

Accounting Historians Journal

Volume 12
Issue 1 *Spring 1985*

Article 1

1985

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Recommended Citation

Stevelinck, Ernest (1985) "Accounting in ancient times," *Accounting Historians Journal*: Vol. 12 : Iss. 1 , Article 1.

Available at: https://egrove.olemiss.edu/aah_journal/vol12/iss1/1

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ACCOUNTING IN ANCIENT TIMES^a

Abstract: Studies by French scholars of ancient Egyptian and Babylonian records purport to describe accounting methods in use over two thousand years ago. The number of documents translated and analyzed is too small to justify such generalizations. The interpretations of the records is doubtful, due to the very different economic environment in which they were created. In any case, there is little of interest to the present-day accountant in the study of primitive and obsolete accounting practices.

Egypt has had a long accounting history. Thousands of accounting papyri have been discovered, extending over fifteen centuries, that reveal the state of the art more than three thousand years ago, with some degree of clarity.

However, in an article originally published in the *Bulletin of the Institute of Accounting Historians of France* in 1978, which reviewed a dissertation submitted for the doctoral degree at the University of Lyons by Mounir Megally in 1971, I tried to turn young dabblers in accounting history away from studies of the ancient world. The first part of what follows is extracted from that article.

“At that time, at the beginning of the New Kingdom, the scribe My, manager of the great granary Tjenouna, recorded with his calamos reed the day’s transactions, some in black and some in red.

“My was a respected manager, and his assistants worked efficiently, giving him time to observe the Nile, that generous river, and its many ships transporting goods to and from his stores. He knew the owner of every ship by name, and loved to converse with them. Amenmes, Nebouaou, Pennoub, Saamen and Touy all reported to him news of their respective nomes. And when one of the boatmen grew too old to sail his ship, his son replaced him at the helm: Ahmes, son of Iry, or Baka, son of Nechi.

^aTranslated by Kenneth S. Most from “Comptabilité des Temps Anciens,” *Revue Belge de La Comptabilité et de L’Informatique*, 1983.

“From time to time, My received visits from his superior, the Vizier Rekhmire, who checked the amounts of taxes owed, and remitted them to Pa-Mou-Ha or Ioumitrou.

“My’s colleagues included the scribe Nebseby, a close friend, and the scribe Hapou, manager of the great granary at Minnakht, mistrusted on account of his autocratic manner. Quantities of grain delivered to Minnakht were checked four times, that is, by four assistants, who also verified the quantities of dates received in exchange. Date deliveries always arrived late and in small amounts, whereas My had to supply his colleague regularly and promptly. Hapou claimed that he was ensuring that the dates were fresh. They were probably heavier than they would have been if he had allowed them to dry, thereby permitting him to send a smaller quantity. Perhaps he enjoyed the opportunity to descend more frequently from his hot and dusty hill to the banks of the Nile.

“In this way passed each of the thirty days of the four months of the three seasons Peret, Shemou and Akhet, that constituted a year.

“This evokes a picture of that accountant of long ago who, after having sharpened his calamos reed, dipped it in ink and, in his beautiful hieratic writing, recorded the following.

Year 32, 1st month of Shemou, eighth day	
Grain given to the House of the	
Divine Adoration	Khar 39 1/4
1st month of Akhet, first day, given to	
Qouft from the grain of the chief treasurer	
Sennefer—grain measured four times	Khar 187 2/2

“Obviously, the Louvre papyrus E 3226, consisting of 61 pages glued together to form a roll measuring 4.445 metres in length, is full of poetic images. We can therefore understand why some twenty Egyptologists have been sufficiently interested in this papyrus to write their commentaries on the central administration of granaries during the XVIIIth dynasty that extended from the 28th to the 35th year of the reign of the powerful ruler Thutmose III. Originally in the Anastasi collection, this roll was purchased by the Louvre on June 27, 1857. It has been cut in two at the middle, at a place devoid of inscriptions.

