

Al-Qayrawan (Tunisia)

Author: Salah Zaimeche PhD
Chief Editor: Lamaan Ball

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AL-QAYRAWAN (TUNISIA)

*'Al-Qayrawan,' according to Al-Idrisi, is 'mother of cities and capital of the land, is the greatest city in the Arab West, the most populated, prosperous and thriving with the most perfect buildings...'*¹

Al-Idrisi's eulogy for al-Qayrawan is not just amply merited, it symbolises the greatneses of Muslim civilisation in each and every single manner, all to be found expressed by the history of Al-Qayrawan. First and foremost, Al-Qayrawan symbolises Islam's greatness in the way, that out of nothing, sand and bareness of pre-Islamic times rose one of the most vibrant centres of civilisation of the Middle Ages. Second, it is first and foremost learning from Al-Qayrawan, which triggered revival north of the Mediterranean, that is in Europe, following translations of such learning. Third, Al-Qayrawan symbolises perfectly Muslim civilisation in its decline, the city rampaged in the 11th century by the Banu Hilal, saw its prosperity and learning extinguished to this day, just as learning was extinguished in Islam following the crusader-Mongol invasions, and yet, just as Islamic civilisation, refusing to be extinguished, al-Qayrawan has always been a symbol of resistance.

These three points are looked at in turn.

The Birth and Rise to Glory of Al-Qayrawan:

When Okba Ibn Nafi', heading the Muslim army in the Maghrib reached the valley of al-Qayrawan, he spent there the night with his companions. The following morning, he stopped at the entrance of the barren valley, and hailed loud:

*'Dwellers of the valley, leave! For we are stopping here.' He gave the order three times. Soon, serpents, scorpions, and many other species began to leave. The Muslim warriors, standing, gazed at the exodus taking place from the morning until made uncomfortable by the great heat. Then, seeing that all had disappeared, they installed themselves in the valley. Forty years after this day, it was said, the people of Ifriqiya could not find a serpent or a scorpion even when they were offered a thousand dinar for one.'*²

A legend say some, a real story say others; whichever, a beautiful story symbolising the greatness of a great city.

Al-Qayrawan lies 112 miles south of Tunis and 40 miles west of Susa, and is 250 feet above sea level in the middle of a great plain traversed by the Wadi Zarud and the Wadi Merguellil, both of which ultimately disappear in a salt lake.³ These rivers are subject to sudden floods, which sometimes turn the environs of the city into a lake, and when the rains have been sufficiently abundant, the soil yields a rich harvest, the

¹ Al-Idrisi: *Nuzhat al-Mushtaq*, quoted by M al-Rammah: The Ancient Library of Kairouan and its methods of conservation, in The Conservation and preservation of Islamic manuscripts, Proceedings of the Third Conference of Al-Furqan Islamic Heritage Foundation, 1995, pp 29-47, at p. 29.

² Ibn abd al-Hakem. In J. Fontaine and P. Gresser: *Le Guide de la Tunisie*; Editions La Manufacture; Besancon; 1992; P. 306.

³ G. Iver: Kairawan; *Encyclopaedia of Islam*; first series vol 4; pp. 646-9; at p. 646.

Muslim geographer al-Bakri, telling how in the western part, the grain sown is sometimes returned a hundred fold.⁴

The year 670 CE is renowned as the year of the foundation of the city of Al-Qayrawan. Prior to that, the Muslim armies had already defeated the Byzantine army of the Patriarch Gregory at Sbeitla.⁵ A further Muslim victory which destroyed the Byzantine navy secured a powerful Muslim presence in the region.⁶ It was in 670, that Okba Ibn Nafi' laid the first stone of the city; he first built a mosque, the palace of government, then houses for his soldiers as well as a wall 2750 yards long. ⁷Al-Qayrawan became the capital of Muslim Africa and the residence of the Muslim governors. ⁸



Qayrawan Mosque

It was under the Aghlabids (800-909) that Al-Qayrawan underwent considerable expansion and reached the zenith of its prosperity; ⁹ and whatever legacy it has left to history dates from its Aghlabid period. The Aghlabid rulers vied with each other in enriching the city with rich monuments and multiplied the works of public utility.¹⁰ Ibrahim Ibn Ahmad (876-7) built a palace celebrated for the purity of its air, a castle around which grew up an important town with bazaars, baths, and large parks and gardens. ¹¹ The Aghlabids, most importantly, left great engineering works, such as the huge water storage basins, a number of aqueducts and bridges, various water works, and the complex sewage system. ¹²

One such remarkable work was the reservoirs, one of which al-Bakri describes:

*'is circular in form and of enormous size. In the centre rises an octagonal tower covered by a pavilion with four doors. A long series of arcades of arches resting one upon the other ends on the south side of the reservoir.'*¹³

⁴ G. Iver: Kairawan; at p. 646.

⁵ J. Fontaine and P. Gresser: *Le Guide de la Tunisie*; op cit; P.52.

⁶ J. Fontaine and P. Gresser: *Le Guide de la Tunisie*; P.52.

⁷ G. Iver: Kairawan; op cit; p. 647.

⁸ G. Iver: Kairawan; p. 647.

⁹ G. Iver: Kairawan; p. 647.

¹⁰ G. Iver: Kairawan; p. 647.

¹¹ G. Iver: Kairawan; p. 647.

¹² S and N. Ronart: *Concise encyclopaedia of Arabic civilization; The Arab West*; Djambatan; Amsterdam; 1966. pp, 37-8.

¹³ Al-Bakri quoted by G. Iver: Kairawan; op cit; at p. 647.

