The Nile: its role in the fortunes and misfortunes of the Fatimid dynasty during its rule of Egypt (969-1171).

The epoch spanning the years 935-1094 constitutes - on the whole - the longest and driest period on record in the history of the Nile.[1] A stretch of relatively normal discharge followed this phase, only for dryness to return. The reasons of this dry-wet-dry phenomenon have been recently appraised in the context of global climatic changes – the so-called "Medieval Warm Period" - that affected most of the known world between the 11th and the 13th centuries.[2] It was in this period of Egyptian history that the Shi'i Isma'ili Fatimids replaced the Sunni Ikhshidids as rulers in 358/969 and, with alternating fortunes, continued to reign until 567/1171.

In this paper, I examine how, faced with the convergence of extraordinary geo-climatic factors, the Fatimids managed (and mismanaged) the Nile and its valley. I contend that the imperial aspirations of the Fatimids in Cairo and beyond were in many ways subject to the typical unpredictability of the natural cycles of the river, hence the Fatimids' success and failure in managing the varied economic, political and trading activities that took place along the Egyptian section of the Nile valley. A case in point highlighted here will be the Fatimids' privileging of flax cultivation over wheat.

Sources and Scholarship

The environmental history of the pre-modern Middle East has thus far remained an under-researched area of study. Alan Mikhail has discussed the potential implicit in the development of this discipline in an article published in *History Compass* in 2011, providing a concise overview of studies that have stimulated methodological and thematic discussions on environmental issues that ought to be addressed *within* historical studies of the Middle East.[3] Interest in this field has since gathered momentum with contributions to this area of study consisting of broad regional studies on the medieval Islamic world.[4] Zooming into this field, with the Fatimids - thanks to the availability of hydrological data and the relative abundance of sources of, and on, their era- we are given a test-case opportunity to increase our understanding of the role of the environment in the development and destruction of empires in the medieval Islamic world.[5]

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[1] Based on data, Rushdi Said claims that the Egyptian population declined from 2.4 million in the 4th/10th to 1.5 million in the 5th/11th century. Said, *The River Nile*, 211-12. See also Ashtor, *A Social and Economic History*, 207-208.

[2] See Hassan, 'Extreme', 101-112; Jiang et al. 'Coherency', 1-4 and Said, *The River Nile*, 164-165, 211-12. On the absence of this phenomenon in parts of Asia see Bulliet, *Cotton,* 69–95.

[3] See Mikhail, 'Global', 952–970. The issue 42, no. 4 (2010) of the *International Journal of Middle East Studies* features papers and discussions on aspects of the environmental history of the modern Middle East. See also Frenkel, 'An introduction', in this journal.

[4] See Ellenblum, *The collapse,* and Raphael, *Climate.*

[5] Cf. the discussion in Ellenblum, *The collapse*, 23-31.

Due to the vital role that the Nile has always played in the life of Egypt, the practice of the yearly recording of its water levels goes back to antiquity. The collection of data became more systematic with the Arab conquest in the 1st/7th century and was continued thereafter, with the registers containing Nile records held among the most important documents of any given dynasty to rule in Egypt up to the modern period. Most of these documents are now lost, but a number of works by Egyptian historians of the 9th/14th and the 10th/15th centuries contain sufficiently matching records to enable us to reconstruct an almost complete and fairly accurate register of the levels of the Nile from the Arab conquest until the pre-modern era. Such wealth of data is not available for other rivers. To date, the most complete and reliable account of the Nile performance can be found in the 10th/15th century Ibn Taghri Birdi's *al-Nujum al-ẓahira*.[6]

