --- <u>Kitab [°]Ajaib Al-Makhluqat wa Gharaib Al-Mawjudat</u>. Cairo: Al-Ḥalabi (n.d.). Cf. Badiee 1978.
- Al-Qifți, Jamal Al-Din Abu Al-Maḥasin [°]Ali Ibn Yosuf (d. 1248). <u>Ikhbar Al-[°]Ulma'</u> bi-Akhbar Al-Ḥukama'. Cairo: Al-Mutanabi (n. d.) used here.

 An abridged copy by Al-Zuzini was edited by J. Lippert, Leipzig 1903 under the title Ta'rikh al-Hukama'. New edt. Ed. [°]A. Diab, Kuwait, 2 vols. 1998.
- Ibn Al-Quff, Amin Al-Daulah Abu Al-Faraj (d. 1286). <u>Jami^c Al-Gharad fi Hifz Al-Sihah wa Daf^c Al-Marad</u>. Ed. S. Al-Ḥamarneh. Amman: University of Jordan Press 1989.
- Al-Razi, Abu Bakr Muhammad Ibn Zakaria (d. 925). <u>Kitab Al-Ḥawi fi Al-Ṭib</u>. 22 volumes. Hyderabad-Deccan: The Dairat'l-Ma^carif-il-Osmania (Osmania Oriental Publications Bureau), 1955-.
- --- Tabib man la-Tabib Lahu. Ed. M. Al-Rashidi. Cairo: Dar Rikabi 1998.
- Ibn Rusta, Abu 'Ali Ahmed Ibn 'Umar (d. a. 913) Al-A'laq Al-Nafeesah. Ed. De Goeje, Leiden: Brill, BGA 7, 1892 used here. French translation G. Wiet, Les Atours précieux. Cairo 1955.
- Şa^cid Al-Andalusi, Abu Al-Qasim Şa^cid Ibn Ahmad (also known as Qadi Şa^cid) (d. 1170). <u>Tabaqat Al-Umam</u>. Ed. H. Mou'nes, Cairo: Dar Al-Ma^caref 1998.
 English translation, Salem, S. and A. Kumar <u>Science in the Medieval World</u> "<u>Book of the Categories of Nations</u>". Austin: University of Texas Press.
 1991 used here.
- Al-Sakhawi, Abu Al-Hassan Nur Al-Din ^cAli Ibn Ahmad (d. 1482). <u>Tuḥfat Al-Aḥbab</u>
 wa Bughyat Al-Tulab fi Al-Khitat wa Al-Mazarat wa Al-Tarajim wa Al-Biqa^c

 <u>Al-Mubarakat</u>. Cairo: Maktabat Al-Kulyiat Al-Azharyah. 2nd edt. 1986.

- Abu Al-Ṣalat, 'Umyah Ibn 'Abd Al-'Aziz Al-Andalusi (d. 1134) Al-Risalah Al-Miṣriyah. Ed. 'A. Harun in Nawadir Al-Makhṭuṭat Vol. 1: 5-56. Cairo: Al-Ḥalabi. 2nd edt. 1972.
- Al-Shahrastani, Abu Al-Fath Muhammad Ibn ^cAbd Al-Kareem (d. 1153) <u>Kitab</u>

 <u>Al-Milal wa Al-Nihal</u>. Ed. A. Muhammad, 3 volumes. Beirut: Dar Al-Surur, 1948-9. New edition of three parts in one volume used here, Beirut: Dar Al-Kutub Al-^cIlmiyah.
- Ibn Sina, (Avicenna) Abu [°]Ali Ḥusain Ibn [°]Abd Allah (d. 1037). <u>Al-Qanun fi Al-Ṭib</u>. 4 vols Cairo. n.d.
- Sirat Saif Ibn Dhi Yazan Unedited, Cairo: Al-Mashhad Al-Husayni 1972.
- Al-Sulami, Abu ^cAbd Al-Raḥman Muhammad Ibn Al-Ḥusain (d. 1021). <u>Dhkr Al-Nuswah Al-Mut^cabidat Al-Sufiyat</u>. Ed. M. Al-Ṭanaḥi, Cairo: Al-Hay'ah Al-Miṣriyah Al-^cAmah li-Al-Kitab and Al-Khangi, 1999.
- Al-Suyuţi, Jalal Al-Din ^cAbd Al-Raḥman Ibn Al-Kamal (d. 1505). <u>Kitab Ḥusn</u>

 <u>Al-Muḥaḍarah fi Tarikh Miṣr wa Al-Qahirah</u>. Ed. M. Ibrahim. 2 volumes,

 Cairo: Al-Halabi 1967-68. Reprinted Cairo: Dar Al-Fikr 1998.
- --- <u>Kitab Al-Maknun fi Manaqib Dhi Al-Nun</u>. Ed. A. H. Mahmoud, Cairo: Maktabat Al-Adab 1992.
- --- (Attributed) <u>Kitab Al-Kanz Al-Madfoun wa Al-Fulk Al-Mashhoun</u>. Unedited reprint, Cairo: Al-Ḥalabi 1970.
- Al-Tahanawi, Mohammad ^cAli (d. a. 1745). <u>Kashaf Istlahat Al-Funun</u>. Ed. A. Basaj. 4 vols, Beirut: Dar Al-Kutub Al-^cIlmiyah 1998.
- Al-Tujibi, Al-Qasim Ibn Yosuf (d.1329). <u>Mustafad Al-Rihlah wa Al-Ightrab</u>. Ed. ^cA. Manşour, Tunis: Al-Dar Al-^cArabiyah li-Al-Kitab 1975.
- Ibn Al-Ţuwayr, Abu Muhammad Al-Murtadai (d. 1220). Nuzhat Al-Muqlatayn fi Akhbar Al-Daulatayn. Ed. A. F. Sayyid. Beiruter Texte and Studen, Bd. 39, Beirut and Stuttgart: Steiner 1992.
- Ibn Umail, Muhammad (tenth century). Sharh Al-Siwar wa Al-Ashkal. MS arabe 2609 Bibliotheque Nationale, Paris. (Cf. Stapelton et al 1933).
- Ibn Abi Uṣaybi^cah, Muwafaq Al-Din Abi Al-^cAbbas Ahmad Ibn Al-Qasim (d. 1270)

 <u>Kitab ^cUyun Al-Anba' fi Tabaqat Al-Atiba'</u>. [Tabaqat] Ed. ^cA. Al-Najar,

 Cairo: Dar Al-Ma^caref 1996. Edition Beirut: Dar Al-Kutub Al-^cIlmiyah 1998

 used here.
- Wahb Ibn Munabbih (d. 732). Al-Tijan fi Muluk Himiyar. Cairo: Quşur Al-

- Thaqafah 1996. First published in Ṣanca': Markaz Al-Dirasat wa Al-Abḥath Al-Yamaniyah 1979.
- Al-Wahrani, Al-Sheikh Rukn Al-Din Mohammad (d. 1575). Manamat Al-Wahrani wa Maqamatih wa Rasailih. Ed. I. Sha^olan and M. Naghsh. Cairo 1968.

 Reprint Köln: Al-Kamel 1998.
- Ibn Waḥshiyah, Abu Bakr Ahmad Ibn [°]Ali Ibn Qys Al-Kasadani (tenth century)

 Kitab Shauq Al-Mustaham fi Ma[°]irfat Rumuz Al-Aqlam. MS Arabe 6805

 Bibliothèque Nationale, Paris used here. English translation of another version

 J. Hammer, Ancient Alphabets and Hieroglyphic Characters Explained; with

 an Account of the Egyptian Priests, their Classes, Initiation, and Sacrifices in

 the Arabic Language by Ahmad Bin Abubekr Bin Wahshih. London: Bulmer
 and Co. 1806.
- Ibn Al-Wardi, Siraj Al-Din Abi Hafs ^cUmar (d. 1457) <u>Kharidat Al-^cAjaib wa Faridat Al-Gharaib</u>. Unedited edition, Cairo: Al-Ḥalabi 1939. The Egyptian materials in this book were studied and translated into Latin by C. Fraehn, <u>Aegyptus auctore Ibn al-Vardi</u>. Halae 1804.
- Al-Ya^cqubi, Abu Al-^cAbbas Ahmad Ibn Abi Ya^cqub (d. ca. 905) <u>Tarikh Al-Ya^cqubi</u>. Ed. M. Houtsma, 2 volumes Leiden 1883. Reprinted Beirut: Dar Sader 1960.
- --- <u>Kitab Al-Buldan</u>. Ed. De Goeje. Leiden 1892 used here. French translation G. Wiet, <u>Les pays</u>, Cairo 1937.
- Yaqut, Ibn ^cAbd Allah Al-Ḥamawi Al-Rumi (d. 1229) Mu^cjam Al-Buldan. Ed. F. Wüstenfeld, Leipzig 1866-1873. Reprinted Beirut: Dar Sader 1995.
- --- Al-Moshttarik Wad^ca wa Al-Muftariq Suq^ca. Ed. F. Wüstenfeld, Göttingen 1846. Reprinted Beirut: ^cAlam Al-Kutub 1986.
- Ibn Zahirah (15th century?) Al-Fadail Al-Bahirah fi Maḥasin Miṣr wa Al-Qahirah.

 Ed. M. Al-Saqqa and K. Al-Muhandis, Cairo: The National Library Press
 1969.
- Ibn Zohr, (Avezoar) Abu Marawan ^cAbd Al-Malik (d. 1162) <u>Kitab Al-Taisir fi Al-</u> Mudawat wa Al-Tadbir. Ed. M. Al-Khuri. Al-Munazamah Al-^cArabiyah li-Al-Tarbiyah wa Al-Thaqafah wa Al-^cUlum (n.d.).
- Al-Zohri, Abu ^cAbd Allah Muhammad Ibn Abi Bakr (d. b. 1161) <u>Kitab al-Jughrafiyah</u>. Ed. M. H. Şadiq, Beirut 1968.

Bibliography of other sources used

- ^cAbbas, J. (1992) <u>Athar Misr Al-Qadeemah fi Kitabat Al-Rahalah Al-^cArab wa Al-Ajanib</u>. Cairo: Al-Dar Al-Maṣriyah Al-Lubnaniyah.
- ^cAbd Allah, Y. (1991) <u>Mu^cjam Al-Mu'arkhin Al-Moslemin hata Al-Qarn 12 H.</u>
 Beirut: Dar Al-Kutub Al-^cIlmiyah.
- ^cAbd Al-Bar, I. (2000) <u>Kashf Al-Sitar ^can Fath Al-Kunuz wa Istikhraj Al-Athar</u>. Cairo: Al-Faruq Al-Ḥadithah.
- ^cAbd Al-Galil, O. (2000) <u>Tarikh Misr li-Yohana Al-Niqusi</u>. Cairo: Dar ^cAin.
- Abd El-Ghany, M. (1989) The Arabs in Ptolemaic and Roman Egypt through Papyri and Inscriptions. In Egitto e storia antica dall'ellenismo all'età araba. Atti del Colloquio Internazionale, Bologna: Cooperativa Libraria Universitaria Editrice, 232-242.
- °Abd Al-Ḥamid, S. (1954) Mulaḥazat °an Miṣr kama Ra'aha wa Waṣafaha Al-Jughrafyun wa Al-Raḥalah Al-Magharibah fi Al-Qarnin 6, 7 li-Al-Hijrah [12-13 AD], Naqd Al-Maṣadir. Majalat Kulyat Adab Alexandria 91-118.
- ^cAbd Al-Wahab, H. (1994) <u>Tarikh Al-Masajid Al-Athariyah</u>. Cairo: Al-Hay'ah Al-Miṣriyah Al-Camah li-Al-Kitab. 2nd edt. First published 1946.
- Abdel Tawab, A. (1986) Relations of monks and Moslems in the first century of the Higra: A study on the relation between the Umayyad rulers and the Chris tian population of Egypt. In P. Bridel (ed) Le site monastique copte des Kellia: Sources historiques et explorations archéologiques. Actes du colloque de Genève, 13-15 août 1984. Geneva: Mission suisse d'archaéologie copte de l'Université de Genève. 323-325.
- ^cAbdeen, ^cA. (1964) <u>Lamahat min Tarikh Al-Hayah Al-Fikriyah Al-Mişriyah qabl Al-Fath Al-Caro:</u> Al-Shubukshi Press.
- Abdul-Rahman, A. (1986) Arabic Proverbs of "Afoal Attafdeel". Arab Journal for the Humanities. Kuwait: Kuwait University, 6: 21: 40-86.
- Abi Khuzam, A. (1995) Al-Ruh Al-Sufiya fi Jamaliyat Al-Fan Al-Islami. Beirut.
- Abou-Bakr, O. (1992) The Symbolic Function of Metaphor in Medieval Sufi Poetry:

 The Case of Shushtari. Alif: Journal of Comparative Poetics, American

 University in Cairo, 12: 40-57.
- Affifi, A. (1951) The Influence of Hermetic Literature on Moslem Thought. <u>Bulletin</u> of the School of Oriental and African Studies 13: 840-855.

- Aharoni, Y. (1966) The Use of Hieratic Numerals in Hebrew Ostraca and the Shekel Weights. <u>Bulletin of the American School of Oriental Research</u> **184**: 13-19.
- Ahmad, M. (1987) Al-Hijrat Al-^cArabiyah Al-Qadeemah min Shibih Al-Jazirah Al-^cArabiyah wa Bilad Al-Rafidin wa Al-Sham ila Misr. Damascus: Dar Ṭalas.
- Al-Ahsan, A. (1999) The Origin of Human History and the First Man. <u>Islamic Studies</u> **38**: 63-86.
- ^cAjinah, M. (1994) Mausu^cat Asatir Al-^cArab. 2 volumes, Beirut: Al-Farabi.
- Allam, S. (1992) Observations on Civil Jurisdiction in Late Byzantine and Early
 Arabic Egypt. In J. Johnson (ed.) <u>Life in a Multi-Cultural Society:</u>

 <u>Egypt from Cambyses to Constantine and Beyond.</u> Chicago: The Oriental Institute of the University of Chicago, 1-8.
- Allen, J. (2000) Middle Egyptian. An Introduction to the Language and Culture of Hieroglyphs. Cambridge: Cambridge University Press.
- Allen, T. (1936) Types of Rubrics in the Egyptian Book of the Dead. <u>Journal of the American Oriental Society</u> 56: 145-154.
- Altheim, F. and R. Stiehl et al (1964-) <u>Die Araber in der Alten Welt</u>. 5 volumes, Berlin: Walter de Gruyter and Co.
- Amélineau, M. (1887) Étude sur le Christianisme en Égypte au Septième Siècle.

 Paris. Ernst Leroux.
- --- (1888) <u>Contes et romans de l'Égypte chrétienne</u>. 2 volumes, Paris: Ernst Leroux.
- Anawati, G. (1996) Arabic alchemy. In R. Rashed (ed.) Encyclopedia of the History of Arabic Science. 3 vols. London & New York: Routledge, 3: 853-885.
- Arnold, D. (1991) <u>Building in Egypt: Pharaonic Stone Masonry</u>. New York and Oxford: Oxford University Press.
- °Aşi, H. (1992a) <u>Abd Al-Raḥman Ibn Abd Al-Ḥakam</u>. Beirut: Dar Al-Kutub Al-Ilmiyah.
- --- (1992b) <u>Al-Ya^cqubi</u>. Beirut: Dar Al-Kutub Al-^cIlmiyah.
- Assmann, J. (1997) Moses the Egyptian. The Memory of Egypt in Western Monotheism. Massachusetts: Harvard University Press.
- --- (2002) <u>The Mind of Egypt. History and Meaning in the Time of the Pharaohs</u>.

 Translated from German by A. Jenkins, New York: Metropolitan Books.
- Atiya, A. (1986) "Kipt". In Encyclopaedia of Islam 2nd edition 5: 89-95.
- Aufrère, S. (1984) Études de lexicologie et d'histoire naturelle IV-VI. Bulletin de

- l'Institut Français d'Archéologie Orientale 84: 1-21.
- Aufrère, S. and N. Bosson (1998) Le Père Guillaume Bonjour (1670-1714) Un orientaliste méconnu porté sur l'étude du copte et le déchiffrement de l'égyptien. Orientalia 67: 497-506.
- --- (2000) Un dictionnaire des curiosités égyptiennes... une approche de sémantique historique. Études coptes VII: 1-15.
- Bachatly, C. (1931) Legends about the oblelisk at Mataria. Man 189: 195-6.
- Badawi, ^cA. (1964) Muwafaq Al-Din ^cAbd Al-Laṭif Al-Baghdadi, Ḥayatuh wa Mu'alafatuh wa Falsafatuh. In D. Ṣadiq (ed) Muwafaq Al-Din ^cAbd Al-Laṭif Al-Baghdadi fi Al-Dhikra Al-Mu'awiyah Al-Thaminah li-Miladih. Cairo: Al-Dar Al-Qaumyah, 1-29.
- Badawi, A. (1965) Al-Athar Al-Misriyah fi Al-Adab Al-cArabi. Cairo: Dar Al-Qalam.
- Badawi, A. and H. Kees (1958) <u>Handwoerterbuch der Aegyptischen Sprache</u> [sic]. Cairo: ^cAin Shams University.
- Badawy, A. (1967) The Civic Sense of Pharaoh and Urban Development in Ancient Egypt. Journal of the American Research Center in Egypt 6: 103-109.
- Badiee, J. (1978) An Islamic Cosmography: The Illustrations of the Sarre Qazwini.
 Unpublished PhD thesis, University of Michigan.
- Baer, G. (1968) 'Ali Mubarak's <u>Khitat</u> as a Source for the History of Modern Egypt.

 In P. Holt (ed) <u>Political and Social Change in Modern Egypt</u>. London:

 Oxford University Press, 13-27.
- Baines, J. and J. Málek (1980) Atlas of Ancient Egypt. Oxford: Phaidon Press.
- Bakar, O. (1998) <u>Classification of Knowledge in Islam</u>. Cambridge: The Islamic Texts Society.
- Ball, J. (1989) The Body Snatchers. New York: Dorset Press.
- Barbulesco, L. (2002) L'itinéraire hellénique de Tâhâ Ḥusayn. Revue mondes muslmans et de la Méditerranée 95-98: 297-305.
- Bashear, S. (1997) Arabs and Others in Early Islam. New Jersey: The Darwin Press.
- Baudy, G. (1986) <u>Adonisgärten: Studen zur antiken Samensymbolik</u>. Frankfurt am Main: Anton Hain. (Beiträge zur Klassischen Philologie 176).
- Becker, C. (1931) <u>Das Erbe der Antike im Orient und Okzident</u>. Leipzig: Quelle und Meyer.
- Beeston, A. (1962) An Arabic Hermetic Manuscript. In <u>The Bodleian Library Record</u> 7 (1 June 1962): 11-23.

- Behlmer, H. (1996) Ancient Egyptian Survival in Coptic Literature: An Overview. In A. Loprieno (ed) <u>Ancient Egyptian Literature: History and Forms</u>. Leiden, Brill, 567-589.
- Behrens-Abouseif, D. (1998) <u>Beauty in Arabic Culture</u>. Princeton: Markus Wiener Publishers.
- Berkey, J. (2001) <u>Popular Preaching & Religious Authority in the Medieval Islamic</u>
 <u>Near East. Seattle and London: University Washington Press.</u>
- Berlev, O. (1990) Bureaucrats. In Donadoni (ed) <u>The Egyptians</u>. Translated by R. Bianchi, A. Crone, C. Lambert and T. Ritter. Chicago: University of Chicago Press, 87-119.
- Berthelot, M. (1888) <u>Collection des Anciens Alchimistes Grecs</u>. Paris. Reprint London: Holland Press 1963 used here.
- Betz, H. (ed) (1992) <u>The Greek Magical Papyri in Translation</u>. 2nd edition. Chicago: University of Chicago Press.
- Bierbrier, M. (1995) Who Was Who in Egyptology. London: The Egypt Exploration Society. 3rd revised edition. 1st edition W. Dawson 1951, 2nd edition E. Uphill 1969.
- Bietak, M. (1996) Avaris: The Capital of the Hyksos. London: British Museum Press.
- Bilabel, F., A. Grohmann, and G. Graf (1934) <u>Griechische, koptische und arabische</u>

 <u>Texte zur Religion und religiösen Literatur in Ägypten Spätzeit</u>.

 Heidelberg: Verlag der Universitätsbibliothek.
- Blackman, A. (1916) The Pharaoh's Placenta and the Moon-God Khons. <u>Journal of</u>
 <u>Egyptian Archaeology</u> 3: 235-49.
- Blackman, W. (1927) The Fellahin of Upper Egypt. London: George Harrap.
- Blanco, A. (1984) Hermetism. A Bibliographical Approach. <u>Aufstieg und Niedergang</u>
 der römischen Welt. Gschichte und Kultur Roms im Spiegel der neueren
 Forschung [ANRW] II. 17. 4: 2240-2281.
- Blau, J. (1979) Some Observations on a Middle Arabic Egyptian Text in Coptic Characters. <u>Jerusalem Studies in Arabic and Islam</u>. 1: 215-262. Reprinted in J. Blau (1988) <u>Studies in Middle Arabic and its Judaeo-Arabic Variety.</u>

 Jerusalem. 145-193.
- Blochet, E. (1907) Peintures de Manuscrits Arabes à Types Byzantins. In Revue Archéologique. Paris. 4th Series: 9: 193-223.
- ----- Études sur le Gnosticisme musulman. 5 articles in Rivista degli Studi Orientali:

- **(1909) 2: 717-756.**
- **(**1910) **3**: 177-203.
- **(1911-12) 4**: 47-79 & 267-300..
- **(1914-15) 6**: 5-67.
- Boilot, D. (1960) Al-Biruni. Encyclopaedia of Islam 2nd edition 1: 1236-1238.
- van den Boorn, G. (1985) Wd^c-ryt and Justice at the Gate. <u>Journal of Near Eastern</u>
 <u>Studies</u> 44: 1-25.
- Bosworth, C. (1978) Al-Kalkashandi. Encyclopaedia of Islam 2nd edition 4: 509-511.
- --- (1993) Misr, Egypt. Encyclopaedia of Islam 2nd edition 7: 146.
- du Bourguet, P. (1976) <u>Grammaire fonctionnelle et progressive de l'Égyptien</u>

 <u>Démotique</u>. Louvain: Peeters.
- Bowman, R. (1944) An Aramaic Relgious Text in Demotic Script. <u>Journal of Near</u> Eastern Studies 3: 219-231.
- Boylan, P. (1922) Thoth The Hermes of Egypt. Oxford: Oxford University Press.
- Breasted, J. (1927) Ancient Records of Egypt from the earliest times to the Persian conquest. 5 volumes, Chicago: Chicago University Press. Reprint London 1988.
- Bresciani, E. (1990) Foreigners. In S. Donadoni (ed) <u>The Egyptians</u>. Translated by R. Bianchi, A. Crone, C. Lambert and T. Ritter. Chicago: University of Chicago Press, 221-253.
- Briere, Y. de la (1935-8) La mémoire de Champollion. <u>Mélanges Maspero</u>, Cairo: l'Institut Français d'Archéologie Orientale, 1: 443-455.
- Broadhurst, R. (1952) The Travels of Ibn Jubayr. London: Jonathan Cape.
- Brockelmann, C. (1938) Zur Semitto-Ägyptischen Etymologie. In Mélanges Maspero I (1935-1938), Cairo: Institut Français d'Archéologie Orientale du Caire, 379-383.
- --- (1943-9) <u>Geschichte der arabischen Literatur</u>. Volumes 1-2 Leiden: Brill; Supplement volumes 1-3, Leiden: Brill 1937-42.
- Budge, W. (1893) The Mummy. Cambridge. Reprint London 1995.
- --- (1898) The Egyptian Book of the Dead. London. Reprint Dover Publications.
- --- (1926) <u>Cleopatra's Needles and other Egyptian Obelisks</u>. London: Religious Tract Society. Reprint Dover Publications.
- --- (1928) The Divine Origin of the Craft of the Herbalist. London: Reprint, Dover Publications
- --- (1929) The Rosetta Stone: London. Reprint Dover Publication 1989.