“Yet from the viewpoint of the accounting historian, I believe that this papyrus is of no use. Its beginning is so damaged that the first page contains only one word and a few figures, and the end is equally defective. It contains accounts, but not accounting, and the accounts themselves are incomprehensible. In one place we note “Balance due, Khar 34 2/4” without being able to establish how this balance was calculated, and in another, “Total: Khar 2065 1/4” without knowing which figures add up to this amount.

“The text of fragment A, front and back, stops just before the middle of the roll, and the text of fragment B, front and back, starts just after the middle. The two texts, although different, were written at the same time. They record reciprocal exchanges, dates against grain and vice versa.

“Admittedly, text A records on its front side, grain issues, and on the reverse, grain receipts, whereas text B records receipts of dates on its front, and issues on the back, but the entries do not correspond exactly to this accounting logic. Some counterpart entries are identifiable, others not. But what interest can an accounting historian have in attempting to solve this puzzle? These accounts appear far too distant from us. They may be admissible, but what can we learn from them that will be of use to us professionally? Surely, we should attempt to discourage students from learning techniques that are out of date.

“If we could discover a complete set of accounts it would be very different, but one account does not make an accounting system. Accounts have been kept since time immemorial, but double-entry bookkeeping goes back less than 1,000 years. In the last analysis, it is this system that really interests us, because it is still in use, and because it would be instructive to examine its origins, to follow its evolution step by step, to identify progress, the path it took, the tentative innovations of our predecessors, the solutions they arrived at.”

In a subsequent (1980) issue of the *Bulletin*, when examining Gardascia’s research on the Murashu [Gardascia, 1951], I made this point more explicit. “We should not start by studying the accounts of the ancient world. From a chronological viewpoint, this

makes sense. From a didactic viewpoint, however, the accounts of the ancient world tell us very little, the economic environment then having been so very different from our own that no valid comparisons can be effected." I quote from this second article.

"When we read in *Banking through the ages* by Dauphin Meunier, who is nevertheless an author of considerable merit, that Murashu, founder of the bank, belonged to one of the highest castes of the Babylonian aristocracy, and that, by means of his intelligence and power he so distinguished his name that he was raised to the rank of "generating ancestor," of Banu, that is to say, son of ancestor, true title of nobility, and that we possess the correspondence, accounting documents, and most of the contracts of his firm, that appears to have been, for nearly a century, the economic dynamo of central Babylonia, etc. etc., we should remember that this story goes back 2,500 years, and that we have very little information that would permit us to retrace, for our understanding, the living conditions then existing, which differed so radically from our own. Let us look a little closer.

"In 1893 an American expedition discovered, on the site of Nippur (Nuffer), in a room approximately 5 metres by 3, seven hundred and thirty baked clay tablets, the oldest of which goes back to 455 B.C. and the most recent, to 403 B.C.

"Thousands of clay tablets have been found on Babylonian land. The library of the temple of Bel, discovered in 1900, alone contained 23,000 tablets from the twentythird century before our era. The Nippur discovery was therefore not exceptional.

"What became of the Murashu tablets? Most of them are in the Archeological Museum of Constantinople, some are in the museum of the University of Pennsylvania, others in the possession of the University of Jena, yet others lost to private collectors. [Gardascia, 1951].

"I do not believe that, as Dauphin Meunier writes, "the considerable collection of these texts was published in its entirety by Clay in 1912" (he actually published 228, to my knowledge), for the following reasons.

1. The collection has been dispersed and many tablets are no longer open to inspection.
2. Some of the texts are damaged and illegible.

3. Their translation is a long-term project, undertaken by several teams of scholars. Some authors have provided commentaries on four, 24, 60, even 95 tablets. Study of the texts continues.

"It is no simple task. They are written in Akkadian, the language of one of the Semitic peoples who founded Sumer, a dead language for many centuries; even in Sumer the spoken language was Aramaic, although Akkadian was used by notaries. First, the cuneiform writing has to be deciphered, then translated. Entire phrases escape logical interpretation [Gardascia, p. 19]. Others are of doubtful meaning.

