



Papyri, Archaeology, and Modern History

Paola Davoli

I. Introduction: the cultural and legal context of the first discoveries.

The evaluation and publication of papyri and ostraka often does not take account of the fact that these are archaeological objects. In fact, this notion tends to become of secondary importance compared to that of the text written on the papyrus, so much so that at times the questions of the document's provenance and find context are not asked. The majority of publications of Greek papyri do not demonstrate any interest in archaeology, while the entire effort and study focus on deciphering, translating, and commenting on the text.

Papyri and ostraka, principally in Greek, Latin, and Demotic, are considered the most interesting and important discoveries from Greco-Roman Egypt, since they transmit primary texts, both documentary and literary, which inform us about economic, social, and religious life in the period between the 4th century BCE and the 7th century CE. It is, therefore, clear why papyri are considered "objects" of special value, yet not archaeological objects to study within the sphere of their find context. This total decontextualization of papyri was a common practice until a few years ago though most modern papyrologists have by now fortunately realized how serious this methodological error is for their studies.[1]

Collections of papyri composed of a few dozen or of thousands of pieces are held throughout Europe and in the United States. These were created principally between the end of the 19th century and the first half of the 20th century, a period in which thousands of papyri were sold in the antiquarian market in Cairo.[2] Greek papyri were acquired only sporadically and in fewer numbers until the first great lot of papyri arrived in Cairo around 1877. This mass came from the ruins of ancient cities, like Krokodilopolis, the capital of the Fayyum (today Medinet el-Fayyum), and Herakleopolis Magna (today Ihnasya el-Medina), in Middle Egypt to the south of the Fayyum. This was the first time that hundreds of documents written in Greek, Coptic, and Arabic reached the shops of antiquities dealers. We can only imagine how many other papyri were destroyed by the Egyptians who had no clear idea of their scientific and commercial value.[3]

10,000 papyri were acquired in 1881-82 by the National Library of Vienna, thanks to the foresight of Josef Karabaček (1845-1918), a professor of Oriental History at the University of Vienna, and to the economic support of Archduke Rainer. These documents comprised the first portion of the Austrian National Library's Papyrussammlung, which today numbers around 180,000 written documents. Karabaček was one of the first scholars to understand the importance of this type of document and was able to acquire them through an antiquities dealer, Theodor Graf (1840-1903), whose work was carried out between Vienna and Cairo. Graf was one of the main protagonists of the Egyptian antiquities trade in this period: through his hands passed thousands of papyri and hundreds of the famous "Fayyum portraits", not to mention the Akkadian cuneiform tablets found by chance at Tell el-Amarna.[4] In 1887 a new and substantial discovery of papyri reached Cairo from Soknopaiou Nesos, a site known today as Dime es-Seba, a small town in the desert north of lake Qarun in the Fayyum.



Figure 1. Archaeological Sites in the Fayyum, courtesy of B. Bazzani.

It primarily consisted of documents from the archive of the temple of the god Soknopaios. Unfortunately, since these texts were sold in lots to different museums and collections, we do not know today exactly how many there were. The Roman necropolis of Philadelphia in the Fayyum was also found in 1887 and the numerous portraits painted on boards that adorned its mummies were for the most part acquired by Th. Graf. The British papyrologists B.P. Grenfell and A.S. Hunt state that until 1894 the market in Cairo was rich in papyri coming from various sites in the Fayyum, but that they began to become scarce beginning in that same year.[5]

The antiquities market, illegal today but nonetheless booming, was free and legal in Egypt up to 1912, even though laws for the protection of antiquities had been in force since 1835.[6] It was very easy to request and receive an excavation permit, which then allowed the division of finds between the excavator and the Egyptian State. Antiquities dealers were more constrained by state authorities only after the passage of Law no. 14 of 1912. This law established that all the antiquities found on or in Egyptian soil were the sole property of the State (art. 1). Thus, the only antiquities that could be legally sold were those that were already part of pre-existing collections or those coming from legal excavations conceded by the State – or rather by the Service des Antiquités – to the excavator (art. 4, 11).[7] The law was still not applicable to foreigners, the antiquities trade was thus a considerable source of profit until Law no. 215 of 1951 went into effect, which applied to both Egyptians and foreigners. In order to fuel the trade legally, antiquities dealers requested and obtained permits for the excavation of archaeological sites. In this way they came into legal possession of objects to re-sell at a great profit. In addition to scholars and the great collectors it should not be forgotten that tourists, who were coming to Egypt in increasing numbers beginning in the middle of the 19th century,⁸ as well as European immigrants to the country⁹ also began to acquire antiquities.

It was perhaps during an organized, and likely authorized, excavation in search of antiquities that hundreds of papyri were found at Soknopaiou Nesos in 1887, to which reference has already been made. Ali Farag, a merchant from Giza, found many papyrus rolls when he excavated at the same site in 1890, while a Coptic merchant excavated there four years later. In 1915 an Inspector from the Egyptian Antiquities Service, Ahmed Bey Kamal, carried out excavations for Sayed Bey Khashaba, a famous merchant from Asyut.



Papyri, Archaeology, and Modern History

Ostraka, parchment, and papyri were also found in uncertain contexts until the end of the 19th century at Hermopolis, Panopolis, and at the oasis of Kharga in the western desert. The Museums of Berlin primarily acquired papyri from Soknopaiou Nesos, while W. Budge succeeded in acquiring, among other texts, four rolls of Aristotle's Athenian Constitution found at Meir, for the British Museum. The archive of Abinneus, a cavalry official stationed at Dionysias (today Qasr Qarun) in the Fayyum in the 4th century CE, was found in 1891-2 probably at Philadelphia and was then sold in different lots to the British Museum and to the University of Geneva.¹⁰ In addition, another important and substantial archive of Greek documents, the archive of Heroninus, was sold in lots after being found at Theadelphia in 1901 is today dispersed amongst different collections.¹¹

The largest sellers of antiquities and papyri at Cairo in that period included Ali Farag, Ali el-Arabi, Maurice and Robert Nahman, Marius and Nicolas Tano,¹² Kondilios among others. Many of them sold objects and papyri to private collectors and to the biggest museums in the world and their families continued this type of commercial activity for many years. Private ownership of antiquities continued to be legal in Egypt even after Law no. 215 of 31 October 1951 was enacted (art. 22), but only for objects collected before that year and in several other cases.

The discoveries mentioned above and many others as well were made through by farmers and of antiquities dealers whose activities bore no resemblance to systematic and scientific excavations. Egyptian archaeology was at that time in its early stages and many areas of Egypt had still not been explored, such as the oases and the Fayyum, both of which were long-ignored by Egyptologists.¹³ Even the Egyptian Government itself paid little attention to these marginal regions, which at the time had not yet been officially mapped.

