

Cairo

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CAIRO

Ibn Khaldun visited Cairo in 1382 and he wrote the following about the city,

‘I spent a month in Alexandria preparing my departure for Mecca. As fate did not agree with my plans, I left, instead, for Cairo, on the first month of Du’l Qada (784AH/1382CE).

Cairo is a the world metropolis, the garden of the universe, a place of meeting of all nations, crammed with people, a high centre of Islam, a centre of power. Palaces in great numbers rise; everywhere flourish madrasas and hostels; just like shining stars, scholars shine. The city spreads on the sides of the Nile, river of paradise, gathering the waters that have poured down the sky, a great stream of water to quench the thirst of humans, and to grant them abundance and prosperity. I have crossed its streets: crowds fill them, the markets are crammed with all sorts of goods.

How many times has been praised this capital that has risen to a high degree of prosperity and civilisation. I have collected about it many impressions, some from my masters, others from friends, pilgrims and traders. Here, first, is what my friend Al-Maqqari, Grand Qadi of Fes, great scholar of the Maghrib, on his returns from pilgrimage in the year 740 (AH) told me:

‘Whomsoever has not seen Cairo will never appreciate the degree of power and glory of Islam.’

Here is the account of my friend Abu al-Qasim al-Barji, the qadi of the armed forces of Fes, a faqih and a secretary. Returning from an embassy to the kings of Egypt after having transmitted the message of the Sultan on the Prophet’s grave, he presented himself in 756 to the council of Abu Inan (the Merinid Sultan). Answering the Sultan who had asked him about Cairo, he said the following: ‘To express my impression in the fewest words, I will say this: what man imagines is always greater than what he sees, because imagination surpasses the real. To this one exception: Cairo; this city surpasses everything that can be imagined and with regard to everything.’¹

This is one eulogy of the Egyptian capital. Cairo, in fact, was the only centre of Islam that remained safe from invasions until 1798 (when the French invaded) and because it had been free for centuries, it endured as the main centre of Islamic scholarship. Cairo and the rest of Egypt also played a central and even decisive role in the history of Islam due to their Mamluk dynasty, which, in the middle of the 13th century, saved the land of Islam from total annihilation as a result of the combined Crusader-Armenian and Mongol onslaught. It did this after all other great centres of Islam (Baghdad, Aleppo, Damascus etc...) had been annihilated. Their populations, in their hundreds of thousands and millions had been slaughtered. To show these crucial roles, at both levels of culture and history, an outline of Islamic history for this period, however brief, is necessary. An outline is also necessary because hardly any Muslims know the crucial role played by Cairo and its Mamluk dynasty. This outline is all the more necessary because Western history in particular, has nearly always dwelt on the negative images of Islam and covered up the religion’s greatest achievements. It is incumbent on Muslims to dig up these hidden treasures and one of the key aspects of Muslim history that should be attended to is the fundamental and, crucial role played by Cairo in the 13th

¹ Translation from Arabic into French by A. Cheddadi of the autobiography of Ibn Khaldun: *Le Voyage d’Occident et d’Orient*; Paris; Sindbad; 1980; pp. 148-9.

century. This capital of the Mamluks, through courage, military skills and strong Islamic faith, fought and saved Muslims from complete extermination.

1. Cairo and the Mamluk dynasty

In Western history, with maybe a handful of exceptions, the heroes of Islamic history are the Fatimids and the villains of Islamic history, attracting the invective and even insults of Western historians of Islam, are the Mamluks. Thus, with regard to the praise of the Fatimids (just as for the Savafids, who in the 16th century attacked the Ottomans from the rear and so saved Europe), there are several examples in so many Western books that one is spoilt for choice. Here is a brief instance from Wiet et al:

‘The Fatimid caliphs of Cairo, lived in magnificent luxury, and writers have written in ecstatic terms about their palaces. Carved wooden panels from these palaces are fortunately still in existence; they are convincing proof of an art which was sure of its techniques, and evinced a true concern for realistic presentation. This justly famous work in wood presents, in cusped medallions which are found all around the Mediterranean, a series of scenes originally juxtaposed, depicting hunting, music sessions, dancing, and drinking. The artists from whose imagination they sprang have retained their feeling for balance and systematic disposition. Certain medallions even show groups of animals facing each other, some in postures of gracious repose, but for the most part in well delineated action. (Pl.44b).’²

Western history, fiction and literature deliver praise on whomever amongst the ‘Muslims’ caused the worst woes upon Islam: the Fatimids, The Reyes of Taifas of Spain, the Savafids, Timur the Lame and countless more traitors to their faith and people. In contrast, Western culture has developed an overwhelmingly ferocious depiction of the Seljuks, Almoravids, Almohads, Ottomans, Mamluks and their mighty figures such as Yusuf Ibn Tashfin, Baybars, etc... To try and reproduce the derogative, insulting, hostile writing towards these dynasties and figures requires as large a work as would be required to reproduce Western writers’ attacks on Islam, its Prophet, its culture and society. It would be hard for Muslims to understand the nature and energy of these attacks for it would not enter the mind of a Muslim scholar to devote his life to attacking Christianity or Christians or their society even if angered with the surrounding political situation, history and above all at the treatment of matters relating to Islam in Western media and scholarship. It would be counter productive to do so as Islam respects Christianity as a religion based on divine revelation even if there is criticism of some areas. It is only in regards to this last point about hostile Western scholarship, that the Muslim scholar is obliged to respond. As scholars, regardless of competence, our aim and duty is not to increase prejudice but instead to fight it.

Whilst bearing in mind the need to fight hostile, distorted depictions of Islam and its history, one also needs to keep things within limits of size, and thus, to keep the following as brief as possible and then return to the initial point made above.

Hence, whilst praise for the counterproductive forces of Islam is abundant, equally plentiful are the onslaught on those deemed dark forces of Islam. A brief glimpse is offered by Ashtor, whose scorn for

²G. Wiet; P. Wolff; and J. Naudu: *History of Mankind: Vol III: The Great Medieval Civilisations*; Tr from the French; UNESCO; first published 1975. p.790.

Seljuk and Mamluk (as for the Prophet and his companions) is limitless.³ Thus Ashtor, supposedly informing the public and scholarship on the problems of Muslim civilisation, devotes the largest part of his work savaging the Seljuk (chapter VI p. 209 fwd), accusing them of debauchery, drunkenness, incompetence, tyranny and the cause of the ruin and famines of the Muslim world (see entry on Mosul). Then, he turns his attention to the Mamluks (p.280 fwd) and his vindictive words against them is boundless. He writes, *'the foreign slaves who had become the lords of Egypt and Syria did their utmost to enrich themselves as soon as possible'* (p.283); *'incapable of building a bridge over a river'* (p.309); who *'employed every method of extortion of their subjects'* (p.320); causing *'the bitterness of the townspeople, who suffered from oppression by a foreign soldiery and the extortions of a corrupt bureaucracy'* (p.322); that their incompetence and failure contrasts with *'the daring and the ability of the Portuguese'* (p.330); and to his last paragraph, blaming the whole decadence of Muslim civilisation on the *'rapacious military'* (the Mamluks) (p.331).⁴

Of course, if one looks at the few works on the Mamluks, for instance on their construction skills which was so much derided by Ashtor, one will find the complete reverse of what Ashtor and the near totality of Western historians report.⁵

And the reason why Ashtor, just like many a biased historian detests the Seljuks and Mamluks is simple. It is the Seljuk who stood against the crusaders when the latter began killing the Muslims in their millions from 1096 until the middle of the 12th century.⁶ And it is the Mamluks who saved the Muslim world from the combined attempt by the Mongols and crusaders to exterminate the Muslims in the 1250s-1260s and who eventually expelled the crusaders from the Muslim East in 1291.⁷

The same hate is evidently directed at the Almoravids and Almohads who saved Muslim Spain and North Africa,⁸ and the Ottomans who fought thousands of battles on behalf of Islam between the 13th century and First World War (1914-1918).⁹

To show that crucial role played by Cairo and its Mamluk dynasty it is necessary to explain the contrast between Fatimid rule and that of the Mamluks as briefly as possible.

It is the Fatimids who put an end to the mighty Aghlabids of Tunisia (9th century) which built the greatest civilisation of North Africa to this day. The Aghlabid capital Al-Qayrawan was, between the 8th century and its ruin in the 11th century by the Banu Hillal, the great Muslim military and cultural centre of North Africa.¹⁰ It is the Aghlabids who conquered and kept Sicily and the Mediterranean Islands for Islam. It is the

³ E. Ashtor: *A Social and Economic History of the Near East in the Middle Ages*; Collins; London; 1976.

⁴ E. Ashtor: *A Social and Economic History*. pp. 209-331.

⁵ Esin Atil: *Renaissance of Islam: Art of the Mamluks*; 1981. Or E. Atil: Mamluk art; in *Dictionary of Middle Ages*; J.R. Strayer Editor in Chief; Charles Scribner's Sons; New York; 1982 fwd; vol 8.

⁶ See, for instance: W.B. Stevenson: *The Crusaders in the East*; Cambridge University Press; 1907.

G.W. Cox: *The Crusades*; Longman; London; 1874.

S. Runciman: *A History of the Crusades*; Cambridge University Press; 1951 fwd.

⁷ See, for instance:

Baron G. D'Ohsson: *Histoire des Mongols*, in four volumes; Les Freres Van Cleef; la Haye and Amsterdam; 1834.

U. and M.C. Lyons: *Ayyubids, Mamluks and Crusaders*, selection from the *Tarikh al-Duwal wal Muluk of Ibn al-Furat*; 2 vols, W. Heffer and Sons Ltd, Cambridge, 1971.

⁸ J. Read: *The Moors in Spain and Portugal*; Faber and Faber, London, 1974.

⁹ A.C. Hess: *The Forgotten Frontier*; The University of Chicago Press, Chicago and London, 1978.

