Famines in medieval Egypt: natural and man-made

Yaacov Lev

The typology of famines in medieval Egypt is rather simple since famines occurred either as a result of speculative withholding of supplies, or as a result of the Nile not rising enough. As simple as this situation is, it determined what successive dynasties could or couldn't do, and any assessment of such actions must be directly related to the type of shortage that occurred. Furthermore, one must emphasize that in the case of shortages caused by insufficient inundation of the Nile, the situation in the year that the Nile failed ('the current year') was determined by the rise of the river in the preceding year, which could have been quite normal. The knowledge about a shortage in the next year created a buyers' market in 'the current year', leaving wide room for governmental intervention in both Cairo's grain market and the bread supply system. When in the year following 'the current year' the full impact of grain shortage hit Cairo, the ability of the government to intervene and its efforts to alleviate the situation, if taken at all, were quite limited.

This paper will discuss three cases of famine in medieval Egypt: two caused by insufficient rise of the Nile (in 1024-1025 and in 1200-1202) and one caused by withholding of supplies in 'the current year' (the famine of 1263-1264). However, any discussion of these events must be preceded by a short description of the Nile's annual cycle and the structure of Cairo's bread market.

The Nile's annual cycle

The agricultural life of medieval Egypt was governed by the Nile and the Coptic calendar. The Nile's annual rise used to begin during the month of Ba'unah (8 June-7 July) and intensified during Abib (8 July-6 August), and came first in Upper Egypt. The Nile usually reached plentitude, i.e. sixteen cubits (1 cubit = 46.2 cm) as measured at the Cairo Nilometer, during Misra (7 August-5 September), while the new agricultural year began during Tut (11/12 September-9/10 October). During Tut the seeds needed for the planting of wheat and barly were delivered to the peasants, but the actual sowing began in Upper Egypt during Babah (11/12 October-9/10 November), and in other parts of the country during Kiyah (10/11

December-8/9 January). The agricultural cycle ended shortly before the beginning of the new rise of the Nile in Ba'unah and was marked by the distinction between winter crops, which included basic foods such as grain and beans as well as flax, while watermelons and cash crops such as cotton and sugar cane were part of the summer crops.[1]

Cairo's grain market

The grain market of Egypt's capital city of Fustat-Cairo was influenced by two parallel events: the observation of the rise of the Nile and the arrival of freshly-harvested grain to the grain ports of the capital where it was taxed. The size of the grain crop was determined by the rise of the Nile in the previous year but the volume and intensity of demand for the freshly harvested grain was determined by the progress in the rise of the Nile in 'the current year', which indicated the fortunes of the next agricultural year. Famines could occur in 'the current year' because of predictions of a bad harvest in the next year, which created a buyers' market and drove the prices up beyond the reach of many.

Furthermore, Cairo's grain market was torn between the household grain economy of the dynastic court and the commercial urban grain market. In Cairo the regime stored grain and fodder and provided for the court, employees of the state, the army and navy and special institutions such as the Royal Guest House. The commercial urban market operated parallel to the regime's household grain economy but was influenced by it. The court sold its surplus grain on the urban market but, in times of crisis, also diverted and confiscated grain shipments intended for the commercial urban market to its granaries.[2]

---

[1] This section is based on late medieval agricultural calendars. These texts have been collected, translated into French and annotated by Charles Pellat: C. Pellat, *Cinq calendriers Égyptiens* (Cairo 1986).

[2] The basic distinction between the household grain economy of the regime and the commercial urban grain market has been put forward by: I.M. Lapidus, 'The Grain Economy of Mamluk Egypt', *Journal of the Economic and Social History of the Orient* 12 (1969) 1-15: 12-14, and is applicable for the Fatimid period too. See A. Maqrizi, *Musawwadat Kitab al-Mawa'iz wa-l-I'tibar fi Dhikr al-Khitat wa-l-Athar* [English translation], A.F. Sayyid ed. (London 1995) 246-248.