II. El-Fayyum

The Fayyum (see above, Fig. 1) is a region with characteristics unique in Egypt, since it is a pseudo-oasis linked to and dependent upon the Nile for its water supply by means of a natural canal, the Bahr Yussuf. The region is a large natural depression in the desert situated about 80 km southwest of Cairo, with elevations from 26 meters above sea level to 55 meters below sea level. The lowest point is occupied by a lake, today saline, called Birket Qarun, the Lake Moeris of Herodotus (Histories II 149, 1-2, 4-5; 150 1-4). The waters of the region flow into it. The amount of water that enters the region through the Bahr Yussuf is controlled by four locks at El-Lahun, designed to keep the depression from flooding and to allow an optimal equilibrium between the level of the lake and the extent of the cultivated area. This fragile ecosystem was maintained this way from the Middle Kingdom, when the Pharaohs Sesostri II and Amenemhat III of the 12th dynasty (ca. 1880-1808 BCE) transformed the Fayyum from a marsh into an arable zone. The strict control and the rigid regulation of water use by the State are a necessity for life in a region that, in times of political crisis and therefore of scarce attention, has suffered from flooding due to the increase in the level of the lake. In addition, maintaining the efficiency of the complex system of canals that cross the region is essential for the conservation and exploitation of farmland. We learn from some travelers and from French engineers following Napoleon's military expedition that in the 17th and 18th centuries the region suffered from inadequate administration, with negative consequences for the extent of farmland and of the lake. Even in the Medieval period the extent of cultivated land was around half of what it is today, according to Al Nabulsi, Governor of the Fayyum in 1243. In these periods the population withdrew to the center of the region and the cultivatable area fell drastically.¹⁴

It is particularly difficult to determine what the limits of the lake and of the cultivatable land were in the Ptolemaic and Roman periods, but after several years dedicated to the study of archaeological remains spread over the region I have reached the conclusion that both the farmland and the lake had at that time limits similar to those reached in the 1950s (Map of the Survey of Egypt of 1957). In fact, with the help of some aerial photographs taken by the British Royal Air Force in 1955, before modern land reclamation had extended any farther, we can follow the traces of some canals from the Hellenistic reclamation, which ran between Theadelphia and Dionysias in the western desert.¹⁵ Moreover, it is clear that the modern peripheral canals often follow the course of their ancient counterparts and for this reason pass near ancient habitation centers.¹⁶ The ruins of Greco-Roman settlements that were the best preserved until the beginning of the 19th century were situated mainly in the desert, along the modern margins of the



Papyri, Archaeology, and Modern History

agricultural land, protected by the aridity of the sand and far removed from population centers. Other settlements situated on the banks of the lake in Antiquity, for example Qaret el-Rusas, have almost completely vanished, submerged by the waters of the lake in the Medieval period. The ancient villages and monuments situated in the center of the region have also almost completely vanished because of constant human presence; an exception being Kiman Fares, the ruins of the capital Krokodilopolis (today Medinet el-Fayyum), from which came the first large lot of papyri sold in Cairo. These ruins were located north of Medinet el-Fayyum before the great urban development of the 1960s and 70s reduced them to just five small areas fenced off from the new districts.¹⁷ The site was certainly used for centuries as a quarry for materials by the local inhabitants and it is not clear how papyri reached the antiquities market beginning only in 1877.

Ten years after that extraordinary discovery, G. Schweinfurth visited Kiman Fares, conducted a brief excavation, and published the only existing site plan.¹⁸ The area was twice the size of Medinet el-Fayyum at the time (2.4 x 1.2 km) and was composed of around 30 hills from 10 to 20 meters high, many of which consisted of ancient dumps rich in *sebbakh*.



Figure 2. Aerial view of Medinet el-Fayyum and Kiman Fares. Photo RAF 1950.



Figure 3. A bath at Kiman Fares.

III. Sebbakh and sebbakhin

To the south of Kiman Fares Schweinfurth identified two large square basins used to collect saltpeter from sebbakh. Saltpeter is one of the components of gunpowder and is naturally present in sebbakh. Sebbakh is a key term in the history of Egyptian archaeology and papyrology because many of the most important discoveries of the 19th century and of the first half of the 20th were made by the sebbakhin, farmers (fellahin) in search of sebbakh, that is, Nile mud enriched with human- and animal-produced organic materials and for this reason rich in nitrates and potassium salts.¹⁹ Sebbakh was found concentrated among the ruins of ancient settlements, in ancient dumps, but also in the streets, in the courtyards of houses and in mudbricks composed of Nile mud mixed with straw, of which the majority of buildings were constructed. Sebbakh is therefore a natural fertilizer, but it is also mud with which to make new mudbricks and material from which saltpeter can be cheaply extracted for the making of gunpowder. Such industries arose during the reigns of Mohammed Ali and his son Ibrahim Pasha and only disappeared at the beginning of the 20th century.²⁰ Saltpeter was produced in large basins where the sebbakh, cleansed of potsherds, was kneaded with water. Thanks to the decantation and evaporation of the water, after a few days a crust of salt was left on the surface inside the basin, which was then collected and refined. Mountains of potsherds present where there were important population centers are today the only evidence of this widespread and destructive activity.²¹

During the reign of Mohammed Ali (1805-1848) many reforms aimed at improving the Egyptian economy were enacted, thanks also to the participation of European engineers specially selected to work in the country. Agriculture was the main source of the State's wealth and for this reason it sought to intensify agriculture and make it more efficient. In this sphere the hydrographic system of the country was redesigned in order to allow greater exploitation and control of the Nile's waters and the reclamation of desert zones.²² Agriculture was based on the ancient system of artificial canals set up to take advantage of the annual flood of the Nile, which allowed only one harvest per year. By contrast, the new system provided for the construction of dams on the river to create reservoirs that could be drawn upon throughout the year in order to increase the number of harvests. In addition, a long and capillary network of new artificial canals and motorized pumps, brought water to locations far from the river basin. Thus



Papyri, Archaeology, and Modern History

“perennial irrigation” came into use, the technology that still makes intensive agriculture possible today.²³ The last and greatest artificial reserve of water is Lake Nasser, created after the construction of the High Dam of Aswan, that was inaugurated in 1970.

