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## How the Organization of Labor shaped Civilization's Takeoff

In the primitive economic situation ... there is, of course, no 'solitary hunter,' living either in a cave or otherwise, and there is no man who 'makes by his own labor all the goods that he uses,' etc. ... There is no reasonable doubt but that, at least since mankind reached the human plane, the economic unit has been not a 'solitary hunter,' but a community of some kind.

-- Thorstein Veblen

It is now more than a century since Veblen poked fun at armchair philosophers postulating a primitive idyll of rugged individuals making products to trade. Such scenarios are based on a "simple scheme of economic life ... to throw into the foreground, in a highly unreal perspective, those features which lend themselves to interpretation in terms of the normalised competitive system."<sup>1</sup>

These heuristic examples do not acknowledge a productive role for communal or public institutions. Palaces appear in a Hollywood version of Egyptian overseers whipping slaves to build pyramids — a blind alley leading to Oriental Despotism. The only role for government that such economic individualism recognizes is that of a burdensome overhead, waging war and providing special privileges for insiders. There is no thought of a bureaucracy innovating the commercial practices that in time became privatized.

But by the time written records appear in the third millennium BC, labor already had long been mobilized for large building projects that must have involved entire communities. From the early Neolithic through the Bronze Age, this mobilization was organized on different principles from those of the modern world. In view of the ever-present option of flight, it must have been organized on a voluntary basis.

Also, the most archaic employment of labor could not have been based on barter or market sales of crops or handicrafts, because (apart from working to produce its own subsistence) labor initially was organized to construct public works: ceremonial sites and buildings, irrigation works, and to serve in the military. No exchange value was initially

<sup>&</sup>lt;sup>1</sup> Thorstein Veblen, "Professor Clark's Economics," *Quarterly Journal of Economics* **23** (February 1908), repr. in *The Place of Science in Modern Civilisation, and other Essays* (New York, 1919:180-230), pp. 183ff.

involved. Members of the community were self-supporting on the land, not obliged to compete to find work subject to supply and demand forces.

And when free labor did come to be organized for commercial purposes, the process was innovated mainly by chieftains, temple and palace officials, whose fortunes emerged in a symbiotic relationship with these large semi-public institutions.

## From ceremonial community-based labor to the corvée

This volume starts with Lamberg-Karlovsky's discussion of the southeastern Turkish site of Göbekli Tepe c. 10,000-9000 BC. Its monumental architecture was built by huntergatherers drawn from must have been a broad territory to spend decade after decade working to build the ritual center. Such centers hosted the major occasions for gatherings for the rituals that integrated archaic communities for selection of mates and customary gift exchange that in time would evolve into markets.

Four or five thousand years after Göbekli, populations came together at Avebury, Stonehenge and other ceremonial sites of the late Neolithic. This still was long before profit-seeking trade or state coercion developed. Just who brought the large excavated volume of gazelle, auroch cattle and other animal remains that fed Göbekli's builders is not recorded. But no doubt a similar organizational practice guided the mobilization of labor evolved to build Sumerian, Babylonian and Egyptian monuments and infrastructure.

The labor requisitioned for such projects did not produce goods for sale. But someone had to organize it. One of the byproducts of Neolithic monument building was thus a managerial class. This role originally would have been played by chieftains as calendar keepers and organizers, dealing with outsiders, and centralizing some forms of specialized labor in their own households. "Supernatural sanction, confirmed and certified by specialist practitioners, offered not only the legitimacy of rule, but the structure of order within the earliest villages." Already by Pre-Pottery Neolithic-B these men "held religious authority that legitimized their right to rule," Lamberg-Karlovsky explains. "They presided over ritual centers, the nascent forms of the later temples that became the focus of centralized political and economic power."