"What are these documents? Acknowledgments of indebtedness (almost one third of the total), receipts and contracts, most of the latter being leases. Debts are obligations in kind; dates, barley, beer, bricks, sheep, wool. They were usually payable in the vicinity of the debtor's land. Dates seem to be used instead of money. A farm rent, for example, was paid in dates, and taxes likewise. What did the "banker" Murashu do with all those dates? He must have resold them, but we have no evidence of that.

"Some debts were expressed in silver, bullion and not coin. They were measured in minas, a unit of volume equivalent to about 500 grams. If interest is stipulated it is payable in shekels, weighing about eight grams each. On a monthly basis, two shekels of silver for each mina borrowed. But payment could also be made in dates.

"The receipts relate to payment of rents, taxes etc. They each contain the words, among others, 'So and so has received, it has been paid.'

"Finally, the contracts are a little more interesting, because they are in the form of a dialogue. A typical lease might read:

"The lessee X, in the happiness of his heart, has spoken thus to the lessor Y: give me your land T situated at such and such a place against a farm rent for N years [usually three]. Every year, I will give you a certain quantity of barley (wheat, spelt, peas, vetch, sesame, millet, garlic, onions). Following which Y has agreed and given him the land T for N years. Every year, X will give him that quantity of barley (or other produce).

"Leases were often more complex than this, and animals, agricultural implements, seeds, and buildings could be leased separately from the land.

"Contracts for services were similarly presented.

"X, in the happiness of his heart, has spoken thus to Y: give me 100 pots, 6 vats, two workers (and other items needed for brewing) and I will do this. In such a month, I will deliver to you 100 pots of first quality sweet beer. Y has agreed and will give him the needed quantities of products and number of workers. In such a month Y will receive 100 pots of sweet beer.

"In the light of all this, can one justify the dithyrambic style in which some writers have compared Murashu with a Fugger, a Medici, or a Rothschild?

"Who was Murashu? The ancestor who gave his name to the firm. Nowhere does he appear as a living person, an economic agent. His grandson, Rimut-Ninurta, adopted the trade name of Murashu; it means "wildcat." [Gardascia, p. 9]. Sometimes the operations of the firm suggest those of a businessman, sometimes those of a financier or tax farmer. The situation is complicated by the fact that the Murashu are never described by any title in the documents.

"They operate farms and pay taxes. Sometimes they lend money, or pay a customer's debt for him. But they do not appear to have changed money.

"Before treating them as financial intermediaries one must first recognize that the capitalists of the period entrusted them, not with money, but with land, that Murashu promised to make fertile. What kind of bankers are these, who do not exchange money, who play no role in international trade, who do not participate in the industrial activities of their country, and who do not invest in merchandise?

"Was the House of Murashu simply a mortgage bank, financing agricultural land and buildings? [Gardascia, p. 196]. A business that served as intermediary between landowners and farmers, that divided properties up and rented them to tenants, intervening between the lord of the manor and the one who tilled the soil?

"Conclusions:

1. The Murashu tablets are of obvious interest to

assyriologists, philologists, history professors, and even legal historians. But they serve the accounting historian only by improving his general education and cultural background.

2. I believe that the significance of the House of Murashu has been exaggerated. There must have been many similar firms in the vast empire of Artaxerxes and Darius, whose records have disappeared without trace."

These narratives, based on texts recovered from antiquity, exert upon scholars an irresistible attraction. This may be due to their foreignness, or possibly to the fact that the writer can exercise his imagination to the fullest, without fear of contradiction. It has been suggested that the objective is not so much to study accounting methods in ancient times as to convince the reader that such techniques existed, and to describe their essential features.

In the meantime, Mounir Megally has published his illustrated study of papyrus 3226 [Megally, 1977].

Discussing the development of bookkeeping method, he indicates a fact that is still valid at the present time: that the records are always big to start with, but their format tends to diminish subsequently.

During the Old Kingdom, according to him, the papyrus rolls were between 21 and 24 cm. high. At the time of the New Kingdom they measured only 18 cm. Their width had been reduced proportionally so as not to reduce their usefulness. The reduction in size corresponded with a simplification in the classification of accounting data.

