
Ancient Stateless Civilization

Bronze Age India and the State in History

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Few sorts of “public goods,” including basic “law and order,” have not somewhere, sometime been privately produced.¹ Nonetheless, the idea persists that imposed systems of “legitimate” violence have been essential to the long-term functioning of all reasonably complex societies—that is, to their avoidance of seriously “suboptimal” production of critical public goods.² This idea is understandable and plausible. The only well-known case of a long-lived, nonprimitive, stateless society—medieval Iceland—was that of a society still lacking in cities (Friedman 1979; Byock 1988).

In this article, I show that in early antiquity a whole group of interacting *urban* societies almost certainly lacking the state existed for approximately seven hundred years; that merchants specializing in long-distance trade organized the production of the largest-scale public goods; and that an unusually early emergence of long-distance trade probably produced these societies. My analysis (albeit of a single civilization) suggests strongly that the extreme frequency of state organization in civilized societies has been, in a perfectly straightforward sense, an *accidental* feature of our world’s development.

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1. For a number of examples of privately produced public goods, see T. Cowen 1988. On the private production of law and order, see Benson 1990.

2. Mancur Olson offers the idea of history’s typical ruler as a “stationary bandit” prone to invest in public goods in order to maximize his own revenues and thus “a benefactor to those he robs” (2000, 1–24).

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Harappan Archaeology and Its Interpretation

South Asia's first civilization, labeled "Harappa" by archaeologists (after the location of one of its important sites of excavation), flourished from the mid-third millennium to the very early second millennium BCE on the plains of the Indus and Ghaggar-Hakra rivers. A rapid desertification, which caused the disappearance of the Ghaggar-Hakra River, among other ill effects, brought about the eventual collapse of this urban society.³ Harappan civilization was the product in particular of farmers and herders who spread out from the western margins of the plains in the late 3000s BCE, displacing very few, if any, of the earlier inhabitants. The people of this civilization used writing, at least for limited purposes (the Harappan writing system, available only in short inscriptions, is as yet undeciphered), made extraordinarily widespread use of metal tools (Shaffer 1982, 46–47), and inhabited a number of *commercial* cities that achieved considerable scale (the five largest had peak populations in the tens of thousands) and remarkable levels of urban amenity (virtually *every* house had a bath and latrine connected to a municipal drainage system, something not to be seen again until modern times).⁴ The similar layouts and similar public buildings of Harappan cities strongly suggest that no one of them served as a capital. Contrary to what was believed for decades (see, for example, Piggott 1950, 151–71), neither their similar, highly regular layouts nor their many uniformities in construction practices need indicate that a great planning entity was at work: gridlike layouts were the norm even for small settlements of the *preurban* era, and by far the most impressive uniformity—Harappa's common system of dimensions for bricks—has been shown to have had its origins in a preurban diffusion of technically superior practice (Kenoyer 1998, 52, 57). Entirely distinct regional material cultures are identifiable in Harappan remains (Possehl 1998, 274–75). In light of all the foregoing considerations, it seems unlikely that the civilization had any overarching political unity, although a widely patronized ritual center may have existed (one site contains evidence of what was almost certainly a large ritual bathing complex).

Harappa's urban remains, subjected to numerous excavations since the 1920s (in particular at the two earliest identified sites), are unusual in the extreme in that they offer up not a single obvious palace or imposing temple, but only simple public halls;⁵ not one massive tomb (no great mounds, no pyramids); and not even any large statuary. This set of absences, which seems to indicate a complete lack of great public cults

3. On this explanation of Harappa's demise, which now seems to be the most persuasive available, see Weiss 2000, especially 81. Definitely no longer accepted is any military explanation of Harappa's decline and disappearance.

4. See Kenoyer 1998, 50, on the possible populations of Harappa's largest cities; 49 on the commercial origins of those cities; and 127–31 on the significance of markets.

5. Kenoyer's guess concerning two buildings (in the two most excavated cities) that were once identified—incorrectly, it is now generally believed—as granaries (1998, 64–65).

(religious or political), has played an important role in leading two of the best-known figures in Harappan studies to view the Harappans as sophisticated but probably stateless peoples (Shaffer 1982; Possehl 1998, 280, 287–90).⁶

Remarkable as well and equally worth taking into account for its institutional implications (if only because it is technically conceivable that entirely unavoidable inadequacies in excavation and analysis are the reason that no large palaces and temples have been confirmed [Kenoyer 1994, 76]) is the fact that in diverse ways the Harappan remains indicate that neither war nor threats of war played an important part in intercity relations.

First, the Harappans do not appear to have constructed any memorials to military campaigns; nowhere is any battle damage reflected in physical structures;⁷ and human remains reveal no evidence of violent death (Kenoyer 1998, 15; Possehl 1998, 269–71).