Social status was sanctified by authority centered on the individuals responsible for allocating resources, organizing rituals and mobilizing labor for monuments or temple buildings and other public works. So what was "produced" already in preliterate times at Tali-Bakun c. 6000 BC and Tell Abyad c. 5500 BC, Stonehenge and Central Asia were not only

<sup>&</sup>lt;sup>2</sup> No doubt its gatherings and feasts were coordinated by calendrical turning points based on the lunar and solar cycles so that widely scattered groups would know when to converge. The cosmology extends back to the Ice Age caves described by Alexander Marshack in our group's urbanization volume, "Space and Time in Preagricultural Europe and the Near East: The Evidence for Early Structural Complexity," in Michael Hudson and Baruch A. Levine, eds., *Urbanization and Land Ownership in the Ancient Near East* (1999):53.

public works and ceremonial centers but also control mechanisms and administrative hierarchies. By the Bronze Age this managerial class would become the main beneficiaries, controlling wealth via the temples and palaces to produce textiles, metal and elite goods for long-distance trade.

The Neolithic thus bequeathed to the Bronze Age a complex of socio-economic relationships: (1) food provisioning and the hosting of feasts, requiring (2) empowerment of a managerial class, with (3) customary crop rights and land tenure, evolving in time into outright property ownership. Initially this land tenure was a byproduct of (4) fiscal policy to allocate responsibility to mobilize labor, food and other resources.

## Corvée labor as the primordial proto-tax defining land rights

Goelet defines corvée labor as "unpaid, unskilled manual labor exacted in lieu of taxation in the form of money or goods. ... it generally entailed involuntary service and normally involved a great mass of people from a given locality." In Egypt, "the impressment was temporary and may have been based on a quota that local officials had to meet." A common theme of the papers in this volume is that supplying such labor was the prototypical "tax" obligation, leading land tenure to be defined in fiscal terms. "The man responsible for the tax was the 'owner' as far as the state was concerned." Property "belonged" to its holders in the sense of having the right to administer it in order to meet public obligations.

This is the reverse of Locke's justifying land ownership by the labor that landlords put into the land by clearing and improving it. Land in Mesopotamia was plentiful but required irrigation, which was provided by the local community (or by a larger territory in the case of major canals). Land rights were linked to the holder's obligation to supply corvée labor for such work, as well as for the military. An crop and manpower surplus was extracted from landholders — as it was from merchants and entrepreneurs for their leasing or control of property, trade and palace enterprises.

To be sure, property holders always have had a tendency to break free from their fiscal and social obligations. The history of civilization has seen a constant struggle to link property rights to reciprocal social obligations to serve society's survival, growth and equity in the face of owners seeking to use their privileges and control the state itself in predatory and extractive ways.

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<sup>&</sup>lt;sup>3</sup> Christopher J. Eyre, "How Relevant was Personal Status to the Functioning of the Rural Economy in Pharaonic Egypt?" in Bernadette Menu, ed., *La dépendence rurale dans l'Antiquité égyptienne et proche-orientale* (BdÉ 140, Cairo 2004):174. Goelet adds: "Historically, the delegation of fiscal responsibility to the richest local residents has been normal in Egypt. … as holders of liturgies in the Ptolemaic period, or as village headmen (*shaykh/umda*) in later periods. They were personally responsible for the flow of revenues to the 'lords of the land.'"

# Corvée labor and feasts

Steinkeller emphasizes the major problem for organizing labor prior to classical antiquity: a chronic labor shortage.<sup>4</sup> The problem was how to get self-sufficient cultivators to work at manual labor consisting largely of carrying baskets of earth and transporting building materials during the non-planting season.

No doubt maintaining Neolithic practice, corvée activities had to attract and hold their participants. For Babylonia, Richardson cites rulers emphasizing their efforts to promote "public joy" in corvée projects by "invest[ing] such occasions with an atmosphere of feasting and plenty." This made the tasks "something closer to a prebend, an opportunity, a festival" with the benefit of group membership and identity. Indeed, he asks:

Would it even be *possible* to create a corps of 'forced,' 'unfree' or 'semi-free' laborers to toil under adverse conditions – for no more than one week a year? Would workers who had toiled for 150 days of the year in the dirt and mud to grow barley for state and bare survival choose to resent a few days of collective labor, in the company of neighbors and with the prospect of feasting and song? Should we really imagine teams of tens of thousands groaning under the weight of massive building blocks under the stern eyes of whip-wielding overseers, when the average work-account text deals with teams of workers numbering fewer than two hundred?

