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Against the Grain

A Deep History of the Earliest States

JAMES C. SCOTT

Yale
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Claude Lévi-Strauss wrote thus:

Writing appears to be necessary for the centralized, stratified state to reproduce itself. . . . Writing is a strange thing. . . . The one phenomenon which has invariably accompanied it is the formation of cities and empires: the integration into a political system, that is to say, of a considerable number of individuals . . . into a hierarchy of castes and classes. . . . It seems to favor rather the exploitation than the enlightenment of mankind.

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Introduction: A Narrative in Tatters: What I Didn't Know



ow did *Homo sapiens sapiens* come, so very recently in its species history, to live in crowded, sedentary communities packed with domesticated livestock and a handful of cereal grains, governed by the ancestors of what we now call states?

This novel ecological and social complex became the template for virtually all of our species' recorded history. Vastly amplified by population growth, water and draft power, sailing ships and long-distance trade, this template prevailed for more than six millennia until the use of fossil fuels. The account that follows is animated by a curiosity about the origin, structure, and consequences of this fundamentally agrarian, ecological complex.

The narrative of this process has typically been told as one of progress, of civilization and public order, and of increasing health and leisure. Given what we now know, much

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of this narrative is wrong or seriously misleading. The purpose of this book is to call that narrative into question on the basis of my reading of the advances in archaeological and historical research over the past two decades.

The founding of the earliest agrarian societies and states in Mesopotamia occurred in the latest five percent of our history as a species on the planet. And by that metric, the fossil fuel era, beginning at the end of the eighteenth century, represents merely the last quarter of a percent of our species history. For reasons that are alarmingly obvious, we are increasingly preoccupied by our footprint on the earth's environment in this last era. Just how massive that impact has become is captured in the lively debate swirling around the term "Anthropocene," coined to name a new geological epoch during which the activities of humans became decisive in affecting the world's ecosystems and atmosphere.¹

While there is no doubt about the decisive contemporary impact of human activity on the ecosphere, the question of when it became decisive is in dispute. Some propose dating it from the first nuclear tests, which deposited a permanent and detectable layer of radioactivity worldwide. Others propose starting the Anthropocene clock with the Industrial Revolution and the massive use of fossil fuels. A case could also be made for starting the clock when industrial society acquired the tools—for example, dynamite, bulldozers, reinforced concrete (especially for dams)—to radically alter the landscape. Of these three candidates, the Industrial Revolution is a mere two centuries old and the other two are still virtually within living memory. Measured by the roughly 200,000-year span

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of our species, then, the Anthropocene began only a few minutes ago.

I propose an alternative point of departure that is far deeper historically. Accepting the premise of an Anthropocene as a qualitative and quantitative leap in our environmental impact, I suggest that we begin with the use of fire, the first great hominid tool for landscaping-or, rather, niche construction. Evidence for the use of fire is dated at least 400,000 years ago and perhaps much earlier still, long predating the appearance of Homo sapiens.² Permanent settlement, agriculture, and pastoralism, appearing about 12,000 years ago, mark a further leap in our transformation of the landscape. If our concern is with the historical footprint of hominids, one might well identify a "thin" Anthropocene long before the more explosive and recent "thick" Anthropocene; "thin" largely because there were so very few hominids to wield these landscaping tools. Our numbers circa 10,000 BCE were a puny two million to four million worldwide, far less than a thousandth of our population today. The other decisive premodern invention was institutional: the state. The first states in the Mesopotamian alluvium pop up no earlier than about 6,000 years ago, several millennia after the first evidence of agriculture and sedentism in the region. No institution has done more to mobilize the technologies of landscape modification in its interest than the state.

A sense, then, for how we came to be sedentary, cereal-growing, livestock-rearing subjects governed by the novel institution we now call the state requires an excursion into deep history. History at its best, in my view, is the most subversive

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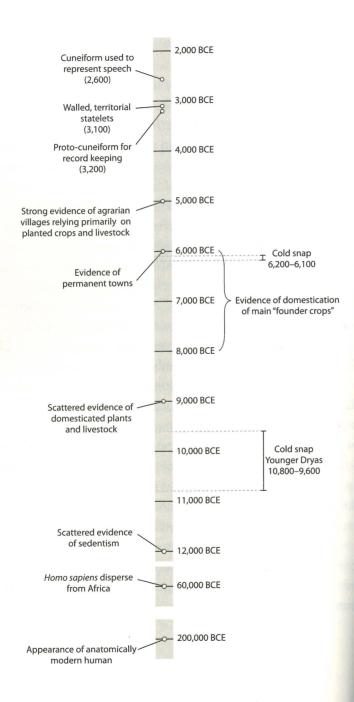
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discipline, inasmuch as it can tell us how things that we are likely to take for granted came to be. The allure of deep history is that by revealing the many contingencies that came together to shape, say, the Industrial Revolution, the Last Glacial Maximum, or the Qin Dynasty, it responds to the call by an earlier generation of French historians of the Annales School for a history of long-run processes (la longue durée) in place of a chronicle of public events. But the contemporary call for "deep history" goes the Annales School one better by calling for what often amounts to a species history. This is the zeitgeist in which I find myself, a zeitgeist surely illustrative of the maxim that "The Owl of Minerva flies only at dusk."³

