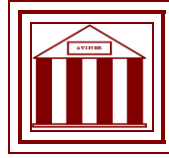


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MDT2015-1410**

**The Peasants during the Mamluk Period:
How they have Struggled**

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This paper should be cited as follows:

Mujani, W. K. and Borsch, S. J., (2015). "The Peasants during the Mamluk Period: How they have Struggled", Athens: ATINER'S Conference Paper Series, No: MDT2015-1410.

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URL: www.atiner.gr
URL Conference Papers Series: www.atiner.gr/papers.htm
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ISSN: **2241-2891**
08/05/2015

The Peasants during the Mamluk Period: How they have Struggled

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Abstract

Al-Maqrizi (d.1442) mentions that maltreatment of the peasants affected farming areas and arable lands in Egypt. Agricultural activities were sometimes discontinued and productivity impaired because some peasants fled from the villages. Muhammad bin Muhammad bin Khalil al-Asadi (last known biographical date: 1451) also says that the oppression of the peasants was another circumstance that affected the agricultural sector in Egypt. Thus, the aim of this paper is to discuss the hardships faced by the peasants in Egypt during the Mamluk era with a special reference to the period of 1468-1517. Among the difficulties suffered by the peasants at that time that affected their lives and agricultural production were the problems in the Iqta'¹ system and in irrigation, the lack of technological innovation in agriculture and disturbances caused by climatic and biological disasters.

Key words: Peasant, Mamluk, agriculture, struggle, hardship.

Acknowledgments: Research for this study was supported by a grant from The National University of Malaysia (Grant No. DPP-2014-068).

¹The Iqta' could be describe as the land or, rarely, taxes allocated by the great amir or sultan to soldiers in return for military service. In exchange for the benefits derived from the Iqta', the Muqta' (Iqta' holder) had a number of responsibilities. These included military duties such as supplying troops in times of war, and a number of non-military functions such as the supervision of cultivation and irrigation, and some personal services to the sultan. The Iqta' holder also paid the soldiers under his command and provided their equipment and supplies from the revenue from his Iqta' holder.

Introduction

The peasants formed the majority of inhabitants in Egypt and lived in the villages and the countryside within the area belonging to the Iqta' holder they served. Their cottages were built of mud and draft animals lived with them in a corner of the same cottage. Their clothes were woven by hand from cotton and wool. Indeed, for the most part the peasant class lived in deprivation and misery ('Ashur 1977, 142-152). They depended on the Nile flood to irrigate the cultivatable areas because of the dry climate and geographical characteristics of the country. If the Nile level exceeded sixteen Dhira' (cubits), or was less than sixteen cubits, or there was a delay in the flood, this would have a serious effect not only on the cultivation of crops but also on the peasants.

A low water level meant that all potentially cultivatable areas would not be irrigated and consequently the size of the ensuing crop would not meet annual requirements. A sharp increase in grain prices would occur as a consequence and this would continue until the next satisfactory crop was harvested.¹

The same result would occur when the Nile flood was too high. Some areas would become submerged under lakes and the time for sowing would pass without this taking place. Al-Maqrizi (d.1442) (1998, 1: 175-179) explains that if the level of the Nile is seventeen cubits and above, Ghala' (high prices) would follow and would destroy the people. Similarly, if the flooding were to be delayed, a sharp increase in the price of grain would also ensue. However, prices would gradually fall after the Nile reached its full level.

During the Mamluk period, the peasants had a good understanding of how to maintain the quality of the soil, a knowledge passed down from pre-Islamic times. Thus, for example, they were aware of the necessity of crop rotation in order to avoid exhausting the soil, and they therefore let part of the land lie unplanted in order to renew its fertility. Such techniques continue in use to this day (Rabie 1981, 59-62). According to al-Maqrizi, the cultivated and uncultivated lands in Egypt could be classified into a certain number of categories designated by technical names. Some of these technical names are still used by modern Egyptian peasants.

