



Origins of the One Percent: the Bronze Age

John Zerzan

With the Neolithic Age we entered the force field of domestication, leaving—not without a struggle—the free, face-to-face world of band society/community. Ever-larger settlements, more work, the emergence of warfare and the objectification of women were among the hallmarks of the new order, starting about 10,000 years ago.

But the new era was unstable, domination far from perfected. Sedentary, agriculture-based life posed unforeseen challenges in social, economic, ideological/political, and spiritual spheres. The move from personalized Paleolithic reciprocity to bulk Neolithic resource acquisition, production and distribution was far from smooth. New modes were needed for domestication to become civilization.

The transition from foraging to farming is widely recognized as the most profound revolution in human history. It is the revolution *into* history, and must have commanded a completely new set of responses to a newly inhabited reality. For one thing, direct, consen-

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sual decision-making no longer worked among the burgeoning populations of early complex society. A new level of control and management had to be established. Politics began. Appropriate mental frameworks had to be forged for an increasingly stratified social existence to function. And domestication brought, for the first time, devastating epidemics that resulted from crowded, stationary settlements, along with greatly reduced health and robustness overall. Out of this wrenching defeat, according to Jacques Cauvin, came “all the existential malaises” usually thought of as much later developments.¹

We know that given a choice, humans prefer to remain hunters and gatherers; we do not settle permanently into the toil of farming until it is forced upon us. The triumph of the Neolithic was that forcing. But domination is not inexorably or invariably linear and unidirectional, and by about 6000 B.C. the Neolithic order was beginning to fray.

Upon its ruins the Bronze Age slowly emerged, with a marked acceleration in social complexity: larger communities tending toward structured social stratification. The challenge was to engineer a new consolidation of authority to counter the social fragmentation that had occurred. The overall Neolithic ideology and its ritual structures needed replacing.² For example, a sense of individual property had not yet replaced the community sense of property (e.g. the persistence of village herds). A second Agricultural Revolution—the Bronze Age—was required to draw (or re-draw) and more thoroughly enforce divisions and boundaries: to anchor domestication.³

¹ Jacques Cauvin, *The Birth of the Gods and the Origins of Agriculture*, translated by Trevor Watkins (New York: Cambridge University Press, 2000), p. 205.

² Ian Kuit, “People and Space in Early Agricultural Villages: Exploring Daily Lives, Community, Size and Archaeology in the Late Pre-Pottery Neolithic,” in *Journal of Anthropological Archaeology* 19 (March 2000), pp 96–99.

³ John Baines, “Public Ceremonial Performance in Ancient Egypt,” in Takeshi Inomata and Lawrence S. Cohen, eds., *Archaeology of Performance* (Lanham, MD: AltaMira Press, 2006), p. 263.

The first civilizations are based on the solutions to such challenges, on success at channeling energies into an altogether new scale of organization (e.g. cities), of rulership, aggression, militarism, and empire building. Fertility, a staple of domestication, was expanded into great symbolic importance in all early civilizations.

As daily life grew harder, religion presented distant horizons of happiness. Belief in an enhanced life after death appears to have been stronger in territorial states than in city-state systems.⁴ Stronger, that is, as political power extended itself.

Theocratic classes served as new organizing authorities, while the deities themselves reflected the always-advancing principle of specialization. Each had his or her allotted sphere and role. The gods needed the service of monarchs and priestly bailiffs to execute religious requirements. But despite the divine sanction or legitimation accorded to political figures, they were not immune from assassination, and the threat of violence was needed to collect taxes in early civilizations.

Art and architecture partook of the growing social complexity, reflecting the developing class hierarchy and performing ideological, social-regulatory functions. Spectacle was a new cultural component, making its appearance early on in the service of social integration. Public performance, like ritual, was often highly regimented or structured, and thus paralleled the authoritarian relations closing in among people. As John Baines observes, “It is difficult to imagine any but the smallest-scale and least differentiated society that would exist without some sort of spectacle.”⁵

Another ideological support for domestication was the emerging time-consciousness that seems to have accompanied ever-increasing division of labor. In its cruder, public form, the evidence

⁴ Bruce G. Trigger, *Understanding Early Civilizations: A Comparative Study* (New York: Cambridge University Press, 2003), p. 673.

⁵ John Baines, “Public Ceremonial Performance in Ancient Egypt,” in Takeshi Inomata and Lawrence S. Cohen, eds., *Archaeology of Performance* (Lanham, MD: AltaMira Press, 2006), p. 263.

shows that all regimes of early civilizations bureaucratically commandeered time, from Stonehenge-type time computers at the beginning of the Bronze Age to the calendars that regulated official cycles and events.

Literacy is exactly congruent with state formation; the one develops in parallel with the other. As written signs take precedence over memory, a ruling version of reality can be made. Writing provided a great instrument to power and is not only, in Stanley Diamond's words, "one of the original mysteries of civilization," but also its "compulsive rite."⁶

For the past 1000 years in the Western world, history has been divided into modern and pre-modern. As distant in time from the Greek and Roman eras as we are today, the Bronze Age is certainly buried in the pre-modern. But as we think our present-day, modern thoughts, how different are they, really, from those thoughts in the first, Bronze Age civilizations? How many deep habits of mind, institutions, routines, go back to the Bronze Age and its brand-new spirit and ethos? Was that not the origin of the notion, so basically corrosive to autonomy and freedom, that inequality and hierarchy are normal conditions and that misfortune is not a social evil but an individual's just deserts? A notion so obviously still with us. The Bronze Age devised a mechanical order several millennia before sophisticated power-driven machinery, a stratified order that is "the basic exploitation system which has lasted until the present day."⁷

Early on, what Marx called "domestic" or household industry was already market-oriented, and the consensus is that overall, the Bronze Age was a market economy.⁸ Long-distance trade, occupational/full-time specialization, supply/demand-determined prices,

⁶ Stanley Diamond, *In Search of the Primitive: A Critique of Civilization* (New Brunswick, NJ: Transaction Books, 1974), pp 4, 3.

⁷ Graeme Baker, "The Conditions of Cultural and Economic Growth in the Bronze Age of Central Italy," in *Proceedings of the Prehistoric Society* (1972), p. 204.

⁸ Oystein S. La Bianca, Introduction, in Oystein La Bianca and Sandra Arnold Scham, eds., *Connectivity in Antiquity* (London: Equinox, 2006), p. 7.

religion's next phase, was part of the turning-point rescue mission at a time of disintegration. Freud blamed Akhenaton for monotheism, but the Egyptian had failed to establish it in his own culture.

"Should we be surprised to learn that the first truly large societies had to be assembled by force, and eventually broke apart?" asks Kent Flannery.¹⁴² Early civilizations, Mesopotamia and Egypt included, were "characterized by resistance to state power and therefore by instability and periodic breakdown."¹⁴³

We are still in the Iron Age, civilization's current pacification effort, in the techno-industrial era of that age. Collapse has to be understood as an aspect or consequence of development itself, especially when the movement of civilization has meant more work, greater discipline, more elaborate social hierarchies, and greater economic inequality, not to mention grave psychic dislocation and impoverishment, and the destruction of nature.

