

PRESTATE POLITICAL FORMATIONS

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It has long been evident that the first states—societies with specialized and hierarchically organized agencies of control—did not arise precipitously from a context of small independent egalitarian communities. Our nineteenth century precursors, relying largely on such sources as the Old Testament and classical myth or historiography, proposed that states developed from “primitive aristocracies,” societies in a state of “higher barbarism” and the like. With the renewed spread of interest in evolutionary questions during the late 1950s, however, most scholars, relying on ethnographic accounts from Polynesia and Africa, conceptualized the antecedents of state organized societies as “chiefdoms.” This social form was explicitly defined and discussed by Elman Service. For him, chiefdoms can be defined as “redistributional societies with a permanent central agency of coordination” (Service 1962: 144). His conception has served to focus much fruitful research; it has also been criticized for a number of reasons. Important for our understanding of state origins are the criticisms that (1) the taxon “chiefdom” includes societies of varying scale, among which only the more complex variants could become states, and (2) Service’s emphasis on the definitional and explanatory importance of “redistribution” as a means of provisioning chiefly societies is not sustained by recent archaeological and ethnohistoric case studies. Timothy Earle has sought to resolve such problems by proposing a class of “complex chiefdoms” marked by “(1) discontinuity in rank between chiefs and commoners;

(2) specialization in leadership roles; and (3) increased centrality in the regional hierarchy" (Earle 1978:12). I have seconded this position, arguing that such a construct was a necessary element in a theory of primary state development (Wright 1977:381). In recent years there have also been many theoretically challenging case studies of particular complex chiefdoms, in both the New World (Peebles and Kus 1977; Helms 1979) and the Old (Renfrew 1973; Frankenstein and Rowlands 1978). It was thus surprising to read, in a recent review of the issue of chiefdoms by Robert Carniero, that "we still know very little about chiefdoms" (1981: 37). One could simply cite Carniero's own stimulating overview as refutation of his comment. Instead, however, I will emphasize a few recent insights which seem to me to point toward a unified construct explicating the variations in complex chiefdoms as pre-state political formations. (The word "formation" is used to emphasize that I am discussing systems of culturally constituted actions, rather than the actors' images of their "society.") Then I will evaluate this construct with evidence from Southwest Asia. First, however, some terms must be introduced.

For purposes of this discussion, a "chiefdom" can be recognized as a socio-political entity in which overall social control activities are vested in a subsystem which is externally specialized vis-a-vis other activities, but not internally specialized in terms of different aspects of the control process (e.g. observing, deciding, coercing); there is, in short, one generalized kind of political control. Within this set, however, there is a continuum of varying complexity. Simple chiefdoms are those in which such control is exercised by figures drawn from an ascribed local elite subgroup; these chiefdoms characteristically have only one level of control hierarchy above the level of the local community. The Trobrianders and the Tikopians are examples. In contrast, at the other end of the continuum, "complex chiefdoms" are those in which control is exercised by figures drawn from a class of people which cross-cuts many local subgroups, a "class" being defined as a ranked group whose members compete with each other for access to controlling positions and stand together in opposition to other

people. Complex chiefdoms characteristically cycle between one and two levels of control hierarchy above the level of the local community (Wright 1977:381). The Hawaiians and the Natchez are oft-discussed ethnographic examples. These definitions differ from those previously offered, and some readers may object that a new definition demands a new term. The purpose of such terms, however, is to facilitate the selection of cases relevant to a particular theoretical problem. If a new definition results only from the clarification of an existing line of thought, as I believe this one does, then the further proliferation of terms seems unwarranted. The term "complex chiefdom" is not particularly poetic, but it has the advantage of being widely recognized.

The last of the world's complex chiefdoms were brought under state control early in this century, and the study of such developments is possible only with ethnohistorical and archaeological evidence. The recognition of archaeological examples of such socio-political entities relies upon the material consequences of the emergence of a chiefly class or nobility, members of which control generalized, polity-wide decision-making. We expect the following three features of spatial organization to be useful in identifying past complex chiefdoms.

1. Settlement hierarchy: the center of each polity in a network of interacting complex chiefdoms, usually the seat of the paramount, will become both larger than and architecturally differentiated from ordinary chiefly centers, both physically accommodating the paramount's following and providing a focus for major social rituals. There will thus be two levels of settlement hierarchy above the level of producer communities, though particular control activities may not have two levels of control hierarchy. When state organization with internally specialized control activities develop, they can be expected to take advantage of their capacity for greater hierarchy without fission, increasing span of control (cf. Johnson 1982:411-13) and generating more complex settlement hierarchies.

2. Residential segregation: While architecturally differentiated housing, albeit without vastly greater labor inputs, characterizes all societies with ascriptively higher-ranking domestic units, in complex chiefdoms with a discrete noble class there will be segregation by neighborhoods or in special communities of elite residences. We do not, however, expect palaces, built with mass labor inputs and providing spaces for specialized administrative activity.

3. Mortuary segregation: In addition to the more complex burial programs afforded ascriptively ranked individuals in simpler chiefdoms, we can expect that the noble dead will be isolated in death, as they were in life, close to areas of major ritual display. Unfortunately, in some societies, this may involve above ground maintenance of the corpse, such that it does not survive in the archaeological record, so mortuary evidence must be considered carefully.

In spite of practical problems with a single criterion, consideration of any possible case in terms of the three together should allow the recognition of a complex chiefdom as encapsulate in the construct discussed below. In the remainder of this paper I am going to attempt to synthesize three areas of recent research by anthropologists involving ideology, the control of production, and the control of the decision-making process itself. First, I will assess some recent research of these three aspects of chiefly societal operation. Then, these insights will be re-ordered and synthesized into a construct outlining the operation of complex chiefdoms. Finally, I will assess the evidence from the period immediately preceding state emergence in a portion of greater Mesopotamia to see how it corresponds to expectations derived from the integrated construct.

Some Recent Research on Complex Chiefdoms

As mentioned above, the formulation of the concept of the "complex chiefdom" (Earle 1978) was in part motivated by re-evaluations of redistribution as a means of provisioning society as a whole. Such critiques contained various suggestions regarding the actual effects of chiefly redistribution, among the most intriguing of which were those noting that, while food and goods are extracted as tribute from producers, actual distribution is characteristically to lesser figures within the chiefly class, rather than to the whole populace, and that the redistributed items are often goods made by specialists, either part-time specialists locally supported by commoner production or full-time specialists supported by chiefs using some of the tribute extracted from producers (cf. Earle 1977; Peebles and Kus 1977:424-426). One can reason from this that if local production falters, then local subsistence producers would have to spend more time in more intensive food producing activities and less time on craft work. At first the movement of craft goods upward toward the paramount would decrease; if the crisis deepened, the flow of subsistence goods also would decrease. The first general material manifestation of a local problem would be a decrease in the exhibition of chiefly generosity to the lesser nobility and their followers (cf. Wright 1977:382). Similarly, decreases in the distribution of centrally produced goods would signal falloff in the paramount's income and therefore a deepening production or managerial crisis, and decreases in goods imported from other polities would signal falloff in inter-chiefdom exchange and thus diplomatic failures. Such deficits could be expected to motivate either chiefly reforms, internal rebellions, diversionary declarations of war on neighbors, or various other responses, depending on the particular local situation. Any of these actions would lead to a new adjustment between production and tribute demands. Thus, chiefly distribution of craft items and materials, at least among the complex chiefdoms, can be conceptualized as a mechanism regulating the tributary economy.