The Peasants and Agricultural Practice

The system of cultivation in the Mamluk period showed historical continuity from earlier times. Thus, the peasants inherited the agricultural calendar from their pre-Islamic predecessors. The times of sowing and harvesting of various kinds of crops were fixed according to the Coptic solar year. Al-Maqrizi and other historians mention the types of crops which were cultivated and harvested during each particular Coptic month, as well as the time to plough, irrigate, fertilise, weed and so on.

¹The situation was at its worst when the flood did not exceed twelve cubits because this meant famine.

The Nile flood would cover the land to a level of one and a half metres for about forty-five days. As soon as the water receded, it was possible for the peasants to walk across the soil and to begin cultivation. The crops which were cultivated at this time did not need any irrigation other than the flood. They were winter crops.

After the soil had been ploughed or tilled, the peasants would occasionally drive sheep over the freshly sown fields so as to force the seeds down into the hard mud. Under the Mamluks, the peasant received his seeds for cultivation from the Iqta' holder. Normally, the sultan would supply the seeds to the Iqta' holder at the same time as the conferment of Iqta'. In addition to the technique of crop rotation, the peasants also maintained the fertility of the soil with compost made from such as animal waste or rubbish heaps. Indeed, these latter were a frequent source of fertilizer providing nitrogen in the equivalent of 2-3% nitrate of soda (Cooper 1977, 188-204).

When the plants started to grow the peasants had to pull out the weeds. This work was very important for productive agriculture. When the harvest season arrived, the peasants used a short sickle to cut their crops. In the threshing activity to separate the grain, cows and bulls were driven round the threshing floor in a circle and their hooves would tread the grain. After threshing came the winnowing to remove the chaff from the grain. For this, the peasants would use a wooden winnowing fork or occasionally two small bent boards to aerate the grain which then fell straight down while the chaff was blown aside. The grain was passed through a coarse sieve to separate it from the worst chaff and dirt. Following this, it was loaded on donkeys or camels and taken to the Nile from where it was transported by the sultan's fleets or by commercial vessels to the warehouses and granaries in Fustat and Cairo (Wan Kamal & Buckley 2008, 8).

The Peasants and the Iqta' System

Under the Iqta' system, the Egyptian peasant was a slave to the Iqta' holder. This is the reason why the term Qinn (serf) is used in the Mamluk sources to describe the peasants. Elsewhere, Al-Nuwayri (1931, 8: 248) uses the term Fallahin al-qarariyya (the peasants for ever) to designate them, which indicates the fact that they had to remain in the village until death. This applied not only to the peasant but also to his sons. He could only leave his village with the permission of the Iqta' holder, and then only for a specific time. Otherwise, the Iqta' holder could bring him back with the assistance of the authorities, and was even obliged by them to do so. The Iqta' holder could punish his peasants with flogging and imprisonment, and sometimes even put them to death. He was entitled to decide civil lawsuits among his peasants if the suitors preferred him to the Qadi (judge) or to an arbiter. Conversely, the peasant could not submit a complaint against the Iqta' holder to the legal or administrative authorities (Poliak 1939, 64).

In the Iqta' system, the peasant paid the Iqta' holder rent for the cultivated land or alternatively a fixed share (Muqasama) of the produce.¹ Rents varied according to the type of soil and the method of irrigation and were at the discretion of the Iqta' holder. The rent per Faddan² of cultivated land at the end of the fourteenth century was as follows:

- i. The rent for the Baq³ soil was about forty Dirhams. It subsequently increased to more than 100 Dirhams.
- ii. The rent for Barayib⁴ soil was thirty Dirhams and then increased to eighty Dirhams.

However, at the beginning of the fifteenth century, the rent per Faddan of many lands increased sharply by between 300 to 600 Dirhams.

On the fixed share of the produce, which depended on the fertility of the land and kind of crop, the peasant took one sixth, one fifth, one quarter, one third or one half. The size of this fixed share was at the discretion of the Iqta' holder (Turkhan 1968, 238).

