Central Transjordan in the Late Bronze and Early Iron Ages: An Alternative Hypothesis of Socio-Economic Transformation and Collapse

Over the past several decades, the archaeology and history of the Late Bronze Age (LBA) and early Iron Age of the central Transjordanian plateau have been greatly illuminated by discoveries in the Amman area, including Sahab (Dajani 1970; Ibrahim 1974, 1975a, 1975b), the Amman Airport Building (Hennessy 1966; Herr 1983) and Citadel (Harding and Isserlin 1953; Dornemann 1983), Hesban (Geraty 1983; Ibach 1978a, 1978b), and Madaba (Harding 1953). Very recently, the emerging picture and reconstruction of the period has been reinforced by archaeological reconnaissance in the Baq‘ah Valley to the northwest of Amman (McGovern 1986a). Detailed scientific analyses of an overlapping temporal sequence of materials (pottery, metals, and silicates) has provided clear evidence for gradual technological and cultural change during this period (c. 1550–1050 BC). Most striking of all is the way in which the Late Bronze (LB) cosmopolitan city-state system was transformed into a much more insular society in the early Iron Age, with few foreign contacts and a lower standard of living. A similar cultural process has been documented about the same time in other regions of the country, particularly in the Galilee and the Hill Country of western Palestine (Aharoni 1957; Mazar 1981).

The elements of Iron IA material culture which superficially appear to be quite different from those of the LBA—including new pottery types, iron (steel) jewelry, necklaces made up primarily of Red Sea mollusc species—can all be accommodated within a general theoretical framework of a relatively peaceful, indigenous socio-economic transformation on the central Transjordanian plateau in the LB and early Iron Ages. Cultural continuity is also evident in the uninterrupted use of the same cemeteries and settlement sites, which show no sign of destruction at the end of the LBA.

Reconstructions of other periods of significant cultural change in the ancient Near East have also stressed internal processes of development, e.g., in explaining urbanism in early Mesopotamia (Adams 1966) and the shift from sedentary agriculture to transhumant pastoralism in Early Bronze IV Palestine (Dever 1977; Kamp and Yoffee 1980). The major factors responsible for change may differ—the redistribution of wealth in Umer (Adams 1966) or climatic deterioration at the end of the Early Bronze Age in Palestine (Richard 1980)—but the concept of systemic adaptation to localized cultural and/or natural constraints is the same. Sometimes, however, a diffusionary model has appeared to fit the facts better, and more abrupt archaeological discontinuities in a relatively short time span, such as the appearance of a distinctive type of pottery of Aegean affiliation on the southwestern littoral of Palestine about 1150 BC, may require corresponding discontinuous causes, in this instance the arrival of a new people from abroad, the Philistines (Dothan 1982).

The LB central Transjordanian city-state system shared in the international trading network of the period, and the transition there to the Iron Age cannot be divorced from developments in other parts of the then civilized world. The LB empires in Anatolia, the Aegean, northern Syria, Mesopotamia, and Egypt, which formed an international trading network, were wracked by warfare, mass population movements, and natural disasters toward the end of the LBA (Gardiner 1966: 270–314; Hallo and Simpson 1971: 117–120; Pomerance 1970; Desborough 1972; Schaeffer 1983: 74–75), and a so-called ‘Dark Age’ ensued (Snodgrass 1971). The Sea Peoples played a major role in the general upheaval (Sandars 1978). Archaeological sites from Greece, across Anatolia, to coastal Syria and Palestine, contain destruction levels which can be broadly dated between 1250 and 1150 BC. At some of these sites, especially those along the Mediterranean coast, the destructions can be correlated with the movements of the Sea Peoples (for Palestine, see Miller 1977: 252–262; cf. Lapp 1967), but farther inland, circumstances were probably more complex.

In Palestine, the evidence for a direct presence of the Sea Peoples drops off dramatically in areas distant from the Mediterranean (e.g., only one Philistine sherd was recovered at Beth Shan, even though this site was occupied throughout the 12th century; James 1966: FIG. 24.1). Nevertheless, the disruption of maritime trade and the weakening of the city state structure along the coast must have had serious economic and social repercussions at inland sites. Central markets for the collection and redistribution of exports (principally agricultural produce and livestock) and imports (luxury goods, pigments, tin, etc.), together with the stratified society (political rulers, priests,
merchants, craftsmen, peasants, etc.) that supported this system, would have been seriously undermined (cf. Lenski 1966; Sjoberg 1960). Similarly, the underlying causes for the migration of the Sea Peoples might well have had a more general environmental basis, such as environmental deterioration and food shortages (Betancourt 1976), which in turn might have led to the movement of other peoples.

Largely because of the geographic diversity (Aharoni 1979: 21–42), Palestine cannot be treated as a single entity, subject to all the same environmental and cultural factors. The highlands of Transjordan, for example, are today at least partly in today's Jordan river valley. On the plateau itself, deep wadis separate the central region from areas north of the Wadi Zarqa (the ancient Jabboh River) and south of the Wadi Mujib (the modern Wadi Zeer).