In the course of this process of modernization Mohammed Ali did not completely ignore the ancient monuments and in 1835 he enacted the first law concerning the preservation of Egypt’s ancient heritage, thanks also to the pressures of J.-F. Champollion (1790-1832). The decipherer of the hieroglyphic script, who visited Egypt in 1828-29, was struck by the richness of the Egyptian monuments but also by the speed with which they were being destroyed or commercialized.²⁴ Still, then as now, the economic development of the country took priority over the preservation of antiquities, which were used in many cases as a free source of materials or as an odd homage to foreign rulers.²⁵ The first real Museum for the conservation of monuments was founded during the reign of Said Pasha (1854-1863) in Cairo in 1858 together with the Service des Antiquités, both directed by Auguste Mariette (1821-1881). These institutions were the first permanent bodies with a certain amount of autonomy to be placed in charge of the preservation of the nation’s historical heritage; nonetheless the concepts of “heritage” and “safeguard” were not easily understood. Mariette spent his entire life in the effort of preservation, convinced that there would be two Museums in Egypt, one for the conservation of objects and monuments, in the district of Bulaq, the other Egypt itself.²⁶

The first large discoveries of papyri were, as has already been said, at Kiman Fares (see above, Fig. 2), Herakleopolis, Hermopolis, Soknopaiou Nesos, Karanis, Elephantine (Aramaic ostraka), and Kharga, beginning in the reign of Ismail Pasha (1863-1879), a period in which Egypt was fully committed to its program of economic development. The process saw the employment of a large percentage of the population primarily in jobs connected with agriculture and the optimization of cultivatable areas. Different activities, as we have seen, provided for the exploitation of ancient settlements and monuments, happily sacrificed for the economic progress of the country. The agricultural revolution begun by Mohammed Ali was in full swing, so much so that the cultivatable land area quadrupled between 1820 and 1880.²⁷ The Daira Sanieh, an agricultural company belonging to the Khedivè and located in Upper Egypt, possessed sugarcane plantations, hundreds of kilometers of rail lines for transport to its nine factories for processing, and much else. A portion of its tracks passed through the site of Hermopolis Magna (Ashmunein), whose ruins were not protected by the Service des Antiquités and were therefore freely put to use.²⁸ During this period the population grew, cities and villages expanded, the length of the rail lines was doubled, and the government made every effort to transform Egypt from an African country into a European state.²⁹ Accordingly it was within the framework of the great public enterprises spread over the entire territory that numerous casual discoveries occurred. To these were added the finds of clandestine antiquities hunters, whom Mariette sought to control both by means of continual inspections and by sending orders directly to the provinces, in which he reaffirmed the absolute jurisdiction of the Service concerning antiquities.³⁰

The system of perennial irrigation allowed the introduction of new industrial crops, such as long staple cotton and sugarcane starting in 1820. Both crops required large amounts of water and fertilizer. Fertilizer became a necessity for Egyptian agriculture beginning with the introduction of perennial irrigation. This system reduces the amount Nile mud that accumulates each year on the fields, which are, in turn, depleted by intensive cultivation.³¹ For this reason it was necessary to use imported chemical fertilizers and *sebbakh*.

Egypt expanded its own cotton market in Europe starting in 1860, when the United States stopped exporting cotton because of the American Civil War (1861-1865). Until this point, Europe, Britain most of all, had imported cotton for its own textile industries primarily from the United States of America. The positive economic effects that the American Civil War had on the Egyptian economy are well known to scholars of modern history,³² but the side-effects that influenced the history of archaeological discoveries appear to be less well known to Egyptologists and papyrologists. With the increase in demand³³ Egyptian cotton production grew, even at the expense grain production, as did the amount of newly reclaimed farmland.³⁴ Farmland in many regions began to reach ancient settlements rich in *sebbakh* and new farmers’ villages were constructed nearby. The ruins thus became free sources of materials for



the *fellahin*: wood for fire, fired bricks and stone for construction, and, of course, *sebbakh* as an abundant and, above all, free fertilizer.

IV. Antiquity and the modern economy

At the end of the 19th century the antiquities of the Fayyum were completely unknown to scholars. The first, albeit incomplete, map of the Fayyum was drawn by Petrie after a brief survey in 1890.³⁵ The English papyrologists B.P. Grenfell and A.S. Hunt decided to begin a systematic exploration of the Fayyum in 1895, after the publication of Petrie's reports on the identification of Greco-Roman ruins and on the discovery of literary papyri at Hawara and of papyrus-cartonnage at Gurob.³⁶ The casual yet very abundant finds of papyri at Kiman Fares, Soknopaiou Nesos, and Karanis were surely an additional impetus. The Egypt Exploration Fund (EEF), a private society founded in London in 1882, provided the necessary economic support.³⁷ In that same year (1882) England assumed political and economic control of Egypt, although the direction of the Museum and of the Service des Antiquités remained in French hands. In 1881 Gaston Maspero (1846-1916) succeeded Mariette. In comparison to his predecessor, Maspero proved to be more open to collaboration with foreign scholars and was very diplomatic with the English; he encouraged the excavations of the EEF, which he allowed to export the majority of its finds. Indeed, before the passage of the decree of 1891, which allowed the division of objects between the Service and the excavator (art. 4),³⁸ the decree of 1883 declared antiquities to be the public heritage of the State and, as such, inalienable.³⁹

The ancient settlements of the Greco-Roman era, still in excellent states of preservation in the desert around the Fayyum, were reached by new artificial canals and by farmers in these same years. At this time their destruction began due to great earth-moving projects, during which finds of objects and papyri occurred. Land reclamation reached the western edge of the Fayyum in 1900, later than the rest of the region: the new canals Bahr Qasr el-Banat and Bahr Qarun carried water into the vicinity of the ancient towns of Theadelphia, Euhemeria, and Dionysias, settlements that were abandoned between the 4th and 6th centuries perhaps precisely because of a lack of water. These archaeological areas were therefore seriously disturbed by the *sebbakhin* and in the years between 1901 and 1911 important discoveries were made, for example the archives of Heroninus and Sakaon (1903) and that of two stelai in Greek mentioning the temple of the god Pnepheros and the Bubasteion at Theadelphia. G. Lefebvre (1879-1957), then an inspector of the Service, informs us that in 1908 Theadelphia and its necropoleis were almost completely covered by cultivated land.⁴⁰ The situation was being played out in the Delta, where M.W.F. Petrie and G. Daressy similarly witnessed the rapid destruction of ancient sites.⁴¹

V. "Excavations of papyri" from 1895 to the Second World War

It is thus quite clear that the survival of ancient sites was severely endangered by the economic politics of the State and the persistent low level of awareness of the historical-archaeological and cultural importance of the ancient settlements of the Greco-Roman era. The clandestine excavations that fed the antiquities market were certainly also a cause of destruction, but this was limited to contexts and the objects themselves rather than entire sites.