These reservoirs are by far some of the most original ever to be erected, and done good justice by the lengthy (about 270 pages) account of them by the French historian Solignac.¹⁴ Solignac corrects in fact one of the greatest fallacies of history, for these reservoirs, due to their high aesthetics and remarkable engineering skills, and like many other Islamic achievements,¹⁵ were attributed, despite all evidence,¹⁶ to both Phoenicians¹⁷ and Romans,¹⁸ *obviously too advanced to deserve a Muslim authorship*. Such erroneous views were adopted by a number of Western 'scholars' until modern archaeological excavations and advanced studies proved the Islamic origin of such structures.¹⁹ These reservoirs have two basins, one used for decantation, one as a reserve, and at times a third one for drawing water out of it.²⁰ Other than their impressive numbers, over two hundred and fifty in the region, such reservoirs also offer a great attraction in their form and structure. The photograph of such the 'Basin des Aghlabides,' (The Reservoir of the Aghlabids) built in the ninth century by Abu Ibrahim Ahmed reveals, was indeed a sort of temple of water which, it is hoped, is still preserved in its majesty.

One of the glories of Islam, to be found in Al-Qayrawan, and not owed in its founding to the Aghlabids is the large mosque. Al-Qayrawan mosque, also known as Jamii Uqba built sometime between 670 and 680 by Uqba ibn Nafi, the founder of the city of Al-Qayrawan.²¹ It is the first mosque in the Maghrib, several times rebuilt and lavishly embellished in the course of centuries.²² There is a very large and very instructive account on the edifice as well as of the city of Al-Qayrawan in the excellent study by Saladin dating from early in the twentieth century.²³ The great mosque could rival the most famous monuments of the East.²⁴ And once more, it was under the Aghlabid that it witnessed its glory, the mosque being rebuilt by Zyadat Allah, who set up in the prayer hall the multitude of splendid columns, rich panelling of glazed tiles and ornamentations of sculptured wood.²⁵

Malik, who died in 795, considered Al-Qayrawan, together with Kuffa and El-Medina, the three capitals of Muslim sciences and learning. Yahia Ibn Salam al-Basri (745-815) composed and taught there his tafsir; Assad Ibn al-Furat (759-828) made a synthesis of teachings of all his masters.²⁶ The city was a great centre of learning, where the study of Maliki law was particularly honoured; and it had celebrated professors like

¹⁴ A. Solignac: *Recherches sur les installations hydrauliques de kairouan et des Steppes Tunisiennes du VII au Xiem siecle*, in *Annales de l'Institut des Etudes Orientales*, Algiers, X (1952); 5-273.

¹⁵ A list that includes Arabic numerals, the invention of the pendulum, the use of the compass in navigation, the vaulted arch in construction, blood circulation, and so on and so forth, all attributed to various sources other than Islam despite all evidence in favour of the Muslims. On the other hand, acts such as slavery, the burning of the famed Library of Alexandria, the persecution of scholars, etc, are all, without hesitation attributed to the Muslims.

¹⁶ M. Shaw: *Voyages de Shaw MD dans plusieurs provinces de la Barbarie et du Levant*; 2 Vols, La haye, 1743; Vol II; pp 257-9; and E. Pelissier: *Description de la Regence de Tunis; Exploration scientifique de l'Algerie pendant les annees 1840-41-42*; Paris, 1853, pp 279-280.

¹⁷ A. Daux: *Recherches sur l'originalite et l'emplacement des emporia Pheniciennes dans le Zeugis et le Byzacium*, Paris, 1849.

¹⁸ H. Saladin: *Enquetes sur les installations hydrauliques romaines en Tunisie*, published by Direction des Antiquites et Beaux Arts, et La regence de Tunisie, Tunis, 1890 a 1912.

R. Thouvenot: *Les travaux hydrauliques des Romains en Afrique du Nord* in: *Realites marocaines, Hydraulique, Electricite*, Casablanca, 1951.

¹⁹ A. Solignac: *Recherches sur les installations hydrauliques*; op cit.

²⁰ A. Solignac: *Recherches sur les installations hydrauliques*; op cit.

²¹ H. Saladin: *Tunis et Kairouan*; Librairie Renouard; Paris; 1908. p.100.

²² S, and N. Ronart: *Concise Encyclopaedia*; op cit; p. 368.

²³ H. Saladin: *Tunis et Kairouan*; op cit; pp. 98 fwd

²⁴ G. Iver: *Kairawan*; op cit; p. 647.

²⁵ S and N. Ronart: *Concise Encyclopaedia*; op cit; pp. 37-8.

²⁶ J. Fontaine and P. Gresser: *Le Guide de la Tunisie*; op cit; p.309.

Asad b. Al-Furat, Ibn Rashid, and Sahnun (ca.777-854).²⁷ But it was, once more, under the Aghlabids, in 845, that al-Qayrawan became one of the main cultural centres of Islam, attracting students from all parts, including Muslim Spain.²⁸ At the end of the 9th century, still under Aghlabid rule, a Bayt al-Hikmah (House of Wisdom) was established there rivalling its counterpart in Baghdad in the study of medicine, astronomy, engineering and translation.²⁹ As in the rest of the Muslim world, intellectual debate raged at al-Qayrawan, mostly around religious and issues of jurisprudence.³⁰ Public education and al-Qayrawan were deeply entwined and women actively participated in the pursuit of learning there, and scholars, reigning monarchs and men from all walks of life seem to have supported eagerly the library of their town's grand mosque.³¹ Long, before al-Tabari, Yahya b. Sallam al-Basri (741-815) was writing there and taught his Tafsir, which has been partially preserved. Just as at the Zautuna, at Al-Qayrawan university, alongside the Qur'an and jurisprudence were taught grammar, mathematics, astronomy and medicine.³² The study of medicine was well represented by Ziad. B. Khalfun, Ishak B. Imran and Ishak B. Sulayman.³³ Their works were translated by Constantine The African in the 11th, and were taught in Salerno (to become subsequently one of the first European universities, with a specialisation in the study of medicine.)