Richardson estimates that institutional building work in Babylonia "only comes to something like 4% of the farming work" needed for families on the land to produce their own sustenance – "not more than a week of work compared to six months of farming." And most corvée labor was seasonal so as not to interfere with the crop cycle. In Egypt, the workers' town housing the specialized HG labor force that "worked hard on the pyramids (such as moving megaliths)" was, in Lehner's description, "a rather elite place of high-status royal service and possibly higher-quality recompense than recruits might have known in their home districts."

This solution was akin to Veblen's Instinct of Workmanship. In contrast to what Richardson characterizes as "our very modern assumption that labor is a social and economic disutility," what was being built was not just monuments and palaces but communal identity, a ceremonial expression of creativity – and great feasts and drinking parties when projects were completed (and probably in between). Lehner describes an Egyptian causeway scene showing "the completion of the king's pyramid by the dragging and setting of the capstone (*pyramidion*) with a celebration of feasting, singing, and dancing" by the work crews, "perhaps a special feast out of the many regular feasts that we know so well from tomb and temple texts ... We see racks of hanging meat, to be shared and consumed for the occasion." Such feasts must have been a major source of meat in the

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<sup>&</sup>lt;sup>4</sup> Goelet cites the corollary observation from Eyre about land-holding in Egypt: there always seems to have been enough land available for cultivation, but "[l]and was valueless without people." "Village Economy in Pharaonic Egypt," in A.K. Bowman and E. Rogan, (eds.), *Agriculture in Egypt from Pharaonic to Modern Times* (Proceedings of the British Academy 96). Oxford: 1999:46.

diets of many Bronze Age corvée attendees – not to mention the drinking parties where vast amounts of beer were consumed!

Public feasts continued in classical antiquity. In Homer's *Odyssey*, "Alcinous has the Phaeacians build a ship for Odysseus and promises a public feast and rations for the sailors, offering to reimburse the other lords for gifts to him through a levy on the demos. ... the treasurers (*tamiai*) of the temple of Athena, who managed sacred revenue, and the so-called 'ham-collectors' (*kolakretai*), [refer] to their original function apportioning shares at public feasts, who perhaps by the time Solon also collected city revenue and paid out money, for example, to travelling envoys."<sup>5</sup>

Some coercion obviously was at work. Ambitious empire builders retained the loyalty of leading towns by granting exemption from the *bala* contribution, and the well-to-do hired stand-ins to perform their corvée duties. But Steinkeller sees a political byproduct of bringing labor from distant provinces by the Ur III period: "National building projects were an extremely important tool of political and cultural integration," a "nation-building" effort instilling an idea of proto-national solidarity as workers came to think of themselves as "fellow members of a united Babylonia."

## Local abuses of labor

Throughout history local authorities have sought to divert labor for their own purposes. Sometimes the central authority deters this power grabbing, as in England's Star Chamber in the 16<sup>th</sup> and 17<sup>th</sup> centuries against aggressive local nobility. But the Bronze Age "Intermediate Periods" saw central power wane vis-à-vis that of local clan heads, chieftains and "big-men." Writing of Egypt's First Intermediate Period, Goelet finds that "the power of the local elites apparently outweighed that of the monarch. The end result was that the status of mrt-laborers and other lower class individuals generally had declined from being serfs bound to the land to becoming purchasable chattel." The Horemheb and Nauri decrees show that: "Those who were 'corvéable' ... might be subject to the arbitrary control of some powerful local official acting on his own interests without state sanction. This was by no means a minor problem since the unauthorized removal of personnel appears as a central concern for the institutions to which they were attached ..."