Second, of greater significance (because direct evidence of ancient warfare is usually difficult to find and because portrayals of battle might have been made on perishable materials), the Harappans produced extraordinarily few kinds of specialized fighting weapons (Mate 1985, 80–81) and no defensive armor, although they possessed sophisticated metalworking techniques even in the early phase of their flourishing (Kenoyer 1998, 135). One of the major combat weapons they employed was the stone mace, a sort of weapon that everywhere in history quickly became militarily obsolete—it had already become so in contemporary Mesopotamia—with the production of helmets (O’Connell 1995, 118).⁸

Third, the walls that surrounded each sizeable section of a city on the Harappan floodplains were unaccompanied by moats, and in each case they were singular—that is, they established no system of concentric barriers. Making monetary charges on access seems to have been the sole consideration in the construction of their gates. The entranceways had no turns to make for ease of ambush, but the gates were just wide enough to accommodate an oxcart and were apparently accompanied by stations for the weighing of goods (Kenoyer 1998, 55–56). The only known case of defensive wall building at an urban location occurred at a coastal site, the great settlement at Dholavira, which was defended by a system of concentric walls that probably reflected

6. Many archaeologists (see Kenoyer 1994, 76–77) use *state* alternatively with *state-level society*, identifying a general level of sociocultural complexity. In any context whatsoever throughout this article, including characterizations of archaeological opinion, I use the term *state* to refer only to an organization exercising “paramount control” over society (Fried 1967, 237)—that is, monopolizing all *large-scale* use of force—and often acquiring routine acceptance of its “legitimacy” (as emphasized by Weber [1921] 1946, 77–79).

7. It is clear that large fires occurred at a number of locations as Harappa acquired its “maturity,” but because a great deal of reconstruction occurred at this time (sometimes entailing the abandonment of sites for new, more impressive settlements), the fires may represent not fighting but rather deliberate razing (Possehl 1998, 269–72).

8. Mate argues that the “maceheads” found in excavation might have been weights for digging sticks (1985, 80). Kenoyer holds that maces were used for fighting (1998, 42, 159).

the city's need to fend off pirates making sea-to-land raids. Inland settlements could not conceivably have required defense against highly mobile bandit groups, first because during Harappan times neither horse nor camel riding was as yet remotely common in the world, and second because there were likely never any horses in the area at all (see Witzel and Farmer 2000, debunking contrary claims) or any camels, at least until era's end (Kenoyer 1998, 40, 89, 167).

Of course, it is conceivable that Harappan military science, including logistics and planning, simply did not evolve over a period of seven hundred years to the point that setting a large city to siege was a practical option, but, if so, that fact in itself would be significant.

Thus, the evidence suggests that Harappans experienced few if any pressures toward the elaboration of improved fighting technology and that Harappa's cities had no need of military infrastructural investments beyond the walls defending one particular site against pirates. Because we can scarcely imagine a centuries-long *interstate* system seldom disturbed by serious warfare or even by its prospect (and so experiencing much less military development than its technology would have allowed), we have solid grounds for concluding that the Harappans did not know the state, precisely as the absence of any physically impressive "signatures" of power also leads us to infer.

Perhaps naturally (especially with regard to any assumption that military activity was episodic and small scale), one of the Harappa scholars most associated with an emphasis on the civilization's comparatively pacific character (and responsible for the preceding analysis of inland city walls and gates), though fully prepared to envision some level of elite military competition across societies, has been inclined to the view that diverse "means of control" *not* including armed force were at work in the management of Harappan cities (1994, 77; 1997, 263).

Although, as I have indicated in the preceding discussion, some of the leading figures in Harappan studies have suggested that Harappan societies may have been organized on a nonstate basis, detailed speculation about this possibility has been lacking.

A Model of Harappan Public-Goods Production

By the very unusual apparent simplicity of public style and by what seems to have been the comparative insignificance of military affairs, the archaeological record suggests that Harappa did not know the state. Any intergroup violence was evidently so infrequent and of such low intensity that no one's fighting skills and resources ever rose within reach of the ability to commit full-scale urban plunder, and therefore intercity defenses were unneeded. In light of these facts and the inferences that I (along with others) have drawn from them, a critical challenge—especially given that proponents of the state-civilization model are prone to make a great deal of Harappa's urbanism (see, for example, Ratnagar 1991, 16–18, 23–49)—is to explain how the planning, building,

and repair of Harappa's major city walls, streets, and larger urban drainage systems were accomplished (to which might be added the question of how the defense of the walls at Dholavira was organized). Reasonable assumptions include the following: (1) neighborhoods and artisans' sections, which had distinct boundaries and corporate identities (Kenoyer 1998, 44, 55, 81), had little difficulty in creating and maintaining local walls and streets; (2) marketplace and community actors managed public order; and (3) law was a decentralized thing. Regarding the third point, commercial disputes might have been settled by guilds, as they normally have been in many times and places (Benson 2002) and, later, *always* were in precolonial India (Bardahan 2000, 248–49). All other sorts of disputes might have been handled as arbitrated or mediated torts, as also has been common (Benson 1990, 11–30; Davies 2002, 154–55), especially with the rise of commercial economy (note Wolf [1951] 2001, 112, citing Lammens 1928, 232, on the decline of blood feuds in pre-Islamic Arabia). City guilds, neighborhoods, and clans all had a stake in the peaceful settlement of members' disputes. Davies holds that such arrangements are often peculiarly practical in urban areas owing to the normally rich social networks in such places (2002, 156–58).

