

THE EXODUS-CONQUEST AND THE ARCHAEOLOGY OF TRANSJORDAN: NEW LIGHT ON AN OLD PROBLEM

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One of the major arguments used to support a 13th-century date for the exodus-conquest is the alleged Late Bronze Age occupational gap in central and southern Transjordan. Recent archaeological investigations indicate that this gap hypothesis, which was originally advocated by Nelson Glueck, needs to be modified. Although the historical/archaeological picture is still coming into focus, it now appears that Ammon, Moab, and Edom were settled during the Late Bronze Age. The density of this occupation remains an open question. Nevertheless, it appears that the archaeological data from Late Bronze Age Transjordan have become neutral in the debate on the date of the exodus-conquest.

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In the opening pages of *Redating the Exodus and Conquest*,¹ John J. Bimson identifies two major assumptions of his study. First, he maintains that "the biblical traditions of the bondage in Egypt and of the Exodus have a firm historical basis." Second, Bimson insists that these historical events must be and can be connected to an absolute chronology.² This emphasis demonstrates that *Redating* is important reading for anyone who takes the biblical narratives and their historical/archaeological context seriously. Although many readers will have some reservations, Bimson's study is now the most comprehensive and up-to-date examination of the historical and archaeological data pertaining to the OT accounts of the exodus-conquest.

Since its publication in 1978, *Redating* has received mixed reviews.³ For example, Miller suggests that Bimson's theory of a mid-15th century exodus-conquest, which calls for the lowering of the end

¹ John J. Bimson, *Redating the Exodus and Conquest* (Sheffield: Almond, 1978).

² Bimson, *Redating*, 10-13.

³ See, e.g., A. G. Auld, *ExpTim* 90 (1979) 152; A. H. W. Curtis, *EvQ* 52 (1980) 54-55; H. Engel, *Bib* 61 (1980) 437-40; J. D. Martin, *SJT* 33 (1980) 183-85; E. H. Merrill, *BSac* 136 (1980) 184; J. M. Miller, *JBL* 99 (1980) 133-35; P. R. S. Moorey,

of MB IIC, is plausible, but the number of secondary explanations needed to support this daring theory neutralize its advantage over the Albrightian hypothesis for a 13th-century date. Miller says that the most significant contribution of Bimson's book is its demonstration "that those who hold to a thirteenth century exodus-conquest have no monopoly on the archaeological evidence."⁴ In other words, *Redating* re-examines an old problem from a fresh perspective and shows that the questions concerning the date of the exodus-conquest have not been resolved. Not only are there new ways of looking at old data, as Bimson proves, but there is also new evidence that must be considered. The main purpose of this article is to review the ways in which the archaeological evidence from Transjordan relates to the exodus-conquest and to present some new data that bear upon this issue.

ARGUMENTS FOR THE LATE DATE EXODUS-CONQUEST

There are four major arguments used to support the late date for the exodus-conquest: (1) the identification of Pithom and Raamses, (2) the 13th-century destruction of Palestinian towns mentioned in the conquest narratives, (3) the archaeological evidence from Middle Bronze and Late Bronze Age Transjordan, and (4) the military campaigns of Seti I and Ramses II.⁵ While Bimson refers to the first two arguments as the "main pillars" of the late date, he also regards the third and fourth points as key elements. However, all four of these arguments are still open to further deliberation. The Egyptian evidence, which forms the basis of arguments (1) and (4), is still being reworked and interpreted in different ways.⁶ And, although it is a favorite of many OT scholars, Miller recently delivered a critical blow to the second argument by showing that the "destruction layers" at certain Palestinian tells represent, at best, an ambiguous form of evidence.⁷ I focus here on the third argument, the lack of Middle

JTS 31 (1980) 111-13; W. H. Shea, *CBQ* 42 (1980) 88-90; P. Wernberg-Meller, *JJS* 31 (1980) 135; A. F. Rainey, *IEJ* 30 (1980) 249-51; J. A. Soggin, *VT* 31 (1981) 98-99; and D. M. Beagle, *TSF Bulletin* 5.5 (1982) 16-17.

⁴ Miller, 133, 135.

⁵ Bimson, *Redating*, 330-73; cf. K. A. Kitchen, *Ancient Orient and Old Testament* (London: Tyndale, 1966) 57-69; C. F. Aling, *Egypt and Bible History from Earliest Times to 1000 B.C.* (Grand Rapids: Baker, 1981) 77-96.

⁶ See, for example, Aling, *Egypt and Bible History*, 77-110; idem, "The Biblical City of Ramses," *JETS* 25 (1982) 129-37; H. Shanks, "The Exodus and the Crossing of the Red Sea, According to Hans Goedicke," *BAR* 7 (1981) 42-50, and other articles related to Goedicke's theory; B. MacDonald, "Excavations at Tell el-Maskhuta," *BA* 43 (1980) 49-58.

⁷ J. M. Miller, "Archaeology and the Israelite Conquest of Canaan: Some Methodological Observations," *PEQ* 109 (1977) 87-93.

Bronze and late Bronze settlements in central and southern Transjordan.

Assumptions Behind the Third Argument

The archaeological evidence from Transjordan is important in this debate because Numbers 20ff. and Judges 11 indicate that the Hebrews, while en route to the land of Canaan, were opposed by the kings of Edom and Moab and the Amorite kings to the east of the Jordan River. Therefore, archaeological evidence of occupation in their territories at the time of the conquest should be found, regardless of the date assigned to this event. Because Glueck's surface survey indicated that there was a gap in the sedentary occupation of Edom and Moab) from ca. 1900 B.C. until ca. 1300 B.C. (although Glueck's dates fluctuated), the archaeological material from Transjordan seemed to support the late date. Recognizing that the reconstruction of occupational history in this region is crucial to this whole discussion, Bimson observes:

This argument for the 13th century date only holds if the following three assumptions are correct: (a) that the accounts in Num 20ff are historical, (b) that those accounts, if historical, require the existence of a sedentary population settled in permanent towns at the time of the Israelite migration, and (c) that Glueck's interpretation of the archaeological material is correct.⁸

Before proceeding to a more detailed treatment of the third assumption, including a report on some archaeological data recently recovered in Jordan, I comment on the first two suppositions mentioned by Bimson.