The famine of 1024-1025

Our knowledge of the events of these two years derives from the surviving fragments of Musabbihi's contemporary chronicle.[3] Musabbihi was an exceptional historian driven by curiosity and had access to official decrees and comprehensive knowledge of daily events in Fustat, where most of the population lived, derived perhaps from a kind of written document or log. His first record of the rise of the Nile is from Friday 11 Jumada II 414/30 August 1023, and the height of the Nile was fourteen cubist and one finger. On that day the Coptic New Year was celebrated and the rise of the Nile took its normal course. On Thursday 13 Jumada II/2 September, the Cairo Canal (Khalij) was opened. However, on Sunday 23 Jumada II/12 September, the Nile massively receded.[4] It was an unprecedented event that brought people to perform public supplication prayers and had a devastating effect on the grain market as it drove the prices up, supply ceased and black markets emerged. The prices of bread also went up.[5]

It was a panic response driven by the inner logic and mechanism of the grain market. Up to that day everything went as normal: supply was regular (due to a good harvest determined by the rise of the Nile during the previous years) and wheat and bread were affordable. However, in anticipation of next year's shortage, those who could afford it were buying more wheat than usual, or withholding sales from their stocks, which caused prices to go up. Eventually, those who had stocks stopped selling in order to protect themselves from the anticipated next year's shortage. The rising prices of wheat also pushed up the price of bread, which was prepared and baked on a daily basis. In social terms it can be said that large purchases of wheat by the 'haves' (the urban upper class) drove prices up, affecting

[3] Muhammad al-Musabbihi, *Akhbar Misr* [English trans.], A.F. Sayyid and Th. Bianquis eds. (Cairo 1978).
[4] For the geography of the Cairo Canal, see: G. Cornu, *Atlas du monde arabo-islamique a l'époque classique (IX^e-X^e siècles)* (Leiden 1985) map X. For the opening of the Canal, its significance and the ceremonies associated with it, see: W. Popper, *The Cairo Nilometer* (Berkeley and Los Angeles 1951) 82-87; P. Sanders, *Ritual, Politics, and the City in Fatimid Cairo* (New York 1994) 100-112; H. Halm, *Die Kalifen von Kairo. Die Fatimiden in Ägypten 973-1074* (Munich 2003) ch. 2, esp. 64-68, provides extensive discussion of the Nile's geography and other aspects pertinent to the river's flow and rise.
[5] Musabbihi, *Akhbar*, 10-13.

immediately the urban poor and the low middle class, if such terms can be applied to medieval society. Another way to discuss the social consequences of the evolving famine is to employ the terms 'structural poor' (permanent poor) and 'conjunctural poor' (temporary poor). These terms are used frequently by historians of medieval and early modern Europe and were introduced into Middle Eastern studies by Mark R. Cohen.[6]

The structural poor were the truly destitute who eked out a living on a daily basis. The conjunctural poor were people who usually lived on the verge of subsistence and consisted of a diversified range of social groups, including artisans and small shopkeepers. This class of people frequently fluctuated between poverty and subsistence and any rise in bread prices affected them immediately as it was their staple food, which they bought on a daily basis. We are completely in the dark about the wider social ramifications of the famine and the lot of other disadvantaged groups such as infants, orphans, widows and old age women. In the middle ages, the survival of infants was always precarious and any food crisis gravely jeopardized their existence and the same can said about the other groups.