¹⁰ S. Denoix and J.C. Garcin: introduction; in J.C. Garcin editor: *Grandes Villes Meditteraneenes du Monde Musulman*

Fatimids who destroyed not just this dynasty, and not just Tunisia, but the whole of the Maghrib by unleashing the Banu Hillal and the Banu Temim on the Maghrib, an invasion the Maghrib never recovered from. 'I give you,' said the Fatimid Caliph to the Banu Hilal tribes, 'the Maghrib with all its riches.' And to enhance his woe, he gave each warrior who crossed the western frontier of Egypt a dinar and a cloth of honour.¹¹ This, Saladin reckons, simply meant ruin and devastation of Ifriqiya.¹²

During the crusades (1095-1291), Iftikhar ad-Daula (The pride of the Nation) who held Jerusalem for the Fatimids, was allowed to leave the city with his entourage and conduct under safe crusader conduct.¹³ The Muslim population on the other hand was massacred. The crusaders slaughtered more than 70,000 Muslims,¹⁴ in a bloodbath where:

*'the brains of young children were dashed out against the walls; infants were thrown over the battlements; every woman that could be seized was violated; men were roasted at fires; some were ripped open, to see if they had swallowed gold; the Jews were driven into their synagogue, and there burnt; a massacre of nearly 70, 000 persons took place; and the pope's legate was seen partaking in the triumph.'*¹⁵

The Fatimids indulged in luxury and a love of gold. The contemporary Christian envoys, who went to build alliance with the Fatimids against Nur Eddin Zangi and Salah Eddin al-Ayyubi, were bewildered by the sight of luxurious display in the Great Palace of the Fatimids in Cairo; the inner part of the palace is described here by William of Tyre (1130-90),

*'curtains embroidered with pearls and gold, which hung down and hid the throne, were drawn aside with marvellous rapidity, and the caliph was revealed with face unveiled. Seated on a throne of gold, surrounded by his privy counsellors and eunuchs.'*¹⁶

Durant says:

*When Salah Eddin entered the Fatimid caliph palace in Cairo, he found there, with the exception of male relatives of the Fatimid Caliph, a harem of 12 000 women, and such wealth of jewellery, furniture, ivory, porcelain, glass and other objects of art as could hardly be rivalled by any other dignitary of that era.'*¹⁷

Medieval; Ecole Francaise de Rome; 2000. p. 2.

¹¹H. Saladin: *Tunis et Kairouan*; Librairie Renouard; Paris; 1908. p. 106.

¹² H. Saladin: *Tunis et kairouan*; p. 107.

¹³ B. Z. Kedar: The Subjected Muslims of the Frankish Levant, in *Muslims under Latin Rule, 1100-1300*, ed J.M. Powell, Princeton University Press, 1990, pp 135-174, p.143. On the dumping of corpses, see e.g., *Gesta Francorum et aliorum Hierosolimitanorum*, ed. K. Mynors, trans. R.Hill (London, 1962), p.92.

¹⁴Ibn al-Athir: *Kitab al-kamil*; ed K.J. Tornberg; 12 vols; Leiden; 1851-72. X, pp.193-95.

¹⁵J.W. Draper: *A History of the Intellectual Development of Europe*; Vol I; Revised edition; George Bell and Sons, London, 1875.

¹⁶William of Tyre: *A History of the Deeds done beyond the sea*; tr. E. Babcock and A.C. Krey; 2 vols; Columbia; 1941; ii; 319-21.

¹⁷ W. Durant: *The Age of faith*, op cit; p.311.

On top of everything the Fatimids also made alliances with the crusaders against Nur Eddin Zangi¹⁸ and Salah Eddin al-Ayyubi and conspired to have a Norman Christian land in Egypt to re-occupy it after Salah Eddin had liberated it.

The Mamluks, on the other hand, are the people who saved Muslims from extinction. In the 1250s, following the agreement reached by the Christians and the Mongols, a massive combined onslaught was launched on the Muslims.¹⁹ Baghdad had its population of one million slaughtered.²⁰ The Syrian towns and cities suffered the same fate. On 20th January 1260, the Mongols took Aleppo by assault. One hundred thousand young women and children were taken as slaves, the remainder of the inhabitants were systematically exterminated.²¹ Likewise the fate of Damascus, where the Muslim population was forced to bow to the cross when the conquering forces of crusaders, Armenians and Mongols entered the city in 1260.²² At the same time in, Muslim Spain, Cordova (1236), Valencia (1238), Seville (1248) etc... were lost. Of all the great Islamic centres only Cairo remained in Muslim hands. Should Cairo fall, it would be the end of Islamic power and it would lead to the final extermination of Muslims as had happened elsewhere. The Crusaders and Mongols were in agreement to do away with it. A Mongol embassy of forty people was sent by Hulagu to Cairo, with a letter²³ which announces that `God had raised the house of Genghis Khan, and that whomsoever resisted has been wiped out. The glory of our armies was invincible. If you do not submit, and did not bring tribute in person to my camp, prepare for war.'²⁴ However Cairo was in the hands of the Mamluks and they responded to Hulagu's ultimatum by preparing for war. They began by decapitating Hulagu's envoys. And then, at the meeting of the leadership, which included Quttuz (the Mamluk leader), Baybars, the Turkish general Nassir ud Din as well as the princes of Irbil and Acca, they decided to go to war. Quttuz then declared, `Well then, we will go to war; victorious or losers, we would have done our duty, and the Muslim nation will not call us cowards.'²⁵

At the decisive battle of Ain Jalut of 3rd September 1260, the Mamluks destroyed Mongol power. They had the Mongol general Kitbuqa slain. One of Kitbuqa's lieutenants gathered the remnants of the Mongol army and fled north to Armenian territory, where he was received and soon re-equipped for further campaigns.²⁶ So angry was he when he heard the news of the defeat, (which reached him in Tabriz, Iran) that Hulagu had the Ayyubid sultan who was under his guard decapitated with all members of his entourage.

Then the Mamluks of Egypt, led by Baybars (d. 1277) freed the whole of the Holy land from the Crusaders with al-Ashraf Khalil capturing the last Crusader stronghold of Acre, in May 1291.²⁷ The Mamluks also defeated the Crusaders' Armenian allies, who had played a central role in the massacres of Baghdad.²⁸ And then, until the 14th century they fought the Mongols, who had established themselves in Iran, until they defeated

¹⁸ G.W. Cox: *The Crusades*; op cit; p. 97.

¹⁹ See Entry on Baghdad for detail of such Christian-Mongol plot to annihilate Islam; see also: J.J. Saunders: *The History of the Mongol Conquests*; Routledge & Kegan Paul; London; 1971.

²⁰ Ibn al-Athir, *Chronicon, quod perfectissimum inscribitur*, ed. K.J. Tornberg [12 vols; Leiden, 1851-76], XII, pp. 233-5. See also: Sir Thomas W. Arnold: Muslim Civilisation during the Abbasid Period In *The Cambridge Medieval History*, Cambridge University Press, Vol IV: Edited by J. R. Tanner, op cit; pp 274-298. at p.279.

²¹ John Glubb: *A Short History of the Arab Peoples*; Hodder and Stoughton, 1969. p. 207.

²² J. J. Saunders: *A History of Medieval Islam*; Routledge; London; 1965. p. 182.

²³ Baron G. d'Ohsson: *Histoire des Mongols*; op cit; vol 3; Note 2; p. 332.

²⁴ Baron G. d'Ohsson: *Histoire des Mongols*; op cit; p. 332.

²⁵ Baron G. d'Ohsson: *Histoire des Mongols*; p. 332.

²⁶ J. Richard: *The Crusades c. 1071-c. 1291*; Cambridge University Press; Trans from the French; 1999. p. 415.

²⁷ J.H. Lamonte: *crusade*; op cit; p.195.

²⁸ Yves Courbage, Paul Fargues: *Chretiens et Juifs dans l'Islam Arabe et Turc*, Payot, Paris, 1997. p.101.

them²⁹ hence saving the land of Islam from its main scourges: Crusaders, Armenians and Mongols. Thus, one fully understands Western history's rabid hostility towards the Mamluks; just as Lyber correctly holds, the Mamluks have never been forgiven for having expelled Western Christians from the Holy Land in 1291.³⁰

Cairo was not just the capital and the home of the greatest of all the Muslim dynasties, but it was also a great city of arts, industry, and scholarship.

2. Cairo: A Great Centre of Arts, Crafts and Scholarly Institutions

Life in Cairo in medieval times was similar to the high standards of Baghdad, Damascus, Cordova and Aleppo; the streets of Muslim cities as well as the larger towns were paved with stones and were cleaned, policed, and illuminated at night; water was brought to the public squares and to many of the houses by conduits.³¹ The tooled leather work, the work in metal, glass-making and silk weaving, the tile and ceramic creations, the illuminated manuscripts and the wrought jewels made in these Islamic centres were found markets all over Asia and Europe.³² Just like other great Islamic cities of the Near East, North Africa and Spain, Cairo was supported by an elaborate agricultural system that included extensive irrigation and an expert knowledge of agricultural methods, the most advanced in the world; thanks to this thriving agriculture, the farmers were able to support huge urban populations.³³

Egypt continued to produce vessels of all qualities, particularly at Al-Fustat in old Cairo, where excavations yielded immense quantities of glass, ranging in date from the eighth century to the later Middle Ages.³⁴ Some of the most sophisticated Egyptian glass vessels were decorated with luster, a shiny, sometimes metallic effect, achieved by painting copper or silver oxide on the surface of the object, then firing it at a temperature of about 600°C (1112°F).³⁵ Mamluk gilt and enamelled glass had a peculiar status: it was a labour intensive luxury product using expensive materials.³⁶ There is strong archaeological evidence that Mamluk enamelled glass were exported to the northern shores of the Black Sea, from where they subsequently make their way up to Kiev (in today's Ukraine) then to Belorussia and Lithuania and then into Muscovy.³⁷ Mamluk glass was also found in Scandinavia, the Hanseatic ports, and Maastricht in Holland.³⁸ In the light of archaeological evidence, it is now possible to speak of Mamluk glass as a significant item in fourteenth century northern European trade.³⁹

²⁹ J.H. Lamonte: crusade; op cit; p.195.

³⁰ A.H. Lyber: The Ottoman Turks and the routes of Oriental trade; *The English Historical Review*: Vol XXX (1915) pp 577-588; p.579.

³¹ F.B. Artz: *The Mind of the Middle Ages*; Third edition revised; The University of Chicago Press, 1980; pp 149-50.

