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**BENCHMARKS IN TIME AND
CULTURE**

An Introduction to Palestinian Archaeology

Dedicated to
Joseph A. Callaway

Edited by
Joel F. Drinkard, Jr., Gerald L. Mattingly,
and J. Maxwell Miller

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SOCIOCULTURAL ANTHROPOLOGY AND SYRO-PALESTINIAN ARCHAEOLOGY

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This essay will explore some of the mutual benefits which could result from a closer cooperation between sociocultural anthropologists and Syro-Palestinian archaeologists. After a brief introduction to the rise of anthropological theory in Europe and America, the essay concentrates on the rapprochement which has occurred within the general field of anthropology between sociocultural anthropologists and archaeologists; this rapprochement results from the emergence of a unifying theoretical framework, namely the cultural adaptationist's perspective. The first part of the essay suggests that the richness of both the archaeological and the literary record of Syro-Palestine makes it possible for scholars to understand the role of historical and environmental processes in the origin, persistence, and change of cultural features.

In the second part of the essay, it is suggested that sociocultural anthropology offers Syro-Palestinian archaeology two things: (1) master concepts that can help to integrate the results of multidisciplinary investigations and (2) models which may prove helpful in conceptualizing the dynamic cultural processes to which changes in the observed archaeological record may be attributed. To illustrate this, attention is focused on the experience of the Heshbon Expedition team. The master concept used to integrate the data recovered in the Tell Hesban excavations and surveys was the "food system." As models for use in conceptualizing dynamic cultural processes, the team has utilized research by anthropologists on the processes of sedentarization and nomadization.

I. THE RAPPROCHEMENT BETWEEN SOCIOCULTURAL ANTHROPOLOGY AND ARCHAEOLOGY

The rise of anthropology and sociology postdates a number of great social upheavals which followed in the wake of the industrial revolution, the first phase of which began in England in the middle of the 18th

century (Lenski and Lenski 1982:244). Among the immediate consequences of this revolution was the disruption of traditional ties of kinship and friendship which had formed the social and economic support for most people until that time (Lenski and Lenski 1982:258). As a result of the twin processes of industrialization and urbanization, rural households were broken up as the young and able-bodied adults were drawn to jobs in factories located in the rapidly growing towns and cities, and the old and infirm were left behind to manage on their own. Thus, both groups were separated from the traditional sources of social and economic security. The Lenskis write about this period: "It was an uprooted, extremely vulnerable mass of people who streamed into the towns and were thrown into situations utterly foreign to them, and into a way of life that often culminated in injury, illness, or unemployment. A multitude of social ills—poverty, alcoholism, crime, vice, mental and physical illness, personal demoralization—were endemic" (1982:258).

These were the circumstances which led to the establishment of the helping professions and the social bureaucracy which the industrialized nations today take for granted. Instead of depending on the bonds of mutual obligation and assistance, which had for centuries tied kinfolk and villagers to each other, the ill, the unemployed, and the destitute gradually came to depend on a new group of helpers (i.e., nurses, social workers, insurance agents, counselors, union organizers). Along with these professions came a whole host of modern establishments—hospitals, insurance agencies, welfare agencies, labor unions,—devoted to helping people cope without having to depend on these traditional kinship-based ties of mutual obligation and support. These are the arrangements which make possible the sense of personal freedom which, from our cultural perspective today, is regarded as our natural right.

The social transformations which were observed in the wake of each phase of the industrial revolution stimulated much thinking about the gains and the losses which each new machine or manufacturing process had brought. In just a few generations—indeed, within the lifetime of many adults—obvious alterations in the customary ways of thinking and behaving became apparent. These rapid changes in the customary ways of thinking and behaving made social processes much more visible, and they became the object of curiosity and systematic investigation. The rise of sociology and anthropology can be attributed to a large degree, then, to a heightened sense of self-consciousness which was experienced by people in the rapidly transforming societies of Western Europe and North America during the 19th century.

The problems which most interested the founders of the social sciences had to do, in one way or another, with the changes which occurred in the bonds that tie individuals together in groups and societies. Among the early sociologists, much attention was given to the

social problems which arose in the wake of industrialization and urbanization. As Goldthorpe (1969:10) has noted:

The Marxian theme of the alienation of the industrial worker, the quest of Comte and of Durkheim to discover new bases of social consensus amid economic conflict and moral diversity, Weber's preoccupation with the necessary evil of bureaucracy—all these are aspects of a deeply felt concern with the human and social costs of material progress.