Early civilizations exhibit many features that we encounter today, and one could see mass society already present in Bronze Age societies. The project of control and integration is unremitting, and as we have seen, it is not always successful. Worlds that are complex and unsatisfactory require constant legitimation and re-legitimation, evolving approaches and institutions.

As Mumford put it, "The sudden evaporation of meaning and value in a civilization, often at the moment when it seems at its height, has long been one of the enigmas of history."¹⁴⁴ Civilization today--a single, universal reality, its fearful toll terribly evident--is far from its "height." An opportunity to end it lies before us.

¹⁴² Kent V. Flannery, "Process and Agency in Early State Formation," *Cambridge Archaeological Journal* 9:1 (April 1999), p. 18.

¹⁴³ Trigger, *op.cit.*, p. 27.

¹⁴⁴ Mumford, *op.cit.*, p. 69.

capital investment, credit, and other "modern" features are observable by the 4th millennium B.P. Such capitalist aspects have existed in all the civilized countries of the world for as far back as economic evidence can take us. Sam Lilley saw pottery as "the first mechanized production industry, the first step on the way to the mass production factory of today."⁹

Extraction and smelting of metal ores was a principal motor of Bronze Age society, with metallurgy stimulating all other productive activities.¹⁰ Childe found that "modern science and industry...go back to the period when bronze was the dominant industrial metal."¹¹ By this time, production was taking place well outside the house, and moving from luxury goods for temple and palace elites toward mass consumption.

Theodore Wertime has suggested that the principal cause of deforestation was the demands of ancient metallurgy.¹² Of course, land was also cleared for agriculture, especially after the appearance of new inventions such as the plow. Vast forests (of date-palms and many other trees) were eradicated across the Near East.

From an earlier self-sufficiency to a growing dependence on experts, technological complexity brought a division of the self into narrowing roles. One's skills were no longer relatively interchangeable, as they had been in a more egalitarian society. Social class derives from this most basic division; despite Marxist claims, class society did not originate with modern industrial society. It was there very early on and was institutionalized by civilization. The individual was enfeebled, fractionalized, without the understanding or

⁹ Sam Lilley, *Men, Machines and History* (London: Cobbett Press, 1948), p. 8.

¹⁰ Herbert J. Muller, *Freedom in the Ancient World* (New York: Harper & Brothers, 1961), p. 25.

¹¹ V. Gordon Childe, *The Bronze Age* (New York: Cambridge University Press, 1930), p. 3.

¹² Theodore A. Wertime, "The Furnace versus the Goat? Pyrotechnic Industries and Mediterranean Deforestation," *Journal of Field Archaeology* 10 (1983), pp 445-452.

control he/she had in smaller, less complex communities. Society moved away from its constituents, became opaque, something beyond the life of the individual: the path to urban civilization, emerging after 4000 B.C.

Slavery, nonetheless, was “less extensive and oppressive than in many later preindustrial societies,” in Bruce Trigger’s judgment.¹³ Marxists are wrong to assert that early civilizations were slave-based, as they are in error regarding a more recent formation of social classes than was the case.

People had to “tame” themselves to live in cities, that core component of civilization, and cities couldn’t exist without “intensive plant and animal domestication.”¹⁴ The taming goes on, of course (e.g. genetic engineering, nanotechnology); control, its working logic, is what maintains and reproduces civilization. In terms of daily life, notes Monica Smith, “there are considerable similarities between modern and ancient cities.”¹⁵ It is obvious that we are still faced with the social, ethical, and political problems that urban civilization introduced.

The city was “a completely new kind of settlement.”¹⁶ No early civilization, according to Trigger, had an egalitarian village base.¹⁷ The emergent urban identities rested upon an imagined and enforced community, as if communal egalitarian foundations survived, albeit in new forms. New, but grounded upon a highly organized system of production a long time in the making. A whole

¹³ Trigger, *op.cit.*, p. 48.

¹⁴ Elman Service, *Origins of the State and Civilization* (New York: Norton, 1975), p. 223.

¹⁵ Monica L. Smith, *The Social Construction of Ancient Cities* (Washington, DC: Smithsonian Books, 2003), p. 28.

¹⁶ Vicente Lull and Rafael Nico, translated by Peter Smith, *Archaeology of the Origin of the State* (New York: Oxford University Press, 2011), p. 184.

¹⁷ Trigger, *op.cit.*, p. 52. There is some controversy as to whether a few large Neolithic settlements, such as Jericho and especially, Catal Huyuk (in present-day Turkey) constituted cities.

this epoch,¹³⁶ likely evidence of movement away from what might be desired in society.

Egypt, after a long, relatively inward-looking orientation, created one of the world’s earliest empires. By dominating Syro-Palestine and Nubia it temporarily achieved economic advances and overcame challenges to social order. But militarism only postponed the breakdown of political authority, exacerbated by major environmental destruction. The land surrounding the Nile, for example, had been turned into barren desert by overgrazing and deforestation.¹³⁷

There had been a very significant crisis earlier (from circa 2150 B.C.), a so-called Dark Age that resulted in political fragmentation. Every form of looting, riot and revolution had broken forth, shattering the façade of royal security.¹³⁸ But the final breakdown, delayed by imperial adventure, came in about 1200 B.C. and brought an end to all Near East Bronze Age civilizations. A rather sudden and definitive collapse. The late Bronze Age, with its industrial progress, was a time of social turmoil and chronic war,¹³⁹ now the universal mark of civilization. The project of control and integration failed, as nomadic groups grew in prominence and palaces fell.

A “dramatic reorganization”¹⁴⁰ was urgently needed, and the new Iron Age arose to establish more efficient systems of power and dependence. World (“Axial”) religions responded to those disoriented by the hollowness of civilization’s achievements.¹⁴¹ Monotheism,

¹³⁶ Jack Goody, *Food and Love: A Cultural History of East and West* (New York: Verso, 1998), p. 242.

¹³⁷ Donald J. Ortner, *How Humans Adapt: A Biocultural Odyssey* (Washington, DC: Smithsonian Institution Press, 1983), p. 202.

¹³⁸ Carlton, *op.cit.*, p. 67.

¹³⁹ Childe, *op.cit.*, pp 192–193.

¹⁴⁰ A. Sestiari, A. Cazzella, and A. Schlapp, “The Mediterranean,” in Barry Cunliffe, Wendy Davis, and Colin Renfrew, eds., *Archaeology: The Widening Debate* (Oxford: Oxford University press, 2002), p. 427.