Kenoyer has made the most specific suggestion—that people who rose to great prominence in a city's commerce, along with priests, effectively *were* government, understood as a supplier of diverse public goods, *not* as the state (rather, in effect, as Nock [(1935) 1973, 16–19] understood it), handling their society's affairs “through the control of trade and religion, rather than military might” (1998, 81, see also 100). Indeed, in the spirit of Mancur Olson's ([1965] 1971) classic work on the organization of collective action, a commercial elite's manipulation of its control over special private goods and services—over important material *selective incentives*—would seem imaginable. However, it is probable that neither the centralized provision of ritual services and the like nor dominance in the supply of supernatural ideas (either a possible interpretation of “control of religion”) can be maintained in the long run except through some element of force (see Ekelund et al. 1996, chap. 4, on the case of the medieval Roman Catholic Church). The core of a model such as Kenoyer's should therefore be an elite's linkage of commercial benefits to various groups' provisions of support to government.

Given the obviously commercial character of Harappan cities, the idea of a top elite composed of traders is certainly plausible. However, it is not at all clear what sorts of traded (or trade-related) goods and services they might have manipulated so handily. Caravan and shipping services almost certainly were in the hands of numerous pastoralist and fisherfolk groups linked by blood to the plains' villagers and townsmen and to city neighborhood residents.⁹ The prospects for anyone's manipulation of access to a hard-to-acquire and nonsubstitutable goods would have been

9. Pastoralism develops from farming society, and Harappan cities, as they grew up out of villages and towns, continued to be in some measure agropastoral: many local farmers probably lived in the cities and

poor indeed given that (going by the animal emblems on excavated trade seals)¹⁰ at least ten trading groups operated to varying extents throughout the Harappan plains (Kenoyer 1998, 83), each of them, owing to the risks of ancient trade, likely dealing in a variety of goods. Although moneylending probably existed in the cities—coinage did not exist, but metallic media of exchange surely did, as in contemporary Mesopotamia (Silver 1985, 123–26), and it is difficult to imagine, given the extremely large number of metalworking shops in each city, that the exchange was anywhere at all tightly controllable (Kenoyer 1998, 159). Moreover, the very limited documentary evidence relevant to “market power” in mid-third-millennium to early-second-millennium Mesopotamia suggests that competitive conditions—specifically, a plurality of actors—prevailed within both the typical market for an ordinary good and the market for loans (Silver 1985, 67–68, 84).¹¹

Contrary to Kenoyer’s suggestion, then, it is likely that each city’s commercial elite made unilateral investments in large-scale public goods, if necessary simply negotiating for all essential cooperation from and making all needed side-payments to neighborhoods and artisans’ sections—that is, bearing as required even the substantial “exploitation” by everyone else. This arrangement may seem implausible at first, but the existence in any city of an elite group of commercial actors prepared to be so “exploited” is entirely reasonable so long as the character and the histories of the seal-using trade groups were what economic theory and archaeological evidence suggest they were (on the “exploitation of the great by the small,” see Olson [1965] 1971, 28–29, and Moe 1980, 24–27).

First, the plainly sizeable merchant groups involved in plainswide trade have been interpreted as having been clans or fairly cohesive groups based on real or imagined blood relationships (Kenoyer 1998, 83). This interpretation is plausible. Owing to the high transactions costs inherent in any long-distance enterprise in an ancient era—costs of searching out opportunities, arranging the terms of transactions, and then maximizing the reliability of the arrangements made—truly adventurous merchants had to be conservative in the organization of their businesses: to rely heavily on family members and relatives within their “firms” in order to send out reliable agents and, with respect to the “external” agents who would represent a merchant in place, to rely as much as possible on relationships of friendship or of family intermarriage

“commuted” to fields each day with some of their animals. Fisherfolk constitute a form of “hunting” society that often acquires its plant foods from others, and some fishers too probably lived in Harappa’s cities. It is therefore extremely likely that many of the distinct neighborhoods of the cities had “tribal” connections with groups of pastoralists or riverine folk. On fishing peoples, see Lenski et al. 1991, 202–5. On the occupational composition of Harappan cities, see Kenoyer 1998, 128.

10. Soapstone seals were used to impress ownership marks onto wet clay sealings attached to bundlings of trade goods. Most known examples of Harappan script are also inscribed on these seals.

11. “Monopoly power” with respect to a good or service requires complete control over access to at least one raw material or to a producer’s good or service critical to its production (Kirzner 1973, 19–23, 101–12, and 1979, 98–99). Thus, although a plurality of actors in a market—apparently the typical situation in Mesopotamia in the era 2500 through 1500 BCE—can never indicate other than that competition holds, it is always possible that one actor might completely occupy without monopolizing a market.

(Silver 1985, 39–41). These considerations, combined with the ancient traders' great interest in diversification, even fostered a fair number of *zaibatsu*-like firms (Silver 1985, 50–51).