Is there archaeological evidence that such distributional regulation actually characterizes pre-state polities? In Mesoamerica, there is evidence of redistribution in both the Early and Middle Formative phases in the Valley of Oaxaca (Winter and Pires-Ferreira 1976). There is also evidence of craft specialization, both central and local (Flannery and Winter 1976). Is there evidence, however, that the distribution of goods, among its other results, also informed ancient Oaxacans about the state of their political economy and, from their perspective, the competence of their chiefs? There is some evidence that conforms with this proposition. For example, in a sequence of house construction and destruction incidents at the subsidiary village of Fábrica San José, a drop in the quantities of imported obsidian relative to local cherts is accompanied by burning of the house, suggesting that redistributive failure is indeed associated with violence (Drennan 1976b:89, 206; Wright 1977:391). However, there are alternative ways of interpreting these data, and broader studies explicitly designed to evaluate the regulatory role of redistribution in chiefly Oaxaca are still in the future.

If redistributive failure can serve to motivate war and rebellion and to adjust the relation between population, production, and extraction, how does production and extraction ordinarily proceed? In short, what is it that was being "regulated?" Working with ethnohistorical and archaeological data from southeastern North America, Vincas Steponaitis (1978, 1981) has recently investigated this question. He was intrigued by a paper by Elizabeth Brumfiel (1976) which examined settlement sizes and the productivity of settlement environs during Middle and Late Formative phases in the Basin of Mexico, in order to see whether the correlation between population (as indicated by settlement size) and productive potential of the environs increased with increasing regional population density. In fact, she found a complex relation in which larger centers seemed to have a far higher ratio of people per unit of productivity than smaller centers (Brumfiel 1976: Fig. 8-13). Brumfiel suggested that this was evidence that larger centers were extracting or mobilizing subsistence products from

smaller centers. Steponaitis reasoned that such a tributary economy would give rise to settlement patterns different from the "central-place" patterns created in market economies. In tributary economies, in which bulky foodstuffs were extracted, the least costly location for an intermediate tribute gathering center would be somewhere between the local producer communities and the major seat of the paramounts. Local chiefs would here aggregate goods, take their share, and pass the rest to the paramount. Steponaitis predicted precise optimal locations for such intermediate centers based upon the tribute rates and other variables, and argued this to be the case in an archaeological example (Steponaitis 1978). Having elucidated the locations of centers in terms of the economics of tribute mobilization, Steponaitis (1981) turned to the specification of settlement sizes relative to local productivity as depicted by Brumfiel, constructing an elegant algebraic model in which the disparities between the productivity-to-population ratios of large centers versus small centers versus villages were functions of tribute extraction rates. To the extent that a center took a portion of each subsidiary center's production, it could have more people than its local environs could sustain, while to the same extent, subsidiary settlements must be smaller. Assuming locally grown maize to be the primary form of tribute, Steponaitis re-analyzed the Formative settlement data from the Basin of Mexico showing that the settlement sizes observed could be explained in terms of tribute rates of 15% to 22% (1981:343, 355).

With this construct for the operation of tributary economies, we still lack an understanding of the circumstances in which producers would willingly give up much of what they produce in the absence of the reciprocity inherent in a redistributive economy as conceptualized by many anthropologists, or of the coercion that is thought to characterize states. Such issues have been the special concern of ethnologists studying the ideologies of those few chiefly societies which survived into the 20th century, and of ethnohistorians working with 19th century documentary accounts. There have been many contributions to this area of

thought; much of the discussion of "sacred kingship" in Africa is relevant to chiefly ideology. However I, like many North American archaeologists, owe much of my understanding of chiefly ideology, that is, the system of beliefs which motivates both nobles and commoners, to the writings of Marshall Sahlins. Sahlins (1963) long ago suggested that the social class divisions seen in chiefdoms such as those of the Hawaiian archipelago—cases with a highly ranked noble or chiefly class and a commoner class whose rank is minimal—must have developed from simpler patterns of ascribed rank such as those described for smaller Pacific island societies. He suggested that one way in which a noble class could have emerged was from the repeated re-definition of rank distinctions as communities fissioned and moved above (Sahlins 1977: 23). The increasingly far-flung relations among the ranking families, compounded as some individuals are exiled from their homes and others marry distant prestigious kin, must be documented with lengthier genealogical histories, in which exotic and even origins come to be emphasized. The ritual actions of the higher ranking chiefs, even their very existence, is thought to sustain the universe and nothing commoners could do can reciprocate adequately for the chiefly contributions (Sahlins 1981). No material recompense should be needed for offerings to chiefs in their ritual capacities. Food, the labor to build chiefly houses and shrines, and the sumptuary goods which mark them off from ordinary people all flow to the paramounds.

But how are such ideologies to be archaeologically documented? In the Americas, the development of the symbols of rank and their implications for chiefly ideology are widely discussed. In earlier Formative Mesoamerica, the wide distribution of objects fashioned with "Olmec" motifs (Benson 1968) represents such a development. Associated objects of magnetite, jade and other materials were fashioned in ways calculated to dazzle and mystify (Drennan 1976a:357-359). Individual objects, of course, have little significance; it is the occurrence of a complex of motifs and materials in a context of ritual use which can be used to test propositions about ideology. A more precise indication that a system

of beliefs about cosmic power was operating is the existence of symbolizations specifying nobles and the major events important in their lives in terms of cosmic forces. In Oaxaca, representations of cosmic and natural elements develop in the Early Formative (Pyne 1976) and the naming of nobles with calendrical signs is firmly attested during the Formative (Marcus 1976:43-45; Flannery, Marcus and Kowaleski 1981). Such naming is the kind of cosmic association which can motivate participation in the tributary economies previously discussed.

These three elements can now be taken, not—as above—in the order in which they became important to my thinking, but in the dynamic order in which they come into operation, as chiefs expanded their ritual and political control of production, warfare, and other aspects of societal life.

An Integrated Construct for Complex Chiefdoms

Neither the difficult question of why some societies ascribe the right to make community-wide decisions to office-holders drawn from a limited social sub-group, nor the question of why some networks of simple ascriptively ranked societies develop social classes are crucial to this essay. Regarding the latter question, it suffices to suggest that—if productive systems can sustain a continuity of the social network in time (and many cannot, cf. Leach 1954; Friedman 1975)—with time, intermarriages and disputes among the ranking families will disperse claimants to office. Many individuals may compete for offices with which few will have any local connection. Indeed, the ranking or noble class as a whole can be expected to oppose any local interests (cf. Bloch 1977). Thus, the development within a network of chiefly polities of a class competing for positions, but opposing others outside the class, may be simply explained.