At the beginning we find large pages with multiple columns, containing many blanks, while the accounts are burdened with a quantity of phrases, in black and red. Subsequently we see a reduction in format and a simplification of recording technique, proof of a process of development. The horizontal line unifies the composition. Writing is reduced in size, and explanatory text abbreviated. The accounts, originally occupying the two sides of the document, finally appear on one page of papyrus, as consecutive sections or separate columns.

During this period the lunar calendar (360 days, corresponding to the 360 degrees of the zodiac) was replaced by the solar calendar of 365 days, which added five extra days to the twelve months. The use of red ink was rationalized for the purpose of distinguishing items written in the accounts using black ink, for example:

- different deliveries (barley or wheat)
- payment in corn and in another commodity expressed as so much corn

Finally, classification is simplified, accounts are less detailed, there is a strict minimum of data. For example, at the time of the New Kingdom there would be two separate accounts for the delivery of wheat to two different bakeries, which obviously avoided the need to specify for every entry which bakery was involved.

The accounts demonstrate not only a precise technical vocabulary, but also a peculiar jargon and special terms, the development of which can be studied. The bookkeeper no longer transcribes the complete date against each of a series of operations executed the same day, replacing it, as in our times, with a "ditto," more precisely, the hieroglyphic sign that means "on this day."

They even had a special sign that indicated "something missing"—"balance due"—or, textually, "what remains to be collected," for the amount demanded was frequently more than the amount received, leaving what we would call a difference. A balance receivable may be translated as "what remains in his hand" and later by the abbreviation, "remains due" or "in his hand."

Inventories were called "lists." The balance of the account would be struck from time to time, the word account being a synonym for calculation, for only by means of a calculation could the bookkeeper establish the difference between two totals. Balancing took place at the end of the "period" but the length of the period varied greatly. It would appear from the observation, that there was only one audit per period, that one waited for the accounts to be verified before closing the books.

Sometimes, however, the books were closed after a particularly important transaction, doubtless to observe the fact and to determine its effect on the result. Some periods extended for more than a year, which may have been due to the difficulty of putting together all the details of transactions executed a long way away.

End of year balances were rare, but what was the significance of the year in those days? Recall that in Egypt there were three seasons—winter, summer, and floods—of four months each, the month being divided into three times ten days; years were "years of the reign of King X" and started on the day of his coronation. This had the effect of modifying the order of the seasons embedded in the year, the same season finding itself at the beginning, in the middle, or at the end of the year, depending on the day the king was crowned.

The year—Xth year of the reign of King Y—was always recorded in black, month and day being written in red. The full date had to be recorded at the beginning of an account, and of each page, and of each reign, which has the advantage of permitting us, thanks to accounting, to date the end of one reign and the start of a new one, the king's name being always given.

There are even examples of bookkeeping style evident in official, literary, and legal texts, where the same word could mean assemble, group, accumulate, heap up, or pack together.

When Megally speaks about Egyptian accounting on the basis primarily of papyrus E 3226 of the Louvre Museum, he refers to the New Empire. What could have been the concepts and techniques of the scribes of the Ancient or Middle Empires? To answer this question we examined a thesis by Paule Posenar-Kruger entitled "The Archives of the Funerary Temple of Neferirkare-Kakai." [Posenar-Kruger, 1976.] First, let us describe the place itself.

Seen from the road that goes from Giza to Saqqara, the three pyramids of Abou-Sir, their coverings gone, look like three large heaps of sand. The biggest of these unlovely ruins is all that remains of the pyramid of Neferirkare, then comes Niuserre, and the smallest, Sahoure. The funerary temple, now completely ruined, lay to the east of Neferirkare. It functioned for more than two centuries, according to the history contained in records that have been recovered.