How did large merchant clans originate? On the most general theory of entrepreneurship, which emphasizes the entrepreneur's sheer market attentiveness (Kirzner 1973, 30–87, 1979), the “founders” of such clans ought mostly to have been merchants at plains crossroads locations. They simply perceived and then exploited the opportunities presented to them (through the detailed knowledge effectively supplied) by the participation of numerous short-term traders from distant places in their markets—especially traders bringing in new varieties of the raw materials that were coming to be employed commonly by a location's artisans (Kenoyer speculates that such materials often arrived in these markets [1998, 91–98]).

It would thus be fair to assume that what have been identified as the Harappans' long-distance extractive operations, down the Indian coast and up into the highlands of Afghanistan (Kenoyer 1998, 91), were at least in impressive cases the projects of some of the large professional trading clans. The whole complex of settlements dependent on the massive, carefully defended coastal “hub” at Dholavira—a complex that must have required large extraregional food imports and was initially devoted entirely to the acquisition and processing of local raw materials (Dhavalikar 1995, 32, 61, 101–18; Lahiri 1992, 97–108)—was conceivably the product of operations in which at least some of the long-distance merchants came to participate (trade seals are apparently of Harappa-wide derivation [Dhavalikar 1995, 182]).

Now, it is clear that Dholavira moved beyond a role centered purely on regional extractive operations as its traders discovered Omani and Persian Gulf demand for various raw materials and goods that they were able to acquire either on the Indian coast or from Harappa's inland settlements (Dhavalikar 1995, 126–29, 156–60; Reade 2001, 28). Moreover, given (1) what came to be the era's seagoing capabilities (Ratnagar 2004, 212–35), (2) the spread of Harappa's commercial practices, such as its system of weights, as far as the central Gulf and southeast Arabia (Edens 1992, 131), and (3) the existence of Harappans and indeed of a Harappan trade colony in Mesopotamia (Parpola et al. 1977; Possehl 1994), this trade must have been substantial.¹² If a number of the large merchant clans generated and more than likely heavily made up Dholavira at its peak, at least in their proportion of its economic activity—if

12. Some archaeologists have effectively downplayed the possible scale of Harappa's trade with Mesopotamia—a trade involving Harappan exports of wood, metals, and shell (Dhavalikar 1995, 136–37, 149–51; Kenoyer 1998, 97–98). They hold that whatever goods the Harappans received, apparently sorts not prone to show up clearly in excavations (Crawford 1973), cannot have included any of Mesopotamia's major and, as it happens, perishable products because the Harappans already had available sources of such things as wool and leather (see, for example, Lahiri 1992, 409). It is not clear why the conceivably huge Mesopotamian advantage in the production of diverse varieties of dried fish (see Crawford 1973, 233–35) has been ignored, but the argument in any event makes the false assumption—a matter of failing to grasp the subtlety of the principle of comparative advantage—that in making trade-offs over competing uses of their resources societies never end up importing goods they are technically superior in producing (and even continue in some measure to produce).

their interests became so diverse and far-flung and were conducted on such a large scale (Dholavira came to have the physical size of a great inland city [Kenoyer 1998, 50])—it is difficult to suppose that they had not for some time been engaged in very large material operations or to doubt that each clan necessarily possessed a large absolute stake in the affairs of whatever inland city served as its vital base, as surely one always did (likely in most cases the site of the clan’s commercial beginnings).

Some of Harappa’s large merchant clans ought therefore to have been among the merchant groups of the ancient world that were *zaibatsu*-like, making it likely that at least some (perhaps any of the highest rank) of the inland cities possessed a locally emergent commercial elite *naturally* possessed of a great commitment to urban development.

But what about any large settlements that did not have such elites? And how *cohesive* (able to cooperate) were the commercial elites? In these regards, one trading group that must have been among the very largest (its seals are the most common [Kenoyer 1998, 87]) must be given consideration.

Apparently headquartered in Mohenjo-Daro, the site of the earlier-mentioned major ritual center (at least in some sense a temple), the “unicorn” group appeared everywhere in urban Harappa. It seems to have been a strong participant in overseas trade (Dhavalikar 1995, 183; Kenoyer 1998, 87; Ratnagar 2004, 337). Almost without question, it was a temple-linked trader in its far-ranging enterprise—a common ancient phenomenon (Silver 1985, 19) because temples were frequently well positioned to become familiar with the commercial conditions (and the major commercial actors) in distant places. General resistance to defaulting on gods gave temples considerable success and so a special prominence in early banking (Silver 1985, 84–89), and merchants often made and took pledges in the “presence” of gods in order to lower transactions costs (Silver 1985, 14–18). As the perceptions of opportunity that created the unicorn group were those of the temple, it is likely, given the generally high transactions costs in so early an era, that the organization was itself composed, at least at its core, of priests (who were considered reliable owing to commitment to the gods or to some special dependence on the temple or perhaps as members of its hereditary priestly clan).