Information on the geography of the Nile and its customs during the Fatimid period can be derived from the narratives of travellers who transited through Fatimid Egypt while on their way to Mecca.[7] The most informative are those by 4th/10th century travellers such as al-Muqaddasi[8] and the Fatimid sympathiser Ibn Ḥawqal[9], by the 5th/11th century Persian Isma'ili poet and missionary Naṣir-i Khusraw[10] and, later, by the geographer al-Idrisi.[11] The fascination with the river is also reflected in medieval *faḍa'il* ('Virtues') works dedicated to Egypt, many featuring traditions about the Nile and information about land, taxation, measurements and distances relating to the river. Particularly relevant for the Fatimid period is the compendium by Ibn Zulaq (d. 386/996) whose collected narratives are indicative of some beliefs held at his time regarding the river's supernatural qualities, its mysterious origins and the Nile's relevance to Islamic sacred history.[12] The anonymous *Kitab Ghara'ib al-funun wa-mulaḥ al-'uyun* (known as the *Book of Curiosities*) gives us a vivid sense of the place that the Nile occupied in the world as the Fatimids saw it. Written in Egypt, most likely for the Fatimid Imam-caliph al-Ẓahir (d. 427/1036), the work contains parts dedicated to the Nile featuring ways to predict its water levels based on ancient Greek and Coptic sciences, details of river navigation, astrological information and description of wanders.[13] For many aspects of life on, by, or because of the Nile we rely mainly – and typically for the Fatimid period- on the Mamluk historian Taqi al-Din al-Maqrizi, particularly his treatise on famines[14], and the documentary evidence provided by the Cairo Geniza fragments.

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[6] Ibn Taghri Birdi, *al-Nujum,* vols. 4 and 5. For comparative data see Said, *The River Nile,* 159-160.
[7] See Nazmi, 'The Nile River', 28-54.
[8] Cf. [al-Muqaddasi], *The Best Division.*

[9] Cf. Ibn Ḥawqal, *Ṣurat al-arḍ*, 126-152.
[10] Cf. Naṣir-i Khusraw, *Sefer nameh.*
[11] Cf. al-Idrisi, *La geographie*.
[12] See Ibn Zulaq, *Faḍa'il*. Also quoted in al-Aqfahsi , *Akhbar*, 37, 39, 50, 60, 62. See also al-Kindi, *Faḍa'il,* for the Ikhshidid period and Ibn Ẓahira, *al-Faḍa'il,* also quoting Ibn Zulaq. On grain prices and the Nile rise up to the start of the Fatimids cf. page 161.
[13] See Rapoport et al., *An Eleven-Century*.

[14] al-Maqrizi, *Le Traité*.

Despite the centrality that the Nile played in the political, economic, social and cultural life of the Fatimids, to date no specific study has been dedicated to the role the river played in contributing to the making and breaking of the dynasty.[15] Direct and indirect references and passages on the Nile occur in many studies dedicated to the Fatimids in Egypt. Many of these contributions touch on environment-related matters, spanning a range of concerns that include the role of the river in the economic and daily life of communities (primarily the Jewish one) living under Fatimid rule[16]; the Nile as stage and space for ritual, pageantry and public display of power in Cairo[17]; the modes of navigation on the Nile in the 4th/10th -6th/12th centuries[18]; the role of the river in shaping the commercial and administrative policies of the dynasty in Upper Egypt[19]; the challenges the Nile posed to the Fatimids because of periodic wheat penury ostensibly linked to the poor water rise performance.[20] The lack of a single, dedicated interdisciplinary study on the Nile and the Fatimids rests on the fact that scholars of Fatimid studies tend to explore the history of a Cairo-centred 'Fatimid Egypt' rather than the 'history of Egypt under the Fatimids', thus penalising and obfuscating the view into the dynasty and its rule that the 'periphery', whether geographical or social, can offer. Stemming from a socio-historical approach that taps into disciplines as diverse as agricultural and financial histories, this paper represents a preliminary attempt at addressing the gap identified above.

The Nile and the Arrival of the Fatimids

The severely low rise of the Nile that afflicted Egypt in the decades prior to 358/969 had caused the collapse of the pro-'Abbasid Ikhshidid rule. This state of affairs opened the way to the Fatimids' advance eastwards from North Africa and their conquest Egypt. Upon arriving, Jawhar – the general who led the Fatimid campaign - first stabilised the wheat prices and prevented speculation. Fraudsters and profiteers were caught and paraded; strict control measures were set in place. Nevertheless, famine continued in 360/971, followed by a plague epidemic in the region that caused immense mortality. However, by 361/972, things started to improve.[21]

Since 359/970 Jawhar appears to have been aware of the strategic possibilities of the Nile as the highway for the control of Upper Egypt and, possibly, beyond. One of Jawhar's earliest diplomatic moves was to send Ibn Salim al-Aswani on a mission to seal a trade pact with the King of the Nubians that also involved an invitation to the King to convert to Islam and a demand of payment of tributes to the new regime. As a result of his mission al-Aswani wrote his history of the Nubians for the Imam-caliph al-'Aziz (365/975- 386/996). This work,