Whatever the explanation of the development of a chiefly class, each family within it will have far-flung marriage alliances, very different from the local networks of commoners. Claims of

geographically distant prestigious links or temporally distant divine links will be emphasized in the competition for offices. Once office is achieved, one's ritual prerogatives will be bolstered with claims to cosmic powers resulting from these links. As such claims to power become grander, the need to materially reciprocate commoners for their gifts become less, and "reciprocity" or "redistribution" can be transformed into tribute mobilization.

The centripetal flow of tribute must aggrandize the center, simultaneously giving the paramount the possibility of becoming more than a first among equals and making the other office holders permanent political and ritual subsidiaries. Two levels of control hierarchy are evident on each occasion that goods or people are marshalled for the paramount and his followers. The subsidiary chiefs' centers will be located to facilitate control with a minimum expenditure, main centers will grow in proportion to what paramounds receive and smaller centers grow no farther than the limits imposed by tribute demands.

A paramount's best strategy will be to keep administration as simple as possible. The fewer levels of hierarchy below him, the more difficult it will be for subsidiaries to rebel or make separate claims at his death. Ritual, extractive, and political activities are redundantly linked so that to undertake one is to do the others, minimizing need for administrative complexity. Productive activities are left as much as possible to individual producers and economic self-sufficiency is encouraged making exchange less frequent thus further reducing demand on the administrative capacities of the chiefs (Earle 1978:158-162). The success of the paramount in times of bountiful natural productivity and successful rule would be marked by an upward flow of consumables and status-related craft goods. Any diminution in the redistributing of such items will lead to claims of chiefly incompetence among sub-chiefs and chiefly followers. The wise paramount will attempt to reorganize production or to increase his income by seizing productive capacity from his neighbors; the unwise paramount, especially one who has been so foolish as to create more than two levels of hierarchy, will face assassination, fission, or rebellion led

by other nobles who believe themselves to have better claim to the office of paramount. Whatever the outcome, nobility and commoners will be killed, political relations will break down, and the building process will start again.

This kind of system will have a characteristic pattern of centralization and decentralization through time. Brief periods of breakdown, occurring every decade or so—succession disputes, minor rebellions and small wars—are frequently observed ethnographically but will be documented only rarely with presently-used archaeological technique. Region-wide rebellions, civil war, and perhaps the replacement of one chiefly line by another will be expected after long and successful paramuncies during which chiefly families have multiplied and segmented, perhaps every century or so. The destruction and perhaps even the abandonment of great centers and changes in traditional chiefly symbolism should be evident to the archaeologists.

At this point, it would be instructive to evaluate this preliminary construct with evidence from a network of developing complex chiefdoms in the Old World very different from New World and Polynesian examples, the study of which has generated many of the propositions discussed above. Do we find evidence of chiefly claims to cosmic powers, tribute extraction justified by such claims, and regulation of such extraction by the variations in goods redistribution? The reader will see that such an evaluation will reveal both strengths and weaknesses in this preliminary integrated construct.

An Illustrative Example: Southwestern Iran During the Late Fifth Millennium B.C.

By 4500 B.C., the productive patterns that still sustain many communities in the Near East were well established in southwestern Iran (Fig. 1). Specialized varieties of wheat and barley, irrigated in many lowland areas, were widespread. Lentils and other protein-rich foods were also grown (Helbaek 1969:405-412:

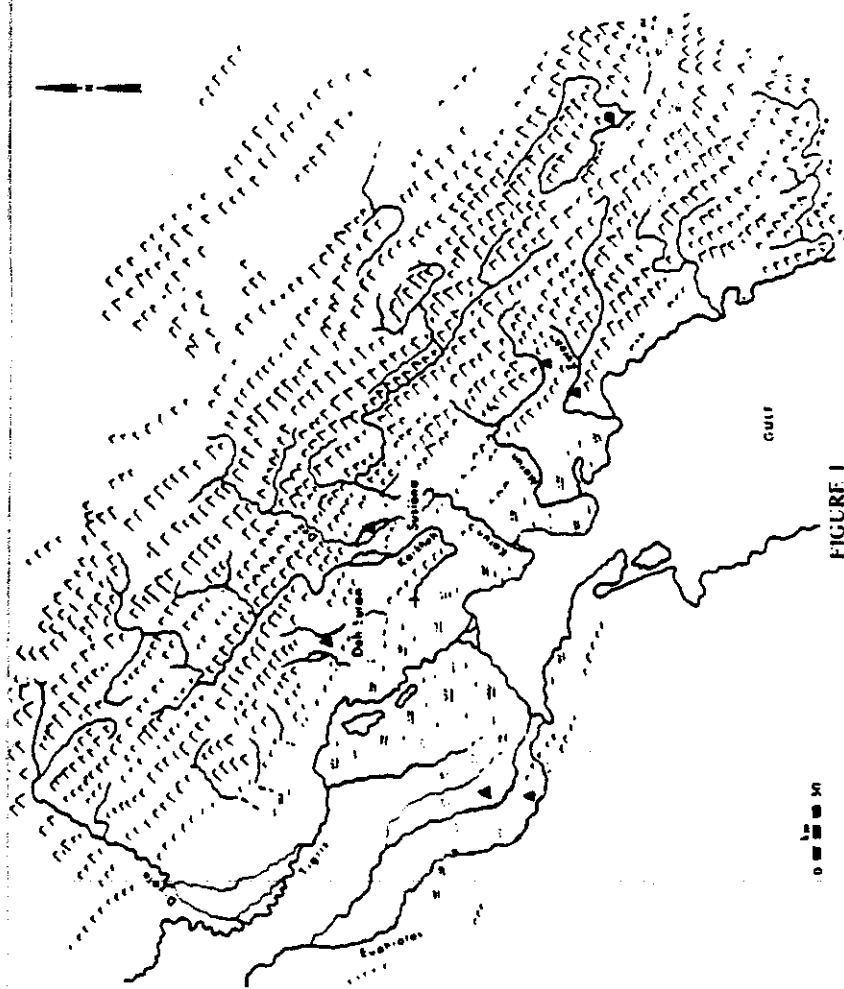


FIGURE 1
 A Map of the Southeastern Portion of Greater Mesopotamia during the Middle of the Fourth Millennium B.C. Shaded areas mark some of the major settled areas; triangles indicate major centers.