PARADOXES OF STATE AND CIVILIZATION NARRATIVES

A foundational question underlying state formation is how we (Homo sapiens sapiens) came to live amid the unprecedented concentrations of domesticated plants, animals, and people that characterize states. From this wide-angle view, the state form is anything but natural or given. Homo sapiens appeared as a subspecies about 200,000 years ago and is found outside of Africa and the Levant no more than 60,000 years ago. The first evidence of cultivated plants and of sedentary communities appears roughly 12,000 years ago. Until then—that is to say for ninety-five percent of the human experience on earth—we lived in small, mobile, dispersed, relatively egalitarian, hunting-and-gathering bands. Still more remarkable,

Figure 1. (opposite) Timeline: From fire to cuneiform

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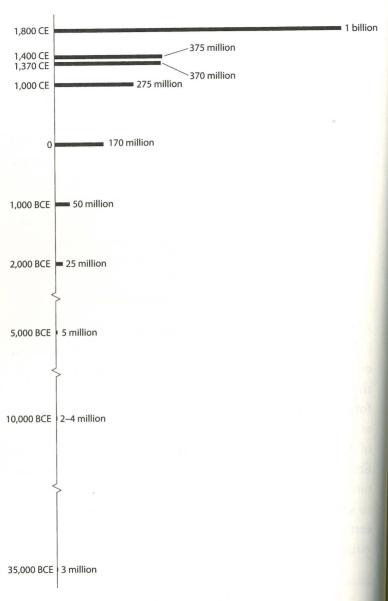


Figure 2. Estimated population in the ancient world

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for those interested in the state form, is the fact that the very first small, stratified, tax-collecting, walled states pop up in the Tigris and Euphrates Valley only around 3,100 BCE, more than four millennia *after* the first crop domestications and sedentism. This massive lag is a problem for those theorists who would naturalize the state form and assume that once crops and sedentism, the technological and demographic requirements, respectively, for state formation were established, states/empires would immediately arise as the logical and most efficient units of political order.⁴

These raw facts trouble the version of human prehistory that most of us (I include myself here) have unreflectively inherited. Historical humankind has been mesmerized by the narrative of progress and civilization as codified by the first great agrarian kingdoms. As new and powerful societies, they were determined to distinguish themselves as sharply as possible from the populations from which they sprang and that still beckoned and threatened at their fringes. In its essentials, it was an "ascent of man" story. Agriculture, it held, replaced the savage, wild, primitive, lawless, and violent world of hunter-gatherers and nomads. Fixed-field crops, on the other hand, were the origin and guarantor of the settled life, of formal religion, of society, and of government by laws. Those who refused to take up agriculture did so out of ignorance or a refusal to adapt. In virtually all early agricultural settings the superiority of farming was underwritten by an elaborate mythology recounting how a powerful god or goddess entrusted the sacred grain to a chosen people.

Once the basic assumption of the superiority and attraction of fixed-field farming over all previous forms of subsis-

tence is questioned, it becomes clear that this assumption itself rests on a deeper and more embedded assumption that is virtually never questioned. And that assumption is that sedentary life itself is superior to and more attractive than mobile forms of subsistence. The place of the domus and of fixed residence in the civilizational narrative is so deep as to be invisible; fish don't talk about water! It is simply assumed that weary Homo sapiens couldn't wait to finally settle down permanently, could not wait to end hundreds of millennia of mobility and seasonal movement. Yet there is massive evidence of determined resistance by mobile peoples everywhere to permanent settlement, even under relatively favorable circumstances. Pastoralists and hunting-and-gathering populations have fought against permanent settlement, associating it, often correctly, with disease and state control. Many Native American peoples were confined to reservations only on the heels of military defeat. Others seized historic opportunities presented by European contact to increase their mobility, the Sioux and Comanche becoming horseback hunters, traders, and raiders, and the Navajo becoming sheep-based pastoralists. Most peoples practicing mobile forms of subsistence herding, foraging, hunting, marine collecting, and even shifting cultivation—while adapting to modern trade with alacrity, have bitterly fought permanent settlement. At the very least, we have no warrant at all for supposing that the sedentary "givens" of modern life can be read back into human history as a universal aspiration.5

The basic narrative of sedentism and agriculture has long survived the mythology that originally supplied its charter.

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From Thomas Hobbes to John Locke to Giambattista Vico to Lewis Henry Morgan to Friedrich Engels to Herbert Spencer to Oswald Spengler to social Darwinist accounts of social evolution in general, the sequence of progress from hunting and gathering to nomadism to agriculture (and from band to village to town to city) was settled doctrine. Such views nearly mimicked Julius Caesar's evolutionary scheme from households to kindreds to tribes to peoples to the state (a people living under laws), wherein Rome was the apex, with the Celts and then the Germans ranged behind. Though they vary in details, such accounts record the march of civilization conveyed by most pedagogical routines and imprinted on the brains of schoolgirls and schoolboys throughout the world. The move from one mode of subsistence to the next is seen as sharp and definitive. No one, once shown the techniques of agriculture, would dream of remaining a nomad or forager. Each step is presumed to represent an epoch-making leap in mankind's well-being: more leisure, better nutrition, longer life expectancy, and, at long last, a settled life that promoted the household arts and the development of civilization. Dislodging this narrative from the world's imagination is well nigh impossible; the twelve-step recovery program required to accomplish that beggars the imagination. I nevertheless make a small start here.