³² F.B. Artz: *The mind*.

³³ F.B. Artz: *The Mind*; op cit; pp 149-50.

³⁴ D. Whitehouse: Glass in *Dictionary of the Middle Ages*; J.R. Strayer Editor in Chief; Charles Scribner's Sons, N. York; pp. 545-8:

³⁵ D.Whitehouse: Glass; pp. 545-8:

³⁶ J.M. Rogers: Further thoughts on Mamluk enamelled glass, in *The Cairo Heritage*; Edited by D. Behrens Abuseif; The American University in Cairo Press; Cairo; 2000; pp. 275-90; at p. 276.

³⁷ J.M. Rogers: Further thoughts; p 279.

³⁸ See E. Baumgartner and I. Krueger (eds) exhibition catalogue, Historisches Museum Basel: *Phoenix aus Sand und Asche. Glas des Mittelalters*; Munich; 1989; No 70.

³⁹ J.M. Rogers: Further thoughts; op cit; p 277.

As in all civilizations, pottery was widely used for cooking, lighting, washing, etc... In the bazaar in Cairo, according to the 11th century traveller Nasir Khusraw, grocers, druggists and ironmongers provided the glasses, the faience vessels and the paper to hold or wrap what they sold.⁴⁰ It was a custom that persisted.

*'Daily,' a fifteenth-century Arab historian informs us, 'there is thrown on to the refuse heaps and waste piles waste to a value of some thousand dinars - the discarded remains of the red-baked clay in which milk-sellers put their milk, cheese-sellers their cheese, and the poor the rations they eat on the spot in the cook-shops.'*⁴¹

Mamluk textiles and rugs were in great demand in the West. Striped and ogival silks woven with metallic threads were sewn into ecclesiastical vestments. Wool carpets with geometric designs, which appeared at the end of the fifteenth century, are among the oldest extant rugs.⁴²

One of the greatest achievements of Mamluk Egypt and Cairo was in the artistic field. Atil notes that the Mamluks, who ruled Egypt and Syria between 1250 and 1517, were formidable warriors renowned for their patronage of the arts. They erected hundreds of religious and secular edifices in Cairo as well as in the provinces. They employed traditional plans, such as hypostyle mosques, four-Iwan madrasas, and square mausoleums. The buildings were lavishly decorated with carved stone, stucco, and marble mosaics and panels, but the most outstanding features of Mamluk architecture are the soaring tiered minarets, the massive carved domes and entrance portals, and the marble mihrabs.⁴³ The elaborate floral and geometric patterns of the carved stone-work give these structures their distinctly Mamluk character. Patrons gifted their religious establishments with magnificent Qur'ans with exquisite calligraphy and dazzling illuminations. They were either in single volumes or two volumes or thirty-volume sets and bound in leather and had stamped, tooled and filigreed decorations.⁴⁴ Illustrations in literary and scientific manuscripts were based on earlier traditions, whereas those in manuals on horsemanship, which were unique to the Mamluks, had original, though simple, compositions.⁴⁵ Brass bowls, basins, ewers, trays and pen boxes inlaid with silver, gold and copper are among the most celebrated works of Mamluk art. Artists created remarkable mosque lamps, bottles, bowls and goblets.⁴⁶ The products of this Mamluk renaissance continued to influence Islamic art right up to the twentieth century.⁴⁷

Travelling late in the 12th century, the Valencian born Ibn Jubayr praises two major achievements of Islam: the madrasas and the hospitals.⁴⁸ The madrasas spread into Egypt and especially Cairo following the rule of Salah Eddin al-Ayyubi. Under his mentor Nur Eddin, Salah Eddin was sent from Syria and liberated Egypt, and from Syria also followed the madrasa model after 1171. In the following 150 years Cairo was embellished with a succession of the most ingeniously designed and most varied madrasas in the Islamic world.⁴⁹ In addition to lecture halls and cells for the students, Syrian-inspired madrasas of the twelfth and

⁴⁰ G. Wiet et al: History; op cit; p. 335.

⁴¹ G. Wiet et al: History; p. 335.

⁴² E. Atil: Mamluk art; in *Dictionary of Middle Ages*; J.R. Strayer Editor in Chief; Charles Scribner's Sons; New York; 1982 fwd; vol 8; p. 70.

⁴³ Atil: pp 69-70.

⁴⁴ Atil: p. 70.

⁴⁵ Atil: p. 70.

⁴⁶ Atil: p. 70.

⁴⁷ Atil: DMA; p. 69.

⁴⁸ Ibn Jubayr: *Al-Rihla, (The Travels of Ibn Jubayr)*, Tr. R.J.C. Broadhurst, Jonathan Cape, 1952, p. 330.

⁴⁹ R. Hillenbrand: Madrasa; DMA; p. 11.

thirteenth centuries (of which almost 200 are recorded in the medieval sources) often had an oratory and an attached mausoleum for the founder.⁵⁰ Amongst such madrasas in Cairo are the earliest surviving (if irregular) four-Iwan madrasa, the Salihiya (1242), built on either side of a street; the first surviving cruciform four-Iwan madrasa, the Zahiriya (1262-1263), which was named after Baybars; and large complexes including the founder's tomb, a mosque, minaret, hospital and a madrasa (complex of Qala'un, 1281).⁵¹ It was a natural corollary that four-iwan madrasas should allot an iwan to each madhhab for its own teaching and for prayer (Nasiriya, Cairo, 1303-1304).⁵² Cairene architects, grappling with a chronic shortage of space, proved adept at accommodating madrasas to unpromising and irregular sites, often emphasizing height rather than breadth, and creating imposing, lavishly ornamented street facades for these buildings.⁵³ Many Cairene madrasas are scarcely distinguishable from four-iwan mosques except by their smaller size and the student cells disposed in two tiers around the courtyard.⁵⁴ These courtyards are not used for prayer and are thus typically much smaller than mosque courtyards.

The Great scholarly institution of Egypt was the Cairene Al-Azhar. It is one of the cultural achievements of the Fatimids and was founded in 972 CE by Jawhar al-Siqilli, the fourth Fatimid caliph. Sixteen years later in 988 Al-Azhar Mosque was established as a university by Caliph al-Aziz.⁵⁵ By then, it already had thirty five officially appointed teachers.⁵⁶ Thus, by far, Al-Azhar is one of the oldest surviving universities in history, coming a century or so after Al-Qayrawan in Tunisia and decades after al-Qarrawiyin in Fes and the mosque university of Cordova. However, it did precede the likes of Oxford and Cambridge by around three centuries and many of its methods of teaching and learning were later found in the Christian West. Al-Maqrizi (d.1442) notes that in 991 CE, groups of listeners followed courses given by Al-Azhar teachers.⁵⁷



Courtyard of Al-Azhar Mosque⁵⁸

Bayard Dodge provides a good succinct description of al-Azhar and its functions. It was built around an open courtyard, with the sanctuary in the rear and spacious loggias on both sides of the court. Its residential quarters provided living space for students who did not have homes in Cairo. Each student was assigned to a residential unit which was endowed to care for him. Generally, the unit gave the resident

⁵⁰ R. Hillenbrand: *Madrasa*; in *Dictionary of the Middle Ages*; op cit; vol 8; p. 11.

⁵¹ R. Hillenbrand: *Madrasa*; DMA; p. 11.

⁵² R. Hillenbrand: *Madrasa*; DMA; p. 11.

⁵³ R. Hillenbrand: *Madrasa*; DMA; p. 12.

⁵⁴ R. Hillenbrand: *Madrasa*; DMA; p. 12.

⁵⁵ See J. Jomier: *Al-Azhar*; *Encyclopaedia of Islam*, Vol I, Leyden; Brill; pp. 813-21.

⁵⁶ J. Waardenburg: Some institutional aspects of Muslim higher learning, *NVMEN*, 12, pp.96-138; p. 99.

⁵⁷ In J. Jomier: *Al-Azhar*, op cit; p. 816.

⁵⁸ <http://www.shunya.net/Pictures/Egypt/Cairo/al-Azhar3.jpg>

students free bread which supplemented food given to them by their families, whilst richer students would live in lodgings near the mosque and better conditions. Every large unit also included a library, kitchen and lavatory, and some space for furniture.⁵⁹ There were many students at Al-Azhar including several from abroad. Al-Maqrizi mentions 750 foreign students from as far away as the Maghreb and Persia simultaneously residing in the mosque⁶⁰ in addition to the students from the rest of Egypt. On the eve of the British occupation (1882) Al-Azhar had 7600 students and 230 professors.⁶¹ In addition to the traditional religious and literary subjects, Al-Azhar taught geography, astronomy, engineering, medicine and mathematics.⁶² Al-Azhar always attracted great figures of Islamic learning. Ibn al-Haytham lived there for a long period whilst Ibn Khaldun taught at the university towards the end of the fourteenth century and Al-Baghdadi taught medicine at the end of the 12th century.⁶³

The greatest of all earliest institutions of Cairo, however, was the hospital of Ibn Tulun established at al-Fustat in 872. Ibn Tulun is a former slave of Turkish origin, who rose in the military ranks to become governor of the city. The hospital was situated between the mosque of Ibn-Tulun and the hill of al-Gareh, in one of the most heavily populated quarters of Fustat. It was based on the model of the leading hospital at Baghdad. In both construction and management it absorbed vast resources; and also included a library of 100 000 books.⁶⁴ Its financing came chiefly from the bazaar and from other *waqfs*. Ibn Tulun supervised the hospital himself. Issa Bey⁶⁵ narrates that every hospital patient, when admitted, left his clothes and his money to the safekeeping of the Supervisor of the hospital. The patients were given a special garment and beds, and were served meals and medications. Physicians attended to the patients every day. Once a patient recovered good appetite, they were considered able to leave the hospital.