¹⁴¹ Mumford, *op.cit.*, p. 77. See John Zerzan, “The Iron Grip of Civilization: The Axial Age,” in my *Twilight of the Machines* (Port Townsend, WA: Feral House, 2008), pp 27–37.

were accorded “a significant place in Middle Kingdom literature.”¹²⁹ Love relationships, including marriage, could be fluid and complicated, causing the Janssens to observe that “perhaps in this respect Pharaonic Egypt most resembles our own days.”¹³⁰

At the end of the era the Greek Herodotus made note of the freedoms of Egyptian women: “in their manners and customs the Egyptians seem to have reversed the ordinary practices of mankind. For instance, women go to market and engage in trade, while men stay home and do the weaving.”¹³¹ A little later still, Philon was even more shocked: “As things are now, some women have reached such a degree of shamelessness that they not only, though they are women, give vent to intemperate language and abuse among a crowd of men, but even strike men and insult them...”¹³² These comments may say more about their authors than about the position of women in Egypt, but Erika Feucht is on solid ground in concluding that their standing was “stronger than that of their modern sisters.”¹³³

From the Bronze Age as a whole, we have most of our present-day craft or hand tools, including hammers, chisels, drills, etc. Also pails, wire, safety pins, tweezers, razors, and many other common implements. The pervasive consumer culture practice of branding was begun in the 4th millennium, to boost sales.¹³⁴ There was a surprising amount of metalwork left on the ground, and thus wasted, in Bronze Age locales,¹³⁵ which could remind us that our throw-away practices are nothing new. Notions of Utopia first arose in

¹²⁹ *Ibid.*, p. 145.

¹³⁰ Janssen and Janssen, *op.cit.*, p. 113.

¹³¹ Herodotus, *History* II.35, Quoted in Sennett, *op.cit.*, p. 381.

¹³² Quoted in Jack Lindsay, *Leisure and Pleasure in Roman Egypt* (New York: Barnes & Noble, 1966), p. 346.

¹³³ Feucht/Donadini, *op.cit.*, p. 346.

¹³⁴ David Wengrow, “Prehistories of Commodity Branding,” *Current Anthropology* 49:1 (2008), pp 7–34.

¹³⁵ A.F. Harding, *European Societies in the Bronze Age* (New York: Cambridge University Press, 2000), p. 352.

chain of specialized activities laid the groundwork for and maintained the integration process represented by full-blown cities.

While it is difficult to make inferences about ideology from archaeological evidence, it seems valid to see routine activities as the most basic component of a minimum of social cohesion and stability. Technology, especially in its organizational sense, is never outside culture. Division of labor is itself a “technology” of social domination. Robert McC. Adams thus found cultural/political complexity to be “essentially technological,”¹⁸ and is this different today?

To the discipline based on routine must be added other civilizational forces. Referring to the early Bronze Age in Syria, Lebanon and Palestine, James Mellaart found a very characteristic feature of urbanization in a “gradual uniformity of culture.”¹⁹ Heidegger saw here a threat of “destructive error”²⁰ that cities bring to thought.

When a city, dependent on its surroundings as every city is, has imposed its control over a region, it is thereby a “state.” A city must guarantee the inputs required for its survival, must police its trade arteries, and this is the near-universal process in state formation (and war). Civilizations commonly evolve from city-states to territorial states, and finally, to empires.

From the egalitarian world of band society in the Paleolithic there is an evident shift to ranked tribal societies in the Neolithic. The latter often included face-to-face relationships among those of lesser and greater power, within small-scale networks. But “all the quali-

¹⁸ Cited in A. Mederos and C.C. Lamberg-Karlovsky, “Weight Systems and Trade Networks,” in Jeremy A. Subloff and C. C. Lamberg-Karlovsky, eds., *Ancient Civilization and Trade* (Albuquerque: University of New Mexico Press, 1975), p. 207.

¹⁹ James Mellaarts, *The Chalcolithic and Early Bronze Ages in the Near East and Anatolia* (Beirut: Khayats, 1966), p. 59.

²⁰ Quoted from Martin Heidegger, “Why Do I Stay in the Provinces?” in Thomas Sheehan, ed., *Heidegger: the Man and the Thinker* (Chicago: Precedent Publishing, 1981), p. 29.

tative components of the state were already present to some degree among advanced chiefdoms,” in Marvin Harris’ words.²¹ Developed chiefdoms were not unlike simple states.

The state uses force, or it cannot be considered a state. A sense of human inadequacy grew apace as expansion and growing differentiation passed well beyond human scale. Gift obligations, for example, were replaced by tribute and the tax collector. And yet, as Trigger concludes, “In all early civilizations, families, wards, and small communities were permitted and even encouraged to manage their own affairs, to a much greater degree than is characteristic of developed industrial societies.”²²

The state and the new authority relations were phenomena unknown to humans for most of our 2.5-million-year history. During the Bronze Age, civilization was imposed as an abnormal condition, locking the door of a social cage that had only been closed, not secured, during the Neolithic.

All civilizations are the institutionalized appropriation by a small ruling elite of most of what is produced by the submerged classes. Their political/legal structures frequently claim to serve their subjects, but of course, then as now, they exist to protect the privileged position of a few. Punishments enacted by early states, though often cruel by modern standards, do not reflect the strength of law enforcement. They are better understood as testimony to the weakness of coercive authority, its need for drastic measures.

It was once thought that palaces and temples defined Bronze Age life, but this was due to the preponderance of evidence from such sources. More recently, artifacts from other institutions and groups have shed light on other important participants and factors. For instance, urban centers led to accelerated consumption by individuals, in dense networks of interaction. Later, in the Iron Age, Rome be-

²¹ Marvin Harris, *Cultural Materialism* (New York: Random House, 1979), p. 100.

²² Trigger, *op.cit.*, p. 196.

workers around 1170 B.C. was that their ration of ointment oil had not been provided.

A literature of romantic love, just as nuanced and complex as found in the West many, many centuries later, was part of the culture.¹¹⁸ Along with the growth of literacy, “school education is perhaps the best known aspect of growing up in Ancient Egypt,” paralleling the high regard for white-collar scribal professions.¹¹⁹ “One surprising fact about life...is the amount of letter-writing,”¹²⁰ the extent to which persons of “fairly ordinary status” corresponded.¹²¹

Intellectuals gravitated toward the larger cities,¹²² a tendency familiar to us. Tourism within Egypt was a popular pursuit.¹²³ By the late Bronze Age, festivals, celebrations, and entertainments were increasingly staged, and sports figures became glorified.¹²⁴ Justice was sought from the legal system and occasionally found, at least on the local level where juries were made up of average citizens.¹²⁵ Internalization of bureaucratic values was fairly widespread, as seen in career manuals that counseled a conformist, “quiet man” approach to success.¹²⁶

Women could own property, run businesses, become doctors, but did not have the same rights as men.¹²⁷ Various roles were open to them, but their status was unequal, their position much more dependent on the standing of their spouses.¹²⁸ Divorce was fairly common, and same-sex relations—between men, at least—

¹¹⁸ Meskell 2002, *op.cit.*, p. 127.