The regime's response to the evolving crisis was restrained and focused on the replacement of the market supervisor (*muhtasib*).[7] The new market supervisor, Ya'qub ibn al-Dawwas, (appointed on Sunday 5 Rajab/23 September) was entrusted with overall responsibility for the markets and grain ports of the capital. His first action was to punish the bread vendors and flour merchants by having them beaten. Musabbihi asserts that these steps brought about the renewal of bread supply and calmed people down. The effect of these punitive actions against the professional groups involved in the more narrow mechanism of bread production and supply was short lived. On Wednesday 8 Rajab/26 September, the bread shortage intensified and further steps were taken to deal with the situation. The policy of punishing certain professional groups was extended to include the millers, who were ordered to assume responsibility for the supply of bread instead of the bread vendors. Further steps were also taken involving the forcible opening of grain stocks

[6] See M.R. Cohen, *Poverty and Charity in the Jewish Community of Medieval Egypt* (Princeton 2005) and idem, *The Voice of the Poor in the Middle Ages* (Princeton 2005).

[7] There is considerable literature dealing with the supervision of markets (the *hisba* institution) and the market supervisor in medieval Islam. See, for example, A. Ghabin, *Hisba, Arts, and Craft in Islam* (Wiesbaden 2009) and K. Stilt, *Islamic Law in Action* (New York 2011).

belonging to people of the ruling establishment and delivery of grain from the grain ports of the capital.[8]

The actions aimed at increasing the supply of grain at the expense of the better-off players in the market proved effective and for eight months (i.e. Rajab 414 - Rabi‘ I 415) the wheat and bread markets functioned in orderly fashion. This statement must be qualified as it relies on and reflects the only source available to use. It can be argued that the text does not necessarily fully reflect the events of these eight months. Although such an argument is valid, no alternative account can be offered. We can conjecture that during all those months the market was a buyers’ market and, eventually, collapsed under the pressure of excessive demand for grain. Musabbihi reports on rising prices of grain and bread during Rabi‘ I 415/August-September 1024 as the situation was getting more and more desperate. Due to a good harvest in the previous year grain continued to arrive at the capital but towards the end of Rabi‘ II/after mid-September, a shipment intended for the grain port of Fustat was diverted to one of the palaces. The regime was hoarding grain in preparation for the impending famine.[9]

The rise of the Nile in 415/the Summer of 1024 was above the optimal level and the next agricultural year looked promising, but the current realities were harsh and the situation volatile. For some inexplicable reasons a new market inspector was appointed and his one day in office (4 Rajab 415/11 September 1024) proved disastrous, as he announced maximum prices for both good quality white bread and ordinary bread. This decree brought the grain market and the sale of bread to a complete standstill. The regime’s immediate reaction was to restore Ya‘qub ibn al-Dawwas to his post and he partially revoked the disastrous policy of his predecessor. He allowed the bread vendors to sell bread at market prices but imposed a maximum price for the bread baked and sold by oven owners. Musabbihi maintains that new price patterns emerged: top quality bread (*samid*) was sold at double the price of other types of bread.[10]

---

[8] Musabbihi, *Akhbar*, 14, 15-16.

[9] Ibidem, 32, 39.

[10] Ibidem, 46-47, 48. For legal and theological thinking about the legality of setting maximum prices, see D. Gimaret, ‘Les theologiens musulmans devant la hausse des prix’, *Journal of the Economic and Social History of the Orient* 22.3 (1979) 330-338:331-338. For types of bread, see P.B. Lewicka, *Food and Foodways of Medieval Cairenes. Aspects of Life in an Islamic Metropolis of the Eastern Mediterranean* (Leiden 2011) 156-157.

As fascinating and detailed as Musabbihi's chronicle is, we must read between the lines. His accounts of the three months Rajab, Sha'ban and Ramadan 415/September-November 1024 depict a fully functioning regime and orderly society living its life under the long shadow of food shortage. Rarely in these accounts the gloomy situation of the masses (*al-'amma*) is reflected, especially that prices went up during Rajab/September and that shortage became more acute. In Shawwal/December the situation deteriorated and the grim presence of the famine suddenly comes to the fore of Musabbihi's narrative and, except for the inner core of the ruling elite, no one was immune. People invited to the palace for the traditional feast of Breaking of the Ramadan – a wide privileged circle of the ruling class – looted food and sweets offered at the banquet. Outside the confines of the palace the prices of grain and bread continued to rise and the famine claimed its death toll. Musabbihi's references to mortality caused by the famine are more implied than explicit. The first allusion appears in the account of the events of Dhu l-Qa'da/December 1024 – January 1025, reporting that the caliph realized that many people were dead and their bodies buried without ritual washing and shrouds. He was quick to provide shrouds and money for their proper burial. Eventually, the famine comes to dominate Musabbihi's writing.[11]