Archaeologists and papyrologists therefore found themselves fighting against time in order to save antiquities from destruction. The British papyrologists Grenfell and Hunt thus undertook their excavations in the Fayyum with the aim of finding the greatest number of papyri in the shortest possible time, in order to prevent their destruction or sale by the *sebbakhin* and antiquities dealers.⁴² In fact, it was known that both groups were dividing lots of papyri found together and even cut papyri into many pieces to sell them to different buyers. The two English papyrologists conducted the first systematic exploration of the region, discovering and excavating, at times in only a few days, around 15 settlements and necropoleis whose ancient names they identified thanks to the papyri they found.⁴³ They spent every winter between 1895 and 1907 excavating Greco-Roman sites, in the Fayyum and elsewhere, living in tents with little or no comforts. During the remainder of the year they studied and promptly published the papyri



Papyri, Archaeology, and Modern History

they had found, thus making immeasurable contributions to philology, to papyrology, and to ancient history. Truly, a new phase of papyrological discoveries began with them.

But because of their predominantly philological interests, Grenfell and Hunt approached the publication of the papyri by considering them simply as bearers of text; no archaeological information of any kind, such as the context of their discovery, accompanied their editions. Grenfell and Hunt had the great fortune of exploring settlements still in an excellent state of preservation, sometimes still completely undamaged, as was the case of Bakchias (today Kom Umm el-Atf), but unfortunately they did not document their excavations with plans and photographs. Perhaps simply because the primary aim was to find papyri and not to conduct documented archaeological excavations the Egypt Exploration Fund did not provide them an archaeologist, save for the first mission in which D.G. Hogarth succeeded in documenting the plans of the temples of Karanis and of Bakchias.⁴⁴ Grenfell and Hunt did not destroy the sites where they worked, but they missed the opportunity to better understand the places in which papyri had been produced and used before these places were finally razed. Today many of these sites no longer exist and the opportunity to study them has been lost forever.

The work of Grenfell and Hunt was a kind of focused salvage excavation, conducted with its own unique methodology: they first identified settlements or necropoleis of the Greco-Roman era, then determined the likelihood that papyri had survived there by evaluating the surrounding environment, and lastly decided in which parts to dig. It was well known to scholars that papyri, being organic objects, were preserved in arid environments and that it was therefore extremely unlikely to find them in the Delta or near well-watered farmland.

The sites were thus explored in order to locate rich dwellings, temples, and ancient dumps, contexts in which one would expect to find papyri and documentary archives. The excavations were conducted with pits in the sites of the Fayyum and in long and narrow trenches in the dumps of Oxyrhynchus, in Middle Egypt. The two papyrologists were convinced that papyri were preserved mainly in layers of soft, dry soil, rich in organic elements, called *afsh* in Arabic. The workmen employed in the excavations were *fellahin*, farmers, with no experience in archaeological excavation; they were asked to search for *afsh* and when it was not found the pit was abandoned to dig another one in another place.

Grenfell and Hunt knew well that a proper archaeological investigation would have had to be completely different, with systematic excavations and documentation, but they deliberately chose the method followed by treasure-hunters, as they themselves wrote: “The method of digging for papyri in a town site presents some parallels to that of gold-mining”.⁴⁵ After some years of experience they established that papyri were found mainly in four contexts: ancient dumps, remains of buildings filled with ancient dumps, collapsed buildings, and mummy *cartonnage* from the Ptolemaic period.

The campaigns with the greatest success were those conducted at Tebtunis in the Fayyum in 1899-1900 and at Oxyrhynchus in 1897 and 1902-1907. At Tebtunis they were financed by the University of California at Berkeley and excavated with 140 workmen for three months. A very large number of papyri were recovered in this instance from both the settlement and the necropolis. By their own acknowledgement the finds from Tebtunis during that season doubled the number of Ptolemaic papyri known until that time. In fact, they found papyri in the hieroglyphic script, Demotic, and in Greek, but an archaeological report that would allow us to see the areas from which they were recovered was never drafted. In the necropolis situated to the south of the town they excavated thousands of tombs in which they found 50 human mummies wrapped in papyrus *cartonnage* and an unknown number of crocodile mummies containing entire rolls of papyrus. Among these were the famous papyri from the archive of Menches, komogrammateus of Kerkeosiris in the 2nd century BCE. The majority of these papyri are today housed at the Center for the Tebtunis Papyri at the University of California, Berkeley.⁴⁶

The ruins of the city of Oxyrhynchus, today almost completely vanished, were a veritable papyrus mine, above all the ancient dumps. Grenfell and Hunt excavated with around 200 workmen using a method that allowed them to



Papyri, Archaeology, and Modern History

excavate such dumps very quickly. The system they employed, however, ran contrary to the modern stratigraphic method because it was conducted through trenches dug from the bottom of the mounds toward the top.⁴⁷ Many baskets full of papyri, among them many literary texts, were recovered in this way. The publication of these treasures is still on-going and 75 volumes have been edited at the present time (for images of Oxyrhynchus ca. 1903 in the Oxford university collection, please [click here](#)).

Following the example of the British papyrologists, other scholars arrived in Egypt to find and save papyri as well. They generally used the same systems and excavation methods tested by the two pioneers of papyrological excavation, even though Petrie had already fully demonstrated how fruitful an excavation conducted with archaeological methods could be. In the majority of cases they were financed by institutions, museums, and universities interested in creating or increasing papyrological collections; for this aim such scholars also worked to acquire papyri on the antiquities market in Cairo. Evaristo Breccia (1876-1967) himself, director of the Greco-Roman Museum of Alexandria (from 1905 to 1930), noted the devastating effects of such activities, although neither he nor the other important Italian scholars were completely innocent of such practices⁴⁸: “The consequences of such a state of affairs have been pernicious, because not only have the farmers, incited by the dealers and moved by a natural eagerness for profit, dedicated themselves to an exhausting hunt for the most insignificant scraps, scattering them badly and demanding fantastic prices for them, but even the authorized excavators have considered the search for papyri as an end in itself, associating it not at all with archaeological exploration nor even in respect to the surrounding ruins”.⁴⁹ The available space does not allow me to provide a complete account of the many excavations that were conducted in Egypt in this period. I will therefore limit myself to several illustrative examples.⁵⁰