- --- (1930) <u>Amulets and Superstitions</u>. London: Humphrey Milford and Oxford University Press
- Burnett, C. (1976) The Legend of the Three Hermes and Abu Ma^cshar's *Kitab Al-Uluf* in the Latin Middle Ages. <u>Journal of the Warburg and Courtauld Institutes</u> **39**: 231-234.
- --- (1996) Talismans: Magic as Science? Necromancy among the Seven Liberal Arts. In C. Burnett, <u>Magic and Divination in the Middle Ages</u>. Hampshire: Variorum, (Chapter I) 1-15.
- --- (Forthcoming) The Images of Ancient Egypt in the Latin Middle Ages. In T. Champion and J. Tait (eds) Encounters With Ancient Egypt. The Wisdom of Egypt: changing visions through the ages.
- Burstein, S. (1992) Hecataeus of Abdera's History of Egypt. In J. Johnson (ed.) <u>Life</u>
 in a Multi-Cultural Society: Egypt from Cambyses to Constantine and
 Beyond. Chicago: The Oriental Institute of the University of Chicago, 45-49.
- Butler, A. 1978. The Arab Conquest of Egypt and the Last Thirty Years of the Roman Dominion. Oxford: Clarendon Press.
- Cameron, A. (1997) Hellenism and the emergence of Islam. <u>Dialogos: Hellenic</u>

 <u>Studies Review</u> 4: 4-18.
- Camille, M. (1999) The Corpse in the Garden: <u>mumia</u> in Medieval Herbal Illustrations. <u>Micrologus</u> 7: 296-318.
- Camps, G. (1994) Amon-Rê et les béliers à sphéroïde de l'Atlas. <u>Hommages à Jean Leclant</u>, Volume 4. Cairo: l'Institut Français d'Archéologie Orientale, Bibliothèque d'Étude, **106/4**: 29-44-.
- Carboni, S. (1988) <u>Il Kitāb al-bulhān di Oxford</u>. Torino: Editrice Tirrenia Stampatori.
- Carrubba, R. (1981) The first detailed report on Persian Mummy. Physis 32: 459-471.
- Casanova, P. (1902) De quelques légendes astronomiques Arabes. Considérées dans leurs rapports avec la mythologie Égyptienne. <u>Bulletin de l'Institut Français</u> <u>d'Archéologie Orientale du Caire</u> 2: 1-39.
- Caton Thompson, G. (1944) <u>The Tombs and Moon Temple of Hureidha</u>. Oxford: Oxford University Press.
- Černy, J. (1976) <u>A Coptic Etymological Dictionary</u>. Cambridge: Cambridge University Press.
- Charles, R. (1916) The Chronicle of John, Bishop of Nikiu. London: William &

- Norgate.
- Charpentier, G. (1981) <u>Recueil de matériaux épigraphiques relatifs a la botanique de l'Égypte antique</u>. Paris: Triségiste.
- Chassinat, É. (1955) <u>Le manuscrit magique copte no 42573 du Musé Égyptien du</u>

 <u>Caire</u>. Cairo: Institut Français d'Archéologie Orientale au Caire (Bibliothèque d'tudes Copte 4).
- Christides, V. (2000) The Tomb of Alexander the Great in Arabic Sources. In I.

 Netton (ed) <u>Studies in Honour of C. E. Bosworth</u>. 2 volumes. Leiden: Brill, 1: 165-173.
- Clarysse, W. (1978) Notes on some Graeco-demotic surety contracts.

 Enchoria 8: 2: 5-8.
- (1983) Literary Papyri in Documentary "Archives". In E. Van 'T Dack, P. Van Dessel and W. Van Gucht (eds.) Egypt and the Hellenistic World.
 Proceedings of the International Colloquium, Leuven 24-26 May 1982.
 Leuven: Lovanii, 43-61.
- Coles, R. 1981. A Quadrilingual Curiosity in the Bodleian Library in Oxford. In <u>Proceedings of the XVI International Congress of Papyrology</u>. Chicago: Scholars Press, 193-197.
- Collombert, P. (2002) Le conte de l'hirondelle et de la mer. In K Ryholt (ed) Acts of the 7th International Conference of Demotic Studies. Copenhagen: Museum Tusculanum Press, 59-76.
- Cook, M. (1983) "Pharaonic History in Medieval Egypt". Studia Islamica 57: 67-103.
- Coomaraswamy, A. (1924) The treatise of al-Jazari on automata: leaves from a manuscript of the Kitab fi ma'arifat al-hiyal al-handasiya in the Museum of Fine Arts, Boston, and elsewhere. Boston: Museum of Fine Arts.
- Corbin, H. 1986. <u>Temple and Contemplation</u>. London: Kegan Paul International (KPI) and Islamic Publications.
- Cory, A. (1840) The Hieroglyphics of Horapollo Nilous. London: William Pickering.
- Coulmas, F. (1999) The Blackwell Encyclopedia of Writing Systems. Oxford: Blackwell. First published in 1996.
- Crabbs, Jr. A. (1984) <u>The Writing of History in Nineteenth Century Egypt: A Study in National Transformation</u>. Detroit: Wayne University Press.
- Creswell, K. (1926) <u>The Works of Sultan Bibars Al-Bunduqdari in Egypt</u>. Cairo: <u>Institut Français d'Archéologie Orientale au Caire</u>.

- Cromer, Earl of (1908) Modern Egypt. 2 volumes. London: Macmillan
- Crone, P. and M. Cook (1977) <u>Haggarism: The Making of the Islamic World</u>.

 Cambridge: Cambridge University Press.
- Crum, W. (1939) Coptic Dictionary. Oxford: Oxford University Press.
- --- (1942) An Egyptian Text in Greek Characters. <u>Journal of Egyptian</u>

 <u>Archaeology</u> **28**: 20-31.
- El-Daly, ^cA. (1983) Al-Bardiyat Al-^cArabiyah. Cairo: Al-Khangi.
- El Daly, O. (2000) Egyptian Deserts in Early Medieval Arabic Travel Writing. In J. Starkey and O. El Daly (eds) <u>Desert Travellers from Herodotus to T. E. Lawrence</u>. Association for the Study of Travel in Egypt and the Near East (Astene), Durham: University of Durham. 21-32.
- Dannenfeldt, K. (1985) Egyptian Mumia: The Sixteen Century Experience and Debate. Sixteenth Century Journal 16: 2: 163-180.
- Daressy, G. (1917) Indicateur Topographique du "Livre des Perles Enfouies et du Mystères Précieux". <u>Bulletin de l'Institut Français d'Archéologie Orientale</u> <u>du Caire</u> **13**: 175-230 + plates 1-3.
- --- (1918) second part of the above **14**: 1-32.
- Daumas, F. (1983) L'alchimie a-t-elle une origine égyptienne? In <u>Das römanisch-byzantinische Ägypten</u>. Mainz: Philipp von Zabern, 109-118.
- D'Auria, S., P. Lacovara, C. Roehrig (1988) <u>Mummies & Magic</u>. Boston: Museum of Fine Arts Boston.
- David, R. (2000) The Experience of Ancient Egypt. London: Routledge.
- Davies, S. and H. Smith (1997) Sacred Animal Temples at Saqqara. In S. Quirke (ed)

 The Temple in Ancient Egypt. London: The British Museum Press, 112-131.
- Dawson, W. (1927) Mummy as a Drug. <u>Proceedings of the Royal Society of Medicine</u> **21**: 1 (November 1927) 34-39.
- --- (1932) An Eighteenth-Century Discourse on Hieroglyphs. In <u>Studies presented</u> to F. Ll. Griffith. London: Egypt Exploration Society.
- Deblauwe, F. (1991) Old South Arabian Trade Routes. <u>Orientalia Lovaniensia</u>

 <u>Periodica</u> 22: 133-158.
- Deladrière, R. (1988) La vie merveilleuse de Dhû-l-Nûn l'Égyptien. Paris: Sindbad.
- Derchain, P. (1972) <u>Hathor Quadrifrons: Recherches sur la syntaxe d'un mythe</u> <u>Égyptien</u>. Istanbul: Nederlands Historisch-Archaeologisch Instituut.
- --- (1990) L'Atelier des orfèvres à Dendara et les origines de l'alchimie.

- Chronique d'Egypte 65: 219-242.
- --- (1995) La justice à la porte d'Evergète. In D. Kurth, W. Waitkus and S. Woodhouse (eds), Ägyptologische Tempeltagung 3 : System und Programme der ägyptischen Tempeldekoration. Wiesbaden: Harrassowitz, 1-12.
- Depauw, M. (1997) <u>A Companion to Demotic Studies</u>. Bruxelles: Fondation Égyptologique Reine Élisabeth.
- and W. Clarysse (2002) When a Pharaoh becomes Magic. <u>Chronique d'Égypte</u> 77: 55-64.
- Al-Dhahabi, M. (1976) <u>Al-Tafsir wa Al-Mofasron</u>. 2 volumes. Cairo: Dar Al-Kutub Al-Hadithah. 2nd edition.
- Diab, A. (1997) Tarikh Al-Yahud of Al-Magrizi. Cairo: Dar Al-Fadilah.
- --- (1998) <u>Tarikh Al-Agbat of Al-Magrizi</u>. Cairo: Dar Al-Fadilah.
- Diethart, J. and H. Satzinger (1983) Eine Griechisch-Koptische Wörterliste. In

 Festschrift zum 100-jährigen bestehen der papyrussamlung der

 Österreichischen Nationalbibliothek. Papyrus Erzherzog Rainer. Wien: 206213 & plate 17.
- Dietrich, A. (1991) <u>Die Dioskurides-Erkärung des Ibn al-Baitar</u>. Göttingen: Vandenhoeck & Ruprecht.
- Dimick, J. (1959) The Embalming House of the Apis Bull. In R. Anthes et al, Mit Rahineh 1955. Philadelphia: The University Museum, University of Pennsylvania, 75-79.
- Diodorus Siculus. Translated into English by C. Oldfather, Massachusetts: Harvard University Press, Loeb Classical Library, Books I and II 1933. Repr. 1989.
- Dodge, B. 1970. The Fihrist of al-Nadim: A Tenth-Century Survey of Muslim Culture. 2 volumes. New York and London.
- Donner, H. (1995) <u>Isis in Petra</u>. Leipzig: Leipzig University.
- Donner, M. (1998) The Narratives of Islamic Origins. New Jersey: The Darwin Press.
- Doresse, J. (1960) <u>Des hiéroglyphes à la croix: ce que le passé pharaonique a légué au christianisme</u>. Istanbul: Nederlands Historisch-Archaeologisch Instituut.
- Dornseiff, F. (1925) Das alphabet in mystik und magie. Leipzig & Berlin: Teubner.
- Drenkhahn, R. (1976) <u>Die Handwerker und ihre Tatigkeiten im alten Ägypten</u>. Wiesbaden: Harrassowitz.
- Drower, E. (1937) The Mandaeans of Iraq and Iran. Oxford: Clarendon Press.
- --- (1956) Water into Wine: A Study of Ritual Idiom in the Middle East.

- London: John Murray.
- Drower, M. (1982) The Early Years. In T. G. H. James (ed) <u>Excavating in Egypt: The</u>

 <u>Egypt Exploration Society 1882-1982</u>. London: The British Museum, 9-36.
- --- (1985) <u>Flinders Petrie</u>: A Life in Archaeology. London: Victor Gollancz. 2nd edition 2000.
- DuQuesne, T. (1991) A Coptic Initiatory Invocation (PGM IV 1-25). Thame Oxon: Darengo.
- --- (1999) Egypt's Image in the European Enlightenment. Seshat 3:32-51.
- --- (2001a) Concealing and Revealing: The Problem of Ritual Masking in Ancient Egypt. <u>Discussions in Egyptology</u> **51**: 5-31.
- --- (2001b) The Spiritual Heritage of Egypt and Africa. <u>Cahiers Caribéens</u>
 d'Egyptologie 2: 87-95.
- --- (2002a) La déification des parties du corps. In Y. Koenig (ed) <u>La magie en</u>
 <u>Égypte:à la recherche d'une definition</u>. Cycle de conférences, Musée du
 Louvre 2000. Paris: La documentation Française, 237-271.
- --- (2002b) 'Effective in heaven and on earth': interpreting Egyptian religious practice for both worlds. In J Assmann and M Bommas (ed) Ägyptische

 Mysterien?. Munich: Wilhelm Fink, 37-46.
- Dykstra, D. (1994) Pyramids, Prophets, and Progress: Ancient Egypt in the Writings of ^cAli Mubarak. <u>Journal of the American Oriental Society</u> **114**: 54-67.
- Empereur, J-Y. (1998) <u>Alexandria Rediscovered</u>. Translated from French by M. Maehler. London: The British Museum Press.
- Enan, M. 1969 Misr Al-Islamiyah. Cairo: Lajnat Al-Ta'lif.
- --- (1991) <u>Mu'rikhu Mişr Al-Islamiyah wa Maşadir Al-Tarikh Al-Mişry</u>. Cairo: Mukhtar. 2nd edition.
- Engelbach, R. et al. (1915) <u>Riqqeh and Memphis VI</u>. With chapters by A. Murray, H. Petrie and W. Petrie. London: British School of Archaeology in Egypt and Bernard Quaritch.
- van Esbroeck, M. (1998) La légende d'Apa Jermias et Apa Johannes et les fragments Chester Beatty Copte 829. Orientalia 67: 1-23 & tab. I-V.
- Étienne, M. (2000) <u>Heka: Magie et envoûtement dans l'Égypte ancienne</u>. Paris: Réunion des musées nationaux.
- Ewais, S. (1966) Al-Khulud fi Al-Turath Al-Thaqafi Al-Miṣri. Cairo: Al-Macarif.
- --- (1978) Rasail ila Al-Imam Al-Shaf'i. 2nd edition. Cairo: Alshaya

- Publishing House. First published Cairo 1965.
- Eyre, C. (2002) The Cannibal Hymn. Liverpool: Liverpool University Press.
- Fahd, T. (1971) Ibn Wahshiyya. Encyclopaedia of Islam 2nd edition 3: 963-965.
- --- (1993) (ed) <u>L'Agriculture Nabatèenne. Ibn Wahsiyya</u>. 2 volumes. Damascus: Institut Français de Damas.
- Fahim, H. (1989) Adab Al-Rahalat. Kuwait: ^cAlim Al-Ma^crifah No. 138.
- Fahmy, K. (1997) All the Pasha's men: Mehmed Ali, his army and the making of modern Egypt. Cambridge: Cambridge University Press.
- Fairman, H. (1943) Notes on the Alphabetic Signs Employed in the Hieroglyphic Inscriptions of the Temple of Edfu. Extract from Annales du Service des

 Antiquités de l'Egypte 43: 193-318.
- Fakhry, A. (1952) <u>An Archaeological Journey to Yemen (March-May 1947)</u>. Part 1. Cairo: Service des Antiquités de l'Égypte, Government Press.
- Farag, F. (1964) <u>Sociological and Moral Studies in the Field of Coptic Monasticism</u>. Supplement I to the Annual of Leeds University Oriental society. Leiden: Brill.
- Faris, A. (1938) The Antiquities of South Arabia. Connecticut: Hyperion Press.
- --- (1966) The Book of Knowledge. Translation of Kitab al-'Ilm of Al-Ghazzali's *Ihya' ^cUlum al-Din*. Lahore: Sh. Muhammad Ashraf.
- Farmer, H. (1931) The Organ of the Ancients. London: William Reeves.
- Faulkner, R. (1924) The "Cannibal Hymn" From the Pyramid Texts. <u>Journal of Egyptian Archaeology</u> **10**: 97-103.
- --- (1962) A Concise Dictionary of Middle Egyptian. Oxford: Griffith Institute.
- --- (1969) The Ancient Egyptian Pyramid Texts. Oxford: Oxford University Press.
- Faulkner, R. et al (1994) <u>The Egyptian Book of the Dead</u>. San Francisco: Chronicle Books.
- Ferrand (1925) see under Al-Gharnat I in Arabic sources.
- Ferré, A. (1991) An Autuer Mystérieux Ibrahim B. Waşif Šah. <u>Annales</u>

 <u>Islamologiques</u> 25: 139-151.
- Ferro, M. (1984) The use and abuse of history or how the past is taught. London, Routledge and Kegan Paul.
- Feucht, E. (1995) Das Kind im alten Ägypten. Frankfurt: Campus.
- Finneran, N. (2002) <u>The Archaeology of Christianity in Africa</u>. Gloucestershire: Tempus.

- Fletcher, J. and D. Montserrat 1998. The Human Hair in the Tomb of Tutankhamun:

 A Re-Evaluation. In C. Eyre (ed) <u>Proceedings of the Seventh International</u>

 <u>Congress of Egyptologists. Cambridge, 3-9 September 1995</u>. Leuven:

 Uitgeverij Peeters. 401-407.
- Fodor, A. (1970) The Origins of the Arabic Legends of the Pyramids. Acta Orientalia 23: 335-363.
- --- (1974) The Metamorphosis of Imhotep A Study in Islamic Syncretism. In Akten des VII Kongresses für Arabistik und Islamwissenschaft. 155-181.
- Fodor, A. and L. Foti (1976) <u>Haram</u> and Hermes: Origin of the Arabic Word <u>Haram</u> Meaning Pyramid. <u>Studia Aegyptiaca</u> 2: 157-167.
- Fodor, S. (1970) The Origin of the Arabic Sūrïd Legend. Zeitschrift für Ägyptische Sprache und Altertumskunde 96: 103-109.
- (1992) Traces of the Isis Cult in an Arabic Love Spell from Egypt. In
 U. Luft (ed) <u>The Intellectual Heritage of Egypt. Studies Presented to</u>
 <u>Lázló Kákosy</u>. <u>Budapest: Praha University</u> Press (Studia Aegyptiaca 14),
 171-186
- Fontinoy, C. (1989) Les noms de l'Égypte en hébreu et leur étymologie. <u>Chronique</u> d'Egypte 64: 90-97.
- Fouad, H. (1992) The Symbolism of the Letter *Alif* in Ibn ^cArabi. <u>Alif: Journal of Comparative Poetics</u>, American University in Cairo, 12: 145-177.
- Fowden, G. (1986) <u>The Egyptian Hermes: A historical approach to the late pagan</u> mind. Princeton: Princeton University Press.
- Frantz-Murphy, G. (1991) Conversion in Early Islamic Egypt: The Economic Factor.

 In Y. Rāġib (ed) <u>Documents de l'Islam médiéval: nouvelles perspectives de rescherche</u>. <u>Actes de la table ronde, le Centre National de la Recherche Scientifique (Paris, 3-5 mars 1988)</u>. Cairo: <u>Institut Français d'Archéologie Orientale du Caire</u> (TAEI 29), 11-17.
- Fraser, P. (1972) <u>Ptolemaic Alexandria</u>. Oxford: the Clarendon Press. 3 vols. Reprint 1984.
- Free, J. (1944) Abraham's Camels. Journal of Near Eastern Studies 3: 187-193.
- Fück, J. (1951) The Arabic Literature on Alchemy According to An-Nadim (A.D. 987). Ambix: The Journal of the Society for the Study of Alchemy and Early Chemistry 4: 81-144.
- Galen. On Anatomical Procedures. Ed. and translated, Ch. Singer. Oxford: Oxford

- University Press 1956. Reprint 1999.
- Ghalioungui, P. (1985) ^cAbd Al-Latif Al-Baghdadi. Edition of text and commentary Cairo: Al-Hay'ah Al-Miṣriyah Al-CAmah li-Al-Kitab. 2nd edt.
- Gardiner, A. and K. Sethe (1928) Egyptian Letters to the Dead. London: Egypt Exploration Society.
- Garven, K. (1993) Causal origins of Egyptian conceptual thinking. <u>Bulletin of the Australian Centre for Egyptology</u> 4: 7-16.
- Gascoigne, A. (2003) The Medieval City of Tinnis. <u>Egyptian Archaeology: The</u>

 <u>Bulletin of the Egypt Exploration Society</u> 22: 25-27.
- Gauthier, H. (1906) Un précurseur de Champollion au XVI^e Siècle. <u>Bulletin de</u>

 1'Institut Français d'Archéologie Orientale du Caire 5: 65-86.
- Gawad, M. (1947) Mu'rikh Al-Ahram wa Abi Al-Hawl, Jamal Al-Din Abu Ja^cfar Al-Idrisi. Majalat Al-Kutab, Cairo (April 1947) 3: 858-868.
- Geary, P. (2001) Sacred commodities: the circulation of medieval relics. In A.

 Appadurai (ed) <u>The social life of things: commodities in culture perspective</u>.

 Cambridge: Cambridge University Press. First published 1986, 169-191.
- Geoffroy, E. (1997) Al-Şuyuti. Encyclopaedia of Islam 2nd edition 9: 913-916.
- Gerbi, A. (1973) <u>The Dispute of the New World: The History of a Polemic, 1750-1900</u>. Originally published in Milano-Napoli: Riccardo Ricciardi 1955. Revised and enlarged edition translated by J. Moyle. Pittsburgh: University of Pittsburgh Press.
- Germer, R. (1982) Nun. Lexikon der Ägyptologie 4: 534-5.
- Gershoni, I. and J. Jankowski (1986) Egypt, Islam and the Arabs: The Search for Egyptian Nationhood, 1900-1930. Oxford: Oxford University Press.
- Gese, H., M. Höfner and K. Rudolph (1970) <u>Die Religionen Altsyriens</u>, <u>Altarabiens</u> und der Mandäer. Stuttgart: Kohlhammer.
- Gilis, Ch-A. (1984) Le coran et la fonction d'Hermès. Paris: Les éditions de l'Oeuvre.
- Gilliot, C. (2002) Yakut al-Rumi. Encyclopaedia of Islam 2nd edition 11: 264-266.
- Giorgini, M. (1965) Soleb 1. Florence: Sausoni.
- Al-Ghonimi, A. (1993) <u>Urubet Misr qabl Al-Islam</u>. Cairo: Dar Al-Ish^ca^c.
- Godwin, J. (1979) Athanasius Kircher. London: Thames and Hudson.
- Goebs, K. (1995) "Horus der Kaufmann" als Name des Planeten Jupiter. <u>Enchoria</u> 22: 218-221.
- Goedicke, H. (1971) Re-used Blocks from the Pyramid of Amenemhet I at Lisht. New

- York: Metropolitan Museum of Art.
- --- (1998) Pi(ankh)y in Egypt. A Study of the Pi(ankh)y Stela. Baltimore: Halgo.
- Goitein, S. (1963) Between Hellenism and Renaissance- Islam, the Intermediate Civilization. <u>Islamic Studies</u> 2: 215-233.
- Goldwasser, O. (1995) From Icon to Metaphor. Studies in the Semiotics of the Hieroglyphs. University Press Fribourg Switzerland: Vandenhoeck & Ruprecht Göttingen (OBO 142).
- Golenischeff, W. (1906) Le Papyrus No 1115 De L'Ermitage Imperial De Saint-Petersbourg. Recueil des Travaux relatifs à la Philologie et à l'Archéologie Égyptiennes et Assyriennes 28: 1-40.
- Goodman, L. (1995) Al-Razi. Encyclopaedia of Islam 2nd edition 8: 474-477.
- Gottheil, R. (1907) Al-Hasan ibn Ibrahim ibn Zulak. <u>Journal of the American</u>
 Oriental Society 28: 254-270.
- Goyon, J-C. (1988) Momification et recomposition du corps divin: Anubis et les canopes. In J. Kamstra, H. Milde and K. Wagtendonk (eds), <u>Funerary Symbols and Religion</u>. Essays dedicated to Professor M. Heerma van Voss. Kampen: J. H. Kok, 34-44.
- Graefe, E. (1911) Das pyramidenkapitel in Al-Magrizi's "Hitat". Leipzig: Kreysing.
- Graf, D. (1997) Rome and the Arabian Frontier, from the Nabataeans to the Saracens.