These are themes which to this day remain important to sociologists.

While sociologists were concentrating on the social costs of the industrial revolution, the founders of modern social anthropology, (e.g., Lewis Henry Morgan, William Halse Rivers-Rivers, Bronislaw Malinowski, Alfred Reginald Radcliffe-Brown) were beginning to examine the social bonds of peoples whose social support systems had as yet not been drastically disrupted by this great transformation. What they discovered, of course, was the importance of kinship as the principal mechanism of bonding people in social groups in non-Western societies (Langham 1981). Thus, if one wished to understand the customary ways of thinking and behaving of an Iroquois Indian or an Andaman Islander, one had to first come to grips with their rules of kinship and descent.

Since the peoples in whom anthropologists were interested were located on the frontiers of European expansion, anthropologists wishing to obtain firsthand information left their home countries and lived among the "primitives" they wished to study. Out of this necessity developed the tradition of "doing fieldwork"—which remains to this day a rite of passage for graduate students in anthropology—and a curiosity about and an acquaintance with a wide variety of languages and customs (cf. Jarvie 1967; Nash and Wintrob 1972; Levine 1973; Whiting and Whiting 1973; Spradley 1980). The task of explaining why different cultures vary so much, yet also have so many things in common, remains one of the central problems of sociocultural anthropology.

Several of the early British anthropologists, however, thought that accounting for the persistence of social institutions was a more pressing concern than explaining cultural variation and change. Having witnessed great upheavals in their own societies, fieldworkers like Malinowski and Radcliffe-Brown sought to understand how a particular culture managed to remain "in balance." While Malinowski failed to offer a solution to this problem, his quest for an answer led him to an idea which has remained central to much anthropological thought. His idea was that cultures, like biological organisms, consist of a large number of interrelated parts and that, as Firth explains (1975:5), "the definition and the meaning of any selected item of culture or social

behavior was to be understood first in terms of its relationship to other items." This meant that in doing fieldwork an anthropologist would need to identify the various parts of the culture (e.g., general features of the language, organization of family life, settlement patterns, political and economic systems, religion, styles of art and dress) and then attempt to show how all of these fit together into a whole. While it is almost impossible for the student of modern complex societies to attempt such "complete description," it was not beyond the reach of these early fieldworkers, since the groups studied were typically very small, consisting in many instances of only a few hundred individuals. The "holistic" approach remains, therefore, one of the central principles guiding modern cultural anthropological inquiry.

While the British functionalists—as Malinowski, Radcliffe-Brown, and others in the British tradition are often called—were refining their techniques of analyzing the social organization of various primitive groups, Franz Boas and his students—Edward Sapir, Robert Lowie, Alfred Kroeber, Ruth Benedict, Margaret Mead and others—were laying the foundation for what is sometimes referred to as the American, or Boasian, tradition of cultural anthropology. This was a more diverse tradition, simultaneously emphasizing investigations of languages, art and technology, race and culture, and culture and personality. In their attempts to account for the similarities and diversities in the languages, customs, and technologies encountered in their fieldwork, these American investigators, along with some European anthropologists, began to examine the role of the local environment and historical factors in explaining the differences and similarities they had observed (Harris 1968; Hatch 1973; Stocking 1968).

The wide range of concerns and approaches of contemporary "sociocultural" anthropology emerged out of these and other American and European traditions (Hunter and Whitten 1976; Harris 1980; Haviland 1981; Ember and Ember 1981; Keesing 1981). Specifically, the current concerns with the problem of human ecology and adaptive dynamics are derived from the American emphasis on the comparative study of social organization and the interrelationships between various cultural parts (Newman 1970; Thompson 1972; Stini 1975; Yayda and McCay 1975; Yellen and Lee 1976; Haas and Harrison 1977; Hardesty 1977; Burton, Kates, and White 1978; Hill 1978; Thomas, Winterhalder, and McRae 1979; Bartlett 1980; Rappaport 1968; 1971; 1977; Ortner 1983). While other theoretical orientations have gained momentum in more recent decades (Keesing 1974), the movement toward viewing cultures as adaptive systems, which was spearheaded by Julian Steward (1955), has become the vehicle of rapprochement between sociocultural anthropologists and archaeologists (Binford 1962; 1964; 1965; 1983; Adams 1965; 1966; 1974; 1978; Flannery 1965; 1967a; 1967b; 1972;