With regard to the first point, Bimson says that he does not doubt the "basic historicity" of Numbers 20ff. He does, however, in agreement with Bartlett, accept the possibility that certain features of these accounts could be late accretions to the earlier traditions. Many conservative scholars will not approve of such concessions, but there is nothing to fear in admitting that such a possibility exists. Indeed, when compared with the negative conclusions reached by Van Seters in his ongoing debate with Bartlett,⁹ Bimson's openness is not extreme.

Following a thorough discussion of the second assumption listed above, Bimson concludes that the OT does not demand that the

⁸ Bimson, *Redating*, 61, 62.

⁹ J. R. Bartlett, "Sihon and Og, Kings of the Amorites," *VT* 20 (1970) 257-77; J. Van Seters, "The Conquest of Sihon's Kingdom: A Literary Examination," *JBL* 91 (1972) 182-97; J. R. Bartlett, "The Conquest of Sihon's Kingdom: A Literary Re-examination," *JBL* 97 (1978) 347-51; J. Van Seters, "Once Again-The Conquest of Sihon's Kingdom," *JBL* 99 (1980) 117-19.

Transjordanian opponents encountered by the Hebrews were part of an urbanized sedentary population. In agreement with the earlier studies of de Vaux and Rea, Bimson suggests that "it is therefore possible that the kings we read of in Num 20ff were chieftains of semi-nomadic groups who refused to let another nomadic group, the Israelites, pass through their areas of pasturage."¹⁰ This conclusion is plausible, especially if we follow Wenham's theory which calls for a significant reduction in the Hebrew population and its fighting force.¹¹ Otherwise, it would have taken sizeable armies, perhaps from organized kingdoms, to restrict the movement of such a large number of Hebrews.

GLUECK'S SURVEY OF TRANSJORDAN

In the Glueck festschrift, Wright provides a valuable assessment of Glueck's exploration of Transjordan:

Glueck was not the first man by any means who had searched these lands, but he was the first to do as complete a survey as possible with a small budget and few helpers, and he was the first to use the pottery-dating tool as a basic scientific aid. Between 1932 and 1947, he spent nearly all his exploration time in Transjordan and in the Jordan-Dead Sea rift as far south as the Gulf of Aqabah.... Most of Glueck's work in Transjordan had to be on foot or on horseback. Refusing elaborate equipment, the explorer lived for days at a time as a Bedu, drinking what water was available from any source, living as a guest of the bedouin, and so well known and trusted that he was always protected, needed no foreign guards, and was never harmed.¹²

Having worked for two summers on an archaeological survey in the region of ancient Moab, I have great respect for Glueck, and it seems wise (indeed, necessary!) to preface a critique of Glueck with an acknowledgment of his remarkable accomplishments.

As several scholars have already suggested and as the recent Moab Survey clearly demonstrates, Glueck's surface exploration of Transjordan is seriously in need of updating.¹³ This does not mean,

¹⁰ Bimson, *Redating*, 63; cf. R. de Vaux, "La Palestine et la Transjordanie au II^e millenaire et les origines israelites," *ZAW* 56 (1938) 225-38; J. Rea, "New Light on the Wilderness Journey and Conquest," *GJ* 2 (1961) 5-13.

¹¹ J. W. Wenham, "Large Numbers in the Old Testament," *TynBul* 18 (1967) 19-53.

¹² G. E. Wright, "The Phenomenon of American Archaeology in the Near East," *Near Eastern Archaeology in the Twentieth Century*, ed. J. A. Sanders (Garden City: Doubleday, 1970) 29, 30.

¹³ For further discussion of the weaknesses in Glueck's archaeological survey, see G. L. Mattingly, "A Reconstruction of Early Bronze Age Cultural Patterns in Central

however, that Glueck's work should be jettisoned in toto. Glueck's four-volume *Explorations in Eastern Palestine* (1934, 1935, 1939, 1951) and *The Other Side of the Jordan* (1940; 2nd ed., 1970) serve as benchmarks in the history of research on ancient Transjordan. Glueck's publications also provide valuable information on the condition of Moab's archaeological sites in the 1930s, and his reports illuminate the nature and rate of the present-day resettlement of the plateau. These factors alone justify the continued use of Glueck's works as the starting point for all future archaeological investigations in Transjordan. Thus, although Glueck's volumes cannot be regarded as conclusive, any attempt to disparage Glueck's intentions or abilities must be accompanied by words of praise for his herculean achievement.¹⁴

Glueck's "Gap Hypothesis"

In his first major report on the survey of Transjordan (which focused primarily on Moab), Glueck set forth five conclusions. The first three read, in part, as follows:

1. There was a strong Bronze Age civilization in ancient Moab between the twenty-third and the eighteenth centuries B.C., when it completely disappeared.
2. Between the eighteenth and the thirteenth centuries B.C. there is an almost complete gap in the history of settled communities in the region visited.
3. There was a highly developed Moabite civilization, which seems to have flourished especially between the middle of the thirteenth and end of the ninth centuries B.C.¹⁵

Similar conclusions were reiterated in Glueck's subsequent reports on this region, although several modifications are apparent in the later publications. Glueck's second statement has probably attracted more attention than all the others. Although the second conclusion is directly related to the first and third statements, the Middle and Late Bronze occupational gap is at the heart of the argument over the date of the exodus-conquest. Since this is the focal point of this article, Glueck's 1934 statement, which constitutes his original gap hypothesis, is quoted in entirety:

Moab" (unpublished Ph.D. dissertation, Southern Baptist Theological Seminary, 1980) 74, 75.

¹⁴ For discussion of Glueck's contribution to archaeology, see Mattingly, "Reconstruction," 242, 243.

¹⁵ N. Glueck, "Explorations in Eastern Palestine 1," *AASOR* 14 (1934) 81-83.