¹¹⁹ Janssen and Janssen, *op.cit.*, p. 89.

¹²⁰ Mertz, *op.cit.*, p. 142.

¹²¹ James, *op.cit.*, p. 165.

¹²² Carlton, *op.cit.*, p. 105.

¹²³ Mertz, *op.cit.*, p. 129.

¹²⁴ John A. Wilson, *The Culture of Ancient Egypt* (Chicago: The University of Chicago Press, 1968), p. 195.

¹²⁵ James, *op.cit.*, p. 88.

¹²⁶ Trigger, *op.cit.*, pp 627, 635.

¹²⁷ Erika Feucht, “Women,” in Donadini, *op.cit.*, p. 344.

¹²⁸ Meskell 2002, *op.cit.*, p. 56.

torch-lit night demonstrations and other forms of militant political activity “of a type more familiar from our own time.”¹¹¹

Ancient Egypt was somewhat less city-oriented than Mesopotamia, but did have towns and cities of considerable density.¹¹² Among their courtyards and byways, bars and suburbs, both opportunity and crime were present.¹¹³ At least some municipalities had elaborate sewer systems for waste disposal and state-provided laundry services.¹¹⁴ Meskell referred to evidence concerning urban masses “suggesting a richer material life than previously thought.”¹¹⁵ Casson tells us that despite the tombs, mummies, and grave art, Egyptians reveled in the refinement of living and “were a worldly, materialistic people.”¹¹⁶ There was also a relative simplicity; not a lot of property that needed guarding, and structures that were easily replaced in case of storms, flooding, or fire.¹¹⁷ A lesson for us, especially in our age of worsening, volatile weather.

Much activity and social life took place at the roof level, as today in Egypt. Senet (Egyptian checkers) was played on a board of 30 squares. An Old Kingdom relief displays nineteen kinds of bread. The domestic cat makes its appearance at about 2100 B.C. Many people wore almost nothing during the hot summers, using straws to sip drinks bought at booths, cooled with ice from the mountains. The siesta was observed, and of course survives in some countries. It may be telling that a key issue in a strike of Thebes necropolis

¹¹¹ Robyn Gillam, *Performance and Drama in Ancient Egypt* (London: Duckworth, 2005), p. 92.

¹¹² T.G.H. James, *Pharaoh's People: Scenes from Life in Imperial Egypt* (Chicago: The University of Chicago Press, 1984), p. 215.

¹¹³ Meskell 2002, *op.cit.*, p. 34.

¹¹⁴ Saggs, *op.cit.*, p. 122. McDowell, *op.cit.*, p. 59.

¹¹⁵ Meskell 2002, *op.cit.*, p. 36.

¹¹⁶ Casson, *op.cit.*, p. 145. Barbara Mertz, *Red Land, Black Land: The World of the Ancient Egyptians* (New York: Coward-McCann, 1966), p. 298.

¹¹⁷ Gaston C.C. Maspero, *Life in Ancient Egypt and Assyria* (New York: Frederick Ungar, 1971 [1892]), pp 2–5.

came known as the ultimate “consumer city,” but the movement in that direction was underway well before. The grid plan of urban design is also associated with Rome, but many of the oldest known cities were built on those lines.²³

As Michael Mann noted, “All civilizations of recorded history have engaged routinely in highly organized and bloody warfare.”²⁴ Civilizations began in violence and were extended via imperialism. Warrior society was a defining Bronze Age feature, serving to deflect internal contradictions and conflicts outward into territorial expansion. The military offered some upward mobility for those at the bottom, for instance.

According to Homer, this was an age of heroes and their long-distance quests. Most famously, the *Odyssey* recounts years of travel by Odysseus, a classical myth of the Trojan War (14th Century B.C.). A warrior elite fostered an ideology of heroic war leaders, complete with the Middle Bronze Age invention of the chariot. Militarism expanded the range of political control, and represented the most obvious phenomenon of all civilizations: patriarchy. Originating in the goal of conquering nature (domestication), society was increasingly “a man’s world.”²⁵ Virility now became a cardinal virtue.²⁶

Especially very recently there is much public discussion about globalization, about our supposedly rather new global interconnect- edness and interdependence. But it is actually “strikingly old,”²⁷ not much newer than the rise of the earliest cities. A key text is Frank

²³ Richard Sennett, *Flesh and Stone: the Body and the City in Western Civilization* (New York: W.W. Norton, 1994), p. 106.

²⁴ Michael Mann, *The Sources of Social Power, Volume I: A History of Power from the Beginning to A.D. 1760* (New York: Cambridge University Press, 1986), p. 48.

²⁵ Muller, *op.cit.*, p. 27.

²⁶ Kristian Kristiansen, *Europe before History* (New York: Cambridge University Press, 1998), pp 133, 411.

²⁷ Justin Jennings, *Globalizations and the Ancient World* (New York: Cambridge University Press, 2011), p. 17.

and Gills' *The World System*, which argues that "the contemporary world system has a history of at least 5,000 years."²⁸ It resulted from the confluence of the hegemonies of Mesopotamia and Egypt, and casts "a strong continuity"²⁹ with the world of today. William McNeill referred to "the emergence of the original ecumenical world system within which we live today."³⁰

Concurrent with the rise of civilization there appears history's first international system, an economically and technologically integrated entity. Andrew and Susan Sherratt maintained that it included such components as "the gold, the skills, the scale, the exotic materials, the sophisticated lifestyle, and the investment capacity."³¹ There are varying assessments as to when this globalization was achieved, whether it was earlier or later during the Bronze Age. But the common Marxist perspective, that a world system did not exist before the 16th century A.D., clearly misses the mark.

There were many and varied early civilizations on various continents; for example those of north China, Indus Valley India, Mesoamerica, and the Yoruba civilization of west Africa. To focus on civilization and mass society for this brief overview, however, I'll look at the earliest and most studied cases: Mesopotamia and Egypt.

Mesopotamia (roughly contiguous with Iraq) was home to some of the very oldest agricultural settlements. Begun somewhat before 8000 B.C., the domestication process had included most staple crops and herd animals by about 6000 B.C. The Tigris-Euphrates valley, often called the Fertile Crescent, also exhibited social ranking and stratification at least as early as the 6th millennium B.C. More dif-

²⁸ Andre Gunder Frank and Barry K. Gills, *The World System: Five Hundred Years or Five Thousand?* (New York: Routledge, 1993), p. 1.

²⁹ Kasja Ekholm Friedman and Jonathan Friedman, *Historical Transformations: the Anthropology of Global Systems* (Lanham, MD: AltaMira Press, 2008), p. 163.

³⁰ Quoted in Frank and Gills, *op.cit.*, p. 13.