<sup>&</sup>lt;sup>5</sup> Andrew Monson, review of Hans van Wees, *Ships and Silver Taxes and Tribute: A Fiscal History of Archaic Athens* (2013), *Bryn Mawr Classical Review*, August 2014 #42.

<sup>&</sup>lt;sup>6</sup> Goelet elaborates: "In the Horemheb Decree, those people most directly affected by the abuses appear to have been the independent individuals typical of rural life such as fishermen, herdsmen, or the agricultural workers called nḥmw, who might be comparable to our notion of freemen. ... All such edicts aimed to shelter people who were deemed to be working on the king's behalf, especially if they were on institutional lands. ... it seems that the peasantry was often vulnerable to compulsion or even long-term subjugation by powerful individuals. This is hardly surprising, yet these edicts show that occasionally this vulnerability extended even to the wealthier stratum, including the administrative class, in the countryside."

Palaces remained dependent on local officials or contractors to supply labor, resulting in a political tug of war. Assyriologists have found a similar reliance of Ur III and Babylonian rulers on local clan heads or *lu-gal* "big-men" acting as contractors to supply labor and military support, especially in Mesopotamian "intermediate periods."

To assert palace claims on labor over local creditors, Enmetena, Urukagina, Ur-Nammu, Shulgi, the rulers of Hammurabi's Babylonian dynasty, Hurrian and Amorite rulers proclaimed debt moratoriums. These Clean Slates prevented creditors from holding labor in bondage that would have prevented their serving in the army or being called up for corvée labor. Rulers annulled agrarian "barley" debts, liberated bondservants to return to their families, and returned crop rights to debtors who had pledged them to foreclosing creditors. Such royal proclamations provided the model for the Biblical Jubilee Year of Leviticus 25, as our volume on *Debt and Renewal in the Ancient Near East* has documented. The effect was to re-start a ruler's reign with the economy in financial balance (although commercial "silver" debts were not covered by such proclamations).

No interest-bearing debt is found in the Linear B records, but a similar tension existed between the palace and local authorities. Palaima distinguishes Mycenaean palace administrators from "collectors" or "mobilizers" acting as entrepreneurial contractors. He suggests that mobilizing labor in the outlying areas relied on pre-existing systems headed by "local big men ( $g^w$  asil $\bar{e}$  wes) or sib groups, clans and elder (gerontes and geronsiai)."

After palace control ended c. 1200 BC, local Greek power reverted to local heads. As our privatization volume has described, *basilai* managers disappear from palace records with the ending of Linear B documentation in 1200, and reappear around the 8<sup>th</sup> century BC as "kings" independent of central authority. In this sense one can view classical antiquity as a long "intermediate period" of lapsed central control until Roman times.

## From the corvée to commodity-producing enterprise

Steinkeller points out that Ur III "building narratives emphasize the fact that among the workers employed on such projects 'no one received a higher or a lower wage,' an indication of the remarkable – and quite unusual – degree of equality that existed among the participants of these undertakings." Wages for major building projects "were very generous, since, apart from a monthly salary of between 30 and 60 liters of barley, they included a daily food allowance, consisting of 2 liters of bread, 2 liters of beer, and 2 shekels of fat," and often dates, cheese and sesame bran. By the neo-Babylonian period, Jursa reports: "While there were difference in the size of rations owing to age, there were few and far less pronounced distinctions on the basis of profession and rank." Young apprentices received 60 liters of barley a month, unskilled labor 90 liters, and trained workers 180. Remuneration for skilled labor was negotiable.

