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CHAPTER TWELVE

LABOUR

Kathlyn M. Cooney

The concept of labour cannot be extracted from the larger economic systems of which it was a part, so, accordingly, methods of workforce organization can actually tell us a great deal about the Egyptian economy. Labour organization for ancient Egyptian state institutions suggests the existence of a massive redistributive system that some scholars believe allowed only limited private-sector trade, either because the state did not allow market activities, or because society was too primitive and constricted to understand market activities (Janssen 1975b; Gutgesell 1989; Eichler 1992; Bleiberg 1996). On the other hand, evidence for labour organization in a private-sector context suggests a mixed economy including *both* market-driven systems as well as state redistribution and taxation (Kemp 1989b; Eyre 1998, 1999; Warburton 2003). Labour organization in ancient Egypt was nuanced, as was the economic system of which labour was a part. State redistribution economies and private-sector market economies need not be mutually exclusive. The state and private-sector systems co-existed, each depending on the other to distribute goods and services using different methods and conduits. In the simplest terms, state institutions relied on the taxation of goods and *corvée* labour, so that they could then redistribute these resources into centrally controlled state work projects. The private sector, based on privately owned lands throughout Egypt, produced the main bulk of taxable resources – in the form of both consumables and people. Labour organization in ancient Egypt was not monolithic, but flexible.

The surviving evidence for labour and craftsmanship in ancient Egypt is quite varied. Egyptologists must combine textual, art historical and archaeological materials to understand different categories of work specialization and organization. Understanding Egyptian labour systems is very much a multidisciplinary problem, as well as a problem of generalities versus specifics. The wealth of data can, nonetheless, be condensed into trends that run from the Old Kingdom to the Late Period, if one classifies labour in terms of: (1) the division of labour between skilled and unskilled workers, (2) the division between forced and unforced labour systems, and (3) labour's relation to the state (temple, king and various local government institutions).

The ancient Egyptians perceived a clear distinction between skilled and unskilled workers in terms of social place and labour structure. The social system valued

artisanship and craft abilities, often passed from father to son, and so a skilled state craftsman, such as a stone sculptor or goldsmith, was afforded more freedoms and leeway, even within his institutional workshop system. Skilled state craftsmen could also enter the private sector, taking on short-term commissions for their own gain. On the other hand, an unskilled state worker, such as the mover of stone blocks or a water carrier, was given very few freedoms and no luxuries. His wages were very low, often in the form of just enough bread and beer to get him through the day. If he left his place of work, punishment was severe. Farmers, fishermen and herdsmen, although very capable in their work, had no craft skills, and thus ranked quite low on the Egyptian social scale. Peasants were severely taxed by local state officials, paid high rents if they were tenant farmers, and their farm yields amounted to bare subsistence levels year after year, even during optimal Nile conditions (Figure 12.1). These economic circumstances effectively tied most peasants to the land. The peasant could also be called up by the state to serve as a conscripted labourer. The private sector farmer would then enter the militaristic structure of the government-funded workforce. The lines that Egyptologists draw between state and private economic systems are continually blurred, resisting strict categorization. The solution is to search for a nuanced and flexible labour system model.

The Egyptians also drew a distinction, although not always a clear one, between forced and unforced labour. Forced labour can be categorized in relation to the state, and when performed for government institutions it is generally called *corvée* or conscript labour. This form of labour most commonly occurred during limited seasonal

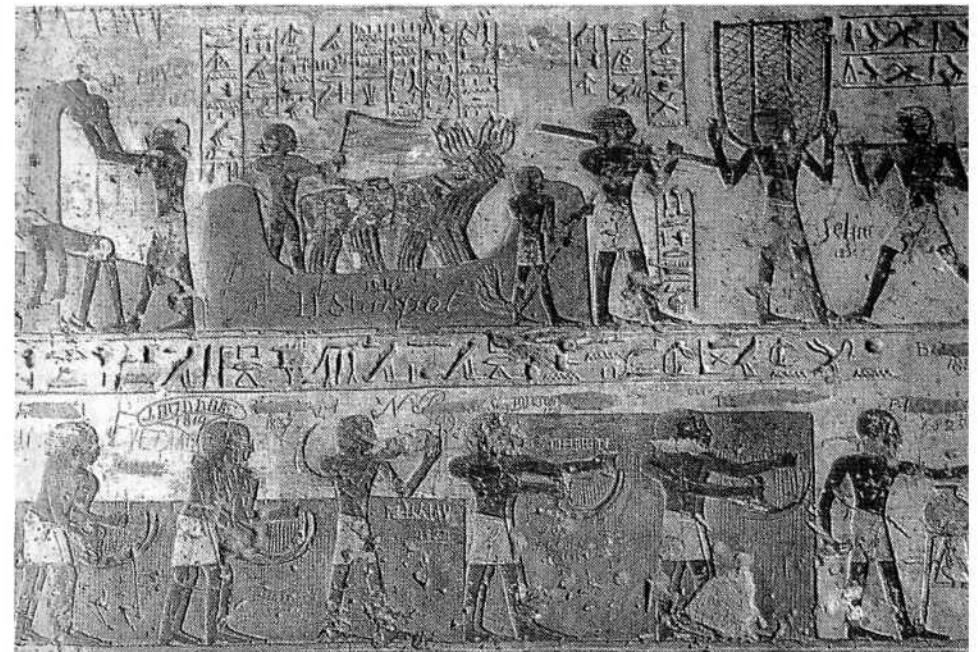


Figure 12.1 Scene of harvest in the tomb of Paheri at Elkab (photo K. Cooney).