Miller 1978, 1981). Sheep, goats, and cows were kept everywhere in varying proportions, probably in order to exploit them for their secondary milk and fiber products as much as for their meat (Hole, Flannery and Neely 1969:361-366; Redding 1981:239-259). Every valley with a few square kilometers of irrigatable soil had a small center and a few subsidiary villages or hamlets; larger valleys and plains had more complex patterns with centers covering up to 15 hectares, subsidiary centers of 3-5 hectares, and villages and hamlets of smaller sizes. Some plains may have had populations approaching 20,000 people (Wright and Johnson 1975:274-276). (Recently proposed criteria for population estimation [Kramer 1980:322-327], however, would lead to smaller estimates.) Many of the settlements—villages as well as centers—have evidence of craft production such as potting, chert knapping, spinning and weaving, or grindstone manufacture.

What kind of socio-political organization did Late fifth millennium societies have? I consider here the Farukh Phase of the Deh Luran Plain and contemporary phases (ca. 4600-4300 B.C.) and the Suse Phase of the Susiana Plain and the contemporary phases (ca. 4300-4000 B.C.). First, as noted above, there were central settlements often larger than all neighboring settlements combined. Also, as discussed later, Suse Phase Susa, the one major center extensively excavated, has evidence of a large central platform with distinctive decoration and a ritual building on its summit. Thus, major centers appear to be demarcated from minor centers in terms of size and symbolic features.

Second, there is some evidence that socially segregated housing was present. For example, at Tepe Farukhabad on the Deh Luran plain, two separate sequences of Farukh Phase housing were partially exposed (Wright 1981:12-22, 65-66). Both were sequences of buildings with outer compound walls and inner room blocks. Both had similar associated domestic refuse—ceramic vessel fragments, stone tools, and food remains. There were, however, differences between the two sequences. In one, houses were built of carefully laid mud-brick walls founded on mud brick platforms; these were carefully repaired and cleaned throughout

their lifetimes. In the other sequence, buildings had casually laid walls founded on the leveled ground surface; these had little maintenance and were littered with debris. Furthermore a larger storage structure associated with the more elaborate buildings suggests greater control over the grain supply. Although the debris around the buildings in the two different sequences did not indicate significantly different bone discard, qualitative differences existed in the wild animals butchered, suggesting sumptuary rules defining access to animal foods (Redding 1981:253-254). Residential architectural differences exist also in separate quarters at other sites, some of which will be discussed subsequently. It is unfortunate, however, that no extensive clearance of larger portions of sites has been done to demonstrate that the contrasts noted occur in contemporary segregated quarters of the same community.

Third, mortuary ritual from cemeteries should be useful in assessing late fifth millennium socio-political organization. Unfortunately, only one cemetery of the Suse Phase Necropole of Susa (Morgan 1912) has been extensively excavated on the plains of southwestern Iran. Records of individual grave lots are not available for this early excavation, and Hole (1982) has recently shown that the evidence admits of several different interpretations.

Accepting the existing evidence of settlement hierarchy and residential segregation by rank, incomplete as it may be, as conforming to the existence of late fifth millennium complex chiefdoms, one may consider whether there is evidence of the kind of symbolic order, tribute extraction, and political-economic regulation proposed as part of the integrated construct.

While archaeologists cannot directly monitor a past class ideology—a system of beliefs about the relations between classes—we can certainly seek the material symbolic correlates of such an ideology. We would expect the members of the noble stratum to use specific symbols—in ritual performance, political action, and social display—which contrasts with those used by ordinary people in terms of the breadth of their reference and their evocation of control over natural forces.

For the earlier part of the period under consideration, the Farukh Phase of the Deh Luran Plain and the contemporary phase on the Susiana Plain, the sole extensive corpus of symbolic display is that of painted ceramic vessels. These appear to be of uniform stylistic complexity, without any subset of ceramics showing a more complex design grammar or distinctive use of symbolic elements (Pollock 1983). It is important to note, however, that no major center of these phases has been excavated. In the available small corpora of vessels from relatively small centers and villages, such special symbolism might be represented only by single vessels. Only with evidence from the major centers, both of ceramics and of other style-rich materials such as seals, could one fairly evaluate the quality of chiefly symbolism.

The evidence for the later Suse Phase—the Susa I or Susa A Phase of the older literature (Le Breton 1957:89-94)—is more diverse. Extensive excavation evidence is available from two sites, the small hamlet of Djaffarabad 1-3a (Dollfus 1971, 1978) and the major center of Susa itself (Morgan 1912; Dyson 1966; Stève and Gasche 1973; Le Brun 1971; Perrot 1972; Canal 1978). Djaffarabad apparently had a series of small rooms around an open space (Fig. 2a). Susa, in contrast, had a large central two-stage platform of mud bricks, comprising about 570,000 cubic meters, surrounded by buildings of various sizes, open spaces, and cemetery areas (Fig. 2b). Both stages of the platform's south face had recessed corners; if such recesses were repeated on all four sides, the platform would have formed a complex cruciform. On the summit of the platform, eight meters above the surrounding settlement, was a possibly residential building with massive walls, rows of chambers of a type later used for grain storage, and a smaller platform with recessed corners decorated with representations of caprid horns, a later indication of a shrine (Stève and Gasche 1973). The central architectural complex of the major regional center was apparently planned as a series of nested cruciform constructions.

A large series of stamp seals and sealings available from Susa can be attributed to this period (Amiet 1972:1/5-34, 11/Plates 38-58).