1976; Deetz 1970; Trigger 1968; 1971; Angel 1972; Leone 1972; Redman 1973; 1976; Sterud, Straus, and Abramovitz 1980; Sabloff 1981; Butzer 1982; Price 1982).

Keesing (1974) has identified four broad assumptions shared by most "cultural adaptationists." First, "cultures are systems (of socially transmitted behavior patterns) that serve to relate human communities to their ecological settings" (cf. Redman 1978:1-15). Second, "cultural change is primarily a process of adaptation" (cf. Thomas, Winterhalder, and McRae 1979). Third, "technology, subsistence economy, and elements of social organization directly tied to production are the most adaptively central realms of culture. It is in these realms that adaptive changes usually begin and from which they usually ramify" (cf. Steward 1955). Fourth, "the ideational components of cultural systems may have adaptive consequences—in controlling population, contributing to subsistence, maintaining the ecosystem, etc."

An example of cultural adaptationist reasoning is Marvin Harris' (1974) account of India's sacred cows. Lenski and Lenski (1982:45) explain this perspective by noting that Harris

rejected the view that an ideology evolves arbitrarily, unrelated to the rest of societal life or to the experiences of its members in the past. Rather, he suspected that any belief that has been as widespread and as persistent as the Indian taboo against cow slaughter must have significant adaptive value for the society. . . . He found, first of all, that the cow is of enormous value to the members of Indian society in meeting their basic needs. A peasant's cow is, in effect, a factory that provides food (milk, butter); fertilizer; fuel for cooking (dried manure is excellent for this purpose, producing a clean, low heat); flooring material (a paste of manure and water hardens into a smooth surface that holds down dust and can be swept clean); and, most important of all, oxen to pull the peasant's plow. Harris also found that less than 20 per cent of the food consumed by Indian cattle is edible by humans. In short, the cow converts substances of little worth to the peasant into extremely valuable products.

Although Indian peasants recognize that a living, productive cow is vastly more valuable to them and to their children than the same cow consumed as food, it would be only natural for them to ignore this fact when they are desperately hungry. The religious taboo against killing cows is a powerful cultural mechanism that serves to protect these animals even in times of famine and thereby preserve an invaluable resource. In short, Hinduism's conception of the cow as sacred is based on the experience of countless generations of the Indian people.

To date, the majority of anthropological studies involving adaptationist reasoning have been carried out either by ethnographers interested primarily in the adaptive dynamics of selected contemporary

populations or by prehistoric archaeologists interested in reconstructing ancient societies. Largely untouched by anthropologists is the problem of the adaptive dynamics of complex civilizations such as those of Europe and the ancient Near East. Study on this problem is found in the writings of a group of French social historians who are members of the *Annales* School of historical analysis, e.g., Marc Bloch (1973) and Fernand Braudel (1973; 1981). Although not strictly "adaptationists" in their approach, these historians acknowledge an explicit concern with everyday material life; they are interested in the complex and long-term undercurrents that account for the continuities and changes which characterize the complex societies of Europe and Asia. A closer look at the ideas of these scholars can benefit both anthropologists and Syro-Palestinian archaeologists.

In Braudel's schema (1973:xii; cf. 1981:23-26), it is the everyday material life, the labors and exchanges of innumerable forgotten town and country folk, which make up the deepest undercurrents of history. Anchored in people's quest for food, clothing, and shelter, this life is made up of "repeated actions, empirical processes, old methods and solutions handed down from time immemorial." Economic life is one of the fastest moving undercurrents in the stream of events that make up history. This aspect of life is a matter of daily activity and concern.

The fastest moving current in this stream of events is the superficial history of the social hierarchies that have the power to "manipulate exchange to their advantage and disturb the established order." This is the history of rulers and wealthy merchants, of wars and treaties, of foreign exchanges and monopolies. It is the zone of activity which hovers above the market economy and constitutes its upper limit. It represents the "favoured domain of capitalism" (Braudel 1981:24).