[15] For a chapter on the Nile in the Fatimid period see Halm, *Die Kalifen*, 46-81.
[16] Cf. Goitein, *A Mediterranean Society,* vol. 1 and vol. 4.
[17] Sanders, *Ritual*.
[18] Agius, *Classic Ships*. J. Cooper's *The Medieval Nile*: *Route, Navigation, and Landscape in Islamic Egypt* (Cairo: A.U.C., 2014) was not available at the time of writing.

[19] Garçin, *Un centre musulman*.
[20] Bianquis, 'Une Crise', 67-101.
[21] al-Maqrizi, *Le Traité*, 13-15.

only extant in quotes by 9th/15th-10th/16th centuries Egyptian historians is the earliest known work of the Fatimid period to contain passages on the source of the Nile, its rise, its tributaries and cataracts. [22] According to Abyssinian sources, the Fatimids sent an embassy to Abyssinia during the years of the worst Nile-related calamity ever known to have taken place in Egypt, between 457/1063 and 464/1072. If that was the case, Ibrahim Beshir observed, the Fatimids were among the earliest rulers of Egypt who tried to extend their reach to the lands in the furthermost upper part of the river. The mission might have been related to the fact that the Abyssinians Emperors had frequently threatened to divert the course of the Nile.[23]

In 362/973 the Imam-caliph al-Mu'izz and his entourage arrived in the new capital by seven large boats that sailed from the Mediterranean into the Delta and up the Nile to Cairo.[24] Al-Mu'izz's scenic entrance into his new domains marked the beginning of the Fatimid long-standing tradition of using the river as a stage for public display of authority.

Upon taking charge of his reign in Egypt, al-Mu'izz issued one of the most important and forward-looking early decrees of his rule: he forbade the public announcement of the data relating to the rising of the Nile until they reached optimal level. Only he and his general Jawhar were to be informed in writing about these measures and only when the river reached the level of at least 16 cubits was the announcement to be made public. Prior to this decree, the unpredictability of the rise of the river had meant that people panicked for their livelihood when early public release of data indicated that the Nile might be low. In response people would hoard foodstuff, thus driving prices up and triggering shortages that would in turn cause famine. Al-Mu'izz's highly strategic policy was intended to prevent bouts of popular hysteria and to buy time to plan for contingencies if needed.[25]

Al-Mu'izz's decree automatically elevated the rank of the officer in charge of observing the water levels during the rising phase of the river. The official reading of the gradual rise of Nile took place at the Nilometer (*miqyaṣ*) on Rawḍa island, although other Nilometers stood along the river.[26] The structure in Rawḍa– consisting of a well with a pole in it marked by measuring tacks – underwent major additions during the Fatimid period.[27] With the arrival of the Fatimids, during the period of rising of the water - typically about forty days- the official in charge who came to be known as Ibn Abi'l-Raddad would report daily to the imam-caliph. This person would receive abundant gifts like mounts, robes of honour and extra titles in the years when he could announce optimum raise levels that would

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[22] Troupeau, 'La description', 278-9. See also Halm*, Die Kalifen*, 49-54 and Beshir, 'The Fatimid Caliphate', 87-88.
[23] Cf. Beshir, 'The Fatimid Caliphate'*,* 89.
[24] Cf. Naṣir-i Khusraw, *Sefer nameh*, 126.
[25]Jiwa, *Towards*, 109-110. See also al-Muqaddasi, *The Best Division,* 174.

[26] For a full history of this structure see Popper, *The Cairo Nilometer*.