Every Friday Ibn Tulun visited the hospital, inspected the supplies, conferred with the physicians and visited the patients. One day he was in the ward for the insane, when one of the patients who was chained said to him: "Believe me, Prince, I am not insane, but have been trapped in here. I have a great longing to eat a large pomegranate from Al-Arish (in Southern Palestine)." Ibn Tulun immediately ordered that the patient be brought one of these. The patient seemed happy over the present, passing it from one hand to the other. Then when Ibn Tulun was not looking at him, the patient threw the pomegranate at him, striking him on the chest. The pomegranate broke and soiled the garment of the prince. Ibn-Tulun took no action against the man.⁶⁶

When Ibn Tulun established the hospital in 872, hospitals were unknown in Europe (they came into existence in Europe in the thirteenth century). Thus, long before monastic institutions, brotherhoods and sisterhoods started to segregate the sick, hospitals had spread all over the Islamic land – towards the east and west.⁶⁷

⁵⁹ Bayard Dodge: *Muslim Education in Medieval times*, The Middle East Institute, Washington, D.C. 1962, pp 26-27 in particular.

⁶⁰ J. Jomier: *Al-Azhar*; op cit; p. 816.

⁶¹ *Baedeker's Egypt*, David and Charles, Newton Abbot, 1974. Page 60.

⁶² M. Alwaye: 'Al-Azhar...in thousand years.' *Majallatu'l Azhar: (Al-Azhar Magazine, English Section 48 (July 1976): pp.1-6 p. 2.*

⁶³ J. Jomier: *Al-Azhar*; op cit; pp 816-7.

⁶⁴ F.S. Haddad in I.B. Syyed: *Medicine and medical education in Islamic history*, in *Islamic perspective in medicine*, ed. S. Athar, American Trust Publications, Indianapolis, 1993; pp 45-56, p. 48.

⁶⁵ A Issa Bey: *Histoire des hopitaux en Islam*, Beyrut; Dar ar ra'id al'arabi; 1981; pp. 112-5.

⁶⁶ A Issa Bey: *Histoire* pp. 112-5.

⁶⁷ F. R. Farag: *Why Europe responded to the Muslims*; in *Arabica*, vol XXV, pp. 292-308. p. 295.

When Salah Eddin conquered Egypt in 1171, he took over al-Qasr which was the palace of the Fatimid caliphs. This palace contained a great hall which Salah Eddin made into a hospital. Salah Eddin provided the sum of 190 dinars [a dinar is about 4 grams of Gold] a month to be paid from the state treasury to the hospital but it received other subsidies as well.⁶⁸ Ibn Jubair, in his visit to Cairo, wrote:

*'Among the glorious works of this Sultan Salah Eddin, we have seen the hospital of Cairo, which is one of the most beautiful devoted to medical ailments. In the various wards beds were installed, furnished with coverings for the comfort of the patients. The employees, under the direction of the supervisor, watched over the condition of the patients day and night, and provided them with food and drink that was agreeable to their condition. One section was reserved for female patients, over whom women attendants worked. On one side of these two sections a third large one was divided into separate rooms, guarded with iron grills. This was for the care of the mental patients. The Sultan himself questioned the patients from time to time, asking them about their condition and immediately telling the attendants to care for them.'*⁶⁹

The Mamluk sultan, Qalawun (other spellings of his name include Qala'un), is famed for his victories over the crusaders, the Mongols and the Armenians. But he also made large scholarly and social contributions. He had the hospital al-Mansuri built between the two palaces of the Fatimids. Qalawun drew up the plans for the hospital and a school. The hospital had four *iwans* or vestibules, each furnished with a fountain and a jet of water in the centre. After the completion of the work, al-Mansur turned over many *waqfs* in Cairo and other places for the support of the hospital and other buildings, so that the revenue came to around one million dirhams a year [a dirham is 3 grams of silver].⁷⁰ At a ceremony of the opening of the hospital al-Mansur ordered a cup of the hospital beverage and drank it, saying: "I hereby devote these *waqfs* for the benefit of my equals and my inferiors, for the soldier and the prince, the large and the small, the free and the slave, for men and women."⁷¹ The king made sure that the hospital was properly staffed with physicians and fully equipped with everything required for the care of the sick and he appointed male and female attendants to serve the male and the female patients.⁷² He installed beds furnished with mattresses and set up areas for each speciality.⁷³ Running water was provided for all parts of the hospital. In one part of the building the physician-in-chief was given a room for teaching and lecturing. There were no limits to the number of patients that could be treated and every one had access to the hospital whether they were rich or poor. Nor was their stay restricted and the patients were allowed to take home the medicines they needed. The constitution establishing the Al-Mansuri says:

*'its duty is to give care to the ill, poor, men and women until they recover. It is at the service of the powerful and the weak, the poor and the rich, of the subject and the prince, of the citizen and the brigand, without demand for any form of payment, but only for the sake of God, the provider.'*⁷⁴

3. The Scholars of Cairo

⁶⁸For details see, A. Whipple: *The Role of the Nestorians and Muslims in the History of Medicine*. Microfilm-xerography by University Microfilms International Ann Arbor, Michigan, U.S.A. 1977. pp. 93 fwd.

⁶⁹ Ibn Jubeyr: *Rihla*: 1907 ed; Leiden; p. 51.

⁷⁰E.G. Browne: *Arabian medicine*; Cambridge university Press; 1962 ; p.102.

⁷¹ A.Whipple: *The Role*. Op cit; p. 95.

⁷² A.Whipple: *The Role*. p. 95.

⁷³ Whipple: 95.

⁷⁴ A. Isa Bey: *Histoire des hopitaux*; Cairo. p. 151.

The first Egyptian of international renown and possibly one of the greatest scholars of Islam that ever lived, although he is hardly known, is Ahmad Ibn Yusuf ibn Ibrahim ibn al-Daya al Misri, (the latter word means the Egyptian). He flourished in Egypt in the second half of the 9th century and died about 912.⁷⁵ He set up some of the earliest foundations of modern mathematics and in medieval Europe, he was known as Ametus filius Joseph.⁷⁶ A Mathematician and secretary to the Tulunids, who ruled in Egypt from 868 to 905, he wrote a book on similar arcs (*De similibus arcibus*), a commentary on Ptolemy's *Centiloquium*, and a book on proportions *Kitab al-nisba wal tanasub* (*"De proportione et proportionalitate"*).⁷⁷ The latter book is significant due to its influence on medieval thought through Leonardo da Pisa and Jordanus Nemorarius (theorem of Menelaos about the triangle cut by a transversal; al-qatta, sector; hence *figura cata, regula catta*).⁷⁸ The *Liber Hameti de proportione et proportionalitate* and the *Liber de arcibus similibus* were translated by the famed twelfth century Latin translator, Gerard of Cremona.⁷⁹ The translation of the commentary on the *Centiloquium* was possibly made by another translator, Plato Tiburtinus who wrongly attributed it to the other Egyptian scholar 'Ali ibn Ridwan.⁸⁰ This work was first printed in Venice, 1493 (*"Incipit liber centum verborum ptholemei cum commento haly."*) Ahmad, or else his father Yusuf ibn Ibrahim ibn al-Daya, may be the author of the History of the Astronomers, ascribed to one Ibn al-Daya.⁸¹

Abu Kamil al-Hasib Al-Misri (i.e the Egyptian calculator) originated from Egypt and flourished after al-Khwarizmi,⁸² who died c. 850, and before al-'Imrani, who died in 955, and so can be placed about the beginning of the tenth century.⁸³ He was a mathematician who perfected al-Khwarizmi's work on algebra and whose mathematics included a number of subjects such as determination and construction of both roots of quadratic equations; multiplication and division of algebraic quantities; addition and subtraction of radicals; study of the pentagon and decagon (algebraic treatment).⁸⁴ His *kitab al-Jabr* (Book on algebra) is available in many manuscripts, such as in Istanbul and Berlin, and also in diverse languages and translations such as Hebrew, German, and English.⁸⁵ Abu Kamil wrote *Taraif al-Hisab* (Rarities of arithmetic) which is available, but incomplete at Leiden (199/6), but there are more complete Latin translations of this treatise in Paris (7377 a/6), and Hebrew translations from Spanish.⁸⁶ His treatise on the measurement of the pentagon and Decagon, in Arabic *Misahat al-Mukhamas wa'l muashar*, is available in Istanbul (Kara Mustafa 379/2) and in Latin translation in Paris (7377 a/5) and in translation into Hebrew, German, Italian, and partial translation into Russian.⁸⁷ Abu Kamil also wrote on inheritance by means of roots, inheritance by means of Algebra, a book on indefinite problems, a treatise on the measurement of the land, another on measurement and geometry, one on reunion and separation and another entitled *Kitab al-Kafi* (Sufficient

⁷⁵ G. Sarton: *Introduction to the history of sciences*, The Carnegie Institution; Baltimore, 1927 fwd. vol 1; p. 598.

⁷⁶ B. Rosenfeld and E. Ihsanoglu: *Mathematicians, astronomers and other scholars of Islamic civilisation*, Research Centre for Islamic History, art and Culture; Istanbul; 2003. p. 60.

⁷⁷ M. Cantor: Ahmed und sein Buch über die Proportionen; in *Bibliotheca Mathematica*, 7-9,1888.

M. Curtze: Über den "liber de similibus arcibus" (ibidem, 15,1889).

H. Suter: *Die Mathematiker und Astronomen der Araber*; 1900; pp. 42-3.

⁷⁸ H. Burger und K. Kohl: Zur Geschichte des Transversalsatzes usw. In *Abhdl. zur Gesch. d. Naturwiss.*, 7, 47-9, 80, 1924; *ISIS*, VIII, p. 799.

⁷⁹ G. Sarton: *Introduction to the history of sciences*, op cit; p. 598.

⁸⁰ G. Sarton: Introduction; vol 1; p. 598.

⁸¹ G. Sarton: Introduction; vol 1; p. 598.

⁸² H. Suter. *Die Mathematiker*; op cit; p.43.

⁸³ G. Sarton: Introduction; Vol 1; op cit; p. 630.

⁸⁴ See, for instance, L. C. Karpinski: The Algebra of Abu Kamil; in *Bibliotheca mathematica*, vol. 12, 1912; pp. 40-41.

⁸⁵ B. Rosenfeld and E. Ihsanoglu: *Mathematicians*, op cit; p. 61.

⁸⁶ B. Rosenfeld and E. Ihsanoglu: *Mathematicians*, op cit; p. 61.