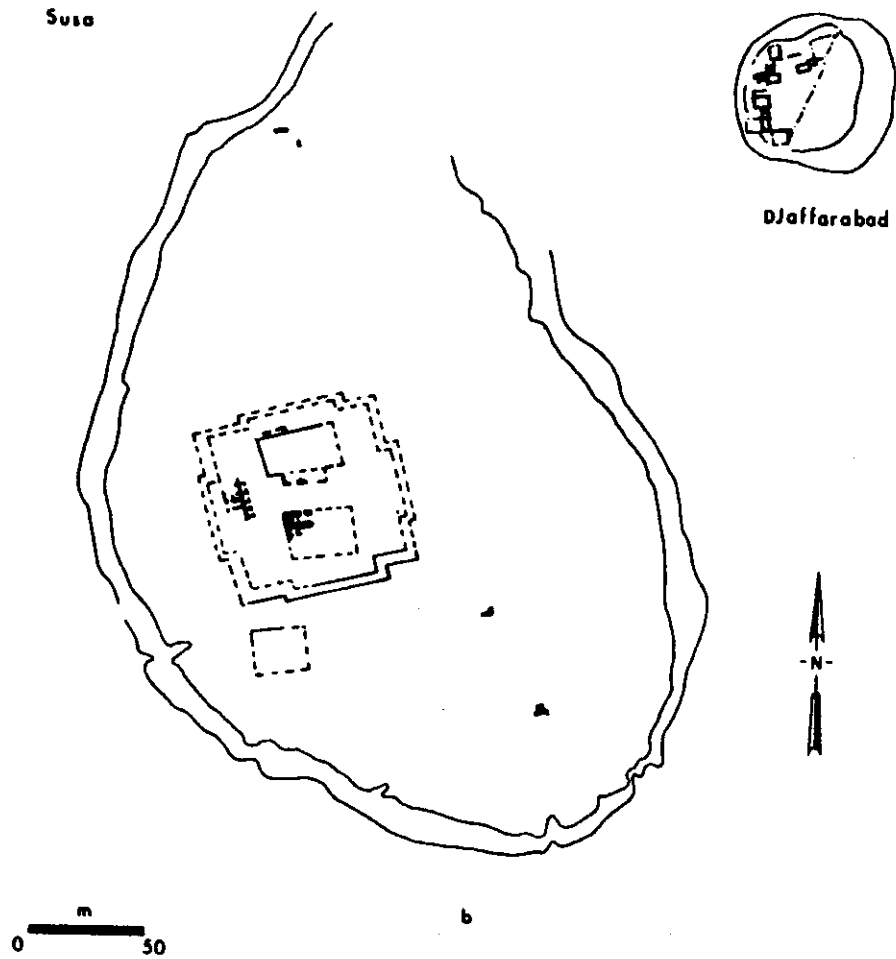


FIGURE 2

Known Features of Suse Phase Djaffarabad and Susa Represented at the Same Scale
 (Sources: a. Dollfus 1978:Fig. 7; b. Canal 1978:Figs. 1,9; Stéve and Gasche 1973:foldout; Dyson 1966:Plates LVII-LIX; Le Brun 1971, Fig. 31)

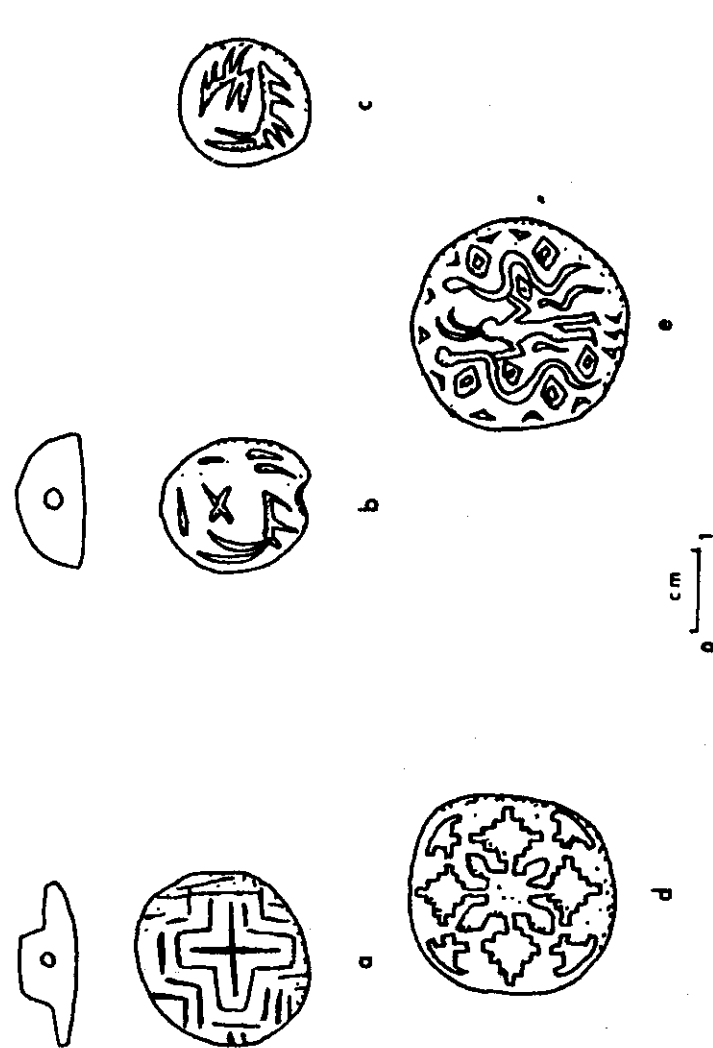


FIGURE 3

Stamp Seals and Seal Impressions of the Suse Phase

(Sources: a. Le Brun 1971:Fig. 35/6; b. Dollfus 1971:Fig. 23/5; c. Canal 1978:Fig. 25/5; d. Le Brun 1971:Fig. 35/3; e. Le Brun 1971:Fig. 35/2)

The more common are the simple seals with crossed grooves and simple animals, typically caprids (Fig. 3b, 3). Less common, comprising only 9% of the seals, are seals with more complex representations. One common complex seal form is the "master of animals" (Fig. 3e, Amiet 1972:1/28; cf. Miroschedji 1981), a figure holding animals such as snakes or fishes in outstretched arms. Another complex representation is a nested cruciform, sometimes within a circle, usually with four similar geometrical arrangements at the four extremities (Fig. 3d). The nested cruciforms suggest the plan for the central platform of Susa.

The most diverse source of symbolic representations are the painted ceramic bowls and jars (Fig. 4). Many of the motifs continue from the earlier phases, but some vessels, particularly the large conical goblets, and small bowls and jars found in mortuary contexts at Susa and in domestic contexts at Susa and smaller sites, have more complex rules of design formation and often are more careful design drafting (Pollock 1983). One can argue that such design complexity is related to numbers and kinds of socio-political distinctions. Of particular importance discussion are certain motifs in circles (Fig. 4g, h) subsidiary to the main motif, often an ancient and widely-used motif such as the caprid. A common variant among these added circles is a cruciform motif, similar to the motifs on some complex seals and to the plan of Susa's central building (Fig. 4h). While this symbolic usage requires verification in the context of a comprehensive study of Suse Phase iconography, such as that now being undertaken by Frank Hole (1982), it is certainly suggestive of the widespread use of a hithertofore rare symbolism in ritual performances at the center of Susa, in political action in the control of goods storage and movement, and in social display on special craft goods. This is conformable with the proposition that there would be a distinctive material marking of the noble class. Evaluation of the cosmic referents of the elite iconography, however, awaits study of the developing system of style elements throughout the Susiana ceramic tradition, such as that now being completed by Genevieve Dollfus.