Neferirkare, king of Upper and Lower Egypt, was the youngest son of the Royal Mother Khentkaous, descended from Mykerinus or Cheops. He owned many buildings, starting with the Royal Palace in which he showed himself to the public in all his glory, and including the "Residence," a vast cultivated domain that assured the subsistence of an entire people. During his lifetime, following the example of his predecessors, he endeavored to create a solar temple equipped with an obelisk and a chapel for the goddess Hathor, and not far from there, a pyramid in the "city of pyramids" with land attached for a funerary temple to be erected in his honor when, after his death, he became a god.

Although he disposed of only a little space in the "city of pyramids," he constructed his solar temple in honor of Hathor, who the Greeks identified with Aphrodite, and the funerary temple for his own use. The solar temple, of which nothing remains, must have been situated on the banks of the Nile, for there was the bulk storage of the food destined for the other temple, which stood not far from the Memphis canal (a branch of this canal led directly to a terrace of chalk-whitened mud to which the temple opened.)

The Royal Mother Khentkaous having just died, her youngest son decided to build her a chapel in his own pyramid, permitting certain rites to be performed for her. But Neferirkare himself died before completion of his temple, which was completed by his successors—pious but economical, says the author—with rough bricks. The columns that supported the roofs were of painted wood, in the form of lotus stalks.

The royal foundations survived their founder for quite a while, thanks to the lands that supplied the temple, originally conceived more for the religious practices of the deceased king than for his burial. The temple had many employees, as many as 300, divided into “phylums” or sections. The phylums consisted of individuals of very different rank, that changed monthly.

Among them could be found all social classes, from vizier to boatman, and including the king’s chargé d’affaires, several attachés from the palace, the religious chancellor, funerary and liturgical priests, the scribes, their director and supervisors, a judge and his clerks, administrators of all kinds, the chief of the guard, the head of the weaving shop, the head doctor, hairdresser, musician, archivist, storekeeper; and below them, clerks, weavers, hairdressers, barbers, pedicurists, dancers, singers, flutists, keepers of the archives, custodians of the oil, laundry workers, farm workers, cooks, keepers of the sacrificial animals and of the domestic animals, meat porters, soldiers, oarsmen, and so on and so forth.

All must be fed; for this reason, those who erected funerary temples had to assign lands to assure supplies, and even profits, after their death. Thus, the royal funerary temples were a part of daily life, and had great importance to the living, as well as contributing to the economy of the country. But eventually they became a part of that economy, with limited autonomy. If, at the beginning, the deceased king was entitled to a certain number of units of output, or a certain percentage of the revenues of the estate, eventually his rights had to give way to the claims of his successors. There was a determinable relationship between the estates created by deceased kings and those of their successors, for we see that foodstuffs imported by and stored in the temples were partly distributed, on a daily basis, to other temples in the surrounding area. There were transfers of offerings between neighboring tombs.

Temple revenues, quite high when they were first established, diminished progressively in the years following the king’s death. Foundations established by deceased kings contributed increasingly to the needs of the funerary temples of their descendants.

Some of the cults eventually died out. As long as the funerary priests, having known the god, could celebrate their joy, all went well. Their material needs being provided for, they were willing to prostrate themselves before the five statues of the god. As long as their future was assured, they could conduct the sacred rites: once a month they would disrobe the statues, clean the garments that covered them, thus enjoying the moment of invisibility, the revelation of the divine visage; then at the time of the new moon, clothe them again, and trim and perfume them.

These servants could not have been fatigued by their tasks. It has been calculated that some of them worked very little, and that all took it fairly easy. A dead king is not too difficult a master.

When the "Residence" was destroyed, however, or encountered a period of famine, the temple was not supplied. No food, no priests. There were no services, and the temple was deserted even by those whose job it was to guard it. The doors were sealed and the entrance walled up. That is what happened to the funerary temple of Neferirkare. The children of the servants and the priests took shelter under the overhang of the courtyard, between the brick walls, in the kitchens . . . and the detritus accumulated. Finally, the land around the pyramid became a cemetery for the poorest class. And time passed

From time to time a thief, a vandal, or a scavenger visited the place and removed anything that appeared at all valuable. But no one had any interest in the scattered papyri. Not until the nineteenth century and the taste for Egyptology that followed Bonaparte's expedition. About 1893, a lucky shovel uncovered papyri buried in one of the caves. Museums secured these fragments. In 1907 an official expedition of the *Deutsche Orient Gesellschaft* put an end to the research, and the manuscripts—pieces of papyrus scrolls—were distributed to the British Museum, the Louvre, and other museums in Cairo and Berlin. Those that went to Berlin can now be found in both the east and west sectors.