Mamluk sources mention that the peasants were always oppressed by the Iqta' holder and were allowed to keep only an insufficient proportion of their produce and had to pay high rents. The peasants usually had to rely on the Iqta' holder to provide them with them seed and the means of livelihood and were therefore heavily indebted to them. In the later Mamluk period, the burden of falling agricultural revenues was shifted to the peasantry in the form of higher taxes, higher interest rates for the loan of grain and extraordinary payments.⁵

Some examples of onerous illegal taxes (Mukus) imposed on the peasants are Muqarrar al-jusur (dams tax),⁶ Muqarrar al-jararif wa al-'hafa'ir (digging tool tax),⁷ Maks al-masayid (fishing tax),¹ Maks 'adad al-mara'i (livestock

¹Relations between the Iqta' holders and the peasants were formalized through Qabala contracts. According to this arrangement, the former allocated land and lent seed to the latter. The Iqta' holders also employed private agents (Mubashirun) to collect taxes and distribute the seed.

²The size of a medieval Faddan was 5,900 square metres. This surface measure varied until Muhammad 'Ali who fixed it at 4,416.53 square metres. However, the Faddan now measures 4,200 square metres, or 1.038 acres.

³The soil which was cultivated in the previous year with Qurt (clover) and Maqati (various gourds) was the most fertile and the highest in value and tax rate. This was because the previous crops produced nitrogen which made the land fertile. Furthermore, the land could subsequently be cultivated with wheat and flax.

⁴This soil had been cultivated with wheat and barley in the previous year. Because these two crops had weakened the soil, it was rated below Baq soil. Clover, Qattani (legumes), and various gourds were suitable for cultivation on it to allow it to rest.

⁵When the government's control over the Iqta' holder lessened, the latter increased taxes without regard to the changing conditions of cultivation.

⁶This tax was used to finance the construction and maintenance of the irrigation system. This tax was levied on the inhabitants of the districts where irrigation dams needed improvement or reconstruction.

⁷This tax was imposed to finance additional projects for the maintenance of the dams and canals. It was payable in kind, that is, by supplying beasts of burden and harrows. Later the inhabitants of the districts concerned were given the option of paying the tax in cash.

tax),² Maks masahat al-qasab wa al-qulqas (sugar-cane and colocasia tax),³ Maks al-fawakih (fruit tax),⁴ Maks al-hashish (cannabis tax)⁵ and Dariba al-qudum (arrival tax). In addition, the peasants had to provide Hadaya⁶ (presents or gifts) to the officials of the government bureaux (Dawawin).⁷ They also had to cover the expenses of the Shadd (military associate) when he came to the village to collect the taxes. Sometimes they were ordered to provide fodder for the horses belonging to the Mamalik al-sultaniyya (The royal Mamluks).

Occasionally, the sultans ordered the peasants to provide for their needs. For example, Sultan al-Ashraf Sha‘ban ordered them to supply him with camels and wheat when he went on a pilgrimage. During Sultan al-Ashraf Qaytbay’s visits to the rural areas in 1468 and 1477, the peasants were ordered to pay an additional tax to him. The peasants were required to pay the same tax during Sultan Qansuh al-Ghawri’s visit to the countryside in 1513. On another occasion, in 1509 Sultan Qansuh al-Ghawri ordered them to cover the expenses of the Ottoman Amir Yazid bin Muhammad bin Murad bin ‘Uthman during his stay in Egypt (Ibn Iyas 1960, 4: 153,294,354).

In addition to the above, the amirs and Julban (the Mamluks of the ruling sultan) are said to have raided property that belonged to the peasants, such as harvested crops and livestock.⁸ It is also reported that the amirs sometimes kidnapped the peasants and held them to ransom.⁹

The period under discussion was also subject to the impact of the changes in the Iqta‘ system in Egypt. The abolition of the hereditary character of the Iqta‘ forced a number of Iqta‘ holders to abandon their agricultural lands or at least to make no effort to maintain them. This was simply because the land could not be transferred to their heirs. Moreover, the Iqta‘ holders were only concerned to get as much revenue as they could while still in possession of their Iqta‘ (Nasir 2003, 125). Thus, in order to obtain the maximum revenue they imposed high taxes on the peasants. In this environment, the peasants could not be productive labourers and some of them fled.