It turns out that the greater part of what we might call the standard narrative has had to be abandoned once confronted with accumulating archaeological evidence. Contrary to earlier assumptions, hunters and gatherers—even today in the marginal refugia they inhabit—are nothing like the fam-

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ished, one-day-away-from-starvation desperados of folklore. Hunters and gathers have, in fact, never looked so good—in terms of their diet, their health, and their leisure. Agriculturalists, on the contrary, have never looked so bad—in terms of their diet, their health, and their leisure. The current fad of "Paleolithic" diets reflects the seepage of this archaeological knowledge into the popular culture. The shift from hunting and foraging to agriculture—a shift that was slow, halting, reversible, and sometimes incomplete—carried at least as many costs as benefits. Thus while the planting of crops has seemed, in the standard narrative, a crucial step toward a utopian present, it cannot have looked that way to those who first experienced it: a fact some scholars see reflected in the biblical story of Adam and Eve's expulsion from the Garden of Eden.

The wounds the standard narrative has suffered at the hands of recent research are, I believe, life threatening. For example, it has been assumed that fixed residence - sedentism was a consequence of crop-field agriculture. Crops allowed populations to concentrate and settle, providing a necessary condition for state formation. Inconveniently for the narrative, sedentism is actually quite common in ecologically rich and varied, preagricultural settings—especially wetlands bordering the seasonal migration routes of fish, birds, and larger game. There, in ancient southern Mesopotamia (Greek for "between the rivers"), one encounters sedentary populations, even towns, of up to five thousand inhabitants with little or no agriculture. The opposite anomaly is also encountered: crop planting associated with mobility and dispersal except for a brief harvest period. This last paradox alerts us again to the fact that the implicit assumption of the standard narra-

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tive—namely that people couldn't wait to abandon mobility altogether and "settle down"—may also be mistaken.

Perhaps most troubling of all, the civilizational act at the center of the entire narrative: domestication turns out to be stubbornly elusive. Hominids have, after all, been shaping the plant world—largely with fire—since before Homo sapiens. What counts as the Rubicon of domestication? Is it tending wild plants, weeding them, moving them to a new spot, broadcasting a handful of seeds on rich silt, depositing a seed or two in a depression made with a dibble stick, or ploughing? There appears to be no "aha!" or "Edison light bulb" moment. There are, even today, large stands of wild wheat in Anatolia from which, as Jack Harlan famously showed, one could gather enough grain with a flint sickle in three weeks to feed a family for a year. Long before the deliberate planting of seeds in ploughed fields, foragers had developed all the harvest tools, winnowing baskets, grindstones, and mortars and pestles to process wild grains and pulses.7 For the layman, dropping seeds in a prepared trench or hole seems decisive. Does discarding the stones of an edible fruit into a patch of waste vegetable compost near one's camp, knowing that many will sprout and thrive, count?

For archaeo-botanists, evidence of domesticated grains depended on finding grains with nonbrittle rachis (favored intentionally and unintentionally by early planters because the seedheads did not shatter but "waited for the harvester") and larger seeds. It now turns out that these morphological changes seem to have occurred well *after* grain crops had been cultivated. What had appeared previously to be unambiguous skeletal evidence of fully domesticated sheep and goats

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has also been called into question. The result of these ambiguities is twofold. First, it makes the identification of a single domestication event both arbitrary and pointless. Second, it reinforces the case for a very, very long period of what some have called "low-level food production" of plants not entirely wild and yet not fully domesticated either. The best analyses of plant domestication abolish the notion of a singular domestication event and instead argue, on the basis of strong genetic and archaeological evidence, for processes of cultivation lasting up to three millennia in many areas and leading to multiple, scattered domestications of most major crops (wheat, barley, rice, chick peas, lentils).8

While these archaeological findings leave the standard civilizational narrative in shreds, one can perhaps see this early period as part of a long process, still continuing, in which we humans have intervened to gain more control over the reproductive functions of the plants and animals that interest us. We selectively breed, protect, and exploit them. One might arguably extend this argument to the early agrarian states and their patriarchal control over the reproduction of women, captives, and slaves. Guillermo Algaze puts the matter even more boldly: "Early Near Eastern villages domesticated plants and animals. Uruk urban institutions, in turn, domesticated humans."9

PUTTING THE STATE IN ITS PLACE

Any inquiry into state formation like this one risks, by definition, giving the state a place of privilege greater than it might otherwise merit in a more balanced account of human affairs.

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I wish to avoid this. The facts as I have come to understand them are that an evenhanded species history would give the state a far more modest role than it is normally accorded.

That states would have come to dominate the archaeological and historical record is no mystery. For us—that is to say Homo sapiens-accustomed to thinking in units of one or a few lifetimes, the permanence of the state and its administered space seems an inescapable constant of our condition. Aside from the utter hegemony of the state form today, a great deal of archaeology and history throughout the world is state-sponsored and often amounts to a narcissistic exercise in self-portraiture. Compounding this institutional bias is the archaeological tradition, until quite recently, of excavation and analysis of major historical ruins. Thus if you built, monumentally, in stone and left your debris conveniently in a single place, you were likely to be "discovered" and to dominate the pages of ancient history. If, on the other hand, you built with wood, bamboo, or reeds, you were much less likely to appear in the archaeological record. And if you were hunter-gatherers or nomads, however numerous, spreading your biodegradable trash thinly across the landscape, you were likely to vanish entirely from the archaeological record.

Once written documents—say, hieroglyphics or cuneiform—appear in the historical record, the bias becomes even more pronounced. These are invariably state-centric texts: taxes, work units, tribute lists, royal genealogies, founding myths, laws. There are no contending voices, and efforts to read such texts against the grain are both heroic and exceptionally difficult.¹⁰ The larger the state archives left behind,

generally speaking, the more pages devoted to that historical kingdom and its self-portrait.