³¹ Andrew and Susan Sherratt, cited in Frank and Gills, *op.cit.*, p. 21.

they were not needed."¹⁰² Eyre found "no evidence that the wage levels of the crew were ever reduced, either individually or collectively, because of absences from work."¹⁰³

The prominence of writing is clear at Deir-el-Medina, and "some workmen read Middle Egyptian classics for pleasure and not merely for training."¹⁰⁴ The degree of proletarian literacy and culture in ancient Egypt is a surprising fact.¹⁰⁵

Workers were fairly mobile, and in the case of unsolicited transfers were commonly displeased, much as in today's world. But legal agreements (and lawsuits) were far from rare, and neither were agreements that were explicitly labor contracts, it seems.¹⁰⁶ Skilled craftsmen and foremen often came up from the ranks,¹⁰⁷ and Marfoe noted an "emphasis on 'self-made' men and personal initiative [which is] a striking parallelism with the ethical changes and transformations of a later capitalistic age."¹⁰⁸

Despite whatever upwardly-mobile consciousness there may have been, class struggle was definitely present, especially toward the end of the Bronze Age. Strikes broke out during the reigns of Ramses III and IV in the twelfth and eleventh centuries B.C., often over late wages. The strikes of 1160–1153 B.C. are thought to be the first in history.¹⁰⁹ At times even the pharaoh couldn't get them back to work!¹¹⁰ Other heightened conflicts involved actions such as

¹⁰² *Ibid.*, p. 80.

¹⁰³ Edward Eyre in Powell, *op.cit.*, p. 178.

¹⁰⁴ McDowell, *op.cit.*, p. 137.

¹⁰⁵ Janssen and Janssen, *op.cit.*, p. 86.

¹⁰⁶ Jill Kamil, *The Ancient Egyptians: Life in the Old Kingdom* (Cairo: The American University in Cairo Press, 1996), p. 169.

¹⁰⁷ Dominique Valbelle, "Craftsmen," in Donadini, *op.cit.*, p. 48.

¹⁰⁸ Leon Marfoe, "Early Near Eastern Societies," in Michael J. Rowlands, Mogen Larsen, Kristian Kristiansen, eds., *Centre and Periphery in the Ancient World* (Cambridge: Cambridge University Press, 1986), pp 27–28.

¹⁰⁹ Shaw, *op.cit.*, p. 298. And Casson, *op.cit.*, p. 80.

¹¹⁰ John Romer, *People of the Nile* (New York: Crown Publishers, 1982), p. 195.

gious ideology.⁹⁴ In any case, such monumentalism created an enormous demand for Lebanese cedar and pine, part of the major deforestation in the region.⁹⁵

Egypt's chief contemporary archaeologist disclosed evidence in 2010 that the Great Pyramids were built by free workers, not by slaves.⁹⁶ This furthers the thesis that such projects had become economic necessities⁹⁷, and that slavery was in general uneconomic and comparatively rare.⁹⁸ As in Mesopotamia, the institution had very different forms and meanings from our own definition. "Slave" was not a legal term; citizens and slaves were the same under the law, for example.⁹⁹

In the world of work, one can pass from celebrated design perfection (e.g. tombs) and magnificent stone vessel craftsmanship to the dangerous drudgery in the mines (in any age or epoch), and the fact that scribes were as numerous as office workers are now.¹⁰⁰

Workers were generally well paid in regular wages of grain, fish, vegetables, and the like, with bonus payments not uncommon.¹⁰¹ Deir-el-Medina laborers "were receiving good wages even when

⁹⁴ Carlton, *op.cit.*, p. 139. The Aztec state was another that consolidated power through large-scale public works projects.

⁹⁵ Mellaart, *op.cit.*, p. 68.

⁹⁶ Marwa Awad, "Egypt Tombs Suggest Pyramids not Built by Slaves," Thomson Reuters, January 10, 2010.

⁹⁷ Kurt Mendelsohn, "A Scientist Looks at the Pyramids," in *American Scientist* 59:2 (1971), pp 210–220. After about 2600 B.C. some 35 major pyramids and many smaller ones were built, along with large monuments such as Abu Simbel. Architecture and art of this kind are ultimately about governance as well as economics. A sense of power and order is transmitted, as is the case with contemporary examples (e.g. Washington Monument).

⁹⁸ Shaw, *op.cit.*, p. 421.

⁹⁹ Antonio Loprieno, "Slaves," in Donadini, *op.cit.*, pp 206–216. Also Edward Eyre, "Work in the New Kingdom," in Marvin A. Powell, ed., *Labor in the Ancient Near East* (New Haven: American Oriental Society, 1987), p. 211.

¹⁰⁰ Casson, *op.cit.*, p. 50.

¹⁰¹ McDowell, *op.cit.*, pp 7, 223. And Rosalind M. and Jac J. Janssen, *Growing Up in Ancient Egypt* (London: The Rubicon Press, 1990), p. 107.

ferentials developed among the population, along with manufacturing specialization and administrative bureaucracy, and in the 3000s B.C., the world's earliest known urbanized state societies appeared.

A fundamental premise of Mesopotamian civilization was the "unconditional acceptance of the city as the one and only communal organization."³² Urbanism was based on the breakdown of simpler, more egalitarian forms of social organization, and the primitive commune was already an anachronism by the Middle Bronze Age.³³ A single-minded city-building policy was a royal aim throughout this entire period, to enact and ensure the pacification of the country. Orlin concluded that the greatest single spur to cities in the Near East was the "forced urbanization of rebellious tribes."³⁴

But there were also primary social institutions at work, more basic than that of policy. Justin Jennings observed that "most of the networks that brought goods, people, and ideas to and from the city were outside the control of city administrators."³⁵ The key, as always, is the prime mover known as division of labor. "Central to all accounts of urbanization or state formation is the concept of specialization," as J.N. Postgate succinctly expresses it.³⁶

The urban revolution of the Uruk period, 4th millennium B.C., was a basic reordering of human social life. The first literate urban civilization had fully arrived during the 3000s B.C., borne on a wave of what Robert McC. Adams termed "hyper-developed urbanism."³⁷ At least half of the Sumerian (south Mesopotamian) population now

³² A. Leo Oppenheim, *Ancient Mesopotamia: Portrait of a Dead Civilization* (Chicago: University of Chicago Press, 1977), p. 111.

³³ Burt Alpert, *Inversions* (San Francisco: privately published, 1973), p. 294.

³⁴ Louis L. Orlin, *Life and Thought in the Ancient Near East* (Ann Arbor: University of Michigan Press, 2007), p. 162.

³⁵ Jennings, *op.cit.*, p. 76.

³⁶ J.N. Postgate, *Early Mesopotamia: Society and Economy at the Dawn of History* (New York: Routledge, 1992), p. 225.