The rich collection of manuscripts assembled in the mosque university date from this period.³⁴ During his investigation at Qayrawan Mosque, Shabuh unearthed a catalogue which was compiled in 693 AH /1293 CE, and which is quite detailed in its description of the contents of the mosque.³⁵ The Great Mosque has preserved some of the remnants of its great intellectual apogee and memory of its scholars through books and documents they wrote in their own hands, or that they assigned others to write.³⁶ These documents, which included unique cultural data, formed part of the curriculum taught at the great mosque then.³⁷

The collection in the ancient library of Qayrawan is in large part written on parchment, and is the largest and best known collection in the Arab Islamic world.³⁸ In Qayrawan, the manuscripts were endowed to students by those who sought Allah's favour and His pleasure with them, as was recorded on many such manuscripts.³⁹

Mosque libraries, of course, contained to large extent books on religion, jurisprudence and language, but they also included large numbers of scientific works, and manuscripts no-one suspected they would possess. Abd al-Wahab located at the Qayrawan's Atiqa Library an Arabic translation of *Tarikh al Umam al-Qadima* (history of Ancient Nations), which was written by Saint Jerome sometime prior to his death in

²⁷ G. Iver: Kairawan; op cit; p. 647.

²⁸ Encyclopaedia of Islam, op cit, vol IV, p 829.

²⁹ M. Al-Rammah: The Ancient Library, op cit, p. 29.

³⁰ H. Djait et al: *Histoire de la Tunisie* (le Moyen Age); Societe Tunisienne de Difusion, Tunis.

³¹ M.M. Sibai; *Mosque Libraries: An Historical Study*; Mansell Publishing Limited: London and New York: 1987. p 58.

³² H. Djait et al: *Histoire de la Tunisie*; op cit; p. 378.

³³ Al-Bakri, *Massalik*, 24; Ibn Abi Usaybi'a, *Uyun al-anba*, ed. and tr A. Nourredine and H. Jahier, Algiers 1958, 2.9, in Encyclopaedia of Islam, Vol IV, pp 29-30.

³⁴ S and N. Ronart: Concise Encyclopaedia; op cit; pp. 37-8.

³⁵ Shabuh, Ibrahim. *Sijil Qadim li-Maktabat Jami al-Qayrawan.* Majallat Mahad al-Makhtutat al-Arabiya 2 (November 1956): 339-72. Also in the article are excellent photographs of original calligraphy and inscriptions.

³⁶ M. Al-Rammah: The Ancient, op cit, p. 31.

³⁷ Ramah 31.

³⁸ M. al-Rammah: The Ancient Library, op cit, p. 31.

³⁹ M. Al-Rammah: The Ancient Library, op cit, p. 32.

420.⁴⁰ Also, in the same mosque library, the same Abd al-Wahab states that it holds works such as Pliny's on botany which was translated from Latin.⁴¹



The Aghlabids 900CE (orange areas were only temporarily under Aghlabid rule)

A venerated sanctuary, and capital of a powerful state, Qayrawan was also a great commercial city, the shops of the merchants stood on either side of a covered street about two miles in length.⁴² Al Qayrawan was greatly reputed for its carpets woven by the city's women on about a thousand handlooms.⁴³ The typical carpet of al-Qayrawan is described as made of a large bordure formed of parallel stripes, each made of a repetitive floral pattern, highly geometrical. Within this bordure is a large rectangle whose middle is occupied by a hexagon: the Kamra, whose four angles release further motifs. The wools used for such carpets are dyed with natural colourings. The Al-Qayrawan carpet has remained according to tradition, a produce made solely by women's hands.⁴⁴

⁴⁰ Hassan Husni Abd al-Wahab, *Bait al-Hikma al-Tunusi, Bath Tarikhi fi Awwal Musasa Ilmiya jamia fi al-Bilad al-Ifriqiya*, Majallat Majma al-Lugha al-Arabiya (Cairo) 30 (1963-4), p 128, in M. Sibai, op cit, p 98.

⁴¹ A. Abd-Alwahab (1965-67) in H. Djait et al: Histoire, op cit, p. 193.

⁴² G. Iver: Kairawan; op cit; at p. 647.

⁴³ S and N. Ronart: Concise Encyclopaedia; op cit; p. 368.

⁴⁴The Tunisian National Office of Tourism, in J. Fontaine, and P. Gresser: Le Guide de la Tunisie; op cit; p. 308.

Not surprisingly, under the Aghlabids, it was that Islam expanded from the Maghrib in direction of the Mediterranean islands, Sicily, above all, and in this the city of al-Qayrawan, playing the leading part. The Aghlabid ruler, Ziyadat Allah I (817-38) pursued a policy, granting al-Qayrawan the first role in the expansion of Islam, just as Okba did centuries before him. He carried the dynasty's prestige to its highest, and set about a policy of Muslim expansion around the Mediterranean.⁴⁵ In 827 the mounted Muslim expedition succeeded in establishing a long term foothold on the island of Sicily.⁴⁶ From their base in Mazara, on the west coast, taken in 827, the Muslim force of ten thousand men moved forward.⁴⁷ Palermo fell in 831, Messina in 843, Enna in 859, and the island was under effective Muslim control.⁴⁸ The Muslim expeditionary force was a remarkable expression of the whole character of Islam, faith and civilisation, 'an infinitely mixed lot of Arabs, Berbers, Spaniards and Sudanese.'⁴⁹ To emphasise the religious character of the endeavour, Ziyadat Allah appointed the reputed theologian of al-Qayrawan, Asad Ibn al-Furat, as the supreme commander of the expeditionary forces.⁵⁰ This course was systematically followed by his successors who bore Muslim arms as far as Rome.⁵¹

Many monuments and sites, Fontaine and Gresser tell, witness the greatness of the city.⁵² Not just sites, though, but also a great history, a great contribution to civilisation, invisible in the monuments, but everywhere in the written history of Muslim civilisation, and the written history of other places to the north, too.