[27] In 415/1024, under al-Ẓahir's caliphate a wall was built around it. According to Ibn Abi'l-Raddad the wall, ordered by a rival dignitary, obstructed the flow of the water in the Nilometer, causing inaccurate readings of the rise. The problem might have been caused by poor construction, but Bianquis suggests that the 'mistake' might have been intentional and connected to other incidents, moved by speculative tactics to inflate the price of wheat. Bianquis, 'Une crise', 80-1.

amount to ca 18 cubits.[28] By the time of Naṣir-i Khusraw's visit to Egypt this officer reportedly received 1,000 *dinars* annually. Upon the water reaching the 16 cubit limit, the officer of the Nilomemter would dispatch public announcers to share the promising news. When the water reached the optimal 18 cubits drums would be played in towns as a sign of joy. If the rise stalled this could be a sign of insufficient inundation, in which case charity would be distributed and sombreness would prevail.[29] In 399/1008, as poor Nile performance in that year was imputed to moral decline, decrees were issued prohibiting singing by the Nile and drinking alcohol when sailing its waters.[30]

Managing the Nile valley: from rituals to taxation

To many the Nilometer signalled life or death. This lent a sacred-like status to its site, its officer and the regime that oversaw its management to the point that the Nilometer became a catalyst for popular devotion and propitiation rituals. In the years 399/1008, 414/1023 and 478/1085, when the Nile stopped rising, mass prayers took place at the Muqaṭṭam mountain overlooking Cairo.[31] In 485/1092 al-Mustanṣir built a mosque on the west side of the Nilometer, possibly for amuletic purposes.[32] It is however in the 6th/12th century, during the caliphate of al-Ḥafiẓ that we find reference to an elaborate ceremonial that saw the caliph leading a ritual aimed at transforming the status of the Nilometer from profane to sacred space. At its climax, the ceremony consisted of 'the perfuming of the Nilometer', celebrated upon the Nile reaching the auspicious 16 cubit level. Unlike other festivals, participation to this ceremony was restricted only to the caliph and his closest entourage. When the Nile reached plenitude the caliph and the vizier rode to the port in the old capital, Fusṭaṭ. Once at the Nilometer the caliph made a perfume mixing saffron and musk for Ibn Abi'l-Raddad to handle. The latter would then jump into the well. Still dressed, he would cling to the column and perfume it with his right hand while the Qur'an was recited.[33]

Every year, the rising of the water to the highest level, marked the most important moment in the Fatimid calendar: it signalled the start of the agricultural cycle and of the land tax (*kharaj*) year.[34] The Fatimids' fiscal year coincided with the Coptic solar year, beginning

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[28] Sanders, *Ritual*, 112-3. For example, the years 358/969, 362/973, 363/974, 364/974-5, cf. Jiwa, *Towards,* 109-110. The reaching of levels between 16 and 18 cubits did not always or necessarily deliver the abundance typically associated with these measures. For tables with yearly breakdown of rising level data and consequent river performance covering also the Fatimid phase see Hassan, 'Extreme'.
[29] Naṣir-i Khusraw, *Sefer nameh*, 117.
[30] Lev, *State*, 169.

[31] On the ensuing food crisis see Bianquis, 'Une crise', 67-101. On the mass prayers see al-Maqrizi, *Le Traité*, 17; Lev, *State*, 169-170; Ibn Taghri Birdi, *al-Nujum*, vol. 5, 123.

[32] Sanders, *Ritual*, 117.
[33] al-Maqrizi's *al-Mawa'iẓ wa'l-i'tibar* (*Khiṭaṭ*) is the basis for Paula Sanders's work on Fatimid ceremonials. On this ritual in Mamluk times and other Nile-related worship see Frenkel, 'Popular Culture', 203-207. On Coptic Nile festivals under the Mamluks see Lutfi, 'Coptic festivals', 269-273.
[34] See Cooper, 'The Assessment', 365-382. See also Ibn Ḥawqal, *Ṣurat al-arḍ*, 129-130.

on September 8-9.[35] The land tax was due after the harvest and its full payment was required before the next seed time could start.[36] The Fatimids adopted a land tax calculation based on the farmers' declaration of intention in using the land. The ruler - mostly the sole owner of the land - would grant permission to the peasants to cultivate it. The ruler, however, could not impose tax on arable land until the Nile reached plenitude. After the water receded, an agent would survey the territory, distinguishing it between cultivable land and non cultivable and indicate the amount of cultivation that was feasible according to the flood level. Where the Nile's growth was insufficient the ruler would not charge the land tax on the farmers. At harvesting time the treasurer and secretary of the ruler would go out and determine the amount of crop to be paid as land rental, leaving the remaining harvest to the peasants. These arrangements regarding the payment of land rent were deemed to be wisely based on the unpredictable performance of the Nile along the whole valley. The imposition of a fixed land tax would risk creating unfairness since, were that be the case, those who were affected by a low Nile would be paying the same as those who were not. [37]