Meanwhile, the aims of production had been widening since the fourth millennium to include large-scale commodity production employing manual labor that was more dependent,

and also specialized skilled labor and a managerial class. Southern Mesopotamia needed to trade to obtain metals and stone not found in local soils. Meeting this challenge required workshops to produce exports, mainly by dependent and proto-wage labor overseen by a temple or palace hierarchy, from foremen and scribe accountants to chief administrators. A merchant class was required to organize and conduct this trade, and also credit formalities to reimburse the large institutions for their advance of goods.

Skilled and specialized craft labor and technology were centered in temple and palace workshops but also worked "off the books," evidently on a piecework basis for whoever could pay for their services. It seems that wives and daughters from the free community also earned money working at weaving or other handicrafts in addition to their household work on the land. Jursa's paper shows that private for-hire contracts became widespread by the Neo-Babylonian period.

The standard adult male wage of 2 sila per day seems to have remained remarkably stable over the millennia. This stability reflects the fact that there was no labor "market" fluctuating in response to shifts in supply and demand, and no natural tendency for wages to reflect rising productivity or profit rates.

Textiles were Mesopotamia's major export, <sup>9</sup> and the employment of non-slave labor is best typified by the widows and war orphans assigned to weaving and other handicrafts in its temple and palace workshops. In contrast to the public infrastructure created by corvée labor, commodity production for trade aimed at gaining a monetary surplus by what today's economists call profit centers.

<sup>&</sup>lt;sup>7</sup> But not altogether out of the cuneiform record. In his paper to this colloquium (not included in this volume), Johannes Renger, points out that *naditu* are documented as hiring workers to tend their fields, and cites M. Weitemeyer, *Some Aspects of the Hiring of Workers in the Sippar Region at the Time of Hammurabi* (1962) and other studies. Regarding such informal labor, Goelet observes: "Once a member of the crew, that state (or royal) affiliation does not seem to have prevented the village's craftsmen from occasional work on their own behalf, even leading to an "informal workshop" for which they could produce funerary goods for other private individuals, separately from their regular activities on behalf of the state."

This was the equivalent of 1.6 to 2 liters of barley rations. Summarizing the points he outlined in "Zur Rolle von Preisen und Löhnen im Wirtschaftssystem des alten Mesopotamien an der Wende vom 3. zum 2. Jahrtausend v. Chr. - Grundsätzliche Fragen und Überlegungen," AoF 16 (1989):234-252, Johannes Renger's paper at the colloquium (not included in this volume) notes: "Over centuries the amount of the barley rations did not change. According to the Persepolis documents (4<sup>th</sup> cent. B.C.) the daily ration was still ca. 2 sìla. Even in the Mediterranean in the 16. cent. A.D. the annual provision for an able bodied worker was the same as in Mesopotamia in the 3<sup>rd</sup> and 2<sup>nd</sup> millennium." See also W. Scheidel, "Real Wages in Early Economies: Evidence for Living Standards from 1800 BCE to 1300 CE," JESHO 53 (2010) 425-62. The exception to normalcy occurred in emergencies such as when Lagash was attacked by Umma.

<sup>9</sup> These were woven mainly by poorly paid female labor –full-time dependents ("widows and orphans") and also part-time labor employed by the large institutions. No doubt these women normally were dependent on the husbands. One finds even today low-wage female labor producing exports in Korea, where their husbands earn enough working in the domestic economy to subsidize such export production. For a discussion of Ur II textile production see H. Waetzoldt, "Compensation of Craft Workers and Officials in the Ur III Period," in M. A. Powell, Labor in the Ancient Near East (1987):117-142, and Rita Wright, Gender and Archaeology (University of Pennsylvania, 1996). Women also were employed in corvée construction work.

Managerial innovation was as important as material technology. Above all, writing was required for account keeping. Babylonian training exercises called for calculating the labor time and hence food needs (easily converted into silver-value) for corvée labor to make bricks and construct walls, move earth and dig canals. From Uruk to Lagash we find a labor-time/dietary basis for economic planning by accountants calculating monthly food needs per worker, categorized by male, female, older and younger children.