Of all the regions in the world where the problem of sociocultural change is being investigated, few, if any, offer greater potential for illuminating the causal interactions of these historical and environmental processes than does the region of Syro-Palestine. In addition to having a rich and well-preserved archaeological record, the area is well known from literary records. This situation has the potential of making Syro-Palestine the proving ground for novel and significant theoretical advances in our understanding of culture change; it is here that the new syntheses offered by sociocultural anthropologists and historians can be evaluated. The second half of this paper is offered as an initial step toward this end.

II. MASTER CONCEPTS FOR INTEGRATING THE RESULTS OF ARCHAEOLOGICAL INVESTIGATIONS

Over the two decades since the first strata were excavated at Tell Hesban, a site located on the edge of the highland which rises to the

north and east of the northern tip of the Dead Sea, the goals of the excavators have expanded from an initial concern with the nature and date of a biblical event, namely the settlement of Hebrews in this vicinity, to its present broader concern with cultural processes (LaBianca 1978; Geraty and LaBianca 1985). Because of a desire to understand the entire occupational history of the site and its surrounding region and because of a commitment to integrate all of the data recovered in the excavations and surveys, this conceptual evolution was inevitable. The seriousness with which this commitment was carried out is to the credit of Siegfried Horn and Lawrence Geraty, directors of the project's five seasons, and to Roger Boraas, its chief archaeologist.

The integrative concept which has offered the best solution to the problem of understanding the various data from Tell Hesban and its vicinity is the ancient food system. Originally developed in the course of ethnoarchaeological fieldwork in the vicinity of Hesban (LaBianca 1983), the following discussion of the ancient food system reflects the influence of a number of different theorists, the majority of whom are sociocultural anthropologists. Particularly worthy of acknowledgement are Steward (1955), Dyson-Hudson and Dyson-Hudson (1970), Duckham and Masefield (1971), Murdoch and Wilson (1972), Barth (1973), Holling (1973), Kates, Johnson, and Haring (1977), Adams (1974; 1978), Cox and Atkins (1979), and Gilbert, Norman, and Winch (1980). As a master concept for integrating the finds from a Syro-Palestinian excavation such as Tell Hesban, the study of the ancient food system has been particularly useful for the following reasons.

First, the food system concept provides a framework for analyzing the majority of daily activities carried out by the ancient and modern populations in the lands of the Middle East. Representing a fundamental concern of all peoples throughout history, this concept offers an important point of contact between the past and the present. Because many of the activities involved in the quest for food pertain to material life (as discussed above), and because this material life reflects some of the deepest and slowest moving undercurrents in history, the food system concept provides an important focus for ethnoarchaeological research. These investigations are conducted by archaeologists-turned-ethnographers who study selected aspects of present-day material life in order to arrive at hypotheses for interpreting the material remains of past societies.

Second, the food system concept focuses attention on all of the purposive, patterned, and interconnected activities carried out by a group of individuals in their quest for food (Dyson-Hudson and Dyson-Hudson 1970). In the case of human populations, this includes a multitude of social institutions, economic activities, and technological developments. As has been discussed elsewhere (LaBianca 1983; Geraty and LaBianca 1985), land use, settlement pattern, operational facilities,

and diet represent components of the food system particularly suitable for archaeological investigation.

Third, the focus on "food" directs attention to the interaction between populations and their local environments, since the latter are exploited for the purposes of gathering or producing food. It also directs attention to interactions between populations located in outlying geographical regions insofar as these are involved in competition over land resources, food surpluses, and technological know-how.

Fourth, the "system" perspective focuses attention on the dynamic interrelationships which exist between the various components of the local food system, the local environment, and impinging outlying systems. For example, archaeologically attested changes in settlement at Tell Hesban and vicinity have been found to be systematically related to local variability in the availability of water, land fertility, and topography. These changes in settlement, in turn, were related to changes in other components of the food system, e.g., land use, operational facilities, diet. Furthermore, the temporal variability of this food system was related to synergistic interactions between the local population, the natural habitat, and factors having their origins in impinging, outlying systems. Thus, the instability which has characterized the food system of Hesban and vicinity over the past three millennia is attributable to the relationship between multiple factors, the total effect of which is greater than the sum of any two or more factors taken independently (cf. Geraty and La-Bianca 1985).