work periods, after which time peasants were allowed to go home, assuming they were able to complete their service unscathed by disease or work-related injuries. Forced labour in the private sector is better categorized as slavery, although textual documentation for slavery in Dynastic Egypt is quite limited, making a real definition of the institution practically impossible. Nonetheless, through debt or capture in warfare, some persons physically belonged to other private individuals and served their masters in households and at their place of work – even if that place was a temple or government office. State elements (such as temples or the king himself) might have owned slaves, using them in the palace, on farms or in harsher conditions at a mine, but our written evidence suggests that the vast bulk of slaves were owned by private individuals. (For summary evidence about the private ownership of slaves, see Allam 2001.)

To discuss labour systems within larger economic models, it is useful to categorize work according to its relationship to the state. Labour attached to the state was structured quite differently from labour that was privately funded. State labour was formally directed, strictly hierarchical and carefully archived; the activities and movements of state labourers were monitored and controlled according to a militaristic model. Private-sector labour, on the other hand, was set up much more informally, usually on the village market level. Workers supported by the private sector did not always have a clear hierarchical system to follow. They were not part of a formal work crew. There was no military order, usually only a master or customer to obey. Furthermore, non-state labour was rarely archived, resulting in a lack of textual documentation for this significant part of the Egyptian economy.

Driven by necessity and efficiency, the Egyptians combined numerous systems of organizing work, including private-sector labour production that was, for the most part, unattached from the state; labour systems fully attached to the state; and labour systems semi-attached to the state (Earle 1981; Clark and Parry 1990). Within all of these categories, there are further divisions – between skilled and unskilled workers, or between free and forced labourers. Until recently, most Egyptologists have focused on labour that was fully attached to the state, such as quarrying/mining monopolies and institutionalized craft workshops – mostly because the vast majority of documentation comes from the state institutions and its legion of scribal bureaucrats. The disorganized and scattered private sector has only produced a smattering of records.

Labour categorization – skilled and unskilled, free and forced, as well as state and private-sector – enables an understanding of a flexible and nuanced labour system functioning within complementary structures of the private-sector economy and the state system of taxation and redistribution. The Egyptian economy was not based on mere subsistence. The Nile Valley and its workforce provided a surplus to support one of the first multi-tiered complex civilizations in history. Agricultural surplus, prosperity and leisure allowed the construction of massive monuments – state temples, royal tombs and numerous private building projects. The Nile Valley was so fruitful that, on average, an estimated 200,000 peasants would have been able to produce the grain to feed 3 million individuals each year (Miller 1991; Warburton 2003; 201). This grain surplus allowed increased complexity: a centralized bureaucracy, taxation by the state, a wealthy upper class, increased craft specialization and the growth of conspicuous consumption by the Egyptian elite. The grain surplus thus allowed a culture of construction in Egypt – of display through palace embellishment,

of piety through temple building, and of assiduous preparation for the afterlife through the creation of tombs and funerary art. This culture of materialism encouraged increased employment of Egyptian craftsmen, labourers, conscripted workers and slaves – all working within a mixed economy of market trade and state redistribution.

This discussion of ancient Egyptian labour is not meant to be a thorough, chronological description of labour practice and organization. Instead, it focuses on the varied and nuanced ways that labour could be organized through time, locale and society, using a selection of examples. The Middle Kingdom archive of the gentleman farmer Heqanakht and the New Kingdom funerary arts market in the Theban region exemplify the private-sector labour systems. Old Kingdom pyramid building, Middle Kingdom quarrying expeditions, and New Kingdom tomb building and decoration in the Valley of the Kings exemplify the state labour systems. Discussion of scribal/bureaucratic labour and soldiery is excluded here.

UNATTACHED LABOUR SYSTEMS

The household and village were the basis of the Egyptian market economy. Private-sector economic systems were first developed in villages throughout Egypt – long before a multi-tiered and centralized bureaucracy came into being. Many craftsmen and labourers would have functioned in this market economy as unattached workers, meaning they would have had no formal connections to any state labour organization. These unattached labourers rarely appear in the ancient textual documentation, which is hardly surprising. The state kept careful records, but lower-level labourers and their patrons, mostly illiterate, kept no records and were not formally organized beyond the household or village level. Pictorial scenes provide circumstantial evidence for village production and trade: trading scenes from Old Kingdom and New Kingdom tomb walls suggest that the wares of craftsmen were sold locally at market places near the riverbank (Eyre 1987a: 31–2; Kemp 1989b: 255). Despite the lack of documentation, it is clear that peasants throughout Egypt farmed privately owned lands or rental plots, and that they paid taxes. Farming villages almost certainly supported a small number of unattached craftsmen who made simple utilitarian items. Unattached craftsmen would have made the most basic necessities for the Egyptian peasantry, including simple furniture, reed skiffs, rudimentary farming and fishing equipment and tools, coarse linen clothing, basic footwear, basketry, pottery and matting, all sold at very low prices.