 Ashgate: Variorum.
- Gray, J. (1949) The Canaanite God Horon. <u>Journal of Near Eastern Studies</u> 8: 27-34.
- Greaves, J. (1646) Pyramidographia: A Discourse of the Pyramids in Egypt. London.
- Grelot, P. (1972) Documents Araméens d'Égypte. Paris: Editions du Cerf.
- Gril, D. (1978) Le personage coranique de pharaon d'après l'interprétation d'Ibn 'Arabi. <u>Annales Islamologiques</u> 14: 37-57.
- Grimal, N. (1981) Études sur la proagande royale égyptienne I: La stèle triomphale de Pi('ankh)y au Musée du Caire (JE 48862 et 47086-47089). Cairo: Institut Français d'Archéologie Orientale au Caire. (MIFAO 105).
- --- (1992) A History of Ancient Egypt. Translated from French by I. Shaw. Oxford: Blackwell.
- Grohmann, A. (1938) <u>Arabic Papyri in the Egyptian Library</u>. Vol. 3. Cairo: Dar Al-Kutub Al-Miṣryah.
- Grube, E. (1962) Studies in the Survival and Continuity of Pre-Muslim Traditions in

- Egyptian Islamic Art. <u>Journal of the American Research Center in Egypt</u> 1: 75-97 plus figures 1-5 plus plates.
- Guest, A. (1902) A List of Writers, Books, and other Authorities mentioned by al-Maqrizi in his Khitat. <u>Journal of the Royal Asiatic Society of Great Britain</u> and Ireland (January 1902): 103-125.
- Gundlach, R. (1982) Min. In W. Helck and E. Otto (eds) <u>Lexikon der Ägyptologie</u>. 7 volemes, Wiesbaden 1975-1987. 4: 136-140.
- Haarmann, M. (1991) <u>Das moderne Ägypten und seine Pharaonische vergangenheit</u>.

 Unpublished PhD thesis, University of Albert-Ludwig, Freiburg.
- Haarmann, U. (1978) Die Sphinx. Saeculum 29: 367-384.
- --- (1980) Regional Sentiment in Medieval Islamic Egypt. <u>Bulletin of the School</u> of Oriental and African Studies 43: 55-66.
- --- (1982a) Al-Idrisi. Encyclopaedia of Islam 2nd edition. Supplement 1: 5/6: 407-408.
- --- (1982b) Quellen zur Geschichte des islamischen Ägypten. <u>Mitteilungen des</u>

 <u>Deutschen Archäologischen Instituts Abteilung Kairo</u> **38**: 201-210.
- --- (1984) Luxor und Heliopolis: Ein Aufruf zum Dekmalschutz aus dem

 13 Jahrhundert n. Chr. <u>Mitteilungen des Deutschen Archäologischen Instituts</u>

 <u>Abteilung Kairo</u> 40: 153-157.
- --- (1990) Das Pharaonische Ägypten bei Islamischen Autoren des Mittelalters. In E. Hornung, (ed) <u>Zum Bild Agyptens im Mittelalter und in der</u> <u>Renaissance/Comment se représente-t-on l'Egypte au moyen âge et à</u> <u>la renaissance?</u>. University Press Fribourg Switzerland: Vandenhoeck & Ruprecht Göttingen (OBO 95), 29-58.
- --- (1991a) <u>Kitab Anwar [°]Ulwiyy Al-Ağram fi Al-Kašf [°]an Asrar Al-Ahram</u>.

 Arabic text ed. with an introduction in German by U. Haarmann under the title
 "<u>Das Pyramidenbuch Des Abu Ğa[°]far Al-Idrisi</u>". Beirut and Stuttgart: Steiner.
- --- (1991b) In Quest of the Spectacular: Noble and Learned Visitors to the Pyramids Around 1200 AD. In W. Hallaq and D. Little (eds) <u>Islamic Studies</u>

 <u>Presented to Charles J. Adams</u>. Leiden: Brill, 57-67.
- --- (1996) Medieval Muslim Perceptions of Pharaonic Egypt. In Loprieno, A. (ed.),

 Ancient Egyptian Literature: History and Forms. Leiden: Brill, 605-627.
- --- (2001) Islam and Ancient Egypt. In D. Redford (ed.), Oxford Encyclopaedia of
 Ancient Egypt. 3 vols. Oxford: Oxford University Press, Vol. 2: 191-194.

- Habachi, L. (1940) The Monuments of Biyahmu. <u>Annales du Service des</u>
 Antiquités de l'Egypte 40: 721-732.
- --- (1969) Features of the Diefication of Ramesses II. Glückstadt: Augustin.
- --- (1984) The Obelisks of Egypt. Cairo: The American University of Cairo Press.
- Al-Hadi (1996) see Arabic sources under Ibn Al-Faqih.
- Hadj-Sadok (1971) Ibn Khurradadhbih. Encyclopaedia of Islam 2nd edition 3: 839-840.
- El-Hagagy, M. (1968) Abou El Haggag Eloksory [sic] Cairo: Dar Al-Tadamun.
- --- (1997) Al-Uqsur fi Al-^cAşr Al-Islami (Islamic Luxor). 3rd edition. First Published 1978 Cairo: Al-Hay'ah Al-Mişriyah Al-^cAmah li-Al-Kitab.
- Haiying, Y. (1998) The Famine Stela: A Source-Critical Approach and Historical-Comparative Perspective. In C. Eyre (ed) <u>Proceedings of the Seventh</u>

 <u>International Congress of Egyptologists</u>. Leuven: Uitgeverij Peeters. 515-521.
- Hall, M. (1971) <u>The Pneumatics of Hero of Alexandria</u>. London: Macdonald and New York: American Elsevier Inc.
- Halm, H. (1997) The Fatimids and their Traditions of Learning. London: Tauris.
- Hamarneh, S. (1971) The ancient monuments of Alexandria according to accounts by medieval Arab authors (IX-XV century). Folia Orientalia 13: 77-110.
- --- (1989) see under Ibn Al-Quff.
- Al-Ḥamd, M. (1999) <u>Al-Ta'thir Al-Arami fi Al-Fikr Al-^cArabi</u>. Damascus: Dar Al-Ḥamd, M. (1999) <u>Al-Ta'thir Al-Arami fi Al-Fikr Al-^cArabi</u>.
- Ḥamidov, I. (2002) Al-Adab Al-Adhrabaijani fi Al-Drasat Al-cArabiyah wa Azmat Al-Adab Al-Muqarin. Adab wa Naqd (Cairo, December 2002) **208**: 99-103.
- Hammer, J. 1806. Ancient Alphabets and Hieroglyphic Characters Explained; with an Account of the Egyptian Priests, their Classes, Initiation, and Sacrifices in the Arabic Language by Ahmad Bin Abubekr Bin Wahshih. London:

 Bulmer and Co.
- Hamza, M. (1937) The Statue of Meneptaḥ I Found at Athar En-Nabi and the Route of Pi^cankhi from Memphis. <u>Annales du Service des Antiquités de l'Égypte</u> 37: 233-242 + plates 1-5.
- Hannig, R. (1995) Großes Handwörterbuch Ägyptisch-Deutsch. Mainz: von Zabern
- Hanson, A. (1992) Egyptians, Greeks, Romans, Arabs, and *IOUDAIOI* in the first century A.D. Tax Archive from Philadelphia: P. Mich. Inv. 880 Recto and P. Princ. III 152 Revised. In J. Johnson (ed.) <u>Life in a Multi-Cultural Society:</u>

- Egypt from Cambyses to Constantine and Beyond. Chicago: The Oriental Institute of the University of Chicago, 133-145.
- Haq, S. N. (1994) Names, Natures and Things. The Alchemist Jabir ibn Hayyan and his Kitab al-Ahjar (Book of Stones). Dordrecht, Boston and London: Kluwer Academic Publishers (Boston Studies in the Philosophy of Science 158).
- Haridi, A. (1983-4) <u>Index des Hitat: Index analytique des ouvrages d'Ibn Duqmaq et de Maqrizi sur le Caire</u>. 3 volumes. Cairo: Institut Français d'Archéologie Orientale au Caire.
- Harvey, P. (1987) Local and Regional Cartography in Medieval Europe. In J. Harley and D. Woodward (eds) <u>The History of Cartography</u>. <u>Volume I: Cartography in Prehistoric, Ancient and Medieval Europe and the Mediterranean</u>. Chicago and London: The University of Chicago Press, 464-501.
- Hassan, F. (1993) Town and Village in Ancient Egypt, ecology, society and urbanization. In T. Shaw et al. (eds) <u>The Archaeology of Africa</u>. London: Routledge, 551-569.
- --- (1998) The Earliest Goddesses of Egypt. In L. Goodison and C. Morris (eds)

 Ancient Goddesses: The Myth and the Evidence. London: British Museum

 Press 98-112.
- --- (1999) Memorabilia: Archaeological materiality and national identity in Egypt. In L. Meskell (ed) <u>Archaeology under Fire: Nationalism, politics and heritage in the Eastern Mediterranean and Middle East</u>. London: Routledge, 200-216.
- --- (2002) (ed) <u>Alexandria Graeco-Roman Museum</u>. Cairo: National Center for Documentation of Cultural and Natural Heritage and The Supreme Council of Antiquities.
- Hassan, S. (1936) Al-cAdat Al-Miṣryiah Al-Qadimah Al-Baqiyah ila Al-An fi Misr Al-Ḥadithah. Bulletin de l'Association des Amis des Églises et de l'Art Coptes 2: 1-25.
- --- (1951) <u>Le Sphinx: Son Histoire à la Lumière des Fouilles Récentes</u>. Cairo: Matba^cat Misr.
- Hawkins, G. (1971-2) Preliminary Results of an Investigation of Astronomical Alignments of "Structural Antiquities in Egypt". <u>Bulletin de l'Institut</u> Egyptien 53: 173-176.
- Hazzard, R. (2000) Imagination of a Monarchy: Studies in Ptolemaic Propaganda.

- Toronto: University of Toronto Press.
- Henein, N. and T. Bianquis (1975) <u>La Magie par les Psaumes</u>. Edition and translation of the Arabic text. Cairo: Institut Français d'Archéologie Orientale au Caire.
- Hero of Alexandria (see under Hall 1971).
- Hill, D. (1993) <u>Islamic Science and Engineering</u>. Edinburgh, Edinburgh University Press.
- Hillenbrand, R. (1994) Islamic Architecture. Edinburgh: Edinburgh University Press.
- Hinz, W. (1955) Islamische Masse und Gewichte. Leiden: Brill.
- Hitti, P. (1970) History of the Arabs. London: Macmillan Press. 10th edition.
- Hobson, C. (1987) Exploring the World of the Pharaohs. London: Thames and Hudson.
- Hoch, J. (1994) <u>Semitic Words in Egyptian Texts of the New Kingdom and Third</u>
 <u>Intermediate Period</u>. Princeton: Princeton University Press.
- Hofmann, T. (2001) Majestät und Diener-Zur Dialektik des Begriffes hm. Zeitschrift für Ägyptische Sprache und Altertumskunde 128: 116-132.
- Hölbl, G. (2001) A History of the Ptolemaic Empire. London: Routledge.
- Holmyard, E. (1926) Abu Al-Qasim Al-cIraqi. Isis 8: 405-426.
- --- (1937) Aidamir Al-Jildaki. <u>Iraq</u> 4: 47-53.
- --- (1957) Alchemy. Harmondsworth: Penguin Books. Reprint 1968.
- Holt, P. (1968) Ottoman Egypt (1516-1798): An Account of Arabic Historical
 Sources. In P. Holt (ed) <u>Political and Social Change in Modern Egypt</u>. London:
 Oxford University Press, 3-12.
- Hopfner, T. (1922-25) <u>Fontes Historiae Religionis Aegyptiacae</u>. 5 parts in 2 volumes, Bonn: Marcus and Webers.
- Hopkins, J. and N. Levtzion (1981) <u>Corpus of early Arabic sources for West African</u>
 <u>history.</u> Cambridge: Cambridge University Press.
- Horapollo. Hieroglyphica. Translated and introduced by G. Boas. With a new forward by A. Grafton. New Jersey: Princeton University Press 1993.
- Horn, S. (1969) Foreign Gods in Ancient Egypt. In Studies in Honor of John A.

 Wilson. Chicago: The Oriental Institute of the University of Chicago, 37-42.
- Hornung, E. (1990a) <u>The Valley of the Kings</u>. Translated by D. Warburton. New York: Timken.
- --- (1990b) The Pharaoh. In Donadoni (ed) <u>The Egyptians</u>. Chicago: University of Chicago Press, 283-314.

- --- (1992) <u>Idea into Image: Essays on Ancient Egyptian Thought</u>. Translated from German by E. Bredeck. New York: Timken Publishers.
- --- (1999) The Ancient Egyptian Books of the Afterlife. Translated from German by D. Lorton. Ithaca and London: Cornell University Press.
- --- (2001) <u>The Secret Lore of Egypt</u>. Translated from German by D. Lorton. Ithaca and London: Cornell University Press.
- Horovitz, J. 1927. The Origins of "The Arabian Nights". Islamic Culture 1: 36-59.
- van der Horst, P. (1984) Chaeremon. Leiden: Brill.
- Al-Hosni, ^cA. (1986) <u>Kitab Diya' Al-Nibras fi Hall Mufradat Al-Anţaki bi-Lughat</u>

 <u>Fas</u>. Al-Rabat: Dar Al-Turath.
- Houlihan, P. (1996) <u>The Animal World of the Pharaohs</u>. London: Thames and Hudson.
- Hourani, G. (1971) <u>Islamic Rationalism: The Ethics of 'Abd al-Jabar</u>. Oxford: The Clarendon Press.
- Hoyland, R. (2001) Arabia and the Arabs from the Bronze Age to the Coming of Islam. London: Routledge.
- Huff, T. (1993) The rise of early modern science: Islam, China, and the West.

 Cambridge: Cambridge University Press.
- Hughes-Hallett, L. (1990) Cleopatra. London: Vintage.
- Ḥusayn, Ṭ. (1938) Mustaqbal Al-Thaqafah fi Miṣr. Cairo: Reprint Dar Al-Ma^carif 1996.
- Iamblichus. (1999) On the Mysteries of the Egyptians, Chaldeans, and Assyrians.

 And Life of Pythagoras to which have been added Ethical and Poltical

 Fragments of Ancient Pythagorean Writers. Translated by Thomas Taylor,

 Somerset: Prometheus Trust, new reprint. First published 1818-1822.
- Ibrahim, F. (1984) <u>Khaled ibn Yazid</u>. Baghdad: Manshurat Wizarat Al-Thaqafah wa Al-I^clam, (Silsilat Drasat 362).
- Ikram, S. and A. Dodson (1998) <u>The Mummy in Ancient Egypt</u>. London: Thames and Hudson.
- Irwin, R. (1994) The Arabian Nights: A Companion. Harmondsworth: Penguin.
- Isler, M. (2001) <u>Sticks, Stones, and Shadows: Building the Egyptian Pyramids</u>.

 University of Oklahoma Press: Norman.
- Isma'il, ^cA. (1934) <u>Folk Medicine in Modern Egypt</u>. Translation by J. Walker of parts of the original Arabic "Tibb Al-Rukka" published in Arabic in two volumes

- in Cairo 1892-4. London: Luzak & Co.
- Ismail, T. (1989) Classic Arabic as the Ancestor of Indo-Europian [sic] Languages and Origin of Speech. Cairo: Al-Ahram Press.
- Ittig, A. (1982) A Talismanic Bowl. Annales Islamologiques 18: 79-94.
- Iversen, E. 1993. <u>The Myth of Egypt and its Hieroglyphs</u>. Princeton: Princeton University Press. Second edition. First published in 1961, Copenhagen: Gad Publishers.
- ^cIz Al-Din, M. (1990) <u>Abu Al-^cAbas Al-Qalqashandi mu'rikha</u>. Beirut: ^cAlim Al-Kutub.
- Jakeman, J. 1993. <u>Abstract Art and Communication in 'Mamluk' Architecture</u>. PhD Thesis (unpublished), Faculty of Oriental Studies, Oxford University.
- James, T. G. H. (1997) Egypt Revealed. London: Folio Society.
- Janssen, J. (1963) Eine beuteliste von Amenophis II. und das problem der sklaverei im alten Aegypten. <u>Jaarbericht van het Vooraziatisch-Egyptisch Genootschap</u> "Ex Oriente Lux" 17: 141-147.
- Jasnow, R. (1997) The Greek Alexander Romance and Demotic Egyptian Literature.

 Journal of Near Eastern Studies 56: 95-103.
- Jasnow, R. and K. Zauzich (1998) A Book of Thoth?. In C. Eyre (ed) <u>Proceedings</u> of the Seventh International Congress of Egyptologists. Cambridge, 3-9
 September 1995. Leuven: Uitgeverij Peeters, 607-618.
- Jeffreys, D. (1985) <u>The Survey of Memphis</u>. Volume 1. London: Egypt Exploration Society.
- --- (1998) The Topography of Heliopolis and Memphis: Some Cognitive
 Aspects. In H. Guksch and D. Polz (eds) <u>Stationen, Beiträge zur</u>

 <u>Kulturgeschichte Ägyptens.</u> <u>Rainer Stadelmann Gewidmet.</u> Mainz-amRhein, Philipp von Zabern, 63-71
- --- (1999) Written and graphic sources for an archaeological survey of Memphis,

 Egypt: from 500 BCE to 1900 CE, with special reference to the papers of

 Joseph Hekekyan. PhD Thesis (unpublished) University of London.
- Jeffreys, D., Tavares, A. (1994) "The Historic Landscape of Early Dynastic Memphis". Mitteilungen des Deutchen Archäologischen

 Instituts Abteilung Kairo 50: 143-173.
- Johnson, J. (1999) Ethnic Considerations in Persian Period Egypt. In E. Teeter and J. Larson (eds) Gold of Praise: Studies on Ancient Egypt in Honor of Edward

- Wente. Chicago: The Oriental Institute of the University of Chicago, 211-222.
- Jolivet, J. (1996) Classifications of the Sciences. I R. Rashed (ed) <u>Encyclopedia of</u> the History of Arabic Science. 3 volumes. London: Routledge, 3: 1008-1025.
- Juvenal. (1967) <u>The Sixteen Satires</u>. Translated with an introduction and notes by P. Green. Harmondsworh: Penguin Books.
- Kaḥalah, °U. (1957-61) <u>Mu°jam Al-Mu'lifin</u>. 7 volumes Damascus: Maṭba°at Al-Taraqi used here. New edt. 15 volumes Beirut: Dar Iḥya' Al-Turath Al-°Arabi, n.d. One volume supplement Dar Al-Risalah.
- Kahn, D. (1995) <u>Hermès Trismégiste</u>. La Table d'Émeraude et sa tradition alchimique. Paris: Les Belles Lettres.
- Kákosy, L. (1981) Problems of the Thoth-Cult in Roman Egypt. In L. Kákosy Selected Papers. Studia Aegyptiaca 7: 41-46.
- --- (1982) A Christian Interpretation of the Sun-Disk. In M. Heerma Van Voss, D. Hoens, G. Mussies, D. Van Der Plas and H. Te Velde (eds) <u>Studies in Egyptian Religion Dedicated to Professor J. Zandee</u>. Leiden: Brill. 69-75.
- --- (1989a) Hermetic Obelisks. In Studia in Honorem L. Foti. Studia Aegyptiaca 12: 235-238.
- --- (1989b) Survival of Ancient Egypt. Religion, Other Domains of Culture,
 Egyptian Influence on Gnosticism and Hermetism, A Brief Survey. In Studia in
 Honorem L. Foti. Studia Aegyptiaca 12: 263-287.
- --- (1990) Survival of Ancient Egyptian Gods in Coptic and Islamic Egypt. In W. Godlewski (ed) Coptic Studies: Acts of the Third International Congress of Coptic Studies Warsaw 20-25 August 1984. Varsovie: PWN-Éditions Scientifiques de Pologne. 175-177.
- --- (1993) Plato and Egypt. The Egyptian Tradition. In I. Hahn (ed.)
 Gedenkschrift Herausgegeben von György Németh. Budapest. Annales
 Universitatis Scientiarum Budapestinensis de Rolando Eötvös Nominatae,
 (Sectio Historica 26), 25-28.
- (1995) Ouroboros on Magical Healing Statues. In T. DuQuesne (ed) Hermes
 Aegyptiacus: Egyptological studies for B H Stricker on his 85th birthday.
 Oxford: DE Publications (Special Number 2), 123-129.
- --- (1999) Egyptian Healing Statues. Torino: Museo Egizio.
- Kamal, A. (1896) <u>Tarwih Al-Nafs fi Madinat Al-Shams (Heliopolis)</u>. Cairo: Al-Maṭba^cah Al-Kubra Al-Amiriyah.

- --- (1902) Les Idols Arabes et les Divinités Egyptiennes. Recueil de Travaux 24: 11-24.
- --- (1903) Notes sur La Rectification Des Noms Arabes Des Anciens Rois D'Egypte. <u>Bulletin de l'Institut Egyptien</u>, ser. 4, (1903-4), 89-127.
- --- (1909) <u>Bughayat Al-Talbin fi ^cUlum wa ^cAwaid wa Sanai^c wa Ahwal Qudma'</u>
 <u>Al-Misrien</u>. Cairo: Matba^cat Bulaq. Reprinted recently Cairo: Madbouli (n. d.).
- --- (1910) Al-Durr Al-Maknuz fi Kashf Al-Dalayal wa Al-Kunuz. Cairo.
- --- (1917) Le Procédé Graphique Chez les Anciens Egyptiens, l'Origine du Mot Égypte, les Noms Géographiques Désignant Cette Contrée et ses Primitives. Bulletin de l'Institut Egyptien, ser. 5: 325-338.
- --- (2002) <u>Mu^cjam Al-Lugha Al-Misryiah Al-Qadeemah</u>. Volume 1, Cairo: Supreme Council of Antiquities Press.
- Kamal, Y. (1926-51) Monumenta cartographica Africae et Aegypti. 5 vols. in 16 books. Cairo/Leiden: Brill. [Vol. 3 in 5 books deals with Arabic sources 1930-1935].
- Kaufman, I. (1967) New Evidence for Hieratic Numerals on Hebrew Weights.