And yet the very first states to appear in the alluvial and wind-blown silt in southern Mesopotamia, Egypt, and the Yellow River were minuscule affairs both demographically and geographically. They were a mere smudge on the map of the ancient world and not much more than a rounding error in a total global population estimated at roughly twentyfive million in the year 2,000 BCE. They were tiny nodes of power surrounded by a vast landscape inhabited by nonstate peoples-aka "barbarians." Sumer, Akkad, Egypt, Mycenae, Olmec/Maya, Harrapan, Qin China notwithstanding, most of the world's population continued to live outside the immediate grasp of states and their taxes for a very long time. When, precisely, the political landscape becomes definitively state-dominated is hard to say and fairly arbitrary. On a generous reading, until the past four hundred years, one-third of the globe was still occupied by hunter-gatherers, shifting cultivators, pastoralists, and independent horticulturalists, while states, being essentially agrarian, were confined largely to that small portion of the globe suitable for cultivation. Much of the world's population might never have met that hallmark of the state: a tax collector. Many, perhaps a majority, were able to move in and out of state space and to shift modes of subsistence; they had a sporting chance of evading the heavy hand of the state. If, then, we locate the era of definitive state hegemony as beginning about 1600 CE, the state can be said to dominate only the last two-tenths of one percent of our species' political life.

In focusing our attention on the exceptional places where

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the earliest states appeared, we risk missing the key fact that in much of the world there was no state at all until quite recently. The classical states of Southeast Asia are roughly contemporaneous with Charlemagne's reign, more than six thousand years after the "invention" of farming. Those of the New World, with the exception of the Mayan Empire, are even more recent creations. They too were territorially quite small. Outside their reach were great congeries of "unadministered" peoples assembled in what historians might call tribes, chiefdoms, and bands. They inhabited zones of no sovereignty or vanishingly weak, nominal sovereignty.

The states in question were only rarely and then quite briefly the formidable Leviathans that a description of their most powerful reign tends to convey. In most cases, interregna, fragmentation, and "dark ages" were more common than consolidated, effective rule. Here again, we-and the historians as well-are likely to be mesmerized by the records of a dynasty's founding or its classical period, while periods of disintegration and disorder leave little or nothing in the way of records. Greece's four-century-long "Dark Age," when literacy was apparently lost, is nearly a blank page compared with the vast literature on the plays and philosophy of the Classical Age. This is entirely understandable if the purpose of a history is to examine the cultural achievements that we revere, but it overlooks the brittleness and fragility of state forms. In a good part of the world, the state, even when it was robust, was a seasonal institution. Until very recently, during the annual monsoon rains in Southeast Asia, the state's ability to project its power shrank back virtually to its palace walls. Despite the state's self-image and its centrality in most stan-

dard histories, it is important to recognize that for thousands of years after its first appearance, it was not a constant but a variable, and a very wobbly one at that in the life of much of humanity.

This is a nonstate history in yet another sense. It draws our attention to all those aspects of state making and state collapse that are either absent or leave only faint traces. Despite enormous progress in documenting climate change, demographic shifts, soil quality, and dietary habits, there are many aspects of the earliest states that one is unlikely to find chronicled in physical remains or in early texts because they are insidious, slow processes, perhaps symbolically threatening, and even unworthy of mention. For example, it appears that flight from the early state domains to the periphery was quite common, but, as it contradicts the narrative of the state as a civilizing benefactor of its subjects, it is relegated to obscure legal codes. I and others are virtually certain that disease was a major factor in the fragility of the early states. Its effects, however, are hard to document, since they were so sudden and so little understood, and because many epidemic diseases left no obvious bone signature. Similarly, the extent of slavery, bondage, and forced resettlement is hard to document as, in the absence of shackles, slave and free-subject remains are indistinguishable. All states were surrounded by nonstate peoples, but owing to their dispersal, we know precious little about their coming and going, their shifting relationship to states, and their political structures. When a city is burned to the ground, it is often hard to tell whether it was an accidental fire such as plagued all ancient cities built of combustible materials, a civil war or uprising, or a raid from outside.

To the degree that it is possible, I have tried to avert my gaze from the glare of state self-representation and have probed for historical forces systematically overlooked by dynastic and written histories and resistant to standard archaeological techniques.

THUMBNAIL ITINERARY

The theme of the first chapter turns on the domestication of fire, plants, and animals and the concentration of food and population such domestication makes possible. Before we could be made the object of state making, it was necessary that we gather - or be gathered - in substantial numbers with a reasonable expectation of not immediately starving. Each of these domestications rearranged the natural world in a way that vastly reduced the radius of a meal. Fire, which we owe to our older relative Homo erectus, has been our great trump card, allowing us to resculpt the landscape so as to encourage food-bearing plants - nut and fruit trees, berry bushes - and to create browse that would attract desirable prey. In cooking, fire rendered a host of previously indigestible plants both palatable and more nutritious. We owe our relatively large brain and relatively small gut (compared with other mammals, including primates), it is claimed, to the external predigestive help that cooking provides.

The domestication of grains—especially wheat and barley, in this case—and legumes furthers the process of concentration. Coevolving with humans, cultivars were selected especially for their large fruit (seeds), for their determinate ripening, and for their threshability (nonshattering quality). They can be planted annually around the domus (the farm-stead and its immediate surroundings) and provide a fairly reliable source of calories and protein—either as a reserve in a bad year or as a basic staple. Domesticated animals—especially sheep and goats, in this case—can be seen in the same light. They are our dedicated, four-footed (or, in the cases of chickens, ducks, and geese, two-footed) servant foragers. Thanks to their gut bacteria, they can digest plants that we cannot find and/or break down and can bring them back to us, as it were, in their "cooked" form as fat and protein, which we both crave and can digest. We selectively breed these domesticates for the qualities we desire: rapid reproduction, toleration of confinement, docility, meat, and milk and wool production.