We believe that these are the oldest papyri known to man, from about 2,390 B.C. They have survived through more than 4,000 years—the celebrated forty centuries mentioned by Napoleon. They cover a period of two hundred years. Unfortunately, not one scroll has been found intact. What can one learn from them? First, part of the history of the preceding period. Secondly, thanks to the dates, an impressive sequence of names of the kings of the Ancient Empire—Izi, Isesi, Chepseskare, Niuserre, Ounas, Merenre, Ikhorkor-Ankt, Tetio, Pepi I and II, and, of course, Neferirkare-Kakai.

Nevertheless, the problem of deciphering these texts is enormous. Some are palimpsests and traces of the parasitical writings can be seen on the verso side. There are also erasures and corrections. Many parts are missing because of tears in the papyrus. Certain writings must be read against a light, because of swelling of the surface, or by means of infrared photography.

Not only is transcription uncertain, but interpretation also. Even when the words are clear their exact meaning escapes the reader. The author of the thesis confesses that "a whole series of documents is absolutely incomprehensible to me, either because I cannot read or cannot understand the headings that relate to the figures." For example, she asks herself in respect of one passage whether it refers to men purified in order to be in the temple, or to the temple itself, cleaned for the rites.

However, because a large part of the archives consists of accounts, they are of interest to us. All these accounts are in the form of tabulations

- personnel records, stating that a particular functionary did—or did not—do a certain task.
- records of deliveries from different places, or estates, such as the Residence, the sun temple, the house of the Royal Mother, the house of the royal son, some of which were clearly under the control of the funerary temple of Neferirkare, granaries and units of the central administration.
- records of receipts from individual suppliers of the temple, including tithes and other offerings.
- lists of food distributed, either to living persons or the dead.
- inventories of bread, cakes, crocks of beer or wine.
- inventories of livestock. These show the sacrifices that took place in the field, notably of geese, ducks and pigeons—an average of 22 fowls daily.

There are also accounts for fabrics, cereals, meat, transfers of offerings, food given to temple employees as their pay. It appears that supervisors received larger quantities.

Examination of the documents, their vocabulary and accounting symbols, reveal the existence of:

- vouchers, in the form of short inscriptions on pottery shards (ostraka).
- journals, daily papyrus records of a precise nature. For example, a day-by-day record of temple revenues, listing the place of origin—sometimes 80 kilometers distant—as well as the items and

the name of the bargee or other carrier. These headings appeared on the upper line of the document, quantities being inscribed daily on horizontal lines.

—monthly lists, probably summaries, column titles occupying the first horizontal line. The other lines were divided into three groups of ten items, representing the three decades of each month; a red line divides one decade from the next.

—budgets: in order to set up their accounting records the scribes must have been notified of the quantities that they were expected to receive during a given period (generally one month). These quantities were not always delivered according to the plan, and sometimes partial deliveries took place, resulting from shortages of certain foodstuffs at particular times of the year.

We often find the theoretical quantity written in red and the actual delivery in black. Besides entries and issues, the scribes sometimes recorded something “that was not contributed.” No document reveals whether the arrears so carefully inscribed were ever received by the temple, which does not prove, however, that these debts were not settled in one way or another.

—columnar records: these are not a recent invention! One record has been found that had 87 columns. The accounting papyri often look like double-entry accounts, to be read by referring to headings in the upper part of the document and those carried on the right page. Some pieces are larger than 75 cm., others are tiny shreds. Documents lacking horizontal or vertical headings are indecipherable. What can be the meaning of names and figures recorded in such mutilated lists?