Throughout ancient Egyptian history, most basic necessities were probably made by private-sector, unattached labour, even though the evidence for it is scarce. As prices from the New Kingdom village of Deir el-Medina suggest (Janssen 1975b), costs for such items were very low and probably paid in surplus grain and other commodities. Although some Egyptologists claim that most of the Egyptian economy was centrally controlled for redistribution of state wares (Gutgesell 1989; Bleiberg 1995), there is no evidence that low-cost, everyday items were produced by state workshops and then distributed/sold to the population (Warburton 2003). Even the state-supplied craftsmen's village of Deir el-Medina produced and traded a large amount of basic necessities. Egyptian farm villages, which were not given supplies by the state, had to support their own unattached and possibly itinerant craftsmen who would supply them with pots, baskets, sandals and other necessities.

The home was another centre of unattached labour activity, usually undertaken by women and older children, who ground grain, made bread and beer, fetched water, cared for small children and did the onerous task of cleaning the laundry. Household production of coarse linens for clothing and bedding often fell to the women. Pictorial representations of linen preparation and weaving in Old and Middle Kingdom tombs usually show females at work. Deir el-Medina texts of the Ramesside Period prove that women produced linens at home, probably providing additional household income (Eyre 1987b: 200–1). These women had no connections to a state weaving workshop or to a large, elite household installation. They had no state training. Many Deir el-Medina texts with prices for different types of linens (Janssen 1975b) indicate that a Deir el-Medina household could add to its income through weaving work with no constraints from the state sector.

Unattached labour and craftwork were also connected to larger households. Heqanakht, a priest and official of the Middle Kingdom, carefully managed his modest lands and the workers farming them, and we have a number of letters and documents testifying to the economic organization and investments of his private property (Allen 2002a). Heqanakht sold linens woven in his own household for additional income, which he used to rent more farmland. Heqanakht organized his labour force and wage payments without any state instruction. In one letter he lists how many sacks of grain are paid to each member of his household and then tells them not to complain because times are hard: 'lest (any of) you get angry about this, look, the whole household is just like my children, and everything is mine to allocate. Half of life is better than death in full' (Allen 2002a: 16–17). Many Egyptian workers were connected to independent private households, and they were at the mercy of their master, the landholder, as well as the current economic situation. Heqanakht, as the head of this mini economy, kept accounts of salaries, yields of land, debts and all manner of private economic information concerning the labour taking place in his household. The state only stepped in to tax the independent landholder. Heqanakht's archive is a testament to the Egyptian household and how it was run as a business, leasing land for profit, running small weaving installations for profit and paying out salaries for a number of male and female employees whom he hired and fired, depending on social and economic conditions. It is likely that more such archives were created, but little information of this depth has survived on the farming household level.

FULLY ATTACHED STATE LABOUR SYSTEMS

Throughout Egypt, private landowners organized their holdings and paid taxes to the Egyptian state. This private economic base provided the tax and corvée labour revenues for massive state-funded and organized projects (Kemp 1989b), including building pyramids and sprawling temple complexes, palace construction and embellishment, long-distance trading ventures, gold mining expeditions in the eastern deserts and Nubia, quarrying expeditions within Egypt and in adjacent deserts, large canal building projects to drain marshland and create arable farmland, as well as hundreds of master-quality workshops churning out everything from jewellery to sculpture. All of these large state-run projects required funds and labour, both acquired and structured through a stable and centralized bureaucracy of scribal officials.

The state depended on many types of labour – skilled and unskilled, as well as conscripted and free – and workers were paid a wage according to their skill level and social status. Skilled craftsmen made up a much smaller percentage of the overall state labour force and were paid a wage above subsistence level, indicating a higher social value. Unskilled and conscripted labour made up the bulk of the state labour force and had a very low value, with wages that provided a meagre subsistence for the workers themselves and perhaps a few family members. Skilled craftsmen often functioned within workshop systems attached to palaces or temples (Figure 12.2). The coveted position of state craftsman was hereditary; skilled workers trained their sons and relatives, hoping they would also receive a place in the workshop. Skilled craftsmen had some social mobility: they could climb the workshop hierarchy from apprenticeship to full-time membership to leadership positions. Unskilled workers did not have such opportunities; they hauled, fetched and carried, without any real chance of moving up their limited social ladder.