The unicorn group’s even and deep involvement in Harappan commerce—likely the result of the temple’s being located in what long tended to be Harappa’s largest city (Dhavalikar 1995, 178), and therefore being the place in which early expanding merchant clans had most easily met—effectively guaranteed to every major settlement the presence of at least one commercial actor with a large absolute stake in its fortunes and at the same time must have significantly lowered the bargaining costs of local elites, for at least two reasons. First, the unicorn group must have possessed a great wealth of experience in the organizing of urban public-goods supply, no small matter at a time when the trade of whole cities began to recover after foundering badly for decades (marked by decay in drainage systems [Kenoyer 1998, 62, 82]) or in other eras when cities experienced accelerating growth (as much as nearly doubling in size

[Kenoyer 1998, 82]). Second, others of the group's religious and related commercial status would have been affected, provoked within the inescapable interactions of bargaining to make investments in business-relevant *reputations* (specifically, those for maintaining a due regard for *any* gods—not only for the temple's—and of course for their agents).

The emergence in Harappa of large long-distance merchant clans investing in extractive operations within their own regions and beyond, soon joined everywhere by a plainswide participant in long-distance trade (natural market developments), is a phenomenon fully compatible with what is known of Harappan economic evolution and one that appears to make all of the Harappans' large-scale public-goods production explicable—including even the first and in some ways the most impressive public good, the reconstruction of many larger settlements' walls and streets as cities first emerged (Allchin and Allchin [1988] 1996, 173, 220–21). As commercial towns and cities grow, their inhabitants transform outlying areas into suppliers of raw materials (Jacobs 1969, 1984).

Thus, it seems reasonable to hold that Harappa's archaeological uniqueness has to do with the civilization's having generated purely *voluntary* government—and a far safer bet than the view that remains have been unusually resistant to interpretation or that they stand for states of an unusually pacific, modest disposition.

The Ecology of An Absent Oppression

What circumstances might have made such a civilization possible?

To begin, we can easily understand what ultimately made for the general flourishing of production and trade. First, the area offered rich soils and the possibility of a means of farming that involved nothing in the way of complex irrigation structures. Summer monsoonal flooding gave direct sustenance to crops such as sesame, cotton, and dates, and through its impact on the water content of the soil (Allchin and Allchin 1968, 260) also assisted the production of wheat and barley, which was bountiful especially in the north owing to winter rains from the west. Second, the mountains to the north and west permitted herders to shuttle from plains to high pastures and back again between harvest seasons. Third, the whole area offered numerous points of immediate access to a great variety of raw materials. Southern locations had access to the copper of Baluchistan, and northern ones not only to highlands Afghan copper (the quality copper ore varies regionally), but also to the gold, silver, and tin of southern Afghanistan. Regional variations in access to precious stones, sandstone, types of timber, and different marine resources existed as well (Kenoyer 1998, 91–98).

In other words, like at least most of the world's great river zones (the Nile Valley, for example, is an exception, though not to the point that it entirely prevented specialization and trade), the area contained and also afforded access to numerous ecozones.

As plains settlement proceeded in earnest in the early to mid-third millennium BCE, a number of settlements, uniquely in the history of the world's earliest urbanizations, evolved smoothly and after some point rapidly (in a century or two) from regional centers of production and exchange into centers of highly specialized craft production and unmediated long-distance (interregional) trade (Possehl 1990, 274–75; Kenoyer 1998, 39–40, 43, 49). The Harappans began relentlessly, at a gathering pace, to expand the dimensions and content of their overland commerce with one another (also with the western highlands) and to generate growth in their riverine trade (Kenoyer 1998, 40), with great cities arising as they did so.¹³

The smoothness and speed with which people on the Harappan plains shifted into interregional trading activity reflected—along with the Harappans' possession of oxen and their ability to fashion metal tools—the costs of their obtaining two sets of material resources. The Indus and Ghaggar-Hakra plains area as a whole possessed from the start substantial potential access to metal ores, copper and tin being especially important (on their sources, see Dhavalikar 1995, 132–36; Kenoyer 1998, 94; Ratnagar 2004, 119–28), and to numerous varieties of construction-quality wood (Dhavalikar 1995, 150–51; Kenoyer 1998, 57; Ratnagar 2004, 128–40). In contrast, neither early southern Mesopotamia (in particular with respect to metal ores) nor predynastic Egypt (except with respect to copper imported into the far north from southern Palestine [Harrison 1993, 83]) had such access to critical raw materials. As the Harappan population centers and trade-related income grew, some especially vigorous settlements (and then others after receiving their stimulus) began to be supported by large volumes of grain delivered by animal-drawn wheeled vehicles—for such purposes almost incomparably efficient preindustrial land transport that multiplied the sizes of animal-transported loads by a factor of no less than five (Schmandt-Besserat 1999), and in antiquity essential to any land-based commercial generation of a major long-distance trade center.¹⁴ After a certain point, the shifting time preferences of more and more hinterland farmers—their enhanced ability to defer consumption and to expend resources on increasing their production capacity (Mises 1949, 476–534)—resulted in increasing investment in vastly more efficient means of transportation, support-

13. Fifth and fourth millennia southern Mesopotamia also experienced a growth of long-distance exchange (with places even far to the north) and eventually produced great cities, so that it might seem a similar case; however, the cities emerged only following an impressive reduction (far from an acceleration) in that exchange in the mid-fourth millennium, which in any event had to do at every stage with a demand for “status” consumption items on the part of southern elites, making this demand an unlikely agent of southern urbanization. See Oates 1993, 407–11, 416–17.