Egyptian sources suggest that scribes were not from elite families. Their profession was independent from property owning. But their planning and writing functions helped support authority and economic control. In fact, only large complex institutions could have created the measures needed for market exchange to develop. Weights and measures, money and salaries had to be standardized, along with prices and remuneration rates, to schedule the flow of food and raw materials.

All this required cost accounting to regularize the distribution of food and raw materials. An administrative managerial calendar with equal 30-day months enabled grain disbursements to be convertible into bread equivalents, and into silver at standard ratios for accounting purposes, valued in terms of a common monetary denominator. These calculations were a prototype of modern input-output tables. So in addition to (1) writing, the resulting account keeping system involved (2) standardization of measures and weights to supply labor with food and raw materials, (3) cylinder seals to establish administrative responsibility for receipt of goods and their storage, and (4) a schedule of administered prices to monetize payments in barley, silver, copper and other basic commodities to the palace, its collectors and the rest of the community. Silver acted as money, the measure against which other commodities were valued, with fixed price ratios for grain, copper and other commodities involving payments to and within the temples and palaces.

These flows of food and materials required (5) a standardized administrative calendar of equal 30-day months to replace the lunar months of variable length. The sexagesimal (60-based) system of fractions provided the basis for denominating (6) calendrical weights and measures, and an easily calculated rate of interest on advances to merchants and entrepreneurs.

Unfree labor that lost its liberty and self-support land

Goelet states a principle for Egypt that also applies from Mesopotamia to Rome: "One way or another, from the pharaoh or from the inter-related nobility that controlled Egypt's land, the entire working class of Egyptian society — effectively 95% of the population — was effectively unfree and bound to the orders of some superior from childhood right through old age." But some labor was less free than others.

Widows and orphans taken out of the family-based context on the land wove textiles in temple workshops, remunerated at a set rate, making products for sale to obtain silver, tin and gold. Half a century ago Maurice Lambert described the Sumerian bureaucracy as instituting austerity to squeeze out an economic surplus.<sup>10</sup> Rations were minimized by Lagash's ruler Lugalanda when his nubanda administrator Eniggal restructured the accounting system during the city-state's war with Umma.<sup>11</sup> The dependent work force (which included some enslaved mountain girls) had little alternative but to submit, being dependent on the administration to provide food and shelter.<sup>12</sup>

Unlike the takeoff of modern capitalism, labor was not forced off its self-support land to seek a livelihood as landless wage earners. An ever-present option was not to remain in the community. Flight occurred in times of economic hardship or oppression, natural disasters, crop failure, drought or flooding. Fugitives from the land after 1600 BC in Babylonia joined bands as migrant workers or outlaws. The word *hapiru* has been used to refer to such outcasts.

Slavery was not an important source of public labor in Egypt in the New Kingdom, except for war prisoners consigned to near-death work in the mines. Male slavery was relatively secondary, and often took the form of debt bondage that likely was subject to pharaonic amnesties as in Mesopotamia. Most bondservants and slaves in both regions were female house servants – the daughters and slave girls pledged to work as year-round household servants for creditors, with sexual overtones. (Earlier volumes have pointed to debt bondage as a path of least resistance to obtain labor services.) But at least bondservants were liberated by royal Clean Slates enabling Near Eastern debtors to return to their families of origin.

These amnesties ended by classical antiquity. And the condition of slaves worsened as their role shifted from that of family members (the Latin word *familia* means "slave," a normal member of households) to being put to work in large-scale agricultural and handicraft production. In Athens slaves were foreign, and public labor was drudgery performed mainly by non-citizen metics. Dispossessed Roman citizens became mercenaries, fighting to extend the empire that had expropriated them for debt. Industry was associated with servile labor, mainly by dependents forced into clientage on the estates of large landowners. "The very wages the laborer receives are a badge of slavery," wrote Cicero. He yimperial Roman times a quarter of the population was reduced to debt bondage or slavery, ending up being housed in barracks on landed estates as economic life de-urbanized.