The whole entry referring to Friday 13 Dhu l-Qa'da/16 January 1025 is devoted to the starved people who were reduced to eating grass, the death toll of the famine, and especially the dying of the poor. The caliph who crossed the town in a procession was confronted by shouting: 'Hunger, oh Commander of the Faithful hunger. Neither your father nor your grandfather did such a thing to us. [We implore] God, He [is responsible for] our being (*amr*)'. The town was on the verge of an outburst of violence and Ya'qub ibn al-Dawwas lost his grip on the situation. Despite all his experience and having handled affairs adequately so far, his deeds only aggravated the misery of the people. In mid-Dhu l-Qa'da/January, he went to Fustat accompanied by military cohorts and sealed 150 grain stores and forbade the sale of any grain from them. The decree had a catastrophic effect and danger of violence lurked upon the town. A person in the service of the vizier disobeyed the order. He sold grain from his store at the price prevalent before the proclamation of the decree and there were buyers willing and able to buy at that price. The regime swiftly reacted by rebuking

[11] Musabbihi, *Akhbar*, 52, 66-67, 71.

the market supervisor for his deeds and accusing him of mishandling the situation. A few days later an edict announcing the cancellation of custom duties levied on grain at Fustat's grain ports was published, but it proved too little too late to have any real impact on the situation. The punishment of the flour merchants by intense beating was also to no avail.[12]

The edict announcing the lifting of the customs duties on grain reflects the entrenched division between the household grain economy of the regime and commercial urban market and the fact that the regime continued to collect grain taxes even during the famine. Actually, the household grain economy of the regime failed to provide adequate supply of grain for the army, especially the black infantry. This failure might reflect the vast expansion of the black infantry corps that took place during al-Hakim's reign (996-1021) and providing for these troops proved to be beyond the means of the regime. The black infantry stationed in military quarters outside the walls of the palace city of Cairo posed a danger to Fustat, forcing the regime to defend the population from being attacked by its own starved troops who went on a rampage. The failure of the regime was even worse: hunger encroached on the palace and some of those who depended directly on the regime such the slaves and servants of the palace complex starved.[13] At this point Musabbihi's chronicle stops and the process of recovery from the demographic and economic repercussions of the famine remains largely unattested.

The crisis of 1200-1202

Our knowledge of the 1200-1202 crisis is derived from the account of the physician ʻAbd al-Latif al-Baghdadi (1162-1231) who, during those critical years, lived in Egypt.[14] He provides both a description of the rise of the Nile and the human consequences of the famine but, unlike Musabbihi, he had no interest in the workings of the wheat and bread markets and, therefore, his account must be supplemented by other reports.

The rise of the Nile in 596/1199-1200 was twelve cubits and twenty-one fingers. The full meaning of these figures must be seen against the

[12] Musabbihi, *Akhbar*, 72-73, 75-76.
[13] Ibidem, 81-82, 85, 86, 87, 88-89.
[14] ʻAbd al-Latif al-Baghdadi, *Kitab al-Ifada wa-l-Iʻtibar* [English translation], K.H. Zand, J.A. Videan and I.E. Videan trans. (London 1965).