14. McNeill, in discussing what was needed for the coercive transfer of goods into the early great cities, effectively makes the case that only highly efficient animal-drawn vehicles could have managed purely land-based commercial support, although not only the friction-minimizing hub-and-axle vehicles he mentions, but also Harappan types were highly efficient (2000, 208–9). The solid wheels of Harappan carts were likely joined to their axles, a workable arrangement because the resulting wide turns caused no problem on the uncrowded and sandy terrains the carts typically traversed (Kenoyer 1998, 89). Although the pack camel was competitive with the earliest wheeled transport using other animals, the spread of the domesticated two-humped camel outside of northeast Iran and Turkmenistan and of the one-humped variety beyond a small coastal region of south Arabia began only in the second millennium BCE (Bulliet [1975] 1990, chaps. 2 and 6).

ing larger settlements and as a result much more overland interregional trade (using carts or pack animals).¹⁵ Soon too began a commerce permitted by the wood-based construction of reliable, larger-capacity watercraft, which must also have aided some hinterland support of the cities.¹⁶

The political impact of this pattern of development was necessarily profound. Although truly desperate struggles over resources—a major cause of war for most primitive societies (Keeley 1996, 138–41)—were unlikely for the parts of the early farming world on floodplains or other places rich in grain, opportunities and incentives for military action became considerable for some of them past some point as production and population density rose (technologies changing only slowly), as communities multiplied, and as some communities happened to grow especially fast in scale and so in military manpower. Neighbors' grain stores invited plundering, and a community's own stores permitted the support of a new class of military specialists. A settlement's residents were typically *undistracted* from such collective investments (*some* intercommunity issues inevitably offering grounds) by thoughts of household or clan undertakings in expanded trade, which were impeded by surface-related difficulties, when not by the nonexistence of obvious opportunities or by a hard-to-eradicate shortage or even the sheer absence of useful vehicles or animals. These difficulties included the high cost of caravan transport outside certain great grassy landscapes (Silver 1985, 64); the problems generally posed for sea transport by wind conditions prior to the lateen sail (McNeill 1994, 19); and the fact that in some parts of the world dense forest cramped the growth of fields, and therefore that of market towns, until iron tools were widely available (ironworking, due to its technical challenges, always being a late development).

Not surprisingly, then, what became the core of the earliest social formations moving humanity toward the state were whole (small) societies: communities (or alliances of such) whose widening success in war after war ultimately enabled them to reduce their nearest neighbors to a permanent subordinacy, requiring of them regular transfers of goods and, in the event of further wars, of men and supplies. Through a long series of military campaigns within a hard-to-exit environment (bounded by large tracts of already occupied or low-quality land or else by such barriers as deserts or mountains), each of a number of such societies eventually succeeded in constructing a large hierarchy of trapped victims cum vassals—scores of subordinated societies, at least tens of thousands of people. By that time, any conquering society's war chief and his supporters and greatest warriors (likely in the long run to become king and aristocracy) had long come to traffic in flows of spoils, and the social order itself was

15. The slowness of ox carts and their need to be disassembled for difficult terrain would have put some limits on their long-distance use (Ratnagar 2004, 241).

16. Ray holds that the capabilities of the reed boat, used in Harappa, Mesopotamia, and Egypt, have been underestimated (2003, 56, 58). However, it would still seem reasonable to assume, with Casson ([1971] 1995, 13), that reed craft anywhere tended in the main to be useful for the hauling of lightweight cargoes in marshes and on canals and close to riverbanks.

radically changing, centralization beginning to meld societies into one, and all militarily inactive “metropolitan” households effectively joining the conquered in a new lower class (Carneiro 1970, 1987, 1988; Graber and Roscoe 1988; Deflem 1999).¹⁷ In the case of Harappa, however, “entrepreneurial” raiding had little chance to start. Late-fourth-millennium and early-third-millennium farmers spreading out from their early zones of settlement had naturally scattered themselves widely over the plains in search of their best opportunities, so when the processes of interregional trade began (without pause) to induce the rapid rise of what were to be Harappa’s greatest cities, these cities had truly mammoth hinterlands, ranging from 100,000 to 170,000 square kilometers (Kenoyer 1998, 50), the largest for any early civilization. Beyond a number of still potentially relocatable communities (not at all geographically trapped) that fed the major local trade center and supplied it with raw materials, the “neighbors” of this center became the distant great settlements that were increasingly constituting its critical markets. And so states never formed.

In sum, the onset of vigorous interregional trade long preceded any possibility of growing cycles of violence and the emergence of increasingly skilled and well-organized specialists in war. Therefore, elites had little chance, barring external influences, of ever emerging with the particular skills and capital resources that would permit and eventually entice them to engage in the business of large-scale cross-societal and intrasocietal theft (however “enlightened” they were).