Al-Qayrawan as a Great Centre of Medical Studies:

Al-Qayrawan, under the Aghlabids, came to the forefront again, in respect to one of the great institutions of Islam: the hospital. Prince Ziyadat Allah I (817-838) built a hospital in the city in 830, one of the most pioneering of its genre, called ad-Dimnah hospital, being built in ad-Dimnah quarter near the great mosque of al-Qayrawan.⁵³ Consequently other hospitals which were erected thereafter in Tunisia were likewise called ad-Dimnah. The construction of ad-Dimnah in al-Qayrawan was simple but adequate and the halls were well organized to include waiting rooms for visitors, a mosque for prayers and religious teaching, and a special bath which can be used for washing prior to prayer.⁵⁴ The halls were well organised indicating waiting rooms for the visitors, and sign of great breakthrough, for the first time female nurses, from the Sudan, were used in the hospital.⁵⁵ In addition to regular physicians who attended the sick, there were Fuqaha al-Badan, a group of imams who practised medicine as well, a token of the early scholastic movement especially in the peripheral states of the Islamic world.⁵⁶ Their medical services included

⁴⁵ S and N. Ronart: Concise Encyclopaedia; op cit; p. 38.

⁴⁶ A.L. Udovitch: Islamic Sicily; in *Dictionary of the Middle Ages*; op cit; Vol 11; p.261.

⁴⁷ J. D. Breckenridge: The two Sicilies; in *Islam and the Medieval West*; S. Feber Editor; A Loan Exhibition at the University Art Gallery; State University of New York; April 6 - May 4, 1975; p. 43.

⁴⁸ J. D. Breckenridge: The two Sicilies; p. 43.

⁴⁹ J. D. Breckenridge: The two Sicilies; p. 43.

⁵⁰ S. and N. Ronart: Concise Encyclopaedia; op cit; p.38.

⁵¹ Ronart: 38.

⁵² J. Fontaine, and P. Gresser: Le Guide de la Tunisie; op cit; p. 3 06.

⁵³ S. Hamarneh: *Health Sciences in early Islam*; Noor Foundation and Zahra Publications; Texas, 1983; p. 102.

⁵⁴ S. Hamarneh: Health Sciences; p. 102.

⁵⁵ M.I.H. I. Surty: Muslim Contribution to the development of hospitals; Published by Quranic Arabic Foundation; Birmingham; 1996. p. 66.

⁵⁶ S. Hamarneh: Health Sciences; op cit; p. 102.

bloodletting, bone setting, and cauterisation.⁵⁷ Another great symbol of Islamic innovativeness, at a time when elsewhere leprosy was deemed a sign of evil, in Al-Qayrawan was built near the hospital itself a special ward for the lepers, dar al-judhama.⁵⁸ Just like other hospitals in Tunisia, the hospital was supported by the rulers of the various dynasties from the state treasury, and by other rich people who gave generously to boost hospital income so that the best care could be provided.⁵⁹

The combinative elements of the city's intellectual abilities, the enlightened spirit of its Aghlabid rulers, and the leading place taken by the study of medicine in the university Mosque of Al-Qayrawan combined to have one of the lasting effects in the whole history of medical learning, and learning in general, most particularly with relevance to the Christian West. Al-Qayrawan was not just a university centre, whose scholars met at the mosque, the historian Marmol says, it was a centre of learning and Muslim enlightenment, resembling the University of Paris, which was to spring into existence some three centuries later.⁶⁰ It had many scholars, who specialised in medicine, Ishaq Ibn Amran at the court of Ziyadat Allah I and II, also Ishaq ibn Suleiman at the court of Ziyadat Allah III.⁶¹ The latter had his seven works translated by Constantine and these were published at Leyden in 1515 under the title *Opera Isaci*.⁶² This is only one part of Constantine's contribution, for his translation included much more than this, and was to revolutionise the whole of learning in Western Christendom courtesy of the medical learning of al-Qayrawan he took with him to Europe.

B. Carthage (Tunisia) d. Monte casino (Italy) (flourished 1065-1085) is amongst the first figures to have transmitted Muslim learning to Europe. He is behind the flourish of the city of Salerno, where he travelled taking with him works and skills he acquired from the city of Qayrawan. To him must be owed, and without it seeming to be an exaggeration, the whole matter of revival of learning in the West. It is no surprise that he has to be a Tunisian, for Tunisia had, although still little studied, the best medical tradition outside the East, and certainly in the whole of the western Mediterranean. Al-Qayrawan was the centre of such glory, for as the capital of Islamic civilisation in those parts, it was bound to carry and to include all signs of civilisation. Constantine, somehow, linked the glory of one medical centre in the Muslim Maghrib, Al-Qayrawan, with one to be in the Christian West: Salerno. Soon after Constantine's translations, Salerno became the first major centre of learning in Europe, its medical school the inspiration for the development of university learning. Constantine translations included a partial translation of the *Kitab al-Maliki* (the Pantegni) of Ali al-Majusi. Constantine translated several other works by doctors in Qayrawan, works on diets, the stomach, melancholy, forgetfulness and sexual intercourse such as *Al-Makala fi'l malikhuliya (De melancholia)* of Ishak Ibn Imran (d. before 907); *Kitab al-Bawl (de urines)* and *Kitab al-humayyat (De febrilus)*, and *Kitab al-Aghdiya (De dietis)* all of Ishak al-Israili (d. 995); *Kitab I'timad al-Adwiya al-Mufrada (De Gradibus)* of Ibn al-Djazzar (d. 1004).⁶³ Constantine also translated by the same author (Ibn al-Djazzar): *Zad al-musafir* (or the Guide for the traveller going to distant countries), which is the most accessible introduction to pathology, translated into Latin as the *Viaticum*, it exerted a considerable impact in Western

⁵⁷ S. Hamarneh: Health Sciences; p. 102.