<sup>&</sup>lt;sup>10</sup> Maurice Lambert, "La naissance de la bureaucratie," *Revue Historique* **224** (1960), pp. 1-26, and "Le premier triomphe de la bureaucratie," *Revue Historique* **225** (1961), pp. 21-46.

<sup>&</sup>lt;sup>11</sup> Lambert, "Recherches sur la vie ouvriers," *Archiv Orientlni* **29** (1961), pp. 427-38.

<sup>&</sup>lt;sup>12</sup> Lambert, "La Guerre entre Urukagina et Lugalzaggesi," Rivista degli Studi Orientali **41** (1966), pp. 34ff.

<sup>&</sup>lt;sup>13</sup> See J. Renger, "Flucht als soziales Problem," D.O. Edzard (ed.), *Gesellschaftsklassen im Alten Zweistromland und in den angrenzenden Gebieten* – XVIII. Rencontre assyriologique internationale, München, 29. Juni bis 3. Juli 1970 (1972), 167-182.

<sup>&</sup>lt;sup>14</sup> Cicero, *De officiis* I, 150f. "To work for a private employer was regarded as 'slavery,'" writes Sarah C. Humphreys, *Anthropology and the Greeks* (London, 1978), p. 147.

To trace how the conditions of labor shaped economies, their property rights and fiscal policy over time, this colloquium has focused on eight major themes:

**Theme #1**: Steinkeller emphasizes that the labor problem down through the Bronze Age was a shortage, not a modern "reserve army of the unemployed" driven off the land. The organization of work to build basic infrastructure could not have been too coercive, because its participants would have run away. The corvée had to be organized with widespread assent. Lehner's report of large volumes of remains of slaughtered animals indicating great feasts for Egypt's pyramid builders seems to reflect long-standing practice throughout the ancient Near East.

**Theme #2**: Being organized communally in the first instance, the "output" of labor was not marketable or had exchange value. The work produced social value, creating ceremonial buildings, city walls, irrigation systems and roads as "social capital." Remuneration rates for such infrastructure projects could not have been based on "economic" value. Hence, modern supply and demand curves for labor based on the market value of its output are not relevant.

Third millennium temple and palace records show manual labor being paid at standardized rates, ranked by sex and age (and in time by occupation). The basis for most salaries or proto-wages was what adult men, women and children needed for basic sustenance. Schoolbook exercises calculated the food needed per worker, denominated in grain or bread equivalents directly convertible into standard weight units of silver money. By neo-Babylonian times such wages were paid directly in silver.

**Theme #3**: Although they were only a small part of the labor force, skilled craftsmen required a broad range of collateral support activities to supply raw materials, schedule their delivery and provide tools. This large scale required management, oversight, account keeping and credit, and therefore was centered in the temples and palaces (and on large estates whose owners usually were associated with the temples or the royal family).

**Theme #4**: Mesopotamian institutions and households obtained wealth largely by foreign trade, producing handicrafts and consigning them to merchants. Most trade was conducted by merchants via their positions in the temple or royal bureaucracies, precisely because these large institutions were catalysts for entrepreneurial trade and the major employers of skilled craft labor.

As temple and palace activities were increasingly privatized in the hands of merchants and leasors of land or public enterprises, the resulting mixed economies had what today would be called a conflict between public and private interest.

**Theme #5**: Labor-for-hire started as a marginal phenomenon. Well-to-do citizens could hire surrogates to perform their corvée duty – typically younger brothers or other relatives. Unlike manual labor for construction or canal digging, handicraft work typically was

remunerated on a piecework basis. Weavers worked at home, much like those in England before power looms were introduced. <sup>15</sup> But by neo-Babylonian times, part-time or piecework labor by skilled craftsmen was more frequent, as was seasonal harvesting work.