⁸⁷ B. Rosenfeld and E. Ihsanoglu: *Mathematicians*, op cit; p. 61.

Book).⁸⁸ Abu Kamil's mathematics were largely used by his successors whether Muslims or Western Christians, such as al-Karkhi and Leonardo da Pisa.⁸⁹ There have been a number of modern studies of Abu Kamil including those by Weinberg⁹⁰ and Levey.⁹¹

Ibn Yunus (d. Fustat in 1009) was an astronomer and a mathematician whose father was a distinguished historian. Ibn Yunus came to fame in 1804 when a Leiden manuscript of his was first studied; Ibn Yunus' main work was *al-Zij al-hakimi* (Zij meaning an astronomical handbook) which begins with a list of observations made by himself and others.⁹² Ibn Yunus made observations for nearly thirty years (977-1003) using amongst others, a large astrolabe of nearly 1.4 m in diameter, observations that resulted in the well known 'Hakemite' tables which contained more than 10,000 entries of the sun's position throughout the years.⁹³ Centuries later Ibn Yunus's *Al-Zij al-Hakim*⁹⁴ relied upon by the French mathematician Laplace who used the tables prepared by Ibn Yunus in his determination of the 'Obliquity of the Ecliptic' and the 'Inequalities of Jupiter and Saturn's' and also by the American Newcomb who used his observations of the eclipse in his investigations on the motions of the moon.⁹⁵



Al Azhar Mosque⁹⁶

Ibn al-Haytham was born in Basra (in modern day Iraq) in 965 and died in Cairo in 1039 CE. He is known under the Latin name of Al-Hazen.⁹⁷ Although he made important contributions to mathematics, astronomy, medicine and chemistry, his main achievements were in optics. Due to his high reputation as a mathematician and engineer, he caught the attention of the Fatimid Caliph Al-Hakem (ruled 996-1021) who

⁸⁸ B. Rosenfeld and E. Ihsanoglu: *Mathematicians, op cit*; p. 61-2.

⁸⁹ Gustavo Sacerdote: 11 trattato del pentagone e del Jecagono per la prima volta pubblicato in italiano; in M. Steinschneider: *Festschrift*, Leipzig, 1896. pp. 169-94.

⁹⁰ J. Weinberg: *Die Algebra des Abu Kamil*. München: Druck des Salesianischen Offizin, 1935.

⁹¹ M. Levey: *The Algebra of Abu Kamil*. Hebrew Text, Translation and Commentary with Special Reference to the Arabic Text. Madison-Milwaukee, and London, 1966.

⁹² H. Suter. *Die Mathematiker*; op cit; pp.77-8.

⁹³ C. Ronan: *The Arabian Science*; in *The Cambridge Illustrated History of the World's science*; Cambridge University Press; 1983; pp. 201-44. p. 214.

⁹⁴ Edition Caussin De Perceval, Paris, 1804.

⁹⁵ S. M. Ziauddin Alavi: *Arab Geography in the ninth and tenth centuries*, Published by the Department of Geography, Aligrah Muslim University, Aligrah 1965, p. 36.

⁹⁶ http://www.safariegypt.com/egypt_hotels/cairo_hotels/Images/fourseason/CAF_009_320x400_web-large.jpg

⁹⁷ G. Sarton: *Introduction to the History of Science*; op cit; vol 1; p. 721.

asked for his services.⁹⁸ The Caliph received him personally and with great honours.⁹⁹ However, although a patron of sciences, Al-Hakem was a cruel leader who murdered his enemies and had other dark sides to his personality such as ordering the sacking of the city of al-Fustat; on one occasion he went as far as ordering the killing of all dogs since their barking annoyed him.¹⁰⁰ Al-Hakem's support for science may have been partly because of his interest in astrology.¹⁰¹ He had invited Ibn al-Haytham to Cairo after hearing that he had a plan for regulating the annual inundation of the Nile. However, once having taken measures on the ground, Ibn al-Haytham realised the plan was not feasible.¹⁰² Ibn al-Haytham knew that al-Hakem was a dangerous man whom he could not trust.¹⁰³ It appears that Ibn al-Haytham pretended to be mad, others say that he left Egypt altogether for Syria where he sought protection under the rule of one of its Emirs until after al-Hakem's death in 1021.¹⁰⁴ During this time he undertook scientific work and after al-Hakem's death he was able to show that he had only pretended to be mad. According to the Muslim biographer, al-Qifti, Ibn al-Haytham lived for the rest of his life near the Al-Azhar Mosque, teaching, writing mathematics texts and earning money by copying texts.¹⁰⁵ Ibn al-Haytham died in 1039, a very devout man.¹⁰⁶ His theory of light and vision is neither identical with nor originated from the mainly Greek theories that preceded his time and which he adequately corrected. It was Ibn al-Haytham who resolved the century old issues of vision and set up the foundations for the modern science of optics. Ibn al-Haytham rejects the axiomatic approach of his predecessors, whereby postulates were assumed to be self evident and any experiments were just meant to reinforce axioms.¹⁰⁷ Ibn al-Haytham also had the capacity to resolve complex issues into independent yet closely interrelated simple investigations (the whole-mark of every genius mind), subjecting every single problem to a quantitative analysis of its variable under strictly controlled conditions.¹⁰⁸ (For more on Ibn al-Haytham, see entry on Basra)

Abu-l-Hasan Ali ibn Ridwan ibn Ali Ibn Ja'far al-Misri was born in Jiza near Cairo, c. 998, the son of a poor baker in al-Guzah.¹⁰⁹ Flourished in Cairo and died there in 1061 or in 1067. Astrologer, physician, author of many medical writings of which the most popular was his commentary on Galen's *Ars parva* which was translated by Gherardo Cremonese.¹¹⁰ In his treatise on hygiene with special reference to Egypt (*fi dal' mudar al-abdan bi-ard Misr*), Ibn Ridwan discusses preventive measures, sanitation, the rules of hygiene and the causes of plague.¹¹¹ Ibn Ridwan subscribes to a code of strict ethics, which he himself describes:

⁹⁸ Barron Carra de Vaux: *Les Penseurs de l'Islam*; Geuthner, Paris, 1921; vol 2; p. 243.

⁹⁹ Barron Carra de Vaux: *Les Penseurs de l'Islam*; vol 2; p. 243.

¹⁰⁰ John J O'Connor and Edmund F Robertson at:

<http://www-history.mcs.st-andrews.ac.uk/history/index.html>. In the chapter devoted to: Arabic mathematics: a forgotten brilliance.

¹⁰¹ J J O'Connor and E F Robertson: *Arabic mathematics*; op cit.

¹⁰² Barron Carra de Vaux: *Les Penseurs de l'Islam*; vol 2; op cit; p. 243.

¹⁰³ W. Durant: *The Age of faith*, Simon and Shuster, New York; 6th printing; 1950. p. 288.

¹⁰⁴ Barron Carra de Vaux: *Les Penseurs de l'Islam*; op cit; vol 2; p. 243.

¹⁰⁵ J J O'Connor and E F Robertson: *Arabic Mathematics*; op cit.

¹⁰⁶ Barron Carra de Vaux: *Les penseurs de l'Islam*; vol 2; op cit; p. 244.

¹⁰⁷ D.R. Hill: *Islamic Science and Engineering*; Edinburgh; 1993; p 72.

¹⁰⁸ Gul A. Russel: *Emergence of Physiological optics*, in *Encyclopedia of the History of Arabic Science 3 Vols.* Edited by Roshdi Rashed; Routledge, London and New York: 1996. pp 672-715. p 686.

¹⁰⁹ Ibn Abbi Ussaybi'ah: *Uyun al-anba fi tabaqat al-attiba'*, edited by A. Mueller, Cairo/Konigsberg; 1884, reprint, 1965. vol 2; p. 101.

¹¹⁰ G. Sarton: *Introduction*; vol 1; op cit; p. 729.

¹¹¹ Max Meyerhof: *Uiber Klima und Gesundheit im alten Kairo (Sitzungsber. der . phys. med. Soz., Erlangen, vol. 54, 197-214, 4 pl., 1923. Translation of chapter 8 of the fi dal' mudar, ISIS, VIII, 537).*

F. Wustenfeld: *Geschichte der arabischen Aerzte*; Gottingen; 1840; pp.80-82.

H. Suter: *Die Mathematiker und Astronomen der Araber; 1900; p. 103 .*

*'I wear clothes that are adorned by the marks of distinguished people and by cleanliness. I use a delicate perfume, am silent, and hold my tongue where the failings of men are concerned. I endeavour to speak always decently and take care not to swear and to blame the opinions of others... I avoid eager desires and covetousness; and if adversity befalls me, I rely on Allah the Most High, and meet it reasonably without faintheartedness nor weakness.'*¹¹²

He also holds that a man should study medicine with the intent of acquiring the art and not money, but this did not mean that he would lose the chance of making money:

*'When a doctor treats the ailments of the wealthy and they are in severe pain, he can make what financial conditions he likes, and when he knows that his patients will carry out their bargain, it is then his responsibility to produce the cure. The money that he earns should be spent on such useful ends as befits him. I mean on the assistance of relatives, charitable acts and the purchase of drugs suitable for curing disease. Nor should he refrain under any circumstances from tending the poor and associating with them.'*¹¹³

Ibn Ridwan dwells on many issues including the causes of pestilence, and remarkably he states as one of the causes the following:

*'Psychic events create epidemic disease when a common fear of a ruler grips the people. They suffer prolonged sleeplessness and worry about deliverance or the possibility of trouble. As a result their digestion becomes bad and their natural heat is changed. Sometimes people are forced into violent action in such condition. When they expect a famine in some years, they increase their hoarding. Their distress intensifies because of what they anticipate may happen.'*¹¹⁴

'ABD AL-Rhaman Ibn Nasr ibn 'Abdallah ibn Muhammad al-Nabarawi al-Shafi'i (al-Adawi al-Shairazi) is an Egyptian scholar who flourished probably in the time of Salah. Eddin (sultan 1169-1193). He wrote a handbook for the use of police officers in charge of markets (muhtasib; hence, Spanish *almoctacén*; their function was called *hisba*), enabling them for instance to verify weights and measures and to test the genuineness of wares.¹¹⁵ (See entry on Malaga for greater detail on the functions of the Muhtassib). That handbook, divided into forty chapters, is entitled *Nihayat al-rutbat al-zarifat fi talab al-hisbat (Summus terminus auctoritatis politae de quaerendo munere honorifico praefecturae annonae)*. An elaboration of it bearing the same title was edited by one Ibn Bassam in the thirteenth or fourteenth century; it contains 114 chapters dealing with almost as many trades or industries.¹¹⁶ The interest of such handbooks from the cultural point of view needs no emphasis.¹¹⁷ Sarton refers to the work Walter Behrnauer,¹¹⁸ to make a note

¹¹² Ibn Abi Usaybiaya: Uyun; op cit; 2; p. 100.