prevailing wisdom in medieval Egypt that sixteen cubits meant a good agricultural year and high tax income for the government, while at fourteen cubits a precarious balance between supply and demand was maintained. A rise of less than fourteen cubits meant acute shortage and famine. The famine of 1200 was caused by hoarding in preparation for the shortage in 1201. A letter written in Alexandria between 26 September and 1 October 1200 testifies to rising prices of wheat and massive purchases by people of means. At such times the conduct of the ruler is critical and medieval historians described the Ayyubid sultan al-Malik al-ʿAdil in a favorable light. He, in contrast to the Fatimid caliph al-Zahir during 1024-1025, handed out charity to the pious and the poor and provided for 6,000 (estimates are between 6,000 and 12,000) people in Cairo. His example was followed by top officers of the army, high-ranking Muslim and Christian administrators and people of means who were concerned for their fellow men. The responsible conduct of the ruling elite deflected the worst consequences of the crisis, at least for a while.

In 597/1200-1201, however, the terrible impact of the famine was fully felt. The sultan left Egypt with his army for Syria. In doing so the regime must have exhausted its grain surplus and had nothing to offer to the people. ʿAbd al-Latif al-Baghdadi describes in moving terms the plight of the helpless and claims that cannibalism was widespread. Imports of grain from Syria and Palestine (in October 1200) were not enough to have any real impact on the overall situation. The rise of the Nile on 3 September 1201 was fifteen cubits and sixteen fingers but the water receded immediately. In practical terms it meant that the next harvest would also be insufficient. Referring to the situation in 1201-1202, ʿAbd al-Latif al-Baghdadi makes the chilling remark that although the harvest was small the demand for grain was much reduced because of high mortality. During the period between July 1200 and November 1201, 111,000 deaths were recorded in Cairo.[15] External sources – the letters of Geoffrey of Donjon, the master of the Hospitallers in Syria – clearly attest that the situation in 1202 was gloomy. In a letter written in June 1202 to king Sancho VII of

[15] For references to sources, see Y. Lev, 'Saladin's Economic Policies and the Economy of Ayyubid Egypt' in: U. Vermeulen and K. D'Hulster eds., *Egypt and Syria in the Fatimid, Ayyubid and Mamluk Eras* V (Leuven 2007) 207-249: 243-247.

Navarra, Geoffrey makes an en passant remark on the 'influx of beggars', arriving from Egypt to Syria and Palestine because of the famine.[16]

The famine of 1024-1025, which involved a single year crop failure, had only short term consequences and the recovery must have been immediate. The famine of 1200-1202, which involved a crop failure in two consecutive years, had far more devastating medium-range consequences. The demographic and economic recovery was slower and longer and must have taken two or three decades.

The famine of 1264

The famine of 1264 was, apparently, a result of the low rise of the Nile in August-September 1263. If this reconstruction of events is correct, it means that large purchases of grain in anticipation of a shortage in 663/1264-1265 must have been taking place since the Summer of 1263 and, consequently, this famine can be labeled as a famine of 'the current year' type.

The first disruption in the orderly functioning of the wheat and bread market took place at the beginning of Rabiʿ II 662/end of January-beginning of February 1264 as the prices soared. The response of the sultan Baybars I to the crisis is described in detail by well-informed contemporary sources and was a mixture of both failed and highly effective policies. The first step of imposing maximum prices was misguided and brought the market to a standstill.

The decree of maximum prices was swiftly rescinded and a policy of daily direct sales of wheat from the stocks of the regime to the poor and to widows was adopted. This policy was enhanced by registering the names of the poor in the capital and extended toward other social groups such as the blind, and the low-paid auxiliary military groups (Kurds and Turkmen), who found it difficult to cope with rising prices of bread. The responsibility for these policies was shared between the sultan, who provided for the blind; high-ranking military officers who had to provide for three months for specific groups of the poor; and the commander-in-chief of the army, who provided for the Kurds and Turkmen. In addition, wealthy people of the civilian society such as rich merchants and *cadis* also assumed responsibility

[16] H.E. Mayer, 'Two Unpublished Letters of the Syrian Earthquake of 1202' in: S.A. Hanna ed., *Medieval and Middle Eastern Studies in Honor of Aziz Suryal Atiya* (Leiden 1972) 295-310: 305.