Most unskilled state labourers were conscripted – that is, they were drafted into service. These men were not slaves; slavery was, for the most part, a private-sector form of forced labour. Conscript workers, in contrast, were not owned by individuals, but were, instead, required to perform intermittent labour as a duty to the state. Conscript labour was essentially a form of taxation by government officials. The Egyptian state had a large pool of individuals from which to conscript labour: the majority of the ancient Egyptian population was composed of peasants (Caminos 1997) who worked private lands. Conscripture might have occurred seasonally, when the Nile inundation made farm work impossible, or during the growing seasons when fewer workers were needed.

Information about the organization of labour conscription is not plentiful, but we do have some details in the textual record. A 12th Dynasty letter from the servant of the estate Senebni details how officials called up people for service in his area:



Figure 12.2 Carpenter's workshop in the tomb of Rekhmira at Thebes (photo K. Cooney).

the mayor sent me . . . to muster the labour force, having charged me . . . saying, 'As for any persons whom you may find missing among them, you are to write to the steward Horemsaf about them.' I . . . have sent a list of missing persons in writing to the pyramid town.

(Wente 1990: 76)

As this text makes clear, conscript recruitment usually happened at the local level: high officials called on mayors who then called on small town and village leaders to gather the available men. We know that recruitment by over-zealous officials became such a problem for certain settlements linked with the state, particularly for peasants working palace and temple lands, that exemption decrees were issued by the king to release certain populations, who were essentially already in state employ, from being called into *corvée* service (Helck 1975: 226–30). The *corvée* system was often unfair and harsh, and many ineligible men were called into service despite their complaints (Wente 1990: 74).

Once in service, the penalty for desertion was ruthless. A Middle Kingdom papyrus now in the Brooklyn Museum informs us that officials imprisoned the deserter's family until the return of the offender. Deserters were often assigned to permanent labour service if they were found (Hayes 1955; Kemp 1989b). State taxation and conscription duties were often abused by government officials, especially in difficult economic times. Many desperate people tried to extract themselves from *corvée* labour and taxation by fleeing to the Sinai or the oases. In the Late and Ptolemaic Periods, there is evidence that high numbers of the population opted out of the harsh farmer's existence of debt and conscription. These runaways chose to abandon the farm, to move from place to place, to join a mob of raiders or become pastoral nomads, resulting in too many fallow fields (Caminos 1997).

Conscript labour, a state-run endeavour, often occurred on a massive scale. The best-documented and most impressive conscript-supported projects were quarrying expeditions. Such large, state-run labour projects often followed the model of army or navy organization, because this was the easiest system for organizing such large numbers of people. Stone workers were organized into large crews for the starboard and port sides, which were further divided into smaller gangs. Quarrying expeditions in the Old and Middle Kingdoms were sometimes led by a general of the army, but at other times by a temple treasurer (Eyre 1987a: 10–11). There was no official office for expeditions; rather, the Egyptians organized these forays using a variety of different officials and offices. At no time did the Egyptians institute a firm system for quarrying expeditions even though stone extraction was performed by a centrally conscripted state labour force. Instead, the state structured each expedition differently, depending on the task at hand and the human resources available at the time. Old Kingdom quarrying expeditions included personnel ranging from 300 to more than 2,000 labourers, recruited by various officials and local governors from many places throughout the countryside (Eyre 1987a: 14–19).

Middle Kingdom quarrying expeditions sometimes included tens of thousands of workers (Kemp 1989b: 129). One massive group sent in the thirty-eighth year of Senusret I to the Wadi Hammamat quarries in the Eastern Desert included 18,630 workers. Preserved bureaucratic documents reveal that the expedition was led by a royal herald named Ameni who was served by 80 officials, including crew leaders,

20 mayors from around Egypt, craft leaders including two overseers of stone masons, two state treasurers and eight official scribes. The support staff was much larger and included 30 hunters, 60 bird catchers, 20 brewers, 20 millers, 20 butchers and 60 sandal-makers, all to supply a contingent of almost 20,000 men (Eggebrecht 1980: 66). Also sent along were soldiers and police of various ranks to protect the expedition and, perhaps more importantly, to keep the workers in line.

The skilled workforce on this Middle Kingdom quarrying expedition consisted of hundreds of stone masons and craftsmen. The unskilled workforce, on the other hand, made up the bulk of the team with 17,000 conscripted men. All were paid according to the hierarchy of their position. The bulk of the unskilled workforce received ten loaves of bread and one-third of a jar of beer daily, which, given the amount of work, was likely a bare subsistence wage that was consumed at the worksite. The support staff of bakers and brewers received 15 loaves of bread and almost one full jar of beer a day. The skilled craftsmen received 20 loaves of bread a day. Scribes, lower-level bureaucrats and army officers are said to have received 30 loaves a day. The treasurers and mid-level bureaucrats got 50 loaves, mayors and crew leaders 100 loaves. The leader, the herald Ameni, received 200 loaves of bread every day, the highest amount. These wages are clearly measures of each man's economic worth and social status. It is unlikely that the high officials on this expedition consumed this much bread in a day; the bread loaf was essentially a measure of grain. Each man probably consumed about ten loaves a day, the wage of the conscripted labourers. Additional 'loaves' amounted to additional payment once the expedition returned home. In other words, these amounts represent wage amounts, some of which was paid upon return from the desert, rather than rations that were consumed on the expedition (Kemp 1989b: 125–7). In the end, we understand that skilled craftsmen received double the subsistence wage, that high officials, such as mayors, received ten times the subsistence wage, and the expedition leader, 20 times.