¹This tax was imposed on for fishing in the canals.

²The tax imposed on livestock which were bred on land not reached by the Nile. There was also Muqarrar al-jawamis (buffalo tax) where the peasants were forced to pay between three and five Dinars for each buffalo they had.

³This tax was imposed on sugar-cane and colocasia antiquorum. The amount was based on the width of land cultivated with those crops.

⁴The tax imposed on the various kinds of fruits grown by the peasants.

⁵This tax was imposed on the cultivation of cannabis.

⁶The Hadaya should be provided every year by the peasants in kind. Some items which were included as gifts were lambs and chickens.

⁷This duty was known as Diyafat (guests). The Shadd or Mushidd was a military associate who gave support to the local staff in their collection of taxes.

⁸For instance, in 1496 and 1511 al-Dawadar Tumanbay confiscated livestock belonging to the peasants in the rural areas.

⁹Ibn Iyas reports that amirs during Sultan Qansuh al-Ghawri’s reign kidnapped the female members of peasant families in order to force them to pay their taxes.

The Peasants and the Irrigation System

As a result of the crucial importance of the irrigation system to the economic life of Egypt, since Pharaonic times until the medieval period and even today its administration and maintenance have been the responsibility of the state. During the Mamluk period, these tasks were one of the primary duties of the sultans and Iqta' holders. Every Iqta' holder was responsible for the upkeep of the Jusur al-baladiyya (small irrigation dams) within the confines of his Iqta'. They used their own money from the revenue of the Iqta' to maintain the dams. Usually the peasants who worked in their Iqta' would help them in the construction or repair of the dams. For the Jusur al-sultaniyya (great irrigation dams), the sultans were responsible for the care of the dam and it was put under the supervision of the Diwan al-sultan (the sultan bureau). Nevertheless, in practice, the Iqta' holder assisted the sultan in the construction of this type of dam by supplying peasants, oxen, harrows and other tools (Qasim 1978, 23-24).

During the period under consideration Mamluk chroniclers make a few remarks about the restoration of dykes and bridges by the government. Sometimes, the work of maintenance and repair could not be done on time because the allocation to cover the costs was not enough. Consequently, the peasants could not enjoy the benefits of the irrigation system (Al-Qalqashandi 1987, 3: 516).

The Mamluk sources also reveal that the costs were imposed on the people. For instance, when the dam in Fayyum was damaged in 1512, the sultan required the peasants and the Iqta' holders to cover the expenses of repairing it. Amir Arzamak al-Nashif, who was responsible for supervising the work, took the cost from the revenue of their Iqta's. Shortly before this event, the sultan ordered the Iqta' holders in Giza province to pay for maintaining the Umm Dinar Dam. In order to get money from them, he is reported to have stopped payment of the Jawamik (monthly payment) to the Mamluks who owned the Iqta's in that area.

Occasionally, funds collected for the irrigation dams (Muqarrar al-jusur) was misappropriated by the sultan and some high officials instead of being spent on maintenance and construction. Ibn Iyas (1960, 4: 159, 5: 19) reports several examples of corruption which occurred during his time. For instance, in June-July 1511, Sultan Qansuh al-Ghawri ordered Amir Ansibay to supervise the digging of a canal from al-Qantara al-Jadida to Qanatir al-Awz. The sultan ordered the expenses to be taken from the Iqta' holders and the peasants who would benefit from the project. About 50,000 Dinars were collected but only half this amount was spent on the construction, the surplus being taken to the Khazina al-sharifa (the sultan's treasury).

Work on the irrigation dams was also imposed by corvee on the peasants and civilians. Mamluk historians document that men were often forced to work on repairing canals. For instance, al-Sayrafi (1960, 483) mentions that Dawadar Yashbak compelled about 2,000 of the 'Amma (civilians) to work on his dyke repair projects in August-September 1472.