³⁷ Robert McC. Adams, "Patterns of Urbanism in Early Southern Mesopotamia," in Peter J. Ucko, Ruth Tringham, and G.W. Dimberly, eds., *Man, Settlement and Urbanism* (London: Duckworth, 1972), p. 745.

resided in cities.³⁸ By around 2500 B.C. even most farmers lived in cities. Another datum that evokes the modern world: smaller families were the rule in cities, larger ones in the villages.³⁹

It is the sense of the city, the ideological potency of the urban condition, that is of main importance. In an indirect reference to the uncivilized, seminomadic Amorite tribe, the *Gilgamesh* epic of the early second millennium B.C. introduces Enkidu. He runs wild with the animals until enticed into Uruk in Sumeria, where he becomes domesticated. This key myth, among others, expresses the founding of a civic consciousness that is pervasive in the dominant Mesopotamian literature.⁴⁰ The poem *Enuma* similarly traces the defeat of precivilized chaos by the god Marduk—a task not completed until he establishes the city of Babylon as his abode.⁴¹ In fact, the establishment of a pan-Mesopotamian sensibility is primarily the achievement of triumphant urbanism.

It was the city itself, not forgetting temple and palace as primary power centers, that became the essential aspect of Mesopotamian civilization. A.L. Oppenheim accurately refers to the Mesopotamian city as “the assembly of free citizens.”⁴² A thousand years before Athens one finds such an institution, with its modern overtones of citizenship and democracy. Arguably, however, it may serve as a reminder that democratic forms have always cloaked the rule of elites. The fact of urbanism in itself seemed to give rise to a concept of citizenship; Thorkild Jacobsen makes a case for “primitive democracy.”⁴³ The persistence of religion, however, reminds us that

³⁸ Jonathan Haas, ed., *From Leaders to Rulers* (New York: Kluwer Academic/Plenum Publishers, 2001), p. 218. And Oppenheim, *op.cit.*, p. 72.

³⁹ Robin Winks and Susan P. Mattern-Parkes, *The Ancient Mediterranean World* (New York: Oxford University Press, 2004), p. 24.

⁴⁰ Orlin, *op.cit.*, pp 172–173.

⁴¹ Peter Machinist, “On Self-Consciousness in Mesopotamia,” in S.N. Eisenstadt, *The Origins and Diversity of Axial Age Civilizations* (Albany: State University of New York Press, 1986), p. 187.

⁴² Oppenheim, *op.cit.*, p. 109.

⁴³ Cited in Karen Rhea Nemet-Nejat, *Daily Life in Ancient Mesopotamia*

There were many, however, who worked directly for the state (e.g. bureaucrats, craftsmen), just as there are in any modern nation. Scribes became an intellectual class and staffed a functioning and growing bureaucracy. Many hoped to avoid manual labor by building an administrative career in the civil service. Over time a large number of immigrants, chiefly Asians, engaged in building and industrial activity.⁸⁸

Some of the world’s oldest underground mining activity took place in Egypt (e.g. Nazlet Khater-4). By the time of the New Kingdom in the late Bronze Age there was mass production of goods in several sectors. Marked craft specialization existed in metallurgy, lithic industry, stone vase production, and above all, pottery manufacturing.⁸⁹ Potters used an assembly-line mode “remarkably” early, in the judgment of Lionel Casson.⁹⁰ Increasing sameness was the rule, as quantity replaced distinctive quality as a value. Industrial vessels predominate over household pots in the archaeological record,⁹¹ as befits a mass society.

Beer, bread, and wine were some of the production staples, plus an excellent form of paper that was widely exported. (The word derives from papyrus, the Egyptian reed from which paper was first made). Late Egypt saw a number of sizeable textile factories.⁹² The kingdom had arrived at “an unrivalled celebrity as a manufacturing country.”⁹³ Pyramid building was a socio-economic enterprise, more focused on employment-based loyalty than motivated by reli-

University Press, 2002), p. 25.

⁸⁸ Gae Callender, “The Middle Kingdom Renaissance,” in *The Oxford History of Ancient Egypt* (New York: Oxford University Press, 2003), p. 157.

⁸⁹ Casson, *op.cit.*, p. 53.

⁹⁰ *Ibid.*, p. 54.

⁹¹ Max Raphael, *Prehistoric Pottery and Civilization in Egypt* (New York: Pantheon Books, 1947), p. 135.

⁹² Naphtali Lewis, *Life in Egypt under Roman Rule* (Oxford: Clarendon Press, 1983), p. 134.

⁹³ J. Gardner Wilkinson, *Manners and Customs of the Ancient Egyptians* (London, John Murray, 1841), p. 4.

was a considerable improvement on the earthly one. The Egyptians were the first to embalm bodies, and the practice remained popular despite widespread tomb robbing in ancient times. “During certain epochs,” observed Donadoni, “it is quite likely that entire populations made a living out of the business.”⁸¹ This phenomenon would seem to undermine the notion of strong Egyptian piety. “There is some doubt,” adds A.G. McDowell, “whether the common man was much concerned with what went on behind the temple pylons.”⁸²

It does seem clear that Egyptians favored local gods, which may be related to the common attitude that all animals were sacred.⁸³ In the end, however, the spiritual culture descended into a “religion-haunted, superstitious, ritualistic” condition.⁸⁴

Egypt was essentially an exchange economy. The presence of components such as “wage-labor, a market for land, production for the market, and state involvement”⁸⁵ certainly qualified it as capitalist. Although Egypt has been described as a public sector economy,⁸⁶ Lynn Meskell’s study of Deir el Medina, the most thoroughly documented settlement site of Middle Kingdom Egypt, provides a more nuanced view. Meskell finds that “all the evidence points to a minimum interventionist model” where individuals “exercised a remarkable amount of social mobility and maneuvering, ignoring the sanctions of the state to their own personal benefit and profit.”⁸⁷

⁸¹ Sergio Donadini, “The Dead,” in Donadini, *op.cit.*, p. 272.

⁸² A.G. McDowell, *Village Life in Ancient Egypt* (New York: Oxford University Press, 1990), p. 91. Also, “The tomb of Tutenkahmen was partially looted by the very priests responsible for the burial” (p. 199). And “By 1064 B.C. at the latest it was patently clear that all the major royal tombs in the Valley of the Kings had been looted” (p. 242).

⁸³ Casson, *op.cit.*, pp 89, 83.

⁸⁴ *Ibid.*, p. 120.

⁸⁵ David Warburton, *State and Economy in Ancient Egypt* (Freiburg, Switzerland: University Press, 1997), p. 173.

⁸⁶ Eric Carlton, *Ideology and Social Order* (Boston: Routledge & Kegan Paul), p. 134.

⁸⁷ Lynn Meskell, *Private Life in New Kingdom Egypt* (Princeton: Princeton

the context is as far from purely secular-political as it is from pure “democracy.”