A later New Kingdom expedition to the Wadi Hammamat in the third year of Ramesses IV included over 8,000 men, with 150 skilled craftsmen. Many of these unskilled workers were recruited from the army, a new form of labour conscription during the New Kingdom when Egypt poured resources into protecting its imperial interests. This expedition was under the leadership of a temple official – the High Priest of Amun from Thebes – and was quite costly in terms of human life with 900 dead (Eyre 1987b: 181–2), giving the average workman about a one in ten chance of perishing on the job, not to mention the unrecorded, but presumably high, chance of workplace injuries. New Kingdom gold mining expeditions were even more costly than quarrying expeditions, with a casualty rate as high as 50 per cent (Eyre 1987b: 182), but this rough figure simply stresses that for the ancient Egyptians, labour was cheap. Losses were recorded, and vacancies were filled. Some expeditions were subject to attacks by the local population, especially during unstable times.

Formally organized, fully attached state labour systems, such as quarrying expeditions, often leave a trace in the textual record. However, we have almost no written information about one of Egypt's largest state construction projects – the Giza pyramids of the Old Kingdom. Most of the evidence for the state workforce at the pyramids is archaeological, and scholars have counted the blocks and made various calculations, trying to arrive at the labour requirements for these massive constructions. Most agree that there are 2.3 million blocks (6.5 million tons of limestone) in the

Great Pyramid of Khufu. These blocks would have been laid down during the 23 years of Khufu's reign. Using these numbers, it has been estimated that the labour force had to place about 340 blocks each day, that is 34 blocks every hour, or one every two minutes, suggesting a labour force in the tens of thousands at the pyramid site itself (Lehner 1997: 224), not to mention an additional and substantial workforce at the quarry site from which the blocks came.

Scraps of textual evidence from Giza and other pyramid sites indicate that a labour force of this size was militarily organized into different subsections, each with a leader. The Giza pyramids were probably built by multiple crews of 2,000 men, which were subdivided into two gangs of 1,000 men, each with a name connecting them to the ruling king, such as 'Friends of Khufu' or 'Drunkards of Menkaura'. Archaeological and textual material from other pyramid sites tells us that each gang was divided into five *phyles* of 200 men. These *phyles* of 200 were further separated into ten divisions with 20 men each (Lehner 1997: 224–5). Such a hierarchical system followed military organization, and each man was accountable to multiple leaders: his division leader, his *phyle* leader, his gang leader, his crew leader and, finally, the upper officials of the building programme.

The men who built the pyramids of the Old Kingdom and the Middle Kingdom were not slaves. Essentially there were three types of workers at a pyramid site: (1) well-paid officials controlling the work; (2) reasonably well-paid craftsmen who focused on skilled craft work and who worked full-time; and (3) seasonal *corvée* workers, drafted into service from their farms. The full-time skilled workers included permanent stone cutters and masons, and they lived in workers' huts near the construction site (Lehner 2002; Hawass 2006). We know very little about how the tens of thousands of unskilled workmen were drafted into service, but officials, priests, local governors and mayors seem to have pulled poor peasants from villages throughout the country, at least according to marks found on the casing stones of Middle Kingdom pyramids (Arnold 1990). These recruits would have found themselves temporarily locked into a formally organized system which they could only escape with severe penalties, but in which they were probably encouraged to compete with other divisions and *phyles* for small rewards, and for which they were paid a subsistence wage.

Not all state labour took place on such a massive scale. The state also employed a number of highly skilled artisans, attached to small palace and temple workshops throughout the land as free workers. The state workshops created a system of hereditary job placement, apprenticeship and craft specialization that allowed efficient production of high-quality, high-value objects for use in the palace, temple and tomb. State craftsmen produced hard stone sculpture, metal objects, carpentry, jewellery, linen, glass, faience, ritual and temple implements, funerary arts and all manner of crafts such as pottery, leatherwork and basketry. Our most illuminating administrative documents come from the New Kingdom village of Deir el-Medina, an artisans' settlement in the western Theban desert, housing the highly skilled stone-cutters, draughtsmen and scribes who built and decorated the tombs of the king and his family members (Figure 12.3).

These craftsmen have left us an unmatched archive with which to study labour in ancient Egypt: thousands of letters, legal records and administrative texts preserved on papyri, limestone flakes and pottery sherds, all recording close details of daily life and work (Černý 1973; Valbelle 1985). The skilled Deir el-Medina craftsmen were



Figure 12.3 The village of Deir el-Medina (photo K. Cooney).

formally organized, and their livelihood was attached to the state. These men were trained in their craft by their fathers and relatives, making their positions largely hereditary. They were not *corvée* workers; rather, their positions afforded them a high social position encouraging competition for jobs, often resulting in bribery of the hiring officials, and even threats and harm to fellow craftsmen. They lived in a claustrophobic village of about 70 houses, tightly squeezed into a desert valley, surrounded by a wall, and protected by a permanent police force. The Deir el-Medina craftsmen were fully supplied by a state-paid support staff that brought in water, grain payments, foodstuffs such as oil, vegetables, fish and honey, as well as work supplies, including chisels, plaster, pigments, lamps and wicks.