Fifth, the food system concept avoids the sedentary bias which often results from conceptualizations based on the term "agriculture." To most Europeans and North Americans, except perhaps those who are experts in the field of agricultural development, "agriculture" implies village-based farming. In the case of the Middle East, however, village-based farming is only part of the picture, the other part being the food production activities of nomadic pastoralists. The food system concept lends itself equally well to an analysis of food production activities of both village farmers and bedouins. Furthermore, this concept includes the "infrastructure" which lies behind agricultural practices themselves, i.e., all those political, economic, social, religious, educational, and technological arrangements which support the strategies of food procurement.

Sixth, the food system concept, in contrast to the "food production," "farming," or "agriculture" concepts, includes hunting and gathering as components of a food system. In the case of both villagers and nomadic pastoralists, hunting and gathering have traditionally played a much greater role than hitherto acknowledged. Furthermore, hunting and gathering were during prehistoric times the primary means of obtaining food.

Seventh, the food system concept provides a framework for consideration of a food web that extends beyond its human part. For example, wildlife encountered in villages and towns, as well as in archaeological excavations in the form of animal remains, can in most cases be readily accounted for when the feeding habits of particular species represented are considered. In the case of dogs, cats, and certain species of rodents and reptiles, their entire lives are lived within the confines of human settlements. Other species are frequently linked with human society—animals that belong either to cereal or grassland ecosystems, or scavengers feeding upon the organic wastes which abound in and around human settlements. Thus, the large majority of animals found in association with human populations can be accounted for when considered in the light of the food system concept.

Eighth, the food system concept is capable of dismantling the walls which divide academic disciplines and frustrate attempts to integrate the results of various kinds of research (e.g., epigraphy, ethnoarchaeology, ceramic analysis, metallurgy, faunal analysis, palaeobotany, geology, human osteology). Each of these lines of evidence illuminates one or more of the components or processes in the food system. Once the food system is accepted as a master concept for integrating various lines of evidence, members of a multidisciplinary team are in a much better position to relate their data to the overall picture. Without such a master concept, their results will, understandably, be offered as contributions to a particular discipline rather than as contributions to an interdisciplinary project.

While the food system concept helps to integrate diverse lines of evidence resulting from multidisciplinary investigations, additional concepts are needed to explain the dynamic processes at work in a particular food system throughout its history. In the region surrounding Tell Hesban, there are marked changes from one cultural period to another in the location and quantity of settlements, in the kinds of animals raised and eaten, in the types of dwellings built or reused, in the sorts of water collection and storage installations constructed or reused, and in the kinds of transport and food storage arrangements maintained, and so on. How are such changes to be explained? How does sociocultural anthropology help explain such changes?

In our continuing attempts to understand the history of these shifting patterns of human settlement, land use, operational facilities, and diet, we have begun to focus on the role of two complementary processes which, we believe, represent fundamental cultural processes in this region. These are the processes of sedentarization and nomadization.

Much attention has been devoted by anthropologists to the process of sedentarization, the process by which nomadic groups abandon their migratory existence in favor of settled life in villages and towns (Barth

1961; Marx 1967; Bates 1971, 1973; Nelson 1973; Bates and Rassam 1983). Indeed, anthropologists have also been active in Jordan in studying this process (Glubb 1938; Peake 1935; 1958; Gubser 1973; Chatty 1978; LaBianca 1983). The process of sedentarization in the vicinity of Hesban during the three millennia since the beginning of the Iron Age (ca. 1200 B.C.) has been discussed elsewhere (Geraty and LaBianca 1985). We have concluded from the archaeological evidence that the process of sedentarization in antiquity resembled in many respects the process of sedentarization in Jordan over the past three centuries. Glubb (1938:448-49) has offered an insightful proposal regarding this recent process based on his experience as a British army officer in Jordan during the 1930s:

All the Arab countries—Trans-Jordan, Syria, Palestine and Iraq—have for centuries past been recruited by nomadic tribes which have migrated from Central Arabia. These tribes at first continue their nomadic lives in the deserts bounding the cultivated area; they gradually reduce the distance of their annual migration, and increase the numbers of their sheep at the expense of the camels. Later they become . . . complete agriculturalists; they retain their tents probably for a considerable time. The process of transformation of a pure nomadic camel tribe from Central Arabia into a group of agriculturalists still living in tents occupied in the past an average period of about three hundred years. But many such tribes continue to live in tents for several centuries longer. Indeed, the tribe itself and the tribal organization usually disappear before the members abandon tents and take to stone villages.