The Peasants And The Primitive Tools

All of the tools used in agricultural activities in the Mamluk kingdom, from planting to harvesting, were primitive. The plough (Mihrath), for instance, had no wheels.¹ It was not designed to turn the soil and had only a shallow penetration. During this era, a pair of oxen could plough two-thirds or less of a Faddan a day in hard soil, and in soft soil they could plough about a Faddan (Girard 1942, 34&115). In order to till and hoe the soil, the medieval peasants used the Mi'wal (pickaxe) and Turya (axe or spade). They also used the Jarrafa (rake or harrow) to level the ploughed land, to break up clods and to uproot weeds. Hassanein Rabie (1981, 64) describes the Jarrafa as being the rough branch of the acacia tree or the trunk of a palm tree with two rings fixed at one end on either side. The peasant would stand on it while a pair of draught animals pulled it along. Other tools such as the sickle to reap the crops, and agricultural techniques such as threshing, remain basically unchanged. Threshing by driving cows and bulls over the crops and winnowing by wooden forks, as well as other rudimentary techniques were similarly still in use until modern times.

One of the main economic problems afflicting mature empires is the absence of technological innovation. At a certain time, empires need to apply new technology so as to increase production. The Mamluk empire is a case in point. Medieval Egyptian peasants still used the tools which were known and used in Pharaonic times and which are still used by peasants today without much change. Indeed, the agricultural implements described by Napoleon's scientists in Egypt were not significantly different from those depicted in Pharaonic wall paintings (Issawi 1974, 1-8). Even at the present time, only slight progress has been made in the actual methods of agriculture, and consequently the peasants of today live much the same life as did serfs under the Pharaohs. "As a whole," states Professor Shaler, "this land exhibits a singularly ancient adjustment of a people to their environment, one accomplished so early that there has been little change in their customs or numbers for at least four millennia" (Gemmill 1928, 295).

Equally primitive techniques were used to irrigate the soil in order to produce summer crops. Water was transported to the fields in buckets or jars, tied to the necks of oxen or the sides of donkeys. Other methods of irrigation used by the medieval Egyptian peasants were the Nattala and the Shaduf. In the Nattala method, which was very ineffective, two men stood face to face, each holding two ropes to which was attached a wide, shallow, waterproof basket. These two men bent slightly towards the water, submerged the basket and filled it. Then they straightened their backs while turning to the field, thus raising the basket and emptying it into the mouth of the irrigation canal. Not many Faddans could be irrigated in a day using this method. The Shaduf method was also extremely laborious. It was also slow and ineffectual and took

¹The French noble, Jean de Joinville, one of Saint Louis' companions during his Crusade to Egypt in the middle of the thirteen century, was astonished to see a plough with no wheels compared to what he had seen in his native Champagne (Duby 1968, 109).

most of the labouring population away from other work. Sometimes as many as four Shadufs were needed, one above the other, to raise the water by stages from the Nile up to the fields above. All of these methods were inherited from an older time and some of them still continue to this day (Rabie 1981, 68-70).

The Peasants and The Natural Disasters

Any discussion of the peasants in the Circassian Mamluk period must discuss environmental issues and natural disasters since these regularly affected the agricultural sector leading to the destruction of crops and economic loss. The Mamluk historians have preserved valuable data on the natural disasters during their times. For example, Ahmad bin 'Ali al-Dalaji al-Misri (d.1435), al-Maqrizi, Ibn Hajar al-'Asqalani (d.1449), Ibn Taghri Birdi (d.1469), al-Sayrafi (d.1495), 'Abd al-Basii (d.1514), Ibn Iyas (d.1524) and the anonymous author of *Nuzhat al-Nazirin*, mention the environmental problems which the peasants had to deal with and describe how these problems played a significant role in their lives. Two categories of disasters are significant in the present discussion, namely climatic and biological.

Climatic Disasters

Since Pharaonic times, Egypt has been witness to many severe weather disturbances. The Mamluk period was no exception. References to the occurrences of drought, floods, violent rain or storms, hail and severe cold are readily found in the works of contemporary historians. The following are some descriptions of these climatic disasters in Egypt and the implications they had for agriculture and the lives of the rural dwellers.