The number of craftsmen in the work crew fluctuated between about 32 and 60 men, depending on how much work was required on the king's tomb. The beginning of a new king's reign was a time for rejoicing in the village of Deir el-Medina because it meant work for more men, increased rewards and quick payment, rather than the slow pay to which the crew was often accustomed. The new king would want to make good progress on his tomb in the Valley of the Kings before his own unforeseen death, and he often added craftsmen to the crew so that he could finish a grand tomb in time for his burial. At one point, at the beginning of the reign of Ramesses IV, the numbers of the crew were raised to 120 men, an unprecedented workforce in the village. It is quite likely that the ascension of a new king to the throne in the Old and Middle Kingdoms also created increased demand for skilled craftsmen, meaning work for men who might otherwise have been idle.

At the end of a given reign, when the king's tomb and the tombs of his queens and sons had already been completed, there was not enough work to justify a large

crew at Deir el-Medina. In some cases, craftsmen were 'let go' and sent outside of the village for much lower-paying wage labour as part of the service staff. The service staff were full-time, free state workers, but they were only paid a subsistence wage for themselves and a few family members. One such job-cut took place in the reign of Ramesses VI: 'The vizier spoke thus: "Let these sixty men stay here as your gang, all your choice, and let the rest be brought outside. Order them to become supply staff who will carry for you"' (McDowell 1999: 231). When there was not enough demand for high-quality craftwork, skilled workers were fired from their high-paying positions as state artisans and relegated to low-paid unskilled jobs on the service staff. Even though the Deir el-Medina village was a state workshop, government officials did not micro-manage; they left the craftsmen to deal with this staff reduction on their own, choosing who would go and who would stay. One can imagine the frantic political networking and bribery that would have ensued after such an announcement, each family trying to ensure itself a position in the crew and struggling to avoid a new life of hard work and bare subsistence wages as a member of the supply staff outside the craftsmen's village.

Even though the workforce was small, the Deir el-Medina crew still used a naval system to organize themselves, in the fashion of formally organized state labour. They divided themselves into port and starboard sides. Each side of the crew included a foreman, a scribe of the tomb, two or three deputies, chisel bearers, draughtsmen and multiple craftsmen without a specialized title. Their work and attendance were carefully monitored by the scribe of the tomb. The Deir el-Medina craftsmen's official boss was the vizier, resident at eastern Thebes, and we have evidence of close correspondence between Deir el-Medina scribes and the office of the vizier.

The Deir el-Medina crew worked a ten-day week, and they usually took a two-day weekend, in addition to numerous festival days. The average Deir el-Medina craftsman was paid a wage of five-and-a-half sacks (about 415 litres) of emmer wheat and barley a month from different state sources, including the vizier's office and temples in the area (Kemp 1989b). The overseers and scribes each received seven-and-a-half sacks (about 560 litres) of grain a month. Every Deir el-Medina craftsmen received wages that were far above subsistence levels, enough to feed at least two nuclear families for a month. Deir el-Medina craftsmen were quite wealthy in comparison to the general peasantry, investing large amounts in animals, garden plots as well as in their tombs and funerary goods. The state also provided monthly supplies of fish, beans, oils and other foodstuffs. Still, the wages did not always arrive on time, and the Deir el-Medina workforce sometimes felt it necessary to strike and demonstrate for the delivery of their wages:

The gang passed the walls, saying, 'We are hungry!' . . . And they called out to the Mayor of Thebes as he was passing by. He sent Nefer . . . to them, saying, 'Look, I will give you these 30 sacks of emmer to be a means of life.'

(McDowell 1999: 236)

The ability to stop work and plead for fair wages testifies to the social value of the skilled craftsmen in Egypt. They were not punished by any government officials for demonstrating, as far as we can tell, and many of their attempts to be paid were partially successful, even during lean economic times.

The Deir el-Medina archive of textual material tells us a huge amount about skilled workshop labour, but it also provides information about the unskilled labour force connected to a given workshop, in particular the staff who provided water and other services for the Deir el-Medina workers. Laundry was picked up from each family by the service staff, cleaned at the riverbank and returned to the desert community. Water was especially difficult for the service staff to bring into the workmen's valley. The state assigned about six men at a time to act as water carriers, and they often rented donkeys at a loss, to save themselves from carrying heavy jars of water, indicating that these state labourers were able to make choices about how to do their work. Unfortunately, many water carriers worked themselves into an insurmountable state of debt to other individuals, renting donkeys from the Deir el-Medina craftsmen and others for which their subsistence wages of one to one-and-a-half sacks of grain a month (75 to 112 litres) could not pay.