Harappa’s Origins and the State in History

Extensive exploitation of comparative advantage in antiquity entailed time-consuming long-distance transport, and the rapid rise of major trade centers depended on farmers’ ability to shift quickly into the high-volume transport of food. Thus, only if transportation capabilities were potentially significant on all scales and if the opportunity to invest in major transport improvements was widespread within hinterlands was any group of grain-rich societies that lay within a system of mutually accessible economic regions in a position to avoid state formation.¹⁸

17. Although theories of early state formation vary in detail, none that excludes cycles of conquest warfare as a critical variable is “competitive,” if only because it is unclear how any role other than that of conqueror could ever have served as the kernel of what became the typical early kingship (whatever the details of state ideology or of the leadership of a *declared* class despotism). What might otherwise explain so easily why the role of citizen, where it existed in an early state, was undergirded by that of soldier? “Integrative” theories emphasizing the mostly peaceful rise of largely welcome societal leaderships (the “classic” work with this emphasis is Service 1975) obviously suffer here, but so too do pure “social stratification” theories such as Fried’s (1978), which in particular fail to explain why conflict *must* exist between social strata cohering as groups.

18. It has been argued that the intricate fluvial system that arose in the delta of the Euphrates and Tigris in the fourth millennium as a result of sea-level changes produced cities involved in large-scale local inter-urban trade (Zarins 1992, 57–66; Algaze 2001, 202–4). As Hans J. Nissen has noted, however, “near-identical soil and climatic conditions throughout the alluvium almost certainly resulted in identical animal and plant populations” (qtd. in Algaze 2001, 222–23). In other words, ecologically distinct microregions did not arise. Therefore, as seen in the light of the interpretation I am offering here, the delta’s largest

However, especially given that most of the world's earliest highly productive farming emerged on big floodplains—that is, in areas either constituting or lying within extremely wide or elongated landscapes open to overland or waterborne transport—it is not obvious that Harappan tendencies had to be rare. It is easy to imagine our sort of world—a world with several enormous, continent-draining rivers—as having had a history in which a number of “Harappas” emerged and even exercised an influence (through political means or subtler cultural effects) over much of the rest of the planet (that is, over the histories of areas prone to generate states). It is easy to imagine such a world's earliest “great alluvium” or similarly advantaged societies as possessing early on access to an already developed or developing sophisticated metallurgy; considerable access to metal ores (thus the potential for a wide availability of carpentry tools); easy access to plentiful wood for carts, wagons, and wood-built complex boats; and useful draft animals for sufficiently efficient wheeled transport.

First, humanity's acquisition of sophisticated metallurgy was fundamentally a consequence of the accumulation of crop surpluses because the resulting need to use more containers led to the use or increased use of pottery. Large-scale production of pottery in kilns usually led to the accidental discovery that the high-temperature baking of some sorts of earth could produce remainders of metal (Wallace 1983, 293–95; Lenski et al. 1991, 131–32). However, in the places where three of the six early topographically “advantaged” civilizations emerged (southern Mesopotamia, Egypt, Harappa, early North China, the Yangzi area, and Mesoamerica; the deserts and rugged terrain of the world's seventh early zone of civilization building—coastal and highlands Peru—scarcely invited wide-ranging trade), metallurgy of any sort faced enormous obstacles.

In Mesoamerica, the potential for an active local interest in metal was low because high-quality obsidian—normally used to cut other rocks and widely available and useful for almost anything but the precision-cutting of wood (Crabtree and Davis 1968, 428; Hallock 1979)—was the material from which tools and weapons were made (Stocker 1995). When metallurgy at last arrived from lower Central and South America, it was taken over for the production of elite status items (Hosler 1988).

In China, the infrequency of outcroppings of copper (the only common metal appearing in almost pure form in nature, normally where tectonic plates converge [Tarling and Tarling 1977, 122–24, 126]) meant that China's earliest peoples could do almost no working in copper (Kaplan 1997). Therefore, the opportunity ultimately inherent in the appearance of small flecks of metal on kiln-produced pots was impossible for most early kiln operators there (living in a pure Stone Age) to grasp until they had actually seen metal items that had been produced in unusual corners of China or elsewhere.¹⁹

settlements—none much different in access to extradelta ecozones and all initiating major long-distance trade only after urbanization, if at all in the fourth millennium (see Oates 1993, 411–14)—must represent parasitic and long mutually aggressive polities. This view is also plausible when we consider the massive defensive wall at the Uruk Mound (Pollock 1996, 689).

19. On the factors possibly at work in the discovery of smelting, see R. Cowen 1999.

The early civilization of southern Mesopotamia, though situated in a part of the world that had developed sophisticated metallurgy, had no nearby access to metal ores or to metal products.

For the peoples of the Nile Valley—whose northern reach, at least, was not far from sources of metal—wood was exceedingly rare. A long trend to cooler summers and milder winters,²⁰ in weakening monsoon systems²¹ and indeed global precipitation—which reduced continental lakes and aquifers (as sea levels rose) and induced a considerable aridification over much of the earth (Jacobs and Sahagian 1993)²²—had contracted stocks of wood more drastically in North Africa (in the fourth millennium BCE producing the Sahara) than anywhere else, so that wood could be acquired only through long-distance trade.

In the New World, potential draft animals did not exist (except possibly llamas, never used outside of the Andean region and of limited utility [Harris 1989, 490; Gade 1992, 467]). The lateness of humanity’s occupation of the Western Hemisphere had made for animal populations that were unadapted to and thus often insufficiently able to avoid the earliest human hunters, who themselves failed to elaborate workable property rights in the hunting of animals that moved about a great deal (Ridley 1996, 217–20, 240–42).