Droughts

The consequences of drought are the loss of standing crops and shortage of the water needed by people and livestock. The impact on human life depends on the extent to which a particular society relies upon the vagaries of climate to raise crops and make a living. In the case of Egypt, drought (*al-Jadb* or *al-Qaht*) occurred when the level of the Nile was very low and not sufficient for cultivation. Indeed, the historians of the time remark that insufficient flooding of the Nile meant difficulty for the peasants.¹

As noted earlier, cultivation could normally only be undertaken when the height of the Nile reached sixteen cubits. If the water of the Nile did not rise sufficiently to cover the soil, the peasants could not cultivate the land. A level of fourteen or fifteen cubits was too low and would leave many of the agricultural areas and basins dry. The result was that some of the arable lands were not sufficiently covered by water and thus could not be cultivated, and the price of commodities increased.

¹It is worth noting that the climate of Egypt was already dry, and that agriculture did not depend on the rainfall but rather on the yearly Nile flood. Modern research carried out by geographers and archaeologists shows that droughts sometimes took place in Egypt.

During the period with which we are concerned, insufficient rises of the Nile were reported in 1493, 1496 and 1510.¹ Sometimes the Nile receded quickly after it had reached the level of sixteen cubits. This is reported to have happened in 1468, 1484, 1485, 1496, and 1505 (Ibn Iyas 1960, 4: 202&478).

Floods

In contrast to the droughts mentioned by contemporary Mamluk chroniclers, they also often refer to floods caused by the overflow of the Nile and unexpected heavy rainfall. Even though the Nile made life in Egypt possible with its water and alluvial deposits, the river might also be the cause of misfortune in the economic and agricultural life of the country. If the flood exceeded seventeen cubits, some areas became submerged under lakes for a long period and the proper time for sowing passed without taking place. Similarly, if the flood remained high for a long time it would not only cause damage to crops and cultivated lands but also to property.

During the period under consideration, there were damaging floods and rainstorms. In 1471, floods occurred and on 22 November 1469, violent rain caused the canals to overflow and damaged the houses. Heavy rain is also reported to have occurred in July-August 1474 and October-November 1481. In 1477, floods covered some areas including the province of al-Minya and affected crops, dams, roads and houses. In 1497, another flood took place and caused damage and in 916/1510, heavy rains inundated the markets. On 28 March 1516, Ibn Iyas (1960, 4: 198, 5: 21) reports the occurrence of flash floods in Cairo because of heavy rain in Upper Egypt. These events necessarily caused considerable hardship for the peasants.

Hailstorm and Severe Cold

During the period under consideration, a hailstorm occurred in Damietta province in October-November 1492 and damaged the crops and killed livestock such as cattle and donkeys. According to Ibn Iyas (1960, 3: 294, 4: 198), each hailstone was the size of an ostrich egg. In December 1510, the provinces of al-Sharqiyya and al-Minufiyya were hit by further hailstorms. The crops were destroyed, livestock perished and some of the peasants were injured.

Severe cold was another source of difficulty for Egyptian peasants. Frost would destroy the crops and even lead to the death of some animals. For example, in 1481 severe cold is reported to have killed some livestock in al-Gharbiyya. The same occurred in 1482 in Qarya Damrawa, this time ruining the crops. In December 1489-January 1490, freezing temperatures and frost killed some animals in Cairo. In 1492, crops were destroyed and some livestock perished in Damietta because of extreme cold. On another occasion in January-February 1494, cold weather and snow struck Alexandria. A similar disaster happened again in 510 in the al-Sharqiyya, al-Gharbiyya and

¹According to Ibn Iyas, the drought in this year affected various kinds of fruit, vegetables, flowers and grain.

Minufiyya provinces. This time crops were destroyed and some animals perished. Clearly, these events caused hardship to the peasants and affected agricultural production.

Biological Disasters

The contemporary chroniclers also inform us that the agricultural sector was similarly affected by biological disasters such as plagues, rat infestations, locusts, epizootics and crop blight.