⁵⁸ Hassan abd al-Wahab: Al-Tib al-Arabi fi Ifriqiyyah; al-Fikr; 1985; vol 3; no 10; pp. 907-16; quoted by S. Hamarneh: Health Sciences; op cit; p. 102.

⁵⁹ S. Hamarneh: Health Sciences; op cit; p. 102.

⁶⁰ In H. Saladin: Tunis et Kairouan; op cit; p. 118.

⁶¹ In Saladin; p. 118.

⁶² Note 1, In Saladin; p. 119.

⁶³ F. Micheau: La Transmisison a l'Occident Chretien: Les traductions medievals de l'Arabe au Latin; in *Etats; Societes et Cultures*; J.C.Garcin et al: *Etats, Societes et Cultures du Monde Musulman medieval*; vo2; Presses Universitaires de France; Paris; 2000. pp. 399-420; p. 404.

Christendom.⁶⁴ Other texts on the stomach, forgetfulness, sexual intercourse... also translated by Constantine could also be attributed to Ibn al-Jazzar.⁶⁵ Eight of his translations are included in the Opera Isaac (Lyon, 1515), whilst a collected edition of his works appeared in Basel (2 vols., 1536-1539).⁶⁶ Charles Singer has given a good account on how Constantine brought the art of Medicine to the Christians.⁶⁷ But Constantine was not on his own, his translation work was continued by his pupil, another Muslim, also playing a great part in this transfer: Joannes Afflaciou, also known as Joannes Saracenus (John the Saracen) (Born c. 1040; died in or after 1103).⁶⁸ He was also a Salernitan physician, disciple of Constantine, author of treatises on urology and on fevers, on the best tradition of the Al-Qayrawan doctors, and also completed the translation of the surgical part of Ali ibn 'Abbas's Al-Majusi: Maliki (or *Liber Regalis*), began by Constantine.⁶⁹

Here can be looked at the worth of some such works by the Al-Qayrawan's doctors, and first how Constantine valued their worth. On the treatise on urine by Isaak Ibn Suleiman, Constantine says: 'having found no work, which gave good and reliable information on this subject, I sought in works written Arabic, where I found some excellent information, which I have translated into Latin. This work written by Ishaak Ibn Suleiman is divided in ten sections.'⁷⁰

On the work on fevers, by the same author, Constantine says:

*'Affected by your tears, oh my son John, I Constantine, have not refused to write after all I saw and knew that is useful in medicine. I have translated this work from Arabic.'*⁷¹

The treatise on the stomach is dedicated to the Archbishop of Salerno, Alfanus, who often complained to Constantine about his stomach troubles. Constantine is surprised not to have found anything on the matter in the works of Greeks. He says he derived his own work from the elegant conclusions reached by the diverse authors (of al-Qayrawan).⁷²

It is, however, works of Ibn al-Jazzar, which give a more adequate idea of the sort of medical learning available at Al-Qayrawan which was conveyed to the Christian West. Ibn al-Jazzar, in Latin, Algizar, Algazirah. Abu Jatfar Ahmad ibn Ibrahim ibn abi Khalid Ibn al-Jazzar, flourished in Al-Qayrawan, died in 1009, being more than 80 years old.⁷³ As part of his medical practice he received and examined his patients during the hours of consultation; his servant Rashiq would then administer to them the required medicine, free of charge.⁷⁴ When he died in, Ibn al-Jazzar left 24,000 Dinars and twenty five quintars (one quintar=45 kgs) weight of books on medicine and other subjects.⁷⁵ Of his many writings, the most important, because of its enormous popularity, was his "Traveller's Provision" (*Zad al-musafir*) which was translated into Latin by Constantinus Africanus as *Viaticum peregrinantis*; into Greek by Synesios, and into Hebrew as *Zedat al-*

⁶⁴F. Micheau: La Transmission; p. 404.

⁶⁵F. Micheau: La Transmission; p. 404.

⁶⁶G. Sarton: *Introduction to the History of Science*; The Carnegie Institute; Washington; in 3 vols; 1927; vol I; p.769.

⁶⁷Charles Singer: A Legend of Salerno. How Constantine Brought the Art of Medicine to the Christians; *Johns Hopkins Hospital Bulletin*, vol. 28, 1917; pp. 64-9.

⁶⁸G. Sarton: Introduction; op cit; I; p.769.

⁶⁹Sarton I; p.769.

⁷⁰N.L. Leclerc: *Histoire de la medecine Arabe*, 2 vols; Paris; 1876. vol 2; p. 363.

⁷¹N.L. Leclerc: *Histoire*; p. 363-4.

⁷²N.L. Leclerc: *Histoire de la medecine*; p. 365.

⁷³G. Sarton: Introduction; op cit; vol I; p. 682.

⁷⁴G. Bos: Ibn al-Jazzar on Women's diseases and their treatment; in *Medical History*, 1993; vol 37; pp. 296-312 at p. 296.