The official outlook was that humans were servants of the gods; no-one more so than the king, who provided justice, ultimately, on behalf of the gods. But in the course of the third millennium B.C., the state ever more transparently assumed the role of the gods and their authority.⁴⁴ Religious metaphors continued as the coin of the realm nonetheless. In this sense religion was politics. Even taxation, for example, was couched in religious terms. The distinction among terms such as “religious,” “political,” and “social” had far less meaning in ancient Mesopotamia than for us today.⁴⁵ Functionaries who may have been identifiably “religious” can be found to have played administrative roles in political and economic spheres. At the same time, David and Joan Oates discerned a “basically democratic orientation of society.”⁴⁶

This latter city-state ideology or ideal “endured into the first millennium B.C. despite the development of larger states and empires.”⁴⁷ And despite problematic terminology, Mesopotamian society was becoming more secular; the influence of the temple waned between 2500 and 1500 B.C.⁴⁸ Hammurabi, who unified Mesopotamia (ca 1770s B.C.), promulgated a legendary legal code that espoused a defense of the weak against the strong; it eschewed war and proclaimed tolerance and friendship among peoples. The reality was one of increasing exploitation and expansion,⁴⁹ prefiguring modern political rhetoric and the evils it tries to hide or somehow legitimate.

(Peabody, MA: Hendrickson Publishers, 2002), p. 107.

⁴⁴ Oppenheim, *op.cit.*, p. 191.

⁴⁵ David and Joan Oates, *The Rise of Civilization* (New York: Elsevier Phaidon, 1976), p. 134.

⁴⁶ *Ibid.*, p. 135.

⁴⁷ Trigger, *op.cit.*, p. 219.

⁴⁸ Nemet-Nejat, *op.cit.*, p. 302. Postgate, *op.cit.*, p. 300.

⁴⁹ Lewis Mumford, *The City in History* (New York: Harcourt, Brace & World,

How “archaic” is fealty to authority? Americans sing the national anthem and recite the Pledge of Allegiance. A common custom in Mesopotamia was for the ruler to mold and/or place the first brick for a building project. How like political figures of our time, cutting a ribbon to open a bridge, or digging the first shovelful to begin construction. Political integration, including some of the forms we’re used to, began in the Bronze Age.

The Oates refer to apparent “evidence for strictly observed property rights already in the 6th millennium B.C.”⁵⁰ By the 4th millennium, division of labor and social stratification are linked to more demand for foreign goods, production of goods for exchange, and capitalization of long-distance trade, according to Norman Yoffee.⁵¹ More specifically, in C.K. Maisel’s words, city-states’ economies were “structured around ‘mass production’ (sustained surpluses generated by capital-intensive means), bulk transfers and sophisticated manufacturing—all controlled by rigorous book-keeping that tracked inputs and outputs, profits and losses and overall efficiencies.”⁵²

Rulers exercised some degree of control over the economic system throughout much of the Bronze Age, but there was a fluctuating relationship between central authority and the private sector. Some craft specialists, for instance, were clients of the centralized institutions, and others were independent. The distinction is not always clear; think of defense contractors in the U.S. today, private corporations entirely dependent on government contracts.

The vocabulary of daily life in Mesopotamia is surprisingly recognizable. Terms for “street” also connote “marketplace,” and by about

1961), p. 53.

⁵⁰ Oates and Oates, *op.cit.*, p. 67.

⁵¹ Norman Yoffee, “Mesopotamian Interaction Spheres,” in Norman Yoffee and Jeffery J. Clark, *Early Stages in the Evolution of Mesopotamian Civilization* (Tucson: University of Arizona Press, 1993), p. 267.

⁵² Charles Keith Maisels, *Early Civilizations of the Old World* (New York: Routledge, 1999), p. 346.

“Irrigation agriculture was decisive in generating civilization, stratification, and the state in Egypt,” the Nile supporting “the highest population density” in the ancient world.⁷⁵ Lacking some of the strong early urban development seen in Mesopotamia, Egypt was—and remains—a mainly agricultural country. Its civilization rested on the surplus created in the fields; Robert July estimated that the average Egyptian peasant produced three times as much food as he needed.⁷⁶

By about 3000 B.C. Egypt’s chiefdoms and protostates had been forged into the region’s first nation-state, with a “sophisticated populace”.⁷⁷ Lynn Meskell advises us that “we have underestimated the complexities of ancient cultures—Egypt being one of the most important.”⁷⁸ Sergio Donadoni observes that “the Egyptian world appears to be strikingly modern in many ways.”⁷⁹

Egyptian rulers, like those of Mesopotamia, claimed a genealogy going back to the gods. Nevertheless, it was the pharaoh’s earthly power that was employed to subordinate “Egypt’s own potentially rebellious population.”⁸⁰ We know a lot less about how that population lived than we do about tombs and pyramids, largely because unlike cities and towns, non-urban artifacts were not repeatedly replaced and built over. Concerning the breadth and depth of religious feeling, for example, we can only really guess, although as today, various people might have looked forward to an afterlife that

⁷⁵ Mann, *op.cit.*, p. 108.

⁷⁶ Robert W. July, *A History of the African People* (New York: Scribner, 1970), p. 14.

⁷⁷ Lionel Casson, *Everyday Life in Ancient Egypt* (Baltimore: Johns Hopkins University Press, 2001), p. 1.

⁷⁸ Lynn Meskell, *Archaeologies of Social Life: Age, Sex, Class et cetera in Ancient Egypt* (Malden, MA: Blackwell, 1999), p. 110.

⁷⁹ Sergio Donadini, ed., *The Egyptians* (Chicago: The University of Chicago Press, 1997), p. x.

⁸⁰ Edith Lustig, “Anthropology and Egyptology,” in A. Bernard Knapp, ed., *Monographs in Mediterranean Archaeology* 8 (Sheffield, UK: Sheffield Academic Press, 1997), p. 14.

ingly, general longevity for adults was much the same as it is today.⁶⁹ Probably more unusual to us is the absence of racial divisions. For H.W.F. Saggs, it is “very clear” that “ethnic divisions played little part” in Mesopotamian society.⁷⁰ Upward mobility for the individual, then as now, was most common in periods of geographic or economic expansion.⁷¹ There were women in business and the professions—far more so than in the Near East now—but they did not enjoy complete equality in law or custom.⁷²

Mesopotamian complex society, for example the Uruk city-states, needed the resources of the Anatolian and Iranian highlands; they therefore tended toward expansion and war. Interference with trade routes, real or potentially real, could not be tolerated. The very recent wars in this same land demonstrate the same principle urging warfare, in the matter of guaranteed oil supply, of course.

Sargon (circa 2310 B.C.) was the first historical personality. He was the first ruler to establish a unified rule over all of Mesopotamia; in fact, his was the first world system polity. Sargon’s triumph, amid growing degrees of warfare and imperialism, was not without challenges. Like most rulers he faced revolts, and agriculture as an institution met with persistent resistance.⁷³ Sargon II referred to the hill country Mannaean as living “in confusion,” whom he had to civilize or “put into order.”⁷⁴ A crescendo of aggression and warfare led to the crisis of 12th century Mesopotamia, three centuries of decline and collapse that represented the end of the Bronze Age.