by providing for the poor. The sultan understood very quickly the limits of governmental intervention in the markets mechanism and flooded the market with supplies aimed directly at the worst affected social groups. By committing the combined resources of the regime and the upper echelons of the military and civilian society the sultan staved off the potential dangers of the crisis and bought social peace.[17] The conduct of the regime also offers a clue to the true nature of this crisis. Apparently, the rise of the Nile in the summer of 1263 was slightly below sixteen cubits and the regime felt secure enough that it wouldn't be exposed to massive shortage in 1264, and had the necessary resources to flood the market with supplies. The light nature of the 1264 crisis doesn't invalidate the effective handling of the situation by the regime.

The wider context

Under previous regimes the grain surpluses of Egypt were shipped to fed Rome and Constantinople. One would expect the Muslim rulers of Egypt to take care for providing the capital Fustat and later Fustat-Cairo, a task that seems feasible and straightforward. Medieval Islam, however, was not a direct heir of Late Antiquity, and urban institutions and life evolved differently. The historical origins of the clear distinction between the household grain economy of the regime and the grain market are not utterly clear and only some general suggestions can be offered at this stage.

Following the Arab conquest of Egypt, during the seventh and early eight century, the old Roman-Byzantine system of requisition of surplus grain from Egypt's peasants was continued and put into new uses. The Muslim rulers sent Egypt's grain to the holy cities of Arabia, provided for the Arab-Muslim military in Fustat (the *diwan* system), and made a contribution to Umayyad fleets that raided the Mediterranean and to building projects in Damascus and Jerusalem.

---

[17] Shafi' ibn 'Ali, *Kitab Husn al-Manaqib al-Sirriyyah al-Muntaza'ah min Sirah al-Zahariyyah* [Eng. translation], 'Abd al-'Aziz al-Khuwaytir ed. (Riyadh 1976) 74; Muhyi al-Din ibn 'Abd al-Zahir, 'Al-Rawd al-Zahir fi Sirat al-Malik al-Zahir' [Eng. translation] S.F. Sadeque ed. and trans., *Baybars I of Egypt* (Dacca 1956) 94-95 (original text) 204-206 (trans.).

Dispatching Egypt's grain to Arabia evolved into a truly *longue durée* trend and medieval and Ottoman rulers of Egypt continued this policy at great cost and effort. Under the Mamluk sultans (thirteenth-fifteenth centuries), and later the Ottomans, this policy was increasingly maintained through the creation of vast pious endowments which, in some cases, also had ships for shipping the grain to Mecca and Medina.

By the inner logic of the endowment system and its legal definition any act of endowment is a charity par excellence. Consequently, sultanic endowments of agricultural land for supplying the holy cities with grain were arrangements elevated from the realm of policy to the level of a sacred deed done in a quest for a reward in the afterlife that also epitomized the piety of the ruler and the expectations from him to be just and charitable. These endowments also tallied with the perception that a charity performed in a holy city is especially meritorious and beneficial for the salvation of the donor. Care for Mecca and Medina embodied Islamic piety, while providing for Cairo was just a matter of policy with no religious content. Although basically solid such an argument has its limitations, as the Ottomans invested great efforts in providing grain and bread for Istanbul.

The apparent lack of institutionalized interest of medieval Muslim rulers of Egypt in how the population of Cairo obtained its bread might have been an unintended by-product of the abolishment of the diwan system in the Abbasid state by the caliph al-Muʿtasim during the late 830s. The abolishment of the system paved the way for the emergence of a commercial grain market as the main mechanism for the grain trade in Fustat and supplying bread for its population. However, with the establishment of the quasi-independent Tulunid (868-905) and Ikhshidid (935-969) dynasties in Egypt a powerful regime-sponsored household grain economy had emerged. This trend only intensified and became perpetuated under the Fatimid rule and the establishment of Cairo as the governmental center.