Between the eighteenth and the thirteenth centuries B.C. there is an almost complete gap in the history of settled communities in the region visited. With the exception of Jalul and of el-Misna^c and el-Medeiyineh above Lejjun, at both of which last two mentioned places a few scraps of Middle Bronze II pottery were found, not a single site was found with pottery remains between the end of Middle Bronze I and the beginning of Early Iron I. The Egyptian lists of towns and the Tell el-Amarna tablets are silent with regard to this period in Eastern Palestine. Moab is first mentioned in the inscriptions of Ramses II.¹⁶

In spite of the exceptional sites that yielded "a few scraps of Middle Bronze II pottery," Glueck restated his hypothesis in the first edition of *The Other Side of the Jordan*:

There was at about ± 1900 B.C. such a thoroughgoing destruction visited upon all the great fortresses and settlements of the land, within the limits we have examined, that the particular civilization they represented never again recovered. The blow it received was so crushing as to be utterly destructive. Its cities were never rebuilt, and much of Transjordan became the camping ground of tent dwellers, who used for containers perishable skins and not enduring pottery. Permanent villages and fortresses were no longer to rise upon the face of the earth in this region till the beginning of the Iron Age.¹⁷

In this same volume Glueck used the term "Bedouins" to explain his gap: "The Semites who took possession of Transjordan at the very end of the 14th or the beginning of the 13th century B.C., probably partly absorbed and partly drove out the Bedouins who since about 1900 B.C. had been the masters of the land."¹⁸

Glueck held firmly to his original gap hypothesis right up to a well-known 1967 essay on Transjordan,¹⁹ even though evidence was accumulating that seemed to challenge his position. There were two reasons for Glueck's tenacity. First, he viewed the few sites that had Middle Bronze or Late Bronze sherds as "exceptions" to the rule. Glueck even allowed for the possibility that additional sites might be found in Moab, especially since he recognized that there were gaps in his survey. On the other hand, Glueck's discussion of such omissions concludes with this comment: "On the whole, however, the writer is confident that not very many ancient sites in Edom and Moab, whose

¹⁶ Glueck, "Explorations, 1," 82. The literary evidence that relates to this issue will be examined in a separate article.

¹⁷ N. Glueck, *The Other Side of the Jordan* (New Haven: American Schools of Oriental Research, 1940) 114.

¹⁸ Glueck, *Other Side*, 127.

¹⁹ N. Glueck, "Transjordan," *Archaeology and Old Testament Study*, ed. D. W. Thomas (Oxford: Clarendon, 1967) 443-45.

ruins have not been completely obliterated, remain undiscovered."²⁰ In light of the hundreds of new sites that have been discovered in Moab alone, this was an amazing claim.

Second, Glueck was convinced that the literary tradition of Genesis 14 (the invasion of Transjordan by the eastern kings) would be reflected in "archaeological facts."²¹ Thus, Glueck's certainty about an occupational gap in Transjordan was intimately linked to his convictions about the historical trustworthiness of the Bible.²²

Along with his other famous hypotheses (i.e., the "King's Highway" and Solomon's "smelting and refining plant" at Ezion-geber), Glueck's theory of a Middle and Late Bronze Age occupational gap in central and southern Transjordan was accepted by historians and archaeologists until recently. Without attempting to provide an exhaustive list of the countless scholars who were influenced by Glueck on this point, perhaps McGovern's observation is sufficient: "In one form or another, Glueck's theory found its way into most of the standard biblical and archaeological handbooks."²³

General Criticisms of Glueck's Survey Methodology

Although the general reliability of much of Glueck's work has stood the test of time, various kinds of errors are now known to have entered into his analyses of the ceramic evidence from Transjordan. As a result, his interpretation of the history of this region, which was based largely on the pottery data, has also become suspect. Specifically, the gap hypothesis has been challenged at four levels.

First, it is now known that surface survey, by its very nature, does not recover all the data at any site. Although the value of archaeological reconnaissance has been adequately demonstrated,²⁴ any historical reconstruction that is heavily dependent on survey data must be viewed as partial and tentative. The pottery collected from the surface of a site *may* be representative of the site's accumulated debris, but the surface of an archaeological site is not always a

²⁰ N. Glueck, *Explorations in Eastern Palestine III* (New Haven: American Schools of Oriental Research, 1939) xxiii.

²¹ Glueck, *Other Side*, 114.

²² See G. E. Wright, "Is Glueck's Aim to Prove that the Bible Is True?" *BA* 22 (1959) 101-8.

²³ P. E. McGovern, "Exploring the Burial Caves of the Baq'ah Valley in Jordan," *Archaeology* 35 (1982) 47.

²⁴ See, for example, R. J. Ruppe, "The Archaeological Survey: A Defense," *American Antiquity*, 31 (1966) 313-33; R. McC. Adams, "The Study of Ancient Mesopotamian Settlement Patterns and the Problem of Urban Origins," *Sumer* 25 (1969) 1111-24; Y. Aharoni, *The Land of the Bible: A Historical Geography* (Philadelphia: Westminster, 1967) 91-93.

microcosm of its subsurface contents. The distribution of sherds over the surface of a site is dependent upon too many natural and cultural variables to provide anything but a rough estimate of the site's actual contents.

Second, it is now recognized that Glueck's survey was superficial. Quite simply, Glueck overlooked *hundreds* of archaeological sites in his survey of Transjordan. Again, this is not intended to minimize Glueck's accomplishment, but it is clear that his superficial treatment of the regions involved skewed some of his conclusions. If failure to recover sherds from a particular period at any one site is detrimental to the interpretive process, the omission of a number of important sites in a region can be disastrous.