 Bulletin of the American Schools of Oriental Research 188: 39-41.
- Kervran, M. (1972) Une statue de Darius découverte à Suse. Le contexte archéologique. <u>Journal Asiatique</u> **260**: 235-239
- Khalidi, T. (1974) <u>Islamic Historiography: The Histories of Mas^cudi</u>. Albany: State University of New York Press.
- --- (1994) <u>Arabic historical thought in the classical period</u>. Cambridge: Cambridge University Press.
- Kircher, A. (1636) <u>Prodomus Coptus Sive Aegyptiacus</u>. Rome: S. Cong. de propaganda fide.
- --- (1643) <u>Lingua Ægyptiaca Restituta</u>. Rome: H. Scheus.
- --- (1652-4) Œdipus Ægyptiacus. 3 volumes. Amsterdam.
- --- (1666) Ad Alexandrum VIII Obelisci Aegyptiaci Nuper inter Isaei Romani Effossi Interpretatio Hieroglyphica. Rome: Varesij.
- --- (1676) Sphinx Mystagoga. Amsterdam: Jansson-Waesberg.
- Kitchen, K. (1982) <u>Pharaoh Triumphant: The Life and Times of Ramesses II</u>. Cairo: The American University in Cairo Press.
- --- (1986) <u>The Third Intermediate Period in Egypt (1100-650 BC)</u>.

 Warminster: Aris and Phillips. 2nd edt. with supplement.

- --- (1994) <u>Documentation for Ancient Arabia</u>. <u>Part I: Chronological Framework</u>
 <u>& Historical Sources</u>. Liverpool: Liverpool University Press.
- --- (2000) <u>Documentation for Ancient Arabia</u>. <u>Part II: Bibliographical Catalogue</u> of Texts. Liverpool: Liverpool University Press.
- Kramers, J. (1954) Al-Ushmunain in den Arabischen Quellen des Mittelalters.

 Analecta Orientalia: Posthumous Writings and Selected Minor Works.

 Leiden: Brill, volume one, 166-171.
- Kraus, P (1986) Jabir Ibn Hayyan. Reprint Paris: Les Belles Letteres.
- Krause, M. (1980) Koptische Sprache. In W. Helck and E. Otto (eds) <u>Lexikon der</u>
 <u>Ägyptologie</u>. 7 volemes, Wiesbaden 1975-1987, 3: 731-738.
- Krachkovski, I. (1957) <u>Istoria Arabskoi Geograficheskoi Literatury</u>. Moscow.

 Translated from Russian into Arabic by S. Hashim. Cairo: Lajnat Al-Talif wa Al-Trajamah wa Al-Nashr 2 vols. 1963-5. 2nd revised edt. Beirut: Dar Al-Gharb Al-Islami in one volume 1987 used here.
- Kruj, R. (1996) Ibn Ţufayl: a Medieval Scholar's Views on Nature. In L. Conrad (ed)

 The World of Ibn Tufayl. Leiden: Brill, 69-89.
- Kruchten, J-M (1981) <u>Le décret d'Horemheb</u>: <u>traduction, commentaire épigraphique</u>, <u>philologique et institutionnel</u>. Bruxelles : Université libre de Bruxelles, Faculté de Philosophie et Lettres.
- Kuhlmann, K. (1983) <u>Materialien zur Archäologie und Geschichte des Raumes von Achmim</u>. Mainz am Rhein: Philipp von Zabern.
- Kuhrt, A. (1999) The Exploitation of the Camel in the Neo-Assyrian Empire. In A. Leahy and J. Tait (eds) Studies on Ancient Egypt in Honour of H. S. Smith. London: Egypt Exploration Society, 179-184.
- Labib, P. and S. Abu Talib (1972) <u>Tashri^c Horemheb</u>. Cairo: Al-Hay'ah Al-Miṣriyah Al-^cAmah li-Al-Kitab.
- Lacau, P. (1913) Suppressions et modifications de signes dans les texts funéraires.

 Zeitschrift für Ägyptische Sprache und Altertumskunde 51: 1-64.
- Lacau, P. and H. Chevrier (1977) <u>Une chapelle d'Hatshepsout à Karnak</u>. 2 vols. Cairo: Le service des antiquités de l'Égypte and l'Institut Français d'Archéologie Orientale au Caire.
- Lambert, J. (1988) Hermopolis, Memphis, Latopolis et les Dogan. Revue de l'Histoire des Religions 205: 133-149.
- Lameer, J. (1997) From Alexandria to Baghdad: Reflections on the Genesis of a

- Problematical Tradition. In G. Endress and R. Kruk (eds), <u>The Ancient</u>

 <u>Tradition in Christian and Islamic Hellenism: Studies on the Transmission of Greek Philosophy and Sciences dedicated to H. J. Drossaart Lulofs on his ninetieth birthday</u>. Leiden: Research School CNWS. 181-191.
- Layton, B. (2000) A Coptic Grammar. Wiesbaden: Harrassowitz.
- Leahy, A. (1984) Death by Fire in Ancient Egypt. <u>Journal of the Economic and Social</u>

 <u>History of the Orient 27</u>: 199-206.
- Lehner, M. (1997) The Complete Pyramids. London: Thames and Hudson.
- Lewis, G. (1974) The Book of Dede Korkut. New York: Penguin Books.
- Lexa, F. (1925) <u>La magie dans l'Egypte antique</u>. 3 volumes. Paris: Librairie Orientaliste Paul Geuthner.
- Levtzion, N. (1979) The Twelfth-Century Anonymous Kitab Al-Istibṣar: A History of a Text. <u>Journal of Semitic Studies</u> 24: 201-217.
- Lewicki, T. (1978) Al-Kazwini. Encyclopaedia of Islam 2nd edition 4: 865-867.
- Lichtheim, M. (1980) <u>Ancient Egyptian Literature</u>. Volume III The Late Period. Berkeley: University of California Press.
- von Lieven, A. (1999) Divination in Ägypten. <u>Altorientalische Forschungen</u> **26**: 77-126.
- Lloyd, Lord (1933) Egypt since Cromer. London: Macmillan.
- Loret, V. (1894) Études de Droguerie Égyptienne. Recueil des Travaux 16: 134-162.
- --- (1900) Les livres III et IV (animaux et végétaux) de la scala magna de Schams-ar-riasah. Annales du Service des Antiquités de l'Égypte 1: 48-63, 215-229.
- --- (1903) Horus-Le-Faucon. <u>Bulletin de l'Institut Français d'Archéologie</u>
 <u>Orientale du Caire</u> 3: 1-24.
- Luck, G. (1985) Arcana Mundi: Magic and the Occult in the Greek and Roman World. Baltimore & London: the Johns Hopkins University Press.
- Lunde, P. and C. Stone (1989) <u>The Meadows of Gold: The Abbasids</u>. London & New York: Kegan Paul International.
- Lutfi, H. 1998. Coptic Festivals of the Nile: Aberrations of the Past. In T. Philipp and U. Haarmann (eds), <u>The Mamluks in Egyptian Politics and Society</u>.

 Cambridge: Cambridge University Press, 254-282
- Lyons, M. (1995) <u>The Arabian epic: Heroic and oral story-telling</u>. 3 volumes, Cambridge: Cambridge University Press.

- MacCoull, L. (1991) Duke University MS. C25: Dreams, Visions, and Incubation in Coptic Egypt. Orientalia Lovaniensia Periodica 22: 123-132.
- --- (1993) Coptic Alchemy and Craft Technology in Islamic Egypt: The Papyrological Evidence. In L. MacCoull, <u>Coptic Perspectives on Late Alchemy</u>. Hampshire, Variorum (Ch. XV)101-104.
- Mackay, E., L. Harding and F. Petrie (1929) <u>Bahrein and Hemamieh</u>. London: British School of Archaeology in Egypt.
- Mahdi, M. (1994) Religious Belief and Scientific Belief. <u>The American Journal of Islamic Social Sciences</u> 11: 2: 245-259.
- de Maigret, A. (1996) Arabia Felix. London: Stacey International.
- Majino, G. (1975) <u>The Healing Hand: Man and Wound in the Ancient World.</u>

 Massachusetts: Harvard University Press. Paper print 1991.
- Makdisi, G. (1981) <u>The Rise of Colleges: Institutions of Learning in Islam and the West</u>. Edinburgh, Edinburgh University Press.
- Al-Ma^cluf, ^cI. (1923) A lecture in the commemoration ceremony for Ahmad Kamal Pasha held by members of the Arab Academy of Damascus. <u>Revue de l'académie arabe (Majalat Al-Majma^c Al-cIlmi Al-cArabi)</u> 3: 294-307.
- Malek, J. (1993) The Cat in Ancient Egypt. London: The British Museum Press.
- --- (2000) Old-Kingdom rulers as "local saints" in the Memphite area during the Middle Kingdom. In In M. Bárta and J. Krejčí (eds) Abusir and Saqqara in the year 2000. Praha: Archiv orientální, Academy of Science of the Czech Republic, Oriental Institute, 241-258.
- Al-Manawi, M. (1966) Nahr El-Nil fi Al-Maktabah Al-Arabiyah. Cairo: Al-Dar Al-Qawmiyah.
- Manetho. Translated by W. Waddell. Massachusetts: Harvard University

 Press, Loeb Classical Library 1936.
- Manniche, L. (1987) Sexual Life in Ancient Egypt. London and New York: KPI.
- Marlowe, J. (1970) Cromer in Egypt. London: Elek.
- Martin, G. (1981) <u>The Sacred Animal Necropolis at North Saqqara</u>. London: Egypt Exploration Society.
- --- (1994) A relief of Nectanebo I and other reused blocks in Apa Jeremias Monastery, Saqqara. In C. Eyre, A. Leahy and L. Leahy (eds) <u>The Unbroken</u> <u>Reed. Studies in the culture and heritage of Ancient Egypt in honour of A. F.</u> Shore. London: Egypt Exploration Society, 205-215.

- Martinez, F. (1990) The King of Rūm and the King of Ethiopia in Medieval
 Apocalyptic Texts from Egypt. In W. Godlewski (ed) Coptic Studies. Acts
 of the Third International Congress of Coptic Studies Warsaw 20-25 August
 1984. Varsovie: PWN-Éditions Scientifiques de Pologne, 247-259.
- Maspero, G. (1899) Review of Carra de Vaux "L'Abrégé des Merveilles". <u>Journal</u> des Savants. 1899, 69-86 and 154-172 and 277-8.
- --- (1902) Review of K. Sethe "Imhotep oder Asklepios der Ägypter". <u>Journal des Savants</u>. Nov. 1902, 573-85.
- Massé, H. (1971) Ibn Al-Fakih. Encyclopaedia of Islam 2nd edition 3: 761-762.
- Massignon, L. (1981) Inventaire de la littérature hermétique arabe. An appendix to A. J. Festugière, <u>La Révélation d'Hermés Trismégiste</u>. 2nd edition. Paris: Les Belles Letres. Volume 1: 385-400.
- Matthews, R. (2003) <u>The Archaeology of Mesopotamia: theories and approaches.</u>
 London: Routledge.
- Mazzaoui, M. (1991) Alexander the Great and the Arab Historians. <u>Graeco-Arabica</u> 4: 33-43.
- McCleary, R. (1992) Ancestor Cults at Terenouthis in Lower Egypt: A Case for Greco-Egyptian Oecumenism. In J. Johnson (ed) <u>Life in a Multi-Cultural Society: Egypt from Cambyses to Constantine and Beyond</u>. Chicago: The Oriental Institute of the University of Chicago, 221-231.
- McCullough, W. (1967) <u>Jewish and Mandaean Incantation Bowls in the Royal</u>
 Ontario Museum. Toronto: University of Toronto Press.
- McDowell, A. (1990) <u>Jurisdiction in the Workmen's Community in Deir El-Medina</u>. Leiden: Nederlands Instituut voor het Nabije Oosten (Egyptologische uitgaven 5).
- Meeks, D. (2002) Coptos et les chemins de Pount. <u>Topoi</u>, Suppl. 3: 267-335.
- Meinardus, O. (1965) <u>Christian Egypt: Ancient and Modern</u>. Cairo: Institut Français d'Archéologie Orientale au Caire.
- Mertens, M. (1995) Zosime de Panopolis. In the series 'Les Alchimistes Grecs', Vol. 4 Part 1. Les Belles Lettres, Paris.
- --- (2002) Alchemy, Hermetism and Gnosticism at Panopolis c. 300 A.D.: The Evidence of Zosimus. In A. Egberts et al (eds) <u>Perspectives on Panopolis</u>. Leiden: Brill, 165-175.
- De Meulenaere, H. and MacKay, P. (1976) Mendes. Volume 2. Warminster: Aris &

- Phillips,
- Meyer, M. and R. Smith (1994) Ancient Christian Magic. San Francisco: Harper.
- Meyerhof, M. (1930) Von Alexandrien nach Baghdad. In <u>Sitzungsberichte der</u>

 <u>Prüssischen Akademie der Wissenschaften</u> **23**: 389-429.
- Miquel, A. (1978) Al-Istakhari. Encyclopaedia of Islam 2nd edition 4: 222-223.
- Mokhtar, G. (1965) Ahmed Kamal. The Egyptian Historical Review 12: 43-57.
- Monnot, G. (1997) Al-Shahrastani, Encyclopaedia of Islam 2nd edition 9: 214-216.
- Morenz, L. (1996) <u>Beiträge zur Schriftlichkeitskultur im Mittleren Reich und in der 2.</u>
 Zwischenzeit. Wiesbaden: Harrassowitz.
- Morkot, R. (2000) <u>The Black Pharaohs: Egypt's Nubian Rulers</u>. London: The Rubicon Press.
- Morsy, A. (1986) <u>Studies on Priests and Oracles in Graeco-Roman Egypt</u>.

 Unpublished PhD thesis, University College London.
- Moyer, I. (2002) Herodotus and an Egyptian Mirage: The Genealogies of the Theban Priests. Journal of Hellenic Studies 122: 70-90.
- Muhammad, M. (1977) Al-'Ilaqat Al-Misriyah Al-'Arabiyah fi Al-'Uṣur Al-Qadeema: Maṣadir wa Drasat. In A. Abdalla, S. Al-Sakkar and R. Mortel (eds), Studies in the History of Arabia: Proceedings of the First International Symposium on Studies in the History of Arabia 23rd-28th of April 1977. Riyadh: University of Riyadh. Volume 1: 13-38.
- Müller, W. and G. Vittmann (1993) Zu den Personennamen der aus Ägypten stammenden Frauen in den sogenannten "Hierodulenlisten" von Ma^cin.

 Orientalia 62: 1-10.
- Muntaşer, °A. (1973) <u>Tarikh Al-'Ilm wa Dor Al-'Ulma' Al-'Arab fi Taqadumihi</u>. 3rd edition, Cairo: Dar Al-Ma'arif.
- Murad, M. (1996) Al-Ard wa Al-Sultah fi 'Uhud Al-Khilafah Al-'Arabiyah Al-Islamiyah. Al-Ijtihad (Beirut) 8/33: 19-70.
- Murnane, W. (2000) Imperial Egypt and the Limits of Power. In R. Cohen and R. Westbrook (eds) Amarna Diplomacy. Baltimore and London: The John Hopkins University Press, 101-111.
- --- and C. Van Siclen III (1993) <u>The Boundary Stelae of Akhenaten</u>. London: Kegan Paul International.
- Murphy, E. (1990) <u>The Antiquities of Egypt</u>. New Brunswick and London: Transaction Publishers.

- Mussies, G. (1982) The Interpretatio Judaica of Thoth-Hermes. In M. Heerma van Voss, D. Hoens, G. Mussies, D. van der Plas and H. te Velde (eds.) Studies in Egyptian Religion dedicated to Professor Jan Zandee. Leiden: Brill, 90-120.
- Mustafa, H. (2002) Al-Islam wa Al-Gharb: min Al-Tacaeush ila Al-Tașadum. Cairo: Al-Hay'ah Al-Miṣriyah Al-CAmah li-Al-Kitab.
- Myśliwiec, K. (2000) <u>The Twilight of Ancient Egypt. First Millennium B.C.E.</u> Ithaca and London: Cornell University Press.
- Nagel, T. (1986) Ķişaş Al-Anbiya'. Encyclopaedia of Islam 2nd edition, 5: 180-1.
- Najib, A. (1893-4) Kunuz Dahshour. Al-Muqtataf 18: 466-469.
- --- (1895) <u>Al-Athar Al-Jalil li-Qudma' Wadi Al-Nil</u>. Cairo: Al-Matba^cah Al-Amiryah. Reprinted Cairo: Madbouli 1991.
- Nasr, S. (1968) <u>Science and Civilization in Islam</u>. Massachusetts: Harvard University Press.
- --- (1978) <u>An Introduction to Islamic Cosmological Doctrines</u>. 2nd revised edition, London: Thames and Hudson. First published 1964.
- --- (1987) <u>Islamic Art and Spirituality</u>. New York: State University of New York Press.
- Naville, É. (1917) Some Geographical Names. <u>Journal of Egyptian Archaeology</u> 4: 228-233.
- Nazeer, W. (1967) Al-cAdat Al-Misriyah bayn Al-Ams wa Al-Yawm. Cairo: Dar Al-Katib Al-cArabi.
- Needham, J., Ho Ping-Yü, Lu Gwei-Djen and N. Sivin (1980) <u>Science and Civilisation in China</u>. Vol. 5 part 4. Cambridge: Cambridge University Press.
- Nemoy, L. (1939) The Treatise on the Egyptian Pyramids (*Tuhfat al-kiram fi khabar al-aḥram*) by Jalal al-Din Al-Suyuṭi. Edited with introduction, translation and notes. <u>Isis</u> 30:17-37.
- Netton, I. (1991) Muslim Neoplatonists. Edinburgh: Edinburgh University Press.
- Nibbi, A. (1979) Some Remarks on Ass and Horse in Ancient Egypt and the Absence of the Mule. Zeitschrift für Ägyptische Sprache und Altertumskunde 106: 148-168.
- Nock, A. (1944) Later Egyptian Piety. In <u>Coptic Egypt</u>. New York: Brooklyn Museum. 21-29.
- Nunn, J. (1996) Ancient Egyptian Medicine. London: British Museum Press.

- Nurbakhsh, J. (1999) <u>Dhun-Nun Mesri</u>. London: Khaniqahi-Nimatullahi.
- Nureldin, M. A. (1998) <u>Al-Lughah Al-Miṣriyah Al-Qadeemah</u>. Cairo: Dar Al-Ta^cawin.
- O'Leary, de L. (1937) The Saints of Egypt. Lodon. Reprint Amsterdam: Philo Press 1974.
- Otto, E. (1975) Ägypten im Selbstbewußtsein des Ägypters. In W. Helck and E. Otto (eds) Lexikon der Ägyptologie. 7 volemes, Wiesbaden 1975-1987. 1: 76-78.
- Paré, A. (1951) <u>The Apologie and Treatise of Ambroie Paré</u>. Ed. with introduction by Geoffrey Keynes. London: Falcon Educational Books,
- Parkinson, R. (1997) <u>The Tale of Sinuhe and other ancient Egyptian poems</u>. Oxford: Oxford University Press.
- --- (1999) <u>Cracking Codes: The Rosetta Stone</u>. London: British Museum Press.
- Al-Pasha, H. (1989) Al-Alqab Al-Islamiyah fi Al-Tarikh wa Al-Watha'q wa Al-Athar. Cairo: Al-Dar Al-Fanniyah.
- Patai, R. (1964) Indulco and Mumia. <u>Journal of American Folklore</u> 77 (January-March. 3-11).
- --- (1994) The Jewish Alchemists. Princeton: Princeton University Press.
- Peden, A. (2001) <u>The Graffiti of Pharaonic Egypt: Scope and Roles of Informal Writings (c. 3100-332 BC)</u>. Leiden: Brill.
- Pellat, C. (1991) Al-Mas^cudi. Encyclopaedia of Islam 2nd edition 6: 784-789.
- Perry, B. (1966) The Egyptian Legend of Nectanebus. <u>Transactions and Proceedings</u> of the American Philological Association 97: 327-333.
- Pestman, P. et al. (1981) A Guide to the Zenon Archive. Leiden: Brill.
- Petrie, F. (1906) <u>Hyksos and Israelite Cities</u>. London: British School of Archaeology in Egypt.
- --- (1907) <u>Gizeh and Rifeh</u>. London: University College and Bernard Quaritch.
- --- (1911) Egypt and Israel. London.
- --- (1926) Glass Stamps and Weights. London: British School of Archaeology in Egypt.
- --- (1934) <u>Palestine and Israel</u>. London: Society for Promoting Christian Knowledge.
- Petrie, H. (n.d.) <u>Side Notes on the Bible from Flinders Petrie's Discoveries</u>. London: Search Publishing Company.
- Petry, C. (1991) Copts in Late Medieval Egypt. Coptic Encyclopaedia 2: 618-635.

- Pettigrew, T. (1834) <u>A History of Egyptian Mummies</u>. London. Reprint Los Angeles 1983.
- Pezin, M. (1978) Les Etiquettes de Momies du Musée de Picardie à Amiens. Enchoria 8:2: 9-12 & plates 3-4.
- Piccione, P. (1990) Mehen, Mysteries, and Resurrection from the Coiled Serpent.

 Journal of the American Research Center in Egypt 27: 43-52.
- Pielow, D. (1995) <u>Die Quellen der Weisheit die arabische Magie im Spiegel des Usul al-Hikma von Ahmad Ibn ^cAli al-Buni</u>. Hildesheim, Zurich and New York: Georg Olms.
- Pinch, G. (1993) Votive Offerings to Hathor. Oxford: Griffith Institute.
- Pines, S. (1971) An Arabic Version of the Testimonium Flavianum and its

 Implications. Jerusalem: The Israel Academy of Sciences and Humanties.
- Pingree, D. (1968) The <u>Thousands of Abu Ma^cshar</u>. London: The Warburg Institute, University of London.
- Plessner, M. (1954) Hermes Trismegistus and Arab Science. <u>Studia Islamica</u> 2: 45-59.
- --- (1960) Aghathudhimun. Encyclopaedia of Islam 2nd edition, 1: 247.
- Plotinus. (1991) <u>The Enneads</u>. Translated by S. MacKenna and abridged with introduction and notes by J. Dillon. Penguin Classics.
- Plutarch. (1936) Moralia. Volume 5 translated F. Babbitt. Massachusetts: Harvard University Press Loeb Classical Library.
- Pope, M. 1999. <u>The Story of Decipherment</u>. First published 1975. London: Thames and Hudson.
- Porter, B. and R. Moss (1974) <u>Topographical Bibliography of Ancient Egyptian</u>
 <u>Hieroglyphic Texts, Reliefs, and Paintings</u>. Volume 3 part 1. 2nd revised edition. Oxford: The Clarendon Press.
- Posener, G. 1957. Les Asiatiques en Egypte sous les XII^e et XIII^e Dynasties. <u>Syria</u> 34: 145-163.
- Al-Qaddumi, G. (1996) <u>Book of Gifts and Rarities</u>. <u>Kitab al-Hadaya wa Al-Tuhaf</u>. Harvard: Harvard University Press.
- Quirke, S. (1998) (ed) Lahun Studies. Surrey: Sia Publishing.
- --- (2001) The Cult of Ra: Sun-worship in Ancient Egypt. London: Thames and Hudson.
- Rabi^c, A. (2001) Al-Israeliyat fi Tafsir Al-Tabari: Drasah fi Al-Lughah wa Al-

- Masadir Al-Clbriyah. Cairo: Al-Majlis Al-Acla li Al-Sh'un Al-Islamiyah.
- Rabie, H. (1972) The Financial System of Egypt. London: Oxford University Press.
- Rabinowitz, I. 1956. Aramaic Inscriptions of the Fifth Century B.C.E. from a North-Arab Shrine in Egypt. <u>Journal of Near Eastern Studies</u> 15: 1-9.
- Radtke, B. (1992) Weltgeschichte und Weltbeschreibung im mittelalterlichen Islam.

