

**The Iqtā' System in Egypt or the
Backbone of the Mamluk Sultanate:
Subduing the Last Crusaders, Resisting
the Mongols, Calming the Bedouins (7th
century of the Hegira / 13th century of the
Common Era)**

**O Sistema de Iqtā' no Egito ou a
Espinha Dorsal do Sultanato Mameluco:
Submeter os Últimos Cruzados, Resistir
aos Mongóis, Acabar com os Beduínos:
(século VII da Hégira / XIII da Era
Comum)**

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Abstract

There should be two concerns implied when a symmetrical history of the Crusades is put forward. First is to expressively study the Muslim document set and secondly the relationship of the historical agents with the environment is to be considered. In this paper we discuss the *iqtā'* system and its simultaneous role in maintaining power balance and in ensuring effective exploitation of natural resources within the Mamluk Sultanate. We have selected the narratives of two Mamluk chroniclers to support our discussion. These narratives are about sultan Qalāwūn undertaking efforts, in 682/1283, to open an irrigation canal in al-Buhayra in the Nile River Delta. This discussion aims to criticize the mistake of considering the Sultanate incapable of dealing with problems such as droughts and famines. In addition, it examines how the sultans coped with their internal political problems, like the nomadic opposition and other dissidence. These challenges coexisted at the same time that confronting the last enclaves Crusaders in Syria and responding the Mongol growing threat was needed.

Key-words: Mamluk; Egypt; Crusades; Ibn Abd al Zāhir; Baybars al-Mansūrī; *Iqtā'*.

Resumo

Propor uma história simétrica das Cruzadas pressupõe ter duas preocupações. Primeiramente, considerar, de forma expressiva, o estudo de um conjunto documental de origem muçulmana. A segunda preocupação diz respeito a examinar a relação dos sujeitos históricos com o meio ambiente. Neste artigo, discutiremos o sistema de *iqtā'* e seu papel simultâneo em manter os equilíbrios de poder e assegurar a efetiva exploração dos recursos naturais no Sultanato Mameluco. Nós selecionamos as narrativas de dois cronistas Mamelucos como suporte para nossa discussão. Estes relatos dizem

respeito aos esforços empreendidos pelo sultão Qalāwūn, em 682/1283, para abrir um canal de irrigação em al-Buhayra, no delta do Rio Nilo. Esta discussão objetiva criticar o erro em avaliar o Sultanato como incapaz de lidar com problemas como secas e fomes. Ao mesmo tempo, é examinado como os sultões enfrentaram seus problemas políticos internos, como as oposições dos Nômades e outras dissidências. Esses desafios se fizeram presentes no momento em que era preciso enfrentar tanto os últimos enclaves Cruzados na Síria quanto fazer frente à crescente ameaça vinda dos Mongóis.

Palavras-Chave: Mamelucos; Egito; Cruzadas; Ibn Abd al Zāhir; Baybars al-Mansūrī; *Iqtā'*

Towards a Symmetrical History of the Crusades²

On November 28th, 2013, Sanjay Subrahmanyam (2014), gave an inaugural lecture at Collège de France, where he drew attention to the need to move from an asymmetrical history to a symmetrical history.

The difference between these two types of history took shape in a criticism towards Fernand Braudel's work. Subrahmanyam criticized specifically that “malgré notre énorme dette envers l'œuvre de Braudel, il me semble évident qu'il y avait un véritable problème d'asymétrie dans sa conception de l'espace. La Méditerranée de sa vision était avant tout une mer vue du nord, et à partir des sources et des regards européens, souvent chrétiens” (SUBRAHMANYAM, 2014, p. 21).

Forwarding a broad and symmetrical history in temporal and geographical terms requires a plurality of perspectives. Such a requirement has the main intention not to reduce the study of past experience to a mere contribution to Western nationalisms.

We realized this need, mainly as we approached themes relative to the Crusades. The decisive weight of choosing Latin sources and the consequent disproportionate room given to the Franks/Latins/Crusaders becomes clear in the frequency and way in which the term Crusades appears in several texts by foreign and Brazilian medievalists. The Crusades are frequently considered from a single point of view and as a founding milestone; accordingly European protagonism stands out and reinforces the nationalist and colonialist discourse of the 19th century (ELLENBLUM, 2007).

Given the presence of the term Crusaders in the title of the paper, our brief analysis in the opening paragraphs would be, however, a contradiction. The criticism proposed, through Subrahmanyam's view, would provoke the reader's estrangement.

In the second half of the 7th/18th century, the Franks could have been an acute concern for the powers of Egypt, especially in the face of the Mongol advance and occasional intercessions between the Latins and the Mongols, as in the case of the fortress of Maraqiyya / Maraclea. In fact, the Franks

were a secondary problem in that period, derived from broader and more pressing issues. Despite some warranted perplexity, the title aims to be a condensed manifestation of our historiographical trajectory, which goes for the Crusades as a comfortable and familiar chronological reference. This reference, in turn, encouraged a more detailed and exclusive approach to the historical experience of the Mamluk Sultanate in the period in which the Franks were neighbors. Nevertheless, the title also highlights how the Mongols posed a great challenge to the Egyptian Sultanate in the second half of the 7th/13th century. Thus, the desired effect of our choices is to turn the city of Cairo into the center of the world during the Crusades.

The Mamluk experience is one of the most fascinating experiences in Islamic History. It began with the Turkish steppe Kipchak people, in the region of the Black and Caspian Seas, neighboring Central Asia. They were captured or handed over as slaves when they were still children. These boys were taken to Cairo barracks and were converted to Islam and received training as elite warriors (AMITAI, 2017, p. 401-422; MAZOR, 2017, p.213-234; YUDKEVICH, 2017, p. 423-436). Some of them showed literary abilities, like Baybars al-Mansūrī himself (RICHARDS, 2001, p. 37-44; CONERMANN, 2018). Later, they were released and incorporated as soldiers and officers into the sultan's army (AHARONI, 2004, p.408). In 648/1250 the Mamluks took power in Egypt, dethroning Saladin's successors. They established a Sultanate that would last until 923/1517, when they were conquered by the Ottoman Turks. The Mamluks bequeathed a rich chronicle apparatus. It informs us about the various governance challenges faced by sultans such as Baybars (c.620-676/1223-1277) and Qalāwūn (c.619-689/1222-1290).

Essentially, talking about a symmetrical history, means broadening the *corpora*. We propose a more substantial look at the Mamluks' written production. Which, by the way, has been increasingly accessible to historians, encouraged by translations published in Spanish, French and English.

We specifically selected two chroniclers: Ibn Abd al Zāhir (620-693/1223-1293) and Baybars al-Mansūrī (?-726/?-1325). Their chronicles inform us about the work organized by Sultan Qalāwūn, in 682/1283, in the Nile Delta, to expand agricultural land and the resources available to keep the Mamluk army.

The relationship between the Egyptians people with the environment should be equally seen as indispensable to symmetry. The study of the weather and the relationship of those peoples with the natural environment is unavoidable. Examining these relationships gives way to a concern that different experiences may build different answers to the challenges posed by nature.

This contrastingly does not fall into judgment of values, constructed and guided by evolutionary criteria. Moreover, environmental research should be associated with the structure of society, so that environmental disasters do not assume a mere dimension of naturalness and inevitability. We emphasize the contemporary concern, regarding the impact of the frequently disastrous and harmful human action, towards the planet³. In a specific way, the attention and concern of the present is positively projected onto our study of the past. This is a good impetus to examine the subject of climate and food production in Mamluk Egypt. To this end, we add the discussion about the iqtā' system, which we shall call the backbone of the Sultanate.

We have developed the hypothesis that the iqtā' system offered the Mamluks a simultaneous response to food production issues and to external and internal threats to their power. These threats could take the form of Mongol raids, the inconstancy of the Latins or Bedouin uprisings. This will become more evident when we characterize iqtā' as the way in which the Muslim aristocracies assessed natural resources and transformed them into political and economic potential.

The Climate in the Crusades and the Uncertainties of the Nile

Climate is defined as a complex system “with multiple interactions between the atmosphere, hydrosphere, soil, flora, and fauna and of course the actions and reactions of humans.” (PREISER-KAPPELLER, 2013, p.2). Medievalists used social and natural archives to study the climate in ancient time periods, such as Egypt during the Crusades. If the former brings together human production – written records, images, sculptures, etc. – the latter provides us data from Arctic ice deposits, tree growth rings, sediments present in lakes, and their arrangement in layers based on vertical sections. The presence of pollen from domestic plants in these layers compared to pollen from wild plants

provides clues about how a place was occupied. It informs us how human activity transformed natural spaces. Finally, examining the growth rings of centuries-old trees, such as those found in North America, can indicate periods of slow or accelerated growth and the influence of environmental conditions at a given stage of the tree's life. Traces from natural archives collected in different parts of the planet would suggest climatic trends at a continental or global level in specific periods.

Bearing both types of archives – social and natural – in mind we ask: how was the climate characterized in the Levant and, to a smaller extent, in the Nile Delta during the Crusades? What did people see and feel at that moment in history? There is no consensus among researchers, but climate changes that occurred between the middle of the 4th/10th century and the end of the 5th/11th are considered to have a great and harsh impact on the Levant (ELLENBLUM, 2012; RAPHAEL, 2013). On the other hand, the West was warming, which favored the use of land that had previously been little worked. This led to an increase in food production and consequently an increase in population. This favorable environment would have meant, for the nobility, the multiplication of heirs and greater competition for the family property. Thus, in 488/1095, when Pope Urban II (1042-1099) called people to participate in the expedition towards the Holy Land. He found an equally fertile European terrain. Although population growth and available resources alone do not explain the Crusades, they are a significant part of the stimulus that led to the capture of Jerusalem in 493/1099⁴.