Pierre Jouguet (1869-1949) excavated on behalf of the French Department of Education at Narmouthis (Medinet Madi), at Medinet Goran and at Magdola between 1900 and 1902. Considerable amounts of papyrus cartonnage were found in the necropolis of Medinet Ghoran and of Magdola, and brought to Lille for disassembly. The papyri recovered remained partly in France (at the Institute of Papyrology at the Sorbonne) while others were returned to the Cairo Museum. Otto Rubensohn excavated for the Royal Museums of Berlin at Theadelphia (Bathn Ihrit) and at Tebtunis (Kom Umm el-Boreigat) in 1902. He was the first scholar to be interested in the typology of the dwellings that were found, but his study was to be rather limited because of the papyrological aims of his excavation. Nevertheless this article long remained the only reference work for the Greco-Roman houses of the Fayyum.⁵¹ Paul Viereck and Friederich Zucker, who worked in Philadelphia, Soknopaiou Nesos, and Narmouthis from 1908 to 1910, succeeded Rubensohn as the directors of the excavations. In the publication of work carried out at Philadelphia these scholars limit themselves to describing the archaeological status of the sites, which were not, however duly documented. They published a schematic plan of the site and a few plans of a temple and two dwellings. The plan of the site is of great interest today because a few years after its drafting the archaeological area was entirely razed. It is only this single document which offers us an idea, if vague, of the spatial organization of the town. We must still note that the plan was not completed during the excavations, the full extent and location of which we do not know, but only in 1924 by Ludwig Borchardt, shortly before the publication of the report. Since it is known that the activity of the *sebbakhin* at Philadelphia was quite intense during the period between Zucker’s excavations and 1924 (the discovery of the famous archive of Zenon occurred in those years), it is clear that the plan does not reflect the state of preservation at the time of the excavations.⁵²

At the beginning of the 20th century the inspectors of the Service des Antiquités undertook more frequent inspections of Fayyum sites following important and casual discoveries. The lack of personnel did not allow the Service to monitor continually all the archaeological sites in Egypt even though, following the Ministry of the Interior’s release of a message strongly demanded by Maspero, a certain number of watchmen (*ghafir*) were enlisted. The memorandum regulated the collection of *sebbakh*, but it was transformed into an ordinance only in 1909.⁵³ The Inspector Sobhi Arif was very active in the Fayyum between 1901 and 1903 and worked diligently to enforce the new laws and to check the activity of the *sebbakhin* and of the tomb robbers, with the help of only 21 guards. From one of his reports we know that there were 110 requests for authorization to remove *sebbakh* at 23 sites in 1902.⁵⁴ *Sebbakh* had been defined as a substance for public use and for this reason it could be collected for free. The *sebbakhin* were required to pay the salary of the guards of the Service who were responsible for supervising the



Papyri, Archaeology, and Modern History

work, sending the antiquities found to the Museum in Giza and protecting buildings and other materials of interest for the Service itself. In fact, we learn from a report of Sobhi Arif that the Service had the power to sell certain types of material recovered from ancient sites, such as bricks and potsherds.

Breccia, addressing Maspero, proposed in 1903 that a list of archaeological sites in which the extraction of *sebbakh* was absolutely forbidden be drawn up; in exchange, chemical fertilizers would be distributed to the farmers.⁵⁵ Moreover, the *sebbakh* that was discarded by scientific excavations would then be placed at the disposal of the *sebbakhin*. This project was considered impracticable and the new ordinance no. 43 of the 1909 was not sufficient to halt these destructive activities. Instead, it established that whoever wanted to dig for *sebbakh* had to make a request and obtain the correct permit from the Service.⁵⁶

From the text of the ordinance itself and from inspector Sobhi Arif's report, it seems clear that the Service did not consider *sebbakh* to be important per se, as a part of an ancient site, but rather because objects or monuments could be found within it. For this reason the ordinance insisted that everything found in *sebbakh* was the property of the State and at the disposal of the Service. Therefore, to safeguard antiquities, watchmen were appointed where necessary who assisted with earth-moving. Such permits were readily given out due to both the still limited appreciation for the importance of stratigraphic and sedimentological excavation, as well as the needs of intensive agriculture.⁵⁷ Moreover, the Service itself sometimes used *sebbakhin* as a free labor force, as Maspero himself records in the case of the excavation of the temple of Luxor in 1886.⁵⁸

During the years of World War I the activity of the *sebbakhin* was intense and excavations by foreign scholars ceased. In this period many ancient settlements were razed, despite the fact that law no. 14 of 1912 had established, among other things, that the Greco-Roman sites, these *sebbakh*, and even the sand of sites declared ancient were themselves to be considered as antiquities and therefore protected by the law (art. 3). Article 15 established once again that the Service could in some cases give authorization to remove *sebbakh*.⁵⁹

The discoveries made by the *sebbakhin* in the Fayyum between 1903 and 1930 were numerous: some reached the Egyptian Museum in Cairo, while others were sold by antiquities dealers. The Egyptian Museum in Cairo is full of such finds and only some of them are known and published. In the 1920s and 30s many collections of papyri were sold to foreign collectors, such as those acquired by J.R. Harris in 1922-23⁶⁰ and by Columbia University in New York between 1923 and 1932.⁶¹ The University of Michigan also increased its own collections through acquisitions from various antiquities dealers in the years 1920-1936.⁶² G. Lefebvre and G.A. Wainwright, chief inspectors of Middle Egypt for the Service des Antiquités in 1905-15 and 1921-24, respectively, succeeded in recovering many papyri and objects from these *sebbakhin*. In 1911 Lefebvre succeeded in gaining possession of some papyri from Hawara,⁶³ but many others related to the same archive of a family of embalmers were sold to the Oriental Institute of Chicago, to the museums of Copenhagen, Hamburg, and London by the dealer M. Nahman in 1932. In 1915 around 2000 papyri comprising a portion of the archive of Zenon found at Philadelphia entered the Egyptian Museum in Cairo, but many hundreds of others were sold to various European and American collections. Part of the archive of Soterichos from Theadelphia entered the Museum in Cairo in 1927,⁶⁴ but other papyri related to the archive are held in other collections;⁶⁵ the same fate befell the aforementioned archive of Sakaon, found at Theadelphia in 1903.

During World War I the antiquities market was not particularly thriving and foreign archaeological missions only resumed work at Egyptian sites in the 1920s. Among the most important scientific excavations in the Fayyum were those of the University of Michigan at Karanis and at Soknopaiou Nesos from 1924 to 1934.⁶⁶ (For a 1934 aerial view of Karanis from the University of Michigan collection please [click here](#))



Papyri, Archaeology, and Modern History



Figure 5. Karanis



Figure 6. Soknopaiou Nesos

Other excavations include the British geoarchaeological explorations in the Northeast of the Fayyum begun in 1924 by G. Caton-Thompson and E.W. Gardner; the papyrological excavations of the Italian Society at Tebtunis from 1929 to 1935 and those of A. Vogliano at Narmouthis from 1934 to 1939. At the beginning of the the University of Michigan's excavations in 1924, *sebbakhin* were still in full swing and very well organized, as we can see in an