 Beirut and Stuttgart: Franz Steiner (Beiruter texte und Studien 51).
- Rashid, R. (2002) Al-'Ulum Al-'Arabiyah bayn Nazaraiyat Al-Ma'rifah wa Al-Tarikh. In Essays in Honour of Salah al-Din al-Munajjid (no editor) London: Al-Furqan Islamic Heritage Foundation Publication, 297-315.
- Ray, J. (1992) Are Egyptian and Hittite Related? in A. Lloyd (ed) <u>Studies in</u>
 <u>Pharaonic Religion and Society in Honour of J. Gwyn Griffiths</u>. London: Egypt
 Exploration Society, 124-136.
- --- (1994) Osiris in Medieval Egypt. In C. Eyre, A. Leahy and L. Montagno Leahy (eds), <u>The Unbroken Reed. Studies in the Cultural and Heritage of Ancient Egypt in Honour of A. F. Shore</u>, 273-280. London: Egypt Exploration Society.
- Redford, D. (1986) <u>Pharaonic King-Lists, Annals and Day-Books</u>. Mississauga: Benben Publications.
- Reeves, N. and R. Wilkinson (1996) <u>The Complete Valley of the Kings</u>. London: Thames and Hudson.
- Reichman, E. (1997) The Impact of Medieval Medicine on Medical *Halachah*:

 Mumia. In F. Rosner (ed) <u>Pioneers in Jewish Medical Ethics</u>. New Jersey:

 Jason Aronson 27-52.
- Reid, D. (1985) Indigenous Egyptology: The Decolonization of a Profession? <u>Journal</u> of the American Oriental Society 105: 233-246.
- --- (1990) <u>Cairo University and the Making of Modern Egypt</u>. Cambridge: Cambridge University Press.
- --- (2002) Whose Pharaohs? Archaeology, Museums, and Egyptian National

 Identity from Napoleon to World War I. Berkeley and London: University of
 California Press.
- Reitemeyer, E. (1903) <u>Beschreibung Ägyptens im Mittelalter aus den geographischen</u>

 <u>Werken der Araber</u>. Leipzig: Seele.
- Reynolds, D. (1995) <u>Heroic Poets, Poetic Heroes. The Ethnography of Performance in an Arabic Oral Epic Tradition</u>. Ethaca and London: Cornell University Press.

- Ritner, R. (1992) "Egyptian Magic: Questions of Legitimacy, Religious Orthodoxy and Social Deviance" in A. Lloyd (ed) <u>Studies in Pharaonic Religion and Society in Honour of J. Gwyn Griffiths</u>. London: Egypt Exploration Society, 189-200.
- --- (1993) <u>The Mechanics of Ancient Egyptian Magical Practice</u>. Chicago: The Oriental Institute of the University of Chicago. 2nd edition with minor corrections used here 1995 (SAOC 54).
- Rizkana, I. (1964) Al-Athar Al-Miṣriyah ^cind Muwafaq Al-Din ^cAbd Al-Laṭif Al-Baghdadi. In D. Ṣadiq (ed) <u>Muwafaq Al-Din ^cAbd Al-Laṭif Al-Baghdadi</u> fi Al-Dhikra Al-Mu^cawiyah Al-Thaminah li-Miladih. Cairo: Al-Dar Al-Qaumyah. 63-72.
- --- (1971) Al-Qabail Al-°Arabiyah fi Misr °ind Al-Maqrizi. In <u>Drasat °an Al-Maqrizi</u>. Cairo: Al-Hai'a Al-Misriyah Al-°Amah li-Al-Ta'lif wa Al-Nashr. 81-93.
- Roberts, A. (2000) My Heart My Mother: Death and Rebirth in Ancient Egypt. East Sussex: Northgate.
- Robin, C. (1994) L'Égypte dans les inscriptions de l'arabie méridionale préislamique.

 Hommages à Jean Leclant, Volume 4. Cairo: Institut Français
 d'Archéologie Orientale au Caire, Bibliothèque d'Étude, 106/4: 285-301.
- Robinson, J. (ed) (1996) The Nag Hammadi Library in English. 4th ed. Leiden: Brill.
- Roccati, A. (1992) Writing Egyptian: Scripts and Speeches at the End of Pharaonic Civilization. In J. Johnson (ed) <u>Life in a Multi-Cultural Society: Egypt from Cambyses to Constantine and Beyond</u>. Chicago: The Oriental Institute of the University of Chicago, 291-294.
- Ronca, I. (1995) "Senior de Chemia": A Reassessment of the Medieval Latin

 Translation of Ibn Umayl's Al-ma al-waraqi wa l-ard al-najimiyya. <u>Bulletin de</u>

 <u>Philosophie Médiévale</u> 37: 9-31.
- Rosenthal, F. (1958) <u>Ibn Khaldun: The Muqaddimah: An Introduction to History</u>. 3 volumes. London: Routledge and Kegan Paul. 2nd edt. Princeton: Princeton University Press. Second edition 1967.
- --- (1966) Muslim Definition of Knowledge. In C. Leiden (ed) <u>The Conflict of</u>

 <u>Traditionalism and Modernism in the Muslim Middle East</u>. Austin: The

 University of Texas Press, 117-133.
- --- (1971) Ibn ^cAbd Al-Ḥakam. <u>Encyclopaedia of Islam</u> 2nd edition 3: 674-675.

- --- (1975) The Classical Heritage in Islam. Reprint London: Routledge 1992.
- --- (1991) Al-Makrizi. Encyclopaedia of Islam 2nd edition. 6: 193-194.
- Rosner, F. (1994) <u>Biblical and Talmudic Medicine</u>. New Jersey: Jason Aronson. 2nd edt.
- --- (1995) Moses Maimonides' Glossary of Drug Names. Haifa: The Maimonides Research Institute.
- Ruska, J. (1935) Studien zu Muhammad Ibn Umail al-Tamimi's Kitab al-Ma'a al-Waraqi wa 'l-Ard an-Najmiyah. <u>Isis</u> 24: 310-342.
- Ryding, K. (1997) The Heritage of Arabic Alchemy: The Multiculture Matrix. In A. Hasnawi, A. Elamrani-Jamal and M. Aouad (eds) <u>Perspectives arabes et médiévales sur la tradition scientifique et philosophique grecque</u> (OLA 79), Leuven and Paris: Peeters and Institut du monde arabe. 235-248.
- Ryholt, K. (1998) A Parallel to the Inaros Story of P. Krall (P. Carlsberg 456+P. CtYBR 4513): Demotic Narratives from the Trbtuns Temple Library (I). Journal of Egyptian Archaeology 84: 151-169.
- El-Saaddy, H. (1999) Various Concepts Concerning Regal Authority and its

 Relationship to Creed in Pharaonic Egypt. <u>Arab Journal for the Humanities:</u>

 <u>Kuwait University</u>. 66: 119-142. (In Arabic with an English title).
- Al-Şabagh, °I. (1998) Al-Ahnaf. Damascus: Dar Al-Ḥaṣad.
- Sabanu, A. (1982) <u>Hermes Al-Hakeem bayn Al-Uluhiyah wa Al-Nibuah</u>. Damascus: Dar Qutaibah.
- --- (1983) <u>Kitab Al-Ifadah wa Al-I^ctibar</u>. Damascus: Dar Qutaibah.
- Sachau, E. (1888) Al-Biruni's India. 2 volumes. London: Trübner & Co.
- Al-Sa^cdi, ^cA. (1992) <u>Yaqut Al-Hamawi</u>. Beirut: Dar Al-Ṭali^cah.
- Sadek, A. (1987) <u>Popular Religion in Egypt during the New Kingdom</u>. HÄB 27, Hildesheim: Gerstenberg.
- Şadiq, D. (1964) Jughrafiyat Mişr fi Kutub Muwafaq Al-Din °Abd Al-Laţif Al-Baghdadi. In D. Şadiq (ed) Muwafaq Al-Din °Abd Al-Laţif Al-Baghdadi fi Al-Dhikra Al-Mu'awiyah Al-Thaminah li-Miladih. Cairo: Al-Dar Al-Qaumiyah. 31-45.
- Said, E. (1995) Orientalism. (with new introduction). London, Penguin Books.
- Said, R. (1950) Geology in the Tenth Century Arabic Literature. <u>American Journal of Science</u> 248: 63-66.
- --- (1990) Geomorphlogy. In R. Said (ed) <u>The Geology of Egypt</u>. Rotterdam:

- Balkema, 9-25.
- Saidan, A. (1988) <u>Muqaddimah li-Tarikh Al-Fikr Al-^cImi fi Al-Islam</u>. Kuwait: ^cAlim Al-Ma^crifah No. 131.
- Saied, L. (1999) 'Ilm Al-Miṣriyat: mata yuṣbih Miṣriyan?. In Ahwal Misriya, Cairo. 5: 170-176.
- --- (2002) <u>Kamal wa Yussef. Atharyan min Al-Zamn Al-Jamil</u>. Cairo: Supreme Council of Antiquities Press.
- Salamah, G. (1966) Athar Al-Ihtilal Al-Birtani fi Al-Ta^clim Al-Qawmi fi Misr 1882-1922. Cairo.
- Saleh, ^cA. (1962) <u>Hadarat Misr Al-Qadeemah wa Athariha</u>. Vol. 1. Cairo: Anglo Bookshop. Reprint 1992.
- --- (1966) <u>Al-Tarbiyah wa Al-Ta^clim fi Mişr Al-Qadeemah</u>. Cairo: Al-Dar Al-Qawmiyah.
- --- (1970) Some Monuments of North-Western Arabia in Ancient Egyptian Style. Bulletin of the Faculty of Arts, Cairo University. 28: 1-31.
- --- (1972) The Gnbtyw of Thutmosis III's Annals and the South Arabian Gebbanitea of the Classical Writers. <u>Bulletin de l'Institut Français</u>
 <u>d'Archéologie Orientale du Caire</u> 72: 245-262.
- --- (1978) Arabia and the Northern Arabs in Ancient Egyptian Records. <u>Journal of the Faculty of Archaeology, Cairo University</u>, **2:3**: 69-77.
- --- (1981) Notes on the Ancient Egyptian T3 Ntr. "God's Land". <u>Bulletin de</u>

 <u>l'Institut Français d'Archéologie Orientale du Caire</u>: **81** Suppl., 107-117.
- --- (1992) <u>Tarikh Shebh Al-Jazirah Al- [°]Arabia fi [°]Usuriha Al-Qadeemah</u>. Cairo: Anglo Bookshop.
- Salem, S. and A. Kumar (1991) Science in the Medieval World "Book of the Categories of Nations". Austin: University of Texas Press.
- Sallam, H. (1998) Ahmad Kamal Pasha (1851-1923): A Family of Egyptologists. In C. Eyre (ed) <u>Proceedings of the Seventh International Congress of Egyptologists. Cambridge 3-9 September, 1995</u>. Leuven: Uitgeverij Peeters, 1015-19.
- Salmon, G. (1902) Études sur la topographie du Caire-La kal^cat al-kabch et la birkat al-fil. Cairo: Institut Français d'Archéologie Orientale au Caire (MIFAO 7).
- Sandison, A. (1975) Balsamierung. In W. Helck and E. Otto (eds) <u>Lexikon der</u>
 <u>Ägyptologie</u>. 7 volemes, Wiesbaden 1975-1987. 1: 610-614.

- Sarton, G. (1954) Galen of Pergamon. Kansas: University of Kansas Press.
- Satzinger, H. (1994) An Old Coptic Text Reconsidered: PGM 94 FF. in S. Giversen, M. Krause and P. Nagel (eds.) Coptology: Past, Present, and Future. Leuven: Uitgeverij Peeters, 213-24.
- Sauneron, S. 1952. Le Temple D'Akhmim Décrit par Ibn Jobair. <u>Bulletin de l'Institut</u>

 <u>Français d'Archéologie Orientale du Caire</u> 51: 123-35.
- Al-Sayyar, N. (1995) Qudma' Al-Mişrien Awal Al-Muahdeen. Cairo.
- Sayyid, A. (1988) Wasf Madinat Al-Qahirah wa Qal^cat Al-Jabal. An Arabic translation and study of Jomard, Descriptionde la ville et de la citadelle du Kaire, in <u>Description de l'Égypte</u>. Éd. Paris: Panckoucke, 26 volumes + plaates 1821 1829. Volume 18: 113-535.
- --- (1995) Le Manuscrit autographe d'al-Mawa^ciz wa-al-I^ctibar fi Dhikr al-<u>Khitat wa-al-Athar de Taqi al-Din Ahmad b. ^cAli n. ^cAbd al-Qadir al-Maqrizi.</u> London: Al-Furqan Islamic Heritage Foundation.
- Sayyid, F. (1985) (ed.) <u>Tabaqat Al-Aṭibba' wa Al-Ḥ'ukama'</u>. By Ibn Juljul. Followed by <u>Tarikh Al-Aṭibba' wa Al-Falasifa</u> by Ibn Ḥunain. 2nd Edt. Beirut: Al-Risalah.
- Schenke, H-M. (1999) Das Berliner "Koptische Buch" (P. 20915) und seine Geheimnisse. Zeitschrift für Ägyptische Sprache und Altertumskunde 126: 61-70.
- Schenkel, W. (1965) <u>Memphis, Herakleopolis, Theben. Die epigraphischen Zeugnisse</u> der 7-11 <u>Dynastie Ägyptens</u>. Wiesbaden: Harrassowitz (ÄA 12).
- Schmitz, M. (1978) Kacb Al-Aḥbār. Encyclopaedia of Islam 2nd edition 4: 316.
- Schneider, T. (1992) <u>Asiatische Personennamen in ägyptischen Quellen des Neuen</u>

 <u>Reiches</u>. University Press Fribourg Switzerland: Vandenhoeck &

 Ruprecht Göttingen (OBO 114).
- --- (1993) Asiatic Personal Names from the New Kingdom. An Outline with Supplements. In <u>Sesto Congresso Internazionale di Egittologia</u>. Volume 2: 453-470.
- Scholz, P. (1993) Die Kontinuität des Altägyptischen in der Ikonizität und Theologie des Orientalischen Christentums. In <u>Sesto Congresso Internazionale di</u>
 Egittologia. Volume 2: 471-477.
- Scott, W. (1985) Hermetica. 4 vols. Reprint in Boston: Shambhala.
- Sezgin, F. (1967-) <u>Geschichte des Arabischen Schrifttums</u>. [GAS] 9 volumes-. Leiden: Brill.

- Sezgin, U. (1988) <u>Light on the Voluminous Bodies to Reveal the Secrets of the Pyramids</u>. Frankfurt am Main: Institute For the History of Arabic-Islamic Science, the Johann Wolfgang Goethe University.
- (1994) Pharaonische Wunderwerke bei Ibn Waşif as-Şabi' und al-Mas^cudi.
 Einige Reminiszenzen an Ägyptens vergangene Grösse und an Meisterwerke der alexandrinischen Gelehrten in arabischen Texten des 10. Jahrhunderts.
 Chr. Zeitschrift für Geschichte der Arabisch-Islamischen Wissenschaften.
 Part I, 9: 229-291.
- --- (1997) Pharaonische Wunderwerke bei Ibn Wasif as-Sabi' und al-Mas^cudi. Einige Reminiszenzen an Ägyptens vergangene Grösse und an Meisterwerke der alexandrinischen Gelehrten in arabischen Texten des 10. Jahrhunderts. Chr. Zeitschrift für Geschichte der Arabisch-Islamischen Wissenschaften. Part II, 11: 189-249.
- --- (2002) Al-Waşifi. Encyclopaedia of Islam 2nd edition 11: 163-164.
- Serpico, M. & R. White (2000) Resins, amber and bitumen. In P. Nicholson & I. Shaw (eds) <u>Ancient Egyptian Materials and Technology</u>. Cambridge: Cambridge University Press, 430-474.
- Al-Sha^crawi, M. (1995) <u>Magic and Envy in the light of Qur'an and Sunna</u>. London: Dar Al Taqwa.
- Al-Shami. ^cA. (1981) <u>Mudun Mişr wa Quraha ^cind Yaqut Al-Ḥamawi</u>. Kuwait: University of Kuwait.
- El-Shayyal, G. (1962) A History of Egyptian Historiography in the Nineteenth

 Century. Alexandria, Faculty of Arts, Publication no. 15. [This is the full text used here, part of which was published as "Historiography in Egypt in the Nineteenth Century" in B. Lewis and P. Holt (eds) Historians of the Middle

 East. London, Oxford University Press. 1962, 403-421].
- Shboul, A. (1979) Al-Mas^cudi and His World. London: Ithaca Press.
- Al-Shishtawi, M. (1999) <u>Mutanazhat Al-Qahirah fi Al-cAşrayn Al-Mamluki wa Al-cUthmani</u>. Cairo: Dar Al-Afaq Al-cArabiyah.
- Shore, A. (1971) Christian and Coptic Egypt. In J. R. Harris (ed), <u>The Legacy of Egypt</u>. Oxford: Oxford University Press, 390-433.
- Al-Shurbagi, A. (1994) <u>Ru'yat Al-Rahalah Al-Moslemin li-Ahwal Mişr Al-Iqtişadyah</u> <u>fi Al-^cAşr Al-Fatimi</u>. Cairo: Al-Hay'ah Al-Mişriyah Al-^cAmah li-Al-Kitab, Series Tarikh Al-Mişrien 73.

- Sidarus, A. (2002) La tradition sahidique de philologie Gréco-Copto-Arabe (manuscrits des XIII^c-XV^c siècles). Études Coptes 7: 265-304.
- Siggel, A. von, (1937) Das Sendschreiben. Das Licht über das Verfahren des Hermes der Hermesse dem, der es begehrt. <u>Der Islam</u> **24**: 287-306.
- Skeat, T. and E. Turner (1968) An Oracle of Hermes Trismegistos at Saqqara. <u>Journal</u> of Egyptian Archaeology 54: 199-208.
- De Slane, Le Baron (1883-1895) <u>Bibliothèque Nationale: Catalogue des Manuscrits</u>

 <u>Arabes</u>. Paris: Imprimerie Nationale.
- Smelik, K. and E. Hemelrijk (1984) "Who knows not what monsters demented Egypt worship?" Opinions on Egyptian animal worship in Antiquity as part of the ancient conception of Egypt. Aufstieg und Niedergang der römischen Welt.

 Geschichte und Kultur Roms im Spiegel der neueren Forschung [ANRW]

 II. 17. 4: 1852-2000 + indices 2337-2357.
- Smith, H. (1974) A Visit to Ancient Egypt. Life at Memphis & Saqqara (c. 500-30 BC). Warminster: Aris and Phillips.
- --- (1992) Foreigners in the Documents from the Sacred Animal Necropolis, Saqqara. In J. Johnson (ed), <u>Life in a Multi-Cultural Society: Egypt from</u> <u>Cambyses to Constantine and Beyond</u>. Chicago: The Oriental Institute of the University of Chicago, Chicago, Oriental Institute, 295-301.
- Smith, M. (1965) Dhu 'l-Nun. Encyclopaedia of Islam 2nd edition 2: 242.
- Sobhy, G. (1950) <u>Common Words in the Spoken Arabic of Egypt of Greek or Coptic</u>

 <u>Origin</u>. Cairo: La. Société d'Archaéologie Copte.
- El Sokkary, A. (1973) Arabs and Geology. Alexandria: Al-Ma^carif Establishment.
- Solé, R. & D. Valbelle (1999) La pierre de Rosette. Paris: Seuil.
- Soliman, A. M. (1985) Scientific Trends in the Quran. London: Taha Publication.
- Sonbol, A. (2000) <u>The New Mamluks: Egyptian Society and Modern Feudalism</u>. Syracuse: Syracuse University Press.
- Sorman, G. (2003) Les enfants de Rifaa: musulmans et modernes. Paris: Fayard.
- Sourdel-Thomine, J. (1971) Al-Harawi. Encyclopaedia of Islam 2nd edition 3: 178.
- Spence, K. (2000) Ancient Egyptian chronology and the astronomical orientation of the pyramids. Nature 408 (16 November 2000) p. 320.
- Spencer, J. (1982) The Delta. In T. G. H. James (ed) <u>Excavating in Egypt: The Egypt</u> <u>Exploration Society 1882-1982</u>. London: The British Museum. 37-50.
- Spencer, P. (1984) The Egyptian Temple: Lexicographical Study. London: KPI.

- Staffa, S. (1974) The Culture of Medieval Cairo as Reflected in Folk Literature.

 <u>Middle Eastern Studies</u> 10: 333-347.
- Stanton, C. (1990) <u>Higher Learning in Islam: The Classical Period A.D. 700-1300</u>. Maryland: Rowman & Littlefield.
- Stapleton, H., M. Husain and T. 'Ali. 1933. Three Arabic Treatises on Alchemy by

 Muhammad Bin Umail (10th century AD). Memoirs of the Asiatic Society of

 Bengal 12: 1-213.
- Stavenhagen, L. (1974) <u>A Testament of Alchemy</u>. New Hampshire: Brandies University Press.
- Stern, S. (1960) ^cAbd Al-Latif Al-Baghdadi. <u>Encyclopaedia of Islam</u> 2nd edition 1: 74.
- Sternberg, H. (1982) Mumie, Mumienhülle. In W. Helck and E. Otto (eds) <u>Lexikon der Ägyptologie</u>. 7 volemes, Wiesbaden 1975-1987. 4: 214-216.
- Stetkevych, J. (1996) <u>Muhammad and the Golden Bough: Reconstructing</u>

 <u>Arabian Myth.</u> Bloomington and Indianapolis: Indiana University Press.
- Stevenson, J. (1996) The Holy Sinner: The Life of Mary of Egypt. In E. Pope & B. Ross (eds) The Legend of Mary of Egypt in Medieval Insular Hagiography.