The Fatimid regime relied on an elaborate administrative system to exploit the Nile's water. During the reign of al-Ḥakim, in Upper Egypt, a man of science, thought to have been Ibn al-Haytham (d. 430/1039), considered utilising the water level drop at the first cataract to regulate the flow of the Nile and make the area the source of perennial agriculture. Sources suggest that the famous mathematician had been wooed to Egypt by al-Ḥakim for the project but when the task proved unfeasible Ibn al-Haytham fled Egypt and returned only after the imam-caliph's death.[38] Foremost among the government responsibilities was the maintenance of irrigation canals. From the Nile, canals would irrigate villages and, if necessary, water could be raised via hydraulic pulls. Villages were built above the river level and during the inundation period, they would be linked by boat service. A land track along the river also served as road and, according to Naṣir-i Khusraw, the treasury would pay an officer 10,000 *dinars* for its maintenance.[39] Egypt possessed an unmatched system of waterways and its economic ascendance over its neighbours was owed partly to this advantage.[40] The Fatimids appear to have privileged the maintenance of some canal networks over others: during their rule the irrigation system of the Fayyum region declined dramatically. At the same time, the area remained an important centre for the cultivation of flax[41], thus indicating that resources were destined to favour the production of some crops over others.[42]

The canals were closed by dirt dams which were opened when the water reached the appropriate level. The opening of the canals' major dams occurred in the context of elaborate

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[35] This year consists of 12 months and 30 days and added periods of 5 days in three successive years and 6 days in the fourth year. Said, *The River Nile*, p.160.
[36] For monthly taxation of crops in relation to cycles of the Nile see Ibn Ḥawqal, *Ṣurat al-arḍ*, 129-130.
[37] al-Muqaddasi, *The Best Division,* 179-180. See also Sanders, *Ritual,* 99; Naṣir-i Khusraw, *Sefer nameh*, 115-119.
[38] Cf. Ibn Abi Uṣaybi'a, '*Uyun*, 90-91 and [Ibn al-Qifṭi], *Ta'rikh*, 166-167.

[39]Naṣir-i Khusraw, *Sefer nameh*, 118.
[40] Cf. Goitein, *A Mediterranean Society*, vol. 1, 295-31.
[41] Sijpesteijn, *Shaping*, 29 and Sijpestteijn, 'Travel', 128.
[42] Cf. Ibn Ḥawqal, *Ṣurat al-arḍ*, 149. See also Power, 'The Expansion', 114.

ceremonies. The formal opening of the canal was an established practice when the Fatimids built Cairo. The Fatimids, however, raised its pomp to new heights.[43] In 362/973, al-Mu'izz rode to the dam at the mouth of the canal that served the capital, at the time outside Cairo, in a grand procession escorted by the dignitaries of the regime. Naṣir-i Khusraw gives a detailed description of the magnificent protocol that took place during the reign of al-Mustanṣir.[44] At the climax of the ceremony "This prince [the sultan] goes to the top of the canal... stays on his mount, under the pavilion... for an hour. Then, they give him a spear so that he can throw it against the dam. The people amass and start hacking the dam ...until it gives under the pressure of the water which then floods the canal... The first vessel launched in the canal is a boat filled with deaf and dumb people... They attribute to them a positive influence and the sultan arranges that they receive charity".[45] The celebration coincided with the Coptic Nile festival of the Cross (26-27 September)[46] and was attended en mass by Muslims and Christians. After the opening of the canals, the flooding of the whole Nile valley would take place and it would take some forty days for the water to recede, finally allowing the farmers to start seeding.