Third, Glueck's results have been challenged because some scholars believe that his knowledge of ceramics was wholly inadequate for the task to which he applied himself. After a word of praise for Glueck's *Explorations in Eastern Palestine*, Franken and Power make these criticisms:

It is now, however, becoming increasingly clear that the other part of Glueck's work, that is to say the pottery study, and the conclusions drawn from that study are in many ways both defective and misleading. There are two reasons for making these judgments. In the first instance his work is defective because Glueck assumed that the culture of Iron Age Transjordan was so similar to that of Palestine that the pottery of Transjordan could be compared with and chronologically tied into the known Palestinian repertoire. And in the second instance the work is misleading because Glueck published only those shapes that were familiar to him even in cases where he picked up unknown shapes in the areas immediately adjacent to Palestine, i.e. in the eastern Ghor and in Ammon. Those shapes that he did not recognize he omitted from publication, which is a curious procedure, for a survey of a largely unknown area ought to reveal and indeed to stress the new and the unknown rather than to emphasize the known. But apparently Glueck did not anticipate a differing Transjordanian cultural development.²⁵

In order to show that these criticisms are related to Glueck's gap hypothesis, Franken and Power continue by saying that

it is clear that Glueck assumed that he would have recognized Transjordanian Middle Bronze IIB, IIC, and Late Bronze shapes had he found them. From what has already been said it is no longer clear that this assumption can be accepted without question.... Theoretically it

²⁵ H. J. Franken and W. J. A. Power, "Glueck's *Explorations in Eastern Palestine* in the light of recent evidence," *VT* 21 (1971) 119.

is now quite possible that what Glueck called early Iron Age is in part fourteenth century B.C. Transjordanian pottery.²⁶

Furthermore, the pottery typology of Albright, upon whose work Glueck's pottery analyses were based, has been refined in recent years, and the future will bring a better understanding of the development of ancient Transjordan's ceramic tradition. Indeed, many of the changes that Glueck made in the second edition of *The Other Side of the Jordan* were based upon his more up-to-date knowledge of Transjordanian pottery.

Fourth, Glueck's work has been criticized because some scholars believe that his survey of Transjordan was influenced by his religious convictions. In other words, Glueck is accused of attempting to "fit" his survey results into his preconceived assumptions about a historically trustworthy Bible. For example, Franken wonders whether "a biblical date for Chedorlaomer or an archaeological date for the end of M.B. I civilization" came first.²⁷ Franken makes many other caustic remarks in his attempt to discredit Glueck's reconstruction of Transjordan's history because it "is based on biblical data."²⁸ Although these criticisms of Glueck's methodology and motives deserve further consideration, I move on to a summary of the archaeological evidence that relates to the gap theory.

A SUMMARY OF THE MIDDLE BRONZE AND LATE BRONZE EVIDENCE FROM CENTRAL AND SOUTHERN TRANSJORDAN

Ever since Glueck's gap hypothesis became popular, archaeologists and historians have eagerly reported any discovery that held promise of disproving Glueck's theory. Occasionally, this enthusiasm caused scholars to force the evidence to say more than is warranted. In an attempt to provide a sober evaluation of Glueck's position, I list the places where Middle and Late Bronze data have been recovered in central and southern Transjordan and comment on the nature of this material. I do not claim that the list of sites or the accompanying bibliographical references are exhaustive, but the major reported finds from the period and region in question are mentioned. General discussions of the archaeological data that are thought to fill in Glueck's hypothetical gap can be found in Harding,²⁹

²⁶ Franken and Power, "Glueck's *Explorations*," 122, 123.

²⁷ H. J. Franken, "The Other Side of the Jordan," *ADAJ* 15 (1970) 8.

²⁸ Franken, "Other Side," 7.

²⁹ G. L. Harding, "Recent Discoveries in Jordan," *PEQ* 90 (1958) 10-12; idem, *The Antiquities of Jordan* (rev. ed.; New York: Praeger, 1967) 32-34, 63.

Dornemann,³⁰ Ward,³¹ Sapin,³² and Bimson.³³ Today, most of the objections to Glueck's historical reconstruction are based upon the Middle and Late Bronze finds from 'Amman,³⁴ Tell Safut,³⁵ Sahab,³⁶ Na'ur,³⁷ Madeba,³⁸ Khirbet el-Mekhayyat,³⁹ and Qla'c et-Twal.⁴⁰ More recently recovered artifacts from the Hesban region⁴¹ and the Baq'ah

³⁰ R. H. Dornemann, "The Cultural and Archaeological History of the Transjordan in the Bronze and Iron Age" (unpublished Ph.D. dissertation, University of Chicago, 1970); see especially pp. 39-63. A revised edition of Dornemann's study will be published in the near future.

³¹ W. A. Ward, "The Shasu 'Bedouin': Notes on a Recent Publication," *JESHO* 15 (1972) 54, 55.

³² J. Sapin, "25 ans d'Archeologie en Syrie-Palestine (1946-1971): Recherches et Perspectives (seconde partie)," *ETR* 49 (1974) 558-65.

³³ Bimson, Redating, 61-68.

³⁴ On the Amman citadel, see F. Zayadine, "Recent Excavations on the Citadel of Amman," *ADAJ* 18 (1973) 19, 20; C.-M. Bennett, "Excavations at the Citadel (Al Qal'a) Amman 1967," *ADAJ* 23 (1979) 159. On tombs in the Amman area, see G. L. Harding and B. S. J. Isserlin, "A Middle Bronze Age Tomb at Amman," *PEFA* 6 (1953) 14-22; R. W. Dajani, "Jabal Nuzha Tomb at Amman," *ADAJ* 11 (1966) 48-52; W. A. Ward, "Scarabs, Seals and Cylinders from Two Tombs in Amman," *ADAJ* 11 (1966) 5-18. On the so-called Amman Airport Temple, see W. A. Ward, "Cylinders & Scarabs from a Late Bronze Temple at Amman," *ADAJ* 8-9 (1964) 47-55; G. R. H. Wright, "The Bronze Age Temple at Amman," *ZAW* 78 (1966) 350-57; J. B. Hennessy, "Excavation of a Bronze Age Temple at Amman," *PEQ* 98 (1966) 152-62; idem, "Supplementary Note," *ZAW* 78 (1966) 357-59; V. Hankey, "A Late Bronze Age Temple at Amman," *Levant* 6 (1974) 131-78; L. G. Herr, "The Amman Airport Excavations," *ADAJ* 21 (1976) 109-12; see Herr's "The Amman Airport Excavations, 1976," forthcoming in *AASOR*.