Egypt, like Mesopotamia, was a new chapter or project of domestication. It became a civilizational answer to the uncertainty that those in power had to contend with when the Neolithic era ended.

⁶⁹ Nemet-Nejat, *op.cit.*, p. 146.

⁷⁰ H.W.F. Saggs, *Civilization before Greece and Rome* (New Haven: Yale University Press, 1989), p. 45.

⁷¹ Trigger, *op.cit.*, p. 161.

⁷² Postgate, *op.cit.*, p. 105.

⁷³ Service, *op.cit.*, p. 215.

⁷⁴ Machinist/Eisenstadt, *op.cit.*, p. 189.

2000 B.C. the city of Ur, for one, had merchandise-displaying showrooms.⁵³ “The sophistication of the credit system” at about this time, “including the circulation of debts and titles to real assets as media of exchange is impressive,” noted Morris Silver.⁵⁴

It was significantly earlier that complexity and bureaucratization of the political economy rendered sophisticated accounting systems necessary. Piotr Steinkeller found that the taxation system alone “called for an extraordinarily high level of data-recording.”⁵⁵ At base it was the scale of production that called forth standardization, efficiency principles, bookkeeping procedures, and other innovations that we wrongly tend to think of as recent developments. Modern “firm-like” approaches are indeed thousands of years old.

The production of bronze required long-distance trade, and commonly involved copper shipments of many tons each. Excavations at Yarim Tepe revealed copper and lead smelting from about 6000 B.C., a surprisingly early date and a “hitherto unsuspected level of industrial specialization.”⁵⁶ Ceramic production changed with the emergence of urbanism; pottery was increasingly wheel-made and uniform. As Childe put it, “with the adoption of the wheel, pottery tends to become a factory product and to lose much of its individuality.”⁵⁷ The manufacture of glass vessels spread across the Near East upon its invention in the 2nd millennium B.C. Textile enterprises had already reached enormous proportions. Around 2200 B.C., a weaving factory in Guabba employed over 6,000 workers, mostly women and children.⁵⁸

⁵³ Morris Silver, *Economic Structures of Antiquity* (Westport, CT: Greenwood Press, 1995), pp 154, 156.

⁵⁴ *Ibid.*, p. 114.

⁵⁵ Quoted in Introduction, Michael Hudson and Cornelia Wunsch, eds., *Creating Economic Order* (Bethesda, MD: CDL Press, 2004), p. 9.

⁵⁶ Oates and Oates, *op.cit.*, p. 101.

⁵⁷ Childe, *op.cit.*, p. 51. Also P.R.S. Moorey, *Ancient Mesopotamian Materials and Industries* (Oxford: Clarendon Press, 1994), p. 157.

⁵⁸ Postgate, *op.cit.*, p. 235.

Industrialism is a control apparatus by its nature, integrative in a primary sense. Mesopotamian writing, the world's earliest, is another example of a technology that arose to meet organizational requirements of the manufacturing economy. Writing made effective management of mass enterprises possible for the first time.

Thousands of years before 20th century Taylorists or Stakhovaniite managers applied stopwatches to workers' motions in the U.S. and USSR, such practices were common in Mesopotamia. Soon after the hour was first divided into sixty minutes there, time became a weapon of mass production labor-discipline. "Ur III [late 3rd millennium] timekeepers were extraordinarily punctilious in reckoning precisely how long it took to make ceramic vessels of varying size."⁵⁹ In other areas beside pottery fabrication, authorities "made constant efforts to standardize and rationalize."⁶⁰

At this time a uniform model of beveled-rim bowls became ubiquitous. It now seems that they mainly served to provide standard wage rations (e.g. barley, oil), a very widespread usage.⁶¹ It was a common practice for workers to borrow against wages in advance of payday, and "despite the growing emphasis on labor-saving products, techniques and organization, many people's workloads probably continued to increase," concluded Oppenheim.⁶² So much of this has the ring of contemporaneity to it.

Trade union activity was widespread in the Middle Bronze Age, with unionization at far higher levels than in the U.S. today.⁶³ The risk of social unrest prompted "make-work" projects, such as elaborate public construction efforts⁶⁴--more practices and sensibilities that seem distinctly modern.

⁵⁹ D.T. Potts, *Mesopotamian Civilization: the Material Foundations* (Ithaca, NY: Cornell University Press, 1997), p. 156.

⁶⁰ Postgate, *op.cit.*, p. 233.

⁶¹ Oates and Oates, *op.cit.*, p. 130.

⁶² Oppenheim, *op.cit.*, p. 96.

⁶³ Alpert, *op.cit.*, pp 296-298.

⁶⁴ Oppenheim, *op.cit.*, p. 98.

Some of the people who weren't interested in civilization, or its regimen of work and cities, now were compelled to work as slaves. Debt slavery came later, but slave status was a generally fluid condition, marginal to society as a whole.⁶⁵

Deforestation, grazing, and the extensive irrigation system created increasingly grave environmental impacts in Mesopotamia by the late 3rd millennium. It was the last factor, unnatural amounts of water applied to the land, that may have been the most harmful. Irrigation brought up salt water through capillary action, creating wastelands and causing the abandonment of cities in the southern region.⁶⁶ The salinization effects were also felt in the Harappan civilization of India at this time (circa 2200 B.C.), and indeed are very problematic today, notably in Turkey, Australia, and Montana.⁶⁷

By this same period, a wholesale-retail network of large-scale commodity exchange was in effect, providing the background to much that we would find familiar: commercial streets, taverns, broad avenues, plazas, alleys, empty lots, large and small houses--built of mud brick, plaster and wood, as in Iraq today. Neighborhood bakeries (likely the first shops), a very developed cuisine with a wide array of recipes (including farmed fish), sports, popular music, the first zoos, parks--many features that "must have made Mesopotamian cities vibrant, noisy, smelly, sometimes bewildering and dangerous, but also exciting places."⁶⁸ And in private life, all that survives today, from cosmetics and perfume to board games and tablecloths.

Urban Mesopotamia was virtually designed for epidemic disease, created by domestication and its first, Neolithic crowding of animals (human and otherwise), and perfected by city conditions. Another civilizational staple we have not left behind. Perhaps surpris-

⁶⁵ Nemet-Nejat, *op.cit.*, pp 117-118.

⁶⁶ Postgate, *op.cit.*, p. 181.

⁶⁷ Jared Diamond, *Collapse* (New York: Viking, 2005), p. 48.

⁶⁸ Susan Pollock, *Ancient Mesopotamia: The Eden that Never Was* (New York: Cambridge University Press, 1999), p. 48.