Flax versus Wheat: Hits and Misses and Times of Crisis

Plans did not always come to fruition. Often time the Nile underperformed with disastrous consequences for the population at large and for the fortunes of the dynasty. The Nile failed, intermittently during al-Ḥakim's reign; at least one major shortfall took place during al-Ẓahir's reign; a low Nile occurred in the early years of al-Mustanṣir's rule (427/1036 -487'/1094). On all these occasions, famine, plagues, price inflation and widespread death occurred. None of these events, though, compared with the total economic, social and political collapse that coincided with a catastrophic uninterrupted sequence of low Nile years, from 457/1063 to 464/1072.[47] This period, known as the *shidda*, featured the worst ever performance in the entire recorded history of the river. On occasions the imam-caliphs addressed these crises with drastic policies on the distribution of commodities such as wheat of which, by the way, they were the wholesalers. In 399/1009 al-Ḥakim - typically vilified in anti-Fatimid sources - was hailed as the people's saviour for devising a system that ensured equal distribution of wheat while preventing price speculation.[48] Al-Mustanṣir's policies were not so effective: in 444/1052 for example a price reduction battle erupted between traders in the market that caused a deflation in the value of wheat resulting in major shortages.[49]

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[43] See Sanders, *Ritual*, 99-110. On pre-Fatimid water management see Sijpestteijn, *Shaping,* 21-24.

[44] Naṣir-i Khusraw, *Sefer nameh*, 136-142.
[45] Translated from French, Naṣir-i Khusraw, *Sefer nameh*, 141-142.
[46] Cf. Lutfi, 'Coptic festivals', 280-282 and Rapoport et al. , *An Eleven-Century*, 473; see also al-Muqaddasi, *The Best Division,* 178.

[47] On the *shidda* see Ellenblum, *The collapse,* 147-154.
[48] al-Maqrizi, *Le Traité*, 17-18. See also Bianquis, 'Une Crise', 67-101.

[49] al-Maqrizi, *Le Traité,* 22.

These incidents are revealing because they tells us something about the consequences of a crucial investment strategy that the Fatimids adopted upon becoming rulers in Egypt. The Fatimids increasingly limited the growth of wheat in favour of flax crops.[50] While domestic wheat cultivation did not stop completely,[51] extensive land previously used for grain came to be used to farm mostly flax (and other industrial crops like sugar[52]) to supply the regime-owned profitable textile industry and export in general.[53] In principle this policy made sense as, in theory, it freed the regime cultivation programme from its dependency on the unpredictability of the river and consequent market instability as supplier of the main staple food. Industrial crops could guarantee a regular flow of money to the regime, part of which the ruler could use to import extra wheat when needed by retaining, consolidating and perpetuating control of North Africa, Sicily, Syria and trade treaties with Byzantium. Privileging industrial crops paid off as it favoured farmers while procuring the regime revenues from land tax, retailing of crops and exports of finished products, but it also meant that when the Nile was low and the arable land at disposal was limited famine erupted because no sufficient land was made available for growing wheat. Lack of grain meant insufficient fodder for farming animals, setting off a vicious cycle. High mortality meant that even when land would become available, there would be insufficient people to farm it as indeed al-Maqrizi had observed. When phases of low Nile coincided with poor state planning of wheat stock reserves, adverse geo-climatic conditions across the eastern Mediterranean regions and volatility in geopolitical relations between the Fatimids and their rival dynasties in the Mediterranean (e.g. loss of influence in North Africa as well as loss of control of Sicily and Syria and the breakdown of trade alliances with Byzantium, as for example in 447/1055) hampered grain import into Egypt, the consequences for the people were catastrophic.[54]

A low Nile certainly had negative repercussions on the economy as a whole. But as the decision of what, where and how much to grow was determined in advance, it is evident that the regime chose to give precedence to industrial crops that were not perishable and generated money even when, for the sake of public welfare, food crops should have been favoured. Ultimately, it was the regime's self-interest and short-termism that generated long term damage rather than the river poor performance alone. That trading interest prevailed over public welfare is indicated by the fact that in the aftermath of 'bad' Nile years the production and trading of flax and its finished products as well as other industrial crops do not appear to have been majorly affected, as one can infer, for example, from the lack of reference to this predicament in the Geniza documents.[55]

To the Fatimids, the Nile was not so much the 'bread basket of Egypt' but rather the north-south highway that allowed them to be strong international commercial players. They became suppliers of desirable goods and holders of the monopoly on the trade transiting