Certain factors have made the last twenty years a period of exceptionally rapid change, not indeed in Trans-Jordan alone, but likewise in Asia, Europe and America. But the gradual transformation of camel nomads into sheep breeders, sheep breeders into tribal cultivators and tribal cultivators into non-tribal villagers has been going on for thousands of years. At all times, therefore, tribes have existed in Trans-Jordan in every stage of this metamorphosis, from the completely nomadic camel breeder to the completely sedentary cultivator. Indeed, the different sections and families of the same tribe may often be seen in different stages of sedentarization. To divide the inhabitants of Trans-Jordan into rigid groups of nomads, semi-nomads or settled is therefore difficult, for all these types of life shade off imperceptibly one into the other.

Much less is known about the complementary process of nomadization or bedouinization, whereby populations abandon their settled ways in favor of various types of nomadic livelihoods (LaBianca 1985). One reason for the neglect of this topic is the fact that sedentarization is presently a ubiquitous phenomenon throughout much of the Middle East, but nomadization is less common and perhaps more subtle.

Neither "nomadization" nor "bedouinization" are terms which are in common use in the literature dealing with sociocultural aspects of the Middle East. Whereas the term "nomadization" has been used by Aubin (1974), Bonte (1975), and Vryonis (1975), thus far only one article has come to my attention which uses specifically the term "bedouinization." Written in 1954 by Werner Caskel, who was at the time a Professor of Oriental Philology at the University of Cologne, the article is relevant to the present study because it makes specific reference to the fact that in Arabia and the countries of the Fertile Crescent "the process of de-Bedouinization and re-Bedouinization can be traced fairly exactly." Indeed, Caskel (1954:45) even notes that "in Transjordan these processes can even be proved by archaeological evidence."

While the terms themselves have not been used much in the English literature, the processes to which they refer have been examined by a number of English-speaking anthropologists (Salzman 1978). For example, Haaland (1969) has suggested that one reason why people return to nomadic pastoralism is that it is notably responsive to inputs of labor, thus making it an attractive alternative when sedentary agriculture becomes more difficult. This economic advantage of pastoralist production has also been noted by Barth (1973).

Regarding the origin of nomadic pastoralism, Lees and Bates (1974; cf. Bates 1971) have suggested that this specialized lifestyle was a consequence of agricultural expansion into arid regions; this process meant that increasing numbers of households turned to full-time herding to find adequate food for their animals. This view represents a refinement of earlier proposals by Robert McC. Adams (1974; 1978).

In addition to these economic perspectives that help explain why people become nomads, there are also political factors at work. Historians, for example, are inclined to view the rise and fall of nomadic societies as a direct consequence of the strengthening or weakening of the administrative grasp and military power of state governments (Reifenberg 1955; Caskel 1954; Mayerson 1964; Rowton 1974; Hutteroth 1975; Sharon 1975). Anthropologists like Irons (1971; 1974), on the other hand, have argued that nomadism can be viewed as a defensive adaptation to the state machinery, as in the case of the Yomut Turkmen.

To stimulate research on the process of nomadization in Jordan, several proposals follow which may serve as a point of departure for future investigations. First, pastoral nomadism has played a role on the sociopolitical stage of this region during the cultural periods investigated by the Heshbon Expedition. At this point, this would take us back to the Late Bronze Age (ca. 1550-1200 B.C.). This statement is supported by historical sources dealing with the cultural history of this region (Kirk 1944; Rowton 1974), and this state of affairs is reflected in numerous ways in the archaeological evidence from Tell Hesban and vicinity.