⁷⁵G. Bos: Ibn al-Jazzar on Women's diseases; p. 296.

derachim.⁷⁶ It contains remarkable descriptions of smallpox and measles. Ibn al-Jazar also wrote on the coryza, on the causes of the plague in Egypt, etc.⁷⁷ Details on Ibn al-Jazzar's works can be found in a diversity of works other than those used here.⁷⁸ The best survey of Ibn al-Jazzar's work remains by F. Sezgin.⁷⁹ Just as with the rest of Islamic scientific manuscripts, most works by Ibn Al-Jazzar, oddly, remain unpublished to this very day.⁸⁰ One such work was thought to have been lost until discovered by Dunlop in a unique manuscript in Lisbon.⁸¹ Ibn al-Jazzar's writings earned him great fame and made him very influential in medieval Western Europe.⁸²

Ibn al-Jazzar's most important work is his *Zad al-Musafar*, which is not as the title tells a guide for the traveller, but rather a systematic and comprehensive medical work. Bos of the Wellcome Institute in London gives an excellent outline of this work, from which the following is derived.⁸³ The work consists of seven books, which discuss the different diseases and their treatment from head to toe. Though comprehensive, the style is concise so that it can be taken on a journey and consulted in no physician is available. The work is still voluminous, covering 303 folios.⁸⁴ Already at the beginning of the 11th century it had been translated into Greek, and widely distributed.⁸⁵ It was also repeatedly translated into Hebrew, and into Latin as already stated, and was commented upon by the Salernitan doctors, this work being one of the most influential in Europe.⁸⁶ Being accepted into the so-called *Articella* or *Ars medicinae*, a compendium of medical textbooks, it was widely used in medical schools and universities: Salerno, Montpellier, Bologna, Paris, Oxford.⁸⁷ One of the afflictions Ibn Al-Jazzar deals with is forgetfulness, Ibn al-Jazzar noting how forgetfulness is prevalent amidst people of old age in cold, moist countries. For Ibn al-Jazzar, in his *Zad al-Musafir*, a good memory indicates a solid and balanced substance of the posterior part of the brain. Much forgetfulness, however, little understanding, slowness of mind, and much carelessness indicate that its substance is not solid.⁸⁸ In the same work, Ibn al-Jazzar states that superfluous cold moisture dominating the posterior part of the brain, causes so much forgetfulness that someone suffering from it will not remember what has been told him recently, will yawn very much and neglect his interests.⁸⁹

Ibn al-Jazzar treatise on women's diseases and their treatment is worth of more interest here, for it being a subject little known about.⁹⁰ This account is made available by the excellent article by Gerrit Bos.⁹¹ The section on women diseases was the major source for one of the Tortula treatises on gynaecology produced

⁷⁶ G. Sarton: Introduction; op cit; vol I; p. 682.

⁷⁷ Sarton; I; p. 682.

⁷⁸ F. Wustenfeld: *Geschichte der arabischen Aerzte* (60, 1840). Puschmann: *Geschichte der Medizin* (vol. 1, 564, 1902). M. Steinschneider: *Europaische Uebersetzungen aus dem Arabischen* (11, 78, 1904; 17, 1905).

⁷⁹ F. Sezgin: *Geschichte des arabischen Schrifttums; band iii; medizin-pharmazie-Zoologie*; Leiden; Brill; 1970; pp. 304-7.

⁸⁰ G. Bos: Ibn al-Gazzar's *Risala Fin Nisyan* and Constantine's *Liber de Oblivione*; in *Constantine the African and Ali Ibn Abbas al-Majusi*; Edited by C. Burnett and D. Jacqart; Leiden; 1994; pp. 203-37; at p. 203.

⁸¹ D.M.Dunlop: The Arabic manuscripts of the Academia das Ciencias de Lisboa; *Actas del primer congreso de estudios arabes e islamicos* (Cordoba; 1962; Madrid; 1964; p. 287.

⁸² G.Bos: Ibn al-Jazzar's on women's diseases; op cit; p. 297.

⁸³ G.Bos: Ibn al-Jazzar's on women's diseases; op cit; p. 297.

⁸⁴ Ms Dresden; 209.

⁸⁵ See C. Daremberg: *Recherches sur un ouvrage qui a pour titre Zad al-Mucafir, en arabe...* In *Archives des missions scientifiques et literaires*, 1851; vol 2; 490-527.

⁸⁶ G.Bos: Ibn al-Jazzar's on women's diseases; op cit; p. 297.

⁸⁷ See H. Schipperges: *Die Arabische Medizin im lateinischen Mittelalter*; Springer Verlag; 1976; pp. 106-8.

⁸⁸ *Zad al-Musafir*; I; ch. 14; Ms. Dresden; 209; fol. 21 in Gerrit Bos: *Ibn al-Gazzar*; op cit; p. 208.

⁸⁹ *Zad al-Musafir*; I; ch. 14; Ms. Dresden; 209; fol. 21. (Gerrit Bos p. 210)

⁹⁰ G. Bos: Ibn al-Djazzar on women's diseases; op cit;.