The domestication of plants and animals was, as I have noted, not strictly necessary to sedentism, but it did create the conditions for an unprecedented level of concentration of food and population, especially in the most favorable agroecological settings: rich flood plain or loess soils and perennial water. This is why I choose to call such locations *late-Neolithic multispecies resettlement camps*. It turns out that while it provides ideal conditions for state making, the late-Neolithic multispecies resettlement camp involved a lot more drudgery than hunting and gathering and was not at all good for your health. Why anyone not impelled by hunger, danger, or coercion would willingly give up hunting and foraging or pastoralism for full-time agriculture is hard to fathom.

The term "domesticate" is normally understood as an active verb taking a direct object, as in "Homo sapiens domesticated rice... domesticated sheep," and so on. This overlooks

the active agency of domesticates. It is not so clear, for example, to what degree we domesticated the dog or the dog domesticated us. And what about the "commensals"—sparrows, mice, weevils, ticks, bedbugs—that were not invited to the resettlement camp but gate-crashed anyway, as they found the company and the food congenial. And what about the "domesticators in chief," Homo sapiens? Were not they domesticated in turn, strapped to the round of ploughing, planting, weeding, reaping, threshing, grinding, all on behalf of their favorite grains and tending to the daily needs of their livestock? It is almost a metaphysical question who is the servant of whom—at least until it comes time to eat.

The meaning of domestication for plants, man, and beast is explored in Chapter 2. I argue, as have others, that domestication ought to be understood in an expansive way, as the ongoing effort of Homo sapiens to shape the entire environment to its liking. Given our frail knowledge about how the natural world works, one might say that the effort has been more abundant in unintended consequences than in intended effects. While the thick Anthropocene is judged by some to have begun with worldwide deposit of radioactivity following the dropping of the first atomic bomb, there is what I have termed a "thin" Anthropocene that dates from the use of fire by Homo erectus roughly half a million years ago and extends up through clearances for agriculture and grazing and the resulting deforestation, and siltation. The impact and tempo of this early Anthropocene grows as the world's population swells to roughly twenty-five million in 2,000 BCE. There is no particular reason to insist on the label "Anthropocene" - a

term both in vogue and in much dispute as I write—but there are many reasons to insist on the global environmental impact of the domestication of fire, plants, and grazing animals.

"Domestication" changed the genetic makeup and morphology of both crops and animals around the domus. The assemblage of plants, animals, and humans in agricultural settlements created a new and largely artificial environment in which Darwinian selection pressure worked to promote new adaptations. The new crops became "basketcases," which could not survive without our constant attentions and protection. Much the same was true for domesticated sheep and goats, which became smaller, more placid, less aware of their surroundings and less sexually dimorphic. I ask in this context whether it is likely that a similar process affected us. How were we also domesticated by the domus, by our confinement, by crowding, by our different patterns of physical activity and social organization? Finally, by comparing the life world of agriculture-strapped as it is to the metronome of a major cereal grain-with the life world of the hunter-gatherer, I make the case that the life of farming is comparatively far narrower experientially and, in both a cultural and a ritual sense, more impoverished.

The burdens of life for nonelites in the earliest states, the subject of Chapter 3, were considerable. The first, as noted above, was drudgery. There is no doubt that, with the possible exception of flood recession (*décrue*) agriculture, farming was far more onerous than hunting and gathering. As Ester Boserup and others have observed, there is no reason why a forager in most environments would shift to agriculture unless forced to by population pressure or some form of coercion.

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A second great and unanticipated burden of agriculture was the direct epidemiological effect of concentration - not just of people but of livestock, crops, and the large suite of parasites that followed them to the domus or developed there. Diseases with which we are now familiar-measles, mumps, diphtheria, and other community acquired infections—appeared for the first time in the early states. It seems almost certain that a great many of the earliest states collapsed as a result of epidemics analogous to the Antonine plague and the plague of Justinian in the first millennium CE or the Black Death of the fourteenth century in Europe. Then there was another plague: the state plague of taxes in the form of grain, labor, and conscription over and above onerous agricultural work. How, in such circumstances, did the early state manage to assemble, hold, and augment its subject population? Some have even argued that state formation was possible only in settings where the population was hemmed in by desert, mountains, or a hostile periphery.11

Chapter 4 is devoted to what might be called the grain hypothesis. It is surely striking that virtually all classical states were based on grain, including millets. History records no cassava states, no sago, yam, taro, plantain, breadfruit, or sweet potato states. ("Banana republics" don't qualify!) My guess is that only grains are best suited to concentrated production, tax assessment, appropriation, cadastral surveys, storage, and rationing. On suitable soil wheat provides the agro-ecology for dense concentrations of human subjects.

In contrast the tuber cassava (aka manioc, yucca) grows below ground, requires little care, is easy to conceal, ripens in a year, and, most important, can safely be left in the ground and remain edible for two more years. If the state wants your cassava, it will have to come and dig up the tubers one by one, and then it has a cartload of little value and great weight if transported. If we were evaluating crops from the perspective of the premodern "tax man," the major grains (above all, irrigated rice) would be among the most preferred, and roots and tubers among the least preferred.