 Dublin: Four Courts Press. 19-98.
- Stillman, Y. (1997) Textiles and Patterns Come to Life Through the Cairo Geniza. In M. cAbbas et al, <u>Islamische Textilkunst des Mittelaters: Aktuelle Probleme</u>. Riggisberg: Abegg-Stiftung. 35-64.
- Stolzenberg, D. (1999) Unpropitious Tinctures. Alchemy, Astrology & Gnosis

 According to Zosimos of Panopolis. <u>Archives Internationales d'Histoire des Sciences</u> 49: 3-31.
- Strabo. <u>The Geography of Strabo</u>. 8 vols. translated by H. Jones. Loeb Classical Library. First published 1932. revised edt 1935, 1949. Repr. 1982.
- Stricker, B. (1939) Le naos vert de Memphis. <u>Annales du Service des Antiquités</u>
 <u>de l'Egypte</u> 39: 215-220 plus plates 31-32.
- --- (1942) La prison de Joseph. <u>Acta Orientalia</u> 19:100-137.
- Strohmaier, G. (1971) Ibn Umayl. Encyclopaedia of Islam 2nd edition 3: 961-962.
- Stronach, D. (1972) Description and Comment. Journal Asiatique 260: 241-246.
- Stroumsa, S. (1999) Freethinkers of the Medieval Islam. Leiden: Brill.
- Swiggers, P. (1995) A Minaean Sarcophagus Inscription from Egypt. In K. Van Lerberghe and A. Schoors (eds) <u>Immigration and Emigration within the</u>

- Ancient Near East, Festschrift E. Lipiński. Leuven: Uitgeverij Peeters (OLA 65), 335-343.
- Al-Ṭaba^c, ^cU. and ^cA. Al-Hashimi (1993) <u>Abu Al-Riḥan Al-Biruni Mauso^cat Al-</u>
 ^cArab. Beirut: Al-Ma^carif.
- Tait, J. (1994) Egyptian Fiction in Demotic and Greek. In J. Morgan and R. Stoneman (eds) Greek Fiction. London and New York:
- --- (1996) Demotic Literature: Forms and Genres. In A. Loprieno (ed) <u>Ancient</u>

 <u>Egyptian Literature: History and Forms.</u> Leiden: Brill, 175-187.
- Takács, G. (1999) <u>Etymological Dictionary of Egyptian</u>. Volume one: A Phonological Introduction. Leiden: Brill.
- Al-Ṭayb, A. (2002) Dhu Al-Nun Al-Miṣri. <u>Al-Hilal</u> (Cairo, November 2002) 111: 62-69.
- Taylor, J. (2001) <u>Death and the Afterlife in Ancient Egypt</u>. London: British Museum Press.
- Taylor, S. (1949) The Alchemists. New York: Henry Schuman.
- Temple, R. (2000) <u>The Crystal Sun: Rediscovering a Lost Technology of the Ancient World</u>. London: Century.
- Thissen, H-J. (1994) Horapollinis Hieroglyphika Prolegomena. In M. Minas and J. Zeidler (eds) <u>Aspekte Spätägyptischer Kultur, Fr. Erich Winter</u>. Mainz am Rhein: von Zabern, 255- 263.
- Thompson, D. (1988) Memphis under the Ptolemies. Princeton: Princeton University Press.
- Thorndike, L. (1958) A History of Magic and Experimental Science. New York: Columbia University Press, Volume VIII.
- Toussoun, O. (1922-3) <u>Mémoire sur les anciennes branches du Nil</u>. Cairo: Institut Français d'Archéologie Orientale au Caire.
- --- (1931) <u>Kitab Maliyat Mişr min ^cAhd Al-Fara^cinah ila al-an</u>. Reprinted Cairo: Madbouli 2000.
- --- (1936) Description du phare d'Alexandrie d'après un auteur arabe du XIIe siècle. <u>Bulletin de la Société d'Archéologiqe d'Alexandrie</u> 30:1:49-53.
- Trigger, B. (1989) <u>A History of Archaeological Thought</u>. Cambridge: Cambridge University Press.
- Troy, L. (1986) <u>Patterns of Queenship in ancient Egyptian myth and history</u>.

 Uppsala: Acta Universitatis Upsaliensis (BOREAS 14).

- Ullmann, M. (1972a) Kleopatra in einer arabischen alchemistischen Disputation.

 Wiener Zeitschrift für die Kunde des Morgenhdes 63:4: 158-175.
- --- (1972b) Die Natur und Geheimwissenschaften im Islam. Leiden: Brill.
- --- (1997) <u>Islamic Medicine</u>. Edinburgh: Edinburgh University Press. Reprinted from first edition 1978.
- Vachala, B. and F. Ondráš (2000) An Arabic Inscription on the Pyramid of Neferfra. In M. Bárta and J. Krejčí (eds), <u>Abusir and Saqqara in the Year 2000</u>. Praha: Academy of Science of the Czech Republic, Oriental Institute, 73-76.
- Valbelle, D. (1994) <u>L'égyptologie</u>. Reprint from first edition 1991. Paris: Presses Universitaires de France.
- Vandier, J. (1937) A propos d'un depôt de provenance asiatique trouvé a Tôd. Syria 18: 174-182.
- --- (1950) Mo'alla: La tombe d'Ankhtifi et la la tombe de Sébekhotep. Cairo: Institut Français d'Archéologie Orientale au Caire.
- Vantini, G. (1975) <u>Oriental Sources Concerning Nubia</u>. Heidelberg and Warsaw: Society for Nubian Studies.
- Vatikiotis, P. (1980) <u>The History of Egypt from Muhammad Ali to Sadat</u>. 2nd edition. London: Weidenfeld and Nicholson.
- Vattier, P. (1666) <u>L'Egypte de Murtadi, fils du Gaphiphe</u>. Paris: Reprinted with a study by G. Wiet. Paris: L'École des langues orientales 1953.
- Vercoutter, J. (1992) Le déchiffrement des hieroglyphs égyptiens 1680-1840. in U.

 Luft (ed) <u>The Intellectual Heritage of Egypt, Studies Presented to L. Kákosy.</u>

 <u>Budapest: Praha University, Studia Aegyptiaca</u> 14: 579-586.
- Vereno, I. (1992) <u>Studien zum ältesten alchemistischen Schrifttum: auf der Grundlage zweier erstmals edierter arabischer Hermetica</u>. Berlin: Klaus Schwarz.
- Vergote, J. 1964. L'Etymologie de ég. <u>r3-pr</u>. copte <u>rpe</u>. ar. <u>birba</u>. <u>Zeitschrift für Ägyptische Sprache und Altertumskunde</u> **91**: 135-137.
- Verner, M. (2000) Who was Shepseskara, and when did he reign?. In M. Bárta and J. Krejčí (eds) <u>Abusir and Saqqara in the year 2000</u>. Praha: Oriental Institute, 581-602.
- Vernet, J. (1971) Ibn Al-Baytar. Encyclopaedia of Islam 2nd edition 3: 739.
- Viaud, P. (1978) <u>Magie et coutumes populaires chez les Coptes d'Egypte</u>. Paris: Editions Présence,

- Vittmann, G. (1998) Beobachtungen und überlegungen zu fremden und Hellenisierten Ägypten im dienste einheimischer kulte. In W. Clarysse et al (eds) Egyptian Religion: The Last Thousand Years. Leuven: Uitgeverij Peeters (OLA 85) 2: 1231-1250.
- Vycichl, W. (1990) <u>La Vocalisation de la Langue Égyptienne</u>. Volume 1, Cairo: Institut Français d'Archéologie Orientale au Caire.
- --- (1991) Sullam. In A. Atiya (editor in chief) <u>Coptic Encyclopedia</u>.

 New York: Macmillan Publishing Company. 8: 204-207.
- Wagner, G. (1976) Une dédicace à Isis et à Héra de la part d'un négociant d'Aden.

 Bulletin de l'Institut Français d'Archéologie Orientale du Caire 76: 277-281 plus plates L-LI.
- Wagtendonk, K. (1976) The Stories of David in al-Tha^calabi's Qiṣaṣ al-anbiya'. In Actes du 8^{me} Cngress de l'Union Europeenne des Arabisants et Islamisants, Aix-en-Provence. September 1976. 343-353.
- Wainwright, G. (1931) The Search for Hidden Treasure in Egypt. Man 190: 196-8.
- Ward, W. (1994) Foreigners Living in the Village. In L. Lesko (ed) <u>Pharaoh's Workers</u>. Ithaca and London: Cornell University Press, 61-85.
- Weeks, K. (1996) Toward the Establishment of a Pre-Islamic Egyptian

 Archaeological Database. In P. Der Manuelian (ed) <u>Studies in Honor of</u>

 <u>William Kelly Simpson</u>. 2 volumes. Boston: Musem of Fine Arts. 2: 843-854.
- Wensinck, A. (1965) Fir^cawn. Encyclopaedia of Islam 2nd edition 2: 917-8 [article revised by G. Vajda].
- Wente, E. (1990) Letters from Ancient Egypt. Atlanta: Scholars Press.
- Westendorf, W. (1977) <u>Koptisches Handwörterbuch</u>. Heidelberg: Carl Winter. Universitätsverlag (1965/1977).
- Wheeler, B. (1998) Moses or Alexander? Early Islamic Exegesis of Qur'an 18:60-65.

 <u>Journal of Near Eastern Studies</u> 57: 191-215.
- Wiedemann, A. (1906) Mumie als Heilmittel. Zeitschrift des Vereins für rheinische und westfälische Volksunde 3: 29-38.
- Wiet, G. (1953) <u>L'Égypte de Murtadi, fils du Gaphiphe</u>. Paris: L'École des langues orientales (cf. Vattier).
- Wildung, D. (1969) <u>Die Rolle ägyptischer könige im Bewußtsein ihrer Nachwelt.</u>

 <u>Vol. 1, Posthume Quellen über die Könige der ersten vier Dynastien.</u> Berlin:

 Bruno Heßling. MÄS 36.

- --- (1977a) Egyptian Saints: Deification in Ancient Egypt. New York: New York University Press.
- --- (1977b) <u>Imhotep und Amenhotep</u>. München and Berlin: Deutscher Kunstverlag.
- Wilkinson, T. (1999) Early Dynastic Egypt. London: Routledge.
- Wilkinson, R. (1994) Symbol & Magic in Egyptian Art. London: Thames and Hudson.
- Wilson, J. (1954) Islamic Culture and Archaeology. The Middle East Journal 8:1: 1-9.
- Wilson, P. (1997) A Ptolemaic Lexikon. Leuven: Uitgeverij Peeters, OLA 78.
- Winkler, D. (1997) <u>Koptische Kirche und Reichskirche: Altes Schisma und neuer</u>

 <u>Dialog.</u> Innsbruck: Tyrolia. (Innsbrucker Theologische Studien 48).
- Witt, R. (1997) <u>Isis in the Ancient World</u>. Baltimore: John Hopkins University Press. (orig. pub by Ithaca 1971).
- Witteveen, H. (1997) Universal Sufism. Dorset: Element.
- Wood, M. (1998) The Use of the Pharaonic Past in Modern Egyptian Nationalism.

 Journal of the American Research Center in Egypt 35: 179-196.
- Wortham, J. (1971) <u>British Egyptology 1549-1906</u>. Newton Abbot: David and Charles.
- Wüstenfeld, F. von (1979) Macrizi's Geschichte der Copten. Hildesheim.
- Yahuda, A. (1944) The Osiris Cult and the Designation of Osiris Idols in the Bible.

 Journal of Near Eastern Studies 3: 194-200.
- Yakan, F. (1994) Hukm Al-Islam fi Al-Sihr wa Mushtagatih. Beirut.
- Yamani, S. (2001) Roman monumental tombs in Ezbet Bashendi. <u>Bulletin de l'Institut</u>

 <u>Français d'Archéologie Orientale du Caire</u> 101: 393-414.
- Yaqtin, S. (1994) <u>Dhakhirat Al-°Ajaib Al-°Arabiyah: Saif Ibn Dhi Yazan</u>. Beirut: Al-Markaz Al-Thaqafi Al-°Arabi.
- Yasin, N. (1950) Al-Itjar bi Ghanaim Al-Harab fi 'Asr Al-Rashidin wa Bani Omiyah.

 Journal of the Academy of Science, Baghdad 44: 2: 217-250.
- Yates, F. (2002) Giordano Bruno and the Hermetic Tradition. Reprint London: Routledge. First published 1964.
- Yeiven, S. (1969) An ostracon from Tel Arad exhibiting a combination of two scripts.

 Journal of Egyptian Archaeology 55: 98-102.
- Young, D. (1981) A Monastic Invective Against Egyptian Hieroglyphs. In D. Young (ed) Studies Presented to H. J. Polotsky. Massachusetts: Pirtle and Polson,

- 348-360.
- Yousef, F. (2002) Review of ^cA. Al-Khaṭib, Al-Thaluth Al-Kawkabi Al-Muqadas. Adumatu 6: 75-78.
- Youssef, A. (1991) Misr fi Al-Qur'an wa Al-Sunnah. Cairo: Dar Al-Ma^carif. 3rd revised edition used here. 1st published in Cairo 1973.
- Yoyotte, J. (1972) Une statue de Darius découverte à Suse. Les inscriptions hiéroglyphiques: Darius et l'Égypte. <u>Journal Asiatique</u> **260**: 253-266.
- Žába, Z. (1953) <u>L'orientation astronomique dans l'ancient Égypte, et la précession de l'axe du monde</u>. Prague: Éditions de l'Académie Tchécoslovaque des Sciences.
- Zaman, M. (2002) Al-Yackubi. Encyclopaedia of Islam 2nd edition 11: 257-258.
- Zarins, J. (1989) Ancient Egypt and the Red Sea Trade: The Case for Obsidian in the Predynastic and Archaic Periods. In A. Leonard, Jr and B. Williams (eds)
 Essays in Ancient Civilization Presented to Helen J. Kantor. Chicago: The Oriental Institute of the University of Chicago, 339-368.
- Zauzich, K.-T. (1991) Einleitung. In P. Frandsen (ed), <u>Demotic Texts from the Collection: the Carlsberg Papyri 1</u>, 1-11. University of Copenhagen.
- Al-Zerekly, K. (1999) Al-Aclam. 14th ed, Beirut: Dar El-cIlm li-Al-Malayin.
- Zimmels, H. (1952) <u>Magicians, Theologians and Doctors: studies in folk-medicine</u>
 and folk-lore as reflected in the rabbinical responsa, 12th-19th
 centuries. London: Goldston,
- Zimmermann, F. (1915) Koptisches Christentum und altaegyptische Religion.

 <u>Theologische Quartalschrift</u> 94: 592-604.
- Zotenberg, H. (1883) Chronique de Jean, Evêque de Nikiou. Paris.

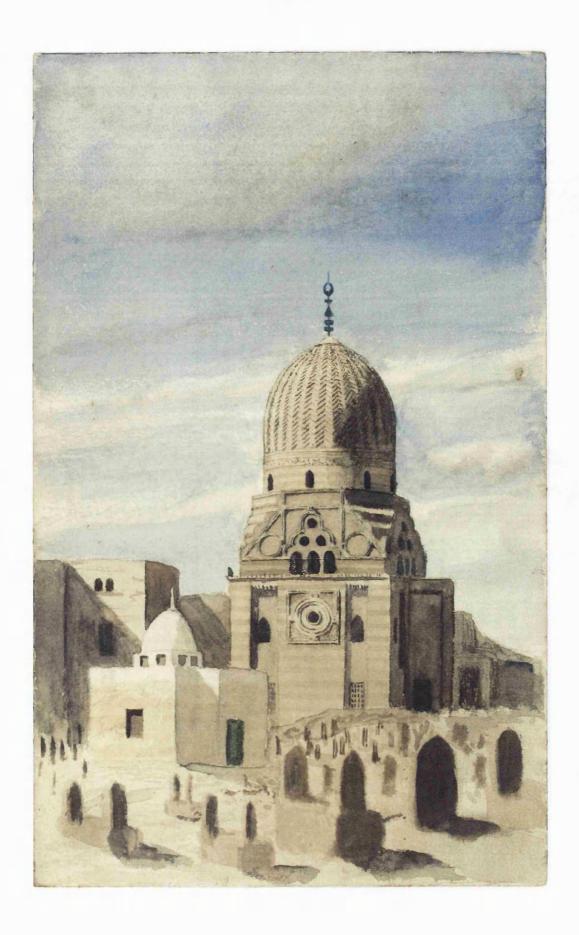
List of Plates

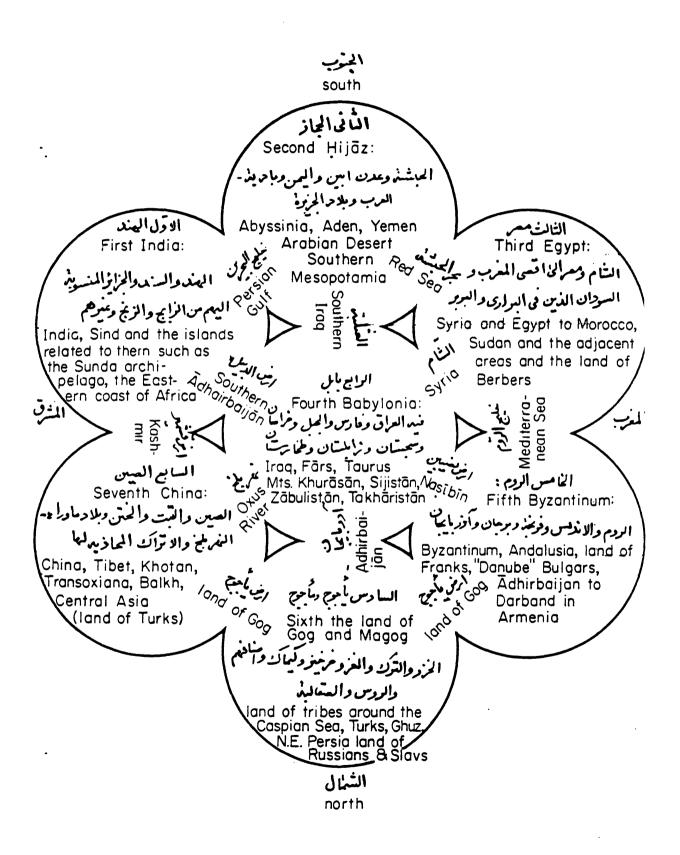
- 1- A painting by Petrie of a medieval Moslem tomb at Bab Al-Wazir, Mamluk cemetery, Cairo. Private collection of his granddaughter Ms. Lisette Petrie who I thank. Water colour. W. 13.8 cm, H. 22.7 cm.
- 2- Al-Biruni's representation of the seven climate zones. After Nasr 1978: 146 fig. 8.
- 3- Al-Biruni's world zones as copied by Yaqut (Mucjam 1: 27).
- 4- Map of Egypt in Al-Iştakhari with Upper Egypt on top like all other known medieval Egypt where south is on top (Al-Masalik: facing page 41).
- 5- Map of Egypt in Ibn Ḥawqal (Surat: facing page 128).
- 6- Map of Egypt in Al-Muqadasi (Ahsan). After the English translation by B. Collins 446 map VIII.
- 7- Drawing of the Lahun pyramid area. MS Arabe 2764 fol. 71a. Bibliothèque Nationale, Paris.
- 8- A new kingdom stela showing offering to the Sphinx. After Hassan 1951. fig. 39.
- 9- A recent reconstruction of the Sphinx. After Lehner 1997: 131.
- 10- A medieval astrologist offering incense at the Temple of Akhmim. (<u>Kitab Al-Bulhan</u> MS Bodleian Or. 133 fol. 29b). After Carboni (1988: Plate 18 and page 71f)
- 11- The Lighthouse of Alexandria in Al-GharnațI early 12 century. After Ferrand (1925: Plate II).
- 12- Reconstruction of the Lighthouse of Alexandria. After Empereur (1998: 83).
- 13- From the Scala Magna of Ibn Kabr. A list of vegetables in Coptic-Arabic. (MS Or. 1325 fol. 117a. British Library). After Budge (1928: 81).
- 14- An example of Arabic texts on Fatimid textiles emulating Egyptian Hieroglyphs. Two Arabic words repeated (Al-Yomn wa Al-Iqbal) meaning 'Prosperity and Good Fortune'. Cairo, Museum of Islamic Art No. 596. After Stillman (1997: 49 fig. 15).
- 15- The title page of the book of Dhu Al-Nun Al-Miṣri on deciphering scripts copied 1130 H = 1718 CE. MS Muallim Cevdet K. 290. Ataturk Kitapligi, Istanbul.
- 16- Abu Al-Qasim Al-cIraqi citing the records in the Hall of Hermes (<u>Kitab Al-Aqalim Al-Sabcah</u> MS. Add. 25724 fol. 11b. British Library).
- 17- A statue of Darius I (522-486 BCE) from Susa. After Myśliwiec (2000: 147 fig.41) standing on a base of Egyptian style.

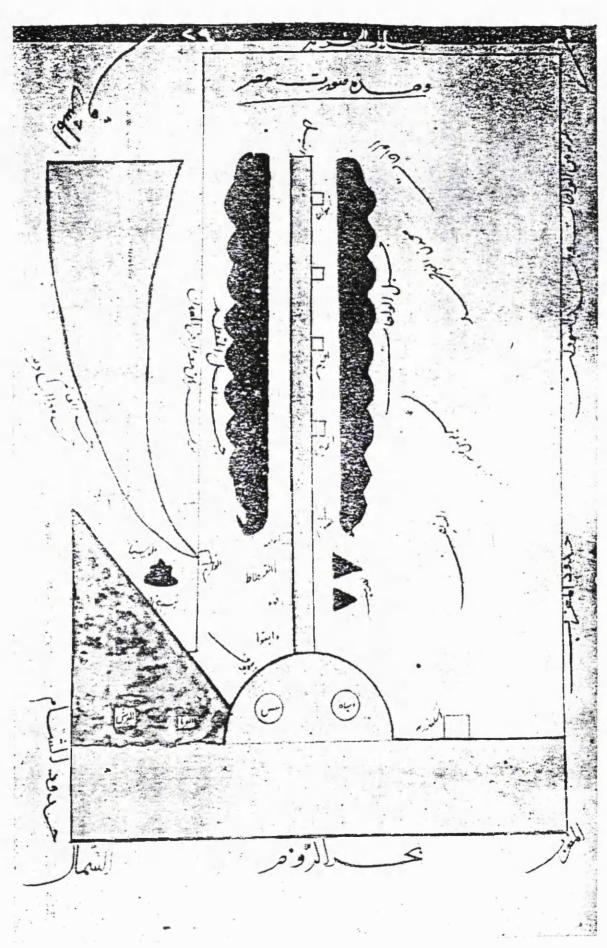
- 18- Positions of the different inscriptions on the statue of Darius I. After Myśliwiec (2000: 148 fig. 42).
- 19- Detail of the same statue Of Darius I showing the titles and names of Darius I in Egyptian hieroglyphs. After Myśliwiec (2000: 149 fig. 43).
- 20- Detail of the hieroglyphs on the base of the statue of Darius I showing the names of people subject to the Achaemenid Empire including Egypt. After Myśliwiec (2000: 150-151 figs. 44-45).
- 21- Letters resemble Hieratic/Demotic said to be Egyptians and their Arabic phonetic values by the author of <u>Kitab Al-Istibsar</u> (58-9), 13 century.
- 22- Egyptian Hieroglyphs/symbols inspired tool designs in medieval Arabic alchemy. Abu Al-Qasim Al-[°]Iraqi (<u>Kitab Al-Aqalim Al-Sab[°]ah</u> MS. Add. 25724 fol. 11a. British Library).
- 23- An automated waiter designed by Al-Jazari (12/13th century). Some Egyptian symbols were used by the designer. Smithsonian Collections. This is similar to the copy published by Coomaraswamy (1924: Plate VIII). Cf. MS 3472, Topqapu Serai Library, Istanbul, fol. 216.
- 24- Use of Hieroglyphs for Nb, M3^ct, R^c (and perhaps T3wy) in Islamic Art for Mamluk emblems. These denote Lord of Justice, The Sun, of the Two Lands?
- 25- Letters A and B in Dhu Al-Nun Al-Miṣri (<u>Hall</u> MS Muallim Cevdet K. 290 fol. 3a).
- 26- The Coptic alphabet with their phonetic value and order correctly identified. Dhu Al-Nun Al-Mişri (Hall, MS Muallim Cevdet K. 290 fol. 12a, top and 12 b below).
- 27- Recent study of Coptic alphabet showing the accuracy of Dhu Al-Nun. After Layton (2000: 13).
- 28- Egyptian alphabet according to Ibn Waḥshiyah (Shauq, MS Arabe 6805 fols. 92b on the right and 93a on the left. Bibliothèque Nationale, Paris).
- 29- Ibn Waḥshiyah *Ibid* fols. 93b to the right and 94a to the left.
- 30- Ibn Wahshiyah *Ibid* fol. 94b to the right.
- 31- Ibn Wahshiyah Ibid fol. 56a to the left.
- 32- Ibn Waḥshiyah Ibid fol. 56b to the right.
- 33- Hieroglyphic signs with their phonetic values below in a different colour in Abu Al-Qasim Al-Graqi (Al-Aqalim, MS Add 25,724 British Library), fol. 21b.
- 34- Abu Al-Qasim Al-cIraqi *Ibid* fol. 22a.
- 35- Egyptian alphabet deciphered in Abu Al-Qasim Al-cIraqi MS Arabe 2676 fol.