If we look from another perspective, eastbound to the Asian steppes, the social and natural archives show us increasing mobility. Severe cold fronts, especially in the 5th/11th century, would have reached the steppes, the regions east of the Caspian Sea, as well as areas of present-day Iran and Iraq. The nomadic Turkish populations would be the most affected, as the cold destroyed pasture and made it difficult to maintain herds, especially large animals such as camels and dromedaries (**Map 01**). These nomadic populations would move south in search of new pastures, putting pressure on sedentary urban centers (ELLENBLUM, 2012; PREISER-KAPPELLER, 2013; RAPHAEL, 2013). Baghdad, Mosul, and other more western cities would know the consequences of this movement. The adverse climate would also affect the sedentary population. There are reports of the Euphrates and

other waterways freezing. Under these conditions famine and revolts would challenge the political power of the region: the Abbasid Caliphate of Baghdad. Neighboring areas of Mesopotamia – Syria, and Palestine – would also face climate problems. These problems would be characterized by a decrease in rainfall and severe periods of drought. The rainfall regime was essential for food production in Palestine and Syria, enabling dry farming and supplying reservoirs (RAPHAEL, 2013, p.29).

Map 01. The Conquests of the Seljuk Turks (432-491/1040-1097).

(In: DENOIX & RENEL, 2022, p.85)



Cold fronts in the Asian steppes and Mesopotamia, droughts in Palestine, Syria, and Egypt, the climate in the Levant and Central Asia was and still is very complex. Systems that interconnect high and low atmospheric pressure ⁵ combine with other flows of climate variation in the southern hemisphere ⁶ (PREISER-KAPPELLER, 2013, p .4). Thus, arid and semi-arid zones characterized this region whose Mediterranean climate, in restricted areas, provides a relative balance near the coast (Map 02). Crops such as sugarcane and cotton, introduced by the Arabs in the 4th/10th century, would be significant on the Syrian coast and on the Nile Delta until the 11th/17th century.

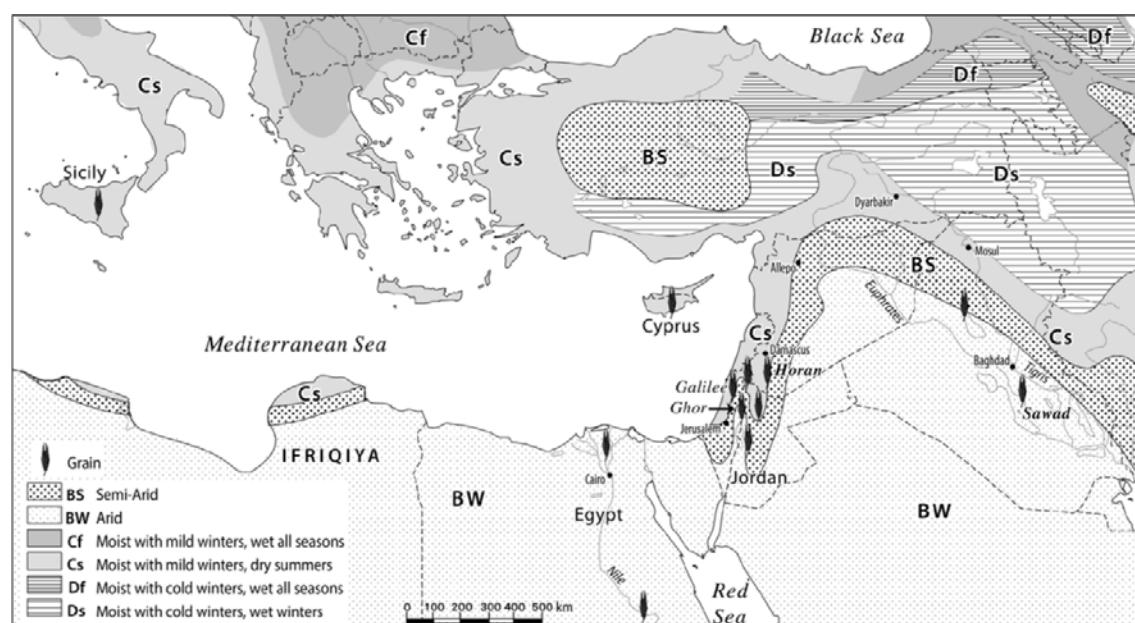
However, in Egypt and the region east of the Anti-Lebanon mountain range running parallel to the Mediterranean coast, the severe climate made droughts very acute problems. The soil, under these conditions, would become prone to salinization. Although this phenomenon increased difficulties for crops such as wheat, barley was more resistant to soil salinization (RAPHAEL, 2013, p.31 and p.41). In areas of humid farms, such as those near the Tigris, Euphrates, and Nile, the soil salinity index could increase, impacting food production for decades or centuries if irrigation channels were not maintained and preserved by the authorities. Wars and social upheavals, which took governments' attention away from food production, had disastrous consequences in the mid to long terms. Sandstorms, earthquakes and floods added to cold fronts and droughts were obstacles to food production, whether through agriculture or animal husbandry. The advance of the Seljuk Turks over the Abbasid Caliphate would have occurred in the second half of the 5th/11th century in this extremely adverse climate context.

We based our characterization of the natural space of the Levant during the Crusades on three historians whose analyses appear to be very plausible. Ronnie Ellenblum, Sarah Kate Raphael and Johannes Preiser-Kapeller. We have a dramatic picture of the period. If Ellenblum (2012) refers to the collapse of the Greco-Roman culture in Baghdad, Sarah Kate Raphael (2013) allows us to understand the adaptability of Asian societies when facing environmental issues and their consequences.

Adaptability is a fundamental component of dealing with so-called natural disasters. In addition, social inequality is an indispensable point for thinking about people's exposure to climate adversity and its consequences. The three authors above do not infer that the severe climate in the Levant was the determining problem. The issue, mainly according to Ellenblum (2012), concerned predictability and memory regarding past shortages. In other words, the ability of powers and communities to prepare and respond to the challenges of droughts and bad harvests⁷. In times of disorganization of the State, mainly responsible for major irrigation and canal maintenance activities, the abandonment of land favored a drop in productivity and/or the occupation of the territory by nomadic communities and their use as a pasture area. In systems where elites collect natural resources and converting them into military potentials, such as *iqtā'*, this abandonment can be fatal to the stability of the government.

In this way, the iqtā' system provided for the collection and conversion of natural resources into military potential for the Sultanate. It was a possible way of dealing with climatic and production adversities. The distribution of land, the responsibilities of the Mamluk elites for managing irrigation work and the appeasement of disputes between peasant communities over access to Nile water are some examples of the actions that brought this system to life. We are referring not only to sedentary peasant communities, but also to nomads.

Map 02. Grain Cultivation and Climate Zones in the Eastern Mediterranean. (In: RAPHAEL, 2013, p. 36)



Cultivate Egypt's land under the First Mamluk Sultans

Agriculture is often interpreted as a risky activity. This is reasonable both for the past and for the present, considering the lack of predictability of droughts and the inability of some governments to react to crises caused by adverse weather conditions in the Levant between the 5th/11th and 7th/13th centuries. Nile's flood regime and, consequently, its food production depended on East Africa's monsoon, therefore not depending on Mediterranean weather (**Map 03**). Thus, as in Pharaonic times, Egyptian grain was transported to Palestine and Syria in times of scarcity during the Mamluk period.

Certain predictability harvest could be pointed through the nilometer. Between the 1st century BC and the 7th/13th century, as mentioned in the sources, there was a progressive silting up of the Nile, which required an increasingly high level of flooding for good agricultural activity. Drought as the ones that affected the Nile river's flood regime, in 662/1263 and 693/1293, would lead to food shortage, as pointed out by Sarah Kate Raphael (2013, p.22). During that time, hunger and plague impacted sedentary people and intensified hostilities towards nomadic communities. Meanwhile, chronicles report the efforts by Sultans, *muqta'ūn* – *iqtā'* owners, plural for *muqta'* – *e wulāt*⁸ – province governors – to work the Nile Delta. The management of Nile's water supply for rural communities was decisive.

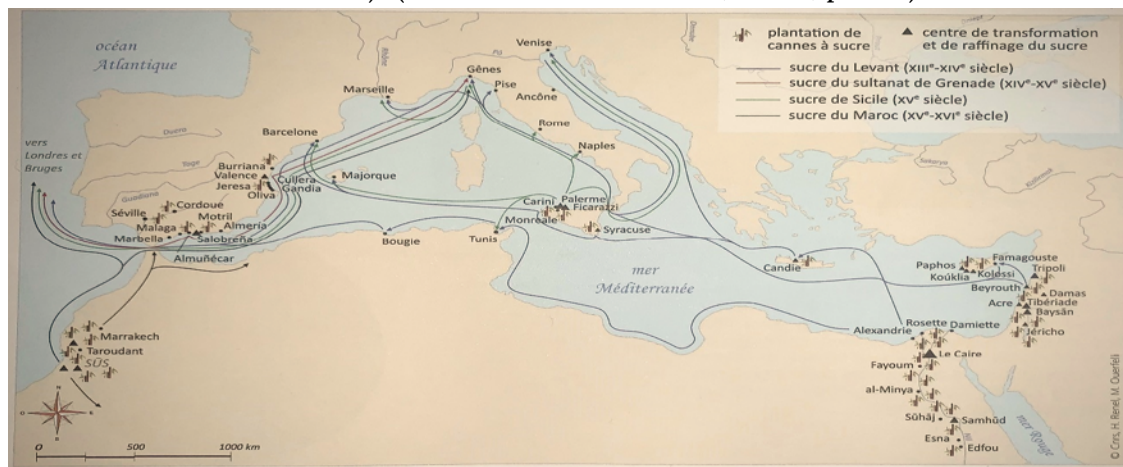
Map 03. Spreading of New Mediterranean cultures (3th/9th-7th/13th centuries). (In: DENOIX & RENEL, 2022, p.280)



The first step, towards the weather and environment instrumentalization for food production, in Egypt, referred to digging and maintaining channels, constructing levees and reservoirs. Their potential was regulated by the planned opening and closing of the hydraulic flow and the use of water wheels, which increased arable areas on different level curves (SATO, 1972, p.82). Egyptian Mamluk Sultans and their officers, regarding the people and army's supply, were first concerned about maximizing Nile's water usage, especially during droughts. Under effective management conditions, summer harvests, such as rice, cotton, and sugar cane were achievable. (Map 04).