Tribute extraction in the New World, as mentioned above, has

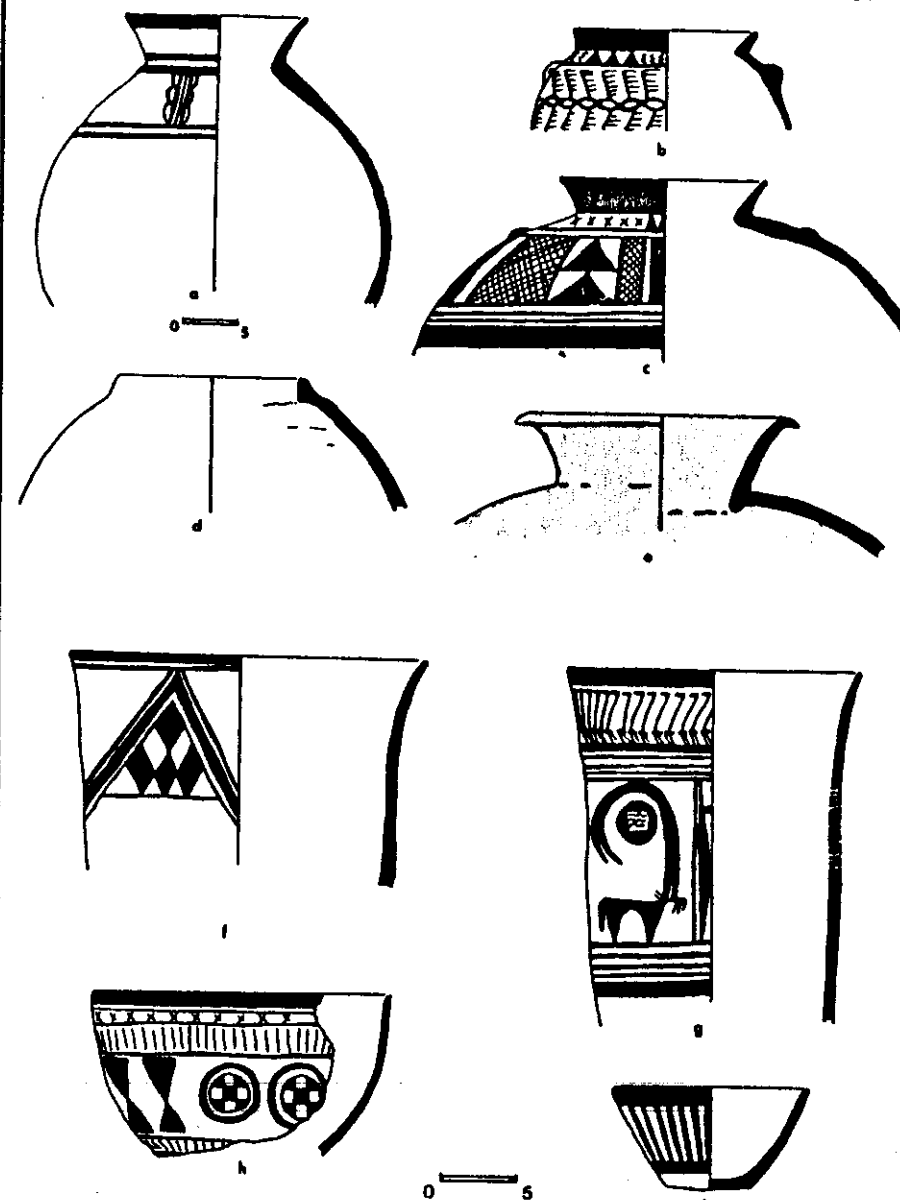


FIGURE 4

Ceramics of the Suse Phase from Djaffarabad

(Sources: a. Dollfus 1971:Fig. 18/4; b. Dollfus 1971:Fig. 16/9; c. Dollfus 1971:Fig. 17/6; d. Dollfus 1971:Fig. 15/5; e. Dollfus 1971:Fig. 19/2; f. Dollfus 1971:Fig. 14/6;

been studied indirectly through its effects on settlement patterns, particularly the location and size of the subsidiary centers. In southwestern Iran, we find that subsidiary centers—sites such as Farukhabad that differ from hamlets and villages *both* in being relatively larger and in having remnants suggestive of massive and specialized architecture—are in the locations indicated by the Steponaitis tributary model. On the Deh Luran Plain, for example (Fig. 5), Farukh Phase Farukhabad is not located in the midst of the village cluster westward from the major center of Musiyan. Rather it is between this cluster and Musiyan. The Suse Phase centers on the Susiana Plain have a similar, albeit more complicated, distribution (Fig. 6). Each cluster of small settlements has a subsidiary center on its edge closest to Susa. There are, however, other subsidiary centers not clearly associated with smaller settlements, such as the three newly founded centers on the west and south edges of the plain. These seem most likely to have been border centers, located for reasons of defense or exchange with nomads. On the other hand, we do not find that the relation between settlement size and the productivity of its environs conforms to that predicted by Steponaitis's formulation. As one can see on Figure 7, though a few larger centers have populations larger than can be supported by land within a two kilometer catchment and might therefore require tribute from their dependencies, there is no regular relation between size of settlement and estimated productivity of its immediate environment. In this case, the extensive soil and agronomic studies of the Susiana Plain and recent paleobotanical studies insure that our productivity estimates are relatively accurate. There are, however, two other possible reasons why the predicted relation does not exist. First, while our estimates of regional population, based on average housing densities, may be approximately correct, the estimate for a particular site at a particular time is difficult when housing density can vary for social reasons. Second, and perhaps more important, in Greater Mesopotamia, unlike Mesoamerica, only part of the subsistence resources were raised within the settlement's immediate catchment area. In particular, domestic animals

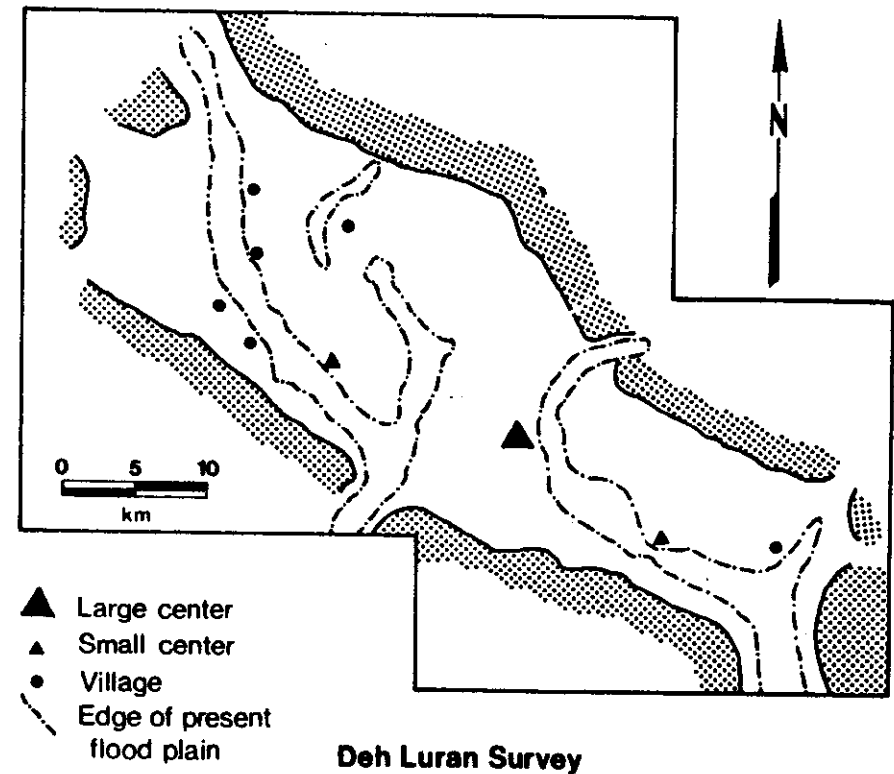


FIGURE 5

Farukh Phase Settlements on the Deh Luran Plain

(Source: Wright 1981: Fig. 32 and personal communication from James A. Mumford)