- 18a. Bibliothèque Nationale, Paris.
- 36- A stela of King Amenemhat II (ca 1928-1895 BCE) of the Twelfth Dynasty as copied in Abu Al-Qasim Al-^cIraqi (<u>Al-Aqalim</u>, MS Add 25,724 British Library), fol. 50a.
- 37- A script named after the Sufi /alchemist Jabir Ibn Ḥayan in Dhu Al-Nun (<u>Hall</u> fol. 36b top). Many letters resemble Egyptian Demotic.
- 38- Demotic letters. After du Bourguet, P. (1976: 75).
- 39- The Egyptian god Horus copied in a medieval Arabic book of magic, <u>Kitab Al-Malatis</u> (MS Bodleian Arabe d. 221. fols. 49a to the left and 51a to the right. After Beeston (1962: Plate II).
- 40- The primordial god Nun emerges from chaos lifting up the Sun's Barge. From the Book of Gates on the alabaster sarcophagus of King Seti I presently at Sir John Soane Museum, London. After Hornung (1992: 108).
- 41- The Ouroboros serpent protects the Sun god. After Hornung (1990: 107).
- 42- The Egyptian Ouroboros copied with hieroglyphs in the alchemical book of Abu Al- Qasim Al-^cIraqi (<u>Kitab Al-Aqalim Al-Sab^cah</u> MS. Add. 25724 fol. 4a. British Library).
- 43- The sites of Memphis (M), Muqaṭam Mountain (C where the Citadel is) and Heliopolis (H). After Jeffreys 1998 fig. 3) showing the possibility of vision lines between the three sites as described in medieval Arab accounts.
- 44- Mummia listed as medicine written in Egyptian script according to Ibn
 Waḥshiyah (Shauq, MS Arabe 6805 fol. 77a to the left). The word for mummia is
 written on third hieroglyphic line from top, with a human head.
- 45- Automatic purification device by Hero of Alexandria (First century CE) for use in temple service. After Hall (1971: 49, No. 31).
- 46- Automatic wine dispenser by Hero of Alexandria. After Hall (1971: 50, No. 32).
- 47- Automatic door device by Hero of Alexandria. After Hall (1971: 57, No. 37).
- 48- Automatic devise to offer libation and audio effect by Hero of Alexandria. After Hall (1971: 83, No. 60).
- 49- The "Obelisk of Pharaoh" from Heliopolis as copied and used in a book on alchemy by Abu Al-Qasim Al-'Iraqi (<u>Kitab Al-Aqalim Al-Sab'ah</u> MS. Add. 25724 fol. 15a. British Library).
- 50- An Egyptian obelisk in Al-Qasim Al-^cIraqi (<u>Kitab Al-Aqalim Al-Sab^cah</u> MS. Add. 25724 fol. 2a. British Library). Here the body of the obelisk standing on a

- step base, displaying alchemical elements.
- 51- Names of the archangels Michael and Gabriel correctly written in Coptic in Abu Al-Qasim Al-^cIraqi (<u>Kitab Al-Aqalim Al-Sab^cah</u> MS. Add. 25724 fol. 11b. British Library).







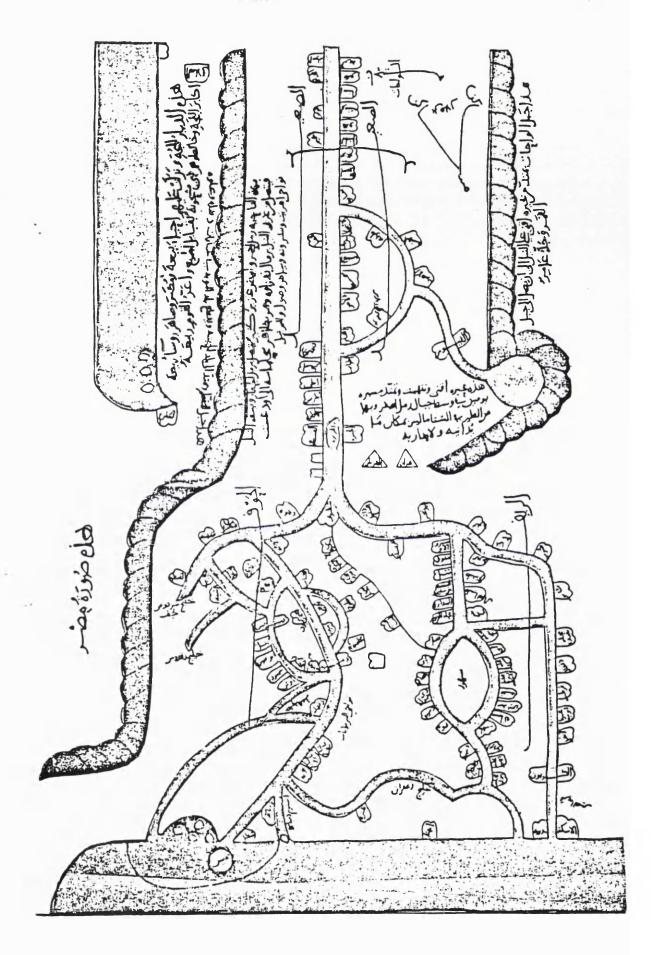
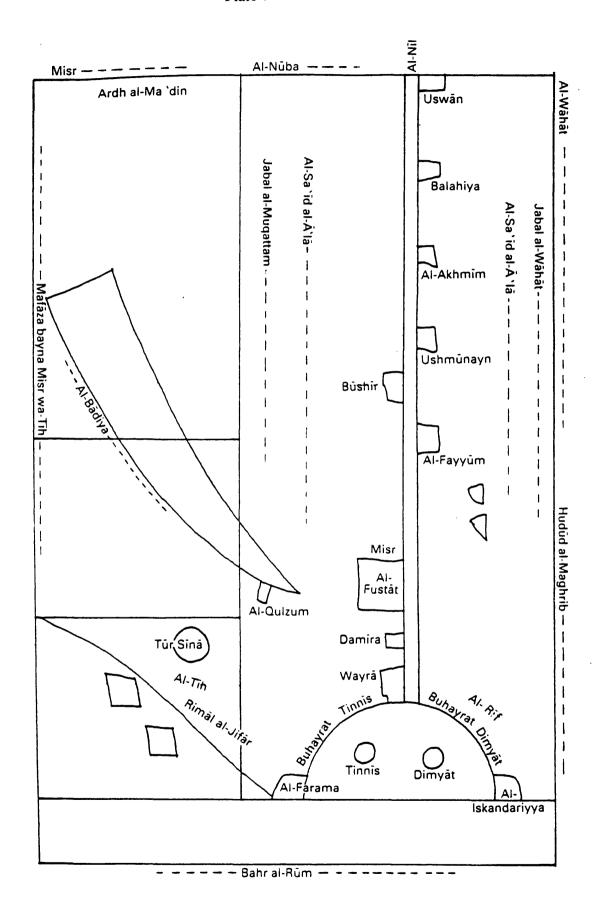
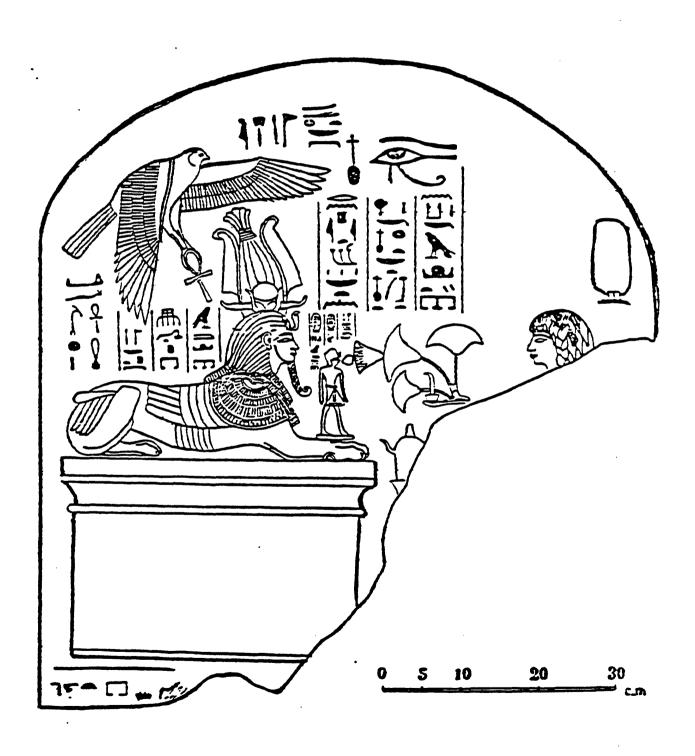


Plate 6

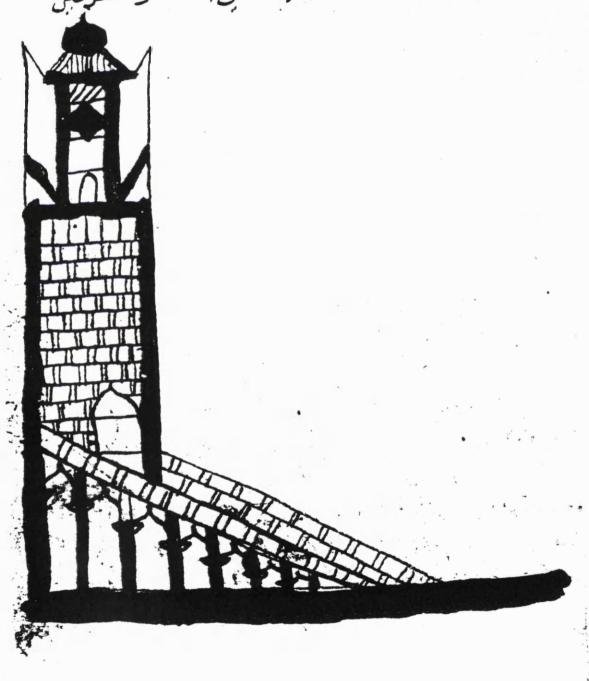


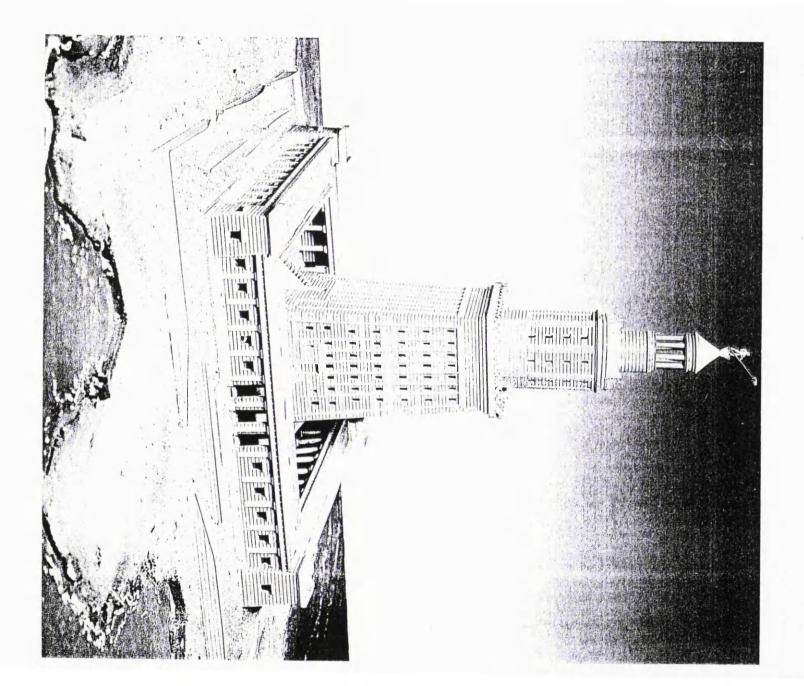




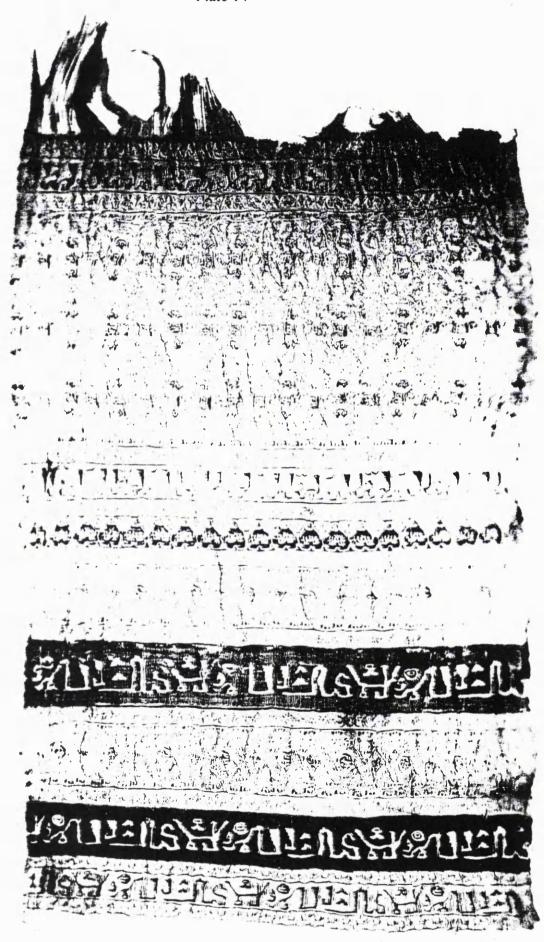


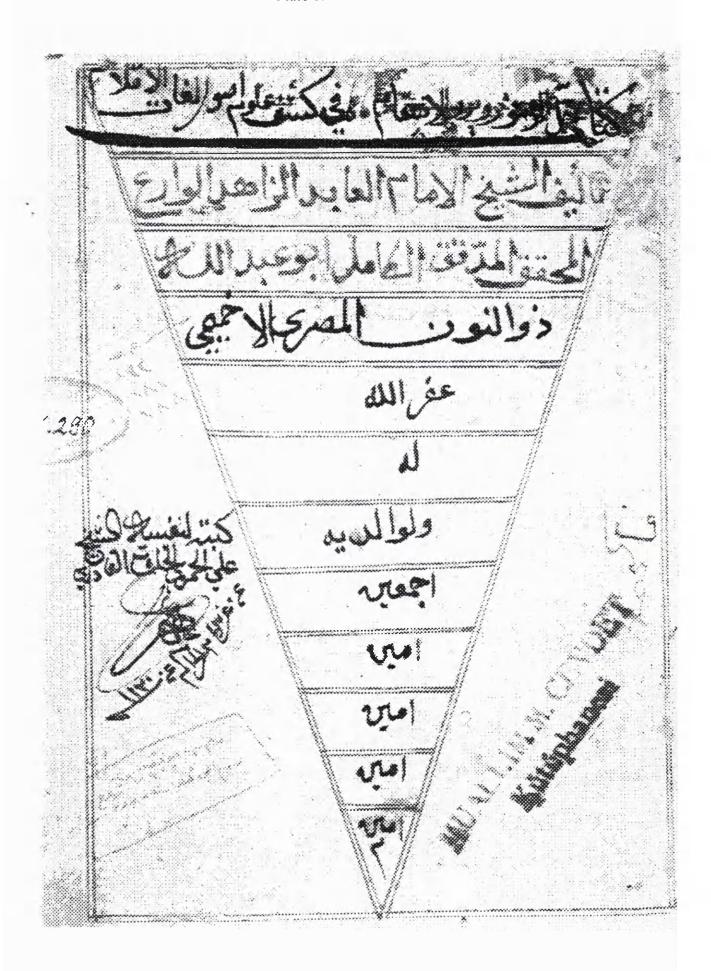
الإمرود واعد وبدهد و ده پنتبريامبعدالسبدايامبو المنور العنوي المرالا سروي العرالا المرالا المرالا الما والمنافذ المرافي فلا المرالا العد وسعبد المنافذ وا العرب صعبد المنافذ وا العرب المنافذ منادة المسكند ربدالذي بناها ذوا العرب المنافذ وا العرب المنافذ والمنافذ المنافذ المنافذ





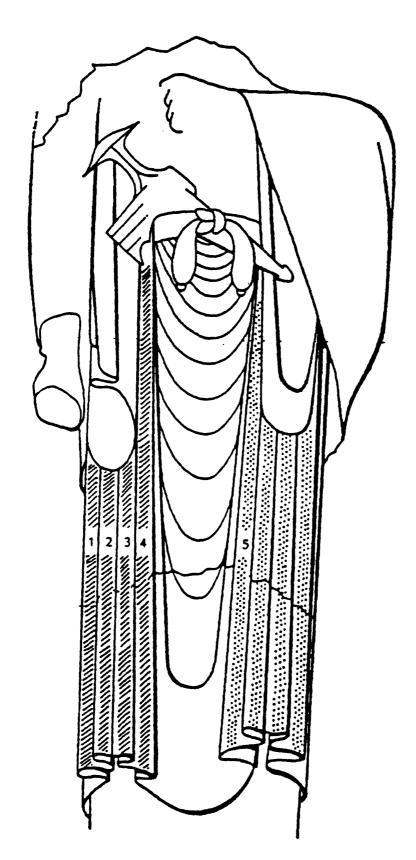
36 38 35 37 32 333 7 23 31 TICAP. HEST गगर्भाग सामंद्रा mBei Aspra THCE गारम 35 TICE HE मियार TIR SE F Air 20 Š 21



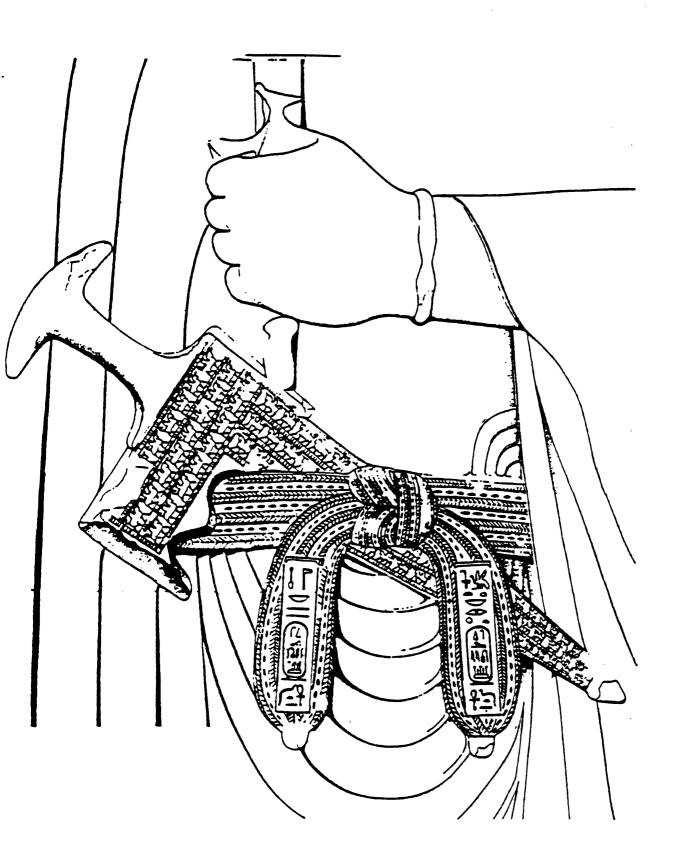






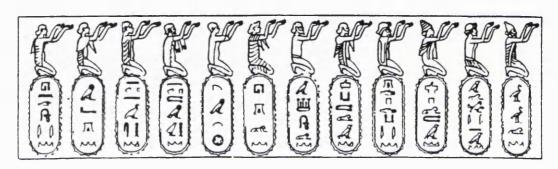


Inscriptions in four languages on the garment of the statue from Susa: (1) Akkadian, (2) Elamite, (3) Old Persian, (4) Old Persian, (5) hieroglyphs.





Representations and names of peoples subject to the Achaemenids. Relief on the base of the statue of Darius from Susa. From *Journal Asiatique* 260 (1972), Plate I.