¹¹³ M.C. Lyons: The Kitab an-Nafi' of Ali Ibn Ridwan, *Islamic Quarterly*, vol 6; 1961, Opp. 168-9.

¹¹⁴ See Tucker: the effects of famines in the medieval Islamic world, quoted in *Ibn Ridwan's Treatise on the prevention of Bodily ills in Egypt*; translated with an introduction by M. Dols; Arabic text edited by Adil S. Gamal; University of California Press; London; 1984; at p. 113.

¹¹⁵ Needles here to repeat the larger definition of Muhtassib. See entry on Malaga for greater detail on this formidable institution, the forerunner of much state inspection we have today.

¹¹⁶ Eilhard Wiedemann: Ueber Verfall schungen von Drogen u. s. w. nach Ibn Bassam und Nabarawi Beitrage 40, Sitzungsber., vol. 46, pp. 172-206, Erlangen 1914.

¹¹⁷ G. Sarton: Introduction; op cit; vol 2; p. 463.

¹¹⁸ Walter Behrnauer: Memoire sur les institutions de police chez les Arabes, les Persans et les Turcs in *Journal Asiatique*, 15, 461-508, 1860; 16, 114-190, 347-392, 1860; 17, 5-76, 1861.

that it contains a long analysis of the *Nihayat al-rutbat*, and of various extracts relative to the same subject, for example, extracts from Ibn Khaldun and al-Maqrizi. A complete translation of this work seems very desirable, also a comparative study of it and others of the same kind. This would perhaps help to identify this 'Abd al-Rahman and to determine which books may be ascribed to him.¹¹⁹

Ibn Mammati Abu-I-Makarim Assad ibn al-Khatir ibn Mammati was born in an important Christian family of Egypt before he embraced Islam soon after the conquest of his country by Salah Eddin (1169) and became eventually secretary of war. The wazir's enmity obliged him to fly to Aleppo, where he died in 1209 at the age of 62.¹²⁰ He wrote an account of the Egyptian government under the Ayyubid sultan Salah Eddin (Saladin, 1169-1193), *the Kitab qawanin al-dawawin* (Statutes of the councils of state).¹²¹ He wrote also a satirical work called *Kitab al-fashush fi ahkam Qaraqush* (*Weak mindedness in the judgments of Qaraqush*), whether this referred to Salah Eddin's famous chamberlain Qaraqush Baha' al-din (d. 1201) or not, the stupid Qaraqush of Ibn Mammati's story is the ancestor of the Oriental Punch (Qaragyuz).¹²²

Abd'ul Latif (1162-1231) was born in Baghdad where he studied philosophy and philology and later chemistry and medicine. During his career he taught medicine and philosophy at Damascus, Aleppo and Cairo. Of the 166 works he is credited with, many of which were on medical subjects, only one is in print, *Compendium memorabilium Aegypti*, which is based on his studies and experiences in Egypt, where he visited at the request of Salah Eddin (who must have been at an old age by then).¹²³ The Arabic manuscript now in the Bodleian Library was translated by Joseph White of Oxford in 1782 and published at Tubingen in 1789 under the title *Abdolatifhi compendium...*¹²⁴ An Arabic Latin edition containing the Arabic text was published by J. White at the Clarendon Press in 1800; a good French translation appeared in Paris in 1810, and a German translation by Wahl was published at Halle in 1790; other editions of this work were by Hunt in 1746, Mousley 1808, and De Sacy in 1803.¹²⁵

It is important here to quote Briffault on a crucial aspect of scientific progress, in which Abd al-Latif has a role:

*Contrast that spirit of scientific minuteness and perseverance in observation (amongst the Muslims) with the speculative methods of the ancients who scorned mere empiricism; with Aristotle who wrote on physics without performing a single experiment, and on natural history without taking the trouble to ascertain the most easily verifiable facts, who calmly states that men have more teeth than women, while Galen, the greatest classical authority on anatomy, informs us that the lower jaw consists of two bones, a statement which is accepted unchallenged till 'Abd al-Latif takes the trouble to examine human skulls.*¹²⁶

Ibn Abi al-Hawafar (Floursihed middle of 13th century) wrote a treatise on ophthalmology *Natijat al-Fikar`alaj amrad al bassar* (The thoughtful conclusions on the treatment of the diseases of visions). The

¹¹⁹ G. Sarton: Introduction; op cit; vol 2; p. 463.

¹²⁰ G. Sarton: Introduction; op cit; vol; 2; p. 464.

¹²¹ Ibn Khallikan: *wafayat al-Ayan wa-Anba Abna al-Zaman* de Slane's translation; M. De Slane Duprat, Paris and Allen & Co., London, 1843. vol. 1, pp. 192-196.

F. Wustenfeld: *Geschichtschreiber der Araber*; 1881; p.106, 1881.

¹²² P. Casanova: Qarakouch (Communication faite a l'Institut egyptien, 1892); Karakouch; in *Memoire. de la mission archeologique francaise au Caire*, vol. 7, 1893.

¹²³ D. Campbell: *Arabian Medicine and its Influence on the Middle Ages*; Philo Press; Amsterdam; 1926. p. 83.

¹²⁴ Campbell: *Arabian medicine*; p. 83.

¹²⁵ Campbell: *Arabian medicine*; p. 83.

work has been written for the last Ayyubid sultan of Egypt Al-Salih Najm al-Din Al-Ayyubi (ruled Egypt 1240-1249). The work was publicised on the occasion of the congress of medicine held in Cairo in December 1928, presented by N. Kahil under the French title: Une Ophtalmologie arabe par un praticien du Caire du 13^{em} siecle (an Arabic ophthalmologic work of the 13th century by a doctor of Cairo).¹²⁷ The work's therapeutical and surgical parts contain many facts unknown to the Greeks. According to Kahil, this treatise is superior to every European treatise up to the beginning of the eighteenth century. It includes fifteen chapters, such as:

Diseases of the cornea; problems of imaginary vision; diseases of the iris; diseases of the crystalline; diseases of the optical nerve; diseases of the eye muscles; diseases of the eyelids; poor eyesight; hygiene of the eyes.¹²⁸

One of the historians of Mamluk Egypt was Muhyi al-Din Ibn Abd al-Zahir (1223-92) who wrote a contemporary biography of Baybars (ruled 1260-1277). He also wrote biographies of his successors, Qalawun (ruled 1279-90) and his son Al-Ashraf (1290-3). Al-Zahir received traditional Islamic education and rose to become the chief clerk of Baybar's chancery.¹²⁹ An eminent Arabic stylist, which was an important qualification for the post, he was responsible for the drafting of state papers.¹³⁰ The greater part of Al-Zahir's biography of Baybars (*Al-Rawd al-Zahir fi sirat al-Malik al-Zahir*)¹³¹ was written during its subject's lifetime.¹³² Of the manuscripts there are two extant copies, one nearly complete, the other covering approximately the first third of the work.¹³³

Ibn al-Furat was born in Cairo and lived between the years 1334-1405. He was a Hanafite scholar of Cairo, where he studied with notable scholars of the time.¹³⁴ Amongst these are his shuyukh Abu'l Faraj Ibn Abd al-Hadi, Abu'l Futuh al-Dallasi and Abu Bakr ibn Sannaj, and was licensed by the two great scholars of Damascus Al-Mazzi and Al-Dhahabi.¹³⁵ Ibn Al-Furat eventually became a teacher and a khatib (preacher) in the Mu'izziya school in Cairo, and also issued marriage contracts and gave authentic witness testimony at the courts.¹³⁶ He wrote his book, *Tarikh al-Duwal wal Muluk*, which depicts best Mamluk crusade history. This treatise survives, incomplete, in the National Library of Vienna, whilst a section from it, unknown, has long been preserved in the Vatican Library until discovered by the scholar Le Strange. It was he who described this part in the Journal of the Royal Asiatic Society.¹³⁷ Parts of Ibn al-Furat's work have been selected and translated by U and M.C. Lyons.¹³⁸ They gave those extracts in two volumes, the first of which

¹²⁶ R. Briffault: *The Making of Humanity*, George Allen and Unwin Ltd, 1928. pp. 193-4.

¹²⁷ N. Kahil: Une ophtalmologie arabe par un praticien du Caire du 13 em siecle; *Congres de medecine du Caire*; Decembre 1928; pp. 241-60.

¹²⁸ N. Kahil: Une ophtalmologie arabe; pp. 241-60.

¹²⁹ P.M. Holt: Three Biographies of Al-Zahir baybars; in *Medieval Historical Writing in the Christian and Islamic Worlds*; School of oriental and African Studies; University of London; London; 1982; pp. 19-29; at p. 20.

¹³⁰ P.M. Holt: Three Biographies; p. 20.

¹³¹ Edited By Abd al-Aziz al-Khuwaytir: *Al-Rawd al-Zahir fi sirat al-Malik al-Zahir*, Ryad; 1976.

¹³² P.M. Holt: Three Biographies; op cit; p. 20.

¹³³ P.M. Holt: Three Biographies; p. 27.

¹³⁴ For an excellent outline on Ibn al-Furat see: M. F. ElShayyal: A Critical Edition of volume II of *Tarikh al-Duwal wa'l Muluk* by Muhammad B. Abd al-Rahim B. Ali Ibn al-Furat; in *Islamic Quarterly*, vol 47; 2003; pp. 197-216. Above information at p. 199.

¹³⁵ M. F. ElShayyal: A Critical Edition; p. 199.