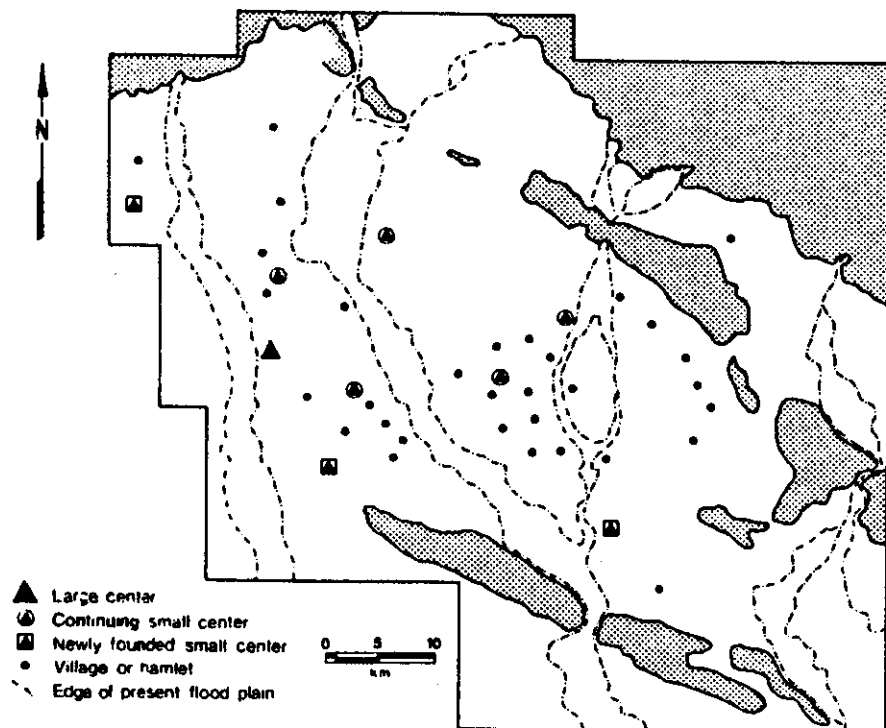


FIGURE 6

Suse Phase Settlements on the Susiana Plain

(Source: Survey Notes on file at the University of Michigan Museum of Anthropology and personal communication from Frank Hole)

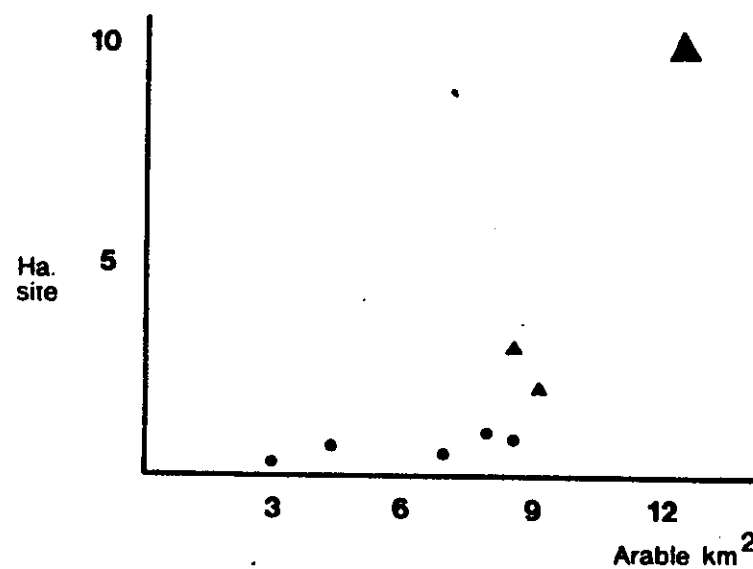


FIGURE 7

The Relation between Site Size and Catchment Productivity of Farakh Phase Sites on the Deh Luran Plain

(Sources: Site size and Phase ascription are based on personal communication from James A. Neely. "Arable kilometers squared" is irrigatable land within a two kilometer radius, with land shared between adjacent sites divided between them, derived from Neely's base map and Kirkby 1976)

would have been taken out to marginal pastures, perhaps in distant hilly regions. Since much tribute may have been extracted as animals and animal products, the productivity of a site's immediate environs may have had little to do with its tribute payments and its population size. Wherever domestic animals are so used, one can expect problems of this sort with site catchment studies.

Fortunately we have another form of evidence, the seal impressions, relevant to the mobilization of goods as tribute. From Susa during the Suse Phase, a useful sample of sealings as well as seals exist. If the samples are representative, the proportion of seals with complex motifs should be proportional to the numbers of politically important individuals at Susa, assuming similar rates of discarding the varieties of seals. The proportion of sealings with such motifs should be proportional to the relative number of acts of authorization which such individuals perform. Table 1 shows that only 8% of the Suse sealings are of the complex varieties; in contrast 50% of the admittedly small sample of sealings were made with complex varieties of seals. On present evidence, it

TABLE 1
Seals and Seal Impressions from Suse Phase Susa
(Sources: Amiet 1972; Le Brun 1971)

	SEALS	IMPRINTS
Simple Designs		
Linear Geometric	92	8
Animals	31	5
Other	5	--
Complex Designs		
Master of Animals	2	3
Cruciforms	6	7
Other	2	3
Total Simple	128	13
Total Complex	10	13

seems that only a small proportion of the seal-holders were concerned with a majority of the transactions authorizing goods storage and transfer. More precise assessments of the control of goods must await the further recovery of sealings in well-defined contexts from subsidiary settlements as well as centers, and also the analysis of the types of containers being sealed (cf. Le Brun and Vallat 1978; Wright, Miller, and Redding 1980:277-281 for such studies on later periods).