The archaeological evidence from the central Transjordanian plateau indicates that an urban culture, with strong northern contacts (as evidenced, for example, by the glass industry, wheel-throwing of pottery, and imported copper seals), had been established on the central plateau by the beginning of LB I A (c. 1550 BC), which was similar to the city-state system west of the Jordan River. In LB I B (c. 1400–1200 BC), contacts with the major empires of the period, including Egypt, which came to have a stronger interest in western Palestine, appear to have diminished. Mycenaean and Cypriot wares actually outnumbered probable imports from Egypt and Syria. Specific styles and technological features are characteristic of central Transjordan, and the evidence for Late Bronze culture—bronzecast decorated bowls and kraters with high ring bases,多件的colored frits and glasses, and tin bronze. Already in this relatively isolated cultural milieu, coating of pottery vessels was customary and the first steps had been taken toward steatite iron, which were to become the hallmarks of the Iron I A culture. The implication is that some of the underlying factors responsible for the recruitment of the Sea Peoples were the same as those which led to the collapse of the Minoan and Mycenaean cultures and the rise of the Mycenaean Dark Age.

The very isolation of the central Transjordanian plateau no doubt accounts for some of the changes. The availability of certain raw materials (e.g., copper, iron, and manganese) and the absence of large populations or major centers of population had become established, refinements would follow.

Broader environmental changes might have pushed the society further in the same direction. There is evidence for a decline in precipitation toward the end of the LB I A (Horowitz 1974; for Greece, see Lamb 1967; Bryant et al. 1974). The city-state culture, which most likely had a very limited subsistence base (the cultivation of grains and animal herding), would have been severely affected by climatic deterioration. Increased contact with peoples on the margins of the urban society would also be anticipated. On analogy with the 'enclosed nomadism' of northern Mesopotamia in the Middle Bronze Age (Rowton 1977), the shasu mentioned in contemporary Egyptian sources could be understood as groups of transhumant pastoralists with economic and even political ties to urban centers, who had developed a symbiotic relationship with the landowners and the government. This threatened this delicately balanced relationship, and possibly resulted in movements of people and even in conflicts. Transjordanian society must also have been affected by small developments elsewhere in Palestine, including the more violent disruptions of the Sea Peoples along the coast.

If this reconstruction is correct, at least in its general features, then the LB city-state system could not have survived. Urban dwellers, many of whom would have been thrown out of work by the economic dislocations, would have needed to seek alternative means of support. The establishment of small outlying village communities, which have been documented in other parts of the Hill Country, might provide an answer for survival (cf. Hauser 1978). Concurrently, LB settlements, such as Sahab, the Amman Citadel, and Khirbet Umm ad-Danaan in the Baq'ah Valley, would have contracted in size in Iron I B.

The development of LB technologies to the early Iron frontier villages, especially after the collapse of hierarchical control in the city-states, might be anticipated (Lensi and Lenski 1986; Aharoni 1991) and the notion that, although a frontier model for technological innovation need not apply (Gotwald 1983b contra Lenski 1980). The iron industry was one of the principal iron industrial complexes, it was the primary source of iron and steel, as well as the primary source of iron, as well as the primary source of iron and steel. The emergence of new patterns of social organization, whether as a result of increased ironworking, could be examples of the exclusive employment of a new form of work, or perhaps as visible symbols of the new social order. The process of context had been described as a 'revolution' (Renfrew 1978).

The hypothesized movement from the city to the countryside (LB I B and the Early Iron Age) and back again (in Iron I C with the formation of the Ammonite and Israelite kingdoms) is paralleled in another transitional period in the Middle Bronze Age II E–Middle Bronze I (Dever 1977: 104–111; Sjoberg and Devor 1968) and the Iron I A and Iron I B period (Renfrew 1982), and similar societal patterns of change might well be evident over wide time spans. In the Middle Bronze Age II E–Middle Bronze I and the Iron I A and Iron I B period (Renfrew 1982), and similar societal patterns of change might well be evident over wide time spans. In the Middle Bronze Age II E–Middle Bronze I and the Iron I A and Iron I B period (Renfrew 1982), and similar societal patterns of change might well be evident over wide time spans.


does not exist.

Advocates of invasion (Albright 1939; Wright 1965; Kaufmann 1953; Lapp 1967; Yadin 1982) take as their starting point the traditional pan-Israelite invasion into Palestine as described most fully in the geographical contexts of Numbers and Joshua. This interpretative schema is then correlated with numerous destruction levels in Palestine, which spanned the end of the LBA and the Iron I A period. But the majority of the sites where destruction levels occur either do not enter into the biblical account (e.g., Tell Abu Hawam, Tel Mor, Aphek, etc.) or are not said to have been destroyed (Lachish, Beth Shemesh, Tell Beit Mirsim, Tell Halley). For the other sites (e.g., Shechem and Khirbet Rabad) continues uninterruptedly from the LBA into the early Iron Age. Destruction by burning is not a very useful definition of an Iron I A period (Hornblow, Jericho, and others).