It follows, I think, that state formation becomes possible only when there are few alternatives to a diet dominated by domesticated grains. So long as subsistence is spread across several food webs, as it is for hunter-gatherers, swidden cultivators, marine foragers, and so on, a state is unlikely to arise, inasmuch as there is no readily assessable and accessible staple to serve as a basis for appropriation. One might imagine that ancient domesticated legumes, say—peas, soybeans, peanuts, or lentils, all of which are nutritious and can be dried for storage—might serve as a tax crop. The obstacle in this case is that most legumes are indeterminate crops that can be picked as long as they grow; they do not have a determinate harvest, something the tax man requires.

Some agro-ecological settings may be considered "pre-adapted" for concentrating grain fields and population, owing to rich silt and plentiful water, and these areas are in turn possible locations for state making. Such settings are per-haps necessary for early state making, but not sufficient. One could say that the state has an elective affinity for such locations. Contrary to some earlier assumptions, the state did not invent irrigation as a way of concentrating population, let alone crop domestication; both were the achievements of prestate peoples. What the state has often done, once estab-

lished, however, is to maintain, amplify, and expand the agroecological setting that is the basis of its power by what we might call state landscaping. This has included repairing silted channels, digging new feeder canals, settling war captives on arable land, penalizing subjects who are not cultivating, clearing new fields, forbidding nontaxable subsistence activities such as swiddening and foraging, and trying to prevent the flight of its subjects.

There is, I believe, something of an agro-economic module that characterizes most of the early states. Whether the grain in question is wheat, barley, rice, or maize—the four crops that account, even today, for more than half of the world's caloric consumption—the patterns display a family resemblance. The early state strives to create a legible, measured, and fairly uniform landscape of taxable grain crops and to hold on this land a large population available for corvée labor, conscription, and, of course, grain production. For dozens of reasons, ecological, epidemiological, and political, the state often fails to achieve this aim, but this is, as it were, the steady glint in its eye.

An alert reader might at this point ask, what is a state anyway? I think of the polities of early Mesopotamia as gradually becoming states. That is, "stateness," in my view, is an institutional continuum, less an either/or proposition than a judgment of more or less. A polity with a king, specialized administrative staff, social hierarchy, a monumental center, city walls, and tax collection and distribution is certainly a "state" in the strong sense of the term. Such states come into existence in the last centuries of the fourth millennium BCE and seem to be well attested at the latest by the strong Ur III ter-

ritorial polity in southern Mesopotamia around 2,100. Before that there were polities with substantial populations, commerce, artisans, and, it seems, town assemblies, but one could argue about the degree to which these characteristics would satisfy a strong definition of stateness.

As may already be obvious, the southern Mesopotamian alluvium is at the center of my geographical attention for the simple reason that it was here that the first small states arose. "Pristine" is the adjective normally used to describe them. While fixed settlements and domesticated grains can be found earlier elsewhere (for example, in Jericho, the Levant, and the "hilly flanks" east of the alluvium), they did not give rise to states. Mesopotamian state forms, in turn, influenced subsequent state-making practices in Egypt, in northern Mesopotamia, and even in the Indus Valley. For this reason, and aided by surviving clay cuneiform tablets and the prodigious scholarship on the area, I concentrate on Mesopotamian states. When parallels or contrasts are striking and apposite, I refer occasionally to early state making in north China, Crete, Greece, Rome, and Maya.

One might be tempted to say that states arise, when they do, in ecologically rich areas. This would be a misunderstanding. What is required is wealth in the form of an appropriable, measurable, dominant grain crop and a population growing it that can be easily administered and mobilized. Areas of great but diverse abundance such as wetlands, which offer dozens of subsistence options to a mobile population, because of their very illegibility and fugitive diversity, are not zones of successful state making. The logic of assessable and accessible crops and people applies as well to smaller-scale efforts at

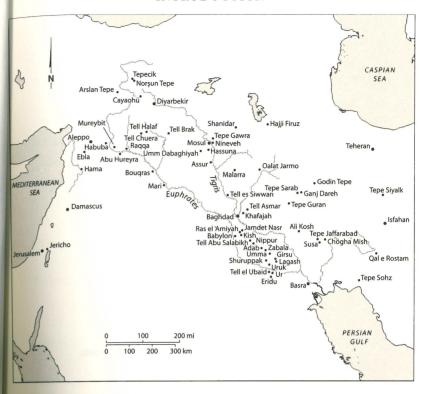


Figure 3. Mesopotamia: Tigris-Euphrates region

control and legibility one finds in the Spanish *redduciones* in the New World, many missionary settlements, and that paragon of legibility, the monocrop plantation with the workforce in the barracks.

The larger question, the one I address in Chapter 5, is important because it bears on the role of coercion in establishing and maintaining the ancient state. Though it is a subject of heated debate, the question goes directly to the heart of the traditional narrative of civilizational progress. If the forma-

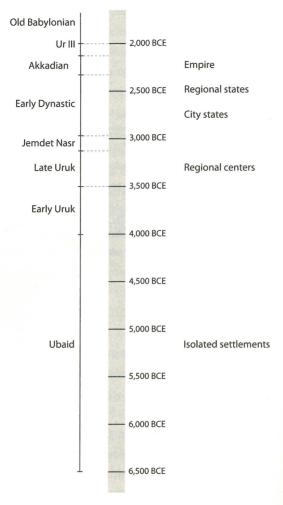


Figure 4. Chronology: Ancient Mesopotamia

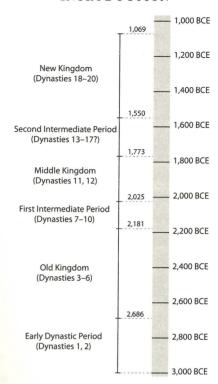


Figure 5. Chronology: Ancient Nile River Egypt

tion of the earliest states were shown to be largely a coercive enterprise, the vision of the state, one dear to the heart of such social-contract theorists as Hobbes and Locke, as a magnet of civil peace, social order, and freedom from fear, drawing people in by its charisma, would have to be reexamined.