Papyri, Archaeology, and Modern History

aerial photograph of Karanis accompanied by the words of A.E.R. Boak, director of the mission: “Unfortunately, a large area in the heart of the mound, apparently about the center of the town, had been cleared down to bed rock by the *sebbakhin*, so that it had the appearance of the great crater of some extinct volcano...The approach to this area was from the south, where the Deceauville railroad entered. ... The points at which excavations were begun were determined by the demand of the Daira Agnelli, a land company operating from the village of Tamia and having permit to remove about 200 cubic meters of *sebbakh* daily from the Kom”.⁶⁷ The historian M. Rostovtzeff provides evidence that an important cache of papyri was found by the *sebbakhin* in 1930 inside the temple of Tebtunis.⁶⁸

Interest in the discovery and acquisition of papyri was still strong in the 1920s and 30s, but a broader archaeological and historical interest was being disseminated at the same time, thanks to which the archaeological methodology of excavation and documentation were refined. The aims of new archaeological research were significantly more scientific and primarily interested in a greater acquisition of historical data. Rostovtzeff, in a 1929 article, wrote against what he called “excavations of papyri”. He underlined the importance of applying the stratigraphic method to archaeology, through which the small finds, and more generally the contexts, could be taken into proper consideration. He also observed that considerable amounts of important information had been sacrificed to excavate so many papyri in such a short period of time and in the most economical way possible.⁶⁹

VI. Conclusions

The trade and collection of antiquities is an old phenomenon that has returned to the discussion in the last few years, thanks to the formation and circulation of a new ethic of conservation of cultural heritage. The contemporary expansion of clandestine excavations, which illegally resupply the antiquities market with new objects and papyri highlights the urgency of this discussion. In this article I intended to survey a phenomenon—the activity of the *sebbakhin*—which is well known to specialists, but whose historical context are often ignored. The collection of papyri between the end of the 19th century and the first half of the 20th was fed both by the antiquities market and by excavations organized by scholars with the aim of recovering such documents, activities that in the majority of cases decontextualized the objects. The antiquities market was itself supplied with materials of both illegal and legal origin. Of course, today it seems absurd that objects and papyri from excavations could enter the market legally. Still we have seen how cultural and economic forces ensured that the laws in force in Egypt up to 1951 only partially protected antiquities. Moreover we have a clear impression that these laws and regulations were largely ineffective and in part ignored; armed with obligatory authorizations, the *sebbakhin* also worked at an “industrial” pace in the collection of *sebbakh*, thanks also to the use of decauville, light railways that accelerated its transport. As a result, many archaeological sites were completely destroyed before the end of the 1930s.

The difficulties facing the Service des Antiquités should not be forgotten, nor that the Service was a part of the Ministry for Public Works from 1883 to 1929. The laws for the protection of archaeological heritage were thus enactments of this Ministry, while excavation permits were given by an Archaeological Committee of the Service, composed largely of members of other Ministries.⁷⁰ It is therefore unsurprising that the ancient settlements rich in *sebbakh* were not actually protected by the law, which considered *sebbakh* a material freely available for public use.

The increasing demand for *sebbakh* in that period was therefore a natural consequence of government policy.⁷¹ The Ministry of Public Works, and indeed the government in general, do not actually seem to have been interested in the conservation of archaeological areas. Rather, these sites represented an abundant and economical source of fertilizer and therefore contributed toward sustaining the country’s economy.⁷² According to Earle, a veritable “fever for cotton” took over the country infecting the whole economy and the political system.⁷³

At that time the limited resources available for safeguarding cultural heritage were spread all over Egypt, particularly in the Nile Valley. In the Fayyum this activity was limited to the recovery of the objects that came to light during excavations for *sebbakh* and their transfer to the Egyptian Museum in Cairo. These



large *sebbakh* excavations seem to have come to a halt at the beginning of World War II.⁷⁴ For this reason several sites in the Fayyum were not completely demolished and could be investigated afterward, such as Soknopaiou Nesos, Tebtunis, Bakchias, Narmouthis and Dionysias. Moreover, in 1929 the Service des Antiquités finally fell under the Ministry of Public Education, an institution with cultural rather than economic functions, in comparison to the Ministry for Public Works. A new and much more restrictive law directed against the work of the *sebbakhin* without an official permit was enacted in 1951 (Law 215); the law also regulated and severely limited the legal trade in antiquities and, in consequence, antiquities dealers began to close their businesses.

Endnotes

1. R.S. BAGNALL, *Papiri e storia antica*, ed. it. Roma 2007 (I ed. London 1995), p. 7.
2. For a brief history of the discoveries cf. M. CAPASSO, *Introduzione alla Papirologia*, Bologna 2005, pp. 145-153; P. DAVOLI, *Archeologia e papiri*, Napoli 2001; E.G. TURNER, *Papiri Greci*, trad. it. Roma 1984 (I ed. Oxford 1968), pp. 37-60; E. BRECCIA, "Dove e come si trovano i papiri in Egitto," «Aegyptus» 16 (1936), pp. 296-305. Cf. inoltre W. CLARYSSE-H. VERRETH (eds.), *Papyrus Collections Worldwide*, Brussels 2000; www.trismegistos.org.
3. BRECCIA, "Dove e come si trovano i papiri" cit., pp. 296-297. U. WILCKEN, *Grünzüge und Chrestomathie der Papyruskunde*, Hidesheim 1963, I, pp. XVI-XXIII.
4. For the history of excavation and of the discoveries at Amarna cf. C. ALDRED, El-Amarna, in T.G.H. JAMES (ed.), *Excavating in Egypt. The Egypt Exploration Society 1882-1982*, London 1982, pp. 89-106.
5. B.P. GRENFELL-A.S. HUNT-D.G. HOGARTH, *Fayûm Towns and Their Papyri*, London 1900, pp. 18-19.
6. The export of antiquities was subject to the approval of the Egyptian Department of Education (Law of 1874). According to the same law, one third of the antiquities found in an excavation authorized by the State belonged to the Government, one third to the excavator, and one third to the owner of the land: A. KHATER, *Le régime juridique des fouilles et des antiquités en Egypte*, Le Caire 1960, pp. 275-279. The decree of 1880 declared the export of antiquities illegal, but at the same time it specified that objects acquired by foreigners from private citizens, (not from shops or professional dealers) could be exported: KHATER, *Ibidem*, p. 280.
7. KHATER, *Le régime juridique* cit., pp. 106-116, 286-291. Regulations on the authorization of trade and of the export of antiquities were issued with ministerial decrees no. 50 and 51 on 8 December 1912: KHATER, *Ibidem*, pp. 291-295. At the same time decree no. 52 was issued, which regulated excavations: KHATER, *Ibidem*, pp. 295-299.
8. The development of new means of transportation such as the introduction of the railroad and steamboats on the Nile made voyages within Egypt faster and more accessible. In 1880 the travel agency Thomas Cook obtained the exclusive rights to transport passengers with regular steamboats on the line Cairo-Aswan-Wadi Halfa line: D.M. REID, *Whose Pharaohs? Archaeology, Museums, and Egyptian National Identity from Napoleon to World War I*, Cairo 2002, pp. 64-92.
9. In the 1860s there was considerable immigration there due to the period of economic prosperity that Egypt was experiencing at the time: E.M. EARLE, "Egyptian Cotton and the American Civil War," «Political Science Quarterly», 41, 4 (1926), p. 536.