Recent archaeological work has demonstrated that, while a destruction was at least possible at Hazor, the other three sites were apparently unoccupied during the LBA and were first settled in the Iron I A. In fact, the circumstances surrounding the known destructions are difficult to ascertain, except for those sites in the southwestern coastal plain which the Philistines or one of the Sea Peoples probably destroyed. Elsewhere, in a period of general disaster and uncertainty, any of a number of peoples mentioned in contemporary textual sources (shechem, ubi, pitto-Aramacians, Sea Peoples, Egyptians, a neighboring city-state, etc.) and not only the Israelites, might have been responsible for a specific destruction level.

The invasion hypothesis as an explanation for the LB/early Iron transition on the central Transjordanian plateau encounters similar difficulties. Destruction levels have not yet been found separating LB levels from those of Iron I A. Sites mentioned in the narratives (e.g., Heshbon) do not even appear to have occupied the LB. Elsewhere in Jordan, a destruction level at Tell Deir Alla in the Jordan valley has been interpreted as the result of the earthquake and the outbreak of fire (Franken 1946: 418). As a general methodological correlation, the correlation of a destruction layer with the data provides a meaningful context and permits the interpretation of the destruction (artifacts and architecture relating to religious or burial customs can be especially diagnostic, because of their uniqueness and the importance often attached to them), and 2) this context is interpreted in a relatively stable time frame, following the destruction (ideally containing identifiable weapon types of the new people). Thus, the finding of LB material in Iron I A contexts in a confined area of the Negeb or the eastern Nile delta, which later occur in Iron I A levels of central Transjordan (e.g., Sahaba) and other parts of Palestine, would support the invasion hypothesis. In the case of the Israelites, however, would require contemporary textual evidence. For central Transjordan, an external invasion does not exist with the data provided (despite a relatively stable context in the extended period of time from the LBA into the early Iron Age).

A biblical interpretation that is almost diachronically
opposed to that of the conquest theory is cited in support of an infiltration of "semi-nomads" (see Judges 1). Supporters of this view (Alt 1968; Neth 1960; Weippert 1971, 1979; Aharoni 1982; Frits 1981) envision a gradual, peaceful pene-
tration of 'tribal' groups with their developed technology into the Hill Country of central and eastern Palestine and the Negev, where Canaanite presence was minimal and there was room for expansion. The villages of villages, often uninvaded, were in these areas during the 12th century BC provide archaeological support for this view. Nevertheless, the builders of these settlements are 'etnos' or even transhumants, since they were well acquainted with sophisticated metallurgy, pottery-making, stone masonry, plastered cisterns, and terracing from the start, all of which were either employed or had precedents in the LB urban civilization. Transhumants might well have been acquainted with some of these technologies (Thompson 1978), but in order to explain how all of them were present in the towns that had sprung up de novo, it must be assumed that the settlers were either urban people or in some way under the tutelage of urban craftsmen. The further step of identifying the settlers of the new villages as 'Israelites' must satisfy the criteria outlined above.

The internal revolts model (Mendenhall 1973; Gottwald 1979; Cheney 1983) poses a different set of circumstances. Far from being a threat from the outside, whether peaceful or violent, change came from within as disenfranchised laborers and peasants joined in revolt against an oppressive city-state system, a result of the "growing class" on an upper class. Thus was ushered in the new order, 'Israel'. Here, biblical interpretation would appear to be of secondary importance, since direct textual evidence for a 'peasants' revolt' is lacking (Hauser 1978). More plausible is the reasoning that archaeological data represent only a small percentage of what remains of society and since new discoveries are constantly being made, archaeological reconstructions are at best working models. Such reconstruction is possible in part because the large scale of evidence for the consummation of the Late Bronze-Iron I transition in central Transjordan as a long-term, socio-economic transformation, the validity of which is seen as "highly plausible". The general validity of this proposal, which is supported by the presently available data, can be only determined by more archaeological work is needed. The area of Jordan and Iron Ia sites likely to be more fully explored and the extent and specific features of the LB and early Iron communities revealed by excavation. According to the process of the platform in front of the caves should provide evidence for early Iron Age metallurgy, assuming the site belongs to this period. At a minimum, the finding of material evidence for the consumption of iron during Iron Ia in Transjordan would seriously weaken the argument of most investigators that the Philistines introduced and spread metalworking to the Middle East, at least in the eastern part of Jordan. At a maximum, depending on the scale of the iron production, it can be proposed that the location of iron ore was a contributing stimulus to the depopulation of the northern hill country and the destruction of Iron Ia villages.

The investigation of the LB–early Iron Age Central Transjordan has barely begun. Yet, it has already yielded unexpected results, which cannot be easily accommodated within traditional models. Among other concerns, a more thorough understanding of the area is crucial in elucidating the beginnings of the glass, fabric and iron (steel) industries, as well as the development of the early Ammonite and subsidiary cultures.

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