The early state, in fact, as we shall see, often failed to hold its population; it was exceptionally fragile epidemiologically, ecologically, and politically and prone to collapse or fragmen-

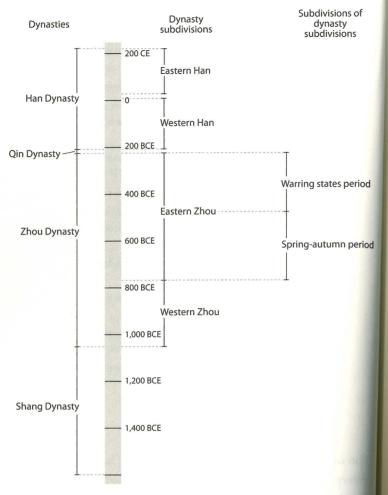


Figure 6. Chronology: Ancient Yellow River China

tation. If, however, the state often broke up, it was not for lack of exercising whatever coercive powers it could muster. Evidence for the extensive use of unfree labor—war captives, indentured servitude, temple slavery, slave markets, forced resettlement in labor colonies, convict labor, and communal slavery (for example, Sparta's helots)—is overwhelming. Unfree labor was particularly important in building city walls and roads, digging canals, mining, quarrying, logging, monumental construction, wool textile weaving, and of course agricultural labor. The attention to "husbanding" the subject population, including women, as a form of wealth, like livestock, in which fertility and high rates of reproduction were encouraged, is apparent. The ancient world clearly shared Aristotle's judgment that the slave was, like a plough animal, a "tool for work." Even before one encounters terms for slaves in the early written records, the archaeological record speaks volumes with its bas relief depictions of ragged captive slaves being led back from the field of victory and, in Mesopotamia, thousands of identical, small, beveled bowls used, in all likelihood, for barley or beer rations for gang labor.

Formal slavery in the ancient world reaches its apotheosis in classical Greece and early imperial Rome, which were slave states in the full sense one applies to the antebellum South in the United States. Chattel slavery on this order, though not absent in Mesopotamia and early Egypt, was less dominant than other forms of unfree labor, such as the thousands of women in large workshops in Ur making textiles for export. That a good share of the population in Greece and Roman Italy was being held against its will is testified to by slave rebellions in Roman Italy and Sicily, by the wartime offers of

freedom—by Sparta to Athenian slaves and by the Athenians to Sparta's helots—and by the frequent references to fleeing and absconding populations in Mesopotamia. One is reminded in this context of Owen Lattimore's admonition that
the great walls of China were built as much to keep Chinese
taxpayers in as to keep the barbarians out. Variable as it is over
time and hard as it is to quantify, bondage appears to have
been a condition of the ancient state's survival. Early states
surely did not invent the institution of slavery, but they did
codify and organize it as a state project.

The earliest states were historically novel institutions; there were no manuals of statecraft, no Machiavelli rulers could consult, so it is not surprising that they were often short-lived. China's Qin Dynasty, famous for its many innovations of strong governance, lasted a mere fifteen years. The agro-ecology favorable to state making is relatively stationary, while the states that occasionally appear in these locations blink on and off like erratic traffic lights. The reasons for this fragility and how we might understand its larger meaning provide the theme of Chapter 6.

Much archaeological ink has been spilled trying to explain, for example, the Mayan "collapse," the Egyptian "First Intermediate Period," and Greece's "Dark Age." Frequently the evidence we have provides no dispositive clue. The causes are typically multiple, and it is arbitrary to single out one as decisive. As with a patient suffering many underlying illnesses, it is difficult to specify the cause of death. And when, say, a drought leads to hunger and then to resistance and flight of which, in turn, a neighboring kingdom takes advantage by invading, sacking the kingdom, and carrying off its population,

which of these causes ought we to prefer? The sparse written record rarely helps. When a kingdom is destroyed by invasion, raids, civil war, or rebellion, the deposed scribes rarely remain at their posts long enough to record the debacle. Occasionally there is evidence that a palace complex has been burned—but by whom and for what reason is rarely clear.

Here, I emphasize particularly those causes of fragility that are intrinsic to the agro-ecology of the earliest states. Extrinsic causes - say, drought or climate change (which is clearly implicated in several regionwide simultaneous "collapses") may in fact be more important overall in state collapse, but intrinsic causes tell us more about the self-limiting aspects of early states. To this end, I speculate on three fault lines that are by-products of state formation itself. The first are the disease effects of the unprecedented concentrations of crops, people, and livestock together with their attendant parasites and pathogens. I imagine, as do others, that epidemics of one kind or another, including crop diseases, were responsible for quite a few sudden collapses. Evidence, however, is difficult to come by. More insidious are two ecological effects of urbanism and intensive irrigated agriculture. The former resulted in steady deforestation of the upstream watershed of riverine states and subsequent siltation and floods. The latter resulted in well-documented salinization of the soil, lower yields, and eventual abandonment of arable land.