The agriculture required the coordination of rural workers and the recognition of each village's water rights. Channels and levees were open at a right time, for supplying communities and ensuring food production. The access and control of levees, land banks lifts, opening, and closure of channels, water wheel's regulation and planning hydraulic flow were used according to the *amīr* or one who controlled the land ⁹. It was important to avoid problems with water use and agricultural production.

Map 04. Production of Sugar in the Mediterranean (VII/XIII – X/XVI centuries). (In: DENOIX & RENEL, 2022, p.280)



Historiography, on the other hand, emphasizes how much land management and irrigation activities changed. During Ayyubid and Mamluk periods, as opposed to Pre-Islamic Egypt, irrigation channel management went from the government to *muqta'ūn* and their rural communities. At the same time, *iqtā'āt'* owners would be concerned with guaranteeing their properties' maintenance, which would entail regulating rights to water. Referring specifically to Fayyum region, Yossef Rapoport and Ido Shahar state that:

In relation to these two questions of continuity and centralization, and in light of the unique topography of the Fayyum, this paper looks at the methods of water supply, allocation, and management in medieval Islamic Fayyum. It argues for a significant degree of continuity with pre-Islamic infrastructure, yet also shows that, at least up to the middle of the seventh/thirteenth century, the trend has been one of decentralization and localization of knowledge and control. With practically no irrigation bureaucracy, few direct irrigation taxes, and minimal direct interference, the management of the irrigation system appears to have been very much in the

hands of local communities, which were, as in al-Andalus, organized in tribal groups. The decentralization and localization of control and knowledge may have limited the scope of large-scale irrigation projects that required heavy investment and professional engineers, but decentralization did not necessarily mean decline. Mediaeval Islamic Fayyum had a fully functioning irrigation system, one which supported a thriving economy and which continued to develop (RAPOPORT & SHAHAR, 2012, p. 6).

They consider that, during the Ayyubid period, managing irrigation channels and the knowledge needed to do so were in communities and iqtā'¹⁰ owner's hands. This trend would have continued during the Mamluk Sultanate and can be explained by the way in which the muqta'ūn and officials, especially since Saladin's reform, progressively appropriated, at local level, the rights and fees relating to the management of land and canals. Sato (1972, p.85) supports this by emphasizing how the public jusūr, and its maintenance taxes went from the government to the umarā - plural de amīr - and muqta'ūn's hands. Jusūr were fields surrounded by land banks, those which, after a canal's opening, allowed water supply to flow to those areas. On the other hand, openings in jirs provided water flow to adjacent fields.

In other words:

...after the establishment of the iqta' system, amirs (muqta's) came into control not only of the village jisir, but also of the government jisir.

What this distinction between the two *jirs* signifies is that management of the *jisir* was under government control when water happened to flow outside town's walls, under the control of the householder when water flowed inside the walls. This might lead us to believe that this distinction was based on the scale of *jirs*. But as Ibn Mammati and Maqrizi point out, government *jirs* were limited to al-Gharbiya and al-Sharqiya and Jajira Qusina (SATO, 1972, p. 85, emphasis added).

Based on al-Nābulusī's treaty (588-660 / 1192-1262), Rapoport and Shahar (2012, p.13) add that villagers did not have a formal training concerning the hydraulic system maintenance. On the other hand, they had a practical knowledge of managing irrigation canals and operating dykes and dams. This

enabled an ordered and regular water supply to different locations. That combined with communities from different regions and interdependence regarding regular access to water would do without interventions by authorities and engineers from Cairo. The exception was at crucial moments, when major works had to be carried out, as in the case of the al-Buhayra canal. Local authorities and governors should solve conflict and dispute in their communities when water flow was interrupted and supply did not reach populations, for instance.

Although the efforts by communities and their authorities were increasingly relevant, in the 7th/ 13th centuries, major public irrigation and food production regulation ventures demanded Sultans' extra attention. This concern is seen in both Ibn Abd al Zāhir and Baybars al-Mansūrī, which can be justified due to, among other reasons, the need of land and resources for paying authorities, maintaining funding and warriors to compose the army. It was necessary, furthermore, to concede rights to land and communities, *iqtā'āt*, it was necessary to the intern stability of the Sultanate. The *iqtā'* system would guarantee stability of relations with nomad communities, whose influence should not be disregarded by Cairo Sultans or ignored by the chronicler. In addition, the abandonment of certain regions for climatic reasons and disputes demanded more precise action from the Cairo government. Establishing and distributing *iqtā'āt* in such places was a way of responding to such abandonment and recovering part of Egypt's "bread basket". In short, the system of *iqtā'at* was both a means of building political stability and of responding to the needs imposed by environmental challenges and food shortage.

The *iqtā'* system as the backbone of the Sultanate

The Mamluk sultans were careful when it came to relations with their neighbors. In other words, diplomacy with Mongols, Latins and other powers was a central element in balancing the Levant in the 7th/13th century. The truces of Baybars and Qalāwūn with the Hospitallers and Templars suggest this. The military expeditions "aimed primarily to achieve strategic goals, to strengthen the Sultanate's positions at its edges or to deter enemies" (FRENKEL, 2019, p.43). Despite the title of champions of *Jihād* or defenders of Islam, the Sultans did not carry out intensive military activities to quickly

expel the Latins from Syria in a single blow. The military initiatives occurred more as reactions to possible threats related to the Mongol Ilkhanid assaults on the Levant in the decades following the conquest of Baghdad (656/1258).

The siege of the fortress of Marāqiyya / Maraclea in 684/1285, following the breaking of the truce with the Hospitallers of Marqab, supports Frenkel's assertion about the restricted nature of Mamluk military activities in the 7th / 13th century:

When our master the Sultan, may God aid him, was finished with the cares of Marqab, he camped aggressively, as was mentioned, and authorized the matter of Marāqiyya fortress, giving the opinion that it should be captured. It was confirmed that in the midst of this fortress there was an internal disease. He would not obtain rest nor security by being or staying in it. Its ruler was known as Bartholomew, one of the Frankish nobles. When Krak des Chevaliers (ḥiṣn al-akrād) was conquered he was not able to stay in this region, since it was too small for him, so it enflamed him, and he joined the Mongols seeking refuge, provisions, aid, and numbers. He stayed there a number of years in that state. When al-Malik al-Zāhir died, may God have mercy on him, he returned to this region, taking the opportunity, and sought to renovate Marāqiyya. He was unable to do that, and was afraid that it would be taken from him, so he renovated a fortress opposite it, strengthening it and beautifying it. The Prince [Bohemond VII], ruler of Tripoli, assisted him in that, and others from the Hospitaller Franks as well aided and assisted him – the inhabitants of Marqab and others. This tower is between Tortosa and Marqab on the Mediterranean Sea (lit. salt sea), opposite the city of Marāqiyya. There are two quick bow-shots or more between it and the sea. [88] (IBN 'ABD AL-ZĀHIR, In: COOK, 2020, p. 110).

The Mamluk assault on Marqab and Maraclea is explained by the breaking of a truce with the Hospitallers. However, the chronicler gives us some important information. The lord of Maraclea was a Frank called Bartholomew. After the fall of the Hospitaller great fortress of Krak des Chevaliers (670/1271), he had sought help from the Mongols in order to strengthen his position. Reinforcements and supplies would have arrived in Maraclea, provoking a Mamluk reaction. The Sultan was probably kept informed by spies, deserters, refugees, nomads and prisoners of war. The Mamluks had a very efficient information network at their disposal (DENOIX, & RENEL, 2022, p.294-295).

In short, the conquest of the fortification was a response to Bartholomew's actions and his rapprochement with the Mongols.

Cook's observations are similar to those of Frenkel. They lead us to conclude that “the Crusaders were more or less vassals of the Mamluks at this time; their existence on sufferance because of their continued importance in trade” (COOK, 2020, p. 5). More assertively, the same author ponders that:

Was Qalāwūn biased towards certain Crusader factions and against others? He appears to have played the Templars against the Hospitallers, as he made a treaty with the former, but picked off the latter's castles one by one. It does not appear that he had an overall strategy of finishing off the Crusader presence in the Levant until the very last years of his life. In general, the castles and cities he took during his first years were those which either aided the Mongols in some way or were close to the more sensitive northern region of Syria. He does not appear to have cared that the Crusaders controlled the region between Acre and Tripoli until 1289 (COOK, 2020, p.15)

Muslim chroniclers refer to raids that could be undertaken by the Latins, such as attacks on caravans or looting of Muslim communities in the region. Occasionally, there could be collaboration between Mongols and Franks. Delivering iqtā'āt to nomadic communities near places controlled by the Latins, as well as the military expeditions carried out by Qalāwūn, had the precise function of isolating and harboring them. This effort was important in order to dissuade or prevent any rapprochement that might favor the Mongols.

The great irrigation works in the Nile Delta, such as those of al-Buhayra, took place in a context where the Mongol expeditions worried the Sultans. In addition, this same advance could be combined with troublesome dissidents nearby, such as the Latins. Ensuring the productivity of the Nile's "Basket of Paes" was in line with the availability of means for the Sultan to maintain his army. The iqtā' system, under these conditions, can be understood as part of public planning. We speak of public planning in the sense of an impulse or initiative undertaken by the dominant or recognized legitimate power. This planning concerns a specific way of dealing with or responding to

moments of crises. These crises could be food shortages or pressure from unreliable neighbors who tended to welcome invaders from the steppes. Is it just a coincidence that al-Buhayra's irrigation works preceded the Mamluk expeditions to Syria in 684/1285?

The hypothesis that Latins and Muslims, in specific contexts, negotiated equally from a position of strength is premised on a reduced view of the documentary corpus. That reduced vision leads to generalizing or very biased conclusions. It is restricted to Latin documentation. Climatic issues, as well as the delicate internal balances between the Mamluk sultans, the wulāt, the muqta'ūn, the fallāhūn or peasants – plural of fallāh – and the nomadic communities support this statement. We add to this panorama the competitors and troublesome members of the Ayyubid dynasty, from whom the Mamluks took power in 656/1258 and who still had significant influence, especially in Syria. With these actors, it was necessary to compose. Specifically, Saladin's relationship with Richard the Lionheart, or Baybars and Qalāwūn with the Latin Kingdoms and Military Orders was much more complicated.