**Theme #6**: Agrarian and personal usury became a major means to obtain labor services through debt bondage, and in time to pry away land rights as credit came to be privatized by *tamkarum* merchants and palace collectors. These "Big Men" sought control of labor at the expense of the palace and central fiscal authority that sought to maintain land tenure rights/obligations as a means of assigning responsibility for providing corvée labor and service in the army.

Theme #7: Mesopotamia's large institutions were creditors not debtors. Most personal and agrarian debts took the form of obligations to these institutions for advances of agricultural inputs or consumer goods. Collectors in the royal bureaucracy charged usury on arrears for these advances. Such debts increased sharply in times of drought, flooding and military hostilities. Falling into debt became the major dynamic leading to economic inequality as citizens lost their personal liberty and land tenure rights. Rulers restored stability by proclaiming royal Clean Slates that rescued debtors from bondage by clearing away the personal debts, bond servitude and land forfeitures that had occurred since the last such edict. These annulments had the fiscal effect of preventing the loss of corvée labor and military service to creditors and local Big Men.

**Theme #8**: In time, the way in which debt problems were resolved became the major factor determining the status of labor. Enforcing debt claims led to creditor foreclosure on the liberty of debtors, and ultimately their land rights.

By the 8<sup>th</sup> century BC, Near Eastern commercial practices were brought westward to Mediterranean lands that lacked the traditions of entrepreneurial temples or royal Clean Slate edicts. The replacement of Clean Slates and kingship by creditor oligarchies distinguishes classical Greece and Rome from earlier Near Eastern experience. Although the 7<sup>th</sup> century BC saw populist "tyrants" overthrow landed oligarchies, followed by Solon's banning of debt bondage for Athenian citizens, the status of free citizens became more debt-ridden. Foreclosure became a major means of obtaining dependent labor and ultimately monopolizing most of the land, impoverishing a population falling into clientage and bondage by the time of the Roman Empire. As landholders became creditors at the top of the economic pyramid, they managed to avoid taxation and other public obligations, impoverishing the domestic market and replacing the money economy with barter. Demographic and commercial shrinkage ensued.

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<sup>&</sup>lt;sup>15</sup> Renger, "Zur Rolle ..." *op. cit.*, pp. 234f. cites the Law-book of Daduša from Ešnunna §14 stipulating wages paid based on the weight of a garment to be finished by bleaching or washing.

#### Conclusion

"In the beginning," performing communal work under the corvée and conscription in the military must have been seen by its participants as part of society's survival. It must have seemed natural that members of the community, citizens or "sons of the city" would work for what was viewed as common needs, such as building public monuments and city walls or digging local irrigation ditches.

The Bronze Age and classical antiquity added new layers to the Neolithic mode of organizing labor. From the corvée to temple and palace workshops and the fiscal levies found in Linear B records, Sumer, Babylonia, Egypt and Mycenaean Greece developed account keeping largely to organize and provision labor. In tracing this evolution the present volume extends what has been a central theme of all five colloquia we have held over the past twenty years: the role played by chieftains, temples, palaces and other civic institutions in creating the preconditions for markets and enterprise to develop, and the subsequent privatization of labor and enterprise.

Mobilization of corvée labor was linked to the tax system, which was based on land tenure. Property rights were part of society's system of providing itself with public labor, by requiring landholding citizens provide public service. By Roman times the concept of class was explicitly military, defined by the landed wealth needed to outfit and support oneself at a given rank. The status of labor was ground down to slavery or dependency that led to demographic shrinkage, stabilized only by medieval serfdom. As late as medieval feudalism, William the Conqueror ordered compilation of England's Domesday Book in 1086 to assess the land's ability to pay a crop tax.

The modern world has dissociated landholding rights and wealth from such reciprocal responsibilities. The fiscal burden is being shifted increasingly onto labor, obliging consumers to pay sales taxes and, as employees, income tax and other wage setasides, while facing rising indebtedness to obtain their basic needs. As occurred in late antiquity, the result is to polarize society economically by forcing labor into deepening dependency.

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