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[50] On the agricultural changes brought by the Arabs see Watson, *Agricultural innovation*, 40. On the flax-based economy of Egypt see Franz-Murphy, 'A New Interpretation', 274-97.
[51] On Fatimid grain management see Shoshan, 'Fatimid Grain', 181-189, in particular 186. On flax in Upper Egypt see Franz-Murphy, 'A New Interpretation', 288.
[52] On sugar cane in Fatimid Egypt see Watson, *Agricultural innovation*, 28.
[53] On flax for trade in the Delta and in Upper Egypt see Power, 'The Expansion', 114-115.
[54] See Mayerson, 'The Role', 201-207. Cf. also Sijpesteijn, *Shaping*, 25.
[55] On wealth and sale of flax see al-Idrisi, *La geographie,* 317. Also throughout Goitein's *A Mediterranean Society* and Mayerson, 'The Role', 206.

between Indian Ocean ports, East African trading posts and the Mediterranean regions. Archaeological evidence shows, for example, that direct and intense trade occurred between Fatimid and Swahili traders during the tenth and eleventh centuries. Fatimid merchants were mainly interested in the Swahili's supply of gold, ivory and rock crystal. The Fatimid's access to ivory contributed to a flourishing of Egyptian ivory carving and, by default, to a similar blossoming in Byzantium, Norman Sicily and al-Andalus.[56]

The Fatimid rule in Egypt coincided (or generated) therefore with the considerable expansion of the commercial axis that led from Fusṭaṭ, via the Nile, to the Red Sea ports such as 'Aydhab (and later Qusair al-Qadim) and then to Aden and beyond.[57] By combining economic and political pressures, with the adoption of an enticing custom duties policy that treated non-Muslims traders as equals to their Muslims counterparts, the Fatimids ostensibly managed to divert the trade away from the alternative 'Abbasid-controlled Persian Gulf route. Even if this rival route to Iraq along the Persian Gulf did not totally disappear, it declined when compared with the Fatimid-controlled one which benefitted from (or contributed to?) a simultaneous commercial resurgence of both the Mediterranean and Indian Ocean spheres.[58] The Fatimid capital became the nerve centre of the commercial exchange for goods to and from the Mediterranean, via Alexandria, thanks to the Nile harbours of Fusṭaṭ and Cairo.[59] In Upper Egypt, the Nile main commercial terminals were Aswan first and, later, Quṣ. The Fatimids' efforts in securing administrative and military control of these commercial stations in the south changed the role that the river would play in Egypt as a whole: the upper stretch of Nile valley was no longer left to its own devices as it had been mostly the case until the 4th/10th century.

Conclusions

The Fatimids endured the worst performances of the Nile ever recorded in history, yet managed to turn the river into an avenue for international commercial success. In the midst of this natural calamity, the Fatimids mixed misjudgement in agricultural policies for the exploitation of the land along the Nile valley with shrewd trading tactics that enabled them to overshadow their 'Abbasid rivals. The story of the Fatimids and the Nile resonates with current concerns about the interrelation between the rise and fall of political powers vis-à-vis the effects of climate change[60]; the impact of financial risk-taking on the general public; the logic behind decision-making on matters of land management and water resources; the dilemma of choosing between free trade and protectionism; the opportunities but also challenges of adopting socio-political and economic systems that favour international mobility of human resources. The Fatimids faced these challenges with whatever instruments

[56] Cf. Guérin, '*Avorio*', 160-1.

[57] On the decline of this route before the Fatimids see Shatzmiller, 'Transcontinental', 126-127.
[58] Udovitch, 'Fatimid Cairo', 686-7 and Agius, *Classic Ships*, 97. Also Power, 'The Expansion', 116-117.
[59] Goitein, *A Mediterranean Society*, vol. 4, 34.

[60] On data reflecting aspects of this interrelation see Chaney, 'Revolt on the Nile' http://www.luc.edu/orgs/meea/. Last visited May 2014.

we are told were available to them be they perfuming rituals or sophisticated know-how. The history of Egypt under the Fatimids coincides with a unique convergence of events over a span of some 200 years in the pre-modern Islamic period: ruled by a unique Shi‘i dynasty, operating in a unique geographical setting, faced with a unique climatic/hydrological predicament and uniquely placed as intermediary between the Mediterranean and Indian Ocean worlds. Further interdisciplinary investigation into the role of the Nile in the life of the dynasty may well yield a significant re-appraisal of the Fatimids and their role in Islamic history as a whole.

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