³⁵ Most attention is given to an alleged Middle Bronze Age glacis at Tell Safut; see F. S. Ma'ayeh, "Recent Archaeological Discoveries in Jordan," *ADAJ* 4-5 (1960) 115. Recent salvage excavations should lead to additional reports on this site and clarification of the function and date of this installation.

³⁶ See R. W. Dajani, "A Late Bronze-Iron Age Tomb Excavated at Sahab, 1968," *ADAJ* 15 (1970) 29-34; S. H. Horn, "Three Seals from Sahab Tomb 'C'," *ADAJ* 16 (1971) 103-6; M. M. Ibrahim, "Archaeological Excavations at Sahab, 1972," *ADAJ* 17 (1972) 23-36; idem, "Second Season of Excavation at Sahab, 1973," *ADAJ* 19 (1974) 55-62.

³⁷ Reference is made to the Middle Bronze Age tomb objects from Na'ur, but I have not located the primary source on this material; cf. Harding, *Antiquities*, 32, 33.

³⁸ See G. L. Harding, "An Early Iron Age Tomb at Madeba," *PEFA* 6 (1953) 27-33; M. Avi-Yonah, "Medeba," *Encyclopedia of Archaeological Excavations in the Holy Land, III*, ed. M. Avi-Yonah and E. Stern (Jerusalem: Israel Exploration Society and Massada Press, 1977) 820.

³⁹ See S. J. Saller and B. Bagatti, *The Town of Nebo* (Khirbet el-Mekhayyat) (Jerusalem: Franciscan, 1949) 24-29.

⁴⁰ See W. A. Ward, "A Possible New Link between Egypt and Jordan during the Reign of Amenhotep III," *ADAJ* 18 (1973) 45, 46.

⁴¹ See especially S. D. Waterhouse and R. Ibach, Jr., "The Topographical Survey," *AUSS* 13 (1975) 217-33; R. Ibach, Jr., "Archaeological Survey of the Hesban Region," *AUSS* 14 (1976) 119-26; idem, "Expanded Archaeological Survey of the Hesban

Valley⁴² will undoubtedly enter into future discussions of central Transjordan's Bronze Age remains. The archaeological data from the sites mentioned above are primarily surface sherds and tomb deposits (some of the latter are quite rich), but there is some stratified material and a small amount of architectural evidence. The outstanding example of the latter is the so-called "Amman Airport Temple," a substantial LB II structure that contained a wealth of imported Mycenaean, Cypriot, and Egyptian pottery and other objects.⁴³

In addition to the sites already mentioned, significant results were obtained from two archaeological surveys that were completed in 1982. The 1979, 1981, and 1982 seasons of the "Wadi el-Hasa Survey," which investigated a small portion of biblical Edom, witnessed the recovery of surface remains from over 1,000 sites, only a handful of which yielded any sherds from the Middle and Late Bronze Ages.⁴⁴ Much work still needs to be done in the territory to the south of Wadi Hesa, the boundary between ancient Moab and Edom.

The 1978, 1979, and 1982 seasons of Emory University's "Archaeological Survey of Central and Southern Moab" resulted in the examination of 585 sites between Wadi Mujib and Wadi Hesa (the biblical rivers Arnon and Zered). Although the Middle and Late Bronze Ages

Region," *AUSS* 16 (1978) 201-13; idem, "An Intensive Surface Survey at Jalul," *AUSS* 16 (1978) 215-22. For a full bibliography on the Hesban excavations, see R. S. Boraas and L. T. Geraty, *Heshbon 1976: The Fifth Campaign at Tell Hesban* (Berrien Springs, MI: Andrews University, 1978) 1, 2. For discussion on the presence of Late Bronze Age material at Tell Hesban, see D. M. Beegle, Review of Nelson Glueck, *The Other Side of the Jordan*, *CBQ* 33 (1971) 579-81 and L. T. Geraty, "The 1976 Season of Excavations at Tell Hesban," *ADAJ* 21 (1976) 42.

⁴² For the unusually thorough reports on the recent work in the Baq'ah Valley (just northwest of Amman), see P. McGovern, "The Baq'ah Valley, Jordan: A Cesium Magnetometer Survey," *MASCA Journal* 1 (1979) 39-41; idem, "Baq'ah Valley Project 1980," *BA* 44 (1981) 126-28; idem, "The Baq'ah Valley, Jordan: Test Soundings of Cesium Magnetometer Anomalies," *MASCA Journal* 1 (1981) 214-17; idem, "Baqah Valley Project 1981," *BA* 45 (1982) 122-24; idem, "Exploring the Burial Caves of the Baq'ah Valley in Jordan." *Archaeology* 35 (1982) 46-53; P. E. McGovern, G. Harbottle, and C. Wnuk, "Late Bronze Age Pottery Fabrics from the Baq'ah Valley, Jordan: Composition and Origins," *MASCA Journal* 2 (1982) 8-12. The Baq'ah Valley is as far north as this article covers. Middle and Late Bronze materials from such sites as Irbid, Pella, Tell Deir 'Alla, and Tell es-Sa'adiyah can be mentioned, but these sites fall outside of the geographical scope of this article and beyond the limits of Glueck's gap hypothesis.

⁴³ The debate over this structure concerns its function and its apparent isolation from any settlement. For more on this discovery, see below and an interesting footnote in Y. Aharoni, *The Land of the Bible: A Historical Geography* (rev. ed., Philadelphia: Westminster, 1979) 277, 278, n. 54.

⁴⁴ See B. MacDonald, "The Wadi El Hasa Survey 1979: A Preliminary Report," *ADAJ* 24 (1980) 166-83; idem, "The Wadi el-Hasa Survey 1981," *BA* 45 (1982) 58, 59.

were well represented at these sites, the number of sherds from these periods was not as large as that from other historical eras. Since the overall results of this project have not yet been officially reported," this brief summary of the ceramic data that relate to this period is preliminary:

Middle Bronze Age Pottery from Central and Southern Moab

- 9 sites yielded sherds that are either Middle or Late Bronze (MB/ LB), each site having between 1 and 42 sherds with this designation.
- 26 sites yielded sherds that are possibly Middle Bronze (MB?), each site having between 1 and 8 sherds with this designation.
- 31 sites yielded sherds that are definitely Middle Bronze (MB), each site having between 1 and 46 sherds with this designation.
- 1 site yielded 1 sherd that is possibly Middle Bronze I (MB I?).
- 2 sites yielded sherds that are definitely Middle Bronze I (MB I), one site having 3 sherds and the other site 4 sherds with this designation.
- 1 site yielded 6 sherds that are possibly Middle Bronze II (MB II?).