I want, finally, to question, as others have, the use of the term "collapse" to describe many of these events. ¹² In unreflective use, "collapse" denotes the civilizational tragedy of a great early kingdom being brought low, along with its cultural achievements. We should pause before adopting

this usage. Many kingdoms were, in fact, confederations of smaller settlements, and "collapse" might mean no more than that they have, once again, fragmented into their constituent parts, perhaps to reassemble later. In the case of reduced rainfall and crop yields, "collapse" might mean a fairly routine dispersal to deal with periodic climate variation. Even in the case of, say, flight or rebellion against taxes, corvée labor, or conscription, might we not celebrate—or at least not deplore—the destruction of an oppressive social order? Finally, in case it is the so-called barbarians who are at the gate, we should not forget that they often adopt the culture and language of the rulers whom they depose. Civilizations should never be confused with the states that they typically outlast, nor should we unreflectively prefer larger units of political

And what about these barbarians who, in the epoch of the early states, are massively more numerous than state subjects and, though dispersed, occupy most of the earth's habitable surface? The term "barbarian," we know, was originally applied by the Greeks to all non-Greek speakers-captured slaves as well as quite "civilized" neighbors such as the Egyptians, the Persians, and the Phoenicians. "Ba-ba" was meant to be a parody of the sound of non-Greek speech. In one form or another the term was reinvented by all early states to distinguish themselves from those outside the state. It is fitting, therefore, that my seventh and last chapter is devoted to the "barbarians" who were simply the vast population not subject to state control. I will continue to use the term "barbarian"with tongue planted firmly in cheek—in part because I want to argue that the era of the earliest and fragile states was a

order to smaller units.

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time when it was good to be a barbarian. The length of this period varied from place to place depending on state strength and military technology; while it lasted it might be called the golden age of barbarians. The barbarian zone, as it were, is essentially the mirror image of the agro-ecology of the state. It is a zone of hunting, slash-and-burn cultivation, shellfish collection, foraging, pastoralism, roots and tubers, and few if any standing grain crops. It is a zone of physical mobility, mixed and shifting subsistence strategies: in a word, "illegible" production. If the barbarian realm is one of diversity and complexity, the state realm is, agro-economically speaking, one of relative simplicity. Barbarians are not essentially a cultural category; they are a political category to designate populations not (yet?) administered by the state. The line on the frontier where the barbarians begin is that line where taxes and grain end. The Chinese used the terms "raw" and "cooked" to distinguish between barbarians. Among groups with the same language, culture, and kinship systems, the "cooked" or more "evolved" segment comprised those whose households had been registered and who were, however nominally, ruled by Chinese magistrates. They were said to "have entered the map."

As sedentary communities, the earliest states were vulnerable to more mobile nonstate peoples. If one thinks of hunters and foragers as specialists at locating and exploiting food sources, the static aggregations of people, grain, livestock, textiles, and metal goods of sedentary communities represented relatively easy pickings. Why should one go to the trouble of growing a crop when, like the state (!), one can simply confiscate it from the granary. As the Berber saying so

eloquently attests, "Raiding is our agriculture." The growth of sedentary agricultural settlements that were everywhere the foundation of early states can be seen as a new and very lucrative foraging site for nonstate peoples—one-stop shopping, as it were. As Native Americans realized, the tame European cow was easier to "hunt" than the white-tailed deer. The consequences for the early state were considerable. Either it invested heavily in defenses against raiding and/or it paid tribute—protection money—to potential raiders in return for not plundering. In either case the fiscal burden on the early state, and hence its fragility, increased appreciably.

While raiding's spectacular quality tends to dominate accounts of the early state's relationship with barbarians, it was surely far less important than trade. The early states, located for the most part in rich, alluvial bottomlands, were natural trading partners with nearby barbarians. Ranging widely in a far more diverse environment, only the barbarians could supply the necessities without which the early state could not long survive: metal ores, timber, hides, obsidian, honey, medicinals, and aromatics. The lowland kingdom was more valuable as a trade depot, in the long run, than as a site of plunder. It represented a large, new, and lucrative market for products from the hinterland that could be traded for lowland products such as grain, textiles, dates, and dried fish. Once the development of coastal shipping allowed for more long-distance trade, the volume of this trade exploded. To imagine the effect one need only think of the impact the market for beaver pelts in Europe had on Native American hunting. Both foraging and hunting became, with the expansion of trade, more a trad-

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ing and entrepreneurial venture than a pure subsistence activity.

The result of this symbiosis was a cultural hybridity far greater than the typical "civilized-barbarian" dichotomy would allow. A convincing case has been made that the early state or empire was usually shadowed by a "barbarian twin," which rose with it and shared its fate when it fell.¹³ The Celtic trading *oppida* at the fringe of the Roman Empire provide an example of this dependency.

Thus the long era of relatively weak agrarian states and numerous, mounted, nonstate peoples was something of a golden age of barbarians; they enjoyed a profitable trade with the early states, augmented with tribute and raiding when necessary; they avoided the inconveniences of taxes and agricultural labor; they enjoyed a more nutritious and varied diet and greater physical mobility.

Two aspects of this trade, however, were both melancholy and fateful. Perhaps the main commodity traded to the early states was the slave—typically from among the barbarians. The ancient states replenished their population by wars of capture and by buying slaves on a large scale from barbarians who specialized in the trade. In addition, it was a rare early state that did not engage barbarian mercenaries for its defense. Selling both their fellow barbarians and their martial service to the early states, the barbarians contributed mightily to the decline of their brief golden age.