10. H.I. BELL et alii (eds.), *The Abinnaeus archive. Papers of a Roman Officer in the Reign of Constantius II*, Oxford 1962, pp. 1-5.
11. A file on this archive is available at: www.trismegistos.org/arch/detail.php?tm=103.
12. Marius Tano, a Greek Cypriot, opened an antiquities shop in Cairo in 1870; his business was carried on by his nephew Nicolas: W.R. DAWSON-E.P. UPHILL-M.L. BRIERBRIER, *Who was Who in Egyptology*, London 1995, p. 410.
13. For a general description cf. M.S. DROWER, *The Early Years*, in JAMES (ed.), *Excavating in Egypt* cit., pp. 9-36.
14. P. DAVOLI, "Aspetti della topografia del Fayyum in epoca ellenistica e romana," in I. ANDORLINI-G. BASTIANINI-M. MANFREDI-G. MENCI (edd.), *Atti del XXII Congresso Internazionale di Papirologia, Firenze 23-29 agosto 1998*, I, Firenze 2001, pp. 353-359, Tavv. XV-XVI. Cf. A.L. UDOVITCH, "International Trade and the Medieval Egyptian Countryside," in A.K. BOWMAN-E. ROGAN (eds.), *Agriculture in Egypt from Pharaonic to Modern Times*, Oxford 1999, p. 283.
15. P. DAVOLI, *L'archeologia urbana nel Fayyum di età ellenistica e romana*, Napoli 1998, Fig. 139 p. 293, Fig. 156 p. 323.
16. Near Philadelphia the outline of the ancient canal is still quite visible just a few dozen meters from the modern canal.
17. Cf. finally P. DAVOLI-NAHLA MOHAMMED A., "On Some Monuments from Kiman Fares (Medinet el-Fayyum)," «SEP» 3 (2006), pp. 81-109.
18. DAVOLI, *L'archeologia urbana* cit., Fig. 68 p. 156.
19. The *sebbakh* obtained from ancient ruins was called *sebbakh kufri*; not all of it was considered to be high quality: H. HABIB AYROUT, *The Egyptian Peasant*, Boston 1963 (I ed. in French 1938), pp. 44-45; D.M. BAILEY, "Sebakh, Sherds and Survey," «JEA» 85 (1999), pp. 211-214. Cf. inoltre J.de M. JOHNSON, "Antinoë and its Papyri. Excavation by the Greco-Roman Branch, 1913-14," «JEA» 1 (1914), p. 173 n. 1.
20. D.M. BAILEY, A Ghost Palestra at Antinoopolis, «JEA» 85 (1999), p. 238.
21. BAILEY, *Sebakh* cit., p. 214.
22. AFAF LUTFI AL-SAYYID MARSOT, *Egypt in the Reign of Muhammad Ali*, Cambridge 1984, pp. 149-150.
23. MOHAMED YOUSSEF EL-SARKI, *La monoculture du coton en Egypte et le développement économique*, Genève 1964, pp. 118-121. On agricultural politics more generally in the reign of Mohammed Ali cf. MARSOT, *Egypt in the Reign of Muhammad Ali* cit., pp. 137-161.
24. KHATER, *Le régime juridique* cit., pp. 30-34, 271-273. E. GADY, Champollion, Ibrahim Pacha et Méhémet Ali: aux sources de la protection des antiquités égyptiennes, in J.-Cl. GOYON-Ch. CARDIN (eds.), *Proceedings of the Ninth International Congress of Egyptologists, Grenoble, 6-12 Septembre 2004*, Leuven 2007, I, pp. 767-775.



25. Mohammed Ali also took into consideration the dismantling of the pyramids in order to use the blocks for new construction: REID, *Whose Pharaohs?* cit., pp. 54-63.
26. KHATER, *Le régime juridique* cit., pp. 62-63.
27. G. ALLEAUME, "An Industrial Revolution in Agriculture? Some Observations on the Evolution of Rural Egypt in the Nineteenth Century," in BOWMAN-ROGAN (eds.), *Agriculture in Egypt* cit., p. 336.
28. BAILEY, *Sebakh* cit., p. 212. SAMIR RAFAT, "Familiar Ground: the 19th Century Privatization of Daira Sanieh doesn't seem that Distant," «Business Monthly Magazine», July 1997 (www.egy.com/historica/97-07-00.shtml).
29. M. CAMPANINI, *Storia dell'Egitto contemporaneo. Dalla rinascita ottocentesca a Mubarak*, Roma 2005, pp. 28-35.
30. KHATER, *Le régime juridique* cit., pp. 64-66.
31. MOHAMED YOUSSEF EL-SARKI, *La monoculture du coton* cit., p. 123.
32. See for example EARLE, *Egyptian Cotton* cit., pp. 520-545.
33. Great Britain initially sought to meet the demand for raw materials with crops from India, which nevertheless proved to be inadequate and of low quality. England and France therefore urged the Egyptian government to adjust its production and offered technical assistance. The production of cotton in Egypt grew 500% between 1860 and 1865: EARLE, *Egyptian Cotton* cit., pp. 528-535.
34. MOHAMED YOUSSEF EL-SARKI, *La monoculture du coton* cit., pp. 15-16. For trends in the production of cotton in Egypt from 1822 to 1993 cf.: R. Owen, "A Long Look at Nearly Two Centuries of Long Staple Cotton," in BOWMAN-ROGAN (eds.), *Agriculture in Egypt* cit., Fig. 16.1 p. 349.
35. W.M.F. PETRIE, *Illahun, Kahun, and Gurob*, London 1891, Pl. XXX.
36. On the activity of the two papyrologists cf.: L. LEHNUS, "Bernard Pyne Grenfell e Arthur Surridge Hunt (1869-1926), (1871-1934)," in M. CAPASSO (ed.), *Hermae. Scholars and Scholarship in Papyrology*, Pisa/Roma 2007, pp. 115-121.
37. E. TURNER, "The Graeco-Roman Branch," in JAMES (ed.), *Excavating in Egypt* cit., pp. 161-178.
38. KHATER, *Le régime juridique* cit., pp. 282-283.
39. KHATER, *Le régime juridique* cit., p. 281. From that year the Service des Antiquités was part of the Minister of Public Works.
40. G. LEFEBVRE, "Egypte gréco-romaine. II. Crocodilopolis et Théadelphie," «ASAE» 10 (1910), pp. 167, 168 n. 2.
41. According to the testimony of Petrie, the sebbakhin were at work in the site of Naukratis in 1885 and in the course of their work they found many antiquities that he sought to acquire himself to stop them from ending up on



Papyri, Archaeology, and Modern History

the antiquities market: M.W.F. PETRIE, *Seventy Years in Archaeology*, London 1931, pp. 54-55. Daressy was rather a witness in 1903 to the rapid destruction by means of decauville of Kom el-Hisn by an agricultural company called Delta Light Railways: G. DARESSY, "Rapport sur Kom el-Hisn," «ASAE» 4 (1903), pp. 281-282.