⁹¹ G. Bos: Ibn al-Jazzar on Women's diseases. 296-312.

in Salerno in the twelfth century, namely the *Cum Auctor*.⁹² These women diseases are discussed in chapters 9 to 18 of the sixth book of the *Zad al-Musafir*. According to Ibn al-Jazzar menstruation plays a central role in maintaining women's health and in causing women's diseases, he therefore discusses this topic first. Some Western medical treatises such as the *Lilium medicinae* of Bernard of Gordon; (fl. 1283-1308,) follow a similar pattern as al-Jazzar, starting their discussion of women's diseases with the subject of menstrual retention.⁹³ In Chapter 10, Ibn al-Jazzar discusses an excessive loss of blood occurring to women (Hypermenorrhoea). Ibn al-jazzar concludes this chapter by prescribing a variety of decoctions, electuaries, pills, pessaries, suppositories and powders.⁹⁴ In Chapter 12, Ibn al-Jazzar discusses the occurrence of tumours in the uterus, whilst in chapter 13, he discusses the occurrences of ulcers in the same part, and their treatment. His solutions touch upon the problem of the examination and treatment of the patient, an issue which has also been debated by Ibn Khaldun, and Ibn Hanbal; the prevailing idea being that the physician should only take an active part in the treatment of women's diseases when it is impossible for the midwife alone to do so, as for instance, in the case of some operations.⁹⁵ In Chapter 15, he discusses the regimen which is good for pregnant women, he suggests some general rules to prevent the pregnant woman from getting upset during this phase, and he suggests, too, ointments and poultices to be applied in order to strengthen the connection of the foetus with the uterus, and for the end of pregnancy, he recommends bathing, ointments and relaxing food.⁹⁶

It is this medical heritage which was passed on to the Christian West by Constantine the Africa, via Salerno. He did so, oddly, or precisely, soon after the high civilisation of Tunisia in general, and that of Al-Qayrawan, most particularly, suffered its demise, that is after the devastating invasions of the Banu Hilal.

Invasions and the Decline of Al-Qayrawan:

'I give you,' said the Fatimid Caliph to the Banu Hilal tribes, 'I give you, he said, '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.⁹⁷ This, Saladin reckons, simply meant ruin and devastation of Ifriqiya.⁹⁸ In wave after wave, the invaders, the warriors followed by their families and herds, swept over the Cyrenaica and Tripolitania into southern Tunisia, drawing others behind them, pilfering, burning, and destroying everything on their way.⁹⁹ The invaders spread havoc, the towns and cities were burnt down; the countryside devastated; the whole of Ifriqiya now was turned from its once prosperous condition into vast emptiness and arid zone, only land for herds, nomads, and shepherds.¹⁰⁰ The Hilâli invasions of the mid-eleventh century ended Tunisia's role as an entrepôt.¹⁰¹ Andalusí families doing business there transferred

⁹² This has been shown by M. H. Geen in her pioneering study: *The transmission of ancient theories of female physiology and disease through the early Middle Ages*; PH.d thesis; Princeton University; 1985, pp. 278-90.

⁹³ G. Bos: *Ibn al-Jazzar on women diseases*; op cit; Note 21 p. 299.

⁹⁴ G. Bos: *Ibn al-Jazzar on women diseases*; p. 302.

⁹⁵ G. Bos: *Ibn al-Jazzar on women diseases*; p. 305.

⁹⁶ G. Bos: *Ibn Al-Jazzar*; p. 308.

⁹⁷ H. Saladin: *Tunis et kairouan*; op cit; p. 106.

⁹⁸ H. Saladin: *Tunis et kairouan*; p. 107.

⁹⁹ S and N. Ronart: *Concise Encyclopaedia*; op cit; p. 398.

¹⁰⁰ H. Saladin: *Tunis et kairouan*; op cit; p. 107.

¹⁰¹ T. Glick: *Islamic and Christian Spain*; Princeton; 1979; p. 131.

their operations eastwards.¹⁰²The Banu Hilal entered Al-Qayrawan, and wrought the most frightful havoc on it in 1057.¹⁰³ Ibn Khaldun tells:

*'They destroyed all the beauty and all the splendour of the monuments of Qayrawan. Nothing that the Sanhadji princes had left in their palaces escaped the greed of the brigands. All that there was in the town was carried off or destroyed.'*¹⁰⁴

Al-Qayrawan, residence of the caliph's governors, the spiritual and intellectual metropolis of the Muslim West in the days of the Aghlabids and the Zirids, was thoroughly devastated by the Banu Hilal.¹⁰⁵ The population was scattered in all directions, some went to Egypt, others to Sicily and Spain; a considerable body to Fes.¹⁰⁶The capital of Ifriqiya never recovered from this disaster.¹⁰⁷Writing in the sixteenth century, Leo Africanus, who visited Al-Qayrawan in 1516 tells:

*'The inhabitant are at present all poor artisans, of whom some are carriers of the skins of sheep and goats, the others furriers whose handi work is sold in the cities of Numidia, where no European cloth is to be had. But all of these traders, there is none who is able to make a good livelihood and those who follow them live a miserable existence and are in very great poverty.'*¹⁰⁸

Like a sort of obituary, the road to decadence is well traced by Fontaine and Gresser, who tell how from a camp founded by Okba Ibn Nafi', to become the centre of the spread of Islam westward, then the capital of the governors of Ifriqiya, then the zenith of its glory and history under the Aghlabids, just to begin its road to decadence under the Fatimids, before the Banu Hilal dealt it the mortal blow.¹⁰⁹ Talbi gives an even more vivid account of the road to decadence of Al-Qayrawan:

*'On the eve of the Banu Hilal invasion, he says, 'Al-Qayrawan had already lost much of its brilliance of Aghlabid times, the Banu Hilal invasion was the coup de grace, which ended its brilliant history. On the first day of Ramadhan of 1057, they began their destruction and devastation. This half of the century symbolised not just the end of al-Qayrawan, but also the end of the whole brilliance of the Maghrib. It was the end of a prestigious period of civilisation. Urban life and urbanity retreated in front of the advance of the nomadic hordes, the Bedouinisation of the country spread down to the 19th century. In this era of decadence, al-Qayrawan, once a great metropolis, turned into a miserable town lost in the steppes. Deserted by the major part of its population, it continued to shrink. Ten years after the Banu Hilal invasion, only a crumbling wall surrounded the Great Mosque, and whatever was left of the quarters to the west of the city. When al-Idrisi wrote in the middle of the 12th century, that is just prior to the arrival of the Almohads, al-Qayrawan was only ruins, only subsiding walls of earth, in the hand of tribes who severely taxed an already impoverished population.'*¹¹⁰

¹⁰² T. Glick: Islamic and Christian Spain; p. 131.