Late Bronze Age Pottery from Central and Southern Moab

- 6 sites yielded sherds that are either Late Bronze or Iron Age I (LB/Iron I), each site having between 1 and 63 sherds with this designation.
- 47 sites yielded sherds that are possibly Late Bronze (LB?), each site having between 1 and 37 sherds with this designation.
- 75 sites yielded sherds that are definitely Late Bronze (LB), each site having between 1 and 30 sherds with this designation.
- 1 site yielded 2 sherds that are possibly Late Bronze I (LB I?).
- 1 site yielded 1 sherd that is definitely Late Bronze I (LB I).
- 1 site yielded 8 sherds that are either Late Bronze II or Iron Age I (LB II/Iron I).
- 6 sites yielded sherds that are definitely Late Bronze II (LB II), each site having between 1 and 46 sherds with this designation.

RECENT ASSESSMENTS OF GLUECK'S HYPOTHESIS

Even before the survey of Moab had been carried out, the archaeological finds from Transjordan led scholars to question

⁴⁵ For preliminary reports on the Emory University survey of Central and Southern Moab, see J. M. Miller, "Archaeological Survey of Central Moab: 1978," *BASOR* 234 (1979) 43-52; idem, "Archaeological Survey South of Wadi Mujib," *ADAJ* 23 (1979) 79-92; idem, "Recent Archaeological Developments Relevant to Ancient Moab," *Studies in the History and Archaeology of Jordan I*, ed. Adrian Hadidi (Amman: Department of Antiquities, 1982) 169-73; J. M. Pinkerton, "An Examination of Glueck's Conclusions Concerning Central Moab in the Light of the Miller-Pinkerton 1978 Archaeological Survey of Central Moab" (unpublished M.T.S. thesis, Candler School of Theology, 1979); idem, "A Survey of Moab," *Jordan* 4 (1979) 4-7; J. R. Kautz, "Tracking the Ancient Moabites," *BA* 44 (1981) 27-35.

Glueck's reconstruction. Three stances have emerged in the post-1934 evaluations of Glueck's gap hypothesis: (1) those who hold that Glueck's theory is incorrect; (2) those who hold that Glueck's theory is still correct; and (3) those who hold that Glueck's theory is in need of slight modification. It may appear that the difference between (1) and (3) is a matter of the degree of change that is sought, but there is, in fact, a significant difference in the tone that is used to criticize Glueck. Representatives of each of these positions are easily found; with no attempt to be exhaustive, some of their arguments are presented below. Since the dates of these evaluations are related to the weight of the argument put forth, publication dates are enclosed in parentheses following the scholars' names.

As expected, many scholars insist that Glueck's hypothesis is wrong, including Harding (1953, 1958, 1967),⁴⁶ Ma'ayeh (1960),⁴⁷ Dajani (1964, 1966),⁴⁸ Ward and Martin (1964)⁴⁹ Kenyon (1966),⁵⁰ Dornemann (1970),⁵¹ Franken (1970),⁵² Mittmann (1970),⁵³ Franken and Power (1971),⁵⁴ Zayadine (1973),⁵⁵ Thompson (1974a; 1974b),⁵⁶ Dever and Clark (1977),⁵⁷ and Bimson (1981).⁵⁸

⁴⁶ For Harding's objections to Glueck's theory, see G. L. Harding, "A Middle Bronze Age Tomb at Amman," *PEFA* 6 (1953) 14; idem, "Recent Discoveries in Jordan," *PEQ* 90 (1958) II, 12; idem, *Antiquities*, 32-34, 63.

⁴⁷ F. S. Ma'ayeh, "Recent Archaeological Discoveries in Jordan," *ADAJ* 4-5 (1960) 115.

⁴⁸ R. Dajani, "Iron Age Tombs from Irbed," *ADAJ* 8-9 (1964) 101; idem, "Jabal Nuzha Tomb at Amman," *ADAJ* 11 (1966) 49.

⁴⁹ W. A. Ward and M. F. Martin, "The Balu'a Stele: A New Transcription with Palaeographical and Historical Notes," *ADAJ* 8-9 (1964) 19-20.

⁵⁰ K. Kenyon, *Amorites and Canaanites* (London: British Academy, 1966) 64.

⁵¹ R. H. Dornemann, "The Cultural and Archaeological History of the Transjordan in the Bronze and Iron Ages" (unpublished Ph.D. dissertation, University of Chicago, 1970) 8, 48, 49.

⁵² H. J. Franken, "The Other Side of the Jordan," *ADAJ* 15 (1970) 7-9.

⁵³ S. Mittmann, *Beitrage zur Siedlungs- und Territorialgeschichte des nordlichen Ostjordanlandes* (Wiesbaden: Harrassowitz, 1970) 221, n. 32.

⁵⁴ H. J. Franken and W. J. A. Power, "Glueck's Explorations in Eastern Palestine in the light of recent evidence," *VT* 21 (1971) 119-23.

⁵⁵ F. Zayadine, "The Middle Bronze Age (c. 1900 to 1500 ax.)" and "The Late Bronze Age (c. 1500 to 1200 n.c.)," *The Archaeological Heritage of Jordan: The Archaeological Periods and Sites (East Bank)*, Moawiyah Ibrahim, et al. (Amman: Department of Antiquities, 1973) 18-21. Cf. A. Hadidi, "The Archaeology of Jordan: Achievements and Objectives," *Studies in the History and Archaeology of Jordan* I, ed. A. Hadidi (Amman: Department of Antiquities, 1982) 16, 17.