When we deepen the analysis of the Arab chronicles, escaping the exclusivism of Christian sources, we, therefore, perceive a panorama of uncertainties¹¹. The relationship between the use of land in Egypt and the iqtā' system is a good starting point for a more detailed analysis. The survey we carried out on studies dedicated to the topic of irrigation and soil exploitation methods in Egypt continually refers to iqtā' (RAPOPORT & SHAHAR, 2012, p. 1-31; RAPOPORT, 2018, p. 143-170; SATO, 1972, p.81-92; SATO, 1997). Unanimously, all works from the last thirty years cite the research of Tsugitaka Sato (1997) as one of the prime analyses of agrarian exploitation in Mamluk Egypt, and Syria. His book constitutes the foundation for our examination and definition of iqtā' and its system. The Fayyum region, on the middle Nile, occupies a central place in these studies, mainly due to the existence of al-Nābulusī's treaty on land exploitation and water management in the locality. He was a government official in the service of the Ayyubid sultans.

During the Mamluk period, those who held iqtā'at or the muqta'ūn exercised control over communities, land, and water rights. Iqtā' was a benefit, a grant of rights, generally not hereditary. It could affect land production and could

be a remuneration for military services. From his *iqtā'*, an *amīr* or official was supposed to maintain his subordinates and provide his services to the Sultanate. Lower-level fighters received only a type of pay or stipends, whether from the Sultan or the great *muqta'ūn*. In Egypt, this system was introduced in the 12th century by Saladin. In this way, the holder of this benefit (*muqta'*) would be concerned with maintaining the productive fields, sustaining his military strength, and his responsibility to the Sultan. An example of this concession was the Mamluk Baybars al-Mansūrī, who, after completing his military training and consequent manumission (c. 664-667/1265-1268), ascended the military hierarchy, becoming a *jundī* (soldier) and, later, an *amīr*, receiving an *iqtā'* (c. 671/1272 -672/1273). The benefits were renewed in the following decade, mainly after the battle of Hims in 680/1281.

In his chronicle, Baybars al-Mansūrī records his promotions and the characteristics of the benefits and *iqtā'āt* received, as we can see in the following excerpt:

The author said: During this year the Sultan bestowed upon me the command of a marching band with 50 horsemen, and gave me the *iqtā'* fiefs of the emir 'Izz al-Dīn Aybak al-afram al-Šāliḥī, *amīr jāndār* (guard), and transferred him to 100 horsemen, writing for me a proclamation of the aforementioned income (*khubz*). Its date was 5 Shawwāl of it [December 4, 1285] (BAYBARS AL-MANSŪRĪ, In: COOK, 2020, p. 318).

Rapoport and Shahar, referring to an experience prior to Baybars al-Mansūrī, present us with the responsibilities of a great holder of *iqtā'*:

While al-Nābulusī blames this water shortage on lack of investment by the central government, he also leaves us a fascinating account of expensive collaborative attempts by the provincial *iqtā'* (land-grant) holder and local villagers to increase the water supply to the Fayyum, attempts that were carried out without recourse to the central government. Fakhr al-Dīn IṬhmān, majordomo to the sultan al-Malik al-Kāmil, received the entire Fayyum as an *iqtā'* in 620/1223-4 CE. In the early decades of the seventh/ thirteenth century, the Fayyum was usually granted in its entirety as an *iqtā'* to members of the ruling family, contrary to the generally increasing

fragmentation of iqtā'ls under the Ayyubids. Fakhr al-Dīn was granted unconditionally (darbastā) the grain revenues (ḥawāsil), sugarcane, and cattle of the Fayyum. In return, Fakhr al-Dīn committed to providing 200 horsemen, unspecified cash payments, and grain to the royal granaries. The Ayyubid chronicler Makīn b. Amīd, to whom we owe this information, also extols the generosity of Fakhr al-Dīn, who is said to have built madrasas and mosques, as well as schools and endowments for orphans (RAPOPORT & SHAHAR, 2012, p. 11).

Therefore, the responsibilities concerned the supply of knights for the army and the contribution to the fund of the Sultan's granaries. On the other hand, resource management involved impactful commercial goods such as sugar cane and livestock. We realized that the endowments could be taken by the Sultan or exchanged. At this point, we must note that the iqtā' is not the fief, as the translations from Arabic to English intend (iqtā' feufs). The dimension and experience of iqtā' appear to be quite complex, irreducible to the convenience of superficial parallels with other types of property relations. In this sense, it is still necessary to carry out a more detailed and in-depth study that can establish more clearly a comparison between iqtā' and the fief.

About this complexity, referring to Sato (1997), the principle of granting properties by the government in exchange for demands or fees was present in the actions of the Prophet Muhammad himself (SATO, 1997, p.1-2). Later, during the Abbasid Caliphate, specifically during the Buwayhid tutelage, the granting of properties as a form of remuneration was widely used to guarantee the support of Turkish warriors. These established themselves within the Caliphate and provided military services from the 4th/10th century onwards. Sato observes that, after the arrival of the Seljuk Turks, the rights of the muqta'ūn over their iqtā'at legally consisted of collecting taxes. However, during the Zengid period, in the first half of the 12th century, Nur al-Din (512/1118-570/1174) "consented to the inheritance of its holdings, complying with soldiers' request to hold it stable. The Zengid iqta' system was soon introduced into Egypt by Saladin" (SATO, 1997, p.41).

The establishment of Saladin (533/1138-589/1193) as Sultan in Egypt and the weakening of the Fatimid Caliphs under pressure from the kings of Jerusalem, notably Amauri I (1136-1174), are directly linked. In the first half of

the 6th/12th century, the Latins undertook military expeditions on the cities under Fatimid rule on the coast, eventually taking Ashkelon in 548/1153. Campaigns against Egypt began, forcing the Caliphs to seek help from the Zengids. They made up a dynasty of Turkish Oghuz rulers in the service of the Seljuks. The latter, in turn, were under the nominal authority of the Sunni Caliph of Baghdad. Usama Ibn Munqidh witnessed the negotiation efforts between the Fatimids and Nur al-Din. Negotiation missions followed the route between Cairo and Damascus¹². The pressure from the Latins would have been relieved by the arrival of Shirkut (?-565/1169) and his nephew, Saladin, in Egypt, with a contingent of Turks and Kurds. Saladin and Shirkut were at the service of the Zengids, notably Nur al-Din.

In 565/1169, Saladin, then Vizier under the Fatimid Caliphs, defeated a revolt by Sudanese slave soldiers led by the officer Mu'tamin al-Khilafa who, with part of the Egyptian elite and the Caliph himself, feared Saladin's power and attempted an alliance with the Latins. The distrust of the Egyptian elite also concerned the discontent with the confiscation of assets and rights of the land elites for the benefit of the Turkish and Kurdish allies. After his victory, Saladin redistributed the iqtā'āt, favoring his allies, especially family members. This meant a definitive blow to the Fatimid Caliph al-'Adid (544/1149-567/1171). The Fatimid Caliphate ceased in 567/1171, giving rise to the Ayyubid Sultanate under Saladin. With the death of his lord, Nur al-Din, in 570/1174, Saladin also proceeded to reorganize the system in Syria, allocating iqtā'āt to his supporters, such as the provinces of Hamāh and Hims (SATO, 1997, p.45).

In short, iqtā' was the method through which elites converted rural production into income (RAPOPORT, 2018, 143). Maintaining an iqtā meant collecting agricultural taxes on wheat, barley, beans, and other cereals, as well as other taxes on factories, services, and trade. This could apply also to part of land taxes, commercial income, or village taxes. The demarcation of an iqtā' unit and its assignment to the muqta was the responsibility of the Ministry of Army officials. The demarcation included an estimate of the iqtā's income. This estimate allowed government officials to calculate and award the benefit according to the condition or quality of the beneficiary. Finally, the number of knights that could be maintained by an iqtā' unit and presented to the Sultan by the muqta was estimated (RAPOPORT, 2018, p. 149).

Sato (1997, p.68) considers that *iqtā'* under the Ayyubids was freer than in the Fatimid era, considering that it was not subject to a type of tithe. Unlike Syria, where the Zengid hereditament of *iqtā'* remained, in Egypt, there was greater regulation by the Ayyubid Sultanate, which maintained stricter control. It was possible to deprive a *muqta'* of his *iqtā'* and assign it to another or, as we have seen, carry out the exchange. The careful distribution of *iqtā'āt* by the Ayyubids and Mamluks and the demands for the *muqta'ūn* to participate in public irrigation works had the fundamental objective of effectively mobilizing men and resources against the Latins and Mongols. This objective took shape in the palpable effort on the part of Saladin to carry out a cadastral survey involving the reform of taxes and land records. This reform aimed, among other things, to abolish certain exactions. After its completion in 577/1181, the Mamluk used and maintained the reformed system (SATO, 1997, p.60-63).

Two Perspectives on irrigation activities in al-Buhayra (Nile Delta)

It was previously referred to how Saladin looked forward to his supporters, rather than Fatimid army and its authorities to guarantee the new regime's stability in the second half of 6th/12th century. Now it is possible to discuss the role of *iqtā'* in maintaining Mamluk's stability, especially through the perspective of two important of the chroniclers of that time: Ibn Abd al Zāhir e Baybars al-Mansūrī. The Sultan's commitment with public irrigation activities would worry about external threats, the Mongol advance, and the uprising of Ayyubid emirs. Even though Crusaders enclaves, such as Maraclea, were still bothersome, it did no longer represent a great risk to the Sultanate. In addition, we propose also that the two chroniclers help us maintain that the *iqtā'* system also functioned as a kind of response to the consequences of climatic adversities, such as food shortages. In this sense, political problems and supply problems found a response in the efforts of the local authorities and the Sultans.