On the whole, the village of Deir el-Medina, which housed a permanent state workshop attached to the office of the vizier, was able to run work and life affairs as the villagers wished – as long as they functioned within the accepted formalized system and kept up with their work in the Valley of the Kings. They worked according to a formal naval model. They kept an official roll of attendance. They requested work supplies when required, and they communicated freely with the office of the vizier.

SEMI-ATTACHED LABOUR SYSTEMS

In order to provide themselves with a more stable economic existence, the Deir el-Medina craftsmen also acted as businessmen on their own account by taking on well-paid commissions for furniture, coffins and other craft goods. Private household production, such as coffin decoration or linen weaving, was a significant addition to Deir el-Medina household income, allowing villagers to save for their own tomb and funerary goods.

Deir el-Medina craftsmen used their reputation as state-employed artisans to earn a substantial additional income in the private sector, decorating funerary art and furniture for the wealthy Theban elite and for fellow villagers. This additional work by the Deir el-Medina state craftsmen falls into another category of labour organization; it was performed by state craftsmen for wealthy commissioners, but in the private sector. When working in the private sector for their own gain, they functioned as semi-attached state craftsmen. High-paying commissions were only available via their reputation as royal craftsmen. Working as semi-attached craftsmen, they could retain their connections with the vizier and the Egyptian scribal elite (Cooney 2006).

Deir el-Medina workers could earn much more in the private sector, but they owed all their additional commissions to their position as state artisans because they used connections with elite commissioners and other craftsmen to receive and complete tasks. Carpenters who specialized in building wooden objects, such as coffins, worked informally with draughtsmen who specialized in painting. Hundreds of Deir el-Medina texts tell us that workmen received payment for their private-sector work. Sometimes the payment came from other artisans, who bought the partially finished piece before completing and selling it to the commissioner.

When working in the private sector for additional income, village hierarchy was important, but it was only followed if expedient. Craftsmen of different specializations organized themselves into small informal groups so that they could take on commissions for furniture and funerary arts (Figure 12.4). Carpenters almost always worked with wood construction, while draughtsmen and scribes always painted – even in the private sector. It was easier for the craftsmen to rely on an informal workshop system for private ventures, rather than striking out as independent entrepreneurs with the attendant financial risk (Cooney 2006).

Our best evidence for semi-attached labour by state craftsmen comes from Deir el-Medina, but other skilled state workers, attached to other workshops, could be hired by wealthy private individuals. Hiring skilled, state craftsmen as semi-independent contractors for arts production was costly and only accessible to the Egyptian elite population with connections to palace and temple workshops. The vast majority of the Egyptian population lived on subsistence wages and thus could not afford craftwork; only the elite scribal class could sustain the private-sector production of state-employed craftsmen. In the Old Kingdom, elite tomb owners hired state artisans to build and decorate their privately funded mastaba tombs (Eyre 1987a: 25–8). In some cases, the wealthy commissioner records on the mastaba interior that these craftsmen were generously remunerated in a variety of commodities from the tomb owner's own private sources (Drenkhahn 1976: 141; Roth 1994). Much later, in the Third Intermediate Period, there is also evidence for state craftsmen selling their work in the private sector; a Theban text records the private purchase

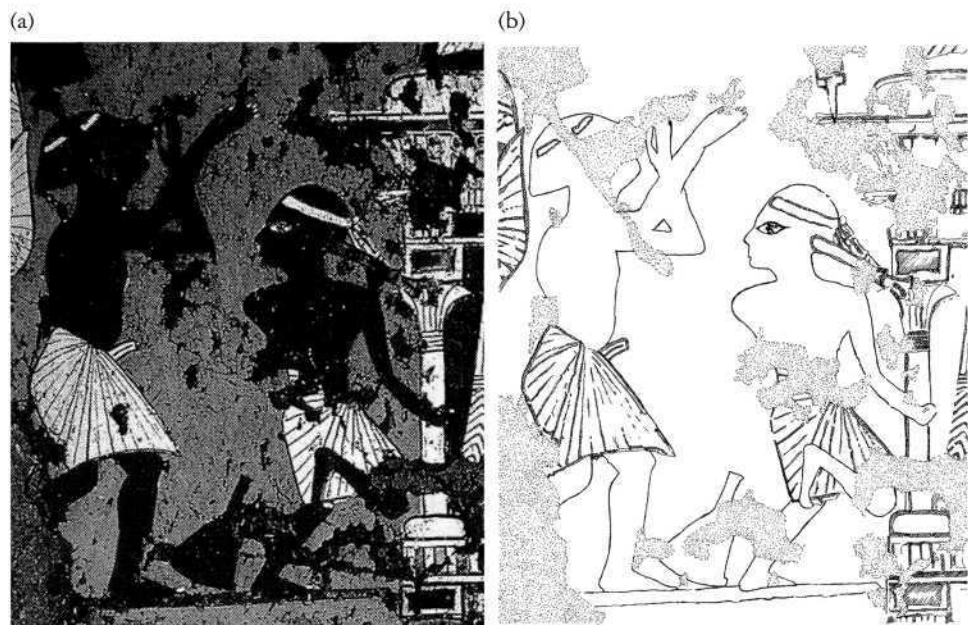


Figure 12.4 Craftsmen at work in the tomb of Ipuy at Deir el-Medina.
(a) Photo K. Cooney; (b) line drawing J. Etherington.