Representations and names of peoples subject to the Achaemenids. Relief on the base of the statue of Darius from Susa.

fragmentary list, mentioned above, carved on the stelae set up by Darius along his canal linking the Nile to the Red Sea. Of great importance as a historical document, this list of subjected peoples deserves to be cited in its entirety. On the statue base, we read the following names of lands and peoples:

To the left of the king:

- (1) Persia
- (2) Media
- (3) Elam
- (4) Aria
- (5) Parthia
- (6) Bactria

- (7) Sogdia
- (8) Arachosia
- (9) Drangiana
- (10) Sattagidia
- (11) Chorasmia
- (12) Scythians from the marshes and Scythians from the plains

To the right of the king:

- (1) Babylonia
- (2) Armenia
- (3) Sardes (Lydia and adjoining regions)
- (4) Cappadocia
- (5) Scudra (Thrace)
- (6) Eshur (Syria in the Demotic language)
- (7) Hagar (northwestern Arabians in the Demotic language)
- (8) Kemi (Egypt in the Demotic language)
- (9) Land of the Tjemehu-people (Libva)
- (10) Land of the Nehesi-people (Nubia)
- (11) Maka
- (12) Hindu

وكنوزه. ويقال إن ذا النون الإخيمي (٤) إنما قدر على ما قدر عليه من علوم البربي حتى عمل الصنعة الكبيرة ، وهي الكيمياء والحوهر ، وحمل من مصر إلى بغداد في ليلة واحدة ، وغير ذلك مما كان عنده من الغرائب وخبره مشهور . فيقال إنه خدم راهبا كان بإخيم يقال له ساس مدة صباه ، فعلمه قراءة الحط الذي في البربي ، وعلمه القربان والبخور واسم الروحاني ؛ وأوصاه أن يكم ذلك . فلما علم ذوالنون ما علم من علم الكيمياء وغيرها ، عمد إلى طين الحكمة ، فطمس به صنعة الكيمياء حي لا يبلغ إليها أحد غيره ؛ وهذا الطين لا ينقطع أبدا . وهذا القلم هو المسطر في كتاب السياسة الأوسط وهو كتاب مشهور :

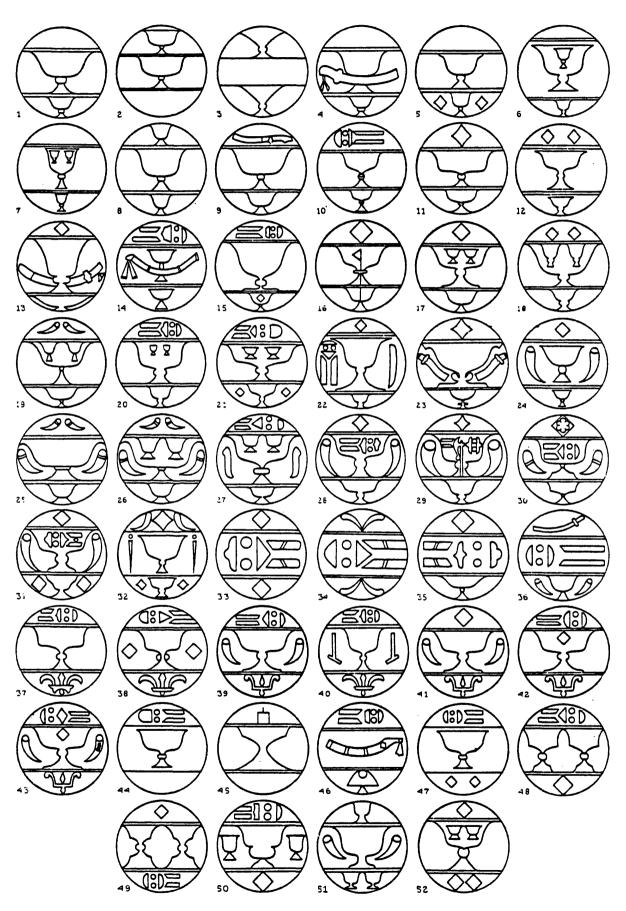
ر من ص ع غ ف ق س ش ه و لا ی (۱) ص ت ا ا هم هم و قه ه ه ه کار ×





Unrestricted Trust Funds, Smithsonian Collections

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COMPOSITE BLAZONS



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26

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	S	ندي بماد ط) <u>.</u>			
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3.5	Ü.	نشن	3	Z	312	PID	
8	7	7	au	V	S	Y	

	BROAD P	RONUNCIATION	Modern	Underlying Phonemes and
	Syllabic	Non-syllabic	NAME	ALLOPHONES 9, 20
		14011-3y11abic		
λ	а		alpha	/a/; also syllabic /'/ (or /y/)
	e L	L	5 -4-	Also as allophone of /y/ and /o/
В	eb	Ь	beta	/b/
r	*g	8	gamma	Egyptian Coptic allophone of /k/ Occurs mainly in Greco-Coptic morphs
Δ		(d)	delta	Occurs only in Greco-Coptic morphs
E	e	(4)	epsilon	/e/; under many conditions, non-phonemic
			Срэноп	Also as allophone of /a/, /y/, and /'/
z		z	zeta	Egyptian Coptic allophone of /s/, only in
				ANZHBE
				Occurs mainly in Greco-Coptic morphs
н	ē		eta	/ē/
θ		th^I	theta	/t/ + /h/ (two distinct phonemes)
ı or €ı	i	y	iota	/y/
κ	e K	y k	kappa	/k/
λ	el .	l	lambda	/1/
М	₹m	m	mu	/m/
N	^e n	n	nu	/n/
				Non-phonemic in the syllable MNT /mt/
3		ks	ksi	/k/ + /s/ (two distinct phonemes)
0	0		omicron	/0/
Π	ʻ p	P	pi	/p/
P	er	r	rho	/r/
С	°S	S	sigma	/s/
T	et	t	tau	/t/
Y or OY	и	w	upsilon	/w/
		, ,		Also as allophone of /ō/
Ф		ph ²	phi	/p/ + /h/ (two distinct phonemes)
X		kh³	khi	/k/ + /h/ (two distinct phonemes
Ψ	eps	ps	psi	/p/ + /s/ (two distinct phonemes)
ω	ō		omega	/ō/
ന	Š	Š	šai	/\$/
4	e f	f h	fai	/f/
2 2	eh	n Ya	hore(h)	/h/
×	°č	č ⁴	djandja	/č/
4	<i>p1</i> u	tš Lv	1	Also $/t/ + /\tilde{s}/$ (two distinct phonemes) ⁵
6	e ky	k."	kyima	/k ^y /
	ti	fy	ti	/t/ + /y/ (two distinct phonemes)

NOTE: Broad spoken correspondents in the table follow W. Worrell, Coptic Sounds (Ann Arbor, Michigan II SAI 1934)

Michigan [USA] 1934).

'th Two sounds, cf. Engl. "Hit him!" ²ph Two sounds, cf. Engl. "Slap him!" ³kh Two sounds, cf. English "Think hard!" ⁴Cf. Engl. 'church' ⁵Infinitive yox T'cut', stative yetywt/sotst, šetšot/, consonantal skeleton y-T-y-T

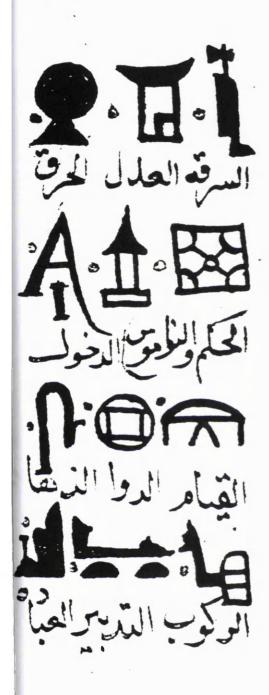






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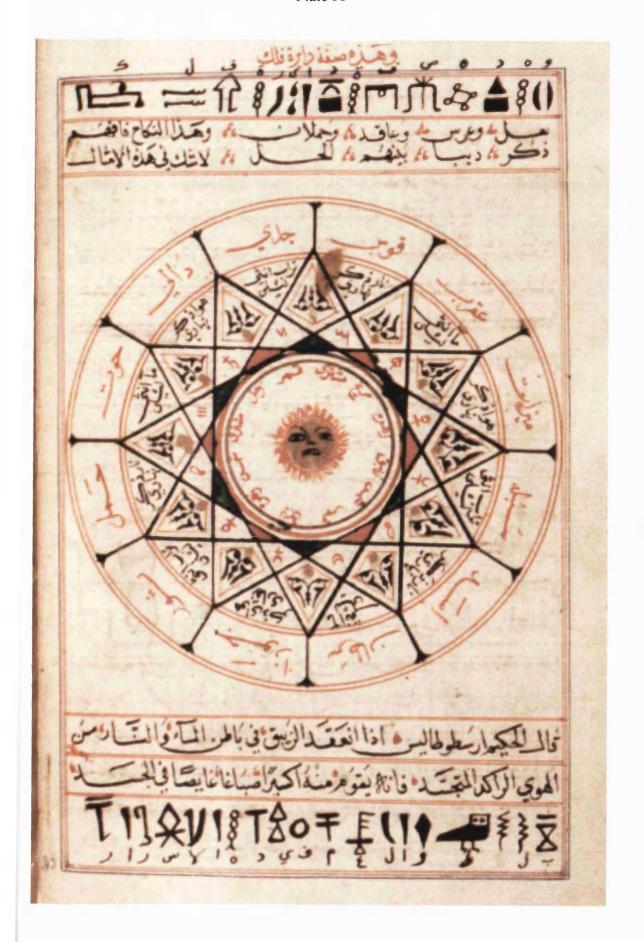
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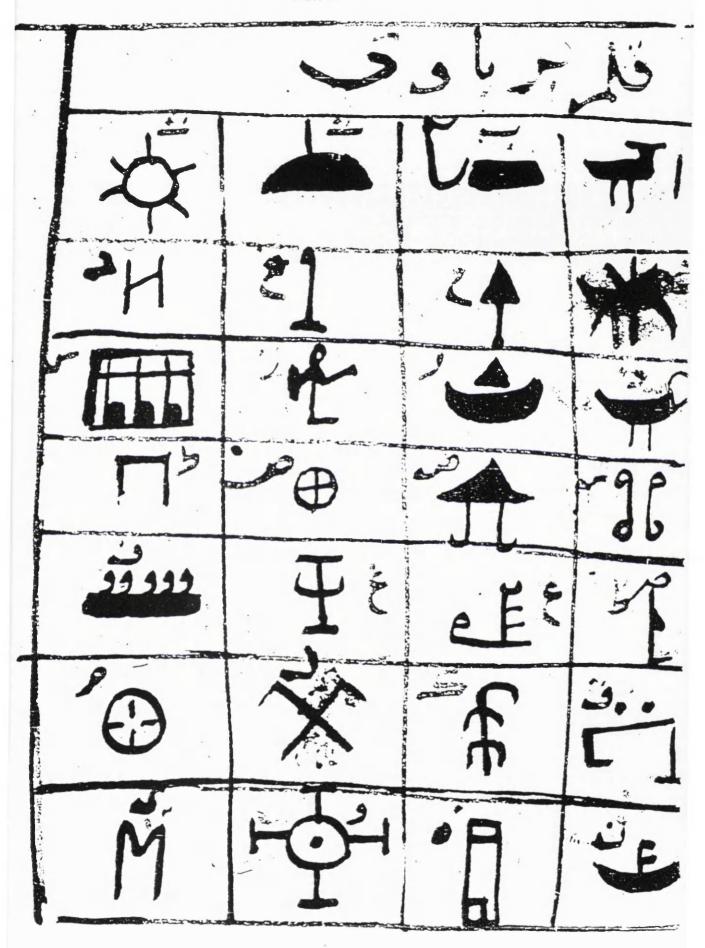














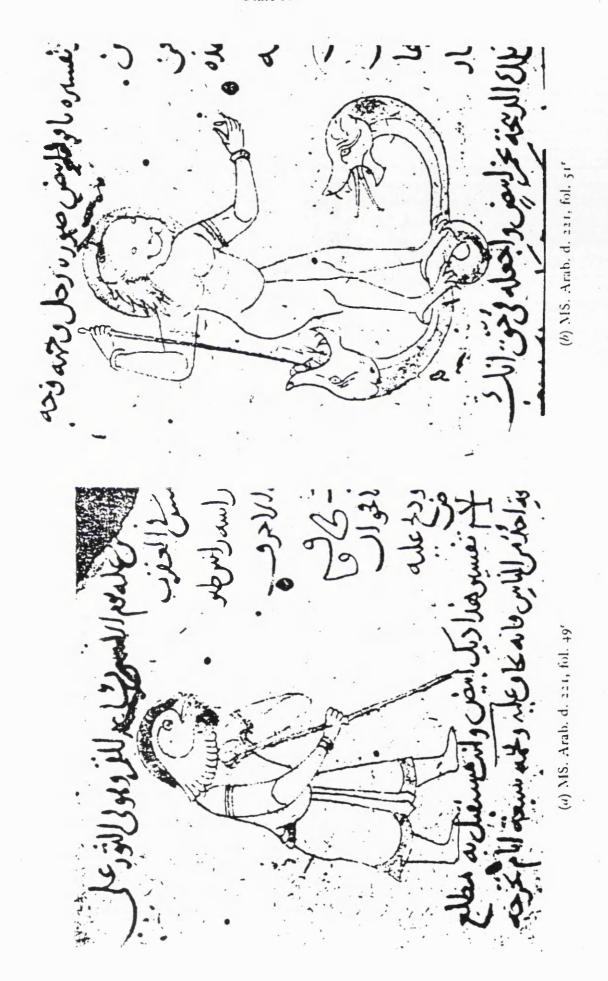


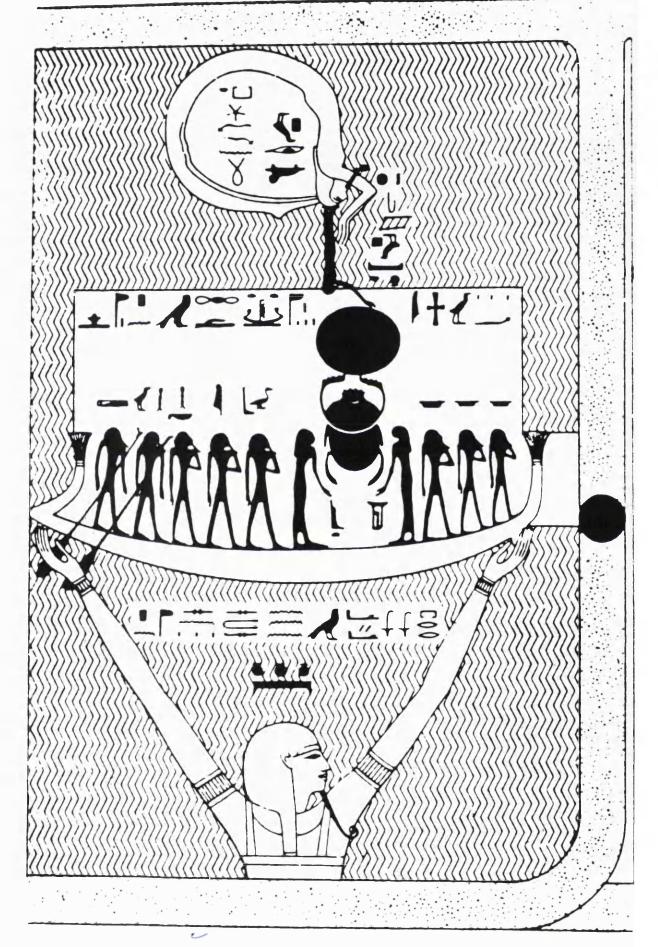
APPENDICE IV: GRAPHIES DES PRINCIPAUX SIGNES

A. SIMPLES OU COMPOSITES

I. UNILITÈRES

Usuels	Variantes
3 کی جاری کی کاری کاری کاری کاری کاری کاری کار	2, 2, 24
i 1.1.1	
$j^{\pm} \in \mathfrak{I}(\zeta, \mathbb{R})$	-AU
41,5	(),), 2, 5, 7
w 1,5	ر برا ۱٬۲۰۱ از در ۲٬۲۰۱ از ۱٬۲۰۱ از ۱٬۱۰۱ از ۱٬۰۱۰ از ۱٬۰۱ از ۱٬۰۱۰ از ۱٬۰۱ از ۱٬۰۱۰ از ۱٬۰۱ از ۱٬۰ از ۱٬۰۱ از ۱٬۰ از ۱٬۰ از ۱٬۰ از
b 1L,4	, , , , , , , , , , , , , , , , , , ,
P 2,1,4	2-, 上, 上, 上, 从, 五
f y, x	7,7.1,7,1
m 3,)	رر مرید, کر کی ہی ہی ہے ، کر ہی ہی ہے ، کر ہی ہی ہے ، کر ہی
n, _>	0, 2, 0, 0, 2, 2, 2, 2, 3, 3, 3
7,7,3,4,-	2,2,18,2,2,1,1,2,2,1,1
h 5	7,7,5,0,0,0
h 2,7,1	
<i>"</i>	7,7,7, 1,9,9,7,5,1, 0,2,7,3,4, 2,2,1,4,1,5,1,5,1,5,2
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<i>i</i> λ,3, Ψ	ス,ユ,ゥ, w, w,シ,ګ, ?, ₹, ã, , , ら
<i>l</i> -	۵,۵,۵,۳,۵,۵,۵,۵,۵,۵,۵,۵,۵,۵,۵,۵,۵,۵,۵,۵
k \(\subseteq \). \(\subseteq \)	£, £, ~ . z
k 5-,14,2	رحد ما رام رام رام رحم المعارسة رسد رسد رسد رسد رسد
	الد. ١٠٠ . ت
8 ~	رسكارسكنا وسنبطؤ سنبطأ ويجسا وسنباء يسبك وسناته والمنها
	こここれ、た、た、は、さ、さ、
1 4,4	المالية والمعروب والم
	٠,٠٠,٠,٥,٥,٥,٥,٥,٥,٥
! 2,√ d ⊥,1⊥	至,至,年, 壬, 壬,至,元, 2, 24 十, 2, 3, 15, 6, 8
<u>a</u> , 1	₩, J, J, J, J, B







The sun child encircled by the never-ending ouroboros, carried by the celestial cow and the lions of the horizon. Papyrus of Herweben.



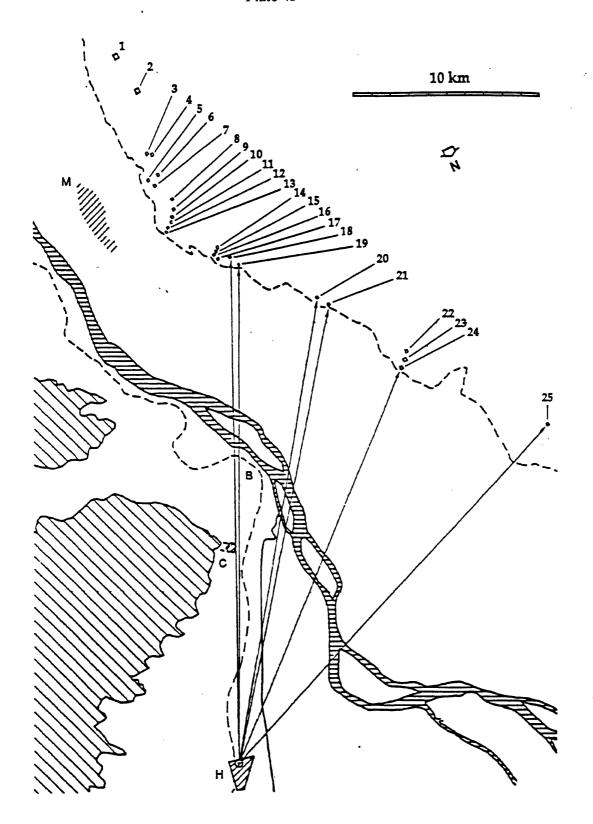
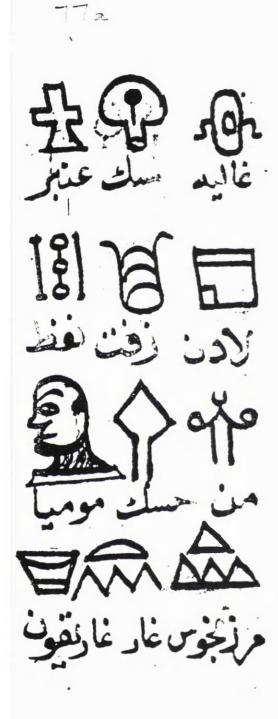


Fig. 3 The Memphite Royal Burial Field (Dahshur to Abu Rawash) as Viewed from Heliopolis. Broad hatching indicates ground over 100 m above sea level; broken line indicates present limit of floodplain. Key: Dahshur: 1 Snefru/Bent Pyramid, 2 Snefru/Red Pyramid; South Saqqara: 3 Shepseskaf (mastabat fara'un), 4 Pepi II, 5 Djedkare Isesi (haram al-shawwaf), 6 Merenre, 7 Pepi I, 8 Sekhemkhet; North Saqqara: 9 Unis, 10 Netjerikhet Zoser (haram al-mudarrag), 11 Userkaf, 12 Teti, 13 Menkauhor or Merikare? (haram ghayr tartur); Abusir: 14 Raneferef, 15 Neferirkare, 16 Niuserre, 17 Sahure, 18 Userkaf sun temple; Abu Ghurab: 19 Niuserre sun temple; Zawyet Aryan: 20 Kha'ba (haram al-mudawwara), 21 (?) (?Dyn. IV); Giza: 22 Menkaure, 23 Khafre, 24 Khufu; Abu Rawash: 25 Djedefre. M Memphis ruin field; B Babylon/Batn al-Baqara; C Cairo citadel; H Heliopolis.



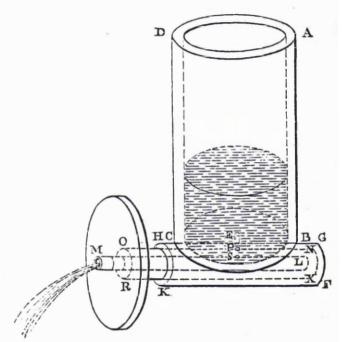


31. A Wheel in a Temple, which, on being turned, liberates purifying Water.

N the porticoes of Egyptian temples revolving wheels of bronze are placed for those who enter to turn round,

from an opinion that bronze purifies. There are also ves-

sels of lustral water, from which the worshippers may sprinkle themselves. Let it then be required so to construct a wheel that, on turning it round, water shall flow from it to sprinkle the worshippers as we have described. Behind the entrance-pillar let a vessel of water, ABCD (fig 31), be concealed, having a hole, E, perforated in its base. Under-



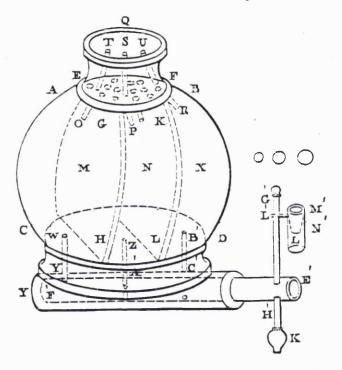
neath the base let a small tube, FGHK, be fastened, having also a hole bored opposite the orifice in the base, and within this place another

32. A Vessel containing different Wines, any one of which may be liberated by placing a certain Weight in a Cup.

F several kinds of wine be poured into a vessel by its mouth, any one of them at choice may be drawn

out through the same pipe: so that, if several persons

have poured in the several wines, each one may receive his own according to the proportion poured in by him. Let ABCD (fig 32), be an air-tight vessel, the neck of which is closed by a partition, EF; and let the whole vessel be divided into as many compartments as we intend there shall be different kinds of wine. Suppose, for instance, that GH,



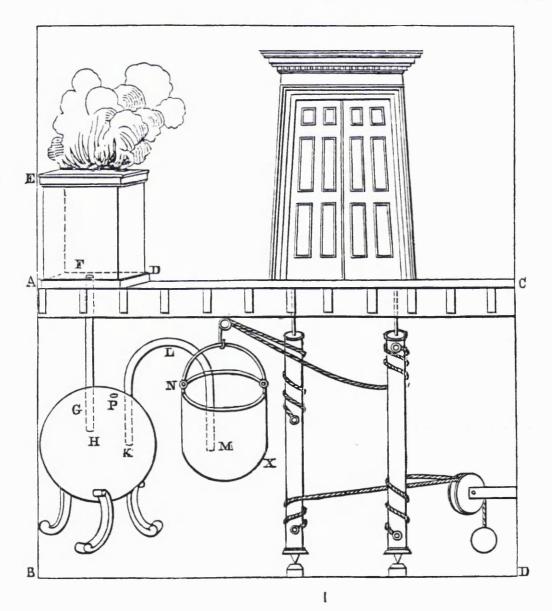
K L, are the partitions, making three compartments, M, N, and X, into which the wine will be poured. In the partition E F pierce small holes, one in each compartment, o, P, R; and from these holes let small tubes, P s, O T, R U, communicating with the vessel, extend up into the neck.

HERO OF ALEXANDRIA.

37. Temple Doors opened by Fire on an Altar.

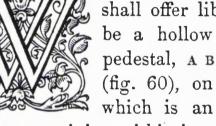
HE construction of a small temple such that, on lighting a fire, the doors shall open spontaneously, and shut again when the fire is extinguished. Let the proposed temple stand on a pedestal, ABCD (fig. 37), on which lies a small altar, ED. Through the altar insert a tube, FG, of which the mouth F is within the

altar, and the mouth G is contained in a globe, H, reaching nearly to its



60. Libations poured on an Altar, and a Serpent made to hiss, by the Action of Fire.

HEN a fire is kindled on an altar, figures placed near shall offer libations, and a serpent hiss. Let there



altar, c, containing within it a tube, D E, which descends from the hearth of the altar to the pedestal, and then branches off into three tubes, E F leading to the mouth of the serpent; E G H to a wine vessel K L, (the

bottom of which must be higher than the figure M,) and fastened to the lid of K L cross-bar fashion; while the other tube E N X, in like manner, extends into an-