¹³⁶ M. F. ElShayyal: A Critical Edition; p. 199.

¹³⁷ *Journal of the Royal Asiatic Society*, Vol 32, 1900, p.295.

¹³⁸ U. and M.C. Lyons: *Ayyubids, Mamluks and Crusaders, selection from the Tarikh al-Duwal wal Muluk of Ibn al-Furat*; 2 vols, W. Heffer and Sons Ltd, Cambridge, 1971.

being the Arabic text, the second its translation. From those extracts can be gleaned some very interesting events of the later stages of the Frankish presence on Muslim land such as the recovery of Jerusalem, Tiberias, Ascalon and other places from the Franks. Most of all, in Ibn al-Furat's work, the focus is on the rise of and campaigns of Baybars.¹³⁹ The History of the States of the Kings (*Tarikh al-Duwal wal Muluk*) has attracted the attention of other scholars such Reinaud who uses extracts relevant to the sixth crusade and the occupation of Damietta.¹⁴⁰ More recently, ElShayyal has been engaged in bringing back to light this great historian of Islam. ElShayyal enlightens on previous scholarly works on Ibn al-Furat's history, the manuscript of Ibn al-Furat's treatise, his sources, and the edition of his text.¹⁴¹ El Shayyal's contribution to the knowledge of Ibn al-Furat was enhanced by his own edition of Ibn al-Furat's work in a doctoral thesis at the university of Edinburgh.¹⁴² In the following, it is worth citing briefly an extract from Ibn al-Furat to gather both impact and scale of the crusades on Muslim history. Ibn Al-Furat writes:

*'Sultan Baybars received news that the French king, Louis, son of Louis, together with the kings of the Franks, had set sail for an unknown destination. These kings were: the king of England (Lord Edward), the king of Askusina, the king of Nevers (John Tristan), the king of Navarre (Theobald V) who was the count of Champagne, the king of Barcelona (James I of Aragon), the nephew (Robert II Count of Artois) of the French king, the Count of Flanders (Guy) accompanied by his mother (Margaret) who had five hundred knights with her, the Count of Toulouse (Alphonse of Poitou and Toulouse), and the Count of Albano. The Sultan devoted his attention to his frontiers and his galleys, and on his return to Egypt he built bridges of boats for the troops to cross from Fustat to the island of al-Rauda, and from al-Rauda to al-Jiza. He turned his thoughts to the region of Ascalon and considered whether Louis might make for it to build it up as he had built up Caesarea in the past. For Ascalon contained the remains of walls, more particularly those of its citadel. So he set off there himself.'*¹⁴³

Kamal Eddin Eddamiri was born in 1349 and died 1405. He was nominally a religious preacher at several mosques in his birth place, Cairo, especially at the Koubbah or the cupola of Baybars. He then went on to occupy one of the chairs at the university of Al-Azhar.¹⁴⁴ He was a very pious person who accomplished many trips to Mecca. He wrote two main works on jurisprudence, a commentary on the Sunah of Ibn Madjah and another work on Minhadj of Nawawi. However, he also wrote one of the greatest medieval works on zoology and animals.¹⁴⁵ This work, *hayat al-hayawan* (The life of animals) has been edited repeatedly and has also been translated into English by Lieutenant Colonel Jayakar.¹⁴⁶ Extracts in French have been published by Silvestre de Sacy. The treatise is organised in alphabetical order. The Lion, whose Arabic name begins with A (Assad) comes first. The author tells of many traditions relating to the animal, giving names, epithets, or honorific surnames by which the animal is depicted.¹⁴⁷ The author then dwells on issues such as whether the lion's flesh could be consumed or not. In this specific instance, we are informed

¹³⁹ U. and M.C. Lyons: *Ayyubids, Mamluks and Crusaders*, , 1971.

¹⁴⁰ J. Reinaud: Histoire de la 6em croisade et la prise de Damiette d'apres les ecrivains arabes; in *Journal Asiatique*; 1826; pp. 51-72.

¹⁴¹ M. F. ElShayyal: A Critical Edition; op cit.

¹⁴² *Ibn al-Furat: tarikh al-duwal wal Muluk*; ed M.F. El-Shayyal; unpublished Ph.d., University of Edinburgh; 1986.

¹⁴³ U. and M.C. Lyons: *Ayyubids, Mamluks and Crusaders*, vol 2; op cit; p. 140.

¹⁴⁴ Carra De Vaux: les Penseurs de l'Islam; vol 2; op cit; p. 344.

¹⁴⁵ In Carra De Vaux: les Penseurs de l'Islam; vol 2; p. 344.

¹⁴⁶ *Ad-Damiri's Hayat al-Hayan (A Zoological lexicon)* trans by A.S.G. Jayakar; vol 1; and first part of the second; London and Bombay; 1906-1908.

¹⁴⁷ In Carra De Vaux: les Penseurs de l'Islam; vol 2; op cit; p. 345.

that the flesh of animals, such as the lion, which have canine teeth that are used to grab their prey, are forbidden for use. Thus the jackal, for instance, is equally forbidden because it too lives thanks to the use to its canine teeth.¹⁴⁸

Ad-Damiri also dwells on the moral character of the beasts, also adding proverbs related to each of the animals and also the use of animal, or parts of it, for medical purposes. A brief extract on a scorpion variety (Djerrarah) can be given here:

*It is a species which when moving about, drags its tail. These scorpions are small, and are of yellowish colour. We find them in Askar Mokram in Khuzistan, generally in wells dug for making of sugar, or on molds prepared for sugar... Djahiz says that these scorpions can kill, and can cause the flesh to rot very quickly. Ibn Djami tells that the venom is hot and dry, and that it creates within the chest a feeling of suffocation; but the place of the bite itself is not painful. As a counter poison can be used water of barley, or cheese water, or a puree of apples mixed with cold water.*¹⁴⁹

Al-Maqrizi (d.1442) was a man of the law and a teacher in Cairo who collected his material, a great deal of which is absolutely unique, to compile his major work *Kitab al-Khitat*.¹⁵⁰ Al-Maqrizi also compiled *Kitab al-Suluk li Ma'rifat Duwal al Muluk* (Book of Entrance to the knowledge of the dynasties of the Kings) which is a history of Egypt from the time of Salah Eddin (1169) to 1440-1. It is thus a history of two dynasties, the Ayyubids and the Mamluks. The Frenchman Quatremere made a translation of a large portion of this work, and also an edition of the Arabic version up to 1354.¹⁵¹ Al-Maqrizi informs us of all that happened in Egypt throughout the few centuries preceding him in extensive details: places, towns, events, daily life, culture, economy and even finance. Al-Maqrizi also describes the Crusades and Crusaders especially those that involved the French ruler St Louis. His focus is on Mamluk Egypt and Cairo. It is thanks to al-Maqrizi that we know so much about the history of the institutions of Cairo and its structures. We find, for example, information in the descriptions about the actual buildings of the hospitals; Al-Maqrizi provided details of the history, situation and structure of five hospitals in Cairo.¹⁵²

Maqrizi has left us a vivid description of the progress of what was probably the most costly outbreak of the plague which happened during 1347-9. It broke out in Egypt in the autumn of 1347. By April 1348 it had spread throughout the country and reached its peak in November 1348 and January 1349 before finally subsiding in February 1349. During these one and a half years it wreaked havoc throughout Egypt from Alexandria in the North to the outskirts of Aswan in the south. In Alexandria the plague carried off one hundred people each day and at its height this number rose to two hundred. The royal tiraz factory was closed down for lack of workers; the markets and customs houses suspended operations for lack of merchants and travellers. The Delta areas were similarly affected. In Mahalla the plague was so intense that the prefect (walli) could find no one to come to complain to him; and the qadi, when approached by

¹⁴⁸ In Carra De Vaux: les Penseurs de l'Islam; vol 2; p. 345.

¹⁴⁹ In Carra De Vaux: les Penseurs de l'Islam; vol 2; p. 345-6.

¹⁵⁰ Al-Maqrizi, Ahmad Ibn Ali. *Al-Mawaiz wa Alitibar fi dhikr al-Khitat wa-Al-athar*. Edited by Ahmed Ali al-Mulajji. 3 Vols. Beirut: Dar al Urfan. 1959.

Al-Maqrizi, *Kitab al-Khitat*, ed. Bulaq; partial French tr. by U. Bouriant and P. Casanova, Description topographique et Historique de l'Egypte, Paris, 1895-1900; Cairo, 1906-20.

¹⁵¹ Cairo, 1956-8, 6 vols.

¹⁵² Al-Maqrizi: *Kitab Al-Mawaiz wa Alitibar fi dhikr al-Khitat wa-Al-athar*, Bulaq 1863, vol. II, pp. 406-8.

people to validate their wills, because of their small number, could find no witnesses except with great exertion. In the countryside, there was almost no one left to cultivate the land or collect the harvests.¹⁵³

Because of the plague, an expanse of land in upper Egypt which was previously inhabited by 6,000 tax payers contained only 116 who could pay taxes. In Cairo, the number of daily deaths rose from 300 at the beginning of October 1348 to 3000 towards the end of the month. Many streets were left with empty houses. Survivors helped themselves to abandoned property, houses, furniture and money. Maqrizi claims that in Cairo alone 900 000 people died, and that the figure would be doubled were it to include some of its suburbs and adjacent areas.¹⁵⁴

The history of Egypt is also handled by Ibn Taghribidi (d.1469) who wrote *an-Nujum az-Zahira fi Muluk Misr wal-Qahira* (the Brilliant Stars in the Kings of Misr and Cairo).¹⁵⁵ It gives excellent accounts of events from the time of the Muslim arrival until 1468, that is to the eve of the author's death. It is divided into seven volumes of annals; so extensive that Juynboll, Matthe, and Popper all worked on the edition of extracts from the work.¹⁵⁶