—accounts. In the case of grain, the deduction for quantity consumed by the animals is sometimes *added* directly after the entry is recorded, which suggests that feed was taken out before the grain was received, perhaps for animals fed in transit. Cost of transportation was also paid in kind, but *deducted* from the account, as though paid after delivery.

—accounts for materials, in bales or boxes, reveal a great variety, and although names are provided, they fail to enlighten us on the nature of the textiles referred to. Some were woven in the temple itself, others imported. There must have been linen for the festive robes of the king (ritual of clothing the royal statues). There must have been materials for embalming, or to make wicks for lamps, or even as salary for visitors from the other world.

Curiously enough, the accounts for materials included beef fat, doubtless used for illumination in conjunction with the lamp wicks;

rolls and thongs of leather; string; boxes of virgin papyrus, perhaps recalling the time when some clothing was made of this material; jewellery—rings and mounts decorated in rich metals; confectionery, for which we have no explanation.

—meal vouchers (*nil nove sub sole*)^b including what the author calls “passes”; in his words, “Let him have access to the platform containing the food of the king’s funerary offering.”

Other documents show that temple employees invited friends, visitors, persons not in the service of the temple, to share their revels. Some obviously benefited from the food destined for the deceased. Even so, the burden represented by this complex economy should not be underestimated. Every day an ox was sacrificed to feed the temple, 365 oxen annually, in addition to 10,000 fowls. This was supplemented by bread and beer at every meal.

—a vocabulary: we have noted the use of hieroglyphics for “that was not contributed”; temple revenues, whether daily or not, were called “contributions,” as they were contributed to the temple by the persons whose names appear in the lists. Another hieroglyphic, two legs in the action of walking, designated an expense. Even then, it was known that money takes off! Other symbols were obviously check marks; a slanting line at the side of, or above, a figure showed that the account had been checked.

Conclusion

The author of the doctoral dissertation, Madame Posenar-Kruger, refrained from drawing conclusions; her objective was to translate and comment upon the documents. In my opinion, the funerary temples were comparable to the communal *kholkoz* in the Soviet Union, or the Israeli *kibbutz*. They show the realization of the ecologist’s dream: a return to the land. Instead of parcelling land out between individuals, who often simply hold it, this system resulted in its cultivation.

There was not enough work to go round, yet people had to be occupied with something; we have the same problem. They must be organized into homogeneous groups, like the servants of the temple. We know how many there were, requiring one ox a day to feed them, but there is another aspect to consider. In a hot climate, where meat and vegetables could only be transported early in the

^bStevelinck refers to luncheon vouchers, a contemporary device for providing employees with tax free meals during the work day. Ed.

morning if they were not to spoil or rot, it was necessary to bring together enough mouths to consume an entire ox at one time.

They tried to occupy people with useful work: gardening, feeding livestock, maintaining buildings and barges, emptying bins and baskets. Finally, however, it was necessary to invent idiotic tasks for the sake of their mental and physical health. Many were guards; for the four-man transport barges that travelled the Memphis canal serving the temple, for the stores that received goods for the temple day and night, for the terraces, corridors, religious objects. Some were required to pace the outskirts of the temple four times a day, others to move things and replace them again. Religious objects had to be cleaned, notably the two copper barges that served symbolically to transport the dead king to the land of darkness—one for the morning, the other for the evening. (It still remains a question whether there were in fact two, or simply one that served both the morning and the evening.)

But man does not live by bread alone, even if he must work for it. He must be entertained. The year was divided into festivals, when life became more satisfying, if only thanks to the offerings. Each festival had its own important sacrifices, to which were added the robing and opening of the mouths of the kings' statues, processions, dances and songs.

In this autarchical country, social groups were cordoned off and kept strictly separate. The atomized population was dominated by a bureaucratic class that exercised a pitiless power over the days and nights of subordinates, whose work, speech and leisure were completely controlled. A totalitarian state, where power and authority were administered by a dictatorial group that included scribe-accountants and accountant-auditors of the successive dynasties. History of yesterday and tomorrow, for history repeats itself. Yet, what do we learn about *accounting* from these ancient papyri?

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