of a complete set of *shabti* funerary figurines from a highly placed member of a temple workshop, in this case the 'Chief Modeller of Amulets in the Temple of Amun' named Pedikhons (Edwards 1971). Throughout Egyptian history, even though the state was responsible for creating and organizing workshops, and for training and acquiring materials for state projects, wealthy individuals in the private sector were able to hire these skilled state artisans on contract. The state, therefore, indirectly supplied the labour base for high-level elite arts commissions and made possible the emergence of conspicuous consumption.

SLAVERY, PRISONERS AND THE FRINGES OF SOCIETY

Ancient Egypt was not a slave-based economy, but a peasant-based economy, and it was not until the Graeco-Roman Period that slavery had a greater impact. From the Middle Kingdom onwards, slavery became a visible part of the Egyptian economy. Although the concept is inconsistently labelled and undefined by the ancient Egyptians, slaves were essentially trapped elements of the population – often prisoners of war given to soldiers after a campaign, foreigners acquired through intensified trade or even Egyptian peasant debtors (Allam 2001). Slavery was hereditary, and, for the most part, a private-sector institution and a private-sector form of forced labour. Slaves were primarily owned by individuals, families and households, although some evidence shows slaves attached to palaces and temples. Even the craftsmen households at Deir el-Medina included slave women to help with the daily chores. These slaves could be understood as part of the craftsmen's wages, and the craftsmen sold shares of their slaves' work to other villagers. Slaves were probably not paid an actual wage, but given food to eat during the day. Their treatment depended very much on their masters, but they might have had some legal rights (Loprieno 1997; Allam 2001).

Prisoners, another trapped element of society, were often forced into labour. Prison labourers were unfree state workers, given a ration of bare subsistence, if that. The mines in the Eastern Desert and Nubia were notorious for their hard conditions, and they were often staffed by the ostracized of Egyptian society – criminals and the imprisoned and conscripted local Nubian population. It is likely that the daily bread and water rations for these people were below subsistence.

THE ECONOMIC CONTEXT OF LABOUR

These fluid and nuanced methods of labour organization and control can tell us a tremendous amount about the mixed economic systems of ancient Egypt. Skilled state workers often laboured in the private sector for their own gain. Private-sector peasants were often conscripted into attached state labour. The Egyptians maintained a balance between private-sector activity, at the village level, and formal state organization, including conscription, taxation and large state monopolies. Rigorous state organization was only practical for large labour projects, such as the extraction of gold and stone, and large building complexes. State labour organization was based on the redistribution of the taxes collected from private land owners and the peasantry. These grain taxes were funnelled into palace and temple treasuries, administered by

a vast bureaucracy, and coordinated by king and vizier to institute state projects. An informally organized private-sector economy and labour force worked alongside the formally organized state workforce. The private-sector economy was essential during times of political decentralization, and it was this private sector that ultimately supported state projects with its tax revenue.

CHAPTER THIRTEEN

STATE AND PRIVATE
ENTERPRISE

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Edward Bleiberg

Scholars still debate the nature of, and connections between, state and private enterprise in ancient Egypt. While many researchers have regarded the state and its associated temples as the major focus of economic activity in Egypt, increasingly others have come to treat the individual household as the more significant unit of analysis. Perhaps the future of Egyptian economic history lies in understanding how, or even whether, state and private enterprise connected to each other in different historical periods.

THE SOURCES AND THEIR FUNCTION

Much of the difficulty in creating a modern understanding of Egyptian economic history starts with the Egyptians' own records of economic activity. These sources are usefully divided into two categories, the ceremonial and the administrative (Bleiberg 1996: 115–25; Haring 1997; 2004: 24). The ceremonial sources include royal and private inscriptions on the walls of temples and tombs as well as some texts written on papyrus. These sources are useful for determining the ideology behind Egyptian statements about economic issues. Administrative texts could be recorded on papyrus or on potsherds or flakes of limestone, both called ostraca (singular: ostrakon). These texts comprise actual bureaucratic documents that include records of the reception and disbursement of commodities at institutions such as the royal palace or at a temple. They also include accounts of privately conducted exchanges. Some scholars have made use of images of economic activities in tombs. These sources are just as difficult to interpret as written sources because they are imprecise, lending themselves to more than one possible interpretation. Yet they are also valuable for revealing activities not documented in texts. Scholars have, for example, examined representations of fruit markets which have left no documentation in the written record. Finally archaeological evidence can also be useful in providing further context for economic activities, especially long-distance trade.

Ceremonial sources

Ceremonial sources include scenes in tombs and temples depicting the delivery of taxes, gifts or other groups of commodities. They, moreover, comprise texts that