Between 663/1264 and 682/1283, it came to one's knowledge of, at least, 15 irrigation activities undertaken by Baybars and Qalāwūn (SATO, 1972, p.87). Ibn 'Abd al-Zāhir and Baybars al-Mansūrī's chronicles report Qalāwūn's work, in al-Buhayra, at Alexandria southeast (**Map 05**), between April 5th and 18th, 682/1283 (5 Muharram and 18 Muharram), regarding *khalīj al-Tayriya's*,

or *al-Ṭiriyya* channel, opening. The chroniclers describe the efforts as a big event, which draws one's attention to public works that took place during ancient times. Organizing efforts and people's mobilization were associated with remarkable figures, such as Hamāh governor. To a great extent, Egypt sultans were Pharaoh's heirs (WESTERMANN, 1919)¹³.

Sarah Kate Raphael (2013, p.22-23) presents a very interesting quantitative survey of the number of droughts and consequent famines in the Levant. It is noteworthy that, in the 7th/13th century, such events occurred in 597-598/1200-1201 and 662/1263. These drastic events, drought and famine affected Egypt between 693/1293 and 710/1310. We note that the irrigation works mentioned by the chroniclers take place in 682/1283, about 20 years after the last famine event pointed out by Raphael's study. Another important fact pointed out by both Sato (1997, p.98) and Rapoport (2018, p.203) is the presence of itinerant, relatively sedentary communities in al-Buhayra¹⁴. As has been pointed out, on certain occasions the nomadic communities presented themselves as opponents and rebelled against the Mamluk government in Cairo. The central question, from reading the two chroniclers, is to relate drought and food shortages to the presence of nomadic communities in al-Buhayra. In this way, we can understand the *iqtā'* system as a response to the problems mentioned above.

The utilization of unproductive land, used as pasture for the Bedouins, and *iqtā'āt* expansion were arduous. There were difficulties opening and maintaining canals before the Nile's flood period. Work could, supposedly, only be executed throughout mobilization of a large group of people and Sultan's army support was crucial to both rural communities and *muqta'ūn*. Without Sultan's backing, *muqta'ūn*, *wulāt* and nomad and sedentary communities would not have been able to maintain the region. Furthermore, the disputes could culminate in major revolts.

Ibn ‘Abd al-Zāhir’s Recount on opening the al-Ṭiriyya channel	Baybars al-Mansūrī’s Recount on opening the al-Ṭiriyya channel
<p>Since our master the Sultan had dwelled during this period in the Egyptian homelands, one benefit did not distract him from another, nor the distant from the close, the far-off from the near.</p> <p>He continued to consider the issues of the lands of al-Buḥayra, as during the preceding era it had been the bread-basket and provision-source of the Egyptian homelands, but that unirrigated lands, fallow and unproductive [land] had taken over it. Thus it had become a grazing-ground for the Bedouin, for their quadrupeds, and fallen into disuse.</p> <p>He was told of this narrative at the place known as al-Ṭiriyya – that it had become obscure and silted up due to the passing of time, and neither landowner or tenant could do anything to work it.</p> <p>Whenever someone worked to loosen it [the canal] he would not be finished during a year, so then the Nile would flood when he had not been able to complete [the task] whereupon the mud would be deposited on it, and all the effort would be wasted.</p> <p>He sent to the governors of the Baḥrī side [of the Nile] to make available men, workmen, and oxen. He promised them that he would himself come out with his armies. So he did, accompanied by al-Malik al-Manṣūr, the ruler of Ḥamāh, just as we mentioned, and the kings, his sons, all the emirs and courtiers, the troops and armies.</p>	<p>In it al-Malik al-Manṣūr, the ruler of Ḥamāh arrived in the Egyptian homelands in the sultanic formal session (khidma), [231] so the Sultan rode out to greet him, honored him exceedingly, and settled him in Views of the Ram (Manāzir al-Kabsh), and his retinue in lodgings belonging to him, and everyone who was present with him – his emirs, his courtiers, and his relatives. He brought with him significant honorary gifts of horses, fabrics, goods, valuables, so he received them from him, and compensated him in the best manner.</p> <p>In it the Sultan proceeded in the direction of al-Buḥayra to dig the canal known as al-Ṭiriyya, and the ruler of Ḥamāh proceeded with him, and attended the work personally with his followers. He returned to this task, and clearing the canal was accomplished in ten days. Its length was 6500 qaṣaba (22.75 kms), and its breadth was three qaṣabs, while its depth was four qaṣabs.</p> <p>God delivered benefits through it, and it irrigated many of the areas and eastern lands from al-Buḥayra. After being abandoned, it came to be numbered among the properties, distinguished by its advancement and produce rather than blight. Most of it was assigned to iqtā' fiefs.</p> <p>(BAYBARS AL-MANSŪRĪ, In: COOK, 2020, p. 300) (emphasis added)</p>

He went on 5 Muḥarram [April 5, 1283], and came to the place on Thursday, the 8th [April 8, 1283]. At that time he took part in the work personally, and the riding personally. He divided the work among all the people by measure (qaṣaba), [26] and each emir and commander gathered with his group and his mamluks. Some of them even hired people trying to finish quickly and to demonstrate interest and initiative.

The Sultan expended stipends, visiting the sick and treating people well. Foodstuffs were made for all who were near to the work, especially those close to our master the Sultan, who closely attended the work personally, together with the junior sultans, his sons, and his personal mamluks.

This was something to be seen, as the entire world gathered, and the dust rose at the marching bands (ṭablkhānāt) in every place. The Arabs and others dwelling close by attended. So the job was completed in the shortest possible time. What was accomplished was in 10 days 6503 qaṣabas in length were worked, four wide, and two or more deep, depending on the lay of the land. (IBN 'ABD AL-ZĀHIR, In: COOK, 2020, p. 65-66) (emphasis added)

The most long-winded recount is the one from Ibn 'Abd al-Zāhir, being recalled the region as a big food producer, once “during the preceding era it had been the bread-basket and provision-source of the Egyptian homelands”. However, due to abandonment, it became a Bedouin pasture. This was the opinion of a scholar, a secretary who should have known the region's history well. For an unknown reason, food production has been halted in the area. Perhaps the government was dealing with other issues and couldn't mobilize the army to work on the canals, dikes and other irrigation projects.

It is plausible to argue that after the Mamluks took power in the middle of the 13th century, the resulting troubles hampered the irrigation work. This became more acute for the major works, which demanded attention from Cairo. In addition to the possible upheavals caused by the change of power, the famine of 662/1263 may have aggravated the disputes between the new power and the Bedouin communities of the Nile Delta. Ibn 'Abd al-Zāhir mentions the presence of nomads in the works of 682/1283, but seems to regret that, before these works, the region was occupied by these same nomads. Sato (1972, p.86) also notes that the region was in fact abandoned.

The first recount is written by a secretary, born in Cairo, the second one, is from a Mamluk, captured as a child in the Kipchak steppes, taken to Cairo and trained as an elite warrior, training which forecasted the conversion to Islam and learning the Arabic script¹⁵. Baybars al-Mansūrī's most concise recount ends by mentioning the fact that the region, once a disaster, was now a highlight on producing. He mentions its utilization, such as endowments in iqtā'āt. Baybars references were presented previously, concerning promotion iqtā'āt benefits he had received (BAYBARS AL-MANSŪRĪ, In: COOK, 2020, p. 318).

Although certain nuances, both recounts emphasize the region's change to being unproductive to productive, a transformation where nomad presence is highlighted in Ibn 'Abd al-Zāhir's recount. Those communities would have been established in Egypt since Islamic expansion, being, at first, prohibited from executing agricultural activities. Later, in the 2th/8th century, the forbidding was revoked (SALEH, 1978, p.55). The relation between Bedouin and the Fatimid Caliphs was to a certain extent, positive. Bedouins participated in certain areas of government. After Saladin assumed, Ayyubid and Bedouins' relations became tense. It's valid highlighting that nomad sold wheat to Crusaders, fact which caused hostility from Sultan. However, the oppositions between the Mamluks and the Bedouins seem to have been more intense than those between the Nomads and the Ayyubids.

Saleh explains the hostility from Bedouin towards Mamluk:

Dès l'avènement, en 648 H./1250, d'al-Mu'izz 'Iybak al-Turkumini, le premier des Mamluks qui soit devenu Sultan en Egypte, les

Bédouins s'unissent contre lui. Contre ce qu'il était, contre ce qu'il représentait. Les Bédouins déniaient à un esclave toute possibilité de les commander, eux qui sont de nobles Arabes, certes plus habitués à acheter et "à vendre leurs esclaves qu'à obéir à l'un d'eux. L'éthique bédouine avait permis l'acceptation des Ayyubides, étrangers certes, mais hommes libres. Cette même éthique rendait impossible la subordination des tribus aux Mamluks, même si ces esclaves, les Mamluks, étaient les maîtres de l'Égypte (SALEH, 1978, p.60).

In a similar way, Reuven Aharoni (2004) observed that tribal links that united Bedouin were different when comparing to Mamluk binds. Once a child broke with original familiar bond and taken as a slave to Cairo, there were created other means of belonging. As opposed to that, Bedouin trusted and strengthened the original familiar bond. Perceived as slaves, Mamluks, by the 2nd half of 7th/13h, would face the Bedouin. A family that could identify its ancestors was considered noble. The Mamluks lacked that. Perhaps this lack explains the Mamluks' emphasis on their role as defenders of Islam and their commitment to Jihād (FAVEREAU, 2018, p.35-36).

As time passed, Mamluk adapted ways of bonding and identities similar to those of the Bedouin. According to Reuven Aharoni (2004, p.410), "David Ayalon has pointed out that the Bedouin terms 'ashīra (tribal confederation) and qabīla (tribe) were used to signify a Mamluk faction. A member of Mamluk 'qabīla' was precisely parallel to a khushdāsh in his obligatory loyalty to 'tribe". Mamluks and Bedouin relations, specially the strong opposition coming from the second group, allow to test and confirm Stefan Hedemann's hypothesis. That is:

The organization and strength of a nomadic tribe reflects the level of organization and strength of the sedentary military power that confronts it. This hypothesis will be tested in three instances: first, Bedouin political and military domination in the region; second, neutralization of the nomads and finally a kind of integration of the nomads into the fabric of a sedentary state" (HEIDEMANN, 2005, p.289).