¹⁰³ G. Iver: Kairawan; op cit; p. 648.

¹⁰⁴ Ibn Khaldun: *Histoire des Berberes*; Trans De Slane; i.37.

¹⁰⁵ S and N. Ronart: Concise Encyclopaedia; op cit; p. 368.

¹⁰⁶ Abd al-Wahid al-Marrakushi: *Al-Mu'djib fi Tarikh akhbar al-Maghrib*; ed. R. Dozy; 2; p. 259.

¹⁰⁷ G.Iver: Kairawan; op cit; at p. 648.

¹⁰⁸ Leo Africanus; quoted in G.Iver: Kairawan; op cit; at p. 648.

¹⁰⁹ J. Fontaine, and P. Gresser: *Le Guide de la Tunisie*; op cit; p. 3 06.

¹¹⁰ M.Talbi, quoted in J. Fontaine, and P. Gresser: *Le Guide de la Tunisie*; p. 310.

Once Al-Qayrawan was destroyed, the government organisation was dislocated; the authority of the Zirid emir was reduced to al-Mahdiya and the narrow coastal strip, whereas the rest of the country is split into numerous city states under continuously changing local chieftains.¹¹¹ After the Banu Hilal mayhem, despite subsequent signs of renewal in subsequent centuries, the city never recovered its illustrious Aghlabid past.

The demise of the Maghrib following the Banu Hilal invasion was a great blow to Islam, not just for the devastation caused, but also because it made the Christians aware of the chaos the Muslim realm was drowning into.¹¹² This emboldened the Christian armies, which went on the attack on all fronts. The crusaders took Barbastro in Spain in 1063. Then from there began to wrest one place after the other from the Muslims in Spain.¹¹³ The timely intervention of the Almoravids led by Ibn Taschfin, and then by the Almohads saved Muslim Spain for another two centuries.¹¹⁴ The same Almoravids and Almohads checked the Christian invasion of North Africa, the Almohads, for instance, managing to expel the Normans who had taken al-Mahdiya in 1148, the Almohad recovering the place in 1160.¹¹⁵ In fact, the Normans, profiting of Muslim civil wars, had already taken much of Tunisia, and even Tripoli, and had begun settling the Maghrib with Christian populations, and were seeking to eliminate the Muslim presence completely in the region, and had it not been for the Almohads, the Normans would have succeeded.¹¹⁶ No Muslim force could save Muslim Sicily which fell in 1089, and where, subsequently, just as in Spain, the Muslims were entirely eliminated.¹¹⁷ The other front, the East, was the scene of another two century war (1096-1291) between Western Christendom and Islam.

Al-Qayrawan, itself, remained, as always, at the forefront of Islamic resistance. Centuries before, the governor Ibrahim ibn Aghlab began his reign in 800 by moving the seat of his government out of the precincts of al-Qayrawan, the capital, because of, as Ronart alleges: 'its unruly population and the spirit of uncompromising combative Puritanism of its circles of men of religion and law.'¹¹⁸

The spirit of resistance ever obvious, some eight centuries later, when the Hafids accepted the Spanish protectorate after the capture of Tunis by Charles V in 1535, the people of Al-Qayrawan rising in great revolt against this, and being assisted by Arab tribes and the Turks and their seaman admiral Dragut.¹¹⁹ And three centuries later, after the signing of the Treaty of the Bardo in 1881, which put Tunisia under French 'protection', Al-Qayrawan, once more, was the great centre of Tunisian resistance.¹²⁰ The reason, perhaps: when he laid the first stone of the city, the founder of Al-Qayrawan, Oqba Ibn Nafi' in 670 had said:

*'I intend to build a town which can serve as a depot of arms (Kairawan) for Islam to the end of time.'*¹²¹

¹¹¹ S and N. Ronart: Concise Encyclopaedia; op cit;; p. 371.

¹¹² For this, no better source than Ibn al-Athir: *Al-Kamil fi'l Tarikh*; 12 Vols; ed C.J. Tornberg; Leiden and Uppsala; 1851-76.

¹¹³ H.C. Lea: *The Moriscos of Spain*; Burt Franklin; New York; 1968 reprint.

¹¹⁴ S. Lane-Poole: *The Moors in Spain*; Fisher Unwin; London; 1888.

¹¹⁵ S and N. Ronart: Concise Encyclopaedia; op cit; p. 371.

¹¹⁶ D.Abulafia: The Norman Kingdom of Africa and the Norman Expeditions to Majorca and the Muslim Mediterranean; in D. Abulafia: *Italy, Sicily and the Mediterranean 1100-1400*; Variorum Reprints; London; 1987; pp. 27-49.

¹¹⁷ See for instance: Rodrigo de Zayas: *Les Morisques: et le racisme d'etat*; Edt Les Voies du Sud; Paris, 1992.

¹¹⁸ S and N. Ronart: Concise Encyclopaedia; op cit; pp. 37-8.

¹¹⁹ G. Iver: Kairawan; op cit; p. 648.

¹²⁰ G. Iver: Kairawan; p. 649.

¹²¹ Al-Nuwairi in Ibn Khaldun: *Histoire des Berberes*; trans de Slane; i 327.

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