42. GRENFELL-HUNT-HOGARTH, *Fayûm Towns* cit., p. 20.

43. A.S. HUNT, "Twenty-Five Years of Papyrology," «JEA» 8 (1922), pp. 121-128.

44. GRENFELL-HUNT-HOGARTH, *Fayûm Towns* cit., p. 38.

45. On the methodology cf.: GRENFELL-HUNT-HOGARTH, *Fayûm Towns* cit., pp. 20, 24-26.

46. A. VERHOOGT, "The Papyrus Collection of the University of California at Berkeley," in W. CLARYSSE-H. VERRETH (eds.), *Papyrus Collections Worldwide*, Brussels 2000, pp. 11-12. <http://tebtunis.berkeley.edu/>.

47. TURNER, "The Graeco-Roman Branch" cit., pp. 166-168.

48. D. MINUTOLI, "Evaristo Breccia alla ricerca dei papiri in Egitto," in E. Bresciani et alii (edd.), *Annibale Evaristo Breccia in Egitto*, Il Cairo 2003, pp. 99, 106-109. On the beginnings of Italian papyrology cf. D. MORELLI-R. PINTAUDI (ed.), *Cinquant'anni di papirologia in Italia*, I, Napoli 1983, pp. 9-37.

49. A.E. BRECCIA, *Egitto greco e romano*, Pisa 1957³, p. 64. Cf. also Id., "Dove e come si trovano i papiri" cit., p. 301.

50. For the history of the excavations of individual sites in the Fayyum refer to DAVOLI, *L'archeologia urbana* cit.

51. O. RUBENSOHN, "Aus griechisch-römischen Häusern des Fayum," «JDAI» 20 (1905), pp. 1-25.

52. Breccia claims that in 1912 the site was reduced to very bad conditions by the *sebbakhin*: BRECCIA, *Egitto greco e romano* cit., p. 65.

53. KHATER, *Le régime juridique* cit., pp. 226.

54. SOBHI JOSEPH ARIF, "Rapport sur deux ans passés à l'inspectorat de Fayoum et de Benisouef," «ASAE» 5 (1904), pp. 44-53.

55. BRECCIA, "Dove e come si trovano i papiri" cit., p. 302; Id., *Egitto greco e romano* cit., p. 63.

56. KHATER, *Le régime juridique* cit., pp. 284-285. A project of laws for the protection of antiquities had already been proposed by G. Maspero in 1902, but it was never turned into a law: G. MASPERO, *Projet de loi sur les antiquités de l'Egypte*, Le Caire 1902.

57. It should not be forgotten that the Service des Antiquités was in these years part of the Ministry of Public Works.

58. E. DAVID (ed.), Gaston Maspero. *Lettres d'Egypte. Correspondance avec Louise Maspero [1883-1914]*, Paris 2003, pp. 134-138.



Papyri, Archaeology, and Modern History

59. KHATER, *Le régime juridique* cit., pp. 227, 286-290.
60. J.E. POWELL, *The Rendel Harris Papyri of Woodbrooke College*, Birmingham, Cambridge 1936, p. v.
61. J.DAY-C.W. KEYES, *Tax Documents from Theadelphia*, New York 1956, p. xv; R.S. BAGNALL, "The Columbia Papyrus Collection (New York)," in CLARYSSE-VERRETH (eds.), *Papyrus Collections* cit., p. 61.
62. P. HEILPORN, "The Michigan Papyrus Collection," in CLARYSSE-VERRETH (eds.), *Papyrus Collections* cit., p. 55.
63. I. UYTTERHOEVEN, "An Introduction to the Hawara Archives," in CLARYSSE-VERRETH (eds.), *Papyrus Collections* cit., pp. 109-110.
64. C.C. EDGAR, *Zenon Papyri, I*, Le Caire 1925, p. v.
65. J. France, "Archives from Theadelphia," in CLARYSSE-VERRETH (eds.), *Papyrus Collections* cit., p. 96.
66. The University of Michigan worked for 10 years at Karanis and for one season at Soknopaiou Nesos with a good archaeological method and accurate documentation. However, the publication of papyri continued in the traditional way and without any archaeological context. Still, the documentation of the excavation, today housed in the Kelsey Museum in Ann Arbor, allows one to reconstruct their find context.
67. A.E.R. BOAK-E.E. PETERSON, Karanis. *Topographical and Architectural Report of Excavations during the Seasons 1924-28*, Ann Arbor 1931, p. 3.
68. C. SALVATERRA, "The Papyrus Collection of the University of Copenhagen: Carsten Niebuhr Institute," in CLARYSSE-VERRETH (eds.), *Papyrus Collections* cit., pp. 37-38.
69. M. ROSTOVTZEFF, recensione a P. VIREECK-F. ZUCKER, "Papyri, Ostraka und Wachstafeln aus Philadelphia im Fayum, Berlin 1926, «Gnomon» 1929, pp. 435-440.
70. KHATER, *Le régime juridique* cit., p. 77.
71. On crops and fertilizers cf. A.K. BOWMAN-E. ROGAN, "Agriculture in Egypt from Pharaonic to Modern Times," in BOWMAN-ROGAN (eds.), *Agriculture in Egypt* cit., p. 5.
72. The whole site of Athribis in the Delta was sold by the government to a landowner so that he could use the sebbakh: BAILEY, *Sebakh* cit., p. 213.
73. EARLE, *Egyptian Cotton* cit., p. 535.
74. According to H. HABIB AYROUT (*The Egyptian Peasant* cit., p. 45) in 1938 the *sebbakh* left in the ancient ruins was of poor quality; moreover, the production of chemical fertilizer began in Egypt in 1936: M.M. EL-FOULY, "Fertilizers," in G.M. CRAIG (ed.), *The Agriculture of Egypt*, Oxford 1993, p. 367.