If we consider the validity of the hypothesis, focusing on the third instance, in agreement with Sato (1997), we can ponder the place of the iqtā' system in the relations and balances between Bedouins and Mamluks. Perhaps more than that, we can perceive this place from the passages we have selected from

Baybars al-Mansūrī and Ibn 'Abd al-Zāhir. Of course, we have only presented the problem in a clearer way. However, the two chroniclers complement each other for a complete view of our problem. There needs, however, to deepen in other excerpts of Mamluk chronicles. The Bedouin's participation in a semi-sedentary condition, under Egypt's government structures, since the Umayyad period, reinforce Heidemann's hypothesis.

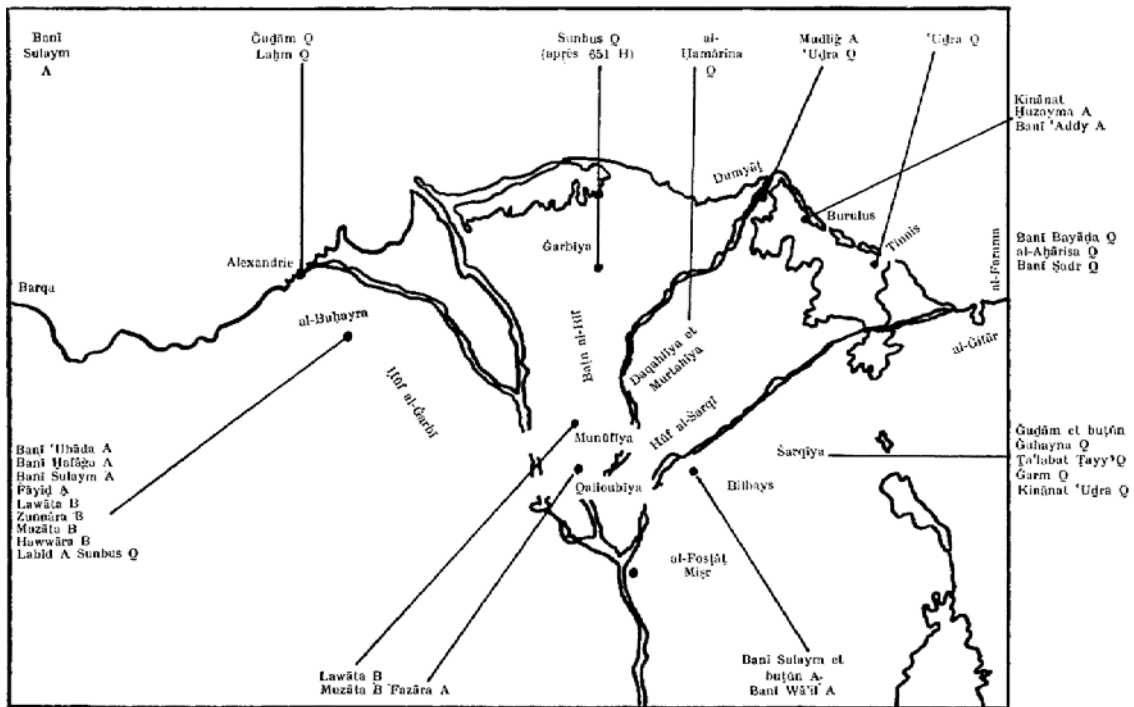
Be it aversion to submit to slaves or differences referring to construing relations, the relation's suspicious nature between the Mamluk and Bedouin is agreed between researchers (AHARONI, 2004; SATO, 1997; SALEH, 1978). This perception is indicated by the Bedouin's suppression in 651/1253 and by the Bedouin uprising against the Mamluks in 701/1301. The Mamluk suppression of the nomad revolt of 651/1253 is a good example. Starting in Upper Egypt, in 647/1249, expanded throughout the provinces *Manūfiyya*, *Ghabiyya* and *Buhayra* (**Map 05**), at the Nile Delta. The research conducted by Saleh (1978) allows a geographical view of the Bedouin diversity and their presence along Egypt.

Although the Bedouin's uprising was suppressed when Mamluk assumed power, mobile communities and its federations still demanded awareness from the Sultan. One should ask if this was included in Ibn 'Abd al-Zāhir e Baybars al-Mansūrī's recounts. Furthermore, the Qalāwūn Sultan's efforts concerned redeveloping a region that was once a "bread basket". Consequently, it could expand the means to cope with the Bedouin, avoid their revolt, focus efforts in stopping the Mongols, and subjugate the last Latin enclaves in Syria.

That is, the public works in Egypt were part of a reaction from the Mamluks to possibly Bedouin uprisings in the region of al-Buhayra (SATO, 1997, p.95). This fear was still present in the chronicles, mainly in Ibn 'Abd al-Zāhir. This reaction was aimed at expanding the land available, increasing the income in *iqtā'* and in preventing the Bedouins' free use of the land. Without *iqtā'* mediation, throughout the Sultanate's sanction, the local would still be a trouble and used exclusively for grazing herd, important for strengthening nomad communities. The chroniclers showed both concern and antipathy, Baybars al-Mansūrī recount that: "after being abandoned [finished the works], it came to be numbered among the properties, distinguished by its advancement and produce rather than blight" (BAYBARS AL-MANSŪRĪ, In: COOK, 2020, p. 300).

Sato (1997, p.100) observes the Sultans' strategies in conceding *iqtā'āt* to nomad, in Syria. With that, they aimed to prevent uprisings and, meanwhile, target them against the Latin enclaves. Compensate the Bedouin was part of an inclusive politic in the Sultanate. In exchange for endowments, the nomadic federations provided military services and acted on the postal system and Sultanate's information exchange (SATO, 1997, p.98). The horse supply to postal service, for instance, was one of the obligations the Bedouin had to assume in exchange for concessions and *iqtā'āt*. In that sense, Aharoni (2004, p.408) was meaningful when observed that Bedouins needed the Mamluks legitimization to obtain freedom. On the other hand, the Sultanate required the Bedouin as key elements in the countryside and frontier regions of its domains. To be able to mediate that, *iqtā'* had a determinant role.

Map 05. The Bedouins in Lower Egypt (In: SALEH, 1978, p.69)



'Culture of coping' or the complexity of food production and the management of *Iqtā'āt*?

William Tucker (1999, p.113) stated that the Mamluks were not very prepared to deal with a moment of crisis. In other words, there would be no specific initiatives or policies for times of scarcity or environmental disturbance. The responses would come much more from the affected populations than from "government political concerns". In other terms, "although Lapidus and

Allouche speak of Mamluk sultans providing grain relief in bad times, in point of fact the evidence does not show that there was a regular institutional or rationalized mechanism for food relief" (TUCKER, 1999, p.122). Maybe, Tucker must be thinking more along the lines of contemporary States, which becomes an unfair comparison.

In terms of food production, as documented by Ibn 'Abd al-Zāhir and Baybars al-Mansūrī, the Sultanate's participation in irrigation works was a significant and necessary public event. Regarding the canal and dike maintenance works, although historians such as Tsugitaka Sato (1997) demonstrated that *iqtā'āt* holders now had more responsibilities than the central power, the Sultanate's initiatives should not be overlooked. The mobilization of a large number of people would only be possible thanks to Cairo's central power. In which this mobilization was concerned not only with the famine. The very stability of the Sultanate depended on good and simultaneously management of the natural space and the internal power balances. As we saw before, maintaining the Bedouins under control, implied not only repression, but also concessions of *iqtā'* and agricultural development. The *iqtā'* system functioned as a double mediator for managing natural space and establishing links between antagonistic subjects.

We can reach a consensus that responses to crises could only be effective and measures taken relatively effectively if there was a minimum prior provision to deal with shortages and their consequences. The memory of the example of Joseph of Egypt and the way he dealt with the years of scarcity in Pharaonic times were well known. The times of plenty made people forget the times of hunger. The time of abundance made them forget about the times of famine (ELLENBLUM, 2012). Despite this, sultans like Baybars and Qalāwūn, the both took measures regarding major public works to irrigate Egyptian lands. Two concerns, therefore, were on the Mamluk horizon. Firstly, establish agreements with nomads and, secondly, regulate access to water. These were crucial questions for the agricultural production and survival of nomadic and sedentary communities. It was also crucial to ensure the flow of grains and the regulation of their sales, in order to avoid the accumulation of commodities by the richest sections of the population.

In times of scarcity, the withholding of available grains increased the price even further, which worsened the situation of the poorest group.

In the stretch that refers to the works to open the canals in al-Buhayra's lands, as we mentioned, Ibn 'Abd al-Zāhir asserts that the nomads were using the area as pasture. In fact, in other writings of the time, the good coexistence with itinerant populations was an important factor in a challenging environment like the Levant. Ibn 'Abd al-Zāhir gives us a clue about the importance of establishing commitments with the nomads, in order to achieve good use of water and food resources.

The initiatives were not restricted to Egypt alone. In 660/1261, faced with a food shortage and lack of available pasture, which affected the Aleppo region as a result of the Mongol advance, Baybars tried to have the grains distributed to the Bedouin in the region. In 662/1263, in the vicinity of the Karak fortress, nomadic communities used water from wells and gave their horses drink. Fearing that the reservoirs would be depleted and the sedentary local population would suffer from thirst, Baybars forbade the Bedouins from using the resources and then entrusted them with the responsibility of guarding the territories north of Hejāz – the Arabian Peninsula (RAPHAEL, 2013, p.51-52). The nomadic communities were important because they provided meat for the fairs, markets and animals for the postal service. In addition, they were able to guarantee the safety of merchants and pilgrims on the routes that connected the Arabian Peninsula (Hejāz) to Palestine and Syria. Their role as auxiliary troops was also well known.