Second, various types of coexisting pastoral nomadic strategies may emerge as the end product of this nomadization. This is particularly apparent during the latter part of the Ottoman or Turkish period in Jordan (ca. 1800–1917 A.D.), when the region located within a 10 km radius of Hesban was exploited by means of at least three different pastoralist strategies: (1) Camel-and-horse-breeding Beni Sakhr bedouin visited the highland region to the south and east of Hesban during the spring and summer. Having gradually pushed their way northward from their traditional home territories in the Arabian desert over the past 300 years, this group was described by Tristram (1873:247) as the rulers of this highland area. Although they avoided tilling the fertile soils of this plateau, their slaves, the Abu Endi, did so in exchange for protection. (2) In contrast to the horizontal migration pattern followed by the Beni Sakhr, the Adwan tribe followed a vertical or transhumant pattern of migration, grazing their herds of sheep, goats, and cattle on the hills and slopes to the north and west of Hesban. During the fall and winter, they returned to their cultivated fields in the Jordan valley. (3) A similar pattern was followed by members of the Hamideh tribe along the slopes leading from the highland plateau to the shores of the Dead Sea. Unlike both the camel and horse breeding Beni Sakhr and the cattle and sheep breeding Adwan, the Hamideh Arabs herded a particular breed of small, black cattle (resembling the Scotch kylo, according to Tristram 1873:266) and donkeys. Theirs was also a position of subservience to the Beni Sakhr.

Third, the process of nomadization appears to gain increasing momentum during periods of weakening military and administrative control by state governments. This was the case during the 6th century B.C., when the Babylonian invasion of the kingdoms of Ammon, Moab, and Edom brought an end to these local Transjordanian governments (Hashemite Kingdom of Jordan 1978:25). Over the ensuing centuries, a process of nomadization occurred and led to the establishment in this region during early Hellenistic times (332–200 B.C.) of a group of nomads practicing vertical or transhumant pastoralism. This suggestion is based on the fact that the political boundaries established by the Hellenistic overlords ran along the highland region of the Transjordanian plateau rather than along the Jordan-Dead Sea basin (Ministry of Labour 1970). The small number of settlements in the highlands during this period and the semisedentary ways of transhumants explain the location of this border.

The process of nomadization which followed the withdrawal of Byzantine military defenses east of the Jordan rift valley during the 6th century A.D. (Mayerson 1964; Vyronis 1975) attests to the importance of the political dimension. Instead of a predominantly vertical or transhumant form of pastoralism, a horizontal type of nomadism appears to

have emerged in this region; the latter involved horses and camels and commitments to the ways of desert tribes (Caskel 1954; Mayerson 1964; Hill 1975). This appears also to have been the case following the demise of the brief Ayyubid-Mamluk occupation of this area (1260–1400 A.D.), as shown by recent studies of the Ottoman or Turkish period in Palestine (Hutteroth 1975; Sharon 1975). Indeed, according to Ottoman tax records from the 16th century, the horse-and-camel-breeding Beni Sakhr may already have established themselves in Transjordan by this time (Hutteroth 1975:8).

III. CONCLUSION

This essay has focused on the sociocultural concepts and approaches that the Hesban project has accepted and developed to guide its researchers in the task of integrating a large body of data. We readily acknowledge, however, that in addition to the ones we have found helpful many others could be added. For example, much work has been done by sociocultural anthropologists on the problem of ancient trade (Polanyi, Arensberg, and Pearson 1957; Renfrew 1969; Lamberg-Karlovsky 1972; Tourtellot and Sabloff 1972; Flannery 1976; Bates and Lees 1977; Hirth 1978). Whereas commerce and trade were activities which account for only a small proportion of the activities of inhabitants at ancient Tell Hesban, the opposite may have been the case in urban centers and harbor sites now under excavation by Syro-Palestinian archaeologists. To understand these sites, commercial models proposed by sociocultural anthropologists may be useful.

This example from the experience of the Hesban team illustrates the way in which certain concepts and approaches of sociocultural anthropologists and other social scientists may prove useful to Syro-Palestinian archaeologists. Although many questions remain unanswered, it is clear that the perspective of the sociocultural anthropologist is especially useful in the process of integrating a wide range of data. This perspective emphasizes the interconnected nature of the various parts of sociocultural systems and focuses attention on the processes whereby such systems originate, maintain themselves, and change.

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