Plagues

The effect of the plague also can be seen in the countryside. A number of peasants died in the disaster and those who survived migrated to areas not affected by the plague. In the plague of 1476-1477 some villages were abandoned. According to al-Sakhawi (1995, 3: 123), in 1492 the plague killed a number of peasants in Siryaqus and reduced a number of farmers to working in the farmyard at the Bilbays. On another occasion in 1513, the plague hit Asyut and caused high mortality among the peasants. This disaster affected those members of the population who worked in the agricultural sector, especially in cultivation or harvesting.

Rats

Rats were another threat to the agricultural sector and an infestation could cause considerable damage to crops and harvests. Indeed, Ahmad bin 'Ali al-Dalaji al-Misri (1904, 54) explicitly mentions the trouble attacks of rats and mice caused for the peasants. Other accounts from primary sources show that infestations of rats destroyed plants, vineyards, fruits and other crops. Rats were not only responsible for damaging the crops in the fields, but also the harvest in the granaries.

Epizootic

Livestock and draft animals were understandably extremely important for Egyptian peasants. Indeed, they totally relied on these animals. The peasants ploughed using oxen or cattle, carried crops by donkey, and sometimes made their clothes from the wool of sheep and goats. They also bred some of these animals specifically for milk or meat production.

During the Mamluk period, contemporary sources mention the threat of an epizootic to these animals which affected the life of the peasants and agricultural activities. The consequences of animal disease can be seen in that one nobleman who owned 1,021 cattle before the outbreak of the disease, lost 1,003 of them. Similar occurrences took place in 1491-1492 and 1509. As a result, the price of cattle increased as did the cost of hiring animals for ploughing (Ibn Iyas 1960, 4: 149). The scarcity of cattle also led to a scarcity of meat.

Worms and Caterpillars

Attacks of worms also contributed to the devastation of crops and some villages lost half of their yield because of them. On several occasions crops such as clover, wheat and berseem were affected. During the period under consideration, similar occurrences took place in 1485 and 1486. The usual result was that the peasants faced hardship because of losses and an increase in clover prices, this plant being the basic fodder for cattle in Egypt (al-Sakhawi, n.d., 353).

Conclusion

In brief, it is no exaggeration to say that the peasants at the end of the Mamluk period were treated very harshly and suffered from financial burdens, exploitation, psychological pressure and tyranny. In this, the administrative apparatus abused its authority and resorted to illegal methods in the treatment of the peasants. The inevitable consequence of all this was considerable damage to the agricultural sector in Egypt. Indeed, some of the Muqta's tried to rescue their lands by forbidding the peasants from leaving them. This migration resulted in a lack of labourers which in turn led to some cultivated areas being neglected and the necessary consequences for agricultural production.

In spite of this, and because there was no alternative, the medieval peasants in Egypt had to produce crops for their Muqta's and for their own consumption. With these primitive implements they ploughed and tilled the soil. Using the ancient methods of artificial irrigation, they irrigated the land and they harvested their crops with sickles. They had no defences against disasters such as crop blight, rats or drought. The consequence of using these primitive tools and old methods of irrigation was that agricultural production was always limited at a time when the state needed more products for its own consumption and for trade.

References

- ‘Ali al-Dalaji al-Misri, Ahmad b. 1904. *Al-Falaka wa al-Maflukun*. N.p., Cairo.
- Al-Maqrizi, Taqi al-Din Ahmad b. ‘Ali b. ‘Abd al-Qadir. 1998. *Al-Maw‘iz wa al-I‘tibar fi Dhikr al-Khitat wa al-Athar al-Ma‘ruf bi Khitat al-Maqriziyyah*, Eds. Muhammad Zaynhum & Madihah al-Sharqawi. Vol. 1. Maktabat Madbuli, Cairo.
- Al-Nuwayri, Shihab al-Din Ahmad b. ‘Abd al-Wahhab. 1931. *Nihayat al-Arab fi Funun al-Adab*. Vol. 8. Dar al-Kutub al-Misriyyah, Egypt.
- Al-Qalqashandi, Ahmad b. ‘Ali. 1987. *Subh al-A‘sha fi Sina‘at al-Insha*. Ed. Muhammad Husayn Shams al-Din. Vol. 3. Dar al-Kutub al-‘Ilmiyyah, Beirut.
- Al-Sakhawi, Shams al-Din Muhammad b. ‘Abd al-Rahman. N.d. *Al-Tibr al-Masbuq fi Dhayl al-Suluk*. Maktabat al-Kulliyyat al-Azhariyyah, Cairo.
- Al-Sakhawi, Shams al-Din Muhammad b. ‘Abd al-Rahman. 1995. *Wajiz al-Kalam fi al-Dhayl ‘ala Duwal al-Islam*, Ed. Basshar ‘Awwad Ma‘ruf et al. Vol. 3. Mu‘assasat al-Risalah, Beirut.