Other policies, such as fixing the prices of certain products or distributing the poor among the officials and notables were also taken by Baybars between 662/1263 and 663/1264. Distributing the poor was a way of ensuring that their sustenance was a shared responsibility among the powerful ones. Finally, the fortresses taken from the Ayyubids and the Crusaders became important places to store grain. As Sarah Kate Raphael (2013, p.64) has observed, a large quantity of grain supplies was transported from Fustāt and Cairo, two very important Egyptian granaries, to Syria, Gaza, Safad and the city of Damascus, as well as other locations. These resources would be decisive not only for maintaining garrisons and supplying the Mamluk army in the face of the Mongol threat, but also for helping sedentary populations

in times of famine or helping nomadic communities by preventing uprisings or desertions. The dry season that hit the Levant between 695/1295 and 696/1296 made it necessary to transport grain from the fortresses to the cities. Again, in this period, the distribution of the poor among the rich was an initiative taken to contain the harmful consequences of times of scarcity.

In a research about natural disasters in Mamluk Egypt, Kristine Chalyan-Daffner (2013) considered the way in which chroniclers reported natural events such as floods and earthquakes. The author concludes that Muslim scholars, who perceived natural events in different ways, appropriated a Greek and Persian tradition. Omens, interpretations related to the sacredness of Islam and natural explanations were common in the Mamluk period, testifying to a range of cultural influences. On the other hand, the author states that natural events "stimulated the development of a sophisticated 'culture of coping' and a 'culture of adaptation'" (CHALYAN-DAFFNER, 2013, p. 639). At this point, the author dialogues with William Tucker (2003) and Greg Bankoff (2009). Specifically, the latter provides the basis from which Chalyan-Daffner thinks of the Mamluk Sultanate as a "culture of coping".

Even though Chalyan-Daffner softens Tucker's perspective and Bankoff's proposal to think of 'cultures of disaster', the idea of adaptation is still loaded with a certain determinism. Disasters and natural events would be the determining factor in these societies and their responses to crises. Although the author makes an excellent study of Islamic corpora, of the different ways of interpreting natural events, the proposal to think about "cultures of coping" maintains a link with perspectives based on controversial concepts such as resilience. These bear traces of a neoliberal interpretation of history¹⁶. This type of interpretation emphasizes the inevitability and naturalness of natural disasters, removing responsibility from public authorities. Social problems, structural inequalities and the vulnerability of populations are left out of analyses of this kind. In addition, the idea that only Asian societies deal with and face environmental problems is emphasized, consolidating a stereotype of inferiority.

In other words, there would be "cultures of coping" or, at the extreme, "cultures of disaster", in a passive state of maintaining their natural state, even after suffering the pressures of events such as earthquakes, floods,

droughts or famines. This interpretation tends to naturalize the impacts of natural events and overlook the inequalities or oppositions that condition these impacts and the responses to them. Natural disasters are social and political phenomena and not merely a reflection of nature. In this sense, the analysis of the iqtā' system, thinking of a social history in conjunction with an environmental history, can constitute a good critique of William Tucker's propositions about the Mamluks.

In this regard, the effects of droughts and famines in Egypt are not only caused by the climate of the Levant, just as the responses are not limited to the capacity for resilience to environmental phenomena. The tenuous balances with the Bedouin communities, which were relatively sedentary, and with other competitors, both inside and outside the Sultanate, drove the initiatives of the muqta'ūn and the Sultans. This can be seen in the opening of the al-Ṭīriyya canal in al-Buhayra, the utilization of Egypt's former “bread basket” and the exploitation of lands previously abandoned. We conclude that it is impossible to make an environmental history of the Mamluk Levant without considering iqtā' simultaneously as a link between the historical subjects and between them and the environment. In short, iqtā' system is a means of forging links between populations and the environment and a way of appeasing oppositions.

Understanding the climate of the Levant in the 7th/13th century using natural archives is an important step for medieval studies. However, the relationship between climatic events and human suffering should not be observed in a very direct or immediate way. It is also necessary to examine the social archives and consider the balances of power that were part of the Mamluk panorama. Using these archives, we can consider the responses, positions and ways in which communities and powers interpreted adversity and moments of crisis. In the same way, we can discuss the place of the iqtā' both in the efforts to explore the natural space and in the maintenance of the Sultanate itself.

In a complex and challenging environment, the responses and initiatives of the Mamluk Sultanate were present and pointed to various levels of articulation between nomadic and sedentary powers and communities faced with the challenges of the Nile. Tucker (2003) was wrong, and his

mistake lies precisely in pondering environmental issues without conceiving the central place of iqtā' as mediation. Therefore, the expansion of research into environmental issues in the medieval Levant and the publications of Islamic sources reveal a significant historical diversity. They point to interesting possibilities and provide a plural view of human experiences in their simultaneous relationship with nature and power. In this way, we are able to create a History of the Crusades that is not merely oppositional or reductive, but rather presents itself as broad and symmetrical.

References

AHARONI, Reuven. Bedouin and Mamluks in Egypt – co-existence in a state of duality. In: WINTER, Michael (ed.) & LEVANONI, Amalia (ed.). *The Mamluks in Egyptian and Syrian Politics and Society*. Leiden: Brill, 2004, p.407-434.

AMITAI, Reuven. Between the Slave Trade and Diplomacy: Some Aspects of Early Mamluk Policy in the Eastern Mediterranean and the Black Sea. In: AMITAI, Reuven (ed.) & CLUSE, Christoph (ed.). *Slavery and the Slave Trade in the Eastern Mediterranean*. Turnhout: Brepols, 2017, p. 401-422.

BANKOFF, G. Cultures of Disaster, Cultures of Coping. Hazard as a Frequent Life Experience in the Philippines. In: MAUCH, Ch. (ed.) et alii. *Natural Disasters, Cultural Responses. Case Studies toward a Global Environmental History*. Lanham: The Rowman & Littlefield Publishing Group, 2009, p. 265–284.

_____. *Cultures of Disaster: Society and Natural Hazard in the Philippines*. London: Routledge 2003.

BAVEL, Bas van; CURTIS, Daniel, R.; DIJKMAN, Jessica; HANNAFORD, Matthew; KEYZER, Maïka; ONACKER, Aline van; SOENS, Tim. *Disasters and History: the vulnerability and resilience of past societies*. Cambridge: Cambridge University Press, 2020.

BAYBARS AL-MANSŪRĪ. Zubdat al-Fikra Fī Tā'rikh al-Hijra. In: COOK, David (transl.). *Chronicles of Qalāwūn and his Son Al-Ashraf Khalil*. Abingdon: Routledge, 2020.

BERGER, Simon. Mingghan et Tamma: l'administration nomade des frontières dans l'Empire Mongol au XIIIe siècle. In: SOCIÉTÉ DES HISTORIENS MÉDIÉVISTES DE L'Enseignement SUPÉRIEUR PUBLIC. *Frontières Sociales au Moyen Âge*. Paris : Éditions de la Sorbonne, 2021, p.177-193.

BORA, Fozia. *Writing History in the Medieval Islamic World: the value of chronicles as archives*. London: I.B.Tauris, 2019.

BREASTED, James Henry. *Ancient Records of Egypt*. Vols I-IV. Chicago: The University of Chicago Press, 1906.

CHALYAN-DAFFNER, Kristine. *Natural Disasters in Mamlūk Egypt (1250-1517): perceptions, interpretations, and human responses*. (PhD Thesis submitted to the Philosophical Faculty Department of Languages and Cultures of the Near East for degree of Doctor of Philosophy). Heidelberg: Ruperto Carola Heidelberg University / Cluster of Excellence Asia and Europe in a Global Context, 2013.

CHAPOUTOT-REMADI, Mounira. Une Grand Crise à la Fin du XIIIe Siècle en Egypt. In: *JESHO*, no. 24, 1983, p. 217-245.

CONERMANN, Stephan (ed.). *Mamluk Historiography Revisited: narratological perspectives*. Göttingen: Bonn University Press, 2018.

DENOIX, Sylvie (dir.) & RENEL, Hélène (dir.). *Atlas des Mondes Musulmans Médiévaux*. Paris: CNRS Editions, 2022.

ELLENBLUM, Ronnie. *Crusader Castles and Modern Histories*. Cambridge: Cambridge University Press, 2007.

_____. *The Collapse of the Eastern Mediterranean: climate change and the decline of the East (950-1072)*. Cambridge: Cambridge University Press, 2012.

FAVEREAU, Marie. *La Horde D'Or et le Sultanat Mamelouk : naissance d'une alliance*. Le Caire : Institut Français d'Archéologie Orientale, 2018.

FLORI, Jean. *La Guerre Sainte: la formation de l'idée de Croisade dans l'Occident chrétien*. Paris : Aubier, 2009.

FRENKEL, Yehoshua. *The Mamluk Sultanate and its Neighbours: economic, social and cultural entanglements*. In: AMITAI, Reuven (ed.) & CONERMANN, Stephan (ed.). *The Mamluk Sultanate from the Perspective of Regional and World History*. Göttingen: Vandenhoeck & Ruprecht, 2019, p.39-60.

_____. Mapping the Mamluk Sultanate. In: CONERMANN, Stephan, (ed.). *History and Society during the Mamlūk Period (1250-1517)*. Studies of the Annemarie Schimmel Research College. Göttingen: Vandenhoeck & Ruprecht, 2014, p. 37-60.

HEIDEMANN, Stefan. Arab Nomads and the Seljūq Military. In: LEDER, Stefan (ed.) & STRECK, Bernard (ed.). *Shifts and Drifts in Nomad-Sedentary Relations*. Wiesbaden: Reichert, 2005, p.289-305.

IBN 'ABD AL-ZAHIR. Tashrif al-Ayyam Wa-L-'Usur Fi Sirat Al-Malik Al-Mansur. In: COOK, David (transl.). *Chronicles of Qalāwūn and his Son Al-Ashraf Khalil*. Abingdon: Routledge, 2020.