⁵⁶ T. L. Thompson, *The Historicity of the Patriarchal Narrative* (Berlin: de Gruyter, 1974) 192-94; idem "Observations on the Bronze Age in Jordan," *ADAJ* 19 (1974) 63-70.

⁵⁷ W. G. Dever and W. M. Clark, "The Patriarchal Traditions," *Israelite and Judaeon History*, ed. J. H. Hayes and J. M. Miller (OTL; Philadelphia: Westminster, 1977) 90.

⁵⁸ Bimson, *Redating*, 64-68.

Beginning as early as 1953, Harding questioned the accuracy of Glueck's hypothesis. While Harding had objections to the methodology that Glueck used in his survey, especially where Glueck's methods influenced his pottery analyses, Harding's real objection to the gap theory was based on the presence of Middle and Late Bronze tomb deposits and other archaeological evidence in Amman and its vicinity. Harding could not believe that these tombs, along with the Amman Airport Temple, were isolated phenomena or the work of tent-dwellers.⁵⁹ Furthermore, since Harding assumed a 13th-century date for the exodus-conquest, he contended that the biblical account "requires a fully occupied Edom, Moab and Ammon, and this cannot happen in a generation."⁶⁰

On the basis of their study of the Balu'a stele, Ward and Martin concluded that there had to be a well-established sedentary population in Moab during the Late Bronze Age. They suggested that Glueck's hypothetical "cultural hiatus" is being filled in with newly discovered Middle and Late Bronze sites, and thus "our concept of this area during this period will have to undergo a radical change."⁶¹ In a later publication, Ward softened his critique of Glueck and suggested that "the scanty knowledge we now possess may require a reassessment, or at least a modification, of the current view."⁶²

Thompson postulated a cultural continuity for Transjordan from Late Chalcolithic through Late Bronze Age, a continuity perpetuated by the "typical Bronze Age settlement," the small agricultural village. Following his treatment of the theories related to Bronze Age population shifts, Thomson concluded that "the real curiosity is that Glueck's hypothesis was ever taken so seriously-as literally true-in the first place."⁶³

After listing a few examples of Middle Bronze finds from the area around Amman, Zayadine asserted that "the theory of Nelson Glueck about a nomadic life in the Middle Bronze Age in East Jordan can no longer be accepted."⁶⁴ A similar conclusion was reached with regard to the Late Bronze Age. In place of Glueck's gap hypothesis, Zayadine made the reasonable suggestion that Transjordan's Late Bronze Age culture was similar to the situation that exists today with nomadism juxtaposed alongside urbanism.⁶⁵

⁵⁹ Harding, "A Middle Bronze Age Tomb from Amman," 14.

⁶⁰ Harding, *Antiquities*, 35.

⁶¹ Ward and Martin, "Balu'a Stele," 19, 20.

⁶² Ward, "Shasu 'Bedouin'," 55.

⁶³ Thompson, "Other Side," 66.

⁶⁴ Zayadine, "Middle Bronze Age," 19.

⁶⁵ Zayadine, "Late Bronze Age," 20.

Although it is difficult to find scholars who still adhere to Glueck's original gap hypothesis, it is interesting to observe that the early discoveries of Middle and Late Bronze evidence in central Transjordan did not lead to an immediate and wholesale denial of Glueck's historical reconstruction. While accepting the dates and importance of the more recently recovered data, Albright (1937, 1957, 1960),⁶⁶ Landes (1961),⁶⁷ and Campbell and Wright (1969)⁶⁸ continued to hold the view that this period and region witnessed a decline in sedentary occupation. They reasoned that the Middle and Late Bronze tombs from the vicinity of Amman could have been the work of nomadic or seminomadic tribes who lived in the area. Even the discovery and excavation of the Amman Airport Temple did not shake their confidence in Glueck, since it was proposed that this sanctuary could have served as the focal point of a regional tribal league. Following this same line of reasoning, Glueck reaffirmed a strong belief in his gap hypothesis in 1967.⁶⁹

Aside from the cautious statement of Bartlett, who in 1973 suggested that "it is as yet an open question how far these finds modify Glueck's view,"⁷⁰ there is still a third stance that can be taken in evaluating Glueck's hypothesis and in reappraising the archaeological evidence from Transjordan. This third position, which calls for only a slight modification of Glueck's theory, is best represented by Glueck himself (1970),⁷¹ Kafafi (1977),⁷² and Aharoni (1979).⁷³ In

⁶⁶ For examples of Albright's continued support for Glueck's theory, see N. Glueck, "Explorations in the Land of Ammon," *BASOR* 68 (1937) 21, n. 21; W. F. Albright, *From the Stone Age to Christianity: Monotheism and the Historical Process* (2d ed.; Garden City: Doubleday, 1957) 61, 62; idem, *The Archaeology of Palestine* (rev. ed.; Baltimore: Penguin, 1960) 44; idem, "The Amarna Letters from Palestine," *CAH* (3d ed.; Cambridge: Cambridge University, 1975), 2/2. 107.

⁶⁷ G. M. Landes, "The Material Civilization of the Ammonites," *BA* 24 (1961) 67, 68.

⁶⁸ E. F. Campbell, Jr. and G. E. Wright, "Tribal League Shrines in Amman and Shechem," *BA* 32 (1969) 116.

⁶⁹ N. Glueck, "Transjordan," *Archaeology and Old Testament Study*, ed. D. W. Thomas (Oxford: Clarendon, 1967) 443-45.

⁷⁰ J. R. Bartlett, "The Moabites and Edomites," *Peoples of Old Testament Times*, ed. D. J. Wiseman (Oxford: Clarendon, 1973) 231, 232.

⁷¹ N. Glueck, *The Other Side of the Jordan* (2d ed.; Cambridge, MA: American Schools of Oriental Research, 1970) 139-42, 157.

⁷² Zeidan Abd El-Kafi Kafafi, "Late Bronze Age Pottery in Jordan (East Bank) 1575-1200 B.C." (unpublished M.A. thesis, University of Jordan, 1977) vii-x, 73, 464.