The regulation of production economies is always necessary, if only because natural productivities and human populations vary from year to year. The demands of political paramounts further compound the difficulties of the agricultural decision-maker. Does the evidence of special craft products or exotic materials in southwestern Iran conform to that expected if the distribution of such items signaled effective political control of production? Some evidence is available from the Farukh Phase layers at the subsidiary center of Farukhabad on the Deh Luran Plain as noted above (Table 2 from Wright 1981:12-22, Appendix Tables A2, B1, D14). Refuse samples are associated with a sequence involving the final use and decay of an Early Farukh Phase elaborate residence, a time of no evident construction, construction of new buildings in the middle of the Middle Farukh Phase, and their use through the end of the Middle Farukh Phase. Other samples are associated with a sequence of approximately contemporary simple residences. These samples, as was the case from Oaxaca, were not collected with questions of tributary regulation in mind, and they are neither large enough nor sufficiently well-dated to evaluate definitively such questions. Nevertheless, in the absence of other data, their consideration is useful. The period of the use and decay of the first elaborate building saw moderate bitumen production, a local export-oriented activity (Wright 1981:268-270) and moderate use of redistributed imported cherts (Wright 1981:268). Just before the construction of the new elaborate building and its associated storage structures bitumen production increased—notably around the more elaborate buildings. These indications of greater production for export and greater consumption of

TABLE 2
Bitumen Waste and Chert Blade Occurrences at Tepe Farukhabad

LAYERS SCREENED (M ³)	EVENTS	BITUMEN WASTE/M ³	BLADES/BLADE SEGMENTS		
			LOCAL CHERT/M ³	EXOTIC CHERT/M ³	% EXOTIC CHERT
Excavation A: The Sequence of Elaborate Buildings					
24-25 (7.57)	Use	7.5	.5	1.1	67%
26 (2.50)		.7	3.6	3.2	47%
27 (4.40)	Build	5.4	1.8	3.6	66%
28 (4.25)	Build?	2.0	2.1	.9	31%
29 (12.00)	Decay	4.1	1.7	.5	23%
30 (1.50)	Use	27.9	4.0	1.3	25%
	Build				
Excavation B: The Sequence of Simple Buildings					
40 (3.77)		65.9	5.3	3.7	41%
41 (6.20)		35.9	1.6	1.3	44%
42 (4.50)		60.1	2.0	.9	31%
43 (6.00)		19.0	1.2	.3	22%
44 (4.10)		6.0	2.2	1.2	36%
45 (3.60)		2.7	2.2	1.4	38%
46 (3.80)		7.9	2.4	2.9	55%

redistributed items continues throughout the period of use of this building. Unfortunately, refuse samples associated with the third elaborate building of the Late Farukh Phase, built on the wall stubs of the second without evidence of a period of decay, are too small to permit analysis. In general, throughout that part of the sequence for which this kind of detailed analysis can be attempted, bitumen production around the modest buildings correlates positively with exotic cherts around the more elaborate buildings ($r=.98$, $n=6$; $R@.01=.87$). This pattern and the indication that the rebuilding of elaborate residences follows increases in local resource extraction and redistribution conform with the proposition that distribution regulates local production and political relations; however, they also conform with several other modelings of Late fifth millennium political economy. A critical test would require an articulation of the evidence of redistribution and production with evidence of conflict and political re-organization. Such evidence is not available from Farukhabad.

From the Susiana Plain during the same and later periods, evidence of both reorganization and conflict exists. In the first place, the group of larger centers in the middle of the Susiana Plain, dominant throughout the early and middle fifth millennium, were abandoned or became very small; and the plain became dominated by the newly founded major center of Susa. Foundation of a new center with a massive ritual focus in its central platform, probably indicates a new or newly re-sanctified paramount lineage. Unfortunately we do not know to what extent this spatial re-organization was related to internal conflict. Later, however, there is evidence of conflict at Susa (Perrot 1972: Canal 1978). The great platform replaced several smaller platforms. After a period of prosperity, the central structure was overthrown, with evidences of fire (Canal 1978: Fig. 7) and a body in the debris (Canal 1978:40-41; Fig. 10, pl. iv). After a period of neglect during the middle of the Suse Phase, the platform was restored; it continued in use until the Terminal Suse Phase when the elaborate painted pottery was ceasing to be made and other changes related to the final breakup and transformation of chiefly

society were occurring. Unfortunately, this clear case of conflict, which would indicate some degree of political re-organization whether it resulted from external attack or internal rebellion, cannot yet be associated with evidence of possibly redistributed craft goods because the artifactual evidence from this most recent Suse Phase excavation has not yet been studied in detail.

In sum, the archaeological evidence in early southwestern Iran shows that the implications of the theoretical construct previously outlined appear reasonable. There are examples of symbols distinctive to the ranking class, used in a variety of situations critical to political-economic control. Subsidiary centers were located in positions better suited for tribute extraction than for the provisioning of goods and services to villages, and there are examples in which the rare seals with the more complex symbolism are used in a majority of the instances of the authorization of goods' movement and storage. In the long term, there are also examples of the overthrow of old centers. In the shorter term, there are examples of the fluctuation in chiefly display and redistribution correlated with the extraction of goods for export. Some features of the evidence, however, may not conform to the implications of the integrated construct. It is notable that the material evidence for a ranking class ideology exists only for the latest pre-state polity in southwestern Iran. On present evidence, the residential indications of class segregation and the settlement pattern features indicative of tribute extraction appeared in Deh Luran centuries earlier than the material correlates of the ideology that would justify support of such a political economy. However, present evidence is surely insufficient, and only excavation at some of the major centers older than Susa, using the precise artifact recovery and analysis techniques developed at Susa, Djaffarabad, and Farukhabad, can establish that this is an order of appearance contrary to the theoretical considerations presented earlier in this paper.

Concluding Remarks

At the least, this review of some recent research in Mesopotamia and Mesoamerica shows that class-organized, socio-political organization flourished for centuries before actual state formation. Complex chiefdoms were not mere evolutionary curiosities, transformed immediately into states in the continental heartlands, persistent only on islands not large enough to sustain states. Also, I hope that the reader will see that it is indeed possible for archaeologists to answer questions about the formulation and uses of ideologies and the processes of political control. Beyond such substantive and methodological points, however, are other, perhaps more interesting, issues.

As an introduction to my argument, I suggested that continued competition for alliances and offices among local ranking groups would weld such groups into a region-wide chiefly or noble class, though I do not have the data to test such a developmental proposition, and I did not attempt to elaborate it. I have, however, tried to evaluate the proposition that (1) such a process of competition should generate an ideology of chiefly sanctity sufficient to command regular tribute from commoner producers, (2) that such an exaction of tribute should structure the hierarchy of chiefly centers, and (3) that the circulation of exotic materials and elaborate craft goods would help to control the proliferation of both nobles and commoners, the rate of extraction of tribute, and the disposition of offices by encouraging rebellion and warfare. Some of the evidence from southwestern Iran conforms with the implications of these proposals and some does not. Even if future research sustains these propositions, however, I suspect that a useful modeling of chiefdoms would require that additional propositions be constructed. Simulation using such an operational model under a variety of conditions would probably show that complex chiefdoms can be a resilient kind of socio-political formation, a pattern that is reinstated even after periods of political fragmentation and economic collapse.

If the implications of such simulations are verified by the

evidence of archaeologically documented cases of cultural development, then the question of state origins becomes all the more challenging. States would not be a simple product of increases in scale, with consequent specializations in organization following a pragmatic logic. If complex chiefly formations have the capacity to reconstitute themselves after crisis and collapse, how are we to explain why they are, in some cases, reconstituted as states? I suggest that the answer may lie in the particular variant of the crisis situation, expressible in terms of variables describing the pattern of competition within and between polities, the assessments their leaders make of each other, the strategies they use, and so on. The development of such suggestions into a possible explanation of state origin, however, is best left for another paper.

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