MACKINNON, Danny; DERICKSON, Kate Driscoll. From Resilience to Resourcefulness: a critique of resilience policy and activism. In: *Progress in Human Geography*, No. 37, 2012, p. 253-270.

MAZOR, Amir. The Early Experience of the Mamluk in the First Period of the Mamluk Sultanate (1250-1282). In: AMITAI, Reuven & CLUSE, Christoph. *Slavery and the Slave Trade in the Eastern Mediterranean (c.1000-1500 CE)*. Turnhout: Brepols, 2017, p. 213-234.

MORTON, Nicholas. *The Crusader States & Their Neighbours: a military history (1099-1187)*. Oxford: Oxford University Press, 2020.

PREISER-KAPPELLER, J. *A Climate for Crusades? Weather, climate, and armed pilgrimage to the Holy Land (11th-14th century)*. Pre-print, German version to be published in: *Karfunkel – Zeitschrift für erlebbare Geschichte*. Combat-Sonderheft 10, 2013 (in print; Communicating Science to the Public), p.1-11.

RAPHAEL, Sarah Kate. *Climate and Political Climate: environmental disasters in the Medieval Levant*. Leiden: Brill, 2013.

RAPOPORT, Yossef. Invisible Peasants, Marauding Nomads: taxation, tribalism, and rebellion in Mamluk Egypt. In: *Mamlūk Studies Review*, V. 8, No. 2, 2004, p.1-22.

_____. *Rural Economy and Tribal Society in Islamic Egypt: a study of al-Nābulusī's Villages of the Fayyum*. Turnhout: Brepols, 2018.

RAPOPORT, Yossef & SHAHAR, Ido. Irrigation in the Medieval Islamic Fayyum: Local Control in a Large-Scale Hydraulic System. In: *Journal of the Economic and Social History of the Orient*, No. 55, 2012, p. 1-31.

RASHIDIAN, Elnaz. The Resilience Concept in Archaeology; a critical consideration. In: *Academia Letters*, 2021, p. 1-6.

RICHARDS, Donald. A Mamluk Amir's Mamluk History: Baybars al-Manṣūrī's Zubdat al-Fikra. In: KENNEDY, Hugh (ed.). *The Historiography of Islamic Egypt (c. 950-1800)*. Leiden: Brill, 2001, p. 37-44.

_____. Baybars al-Mansūrī. In: DUNPHY, Graeme. *The Encyclopedia of the Medieval Chronicle*, V. 1. Leiden: Brill, 2010, p. 149.

SALEH, Abdel Hamid. Quelques Remarques sur les Bédouins d'Égypte au Moyen Age. In: *Studia Islamica*, No. 48, 1978, p.45-70.

SATO, Tsugitaka. Irrigation in Rural Egypt from the 12th to the 14th centuries: especially in case of the irrigation in Fayyūm Province. In: *Orient*, vol.8, 1972, p.81-92.

_____. *State and Rural Society in Medieval Islam: sultans, muqta's and fallāhūn*. Leiden: Brill, 1997.

SUBRAHMANYAM, Sanjay. *Aux Origines de L'histoire Globale*. Paris : Collège de France / Fayard, 2014.

TUCKER, William. Environmental Hazards, Natural Disasters, Economic Loss, and Mortality in Mamluk Syria. In: *MSR*, no. 3, 2003, p.109-128.

USÂMA IBN MUNQIDH. *Kitâb al-I'tbâr*. In: MIQUEL, André (trad.). *Des Enseignements de La Vie*. Paris: Imprimerie Nationale, 1983.

WESTERMANN, W. L. The Development of the Irrigation System of Egypt. In: *Classical Philology*. Vol. 14, No. 2, 1919, p. 158-164.

YUDKEVICH, Jenia. The Nature and Role of the Slave Traders in the Eastern Mediterranean during the Third Reign of Sultan al-Nāsir Muhammad B. Qalāwūn (1310-41 CE). In: AMITAI, Reuven (ed.) & CLUSE, Christoph (ed.). *Slavery and the Slave Trade in the Eastern Mediterranean*. Turnhout: Brepols, 2017, p. 423-436.

Notas

1 UFOP, ORCID: <https://orcid.org/0000-0003-0020-1120>, doutorado em história pela UFMG

2 This article is the result of the research project “A Itinerância Como Resposta aos Desafios de um Ambiente Adverso: as comunidades nômades do espaço de Bilad Al-Sham e suas relações com os poderes Latinos e Muçulmanos durante as Cruzadas”, developed under the Thematic Project “Uma História Conectada da Idade Média. Comunicação e Circulação a partir do Mediterrâneo” (2021/02912-3).

3 Authors who have dedicated themselves to climate research in ancient societies have emphasized how contemporary climate problems, such as global warming and its relationship with the emission of polluting gasses, have boosted interest in how pre-industrial societies dealt with environmental issues. Among these authors, we can mention Bas Van Bavel et alii (2020), Ronnie Ellenblum (2012), and Sarah Kate Raphael (2013). Environmental History, whether dedicated to the Middle Ages or Antiquity, has as its great impulse the environmental issues of the present.

4 An unavoidable reference to the formation of the idea of the Crusade in the West is the classic book by Jean Flori (2009).

5 Such as the North Atlantic Oscillation, measured between Iceland and the Azores, to the West; the air from Siberia to the East and the anti-tropical cyclones, coming from the south towards Egypt.

6 Such as the El Niño–Southern–Oscillation (ENSO).

7 An important issue concerns the idea of natural disaster. We note that deaths and damages caused by climate events, to a large extent, are linked to the exposure of populations to risk situations. This exposure may be the result of State omission or incompetence, as well as contexts where inequality is accentuated. Both Sarah Kate Raphael (2013) and Ronnie Ellenblum (2012) emphasize how periods of drought and their impact on harvests and subsequent famines were linked, to a large extent, to the government's lack of planning regarding the stock of food reserves, the retention of grains by merchants and aristocrats and speculation in food prices.

8 As explained further, muqta'ūn – plural for muqta' – owned iqtā'āt'. Wulāt – plural for wālī – were governors who served Sultans “[...] In Egypt wālīs were the same as nā'ibs in Syria, that is, in charge of keeping order, managing the irrigation system, and overseeing the muqta's” (SATO, 1997, p.259).

9 Traditional irrigation techniques used in Egypt, such as water wheels, can be checked at:

<https://www.youtube.com/watch?v=uQ9yRcywfGg>

10 Sato (1997, p.84) starts from the same assumption: “As I shall mention shortly, village irrigation during the Ayyubid and Mamluk period was managed by the fallahun and the iqta' holder (muqta)”.

11 With regard to the Mamluk military expeditions and the conflicts between them, the Mongols and the Latins, detailed work is needed, such as that carried out by Nicholas Morton (2020) for the 12th century. Regarding the complexity of relationships and the balance of power between Latins and Muslims, the author discusses military activities and the conditions of clashes between the Fatimids, Seljuks, and Latins in the first half of the 12th century. Based on an exhaustive study of Latin and Muslim sources, Morton enumerates and analyzes the clashes, outlining an overview of the initiatives and balances between the mentioned powers. Morton drew up a typology of the conflicts between the Latins and the Muslims (skirmishes, sieges, large-scale confrontations, etc.).

12 Usama Ibn Munqidh recorded in his memoirs the mission he received, in the middle of the 6th/12th century, from the Egyptian vizier of Turkish origin, Al-Malik al-Ādil, to demand assistance from Nur ad-Din, lord of Aleppo, against the Franks. In the first half of the 12th century, the latter threatened the Fatimid Caliphate, which was also facing internal problems and conflicting successions of viziers : “Al-Malik al-Ādil m'enjoignit de me tenir prêt à me rendre auprès d'al-Malik al-Ādil Nūr ad-Dīn – Dieu le prenne en pitié” “Tu prendras avec toi de l'argent, me dit-il, et tu iras le trouver pour qu'il assiège Tibériade et détourne ainsi de nous les Francs. Nous pourrions alors, d'ici, aller ravager Gaza'. Les Francs – Dieu leur refuse son secours ! – avaient entrepris en effet de rendre vie à cette ville en vue de bloquer Ascalon. Je répondis : 'Seigneur, si Nūr ad-Dīn fait des difficultés ou si d'autres occupations le retiennent, que m'ordonnes tu ? – S'il s'installe devant Tibériade, donne-lui l'argent que tu as. Si quelque chose l'en empêche, enrôle autant que tu pourras de soldats, monte jusqu'à Ascalon, et restes-y pour combattre les Francs. Tu m'écriras lorsque tu y seras arrivé, pour que je te dise ce qu'il faut faire'. Je reçus six mille dinars égyptiens, ainsi qu'une charge de chameau

consistant en vêtements de Dabiq, siglaton, fourrures de petit-gris, étoffes de Damiette et turbans. On m'affecta aussi, pour me guider, un groupe d'Arabes. Je partis donc : mon voyage avait été préparé sans défaut, et l'on avait paré à tous mes besoins, grands ou petits" (USAMA IBN MUNQIDH, In : MIQUEL, 1983, p. 105).

13 A documentation about irrigation works in Pharaonic Egypt can be found in the collection organized by James Henry Breasted (1906): Ancient Records of Egypt.

14 Rapoport (2018, p.203) presents a brief but interesting overview of the nomadic presence in al-Buḥayra. He notes that the nomad communities cultivated the land and, under certain circumstances, rebelled against the Cairo government. It's reasonable to think of drought and scarcity as an impetus for these rebellions "Al-ʿUmarī adds that only the Arabs of the western province of al-Buḥayra had the true traits and mores of Arabs, because they were truly nomadic and travelled as far as al-Qayrawān and Gabes. His contemporary al-Nuwayrī reports that all 1,600 Arab men captured by Mamluk forces after the rebellion of 701/1301 were cultivators of the land (lahum filāḥāt wa-zurū)" (emphasis added).

15 For more references on Mamluk chronicle writing and the typology of the corpus, see: Fozia Bora (2019).

16 For a critique of the neoliberal character of the concept of resilience, see Elnaz Rashidian (2021) and Danny Mackinnon and Kate Driscoll Derickson (2012).