Natural-historical “accident,” then, would seem to have played a critical role in making Harappa unusual. Against this notion—that on a somewhat differently configured earth (that is, on an easily imaginable system of land masses and tectonic boundaries allowing different patterns of species extinctions, climate shifts, and early human discoveries) transport conditions would have made Harappan-style statelessness more common—two arguments might be made.

First, it might simply be argued that even in the history of an “alternative” earth, large zones of nonstate civilization would have had to experience external security problems at some point and that the prolonged conduct of military projects of sufficient scale is all that is ever needed to establish the conditions for eventual state formation—that is, for the domestic political exploitation of armed force (if only very gradually). However, large nonmaritime civilizations’ extreme vulnerability to external attack created the necessity either of defense in depth (and so for omnipresent military forces) or else of frontier guards with something of their own capability for rapid power projection (long-distance coups then becoming a danger). Both of these conditions historically have depended almost entirely on humanity’s efficient

20. Produced by planetary cycles relating to the angle of tilt and the overall wobble of the Earth’s axis.

21. Controlled by seasonal air-temperature extremes on land: rising landward heat in summer sucks in water-laden winds from off the cooler seas; plummeting landward temperatures in winter result in dry reverse winds owing to the tendency of the seas to conserve heat.

22. An extreme century-level acceleration of this process, after which the Indian monsoon continued to weaken through the mid-second millennium BCE (Phadtare 2000), likely forced Harappa’s decline (Weiss 2000, 81). North Africa’s obviously related steplike increase in aridity at the same time has been explained in terms of a feedback effect involving vegetation loss and ground-surface reflection of sunlight (Claussen et al. 1999).

military exploitation of one species of those fleet-footed ungulates typically living on the earth's temperate grasslands (Woodward 2003, 120)—namely, the horse. This species nearly went extinct owing to its unusual vulnerability to the pressures, including human overhunting, created by the end of the last Ice Age (Clutton-Brock 1992, 24–25), and its resistance to domestication made it the last major species of livestock human beings acquired (Clutton-Brock 1992, 22).²³ In other words, natural-historical accident relevant to transportation would again seem to have been in play.²⁴

Second, it might be argued, following the apparent implications of the famous Wittfogel thesis (Wittfogel 1957), that as complex, large-scale irrigation and flood-control systems emerged on many of the earth's great floodplains, the resulting need for elaborate planning and maintenance activities fostered the emergence of a highly centralized managerial authority, which at some point was effectively bound to constitute the state (on Wittfogel's presentation, a particularly despotic version of the state). However, the technical and managerial skills essential to constructing and running even the largest and most complex irrigation and flood-control systems have always and everywhere been the product of nothing else than the accumulated experience of those involved in complex irrigation farming (Bray 1986, 28–43, 69–105). Hence, it is far from obvious why voluntary institution building among farming communities should ever have been incapable of handling growing complexity. In fact, the water affairs of some large “hydraulic” farming zones have been managed for centuries strictly on the basis of the voluntary activity of farmers themselves. A network of land-owning clans led by the famous Sailendras managed the ancient Kedah River hydraulic complex in south-central Java (Hall 1985, 114–20), and the Balinese systems of irrigation and flood control have always been handled by Bali's cultivators (in conjunction with a nearly islandwide hierarchy of water priests—with ritual and supernatural sanction as well as the priests' critical calendrical skills helping to make the whole regime work [Lansing 1991]). In other words, large agromanagement complexes never required state bureaucracies; rather, in many parts of the world, already-existing states “captured” such infrastructure as it emerged, presumably to avoid having to bargain with independent private “hydraulic” elites, as Bali's many kings and aspiring kings, clearly rising too late, were forced to do (see Lansing 1991, 7–8, 32–35, on Balinese kings and kingdom boundaries in relation to irrigation systems).

23. Of course, in some areas in or near deserts the camel eventually played the military role of the horse. However, because camels also nearly went extinct as a result of predation (nonhuman, for the most part) during the earliest centuries of aridification, their domestication also nearly failed to occur (Bulliet [1975] 1990, 30–35).

24. In effect, the horse (and in some places the camel) helped create in inland areas a

level of military vulnerability closer to that experienced by sea-dependent urban societies—for example, by the cities of the ancient Mediterranean, whose food-producing “hinterland” zones eventually came to be overseas grain-growing regions (McNeill [1967] 1999, 91–93). (Of course, the camel created a sealike environment, making cities that with the invention of a certain version of the camel saddle (Bulliet [1975] 1990, 95–96) then faced problems posed by camel-based bandits and protection rackets. (See Wolf [1951] 2001, 107, 109, 111–12, on what may have been the complex external problems of the early Meccan proto-state, itself partly plunder based.)

Conclusion

It would seem, then, that the great role of the state in history, far from having been necessary for the resolution of problems inherent to human social organization, has been a highly contingent phenomenon, entirely dependent on certain peculiar features of our world's natural history and their effects on premodern transportation.

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