Hasan B. Husain al-Tuluni who was born in Cairo in 1432/3 belongs to a famed family of architects. In 1453, he became the chief architect *Mu'allam al-mi-mariyya*. He is known to have erected the mausoleum of khusqadam in Cairo, for which he received a robe of honour in 1462.¹⁵⁷ He also was commissioned to restore the mosque in the Citadel, and to enlarge and renew parts of it. Between 1481 and 1491 we find him in charge of the restoration of the Main Mosque on the island of Rauda and the construction of mills with waterwheels, a feat of engineering which was considered at the time to be one of the sights of Cairo.¹⁵⁸ Ibn Iyas mentions that the Sultan ordered the Nilometer to be repaired and restored at the same time and Al-Tuluni too was responsible for this work.¹⁵⁹ In 1487 he restored the bridge of Abu-l-Munajja. In 1493 he made pilgrimage to Mecca and in 1502-3, he is mentioned as chief architect again. He died in 1517 to be succeeded by his son Shihab Eddin.¹⁶⁰

This outline has missed many scholars of Cairo but ought not miss a little known scholar, Izz Eddin al-Wafai, whose accomplishments seem remarkable as can be shown in the following brief outline based on the large entry devoted to him by Rosenfeld and Ihsanoglu.¹⁶¹ Al Wafai (d. 1469) was primarily a mathematician, muezzin and muwaqqit at the Muayyad mosque in Cairo who wrote a staggering number of forty treatises as listed by Rosenfeld and Ihsanoglu. These treatises are concerned with mathematics including arithmetic, operations with sexagesimal ratio (Kept at Oxford I 967/5, 1034/2), and a large number of works dealing with instruments. Amongst these is *al-Nujum al-zahirat fi amal bi'l rub al-*

¹⁵³ R. Lopez, H. Miskimin, A. Udovitch: England to Egypt, 1350-1500: Long term trends and long distance trade. In *Studies in the Economic History of the Middle East*; Edited by M.A.Cook; Oxford University Press; 1970. pp. 93-128; p.119

¹⁵⁴ Al-Maqrizi: *Kitab al-Suluk*, ed. M.M. Ziada; 2 vols; Cairo; 1936-58; vol ii; pp. 726-87; Trans G. Wiet: La Grande Peste Noire en Syrie et en Egypte; in *Etudes d'Orientalisme dediess a la memoire de Levi Provencal*; 2 vols; Paris; 1962; vol I; pp. 368-80.

¹⁵⁵ R. S. Humphreys: Muslim Historiography, *Dictionary of the Middle Ages*, Charles Scribners and Sons, New York, vol 6, pp 250-5. at p. 251.

¹⁵⁶ R. S. Humphreys: Muslim Historiography, p. 251.

¹⁵⁷ L.A. Mayer: *Islamic architects and their works*. Albert Kundig; Geneva; 1956. 65.

¹⁵⁸ L.A. Mayer: *Islamic architects*. 66.

¹⁵⁹ L.A. Mayer: *Islamic architects*. 66.

¹⁶⁰ L.A. Mayer: *Islamic architects and their works*. Albert Kundig; Geneva; 1956. 66.

¹⁶¹ B. Rosenfeld and E. Ihsanoglu: *Mathematicians, op cit*; pp. 283-5.

muqantarat (Brilliant stars on operations with the Almuqantar quadrant, in 25 chapters and an introduction - manuscript kept in Cairo, Miqat 197, Istanbul, Leiden, Paris, Tunis, etc...). Other treatises include *Nuzhat al-nazar fil amal bi' shams wa'l qamar* (Delight of the observer on operations with the sun and the moon), a treatise on the sine quadrant, a treatise on instrument called equatorial circle, a treatise on operations with the shadow plane, a treatise on operations with concave sundials, a treatise on the perfect astrolabe, various guides to pupils on how to make astronomical operations, a speech on almuqantars on terrestrial equator and so on.¹⁶² From the list it appears that Al-Wafai's works can be found in libraries stretching from Cairo to Istanbul, Turin, Manchester, Princeton, Oxford, Tunis, Leiden, Paris, Berlin, Beirut, Jakarta and Rome.

Concluding observations

Cairo is by far the one and only place in the whole of the Islamic world that produced great scholars from the early times of Islam to the late 18th century when we can cite al-Djabarti as possibly the last of the great scholars of Egypt. The fact that Egypt was such a hotbed of intellectual activity is due to not only the genius of its people but also the point that until 1798 - the time of al-Djabarti - Egypt was the only Muslim country that remained in Islamic hands for so long. All other parts of the Muslim world had either been lost for ever (such as Spain and Sicily) or devastated by all sorts of invaders or occupied for long stretches of time by diverse hordes that literally savaged the Islamic heritage and civilisation. The list of tragic devastations that befell the Islamic lands from the time that the Banu Hillal were launched upon the Maghrib in the mid 11th century by the Fatimids include: the beginning of the devastation of Muslim Spain (such as Barbastro in 1063 and the loss of the great city of Toledo in 1085); the loss of Sicily which happened in 1089; the loss of Muslim Spain (except Granada) which took place in the decades between 1230s and 1260s; the crusades which devastated the Muslim East from 1096 to 1291; the Mongol invasions in 1219-1222 and then 1258-1304; the systematic wiping out of millions of lives and countless cities by Timur the Lame and his hordes in the 1380s-1390s; the subsequent colonial wars on top of attacks by Christian pirates against the coastal cities of Islam and its shipping whether in the Mediterranean or the Indian Ocean. The history of Islam has been one of devastated, looted lands and mass slaughter which are unique in the annals of history and in terms of the systematic destruction of its civilisation.¹⁶³ Thus was extinguished and devastated all or most of the brilliance of Cordoba, Seville, Bejaia, Samarkand, Bukhara, Khwarizm, Aleppo, Jerusalem, Al-Qayrawan, Baghdad, and many other cities of Islam which once provided light, learning, science, refinement and culture to a barbaric world (except China, India and Byzantium which were also civilised places). And such devastation on the ground is followed today by systematic destruction in writing and teaching.

Egypt, alone, which escaped much of this terror and devastation, was able to preserve the light of scholarship and civilisation, which was extinguished by the invading hordes everywhere else. It is only from 1798, when the French invaded the country, that in Egypt too, Islamic civilisation and culture began to fall prey to destruction. Only a brief extract from al-Djabarti is useful here. He writes,

'The French trod into the Mosque of al-Azhar with their shoes, carrying swords and rifles. Then they scattered in its courtyard and its main praying area and tied their horse to the Qibla. They

¹⁶² B. Rosenfeld and E. Ihsanoglu: *Mathematicians, op cit*; pp. 283-5.

¹⁶³ See articles on this site such as: The Myths...; and the entries on diverse cities of Islam on this site, too.

devastated the students' quarter and ponds, smashing the lamps and chandeliers and breaking up the bookcases of the students, the mujawirun, and the scribes. They plundered whatever they found in the mosque, such as furnishings, vessels, bowls, deposits, and hidden things from closets and cupboards. They treated the books and Quranic volumes as trash, throwing them on the ground, stamping on them with their feet and shoes. Furthermore they soiled the mosque, blowing their spit in it, pissing and defecating in it. They guzzled wine and smashed the bottles in the central court and other parts. And whoever they happened to meet in the mosque they stripped. They chanced upon someone in one of the ruwaqs and slaughtered him. Thus they committed deeds in al-Azhar which are but little of what they are capable of, for they are enemies of the faith, the malicious victors who gloat in the misfortune of the vanquished, rabid hyenas, mongrels obdurate in their nature.¹⁶⁴

To install fear in Egyptian hearts, the French also hanged Egyptian notable figures and then promoted a class of collaborators to help loot the Egyptian population. The French army also slaughtered the populations of many towns and villages in Egypt and burnt whole populations in their towns and hamlets such as at Benout at Beni Adin in March 1799,¹⁶⁵ Tahta and at Abou Girge, where on 28 April 1799, the French commander Davout burnt the whole of the town's population alive inside their homes.¹⁶⁶ The French also carried public executions of prominent Egyptian figures on repeated instances such as in November 1798 and July 1799 so as to install a climate of terror.¹⁶⁷ The French also destroyed much of Cairo.¹⁶⁸

One should remember that when the French army entered Egypt in 1798, its commanding leader, General Bonaparte (the future Napoleon), outlined the noble purposes of the French invasion. In his declaration to the Egyptian people on 2 July 1798, Bonaparte insisted that his only aim was to free Egypt from the Mamluk tyrants and despots.¹⁶⁹ His declaration stated,

'For very long the Beys who rule Egypt have insulted the French nation... Now has arrived the hour of punishment. For very long, this collection of slaves (the Mamluks), purchased from Georgia and the Caucasus has inflicted its tyranny on the most beautiful part of the world, but God, on Whom all depends has ordered that their reign ends.... People of Egypt, I have come to restore your rights, punish the usurpers, and more than the Mamluks I respect God, his Prophet and the Qur'an...'

'Where there is good land, it has been taken by the Mamluks; where there is a beautiful slave she has been ravished by them; a beautiful horse, a beautiful house, all belong to the Mamluks...'

'In your land, in the past, were great cities, great canals, a prosperous trade. Who destroyed it all? If it is not the avarice, the injustice, the tyranny of the Mamluks.'

'All Egyptians will be called upon to manage everything; the wisest, the best instructed; the most virtuous will govern; and the people will be happy.'

¹⁶⁴ Al-Jabarti in M Morsy: *North Africa 1800-1900*; Longman; London; 1984. p. 79.

¹⁶⁵ G. Hanotaux: (vol 5 written by H. Deherain): *Histoire de la Nation Egyptienne*; Paris; Librairie Plon; 1931. p. 387.

¹⁶⁶ G. Hanotaux: *Histoire*; p. 387.

¹⁶⁷ M. Morsy: *North Africa*; op cit; p. 80.

¹⁶⁸ P.M. Holt: *Egypt and the Fertile Crescent: 1522-1922*. Cornell paperbacks; Ithaca; New York; 1966. p.156 fwd.

¹⁶⁹ In G. Hanotaux (Deherain): *Histoire*; op cit; . p. 254; for lengthy details of this proclamation see al-Jabarti: *Al-Jabarti's chronicle of the first seven months of the French occupation of Egypt*. Ed and tr by S. Moreh; Leiden, 1975 pp 39-47.

‘Three times happier will be those who will side with us: they will prosper in their fortune and ranks. Happy will be those who will remain neutral: they will have time to learn to know us and will join with us.’¹⁷⁰

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