- Al-Sayrafi, al-Khatib al-Jawhari ‘Ali b. Dawud al-Jawhari. 1970. *Inba’ al-Hasr bi Abna’ al-‘Asr*, Ed. Hasan Habashi. Matba‘at al-Madani, Cairo.
- Al-Turkhan, Ibrahim ‘Ali. 1968. *al-Nuzum al-Iqta‘iyyah fi al-Sharq al-Awsat fi al-‘Usur al-Wusta*. Dar al-Kitab al-‘Arabi, Cairo.
- ‘Ashur, Sa‘id ‘Abd al-Fattah. 1977. Al-Fallah wa al-iqta‘ fi ‘asr al-Ayyubiyyin wa al-Mamalik. In *Buhuth wa Dirasat fi Tarikh al-‘Usur al-Wusta*, Dar al-Ahad, Beirut, 141-152.
- Cooper, Richard S. 1977. Agriculture in Egypt, 640-1800. In *Handbuch der Orientalistik, Abteilung 1: Der nahe und der Mittlere Osten, Band VI: Geschichte der Islamischen Lander, Abschnitt 6: Wirtschaftsgeschichte des Vorderen Orients in Islamischer Zeit, Teil 1*, Ed. Bertold Spuler. E. J. Brill, Leiden, 188-204.
- Duby, George. 1968. *Rural Economy and Country Life in the Medieval West*, Trans. Cynthia Postan. Arnold, London.
- Gemmill, Paul F. 1928. Egypt is the Nile. *Economic Geography*, 4 (1928), 295-312.
- Girard, P. S. 1942. *Al-Ahwal al-Zira‘iyyah fi al-Qutr al-Misri athna’ Hamlat Nabuliyun Bunaparta*, Trans. Yusuf al-Nahhas & Khalil Mitran. N.p., Cairo.
- Ibn Iyas, Muhammad b. Ahmad b. al-Hanafi. 1960. *Bada‘i‘ al-Zuhur fi Waqa‘i‘ al-Duhur*, Ed. Muhammad Mustafa. Vol. 3-5. Dar Ihya’ al-Kutub al-‘Arabiyyah, Cairo.
- Issawi, Charles. 1974. Economic history and the middle east. *Middle East Studies Association Bulletin*, 8 (1974), 1-8.
- Mujani, Wan Kamal & Buckley, Ron P. 2008. *Agriculture and Industry during the Mamluk Period (872-922/1468-1517)*. Faculty of Islamic Studies, National University of Malaysia, Malaysia.
- Nasir, ‘Amir Najib Musa. 2003. *Al-Hayah al-Iqtisadiyyah fi Misr fi al-‘Asr al-Mamluki*. Dar al-Shuruq lil Nashr wa al-Tawzi‘, Amman.
- Poliak, A. N. 1939, *Feudalism in Egypt, Syria, Palestine, and Lebanon, 1250-1900*. Stephen Austin and Sons, Ltd., Hertford.
- Qasim, Qasim ‘Abduh. 1978. *Al-Nil wa al-Mujtama‘ al-Misri fi ‘Asr Salatin al-Mamalik*. Dar al-Ma‘arif, Cairo.
- Rabie, Hassanein. 1981. Some technical aspects of agriculture in medieval Egypt. In *The Islamic Middle East, 700-1900*, Ed. Abraham L. Udovitch. Darwin, Princeton, 59-90.