⁷³ Aharoni, *Land of the Bible*, 102. With regard to his assessment of Glueck's gap hypothesis, it is difficult to discern Aharoni's viewpoint. For example, on p. 102 Aharoni praises Glueck's survey and supports his reconstruction. On the other hand, Aharoni suggested that Late Bronze Age Midian boasted a sophisticated culture, and he suggested that "the establishment of well organized kingdoms in these areas [Edom and Moab] during the thirteenth century B.C. is more and more attested by archaeology"

addition to these three, Pinkerton (1979),⁷⁴ Miller (1979, 1982),⁷⁵ and Kautz (1981),⁷⁶ all staff members of the Emory University Moab Survey, agree that there was a decline in the sedentary population of central Transjordan during part of Glueck's gap, but they feel that the new data from Moab call for some modification of the original gap hypothesis. I hold this same position.

Many scholars will be surprised to learn that Glueck himself revised his original gap hypothesis in the second edition of *The Other Side of the Jordan* (1970). Indeed, the changes are so substantial that much of the current criticism of Glueck's reconstruction of Transjordan's Middle and Late Bronze history is unnecessary. The pivotal statement in this revision reads as follows:

In much of Transjordan, especially in the areas some distance south of the south side of the Wadi Zerqa (Biblical River Jabboq), the Middle Bronze I period of the Age of Abraham seems to have been followed by a considerable decline in sedentary settlement during the Middle Bronze II and Late Bronze I-II periods, although not as radically as we had once assumed.⁷⁷

In presenting his revised hypothesis, Glueck not only listed the recent Middle and Late Bronze finds from central Transjordan, but he reminded his readers that he had also found some sites from this period in his own survey. Glueck insisted, however, that such materials were not found in sufficient quantities to prove the existence of widespread urbanism.⁷⁸ As always, Glueck made provision in his reconstruction for sedentary occupation, a fact that is often overlooked.⁷⁹

If we examine Kafafi's comments on this issue, we notice that he had two distinct advantages over Glueck: (1) Kafafi's study came out seven years after the revised edition of *The Other Side of the Jordan*, thus allowing time for additional archaeological reports to be published; and (2) Kafafi did not have a vested interest in this subject, as did Glueck. Nevertheless, Kafafi holds that attempts to alter Glueck's hypothesis are unsuccessful, since most of these attempts are based on tomb deposits, not the excavation of walled towns. Kafafi concludes

(pp. 204-6). D. Baly, (Review of Y. Aharoni, *The Land of the Bible: A Historical Geography*, BA 44 [1981] 251) points out that such a statement is incorrect. To make matters worse, Rainey (as, was pointed out in n. 24 above) points to the Amman Airport Temple as proof of urbanism in central Transjordan.

⁷⁴ Pinkerton, "Examination of Glueck's Conclusions," 70-73.

⁷⁵ Miller, "Archaeological Survey of Central Moab," 51; idem, "Recent Archaeological Developments," 172.

⁷⁶ Kautz, "Ancient Moabites," 31-34.

⁷⁷ Glueck, *Other Side* (2d ed.), 140, 141.

⁷⁸ Glueck, *Other Side* (2d ed.), 141-42.

⁷⁹ Glueck (*Other Side* [2d ed.], 142) speaks about a "decline in sedentary settlement."

by saying that much archaeological work must be done before the issue is settled, but the available data do not compel a major revision of Glueck's theory.⁸⁰

Miller's observations provide a summary of how the Moab Survey data, which were presented above, bear upon the modification of the gap hypothesis:

In short, while our findings agree with Glueck's findings in that we also notice a sudden decline in the abundance of surface pottery representing the Middle Bronze Age, ours do not confirm his conclusion that there was a virtually complete occupational gap which extended throughout the Late Bronze Age and ended specifically during the thirteenth century. There is the prior question, of course, as to whether the relative abundance of surface pottery from a given period is a safe indicator of its degree of sedentary occupation. To the extent that it is, our findings seems to indicate at least a scattering of settlements even during the Middle Bronze Age which gradually increased in number during the Late Bronze and Iron Ages.⁸¹

CONCLUSIONS

The presentation of the archaeological data from Transjordan and the accompanying survey of scholarly opinions lead to at least three conclusions.

First, it is obvious that there are Middle and Late Bronze Age artifacts in central and southern Transjordan. It is true, however, that finds from these periods are still not plentiful. For example, in Moab, Middle and Late Bronze sherds are not found at as many sites or in as great a quantity as pottery from other periods (e.g., Early Bronze and Iron Ages and the Nabataean, Roman, and Byzantine periods). In spite of the accelerated pace of archaeological research in central and southern Transjordan, Glueck's gap has not been filled completely. In other words, it still appears that social, political, or economic factors led to a genuine population decline in Middle and Late Bronze Age Transjordan.

Second, the recently recovered archaeological remains from Transjordan, including the new data from Moab, demonstrate that Glueck's original gap hypothesis must be abandoned. Glueck's 1934 theory is still cited as an object of attack, even though Glueck himself revised his position thirteen years ago. Glueck's new historical reconstruction in the 1970 edition of *The Other Side of the Jordan* seems to be in harmony with the archaeological picture that is now emerging.

⁸⁰ Kafafi, "Late Bronze Age Pottery," x.

⁸¹ Miller, "Recent Archaeological Developments," 172.

Third, while archaeologists have not recovered evidence of extensive kingdoms in Late Bronze Age Edom, Moab, or Ammon, it can no longer be said that these regions were devoid of a population that could oppose the migrating Hebrews. This means that one of the four main arguments used to support the late date of the exodus-conquest is no longer valid. Those who appeal to an occupational gap in Late Bronze Age Transjordan prove that they are unaware of the recently recovered archaeological evidence, since the archaeological data from this time and region appear to be neutral in the debate on the date of the exodus-conquest. It should be noted, however, that the Late Bronze material recovered in the territory to the north of Jalul displays a continuity with the Canaanite culture on the west side of the Jordan River.⁸²

⁸² I am indebted to Dr. James Sauer for this final observation.

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